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The cloud over coal

China: the geopolitical tortoise

Melding minds with microchips

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Politics

Britain started the process of leaving the **European Union**. Theresa May, the country's prime minister, officially triggered Article 50 of the Lisbon treaty in a letter hand-delivered to Donald Tusk, the president of the European Council.

Scotland's devolved parliament voted to request from the British government permission to hold a second independence referendum. However, both Mrs May and Jeremy Corbyn, the leader of the opposition, want any poll to be delayed until after Brexit.

Street cred

Demonstrators staged anti-corruption protests in nearly 100 cities across **Russia**, responding to a call by the opposition leader Aleksei Navalny. The protests focused on the alleged illicit wealth of Dmitry Medvedev, the prime minister. A court sentenced Mr Navalny to 15 days in jail for organising an unauthorised protest.

German authorities said they were investigating whether **Turkey**'s intelligence services had spied on Turkish-German citizens whom they suspected of allegiance to the exiled cleric Fethullah Gulen. Turkey believes Mr Gulen was behind an attempted coup to overthrow its government last July, and has jailed over 40,000 people in ongoing purges. Germany said any foreign espionage on its soil would be a criminal offence.

Boyko Borisov and his pro-European, centre-right GERB party came first in **Bulgaria**'s parliamentary elections with 33% of the vote. The win paves the way for Mr Borisov to serve a third term as prime minister. The Socialists, who lean towards Russia, came second with 27% of the vote.

The **Hungarian** government proposed new higher education laws which the Central European University (CEU) in Budapest said would force it to close. The CEU, one of the country's top universities, was founded by the liberal Hungarian-born billionaire George Soros. Hungary's nationalist prime minister, Viktor Orban, who says he wants his country to become an "illiberal democracy", has a long-standing feud with Mr Soros.

To jaw-jaw

Over the objections of Venezuela's socialist government, members of the Organisation of American States held a debate on the country's humanitarian crisis and the government's assault on its democracy. The group stopped short of suspending Venezuela and called for dialogue. Talks brokered by the Vatican failed to reach any agreement.

Donald Trump, **America**'s president, signed an executive order aimed at undoing environmental rules introduced by Barack Obama. Mr Trump hopes to bring back coal-mining jobs. His critics point out that their disappearance owes more to greater efficiency than to hostile regulations.

A whodunit

Fighting between coalition forces and Islamic State continued in Mosul. America's top commander in **Iraq**, investigating the collapse of a building in the city that killed as many as 200 civilians, said "we probably had a role in these casualties." However, Lieut-General Stephen Townsend suggested further investigation would be required to assess whether Islamic State coerced civilians into the building and rigged it with explosives following coalition air strikes.

Unrest in the **Democratic Republic of Congo** grew as Catholic bishops withdrew from mediating between the government and opposition. Joseph Kabila's mandate as president expired in December but no poll has yet been held.

Jacob Zuma, **South Africa**'s president, recalled the country's finance minister, Pravin Gordhan, from an investor roadshow—sparking speculation that he may be fired. Mr Gordhan, who is trying to curb cronyism, has been at odds with the president over the past year.

Ahmed Kathrada, an anti-apartheid activist, died in Johannesburg, **South Africa**. He had been sentenced to life imprisonment in 1964 along with Nelson Mandela. More recently, he had become a critic of the corruption that riddles the current government.

An explosive issue

Police and soldiers battled four terrorists at an apartment building in **Bangladesh**. One of them detonated a bomb at a police cordon nearby, killing six people and wounding 50 others, in the country's first indiscriminate suicide bombing. Members of the armed forces killed the other three.

Prosecutors in **South Korea** asked a court for an arrest warrant for former president Park Geun-hye, who was removed from office earlier this month by the constitutional court. The prosecutors warn Ms Park may destroy evidence in the corruption scandal that led to her impeachment.

An American immigration judge granted asylum to Amos Yee, a teenage blogger from **Singapore**. The judge ruled that Mr Yee's repeated prosecution in Singapore for hate speech had been a pretext to punish him for his criticism of the government.

The **Australian** government abruptly cancelled a parliamentary vote on an extradition treaty with **China**. The Chinese authorities' detention of a Chinese academic working at an Australian university had sparked much critical commentary in Australia about China's judicial system.

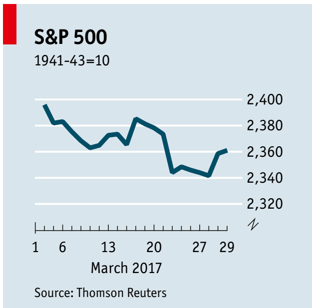
Hobson's choice

Carrie Lam was elected as **Hong Kong**'s next leader by a committee of nearly 1,200 residents of the territory, most of them supporters of the Communist Party in Beijing. The former head of Hong Kong's civil service will take up her post on July 1st, succeeding Leung Chun-ying. She will have a tough job winning over the public, who polls suggested would have preferred her main rival, John Tsang.

China's foreign ministry confirmed reports that the country's president, Xi Jinping, will meet his American counterpart, Donald Trump, at Mar-a-Lago, Mr Trump's resort in Florida, on April 6th. It will be the first face-to-face encounter between the two. Mr Trump has strongly criticised China over trade and security issues.

China and **North Korea** opened a new airline route between Dandong, a Chinese city on their border, and Pyongyang, North Korea's capital. The route will be operated by North Korea's flag carrier, Air Koryo, the world's worst airline according to Skytrax, an aviation website.

Business



Global **stockmarkets** initially fell this week as investors digested the failure of Donald Trump's health-care reform bill and appeared to lose faith in his administration's ability to fulfil campaign promises. The dollar also hit a four-month low against a basket of currencies. Both regained some ground, however, with the release of some better-than-expected consumer data. American consumers' confidence in the economy rose in March to its highest level since December 2000, according to the Conference Board, whose monthly survey factors in views of business conditions, personal finances and jobs.

Chemical brothers

Dow Chemical and **DuPont**, two chemical giants, won approval from the European Union for their $130bn merger, after making concessions including the sale of large parts of DuPont's pesticide business. The European Commission is yet to rule on two more big agrochemical deals: Bayer's proposed takeover of Monsanto and ChemChina's bid for Syngenta.

Saudi Arabia cut the income-tax rate for **Saudi Aramco** from 85% to 50%. Reducing the national oil company's tax burden by tens of billions of dollars will make it more attractive to investors in the run-up to its IPO, which is expected to be the world's largest-ever equity sale. The plan is to sell a 5% stake late next year.

Europe's highest court ruled that sanctions imposed on **Rosneft**, following Russia's annexation of Crimea, were legal. The state-controlled oil giant had claimed that the measures violated a 1994 co-operation agreement between the EU and Russia. Sanctions have not prevented Rosneft from recently selling a 19.5% stake to Qatari investors and Glencore, an Anglo-Swiss mining firm, thanks to a loophole that permits equity purchases.

Propellerheads

American Airlines, the world's largest carrier, is to buy a $200m stake in **China Southern Airlines**, China's biggest. The deal should mean greater co-operation on routes. American is keen to strengthen its presence in the Chinese market; China Southern wants to expand abroad.

Westinghouse, the American nuclear division of Toshiba, filed for bankruptcy in New York. Toshiba warned that write-downs could mean that losses last year will exceed ¥1trn ($9bn), throwing into question the conglomerate's future.

The European Commission dealt a lethal blow to the proposed merger of the **London Stock Exchange** and **Deutsche Börse**. Regulators argued that a deal would hinder competition by creating a de facto monopoly in bond-clearing and repurchase agreements. The proposed tie-up was the two companies' third attempt to create Europe's largest exchange operator.

The **Bank of England** unveiled tougher stress tests for British banks, which will now face an assessment of their longer-term risks, such as Brexit, as well as their resilience to a severe economic shock.

Samsung unveiled the Galaxy S8. The South Korean firm is hoping the device proves a distraction from its many woes. It is the first smartphone Samsung has released since the disastrous Galaxy Note 7, which had to be recalled due to its combustible batteries. Several executives have also been arrested in a corruption probe that led to the impeachment of South Korea's president, Park Geun-hye; Samsung's de facto boss is standing trial on charges of bribery and embezzlement. Remarkably, the firm's shares continue to trade at an all-time high.

America's Congress overturned recently enacted **internet privacy rules** stipulating how internet service providers can use customer data. ISPs will be able to share browsing histories and financial, health and location data without users' consent and without offering an opt-out. Large ISPs hailed the ruling; such intimate data hold tremendous marketing value. Privacy campaigners shuddered.

Prodigy

Bill Gross ended his legal battle with **Pimco**, the investment firm he co-founded, with a settlement reported to be $81m. The erstwhile "bond king" sued the firm after being pushed out in 2014 over sagging investment returns and a clash of management styles. As part of the deal a room will be named after him at Pimco's headquarters.

Elon Musk, a serial entrepreneur, announced the launch of Neuralink, a firm that aims to develop technology to link computers directly to the brain. The firm will initially focus on medical applications, but Mr Musk has long argued that humans must embrace brain implants in order to stay relevant as artificial intelligence advances.

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

Frustration

The Trump presidency is in a hole. That is bad for America—and the world

DONALD TRUMP won the White House on the promise that government is easy. Unlike his Democratic opponent, whose career had been devoted to politics, Mr Trump stood as a businessman who could Get Things Done. Enough voters decided that boasting, mocking, lying and grabbing women were secondary. Some Trump fans even saw them as the credentials of an authentic, swamp-draining saviour.

After 70 days in office, however, Mr Trump is stuck in the sand. A health-care bill promised as one of his "first acts" suffered a humiliating collapse in the—Republican-controlled—Congress (see Lexington). His repeated attempts to draft curbs on travel to America from some Muslim countries are being blocked by the courts. And suspicions that his campaign collaborated with Russia have cost him his national security adviser and look likely to dog his administration (see page 31). Voters are not impressed. No other president so early in his first term has suffered such low approval ratings.

It is tempting to feel relief that the Trump presidency is a mess. For those who doubt much of his agenda and worry about his lack of respect for institutions, perhaps the best hope is that he accomplishes little. That logic is beguiling, but wrong. After years of gridlock, Washington has work to do. The forthcoming summit with Xi Jinping, China's president, shows how America is still the indispensable nation. A weak president can be dangerous—picture a trade war, a crisis in the Baltics or conflict on the Korean peninsula.

The business of government

Mr Trump is hardly the first tycoon to discover that business and politics work by different rules. If you fall out over a property deal, you can always find another sucker. In politics you cannot walk away so easily. Even if Mr Trump now despises the Republican factions that dared defy him over health care, Congress is the only place he can go to pass legislation.

The nature of political power is different, too. As owner and CEO of his business, Mr Trump had absolute control. The constitution sets out to block would-be autocrats. Where Mr Trump has acted appropriately—as with his nomination of a principled, conservative jurist to fill a Supreme Court vacancy—he deserves to prevail. But when the courts question the legality of his travel order they are only doing their job. Likewise, the Republican failure to muster a majority over health-care reflects not just divisions between the party's moderates and hardliners, but also the defects of a bill that, by the end, would have led to worse protection, or none, for tens of millions of Americans without saving taxpayers much money.

Far from taking Washington by storm, America's CEO is out of his depth. The art of political compromise is new to him. He blurs his own interests and the interests of the nation. The scrutiny of office grates. He chafes under the limitations of being the most powerful man in the world. You have only to follow his incontinent stream of tweets to grasp Mr Trump's paranoia and vanity: the press lies about him; the election result fraudulently omitted millions of votes for him; the intelligence services are disloyal; his predecessor tapped his phones. It's neither pretty nor presidential.

That the main victim of these slurs has so far been the tweeter-in-chief himself is testament to the strength of American democracy. But institutions can erode, and the country is wretchedly divided (see page 19). Unless Mr Trump changes course, the harm risks spreading. The next test will be the budget. If the Republican Party cannot pass a stop-gap measure, the government will start to shut down on April 29th. Recent jitters in the markets are a sign that investors are counting on Mr Trump and his party to pass legislation.

More than anything, they are looking for tax reform and an infrastructure plan. There is vast scope to make fiscal policy more efficient and fairer (see page 29). American firms face high tax rates and have a disincentive to repatriate profits. Personal taxes are a labyrinth of privileges and loopholes, most of which benefit the well-off. Likewise, the country's cramped airports and potholed highways are a drain on productivity. Sure enough, Mr Trump has let it be known that he now wants to tackle tax. And, in a bid to win support from Democrats, he may deal with infrastructure at the same time.

Yet the politics of tax reform are as treacherous as the politics of health care, and not only because they will generate ferocious lobbying. Most Republican plans are shockingly regressive, despite Mr Trump's blue-collar base. To win even a modest reform, Mr Trump and his team will have to show a mastery of detail and coalition-building that has so far eluded them. If Mr Trump's popularity falls further, the job of winning over fractious Republicans will only become harder.

Were he frustrated in Congress, the president would surely fall back on areas where he has a free hand. He has already made full-throated use of executive orders and promises to harness the bureaucracy to force through his agenda. In theory he could deregulate parts of the economy, such as finance, where the hand of government is sometimes too heavy. Yet his executive orders so far have been crudely theatrical—as with this week's repeal of Barack Obama's environmental rules, which will not lead to the renaissance of mining jobs that he has disingenuously promised coal country (see leader). It is the same with trade. Mr Trump could work through the World Trade Organisation to open markets. More probably, the economic nationalists on his team will have the upper hand. If so, America will take a bilateral approach, trade protection will grow and foreign policy will become more confrontational.

The character question

The Americans who voted for Mr Trump either overlooked his bombast, or they saw in him a tycoon with the self-belief to transform Washington. Although this presidency is still young, that already seems an error of judgment. His policies, from health-care reform to immigration, have been poor—they do not even pass the narrow test that they benefit Trump voters. Most worrying for America and the world is how fast the businessman in the Oval Office is proving unfit for the job. ■

Britain and the European Union

The negotiator

As Brexit begins, Britain is due for a brutal encounter with reality. Time to be honest about the trade-offs ahead

NINE tumultuous months after Britons voted to leave the European Union, the real Brexit process is at last under way. Theresa May's dispatch of a letter to the European Council on March 29th, invoking Article 50 of the EU treaty, marked the point at which Britain's withdrawal from the union became all but inevitable. For half the country's population this was a moment to celebrate; for the other half, including this newspaper, it marked a bleak day. The future of both camps—and of the EU itself—now depends on what Mrs May does next.

The negotiations are sure to be difficult (see page 45). Time is short, since Article 50 comes with a two-year deadline. The task of unwinding Britain's membership of the club is fearsomely complex. Neither side is well prepared. In Britain, where Brexit increasingly resembles a faith-based initiative, voters have been given wildly unrealistic expectations of the Utopia ahead. Their first contact with the reality of losing preferential access to their main market will be traumatic. Unless Mrs May can persuade the Brexiteers on her own side that they must accept concessions, Britain may end up flouncing out of Europe without any deal at all.

Cruising for a bruising

The timetable is tighter even than it looks. The sides may spend weeks arguing over process. The EU wants to fix the terms of the Article 50 divorce, covering such matters as the rights of citizens resident in other countries and Britain's multi-billion-euro exit bill, before starting work on a future trade deal; Mrs May wants to negotiate on everything at once. Nothing much will be agreed on before the German election in September. At the end of it all, ratifying the deal will take six months. That leaves little more than a year for the talks themselves.

Mrs May's priority is to fulfil the Leave campaign's promise to "take back control" by ending the free movement of EU citizens to Britain and the jurisdiction of the European Court of Justice (ECJ). She has acknowledged that this means leaving the EU's single market. But leaving would be a mistake. Even if it takes control of immigration, Britain will not be able to cut the numbers much without damaging the economy, as ministers are slowly realising. And the government is wrong to claim that there exists some relationship with the single market that has all the benefits of membership with none of the costs.

It is true that many Britons backed Brexit because they wanted to cut immigration and regain sovereignty, but they did not vote to make themselves poorer—as Mrs May's "hard Brexit" will. Her government has been characterised by U-turns and her letter this week was more emollient than some of her earlier statements. Even so, in thrall to Brexiteering backbenchers and the Eurosceptic press, she is unlikely to change course now.

Mrs May is not just making the wrong choices, but also downplaying awkward trade-offs. By promising barrier-free access to the single market while stopping EU migrants and ending the ECJ's jurisdiction, she is still telling Britons they can have their cake and eat it. Although she concedes that exporters to the EU will have to obey EU rules, the more Mrs May insists on controlling EU migration and escaping the ECJ, the less barrier-free will be Britain's overall access to the single market. This is not just because free movement of people is a condition for the EU, nor because it will be hard to secure tariff-free access for trade in goods, something both sides can readily agree on. It is because the biggest obstacles swept away by the single market are not tariffs or customs checks, but non-tariff barriers such as standards, regulations and state-aid rules. Unless Britain accepts these, which implies a role for the system's referee, the ECJ, it cannot operate freely in the single market—as even American firms trading in the EU have found.

Boxed into a corner

The most dangerous of Mrs May's illusions has been her claim that no deal is better than a bad deal. Her letter this week steps back from this notion, but only a pace. To revert to trading with the EU only on World Trade Organisation (WTO) terms would cause serious harm to Britain's economy. It would mean the EU imposing tariffs plus a full panoply of non-tariff barriers on almost half Britain's exports. No big country trades with the EU only on WTO terms. An acrimonious break-up would make it harder to co-operate in such areas as foreign policy and defence. And it would surely increase the risk of Brexit triggering Scotland's exit from the United Kingdom.

Mrs May needs not merely to soften her tone, as she has started to do this week, but to lower expectations. Instead of threatening to undercut her European partners by building an unregulated Singapore-on-Thames (something that, despite its appeal to free-traders, would horrify most Brexit voters), or hinting that Britain might co-operate less fully on security, or claiming that the EU needs Britain more than the other way round, she should accept that in these negotiations she holds the weaker hand. She should hence be more flexible over payments into the EU budget, a subject her letter skates over.

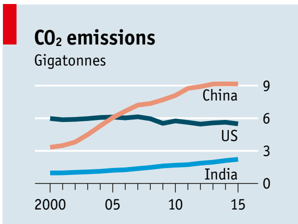
Because negotiating a full free-trade deal is certain to take more than two years—no country has concluded one with the EU in so short a time—she should accept another consequence: that transitional arrangements will be needed to avoid "falling off a cliff" in March 2019. Her letter talks airily of "implementation periods", but does not acknowledge how hard these may be to sort out. A proper, time-limited transition might mean prolonging free movement of people and the rule of the ECJ, but that price would be worth paying for a better Brexit.

The softer tone of Mrs May's letter might, with luck, encourage her EU partners to be more accommodating. So far they have reacted to threats from London in kind, talking up the exit bill, insisting that Britain ends up being worse off outside the club than inside and digging in over terms for co-operating in foreign and security policies. There is a possibility of a deal between Britain and the EU that minimises Brexit's harm. Unfortunately, in a negotiation against the clock where both sides start so far apart, there is also a big risk of one that maximises harm instead. ■

Coal's decline

Sunlight over soot

India is becoming a more active protagonist in the fight against global warming



COALMINERS cheered this week when Donald Trump issued an executive order to start unwinding Barack Obama's flagship climate policies; the new measures include ending a moratorium on the leasing of federal land for mining. "My administration is putting an end to the war on coal," declared Mr Trump. Yet the black stuff is still in a heap of trouble. In America cheap natural gas has surpassed coal as a source of power generation; no White House ceremony can do much about that. And for all the attention on America, much the more important chapter in the tale of coal's decline is being written on the other side of the world.

India is the third-largest carbon emitter, after China and America. No fuel matters more to it than coal: it fires up 61% of India's power-generating capacity and Coal India is the world's biggest coal company. Since coal generates more carbon emissions when it is burned than other fossil fuels—to say nothing of its effect on air quality—India is a crucial protagonist in the battle against climate change (see page 61).

It has also long been seen as a wild card. On the one hand, the country's growth projections and justifiable desire to supply power to about 240m Indians who lack it imply that its greenhouse-gas emissions look as if they will almost double. On the other, its plans for solar and wind energy are so ambitious that many have found them hard to believe. But two things suggest that the outlook for coal in India is darkening.

First, the government has declared that it needs no more coal-fired power stations during the next decade than those being built today. About 40% of India's coal-fired plant capacity is lying idle, because the authorities have overestimated the growth in demand for electricity, and because of the financial weakness of electricity-distribution firms. The pipeline of plants under construction is still a hefty 50 gigawatts (GW), but a portion of these facilities may well be put on hold because of the lousy economics of electricity distribution in India.

Second, Narendra Modi, India's prime minister, is proving a surprisingly strong advocate for green energy. His government has promised to install fully 175GW of renewable energy by 2022, triple today's capacity. That ambition, though probably still out of reach, is looking more credible today because of the crashing cost of solar power. In an auction in the state of Madhya Pradesh in February, winning solar bids were competitive with the cost of new coal-fired electricity. Mr Modi's government recently approved the creation of 50 "solar parks", with a combined capacity of 40GW.

Dethroning King Coal

Whatever happens, India will still burn a lot of dirty coal. It has many old plants that produce power cheaply, some owned by powerful tycoons who would resist their closure. The amount of unused capacity could fall if growth in power demand accelerates and if the finances of the utilities improve. Pursuing alternatives to coal will meet resistance from unions fearing job losses among miners.

But Mr Modi can also do more to move his country away from coal. Baseload coal power is not good at offsetting the intermittency of sun and wind; India would do better to opt for hydroelectric storage and quick-response natural-gas plants instead. Providing rooftop solar panels to poor communities may be a better way to electrify the country than costly extensions to the grid. Well-prepared land, available grid connections and financial guarantees all encourage the development of solar parks.

Coal is back in favour in America. But India's second thoughts make for the bigger, and brighter, story. ■

Myanmar

A hero disappoints

Aung San Suu Kyi is squandering the opportunity she spent 25 years fighting for

SHE is the woman who faced down an army. After the military regime in Myanmar refused to recognise the colossal victory of her National League for Democracy party in an election in 1990, Aung San Suu Kyi endured 25 years of persecution, including 15 years under house arrest. In late 2015, after many failed attempts to discredit and sideline her, the generals gave up and held a relatively free election. The NLD won again, in another landslide, and this time the army allowed the result to stand. Ms Suu Kyi's dignified resistance to military rule has made her a hero to many around the world—and deservedly so. But the self-reliance and doggedness that sustained her through that long struggle have not stood her in such good stead since the NLD took power a year ago.

In a parting gift from the army, Myanmar's constitution bars Ms Suu Kyi from the presidency on the grounds that her children hold British citizenship. She has installed a loyal lieutenant in the job instead, and awarded herself the title "state counsellor", as well as two ministerial portfolios. Members of parliament complain that they have little role in government; Ms Suu Kyi makes all the decisions that matter (see page 22).

Many of those decisions, alas, have been questionable. Ms Suu Kyi has decided to focus her attention on bringing peace to ▸▸

the far corners of the country, where a bewildering array of ethnic militias have fought the government for decades. The goal is a fine one—but Ms Suu Kyi lacks the authority to attain it. Along with preventing her from becoming president, the constitution that the generals imposed before returning to barracks also allows the army to run itself, to appoint the ministers of defence and home affairs and to fill a quarter of the seats in parliament. Without the army's co-operation, there can be no peace between the state and the rebel groups. Moreover, the army has, if anything, recently become more aggressive, sparking increasingly frequent clashes.

Ms Suu Kyi has more authority in other areas—most notably over the economy—but has not done much with it. The NLD's first budget was little different from the army's last, suggesting that the civilians do not have a clear agenda for change. The generals' cronies still dominate big business. Foreign investment is declining as the euphoria of the transition to democracy fades. Ms Suu Kyi has made little effort to overhaul the courts, which are stuffed with corrupt holdovers from the old regime, or make them more accessible. Plaintiffs still need the attorney-general's permission to sue the government.

Meanwhile, international goodwill towards the new government is being squandered by Ms Suu Kyi's shameful silence about the Rohingya, a persecuted Muslim minority who live near the border with Bangladesh. The army has been razing Rohingya villages, stealing, raping and killing as it does so. But Ms Suu Kyi cannot even bring herself to use the word Rohingya (the government dismisses them as intruders from Bangladesh), let alone condemn the army's treatment of them.

The lady's not for learning

It would be naive to expect the NLD to repair in a year the damage done by half a century of military rule. And it is understandable that 25 years of isolation and abuse have left Ms Suu Kyi reluctant to delegate and suspicious of outsiders' advice. But by refusing to acknowledge the army's latest outrages, she risks turning herself into an apologist for the very people who tormented her and her country for so long. And by picking the wrong priorities, she may undermine the cause that has consumed her life. If there is little discernible difference for most Burmese between military and civilian rule, then what was the point of her long vigil for democracy? Running a government requires different skills from resisting one. For the sake of her country and her legacy, Ms Suu Kyi must learn them. ■

Economic policy

Friction lovers

It is time to impose a tax on efficiency

EFFICIENCY is at the heart of progress. Yet just as too much of a good thing (travel, say) can yield a bad (congestion), so excessive ease in transactions can generate costs, known in the jargon as a "facile externality", such that less efficiency would actually be more efficient. In academic circles, especially Scandinavian ones, the notion is well established that innovations which eliminate too much hassle could do society harm.

True to their cause, the high-minded theorists of facile externality go out of their way to make their ideas hard to understand. The effort required to master them has the happy effect of increasing their value, as intended. But it has also held them back from broad application. The good news is that this may at last be about to change.

In the past year facile externality has started to gain traction (a term that, in itself, demonstrates the centrality of friction to progress). This is in part thanks to some well-placed disciples, such as Danilov P. Rossi of the UN's "Don't Nudge—Tell" office (DONUT). But it is also because technology is prompting an exponential loss of friction. Some experts fear a slippery slope.

Firms want to erase the sources of inconvenience and delay that irritate consumers. Technology has made this easy for them. Ride-hailing services allow passengers to walk off without fumbling for money. Streaming video brings the next episode to viewers just before the previous one ends. As Jerry Seinfeld once observed: "I love Amazon 1-click ordering. Because if it takes two clicks, I don't even want it any more."

In all this indulgence, the forgone benefits of hassle (*slygge* in Danish) go largely unrecognised. Frictionlessness encourages bad habits. For those who resent the time suck of 1-click ordering, Domino's has pioneered "zero-click" pizza-buying. Simply open the app and, after ten seconds, it automatically places a pre-set order. Domino's competitors are working on a "direct-to-mouth" drone-delivery service that will send individual slices of pizza into your home via an electronic flap. Pizza experts are seeking ways around the "chewing bottleneck".

Payments are also subject to facile externality. Three in five Britons say they spend more with a wave of the plastic than they would with cash. Ordering goods using Alexa, a voice-activated assistant, is as easy as saying its name. Tech firms are working on gesture-controlled devices that could enable payments with just a furtive glance of desire.

But the great curse of facile externality is value-erosion. Persistent need is the world's great motivator. With instant gratification, consumers end up alienated and economies worse off.

Take back control

A few companies have recognised the benefits of restoring friction. Research into "the Ikea effect", named in honour of those happy hours spent with an Allen key, a Billy bookcase and a rising hatred of Sweden, shows that people put extra value on things when they devote their own labour to them.

But the market cannot solve this problem on its own. As Mr Rossi says, only government can properly defend the cause of inefficiency. DONUT is calling for ideas. Since time-wasting is of the essence, it has imposed a deadline of April 1st next year.

We at *The Economist* plan to lead by example. From next week, readers will need an extra tool: a paper knife with which to separate the pages of their copy. Henceforth, you will have to slit apart the folded pages of our folios to enjoy the words within. And you will, we are sure, thank us for it. ■

Greater Scotland

Your arguments about why Scots should reject independence amounts to saying that Scotland would face the very same perils if it were to secede from the United Kingdom that the UK faces when it leaves the European Union ("Leave one union, lose another", March 18th). Scotland, however, would be leaving the UK to join a single-market union that is rather larger. Although you talk of Scotland breaking with its main trading partner (England), it would have little difficulty diverting its exports to a single market of over 400m people. Moreover, in terms of geopolitical influence Scotland would be better placed in a renewed EU than in an isolated UK.

Scotland is not seeking to wreck either the UK or the EU. A big argument made for Scotland rejecting independence at the referendum in 2014 was that sticking with the UK guaranteed it a place in the EU. If in 2016 the UK had voted to remain in the EU there would be no question of another referendum on Scoxit, "for a generation" at least. The choice that Scots are agonisingly facing is that of to which supranational union they should adhere, the UK or the EU? The wreckers of unions are I am afraid the English, or to be a little more precise, the English Brexiteers.

PATRICK O'SULLIVAN
Professor of business ethics
Grenoble École de Management
Grenoble, France

Polls consistently show that most Scots do not want another referendum and would prefer our government in Holyrood to get on with its day job. "Scotland" was not on the ballot paper in the Brexit referendum; many Remain votes in Scotland were cast by people who want to stay in the UK.

The SNP manifesto was 76 pages long and contained a mere four paragraphs about a second referendum on independence. The SNP is a minority government in Scotland, propped up by the Greens, having won less than half of the popular vote and losing six seats in 2016. If Nicola Sturgeon was that confident she would secure a real mandate, and face the electorate with an explicit referendum commitment.

STUART SMITH
Edinburgh

Brexit may hint at trouble for us expatriates who reside in an EU country. So why don't we have an acronym of our own, namely ExBrit.

COLIN BRAZIER
Bad Krozingen, Germany

Europe's chain of events

The idea of a "domino theory" in relation to populists winning European elections is misleading, you say, citing the context of America's strategy of containment to prevent the spread of communism in South-East Asia ("Domino theory", March 18th). But a more powerful example of the domino theory happened in the European revolutions of 1848. That wave of insurgency was ideological, not military, in nature. Its ideas spread to 50 countries, toppled governments and ultimately reshaped Europe. As Victor Hugo said, no army can stop an idea whose time has come. One must hope that the time has not come for populist ideas to sweep across Europe.

GAURAV GOLLERKERI
San Francisco

Quantum measurements

Your articles on the present and future effects on us all of quantum physics omitted one small point: metrology has joined the quantum world, but not just for atomic clocks (Technology quarterly, March 11th). Next year, the 26th General Conference on Weights and Measures will adopt new quantum-based definitions for most of our well-known basic units of measurement. Notably, the kilogram will be defined in terms of a fixed value of the Planck constant, the basic fundamental constant of quantum physics.

Readers will from then on buy their kilos of potatoes in the secure knowledge that the market trader's scales are traceable not to a piece of platinum in a safe in Paris but to the Planck constant—which is where? Everywhere, even on the Moon and the most distant galaxy.

TERRY QUINN
Emeritus director
International Bureau of Weights and Measures
Sèvres, France

It is instructive to compare the development of quantum technologies with that of artificial intelligence. AI is now a powerful tool, though it repeatedly fell short of lofty expectations during its early development, leading to disappointment and stagnation. Quantum technologies give much cause for excitement. This is especially true for relatively near-term, special-purpose devices, such as quantum sensors and simulators. We must not, however, demand too much of these microscopic systems prematurely.

DAVID LAYDEN
Quantum Engineering Group
Massachusetts Institute of Technology
Cambridge, Massachusetts

Refugees count

"Out of sight" (March 18th) rightly criticised the EU-Turkey deal on refugees for its humanitarian impact. At the heart of the deal is a deeply problematic logic. It is not just that states have become complacent, and that this in addition to bureaucracy has allowed asylum-seekers to linger in appalling conditions in Greece. Rather, the deal excludes the vast majority of asylum-seekers in Greece.

One of the problems of the relocation scheme is that it is restricted to those who entered Greece after September 16th 2015 and no later than March 19th 2016 and who are "in clear need of relocation". However, the eligibility criteria are rigid. The formula is limited to those nationals who have a 75% rate of recognition or higher in the previous quarter. According to the European Asylum Support Office, only asylum-seekers from Burundi, Eritrea, the Maldives, Oman, Qatar, Syria and Yemen are eligible.

Yet with the exception of Syrians, few asylum-seekers from those countries are in fact present in Greece. By narrowing the scope of eligibility, the EU has excluded thousands of Afghan, Iranian, Iraqi and Pakistani asylum-seekers from the relocation scheme.

PROFESSOR BRAD BLITZ
PROFESSOR ELEONORE KOFMAN
Middlesex University
London

War and inequality

Walter Scheidel is overly pessimistic in arguing that only catastrophic events really reduce inequality ("Apocalypse then", March 4th). Using the Gini index in the Standardised World Income Inequality Database, which covers 173 countries from 1960 to 2012, David Hudson and Niheer Dasandi of University College London identified 23 states that have experienced redistributive policies over seven years or more. What is so far lacking is a comparative study of the politics underlying these redistributive episodes, but their existence alone seems likely to undermine Mr Scheidel's contention that disaster, rather than politics, is the only way to reduce inequality.

DUNCAN GREEN
Professor in practice
London School of Economics

Apropos an apostrophe

Too bad that you included an apostrophe in the title to James Joyce's "Finnegans Wake" (Free exchange, March 4th). The book title lacks an apostrophe because, like so much else in Joyce's book, it is a pun combining opposites: the funeral service for Finnegan, but also Finn is again awake.

PETER BIEN
Hanover, New Hampshire ■

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Constrained?

NEW YORK AND WASHINGTON, DC

Setbacks for Donald Trump in Congress and the courts suggest that America's checks and balances are working. But there is still plenty to worry about

THE morning after Donald Trump was elected president, Eric Schneiderman, the Democratic attorney-general of New York, summoned his raddled senior lawyers to a war council. Seated in his unfussy 25th-floor office in lower Manhattan, Mr Schneiderman told them to assume Mr Trump's brutish campaign pledges were in earnest, and to clear their desks for action.

While the president-elect was digesting his victory in Trump Tower, five miles up the road, Mr Schneiderman put scores of the 650 lawyers at his disposal on Trump watch. They started trawling through his campaign statements and preparing legal defences against the assaults he had promised on immigration, consumer protection and climate-change policy. With the Republicans who control Congress apparently unwilling to hold Mr Trump to account, Mr Schneiderman feared that Democratic attorneys-general might have to act as a thin blue line of resistance to an authoritarian president.

Mr Schneiderman, a small man who speaks fast and wastes few words, already understood Mr Trump's capacity for rule-breaking. In 2013 he sued Mr Trump over the fleecing of students at Trump University, a bogus training scheme for would-be property moguls. In response, the tycoon alleged malicious prosecution and sued him for millions of dollars. In 2014 the *New York Observer*, a newspaper owned by Mr Trump's son-in-law and adviser, Jared Kushner, ran a lengthy hatchet job on him. "I did not realise it at the time," he says, "but I was getting a preview of the scorched earth approach he takes to opposition."

Ten weeks into his term, Mr Trump is behaving much as Mr Schneiderman predicted. Among other affronts, he has tried to discredit the electoral process by making false claims about illegal voting and has peddled false allegations that Britain spied on him. He has failed to disengage convincingly from his business interests, or reveal the extent of them. He has signed cruel and amateurish immigration rules and, when they faced legal challenge, argued that his border policy was no business of the courts. According to the fact-checkers at the *Washington Post*, Mr Trump uttered 317 "false or misleading" statements in his first 63 days as president. "It's been clear since he took office", says Mr Schneiderman, who joined the attack on the immigration rules, "that this president has less regard for the rule of law and precedent and traditions than anyone in recent memory."

Yet although Mr Schneiderman's estimation of the threat Mr Trump poses appears well judged, his sense of America's vulnerability now looks pessimistic. The failure of the Republicans in the House of Representatives on March 24th to pass a health-care bill on which Mr Trump had staked his image as America's closer-in-chief shows that the president cannot carry all before him. A vigorous repulse to his excesses from journalists, NGOs, companies and millions of protesters, as well as the states, has proved additionally inconvenient. America's constitutional checks and balances appear to be holding up better than many feared.

The defeat of the American Health Care Act (AHCA), it must be admitted, was hardly a textbook illustration of James Madison's constitutional ideal that presidential ambition be frustrated by the powers of Congress. The bill's aspiration, to begin the process of repealing Barack Obama's health-care reform, known as Obamacare, is widely shared among Republicans. Under Mr Obama, House Republicans futilely voted to repeal Obamacare more than 50 times. Getting rid of it was one of Mr Trump's main campaign pledges. The 30-odd right-wingers, known as the House Freedom Caucus, who opposed the repeal bill, causing Paul Ryan, the Republican Speaker of the House, to withdraw it, intended no rebuke to Mr Trump. Many caucus members admire him. Their target was Mr Ryan, whose pragmatism they abhor: they felt his bill, which they derided as "Obamacare-lite", would not sufficiently reduce federal subsidies which help the poor buy health insurance.

Regardless of their target, they dealt a blow to Mr Trump. He has promised to end the legislative dysfunction in Washington, DC, with his dealmaking skills. In the case of the AHCA, these consisted in threatening to launch primary challenges against his fellow Republicans unless they passed a bill which he appeared not to understand very well ("Mark Meadows, I'm coming after you," he told the caucus's North Carolinian leader, maybe jokingly). Perhaps he will recover some of his lost face, as Bill Clinton did after suffering his own health-care reform foul-up early in his presidency. But Mr Trump will have to acquire better negotiating skills. He could also do with lifting his approval ratings; according to polling by Gallup, only 35% of Americans think he is doing a good job, which is unlikely to strike fear into Mr Meadows.

The debacle has forced Mr Trump to consider wooing Democratic congressmen (there is talk of him linking his tax reform plans, of which Democrats are sceptical, to his infrastructure plans, which they like), which would require him to moderate his behaviour. Some Republican senators, who have longer terms and more mixed electorates than their colleagues in the House, are already demanding he do so. Though the AHCA defeat did not in itself augur better congressional oversight of Mr Trump, the spectre that haunted Mr Schneiderman—a unified Republican government uncritically supporting a rogue president—is looking less threatening.

Lawsuits, satire and social media

The courts have provided a more straightforward check. Mr Trump's immigration rules appeared to be an attempt to honour his campaign promise to keep out Muslims; they were disguised as counter-terrorism measures against high-risk nationalities in an effort to evade the constitutional bar on discriminating on the basis of religion. Both edicts were challenged by broad coalitions of states, NGOs and private firms and subsequently stayed by judges on procedural and constitutional grounds. The president impugned the legitimacy of the first obstructive beak, James Robart—a George W. Bush appointee whom Mr Trump described as a "so-called judge". Even his own nominee to the Supreme Court, Neil Gorsuch, a Coloradan jurist, thought this too much. "When anyone criticises the honesty, the integrity or the motives of a federal judge, I find that disheartening," he said during his Senate confirmation hearing on March 21st.

The media, leaky bureaucrats and the millions who have flocked to rallies against his presidency (which, though dwindling, are still widespread) have provided such a barrage of extra-constitutional scrutiny that some think a new system of accountability is emerging. "We're seeing a vastly expanded definition of checks and balances, and they seem to be working," says Alan Dershowitz, a legal scholar.

In a world worried about the rise of fake news, the best coverage of Mr Trump's administration has been tremendous. The

Not quite what Madison had in mind

New York Times and *Washington Post* have had weekly scoops about the peculiar chumminess between its senior members and various Russians; the scandal has so far forced Michael Flynn to quit as national security adviser and Jeff Sessions, the attorney-general, to recuse himself from his department's investigation into allegations that Mr Trump's team colluded with Russian hackers during the campaign. Those revelations have also made it harder for Republican congressmen to ignore the issue, as some, including Devin Nunes, who heads the House intelligence committee, would clearly prefer (see page 31).

Honed by decades of growing partisanship and low expectations of congressional oversight, the response to Mr Trump from NGOs, left-leaning and otherwise, has been similarly impressive. The American Civil Liberties Union, which sued the administration over both sets of immigration rules, received over $24m in online donations over the course of a recent weekend, more than six times what it normally expects to collect online in a year. For some, this is a continuation of previous struggles; to brief reporters on its plans to resist Mr Trump one environmental group dusts off a history of its (broadly successful) legal stand-offs with Mr Bush.

Mr Dershowitz also points to less organised checks, including critical commentary on social media, disapproving foreign allies and merciless late-night comics: Mr Trump has perked up American satire and the career of Alec Baldwin (pictured). "It's a more transient, not predictable or reliable, not visible or transparent system, which has its own dangers," he says. "But in my view it will be strong enough to be a sufficient check on this presidency."

It is a sad reflection of the state of America that a quasi-constitutional role for "Saturday Night Live" could seem reassuring. The system that the founders created as a way for the different branches of government to counter each other's excesses should not need shoring up by a posse of bloggers and disloyal civil servants. The constitutional frailty this reveals, and of which Mr Trump's election is to some degree symptomatic, has in fact been evident for some time.

It is over four decades since the historian Arthur Schlesinger warned, in "The Imperial Presidency", of a post-war power grab by the executive branch "so spacious and peremptory as to imply a radical transformation of the traditional polity." The book was a hit, but did nothing to interrupt a steady flow of powers to the White House which has continued under all the presidents since. As the executive opened up new domains for itself in setting pollution standards for industry, overseeing banking and even ordering the country to war, a clear congressional prerogative, the presidential bureaucracy ballooned.

As it grew, it became increasingly politicised; under John F. Kennedy, 196 presidential appointments required Senate confirmation, now 1,212 do. And it became more centralised. In the 1930s Congress magnanimously permitted Franklin D. Roosevelt to maintain a staff of six "presidential assistants"; recent presidents have commanded an army of over 500 White House staffers, whose mission is to ensure the government bends to the president's will, and that he gets all the credit when it does. This has transformed the character of government, from a semblance of well-advised policymaking to a relentless effort to fulfil presidential campaign promises.

A space for authoritarianism

At the expense of Congress, recent presidents have also assumed additional powers over foreign policy and civil liberties. In doing so they risk being checked by judges. But they have mitigated that possibility by assembling, in the office of the White House counsel, a battery of ingenious, Supreme Court-quality lawyers; Mr Obama employed almost 50. The result has been a proliferation of contentious legal precedents, extending the authority of the president, which in unscrupulous hands could amount to a toolkit for tyranny. Following Mr Bush's and Mr Obama's example, the president can order American citizens to be killed secretly overseas, detain foreign prisoners indefinitely without charge and try them on the basis of evidence that the state will not divulge.

Despite spasms of concern, both liberals and conservatives have applauded this executive power grab. "I want to strengthen the current Democratic president," said Newt Gingrich, when he was a bitterly partisan Republican Speaker of the House under Mr Clinton, "because he is the president.” Scholars of both stripes have often argued that the risks of overreach were justified by the president's democratic prerogative to fulfil his mandate. The growing dysfunction in Congress, which has seen its lawmaking and oversight give way to shouty tribalism (for which Mr Gingrich deserves much blame) has meanwhile made that conclusion seem more natural. For if Congress will not pass laws, how else is the country to be governed?

These constitutional evils reinforce each other. Congress, a body the Founding Fathers considered so dangerous that it needed splitting in two, is in its demoralised state especially susceptible to unthinking party allegiance. This has in turn worn away many of the democratic norms upon which the checks and balances depend. Despairing of Senate Republicans' use of the filibuster to block Mr Obama's appointees, for example, the Democrats scrapped the measure in 2013, except in the case of Supreme Court appointments. Now the Democrats are in the minority, vowing to block Mr Gorsuch, and the Republicans are likely to remove that last defence of scrutiny by the minority party in federal appointments.

At the same time, a combination of vengeful partisanship, internet-based alternative realities and the primary system of nominating candidates, which promotes hardliners, is tilting American politics towards extremism. Put this together with the growth of executive power and the fraying of constitutional checks on it and the risks of something going seriously wrong in the White House are obvious. In 2010 Bruce Ackerman, a Yale legal scholar, predicted it was only a matter of time before America elected a “charismatic president to politicise the bureaucracy and run roughshod over the rule of law”.

In this wider context, the constraints on Mr Trump look less reassuring. His presidency becomes a predicted step in a process of democratic decline which his unscrupulous leadership is likely to accelerate. To arrest that decline would take substantial reform, with new checks on the executive, a reinvigorated Congress and political parties freed from the thrall of hardliners—all unimaginable today. So it is appropriate to ponder how much damage Mr Trump could do, even if he remains constrained by the forces Mr Dershowitz and others find comforting.

Most of his recent frustrations have been self-inflicted, which is in a way reassuring. Though Mr Trump is sometimes compared to the White House's last big rule breaker, Richard Nixon, he appears much less competent. Nixon was a skilful, hardworking criminal; Mr Trump is a blowhard who even now seems unaware of the magnitude and complexity of the office he holds. Still, he and his advisers will get better at using the presidential toolkit, including its legal precedents and firepower. In the event of a threat to national security, for example, Mr Trump's appetite for power and desire to be vindicated over his Islamophobic rhetoric could produce dire results.

Oh, for the days of the snuffbox

The Trump team already has plans to bring the presidential bureaucracy to heel. “The administrative state isn't going to administer itself,” says a senior White House official. One plan, he suggests, is to send “tiger teams into the beast, to ask, ‘How have you implemented the wishes and policies of the president?’” Leakers, beware.

How successful such tactics are may depend largely on Mr Trump's political fortunes—which could be much better than many of his opponents assume. Even if his ratings remain low, the realities of a polarised electorate and a favourable electoral map mean that the Republicans may well retain both congressional houses in next year's mid-term elections. Mr Trump will also have the chance to nominate over a 100 federal judges, perhaps including a second Supreme Court justice. Both developments could strengthen him considerably. If an FBI investigation into the Russia connection turned up something serious, a Republican congress would still be loth to impeach Mr Trump.

Mr Trump's contribution to the decay of democratic norms already appears vast. Each time he badmouths an institution or makes false claims about a predecessor, opponent or peer, America's democratic framework takes a hit. Some of the damage may be permanent. A show of decency once mattered in American politics; then 63m Americans voted to elect as president a man they had heard boasting of his ability to assault women. It was also recently accepted that a sitting president must publish his tax returns and disengage from his business interests. Mr Trump, who has done neither, does not appear to have any problem with the profits flowing from his presidency.

As the *Washington Post* has reported, he has spent almost a third of his time as president at a Trump-branded property, including his Mar-a-Lago estate in Florida, where club members have been treated to the sight of the president urgently discussing North Korean missile launches over salad. Because another of his presidential haunts, the Trump International hotel, a short walk along Pennsylvania Avenue from the White House, is also popular with foreign dignitaries, Mr Trump has been sued over an obscure clause of the constitution that forbids public servants from accepting fees or gifts from a foreign state. Some legal scholars have, rather valiantly, cited as precedent Benjamin Franklin's seeking Congress's approval before accepting a jewel-encrusted snuffbox from the king of France as a retirement gift. The distance and obscurity of the precedent illustrates the main difficulty of using the law to restrain the president's behaviour. No one has ever seen anything like it.

Perhaps Mr Trump will be adequately constrained nonetheless. The reassuringly trenchant responses to his excesses from the judiciary, states, bureaucracy and NGOs suggest a democracy more vital than some fear. It might even one day seem ridiculous that a figure as unserious as Mr Trump could have seemed so threatening. But even in that best case, it will take something more to restore America's democratic system to a more foolproof state. It will require more than million-man marches or steadfast judges, a degree of national consensus on the way forward—which is the very thing that America most conspicuously lacks. ■

Still early days

Myanmar

Governing in prose

Also in this section

YANGON

Aung San Suu Kyi's first year in office has been a disappointment

ASTRONOMICAL downtown rents, power cuts, traffic that gets worse by the week: these are Yangon's growing pains. But they pale in comparison with its growing pleasures: cranes everywhere, a steady stream of new businesses and, most important, optimistic citizens. Signs of progress abound, some flashy—swish new restaurants and hotels—and others mundane—co-ordinated bus routes that have ended the lunatic system whereby the packed vehicles of competing firms raced from stop to stop to snaffle the waiting customers.

Outside the city, however, the lustre fades quickly. Booming Yangon uses perhaps half of Myanmar's electricity and accounts for as much as a quarter of its economic output, but most of the country's population is still rural. They fish or farm, often using primitive methods, a fact that becomes glaringly apparent as soon as you leave Yangon. The military regimes that ruled Myanmar for 50 years left it isolated and impoverished.

Aung San Suu Kyi, who opposed the generals for decades before assuming the country's leadership last March, entered office with the wind at her back. The military junta had begun liberalising the economy before it handed over power. Foreign investment had risen, particularly in oil and gas, and the private sector was growing by leaps and bounds, albeit from a tiny base. After the landslide victory of Ms Suu Kyi's National League for Democracy (NLD) in elections in late 2015, donors poured in funds and expertise. Yangon is filled with international advisers eager to help the country modernise. And less than six months after Ms Suu Kyi took office, America lifted long-standing sanctions.

Yet growth is now slowing, as is foreign investment (see chart). The government has taken a few steps to maintain economic momentum. Regulatory changes approved in August made it easier for microfinance companies to operate—a must in a country where most people lack access to affordable credit. An update of basic corporate law went to parliament in January; when passed it will replace the Burma Companies Act of 1914, which includes severe penalties for firms that lay false claim to "the patronage of His Britannic Majesty". An investment law enacted in October builds on the generals' market reforms and, unlike their decrees, which were often imposed out of the blue, it was the subject of an extensive public consultation.

But the new government also has peremptory moments. Before Burmese New Year, it suddenly announced that the associated holiday would last five days this year rather than the usual ten. It has also unveiled a draft law requiring foreigners living in Myanmar to get government approval to leave their city of residence for longer than 24 hours. Foreign chambers of commerce, naturally, are up in arms.

These incidents point to two frequent complaints about Ms Suu Kyi's government: atrocious communication and a ▸▸

penchant for centralisation. The previous government, says one foreign investor, included experienced economic policymakers and listened to businessmen's complaints; this one does neither. "This government sees business as evil," he says. "We don't know who to talk to, and we don't know who [Ms Suu Kyi] listens to." There are no regular exchanges between businesses, legislators and regulators, so laws are proposed before MPs understand their impact. And the government has not articulated much of an agenda for reform: shortly after taking office, for instance, the NLD could not come up with any more detail about its plans for the economy than a 12-point manifesto that contained such laudable but vague goals as cutting red tape and encouraging competition.

Many civil-society types complain that they, too, have no access to Ms Suu Kyi's inner circle. Her feeling, says one, is that the role of NGOs was to ensure the previous government remained on the path towards democracy; now that the Burmese people have freely chosen their rulers, obstreperous watchdogs are no longer needed. Donors with money and goodwill, meanwhile, have projects at the ready, but people in government are reluctant to make decisions without a clear signal from the top.

Even Ms Suu Kyi's main priority, the peace process between the government and the ethnic armies that have fought it for decades, appears to be stalling. The momentum built by the previous government has dissipated. Skirmishes between the army and assorted rebel groups are becoming more frequent. The second in a series of national peace conferences, scheduled for February, was delayed after it became apparent that only a handful of groups would even attend. The terms of a final deal remain as unclear as ever. The army, which under the constitution it foisted on the country remains a law unto itself, rakes in millions from jade and timber in border regions, giving it a strong incentive to let fighting continue. Peace would also put the ethnic militias out of business.

Ms Suu Kyi is in a tricky position: the army fears she will concede too much to the rebels, while ethnic minorities see her as just another condescending leader from the country's Burman majority, little different from her predecessors. Shockingly, she has failed to criticise the army as it has rampaged through villages inhabited by the Rohingya minority, raping and killing on a horrifying scale according to the UN. Some 70,000 of them have fled across the border into Bangladesh. The Rohingya are disliked by the Burmans who form the bedrock of the NLD's support; defending them could dent her political standing. But in a democracy, leaders have to make hard choices. So far, Ms Suu Kyi has proved more adept at avoiding them. ■

Jihadists in Bangladesh

Fighting a hydra

DHAKA

The government's counter-terrorism campaign has a long way to go

FOR four days all eyes in Bangladesh were on Atia Mahal, a lime-green, five-floor apartment block in the north-eastern city of Sylhet. The police cordoned off the building on March 24th after receiving word that a group of Islamic militants had holed up in one of its flats. But it was only on March 27th that a special anti-terrorism unit managed to kill the last of the four besieged terrorists. Two days earlier, one of the four had put on a suicide-vest and blown himself up at the police cordon some 400 metres from the hideout, killing six people and injuring 50. It was the first indiscriminate suicide-attack on civilians in Bangladesh.

Islamic State, the jihadist group that runs a dwindling portion of Syria and Iraq, claimed responsibility for the attack, its 28th in Bangladesh since 2015. The deadliest of those was an assault on a restaurant in Dhaka, the capital, last year, in which 22 civilians, two policemen and five terrorists were killed. The government insists—to near-universal disbelief—that the perpetrators are a new faction of a home-grown group called Jamayetul Mujahideen Bangladesh. Either way, the government does seem to be pursuing with vigour the directive of the prime minister, Sheikh Hasina, to "root out militancy". But the siege in Sylhet was preceded by three botched suicide-attacks in the previous two weeks. The security services recently killed six militants in a raid in the southern city of Chittagong. And two sieges of suspected jihadists are now under way in the city of Moulvibazar, to the south of Sylhet.

The government seems to have had great success in persuading ordinary citizens to report suspected militants. But its appeasement of extreme religious groups such as Hefazat-e-Islam, which share much of the militants' worldview, is at odds with the crackdown. Foreigners are frightened (17 of the victims of the restaurant attack were foreign). Cafés they frequent now sport airport-style security.

Bangladesh's neighbour, India, will also be worried. This month its Border Security Force warned that more than 3,000 militants had entered India across its border with Bangladesh, the world's fifth-longest. India has three main security concerns: that Bangladesh is a haven for various insurgent groups fighting the Indian government; that large numbers of illegal migrants from Bangladesh are changing the ethnic and religious character of the border areas; and that Bangladesh is turning away from its long history of secularism and tolerance. Sheikh Hasina has tried to suppress the insurgents using Bangladesh as a base for operations in India, with some success. But she is powerless to stop migration and her decision to suppress mainstream opposition groups has seen extremist fringes thrive. ■

A lime-green fiasco

Political freedom in Singapore

No place for the crass

SINGAPORE

An outspoken Singaporean blogger wins asylum in America

LIKE many teenage boys, Amos Yee, a Singaporean blogger, is crude, insensitive and confrontational. In 2015, just days after the death of Lee Kuan Yew, Singapore's founder and long-time leader, Mr Yee posted a profanity-laced video to his YouTube channel calling Lee "a horrible person", an "awful leader" and a "dictator". For a small part of that video (around 30 of its 519 seconds), he also mocked Christianity. He challenged Lee Hsien Loong, Lee's son and Singapore's current prime minister, to "come at me, motherfucker".

Prosecutors did so instead. Convicted of "wounding religious feelings" and obscenity, for posting a crude cartoon showing Lee Kuan Yew doing something unspeakable to Margaret Thatcher, Mr Yee was imprisoned for four weeks. Then just 16 years old, Mr Yee served two weeks in a mental asylum for adults and two weeks in an adult prison. The experience failed to deter him: he pleaded guilty a year later to insulting Islam and Christianity, and was imprisoned for six weeks.

But Mr Yee learned his lesson: late last year he boarded a plane to Chicago and applied for asylum, claiming that he would be persecuted for his political views were he to return to Singapore. On March 24th, over the objections of the American government, a court approved his application.

Immigration judges often grant asylum with a simple, spoken ruling. This one explained himself over 13 pages. He gave eight reasons why the charges of wounding religious sentiment and obscenity were simply a pretext to suppress Mr Lee's political views, including the disproportionate prison sentence handed to a young first-time offender, the fact that his first video—and the public response—focused far more on his criticism of Lee Kuan Yew than his "tangential" remarks about Christianity, and Singapore's failure to prosecute other people who had insulted Islam.

The judge accepted testimony from expert witnesses arguing that "this is the *modus operandi* for the Singapore regime—critics of the government are silenced by civil suit for defamation or criminal prosecutions." The judge accepted that Mr Yee (pictured) was legally prosecuted under Singaporean law, but ruled that his prosecution served "a nefarious purpose—namely, to stifle political dissent".

In a huffy response, Singapore's government noted America "allows…hate speech under the rubric of freedom of speech", whereas Singapore does not. "It is the prerogative of the US to take in such people," it conceded, as if Mr Yee had received asylum because of the content of his speech rather than the authorities' reaction to it. The head of Singapore's association of criminal lawyers said his members were "outraged" by the judge's "baseless and unwarranted" findings. Saying such things about a ruling of a Singaporean court, ironically, could put the speaker at risk of prosecution for contempt. ■

Suicide in India

A break for the despairing

DELHI

India decriminalises attempted suicide

GORAV GUPTA has spent his life helping the mentally ill. But when suicidal patients seek help at his psychiatric hospital in Delhi, he turns them away. Mr Gupta says he cannot handle the "legal hassle" that might ensue if they try to end their lives while in his care.

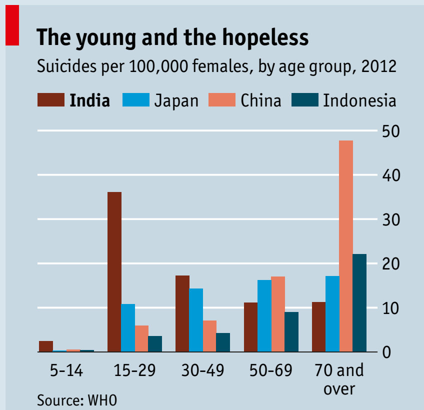
Attempted suicide, as well as "any act towards the commission" of suicide, has for years been a crime in India. But on March 27th the Lok Sabha, India's lower house, passed a package of mental-health reforms, among them one that decriminalises attempted suicide. The bill declares access to psychiatric care to be a right for all Indians, and promises a huge boost in funding to help provide it.

Policymakers in India have long argued that people driven to attempt suicide need rehabilitation. But under the previous law, they instead faced punishment: a fine and up to a year in prison. Prosecution was rare, but the threat of it to extract bribes from the families of those who attempted suicide was not, says Soumitra Pathare, who helped draft the new legislation. Others point out that the government has previously used laws against attempted suicide to lock up activists who stage hunger strikes.

The next step in mental-health reform is to allocate more money and expand the workforce, says Mr Pathare. Mental health made up just 0.06% of India's health budget in 2011; the median in countries of comparable development is 1.9%. Despite having a population more than 50 times bigger than Australia's, India has around the same number of psychiatrists (just 3,500).

Yet the reforms are unlikely to reduce India's suicide rate, which, adjusting for age, is almost double that of America. Researchers often attribute large numbers of suicides in Asian countries to "impulsive" acts in moments of crisis, rather than diagnosable mental disorders. Limiting access to pesticides, poisons that are close at hand for most rural Indians, may prevent such deaths, as it has in Sri Lanka. Unlike many countries, India has no national suicide-prevention plan. More can be done to break the taboos that prevent the depressed from opening up to friends and doctors.

The big challenge is to improve the lot of India's young, among whom suicide is the leading cause of death. Suicide rates in Asia tend to shoot up as people enter old age; in India the opposite is true. The suicide rate for women aged 15-29 is more than double that of any other country except Suriname (which has a large Indian population) and Nepal (which shares many cultural similarities). In future they, and other Indians, may find it easier to seek psychological help without fear. But the world they are living in cannot be regulated away.



Politics in South Korea

Moon also rises

SEOUL

Moon Jae-in lost the presidency to Park Geun-hye. Her ruin may be his redemption

"MY BEST quality is that I am persistent. My worst is that I am no fun." Moon Jae-in's assessment of himself in "South Korea Asks", a series of interviews published in January, is one with which many South Koreans, whether they like or loathe him, would probably agree. Most have an opinion of him. He has been in the political arena for well over a decade, as chief of staff to the late liberal president Roh Moo-hyun from 2003 to 2008; then as a presidential candidate himself in 2012, when he lost a two-way race to Park Geun-hye, by 48% to 52%.

Ms Park's term came to an early end on March 10th when the constitutional court upheld a motion parliament approved in December to impeach her. The country now faces a snap presidential election on May 9th. After almost a decade of conservative rule, the ballot looks likely to be a victory for the more socially liberal Minjoo party: its support is the highest it has ever been, at 50%. Mr Moon, who led the party until January last year, has topped the polls for president for almost three months. The latest sounding puts his support at 35% in a crowded field.

That is more than twice the level of the next-most-popular contenders, An Chul-soo of the People's Party and Ahn Hee-jung, another Minjoo candidate. Lee Jae-myung, the Minjoo mayor of Seongnam, a city south of Seoul, became known as the "fizzy drink" candidate, thanks to his tendency to make attention-grabbing remarks. He shot up the polls in December, as discontent with Ms Park peaked, before losing some of his effervescence. But he is still ahead of the best-polling conservative, Hong Joon-pyo, who musters only 8%.

The election consists of just one round, with no minimum threshold for victory. The four biggest parties are all planning to field a candidate, as are several smaller ones. Party primaries must be concluded by April 16th. In Minjoo's, which takes place in four regional stages, two of which are complete, all voters may cast ballots regardless of party affiliation. So far, Mr Moon is well ahead. And in the election proper, it is hard to imagine Mr Moon's opponents coalescing with enough enthusiasm around one of the other candidates to deny him the presidency.

If he is elected, Mr Moon would bring change. He is much more down-to-earth than Ms Park, who was criticised for her aloofness. That may be thanks to his upbringing: whereas she is the daughter of a former president, he grew up poor and was, before his political career, a human-rights lawyer. In a recent televised debate among the Minjoo candidates, Mr Moon said he would be a "Gwanghwamun president", referring to the district in the centre of Seoul where millions rallied over five months to demand Ms Park's dismissal. He would move the presidential office from the Blue House to Gwanghwamun, and open the official residence to the public. He claimed Ms Park had become embroiled in scandal because she "sealed herself off in her Blue House palace"; he promised instead to stop off at local markets on his way home from work.

A gesture Moon may soon be repeating

This appeals to the many who disliked Ms Park's imperious ways. She continues to be surrounded by 20-odd security staff in her private home, where she lives alone. Mr Moon says he would do away with the presidential guard, making do with protection from the police instead.

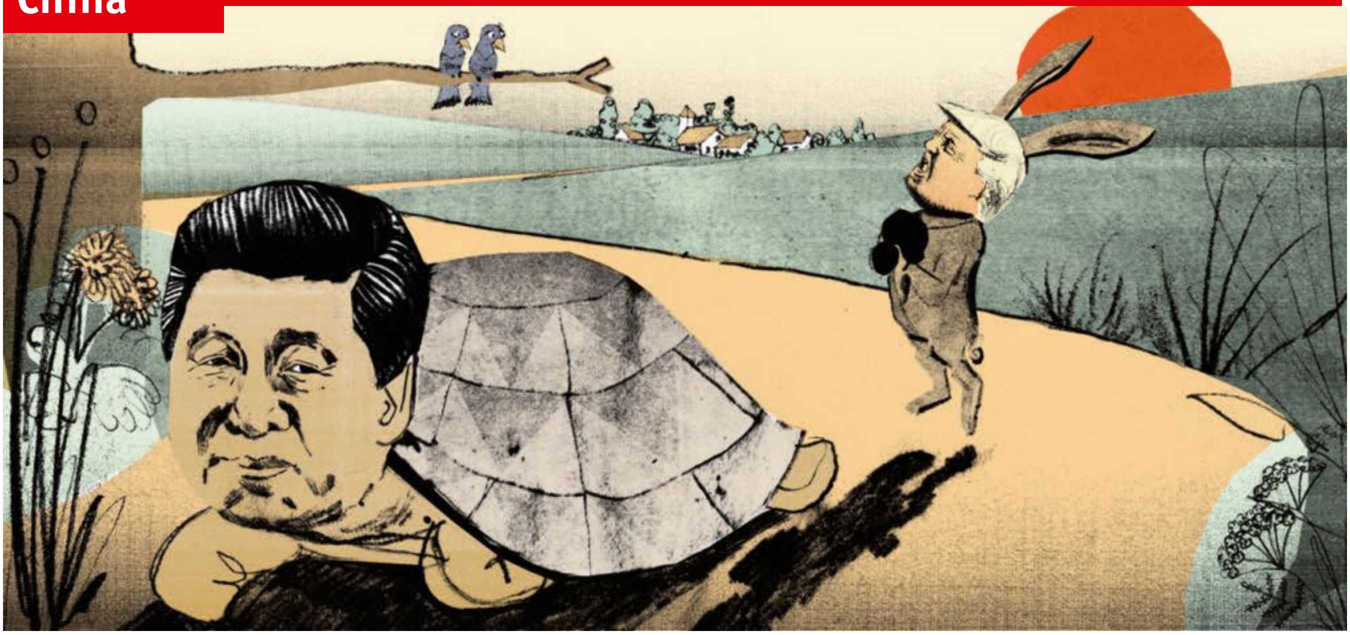
Before her impeachment, Ms Park refused to co-operate with the prosecutors; after it, she appeared to rebuke the constitutional court by saying the truth would "eventually be known". There is little question that Mr Moon, in contrast, would try to tackle the corruption and nepotism that produced the crisis, and to curb the state's special treatment of the *chaebol*, the conglomerates at the heart of the scandal. But Seo Bokyeung of Sogang University in Seoul says Mr Moon is caught between an ideological push for an overhaul of South Korea's institutions and a pragmatic appeal to a broad majority.

Mr Moon has been courting voters who were turned off by his campaign in 2012, says Hong Jong-hak, his chief policy adviser. The groundswell against Ms Park has dampened the influence of conservative media outlets; their attacks on Mr Moon have had little impact. That has allowed him to "exhibit his full colour", says Ms Seo, making much of his marksmanship during a stint in the special forces, for instance. Michael Green, a former American official, writes that, under Roh, Mr Moon was seen "as a steadying voice in an otherwise turbulent, ideological and divided Blue House". According to Gallup, a pollster, more than a third of Mr Moon's supporters call themselves "centrist".

Many on the right continue to associate Mr Moon with Roh, his liberal mentor and a beacon for South Korea's left. (When Roh jumped off a cliff to his death in 2009, as a corruption investigation closed in, it was Mr Moon who tearfully announced the news.) Hong Joon-pyo recently said his opponent's supporters were "armed with leftist ideology" and in particular claimed that they would try to appease North Korea. Yet in anticipation of an early election, Mr Moon has for some months been trying to straddle the political divide over the North, in which the left typically favours dialogue and the right, sanctions.

Mr Moon says he would visit North Korea before any other country if he thought it would help negotiations, and wants to re-open the Kaesong industrial complex, a joint manufacturing facility on the border that had been the last point of co-operation between the two governments until Ms Park shut it in 2016. He has made clear that he wants to renegotiate the terms of America's installation in South Korea of THAAD, an anti-missile system that China vehemently opposes. Yet he has been careful not to insist on its removal, calling for a "practical decision" on its deployment in consultation with America and China.

In much the same vein, Mr Moon says he wants to overcome South Korea's regional divisions. His advisers say he wants to be the first president to gain the support of both Jeolla, a liberal stronghold in the south-west, and Gyeongsang, its conservative rival in the south-east. Rather than the victory of one province over another, they explain, Mr Moon wants to bring about "a national celebration". That seems unlikely, given the febrile political atmosphere. But whether a cause for celebration or not, his election seems a foregone conclusion. ■



China and America

Tortoise v hare

Also in this section

BEIJING

Is China challenging the United States for global leadership?

AS DONALD TRUMP prepares to welcome Xi Jinping next week for the two men's first face-to-face encounter, both countries are reassessing their place in the world. They are looking in opposite directions: America away from shouldering global responsibilities, China towards it. And they are reappraising their positions in very different ways. Hare-like, the Trump administration is dashing from one policy to the next, sometimes contradicting itself and willing to box any rival it sees. China, tortoise-like, is extending its head cautiously beyond its carapace, taking slow, painstaking steps. Aesop knew how this contest is likely to end.

China's guiding foreign-policy principle used to be Deng Xiaoping's admonition in 1992 that the country should "keep a low profile, never take the lead…and make a difference." This shifted a little in 2010 when officials started to say China should make a difference "actively". It shifted further in January when Mr Xi went to the World Economic Forum in Davos, Switzerland, and told the assembled throng that China should "guide economic globalisation". Diplomats in Beijing swap rumours that a first draft of Mr Xi's speech focused on the domestic economy, an uncontroversial subject that Chinese leaders usually like to talk about abroad. Mr Xi is said to have rejected this version, and brought in foreign consultants to write one dwelling more on China's view of the world. Whether this story is true or not, the speech was strikingly international in tone and subject matter.

A day later Mr Xi made it clear whom he had in his sights. At the UN in Geneva, he talked about a "hegemon imposing its will on others" and warned America about a "Thucydides trap"—the disaster that befell ancient Greece when the incumbent power, Sparta, failed to accommodate the rising one, Athens. In February Mr Xi told a conference on security in Beijing that China should "guide international society" towards a "more just and rational new world order". Previously Mr Xi had ventured only that China should play a role in building such a world.

Your consensus is nonsense

There was a time when America was urging China to step up its global game. In 2005 Robert Zoellick, then America's deputy secretary of state, urged China to become a "responsible stakeholder" in the international system. But nothing much happened. After the financial crisis of 2008 there was excited talk in China and the West about a "China model" or "Beijing consensus". This was supposedly an alternative to the so-called Washington consensus, a prescription of free-market economic policies for developing countries. But those who promoted a China model did not say that it should be adopted by other countries, only that it was right to reject what they saw as a one-size-fits-all Washington consensus. Is there more to it this time? Is China challenging America for global leadership?

To answer that, it is important to begin with the way China's political system works. Policies rarely emerge fully formed in a presidential speech. Officials often prefer to send subtle signals about intended changes, in a way that gives the government room to retreat should the new approach fail. The signals are amplified by similar ones further down the system and fleshed out by controlled discussions in state-owned media. In the realm of foreign policy, all that is happening now.

Soon after Mr Xi's comments in Davos and Beijing, the prime minister, Li Keqiang, gave his annual "work report"—a sort of state-of-the-nation speech. It included an unusually long passage about foreign policy and mentioned *quanqiu* (meaning global) or *quanqiuhua* (globalisation) 13 times. That compares with only five such mentions last year (see chart, next page).

As is their wont, state-run media have distilled the new thinking into numerical mnemonics. They refer enthusiastically to Mr Xi's remarks on globalisation and a new world order as the "two guides". And they have begun to discuss the makings of an idea that, unlike the old one of a China model, the country would like to sell to others. This is the so-called "China solution". The phrase was first mentioned last

July, on the 95th anniversary of the founding of the Chinese Communist Party. Mr Xi's celebratory speech asserted that the Chinese people were "fully confident that they can provide a China solution to humanity's search for better social institutions". The term has gone viral. Baidu, China's most popular search engine, counts 22m usages of its Chinese rendering: *Zhongguo fang'an*.

No one has defined what the China solution is. But, whatever it means, there is one for everything. Strengthening global government? There is a China solution to that, said the *People's Daily*, the party's main mouthpiece, in mid-March. Climate change? "The next step is for us to bring China's own solution," said Xie Zhenhua, the government's special climate envoy, in another newspaper, *Southern Metropolis*. There is even a China solution to the problem of bolstering the rule of law, claimed an article in January in *Study Times*, a weekly for officials. Multi-billion-dollar investments in infrastructure in Central Asia are China's solution to poverty and instability there. And so on. Unlike the China model, which its boosters said was aimed at developing countries, the China solution, says David Kelly of China Policy, a consultancy, is for everyone—including Western countries.

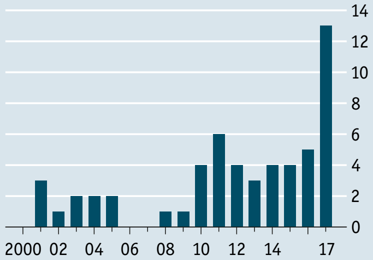
This marks a change. Chinese leaders never praised the China model; its fans were mainly Chinese academics and the country's cheerleaders in the West. (Long before the term became fashionable, Deng advised the president of Ghana: "Do not follow the China model.") Most officials were wary of it because the term could be interpreted as China laying down the law to others, contradicting its policy of not interfering in other countries' internal affairs. In contrast, it was Mr Xi himself who broached the idea of the China solution. His prime minister included it in his work report. China now seems more relaxed about bossing others around.

This reflects not only the determination of the leadership to play a bigger role, but a growing confidence that China can do it. China's self-assurance has been bolstered by what it sees as recent foreign-policy successes. Last year an international tribunal ruled against China's claims to sovereignty in much of the South China Sea. But China promptly persuaded the Philippines, which had brought the case, implicitly to disavow its legal victory, eschew its once-close ties with America and sign a deal accepting vast quantities of Chinese investment. Soon after that Malaysia, another hitherto America-leaning country with maritime claims overlapping those of China, came to a similar arrangement. China's leaders concluded that, despite the tribunal's ruling, 2016 had been a good year for them in the South China Sea.

It was certainly a notable one for Mr Xi's

Going global

China, mentions of *"quanqiu"* (global) or *"quanqiuhua"* (globalisation) in the government's annual work report



Source: Government reports

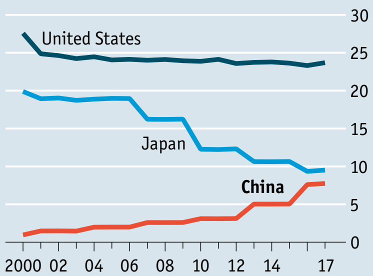
most ambitious foreign policy, called the "Belt and Road Initiative". The scheme involves infrastructure investment along the old Silk Road between China and Europe. The value of contracts signed under the scheme came within a whisker of $1trn last year—not bad for something that only started in 2013. Chinese exports to the 60-odd Belt and Road countries overtook those to America and the European Union. In May Mr Xi is due to convene a grand summit of the countries to celebrate and advertise a project that could one day rival transatlantic trade in importance.

But talk of "guiding globalisation" and a "China solution" does not mean China is turning its back on the existing global order or challenging American leadership of it across the board. China is a revisionist power, wanting to expand influence within the system. It is neither a revolutionary power bent on overthrowing things, nor a usurper, intent on grabbing global control.

China is the third-largest donor to the UN's budget after America and Japan (see chart, below) and is the second-largest contributor, after America, to the UN's peacekeeping. Last year China chaired a summit of the Group of 20 largest economies—it has an above-average record of complying with the G20's decisions. Recently it has stepped up its multilateral commitments. In 2015 it secured the adoption of the yuan as one of the IMF's five reserve currencies. It has set up two financial institutions, the Asian Infrastructure Investment Bank and the New Development Bank, which are modelled on traditional ones such as the World Bank. Global rules on trade and finance, it seems, are too important for Mr Xi not to defend.

Ponying up

Net contributions to UN general budget
% of total



Source: United Nations

China is becoming a more active participant in the UN, but it is not trying to dominate it. It reacts to, rather than initiates, sanctions policy towards North Korea. And despite its own extensive anti-terrorist operations at home, it shows little interest in joining, let alone leading, operations against Islamic State.

There are domestic constraints on Mr Xi's ambitions. China's vast bureaucracy is resistant to change in foreign policy, as in everything else. During a recent trip to Australia the foreign minister, Wang Yi, said China had "no intention of leading anybody". He was not contradicting Mr Xi, but neither was he echoing the president's desire to guide a new world order. Ding Yifang of the Institute of World Development, a think-tank in Beijing, is similarly cautious about the China solution. "We don't have universal ideals," he says. "We are not that ambitious."

Globalism with Chinese characteristics

So what might China's unassuming new assertiveness mean in practice? A template can be found in climate-change policy. China was one of the main obstacles to a global climate agreement in 2008, but now its words are the lingua franca of climate-related diplomacy. Parts of a deal on carbon emissions between Mr Xi and Barack Obama were incorporated wholesale into the Paris climate treaty of 2016. China helped determine how that accord defines what are known as "common and differentiated responsibilities", namely how much each country should be responsible for cutting emissions.

As chairman of the G20 last year, Mr Xi made the fight against climate change a priority for the group. But China's clout at that time was bolstered by its accord with America. Now Mr Trump is beginning to dismantle his predecessor's climate policies. Li Shou of Greenpeace says China is therefore preparing to go it alone as Mr Xie, the climate envoy, said in January that it was prepared to do. It may be that a "China solution" to climate change will be the first practical application of the term.

Soon after Mr Xi's speech in Davos, Zhang Jun, a senior Foreign Ministry official, put his finger on China's changing place in the world. "I would say it is not China rushing to the front," he told a newspaper in Hong Kong, "but rather the front-runners have stepped back, leaving the place to China." But officials have far fewer qualms than Deng did about being at the front. "If China is required to play a leadership role," says Mr Zhang, "it will assume its responsibilities." ■

Banyan | Lovin' Hong Kong

The territory's next leader will struggle to satisfy both her masters and the public

IN THREE months, celebrations will take place at Hong Kong's harbour-front convention centre to mark the 20th anniversary of the territory's momentous return from Britain to China. The rumour is that President Xi Jinping himself will attend. What was striking about the handover ceremony on July 1st 1997 was that Hong Kong's people were not represented. They were mere bystanders—or else helping with the catering. From the start, Hong Kongers were symbolically put in their place. At the convention centre, the new flag chosen for them was raised on a lower pole than that of the bigger flag of the People's Republic of China. Both flags snapped rigidly to attention in a manufactured breeze.

The flags will fly again at the anniversary celebrations, and Hong Kong people will get a further reminder of their place when the territory's next leader is sworn in, promising to *ai guo, ai gang*—love the motherland and love Hong Kong (in that order, and in Mandarin—not the local Cantonese). Carrie Lam was the resounding victor among three candidates for the post of chief executive in an election on March 26th, with two-thirds of the votes. Yet out of a population of 7.3m, the only ones with a vote were the fewer than 1,200 members of a committee stacked with supporters of the Communist Party in Beijing.

When the vote's outcome became clear (again in the convention centre), Mrs Lam's middle-aged supporters in the public gallery cheered and unfurled Chinese flags. They looked suspiciously like the delighted crowds that appear in mainland China when bigwigs meet the public. Mrs Lam is a capable administrator who was formerly the head of the civil service, but she lacks the common touch. Her image is of someone keen to please the masters in Beijing. Opinion polls suggested that even among the three carefully vetted candidates allowed to run, she was far less popular than the former finance secretary, John Tsang. He is more personable and wants the territory to have more democracy than it has been allowed. And so a question hangs over Mrs Lam: how will she command the support of the public?

The question has dogged all three chief executives to date, but none more so than the outgoing one, "C.Y." Leung Chun-ying. Cool and aloof, he has never been able to shake off suspicions that he is a secret member of the Communist Party. Some of his policy measures, such as steps taken to improve the lot of the elderly, are under-appreciated. But his main mission has been political: to keep in check much of what makes Hong Kong distinct.

In particular, he faced down the huge "Occupy" or "Umbrella" protests in 2014 that grew in response to rules handed down by China's legislature for how the chief executive's election, just past, should be organised. The Basic Law, the mini-constitution drafted for Hong Kong before the handover, promised universal suffrage by 2017. The new rules envisaged that, too. But they also insisted on a process for vetting candidates that was clearly intended to keep democratic types out of the running. Hong Kong's semi-democratic legislature, called Legco, vetoed the package.

Mrs Lam comes into office under the older, even more restrictive rules. It does not help that she was the civil servant in charge of the political-reform process that culminated in the Umbrella movement. It has always been an impossible task to have to balance the wishes of officials in Beijing and those of many people in Hong Kong. Now Mrs Lam has another tough assignment: running a territory bitterly divided between those who want a lot more democracy and those who prefer not to confront China.

It may appear that China seeks for Hong Kong a colonial status remarkably similar to that under British rule. Mrs Lam herself rose through the civil-service ranks under the British, and is steeped in the traditions of professionalism and integrity that the British system imbued. There is another throwback to the past, too, in the fact that Hong Kong's tycoons united behind Mrs Lam (they disliked Mr Leung). For most of its rule, Britain allowed business interests in the colony to hold sway.

But much has changed. The last governor, Chris Patten, encouraged democracy. The Communist Party increasingly reaches into the territory to oppose it. In September elections for seats in Legco ushered in several young radicals who, beyond calling for the autonomy Hong Kong was promised, espouse a degree of "localism" not far short of independence. In an unprecedented intervention, the central authorities ruled that those who deliberately garble their swearing-in oaths must not be allowed to take up their seats. The radicals had committed that sin. Two have been barred; others look likely to be booted out as well.

One country, two identities

Another development since colonial times, points out a Legco member, Eddie Chu Hoi-dick, is the Communist Party's increasing manipulation of its sympathisers in Hong Kong: to cheer Mrs Lam's victory, for example, or more worryingly to disrupt activities by adherents of Falun Gong, a spiritual movement which is banned as a cult on the mainland but is legal in Hong Kong. Even Hong Kong's triads appear to be called upon for patriotic service—for instance, countering the Umbrella protests with violence.

Mr Chu and others are nervous about such developments. Many Hong Kongers recall Mao's Cultural Revolution, when the Communists' supporters in Hong Kong were directed to spread chaos with protests, riots and, before long, bombs. Yet instead of undermining the colonial apparatus, the chaos of 1967 led people to assess what they deemed to be precious about Hong Kong. For the first time a Hong Kong identity formed, in conscious contradistinction to what Communist China represented. Today, on the mainland, the chaos and violence of those days are gone. But unbending authoritarianism remains, and Hong Kong's identity still evolves in opposition to it. That is why loving both the motherland and Hong Kong often involves contortions. China's leaders should get used to it. ■

Also in this section

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Tax reform

The red and the brown

Almost everyone agrees that America's tax system is too complicated. That consensus does not mean it will be easy to reform

TO BRING House Republicans good luck in passing their replacement for the Affordable Care Act, Representative Pete Sessions of Texas wore a brown suit to the chamber, in honour of Ronald Reagan. After the vote was pulled from the House floor, Republicans in Washington moved on to the next big thing, which is tax reform. They may be about to prove again that dressing like the Gipper is easier than governing like him. Though there has long been some bipartisan agreement that both corporate and individual income-tax rates could be cut and loopholes eliminated, Congress has not pulled off a tax reform of the type now being contemplated since 1986. And that one almost failed.

Compared with other rich countries, the most striking thing about tax in America is its complexity. Since that 1986 tax reform the number of carve-outs in the tax code has multiplied, part of a bigger change in the way Congress does business. Where once the passage of bills was smoothed by including federal money for pet projects in congressmen's districts, tax breaks are now the preferred lubricant. The growth of the federal tax code, which has tripled in length in the past 30 years, is often cited as proof that the country is overtaxed. But its size reflects all those special tax breaks. For individuals, the exemptions turn a tax system whose headline rates are redistributive, by rich-world standards, into one which is not.

The same is true of company taxation. The top marginal rate, of 39%, is an outlier by international standards (the OECD average is 25%). In some ways this was made worse by the 1986 reform, which shifted taxes from individuals onto companies, which at the time seemed less able to avoid them. Although the high top rate may deter investment, it does not reflect the tax bill American companies end up paying. Between 2006 and 2012, two-thirds of companies paid no federal tax, according to a study by the Government Accountability Office (GAO). Large companies that were profitable paid a federal tax of 14% on their net income between 2008 and 2012, according to the GAO, a rate that rose to 22% once state and local taxes were included. In the case of both individual and company taxes, Republicans tend to look at the headline rates and agree they need to come down, which is the basis for the optimism among their caucus that tax is easier than health care. But those rates are not what they seem.

Bringing them down would require some combination of closing exemptions, increasing the deficit and borrowing. The House tax plan drawn up by Paul Ryan, the Speaker, and Kevin Brady, who chairs the Ways and Means Committee, proposes getting rid of some exemptions granted to taxpayers but leaves two of the biggest—the deductions for mortgage interest and for charitable giving—alone. It is also silent on what would be one of the hardest parts of a tax reform: the deduction for state taxes. Some states, like Florida, have no personal income tax. Floridians therefore do not receive a state income-tax deduction when they pay federal income tax. California does have a state income tax, with a top marginal rate of 13.3%. Its representatives are therefore keen on the deduction. The Ryan-Brady plan also counted on a $1trn saving from repealing Obamacare, which will not now materialise, and means more deductions would have to be eliminated.

This is where the politics is hardest, and lobbyists have the greatest purchase. Over 230 House Republicans have signed a pledge not to vote for any tax rise, giving them cover to reject a bill that offends constituents or donors by killing a tax break.

That leaves cutting taxes by cutting spending, or adding to the debt and deficit. Republicans tend to worry less about prudent budgeting when they control the White House. The next indicator of whether this pattern will hold comes at the end of April, the deadline for a new bill to fund the federal government's operations. A shutdown then would suggest there are enough deficit hawks among the House Republicans to make an unfunded tax cut hard (in 1986, Reagan threatened to veto any tax reform that reduced government revenue). If there is no shutdown, as seems likelier, then assume that the party will be content to make the deficit great again.

There are limits to how deep the cuts could be, though. Under current congressional rules, Democrats have enough members in the Senate to force Republicans to pass a bill that does not increase the deficit after ten years. Republicans passed just such a time-limited tax cut when George W. Bush was president. A repeat of that, perhaps with some favourable tax treatment for firms that repatriate foreign profits, is the lowest common denominator on tax policy for the Republican caucus. Expect something more like that. ■

Environmental policy

Down and dirty

The president's executive orders on climate change will not do much for coalminers, but they could harm the planet anyway

"YOU'RE going back to work," Donald Trump told miners on March 28th. Gathered in the Environmental Protection Agency (EPA), they saw him sign an executive order to review and revise Barack Obama's flagship energy policy, the Clean Power Plan. Among other measures, the order also requests the reversal of a moratorium on coal-leasing on federal lands and dispenses with rules to curb methane emissions from oil and gas sites. It rolls back internal rules for government agencies on how to tot up the social costs of environmental damage, too.

The Clean Power Plan was unveiled in August 2015. It directed states to work out how to cut emissions from power plants to avoid pollution equivalent to the exhausts from 80m cars by 2030. The policy was meant to get America almost halfway to meeting its pledge to cut emissions by 26-28% by 2025, as measured against 2005 levels, for the Paris agreement (which seeks to limit global warming to "well below" 2°C above pre-industrial temperatures). But legal challenges from 27 states and several companies saw the Clean Power Plan put on hold by the Supreme Court a little over a year ago.

Because it has never been implemented, the plan's demise hurts less than environmental campaigners suggest. Around 30 states already require power companies and utilities to increase their use of renewable energy over the next decade. And states with economic heft, such as California and New York, are formidable climate champions. The Golden State has planned for its emissions to fall by 40%, against 1990 levels, by 2030. Even in Republican strongholds such as Texas and Oklahoma, congressional subsidies have helped wind projects to thrive.

As America's energy mix changes, new coal-leasing on federal lands is unlikely to bring back jobs as Mr Trump claims. In 2006, coal generated 49% of America's electricity; by 2015 it provided 30%. Six coal-fired plants have closed since the presidential election. And as for jobs, efficiency, rather than regulation, lies behind most of the losses. America produces almost 50% more coal than it did in 1940, but employs just 13% or so of the miners, according to the Bureau of Labour Statistics.

Of the other measures, killing rules to limit methane emissions from oil and gas sites is particularly worrying. Carbon dioxide stays in the atmosphere for more than 500 years; methane for only 12. But methane is many times more potent during that time. And perhaps as much as 2.5% of the stuff flowing through American supply chains escapes. If current plans are approved in Congress, the EPA will have far less cash with which to detect big spurts in the greenhouse gas, like the one which occurred last year in Los Angeles.

Squashing the EPA pleases those conservatives who believe the agency has overreached. But Mr Trump stopped short of authorising two other policies: instructing the EPA to reconsider its "endangerment finding" of 2009—which lets it regulate carbon-dioxide emissions in line with an earlier Supreme Court ruling—and withdrawing from the Paris agreement.

Under that deal, countries need to decide on how to measure the impact of their plans to reduce carbon-dioxide emissions by 2018, and then set themselves new targets by 2020. Both processes will be less open and less exacting if the world's second-largest polluter neither helps lead them nor bothers to meet its commitments. Nevertheless, the falling cost of renewables and the severity of urban air pollution are among reasons why countries such as India and China will continue down a greener path anyway. That may provide a little comfort to the scientists and officials whose own efforts have been undone with a stroke of Mr Trump's pen. ■

Unaccompanied miner

Farming in the Midwest

Rhyme time

CHICAGO

How bad is this farm slump?

THE farm crisis in the 1980s left a deep mark on the Midwest. It was the worst downturn in farming since the Depression. After an unprecedented boom in demand for wheat ended, thousands of farmers faced ruin. Agricultural banks and makers of farming equipment were washed away by a wave of bankruptcies. Midwestern farmers look at parallels with the 1980s whenever their cyclical industry is heading downwards. Prices for corn, wheat and other agricultural commodities started to fall after their peak in 2013, since when the comparison has been raised again.

Exports of wheat and soyabeans nearly tripled in the 1970s, thanks to the weakness of the dollar after America abandoned the gold standard in 1971, and the Russian wheat deal in 1972, when America sold the Soviet Union about 440m bushels of wheat for around $700m. Until then the Soviets had imported hardly any American foodstuffs. The sudden bonanza was such that farmers bought more and more land, with more and more debt. This went well until interest rates jumped up, the dollar strengthened and exports to the USSR were halted after the invasion of Afghanistan. Farmers' biggest asset, land, dropped in value, which in turn increased their liabilities until they became so big that they could not stay in business.

The latest farming boom started in 2006, when demand for crops such as maize (corn), sugar cane and soyabeans generated record profits thanks to demand for (maize and sugar-based) ethanol, and the then skyrocketing Chinese economy. American farmers again started to farm more land. They also used more yield-boosting technology—as did farmers in other parts of the world. A record 179m productive acres were brought in worldwide since 2006, says Dan Basse at AgResource, a research firm. Things started to turn sour after a year of record profits in 2013, when the rapidly growing global supply of grains outstripped demand, the appetite for ethanol stagnated and the Chinese economy slowed down. American net farm revenue dropped from $120 billion in 2013 to an estimated $62 billion this year.

But unlike the previous big crisis, the balance-sheets of many farmers are robust. Moreover, interest rates are still low and demand remains steady even if it isn't growing much any more. And although the values for farmland dropped last year for only the second time since the 1980s, ▸▸

2 these drops were far less dramatic than they were back then: the value of land in Indiana, for instance, fell nearly 60% between 1981 and 1986. "This boom was not as strong and we don't anticipate this crisis to be as severe as in the 1980s," says Christopher Hurt at Indiana's Purdue University.

Even so, farmers have reason to be anxious. The two things that matter most to them, weather and government policy, are unpredictable. "Monkeying around with trade deals makes us nervous," says Brent Gloy, who farms in south-western Nebraska. America exports 20% of its farm production; its top export markets are Canada, China and Mexico.

Populist politics were born in a Midwestern farm-crash at the end of the 19th century. That 21st-century populism should come along at the same time as an agricultural slump is further proof of what Mark Twain knew: history rhymes. 7

Trump and Russia

Never-ending story

ATLANTA

One particularly disturbing outcome to the election-meddling saga—that it is never concluded—may be the likeliest

CHARGES of collusion over an inquiry into collusion, probes and counter-probes: the swirl of hearings and allegations stemming from Russian meddling in the presidential election is becoming wearyingly hard to follow—which, for some, may be the point. This week, after a bizarre episode in which Devin Nunes, chairman of the House Intelligence Committee, met a source on the White House grounds, then rushed to brief Donald Trump about his supposedly explosive findings, senior Democrats, and even the odd Republican, called for him to recuse himself from his committee's investigation. (He refused.) The stunts and partisan rows make it seem worryingly unlikely that what are, in effect, whispers of treason can be either substantiated or dispelled.

Be clear what the real allegation is, and what it is not. It is not that Vladimir Putin stole the election. No sane observer thinks the Kremlin persuaded 63m Americans to vote for Mr Trump. Even the milder version of that claim—that Russia's propaganda and its hacking of Democratic e-mails tipped the result in tight swing states—cannot be either confirmed or refuted. That unverifiability may explain why Mr Trump and his supporters like to pretend this is the issue at stake; likewise they stress that Russia's electronic interference did not alter the election tallies. The real fear is narrow and different. As James Comey, director of the FBI, told Mr Nunes's committee on March 20th, it is that individuals in Mr Trump's campaign may have co-ordinated with the Russians in what, according to America's intelligence agencies, was a bid to help him win the presidency. That would be a scandal whatever impact the Russian antics had. Or it ought to be.

The suspicion is not baseless. To recap the mounting, if circumstantial, evidence: Michael Flynn misled Mike Pence, the vice-president, about his chats during the presidential transition with Sergei Kislyak, the Russian ambassador. Mr Flynn said they didn't discuss sanctions, but they did; since he was forced to resign as national security adviser, more details have emerged about his paid speechmaking for Russian companies (and lobbying for Turkish interests). Paul Manafort stopped being Mr Trump's campaign manager amid consternation over his ties to Viktor Yanukovych, the disgraced ex-president of Ukraine who has been given refuge in Russia. According to the Associated Press, Mr Manafort was once retained by Oleg Deripaska, a tycoon close to the Kremlin, allegedly undertaking "to benefit the Putin government". Mr Deripaska has denounced that report as a "malicious assertion and lie".

Meanwhile Roger Stone, a longtime associate of Mr Trump, occasionally seemed to have advance notice of Democratic e-mails published last year by WikiLeaks, the portal through which, according to Mr Comey and others, Russian hackers released their loot. Mr Stone has admitted 1

College protests

Bicker warning

Richer, more academic universities see more attempts to silence speakers

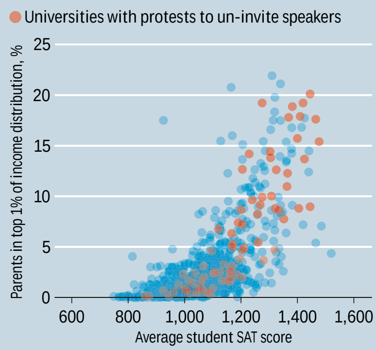
YALE UNIVERSITY is perhaps the epicentre of the campus activism so voguish today. Two professors stepped down from pastoral roles last year after a controversy about whether students should police their own offensive Halloween costumes, rather than letting the university do it for them, provoking protests from hundreds of students. Yale is currently debating whether to discontinue using the word "freshman" in favour of the more gender-neutral term "first-year".

That Yale is also one of America's most prestigious universities is not coincidental. Across the country, colleges with richer, high-achieving students are likelier to see protests calling for controversial speakers to be disinvited (see chart). Recent flare-ups at Middlebury College, which tried to prevent Charles Murray, a conservative writer, from speaking and left the professor interviewing him with a concussion, and at the University of California, Berkeley which had to cancel a speech by Milo Yiannopoulos, an over-exposed provocateur, are but the tip of a larger pile.

Following the work of Richard Reeves and Dimitrios Halikias of the Brookings Institution, *The Economist* analysed data on student attempts to disinvite speakers since 2013 collected by the Foundation for Individual Rights in Education, an advocacy group. Matching those numbers with information on SAT scores and wealth, measured as the fraction of students with one-percenter parents,

Cheque your privilege

United States, selective universities, 2013-16



Sources: Brookings Institution; Equality of Opportunity Project; FIRE; US Department of Education

shows statistically significant correlations. Even among selective universities, those with better-credentialed and wealthier students were likelier to mount protests. They were also likelier to mount successful attempts to block speakers.

This could be because elite students attract controversial speakers more often. Mr Reeves, who is also a biographer of John Stuart Mill, reasons otherwise. America's best universities contain bubbles in which "certain left-of-centre tenets, largely around identity politics, take on the weight of an orthodoxy," he says. Mill, who wrote that squashing freedom of expression results in "a kind of intellectual pacification" that sacrifices "the entire moral courage of the human mind," wouldn't have liked it very much.

being in indirect contact with Julian Assange, WikiLeaks' founder, and exchanging messages with Guccifer 2.0, an online persona considered a front for Russian spooks. Carter Page, once named as an adviser by Mr Trump, made an interestingly timed trip to Moscow last July. Jeff Sessions, the attorney-general, recused himself from all Russia-related inquiries after failing to disclose his own meetings with Mr Kislyak at his confirmation hearing. During the transition Jared Kushner, Mr Trump's son-in-law and *consigliere*, met both Mr Kislyak and (it has emerged) Sergei Gorkov, the head of a Russian state bank placed under sanctions by Barack Obama's administration. The *New York Times* has reported further leads from intercepted Russian communications and friendly European spies.

As the White House says, nothing in the public domain so far amounts to collusion. All those involved deny wrongdoing; many have offered to testify to Congress. Contact with foreign diplomats is not a sin. To some, joining these unrelated dots into a picture of conspiracy is a 21st-century form of reds-under-the-bed hysteria.

The trouble is, some of the denials—such as the absurd protestation by Sean Spicer, Mr Trump's press secretary, that Mr Manafort "played a very limited role" in the campaign—have made the picture look worse. So have the attempted distractions, chiefly Mr Trump's debunked ravings about Mr Obama wiretapping Trump Tower. After Mr Nunes's strange visits to the White House, during which he says he acquired, then relayed, information that some in the Trump camp had been caught up in legal monitoring of foreign targets, Mr Trump said he felt "somewhat" vindicated over the wiretapping nonsense—though even Mr Nunes has repudiated it.

In short, Mr Trump's team are behaving like men with something to hide. At the bottom of the hunch is his own rhetoric: a candidate, and now a president, who has been quick to criticise or insult judges, Republican senators and his own intelligence services, but never Mr Putin. This despite the Russian president's inviting status as a bogeyman, especially among Republicans, and despite the embarrassment that Mr Trump's affinity for him has entailed.

The rationale offered by the president's advisers is that his long-standing aim is to do a deal with Mr Putin in American interests, by, for example, fighting Islamic State together. Any such scheme may now be scuppered: a Republican member of Congress said this week that a "grand bargain" with Russia was "politically impossible". Whatever its merits—and they are slim—it is a stretch to believe Mr Trump farsightedly nurtured the plan at grave political cost to himself. He has not extended the same politesse either to erstwhile allies, such as Germany, or to adversaries, such as China.

Hear no lies

So long as Mr Trump's finances remain opaque, the role of Russian money in his businesses—and his decision-making—will be a source of speculation. Maybe he genuinely admires Mr Putin. Another explanation for his bilious rage over the Russian story, which he calls "fake news", is that he loathes slights of any kind: like the underwhelming crowds at his inauguration, the focus on Russian meddling seems to wound his pride. At the moment, the line between psychology and skulduggery is impossible to draw definitively. Nor do the ongoing inquiries offer early hope.

Mr Nunes, a former aide to Mr Trump, seemed to dismiss the idea of collusion before his committee's hearings began; he and his fellow Republicans have since concentrated on excoriating the leaks that showed up Mr Flynn and others. He postponed a hearing this week that was to feature Sally Yates, whom Mr Trump fired as acting attorney-general in January. The *Washington Post* reported that the White House tried to shut down her testimony; Mr Spicer denied that. In any case, the committee's work has stalled. The parallel Senate inquiry is less tarnished: its chairman, Richard Burr, and Mark Warner, his Democratic counterpart, put up a united front at a press conference on March 29th.

Otherwise there is the FBI, which Mr Comey said had been on the case since last July. Counter-intelligence is part of its remit. It has, of course, looked into abuses in the White House before, from Richard Nixon's, to bribery allegations against Spiro Agnew, his vice-president, to the Iran-Contra affair during Ronald Reagan's presidency and the White House Travel Office during Bill Clinton's. But the confluence of these two tasks—a counter-intelligence operation that has dragged in the denizens of the White House itself—is unprecedented. It is an extraordinarily delicate job, which Mr Comey hinted may take many months.

So might the other solutions urged by those impatient with the multiple existing ones. The options include an independent commission, like that which examined the terrorist attacks of September 11th 2001, or a congressional panel like the Church Committee, which peered into intelligence-service methods in the 1970s. Both would require bipartisan consent. Some Democrats are agitating for a special prosecutor, who since Mr Sessions's recusal would be appointed by his deputy. The history of such assignments suggests that fix would not be quick, either.

All inquiries, current and putative, face two further problems. First, conclusive proof may be elusive. (At least for America: if it exists, the Russians may have it.) Eyebrow-raising meetings may come to light, but not their content. Russian power is slippery and tentacular, often operating through businessmen instead of officials. Especially given the business interests of Mr Trump's team, splitting treachery from mere venality may be tough. The second problem arises from a purely domestic pathology, for which Mr Putin can take no credit: feverish partisanship may lead Americans to differ on the gravity of whatever is found. For example, to some Republicans tacit foreknowledge of e-mail releases might seem a price worth paying for seeing off Hillary Clinton.

Mr Trump may be fully exonerated. The opposite may happen. But there are two other, dismaying possibilities. His administration may be condemned in the eyes of some Americans for tactics others consider forgivable. Or—perhaps most likely of all—it may be stained, but not capsized, by never-ending inquiries and suspicions that are neither proven or allayed. ■


Nice whitewash

Lexington | Now for the hard part

Donald Trump redrew the political map to win office. He now looks lost

IF DONALD TRUMP were a European politician, the structural flaws that threaten his presidency would be easy to see. If President Trump were *sua Eccellenza*, his great challenge would be the mismatch between the electoral coalition that (narrowly) carried him to victory and the collection of parties that he needs in order to pass laws. It is not hard to imagine the factions that might elect a Signor Trump in a country with dozens, rather than two, major political parties. On the right, his most ardent voters might come from a Law and Order Party, a Small Business Party, and a Christian Nationalist Party (with notably fierce views on Muslim immigration). Redrawing the electoral map, he might also attract votes from left-leaning parties hostile to globalisation and happy with hefty doses of state intervention: a Pensioner's Union, perhaps, and an Agrarian and Industrial League.

Alas for *il Presidente* Trump, in this thought-experiment an overlapping but subtly different coalition won the most recent congressional elections: a "Republican" majority dominated by a pro-business Conservative Party, a National Party (led by defence hawks), a Christian Values Party and a shrink-the-government Taxpayers' League. The members of that congressional majority are both supportive of the president and wary of him. They are also quite capable of voting down his proposals—not least because each faction had a presidential candidate it preferred.

In the real world of Washington, DC, in the spring of 2017, some Trump aides describe tensions between their boss and congressional Republicans in strikingly similar terms. "The Republican Party thinks they won the election with Donald Trump. No, Donald Trump won the election despite the Republican Party," says a White House official.

America's two-party system has long concealed regional and political divisions. Trump admirers go further. They argue that the president has redrawn the partisan map of America in interesting and potentially constructive ways, summoning into being a new centre-right coalition that feels the pain of millions of former Democratic voters, notably working-class whites from "forgotten" rustbelt towns and counties. The political map that elects members of Congress reflects older partisan geographies.

Such Trump admirers have a point. They are correct that 2016 was a year in which old electoral coalitions crumbled and potential new ones came into view. They are also right that the two main party establishments feel tired, disunited and out of touch. If members of Congress were willing to learn the rules of coalition politics, an optimist might see opportunities for creative politicians to create fresh alliances and solve some intractable policy puzzles.

Neither Congress nor the president seem willing to learn the ways of fragmented coalition politics, Europe-style. Rule One is that no faction gets everything it wants—success requires understanding the trade-offs that lie at the heart of every hard dispute, and trying to give each faction a win. Today's Congress, under unified Republican control, sees politics differently. On March 24th the Speaker of the House of Representatives, Paul Ryan, had to abandon a bill that began the repeal of the Obamacare health law, after his Republican majority split three ways.

One lesson of the health bill debacle is that too many members of Congress and of the Republican Party are still playing winner-takes-all politics. Mr Ryan blames the failure of the House bill to repeal and replace Obamacare on the "growing pains" of the first unified Republican government in ten years, and in particular the hard-right House Freedom Caucus of about 30 members who remained in "opposition-party mode". True, the Freedom Caucus are absolutists, but others also share blame.

Mr Trump has spent months telling voters that hard problems are easy to solve and that trade-offs can be avoided. The politics of health care divide Americans. They expose gulfs between those who favour more redistribution or less. They split those who think adults should be free to choose lavish, skimpy or no insurance, from those who think that medical care is a right which government should guarantee. Mr Trump wishes such divisions away, promising a "terrific" Obamacare replacement that would cost less and offer "insurance for everybody".

Populism collides with reality

The plan written by Mr Ryan and endorsed by Mr Trump did not cover everybody. It created winners (the rich, the young and healthy) and a lot of losers (older, sicker folk, and most of the additional 24m people who, it is estimated, would be uninsured by 2026). Democrats and moderate Republicans from swing districts called it shockingly ungenerous, while hardline conservatives denounced it as another government handout. Rather than broaden its appeal, Mr Trump and Republican leaders made the bill more extreme to woo hardliners, stripping away rules stating that policies must cover such basic needs as hospitalisation or preventive care, including vaccines and cancer screening. When factions remained dug in, Mr Ryan and Mr Trump pulled the bill.

Trump supporters cannot gloat. When called on to honour his health-care promises, the president lacked the patience to study his own plan and negotiate. Instead, reports have him asking aides: "Is this really a good bill?" even as he demanded a take-it-or-leave it vote in the House. When that failed, Mr Trump blamed the far right, while predicting that soon Obamacare "will explode", forcing Democrats to help craft a replacement.

The next item on Mr Trump's agenda, tax reform, is just as divisive. Again the president brags that he will pull off "really fantastic" tax cuts that leave all sides happy—even as special interests and factions gather to prove him wrong. With a better man in the White House and a lot of luck this could be a remarkable moment, in which new coalitions are formed and political logjams broken. That moment is being squandered. ■

Cuba

Stuck in the past

Also in this section

HAVANA

What the tourist industry reveals about the communist country

TOURISTS whizz along the Malecón, Havana's grand seaside boulevard, in bright-red open-topped 1950s cars. Their selfie sticks wobble as they try to film themselves. They move fast, for there are no traffic jams. Cars are costly in Cuba ($50,000 for a low-range Chinese import) and most people are poor (a typical state employee makes $25 a month). So hardly anyone can afford wheels, except the tourists who hire them. And there are far fewer tourists than there ought to be.

Few places are as naturally alluring as Cuba. The island is bathed in sunlight and lapped by warm blue waters. The people are friendly; the rum is light and crisp; the music is a delicious blend of African and Latin rhythms. And the biggest pool of free-spending holidaymakers in the western hemisphere is just a hop away. As Lucky Luciano, an American gangster, observed in 1946, "The water was just as pretty as the Bay of Naples, but it was only 90 miles from the United States."

There is just one problem today: Cuba is a communist dictatorship in a time warp. For some, that lends it a rebellious allure. They talk of seeing old Havana before its charm is "spoiled" by visible signs of prosperity, such as Nike and Starbucks. But for other tourists, Cuba's revolutionary economy is a drag. The big hotels, majority-owned by the state and often managed by companies controlled by the army, charge five-star prices for mediocre service. Showers are unreliable. Wi-Fi is atrocious. Lifts and rooms are ill-maintained.

Despite this, the number of visitors from the United States has jumped since Barack Obama restored diplomatic ties in 2015. So many airlines started flying to Havana that supply outstripped demand; this year some have cut back. Overall, arrivals have soared since the 1990s, when Fidel Castro, faced with the loss of subsidies from the Soviet Union, decided to spruce up some beach resorts for foreigners (see chart, next page). But Cuba still earns less than half as many tourist dollars as the Dominican Republic, a similar-sized but less famous tropical neighbour.

With better policies, Cuba could attract three times as many tourists by 2030, estimates the Brookings Institution, a think-tank. That would generate $10bn a year in foreign exchange, twice as much as the island earns now from merchandise exports. Given its colossal budget deficit, expected to hit 12% of GDP this year, that would come in handy. Whether it will happen depends on two embargoes: the one the United States imposes on Cuba and the one the Castro regime (now under Fidel's brother, Raúl) imposes on its own people.

The United States embargo is a nuisance. American credit cards don't work in Cuba, and Americans are not technically allowed to visit the island as tourists. (They have to pretend they are going for a family visit or a "people-to-people exchange".) Mr Obama allowed American hotel chains to dip a toe into Cuba; one, Starwood, has signed an agreement to manage three state-owned properties.

Pearl of the Antilles, meet swine

But investment in new rooms has been slow. Cuba is cash-strapped, and foreign hotel bosses are reluctant to risk big bucks because they have no idea whether Donald Trump will try to tighten the embargo, lift it or do nothing. On the one hand, he is a protectionist, so few Cubans are optimistic about his intentions. On the other, pre-revolutionary Havana was a playground where American casino moguls hobnobbed with celebrities in raunchy nightclubs. Making Cuba glitzy again might appeal to the former casino mogul in the White House.

The other embargo is the many ways in which the Cuban state shackles entrepreneurs. The owner of a small private hotel ▸▸

complains of an inspector who told him to cut his sign in half because it was too big. He can't get good furniture and fixtures in Cuba, and is not allowed to import them because imports are a state monopoly. So he makes creative use of rules that allow families who say they are returning from abroad to repatriate their personal effects (he has a lot of expat friends). "We try to fly low under the radar, and make money without making noise," he sighs.

Cubans with spare cash (typically those who have relatives in Miami or do business with tourists) are rushing to revamp rooms and rent them out. But no one is allowed to own more than two properties, so ambitious hoteliers register extra ones in the names of relatives. This works only if there is trust. "One of my places is in my sister-in-law's name," says a speculator. "I'm worried about that one."

Taxes are confiscatory. Turnover above $2,000 a year is taxed at 50%, with only some expenses deductible. A beer sold at a 100% markup therefore yields no profit. Almost no one can afford to follow the letter of the law. For many entrepreneurs, "the effective tax burden is very much a function of the veracity of their reporting of revenues," observes Brookings, tactfully.

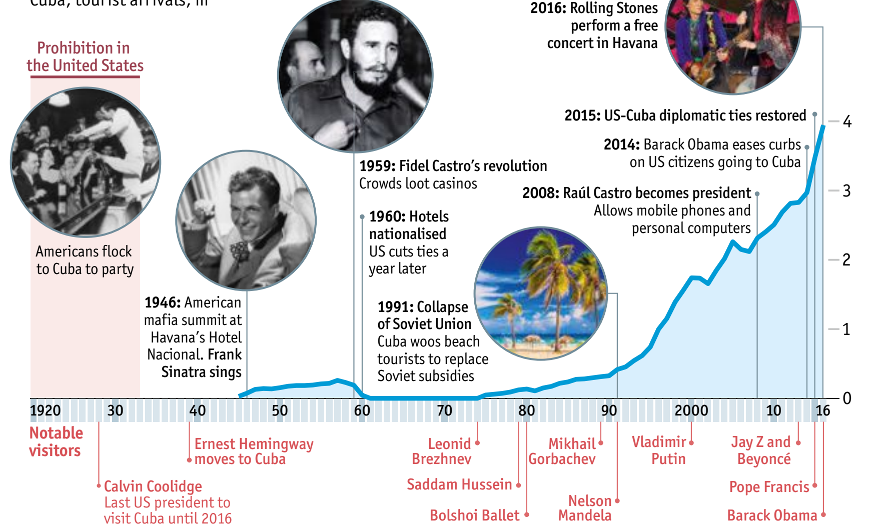
The currency system is, to use a technical term, bonkers. One American dollar is worth one convertible peso (CUC), which is worth 24 ordinary pesos (CUP). But in transactions involving the government, the two kinds of peso are often valued equally. Government accounts are therefore nonsensical. A few officials with access to ultra-cheap hard currency make a killing. Inefficient state firms appear to be profitable when they are not. Local workers are stiffed. Foreign firms pay an employment agency, in CUC, for the services of Cuban staff. Those workers are then paid in CUP at one to one. That is, the agency and the government take 95% of their wages. Fortunately, tourists tip in cash.

The government says it wants to promote small private businesses. The number of Cubans registered as self-employed has jumped from 144,000 in 2009 to 535,000 in 2016. Legally, all must fit into one of 201 official categories. Doctors and lawyers who offer private services do so illegally, just like hustlers selling black-market lobsters or potatoes. The largest private venture is also illicit (but tolerated): an estimated 40,000 people copy and distribute flash drives containing *El Paquete*, a weekly collection of films, television shows, software updates and video games pirated from the outside world. Others operate in a grey zone. One entrepreneur says she has a licence as a messenger but wants to deliver vegetables ordered online. "Is that legal?" she asks. "I don't know."

Cubans doubt that there will be any big reforms before February 2018, when Raúl Castro, who is 86, is expected to hand over power to Miguel Díaz-Canel, his much younger vice-president. Mr Díaz-Canel is said to favour better internet access and a bit more openness. But the kind of economic reform that Cuba needs would hurt a lot of people, both the powerful and ordinary folk. Suddenly scrapping the artificial exchange rate, for example, would make 60-70% of state-owned firms go bust, destroying 2m jobs, estimates Juan Triana, an economist. Politically, that is almost impossible. Yet without accurate price signals, Cuba cannot allocate resources efficiently. And unless the country reduces the obstacles to private investment in hotels, services and supply chains, it will struggle to provide tourists with the value for money that will keep them coming back. Unlike Cubans, they have a lot of choices. ■

Stars, cars and doctors tending bars

Cuba, tourist arrivals, m



Sources: "Inside El Barrio", Henry Louis Taylor; World Bank; national statistics; *The Economist*

Canada's new rules of war

When to shoot a child soldier

OTTAWA

What do you do when the enemy taking aim at you is a nine-year-old?

ONE of the worst dilemmas soldiers face is what to do when they confront armed children. International law and most military codes treat underage combatants mainly as innocent victims. They offer guidance on their legal rights and on how to interrogate and demobilise them. They have little to say about a soul-destroying question, which must typically be answered in a split second: when a kid points a Kalashnikov at you, do you shoot him? Last month Canada became the first country to incorporate a detailed answer into its military doctrine. If you must, it says, shoot first.

Such encounters are not rare. Child soldiers fight in at least 17 conflicts, including in Mali, Iraq and the Philippines. Soldiers in Western armies, sometimes acting as peacekeepers, have encountered fighters as young as six on land and at sea. More than 115,000 young combatants have been demobilised since 2000, according to the UN. For the warlords who employ them, children offer many advantages: they are cheap, obedient, expendable, fearless when drugged and put opponents at a moral disadvantage. Some rebel armies are mostly underage.

In 2000 a group of British peacekeepers in Sierra Leone who refused to fire on children armed with AK-47s were taken hostage by them. One paratrooper died and 11 others were injured in their rescue. Soldiers who have shot children sometimes suffer from crippling psychological wounds. A Canadian who protected convoys in Afghanistan from attack by young suicide-bombers has not been able to hug his own children since he came home four years ago. Some soldiers have committed suicide. "We always thought it was the ambush or the accident that was the hardest point" of a war, said Roméo Dallaire, a retired Canadian general, in testimony before a parliamentary hearing on military suicides in March. In fact, the "hardest one is the moral dilemma and the moral destruction of having to face children."

The Geneva Convention and other international accords prohibit attacking schools, abducting children and other practices that harm them. But they do not tell soldiers what to do when they confront children as combatants, making self-defence feel like a war crime. On March 2nd Canada adopted a military doctrine that explicitly acknowledges soldiers' right to use force to protect themselves, even when ▸▸

the threat comes from children. "A child soldier with a rifle or grenade launcher can present as much of a threat as an adult soldier carrying the same armament," it says. It is based in part on research by the Child Soldiers Initiative, an institute founded by Mr Dallaire that works towards ending the use of children as fighters.

The new doctrine goes well beyond the moment of confrontation. Intelligence officers, it says, should report on the presence of child soldiers and how they are being used. Soldiers deployed in areas with child fighters should be prepared psychologically, trained to handle confrontations with kids and assessed by psychologists when they return. The instruction suggests ways to ensure that killing children is a last resort. It recommends shooting their adult commanders to shatter discipline and prompt the youngsters to flee or surrender. It warns against the use of lightly armed units, which are vulnerable to "human-wave" attacks by children.

The authors of the new directive seem to be aware that a policy to shoot child soldiers even in self-defence could provoke outrage. So far, human-rights groups have expressed understanding. Canada is trying to strike a balance between treating children as innocents and recognising them as battlefield threats, says Jo Becker, a children's-rights specialist at Human Rights Watch in New York. Britain is considering guidelines of its own, and other countries may follow. Canada may soon put its doctrine to the test. Its government has promised to send 600 troops on a three-year peace mission to Africa. It has not revealed yet where exactly they will go. Wherever it is, they are likely to meet gun-toting children. By acknowledging their right to defend themselves, Canada's government may lessen the trauma of those forced to fight the youngest warriors. ■

Bello | Upgrading Brazil's political class

A scandal-ridden congress must reform itself

"DECENCY now!" That slogan, on a banner at a demonstration in São Paulo on March 26th, sums up what Brazilians want from their politicians. They have come to expect the opposite. Rodrigo Janot, the chief prosecutor, has asked the supreme court to open 83 investigations into politicians whom he suspects of taking part in a scheme to extract billions of dollars in bribes from construction firms, which in turn benefited from inflated public contracts. Eight ministers in the cabinet of President Michel Temer, the Speakers of both houses of congress and grandees from all the main parties are reportedly on the list. (All deny wrongdoing.) That adds to the dozens of officials already caught up in the Lava Jato ("Car Wash") investigations into the scandal, which is centred on Petrobras, the state-controlled oil company.

Revelations of misdeeds by politicians have turned Brazilians' attention to the question of how to elect better ones. Today's system encourages political diversity at the expense of quality. Any new party that secures 486,000 signatures (from a pool of 143m voters) has a right to money from the state and to free television time. There is no nationwide vote threshold for electing a party to congress. Lower-house deputies, like senators, represent whole states rather than districts, which makes campaigns expensive, encourages corruption and weakens bonds between voters and their representatives.

The drafters of Brazil's constitution set up the hyper-proportional system in 1988 to ensure that all voices in the continent-sized country would be heard. It has led to cacophony. One study of legislatures in 137 countries elected from 1919 to 2015 found that the lower house of Brazil's current congress is the most fragmented anywhere over that period. Most of its 28 parties have no ideology or detailed programme. Nearly half of Brazilian voters forget which candidate they picked barely a month after casting their ballots.

Presidents dare not lose track. They must master unruly coalitions. Governments buy politicians' votes with favours. The Petrobras bribery scheme was in part a way to reward congressmen for staying loyal to the government of President Dilma Rousseff, who was impeached on an unrelated charge last year.

This model is now "exhausted", says the top judge on the electoral tribunal. In fact, its flaws were apparent from the beginning. Every congress since 1988 has set up a commission to look into electoral reform. They have not made much progress. In 1995 congress set a threshold for parties to enter the legislature of 5% of the national vote. The supreme court struck that down, saying it violated the constitution's goal of proportional representation.

Most electoral innovations have come from the judiciary. In 2007 the electoral tribunal ruled that congressmen who switch parties must give up their seats. In 2015 the supreme court banned donations to parties by corporations. The Lava Jato inquiries are themselves a sort of political reform, "without anaesthesia", as one minister in Mr Temer's government puts it. Dozens of lawmakers could be charged before the election due in late 2018.

The courts cannot do it all; politicians will have to reform themselves. They are starting to do so. One step forward was a vote by the senate in November to approve a constitutional amendment that would establish a national vote threshold and prohibit electoral coalitions. These are short-lived arrangements in which big parties yield seats to smaller ones in exchange for their rights to television time. If the lower house approves the amendment by October this year, the next elections could be held under the new rules. The next congress—less fragmented and more honest—could then make further changes, including splitting up state-sized constituencies into districts.

But some fear that politicians will use reform to shield themselves from greater accountability. One contentious proposal is to give voters a choice among party lists rather than individual candidates. In 2015 the lower house defeated a plan to introduce such "closed lists" by a vote of 402 to 21. Backbenchers feared it would let party chiefs promote their cronies. The idea has come back. Proponents say that closed lists would bolster parties and save them money, compensating for the ban on corporate donations. That would be a plus.

But to some voters, this looks like a plot to avoid the pain inflicted by Lava Jato. Politicians in Mr Janot's sights could be re-elected if they hide behind party logos. "No to closed lists!" was among the slogans seen at the protests in March. It is good news that the arcane issue of political reform has moved on to the streets. That means it may actually happen.

Also in this section

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Famine stalks Africa and Yemen

The third horseman returns

PANYIJIAR AND MAIDUGURI

Twenty million people are at risk of starvation in Nigeria, Somalia, South Sudan and Yemen

OUTSIDE a thatched hut in Panyijiar, in South Sudan, Nyakor Matoap, a 25-year-old woman, clutches the youngest of her three children. Dressed in a silky emerald shawl, she hides the baby, named Nyathol, underneath its folds. Her other children crowd happily enough around her legs. But the baby is in a bad way. Though almost a year old, he is scarcely larger than a newborn. When he cries, it is quiet and gasping, his tiny ribs pushing out his chest. His swollen head lolls uncomfortably on his emaciated frame. Asked whether he will survive, she replies simply, "I do not know."

Before 2013 Mrs Matoap cultivated a patch of land near Leer, some 80km (50 miles) further north. But then civil war broke out in South Sudan, and her husband went to join rebel fighters. In August last year, government forces came into her village. They pulled the men out of their huts and shot them; the women fled. She found herself in the murky waters of the Sudd, a vast swamp which spreads either side of the White Nile. For seven months she has lived off wild fruit and the roots of water lilies. She last saw her husband in 2015, when her son was conceived. Though Panyijiar is friendly territory, and home to an aid camp run by the International Rescue Committee, she does not believe her ordeal is over. "I thought the war would never reach us in Leer," she says, "so I cannot say that it won't come here."

In February Leer was one of two counties in South Sudan declared to be in a state of famine by the UN. Between them they are home to 100,000 people. It is the first time since 2011 that the term has been used and only the second since the organisation adopted the IPC scale, a scientific way of determining levels of food insecurity. Another 1.1m people live in areas in an "emergency" situation, one step short of famine, but where people are still dying from lack of food. Across South Sudan as a whole, the UN judges that some 250,000 children under the age of five suffer from "severe acute" malnutrition, meaning that if they do not receive treatment they will probably die. Some 5.8m people will rely on food aid this year.

South Sudan is not alone. According to the Famine Early Warning Systems Network (FEWS Net), run by the American government, 70m people around the world will need food assistance this year, a level it says is "unprecedented in recent decades". Three other countries, Nigeria, Somalia and Yemen, have what it calls a "credible risk of famine". Between the four, 20m people risk starvation. Like extreme poverty, famine has been driven from most of the world (see page 48). But in those countries it is burrowing in.

Aid agencies are frantically fundraising; the UN says that another $4.4bn is needed by July. Yet a shortage of funds is hardly the only problem. What Somalia, South Sudan, northern Nigeria and Yemen have in common is that they are all at war. These days famine is never just a natural disaster; it is always a product of politics.

In South Sudan food insecurity has been growing since December 2013, when civil war broke out between different factions of the SPLA, a rebel group that won independence from Sudan in 2011. Since then the war has spread and the country has split along ethnic lines. The government, much like the previous Sudanese government in Khartoum, tends to fight by targeting "enemy" civilians. Since 2013 over 3m South Sudanese (out of a total of 11m) have fled their homes to escape ethnic killing. People who have fled cannot harvest their crops or work to pay for food. Like Mrs Matoap, many are forced to live off what they can find in the bush while they try to get to somewhere safer.

Acts of man, not God

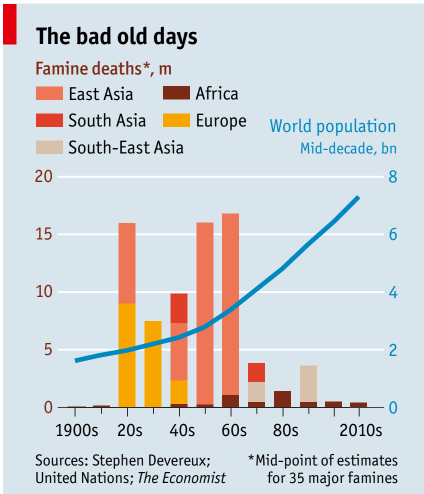
The government deserves much of the blame. It has little interest in helping aid get in and indeed often seems determined to stop the flow. The UN reports 967 denials of humanitarian aid that affected children from the outbreak of war to December 2016—there were almost certainly more. One UN official explains how the government uses regulations to stop food deliveries: "You get the 17 forms you need and suddenly they invent another." A second official notes that, on several occasions, convoys have been stopped by SPLA soldiers who accuse the drivers of feeding the enemy. Few aid workers think the government actually wants people to starve. But they reckon it would rather let children die than risk supplies getting into the hands of enemy soldiers, who could sell them to buy weapons.

South Sudan is not unusual in having a man-made famine. In Yemen the political dynamics are different but the result is the same. According to FEWS Net, 2m people there are in an "emergency" situation. An- ▸▸

other 5m-8m do not have enough to eat. The main reason is that the coalition led by Saudi Arabia, which is fighting Houthi rebels in the north-west of the country, does not allow food through its maritime blockade without a lengthy permit process, by which time much of it spoils. Nine-tenths of Yemen's food is imported, but Hodeida, the largest port, has been bombed out. At a warehouse in Humanitarian City, a storage centre used by aid agencies in Dubai, four new mobile cranes are waiting to help Hodeida unload ships. When the UN tried to install them in January, the coalition denied them permission to enter Yemeni waters. They might be used for offloading weapons, an official explained, or to earn port fees for the rebels. That is despite the fact that ships docking at Hodeida are inspected by the UN, and arms anyway enter elsewhere, on small boats or overland.

South Sudan's and Yemen's are the most clearly avoidable famines. But Nigeria's comes close. There, a famine may already have happened late last year—nobody is sure, because it was too difficult to gather data. Over the past two years, as the Nigerian army has clawed back towns in the north-east of the country from Boko Haram, an Islamist group, starving people have poured in from nearby villages. The population of Maiduguri, the capital of Borno State, has doubled as almost 800,000 hungry displaced people have moved into makeshift shelters there. Perhaps as many remain in areas that aid workers cannot reach. Part of the reason is that the Nigerian army does not allow them in. But most aid agencies are reluctant to deliver food in areas held by murderous jihadists anyway. "You don't really have someone to negotiate access with," says Peter Lundberg, the UN's deputy humanitarian co-ordinator in Nigeria. Still, in the areas that the army has secured, malnutrition has fallen sharply.

Only in Somalia, which in 2011 was the last country to suffer an officially declared famine, does the risk of starvation derive in large part from weather. A drought afflicting much of east Africa has wrecked crops and killed animals. "I am 73, but I have a very sound memory and what I am saying is true: this is the worst," says Mohamed Yahir, a farmer in the south-western city of Baidoa, whose past three harvests have failed and whose livestock has all died.

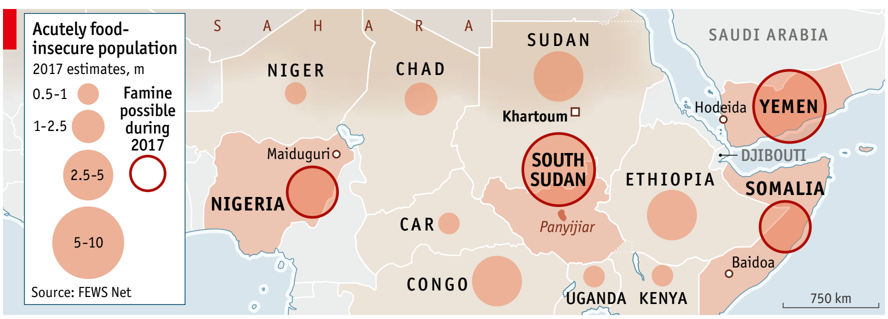


This year's Somali famine may be easier to tackle than the one in 2011, when al-Shabab, a vicious Islamist militia, held a much larger part of the country. Now, aid is at least trickling in. But a hangover from the former troubles remains. Without much of a state, and men with guns everywhere, much of the Somali hinterland is still too dangerous and expensive for aid to get to where it is needed.

A challenge to the world

What does the return of famine mean for international organisations such as the UN and for Western countries, which provide most of the finance for emergency aid? The UN's humanitarian co-ordinator, Stephen O'Brien, has said that this year is "the largest humanitarian crisis" since 1945. Not so: China's famine during the Great Leap Forward of 1958-62 caused between 20m and 55m deaths. The situations in Yemen and South Sudan are not yet as shocking as the Ethiopian famine of 1984, when hundreds of thousands of people starved even as the country's military regime taxed aid and spent the proceeds on a grand celebration of the success of Marxism.

Still, today's famines are real and severe. Sadly, in all four countries, the global response has been inadequate. Western governments and aid agencies have invested large amounts of money and energy in providing assistance, but they have done little to address the political problems that cause starvation. In South Sudan and Yemen they acquiesce to the obstacles that governments place on distributing aid.



Though there are 17,000 peacekeepers in South Sudan, with a Chapter 7 mandate (which authorises the use of force to protect civilians), the UN is loth to criticise the government that hosts its mission. Yet the government is responsible for most of the violence, and the consequent displacement and starvation. "They want these people dead," notes a UN official who would never say so publicly. In December the head of the Norwegian Refugee Council was expelled. Both the UN and other Western governments seem to have decided that it is better to shut up than to be kicked out and lose access to the people they are trying to help.

The situation in Yemen is more squalid. There, the weapons used to bomb Houthi rebels are mostly supplied by Britain and America; America has given logistics and intelligence support to Saudi Arabia's war effort for two years. Yet diplomats tiptoe round criticism of the Saudi-led coalition. They insist that they are pushing for more aid to be allowed in, but shy away from sanctions that might force leaders to comply. One UN official describes a "conspiracy of silence" about Yemen.

That is partly true of Nigeria, too. The release of some of the girls kidnapped by Boko Haram shows that it is possible to negotiate with the jihadists. Yet there is "no conversation" about aid crossing front lines, according to one aid worker. The Nigerian government's rules about where aid agencies can go are simply accepted, even though starvation has been a weapon of choice for defeating insurgencies in Nigeria since the war over Biafran secession in the 1960s.

According to Alex de Waal of Tufts University, formally declaring a famine is a "political act" that is intended to produce action. "This will be a test case for whether it works," he writes. In 2011, when Somalia was last hit by drought, the declaration of famine forced America to change the rules that were stopping aid agencies from supplying food to territory held by al-Shabab.

Yet few want to intervene. In 1992 George Bush senior sent American troops to Somalia to force the local warlords to let aid in. Bill Clinton pulled the troops out after some of them were killed, and since then military intervention to end famine has gone out of fashion. In South Sudan, a country created by American political pressure, even introducing an arms embargo or sanctions against president Salva Kiir has proved impossible. Similarly, Britain and America show no sign of wanting to force Saudi Arabia or its allies to curtail their war in Yemen. But there is no alternative plan, either. And so famine, which should have been abolished throughout the world by now, is coming back. ■

Islamic State

Mine enemy

GAZIANTEP

Jihadists are losing land but leaving mines behind

SCENES of jubilation greeted Kurdish-led forces when they routed Islamic State fighters from the city of Manbij in northern Syria last August. In the streets, women set fire to the long black veils the jihadists had forced them to wear since they seized the city in January 2014. Men shaved off the beards they had been obliged to grow. One old woman was photographed puffing merrily on a cigarette, an activity punishable with prison in the "caliphate". For many, however, the giddy joy of liberation soon gave way to tragedy.

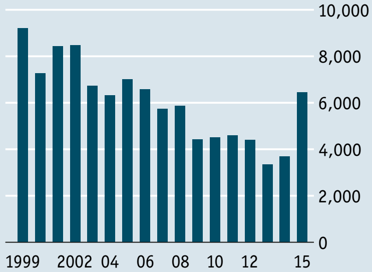
"The first explosion killed our neighbour and his sister-in-law when they entered their house," said Ali Hussain Omari, a former fighter from the city. "Three days later another mine killed my cousin. His 11-year-old daughter's leg was amputated and their house was destroyed. A week later another mine in an olive tree exploded. My neighbour lost his leg."

The amount of land that IS controls is shrinking quickly in both Iraq and Syria. But the group can still kill and maim, even in areas it no longer occupies. Within ten days of Manbij's liberation, booby-traps and mines planted by the retreating jihadists had killed 29 people, according to the Syrian Institute for Justice, an NGO.

The story is similar in other newly liberated towns and villages across Iraq and Syria. As they retreat, the jihadists have booby-trapped homes, schools, hospitals and mosques. They have laced vast tracts of land with improvised landmines, creating minefields that extend for dozens of kilometres. The territory once occupied by IS is now one of the most heavily mined regions on earth. The clean-up will cost millions and last decades.

Blowing up again

Global casualties from landmines and other unexploded ordnance



Source: Landmine and Cluster Munition Monitor

In villages once occupied by IS, civilians desperate to restart their lives are returning to find their homes, streets and fields riddled with bombs. IS has rigged everyday objects to trigger explosions powerful enough to bring down buildings—loaves of bread, teapots, fridges, vacuum cleaners and computers have all been rigged with explosives. Bomb-disposal teams have found dolls fitted with motion sensors, lights that explode when switched on and water taps that set off charges when opened. Others are less sophisticated: a hand-grenade, pin removed, placed in a glass balanced on top of a door.

Among the hardest triggers to spot are tiny "crush-wire" devices—lengths of copper wire covered in dirt or plaster and scattered across streets, often disguised to look like small stones. Dead bodies have also been rigged to explode. "How do you warn people about this? How do you tell them not to go to schools or hospitals, not to pick up rocks or tread on stones? Not to move kettles or sit down on sofas?" says Saeed Eido of the Syrian Institute for Justice.

Booby-trapped homes are only part of the problem. To defend its territory, IS has planted most of its mines in thick belts that ring hundreds of villages and towns on both sides of the border. In a single village south-east of Mosul, clearance teams with the Mines Advisory Group (MAG), a British NGO, have removed more than 1,000 mines since October. The village and surrounding land are still not fully cleared. Experts estimate that, across Iraq and Syria, IS may have planted more than 100,000 landmines—the largest arsenal of improvised mines they have ever seen.

The wars that raged during the final quarter of the 20th century brought a surge in the use of landmines. By the mid-1990s the weapons were killing roughly 26,000 people every year. That number dropped sharply after the Ottawa Treaty, which banned the use of landmines, came into force in 1999 (see chart). But IS has reversed the trend. Casualties are rising once again, even as funding for mine clearance is at its lowest for years. "We are witnessing a new landmine emergency on a scale not seen since the historic treaty to ban landmines was agreed 20 years ago," says Jane Cocking, MAG's chief executive.

Not only are the mines mass produced; the knowledge of how to make them is no longer restricted to a clutch of master bombmakers. Documents seen by Conflict Armament Research (CAR), a group that tracks illegal weapons, suggest that IS fighters receive "sophisticated instruction" on how to build bombs. "These are not short courses, but structured lessons—evidenced by the numerous examination papers submitted by IS students," it says.

Even without this new generation of bombmakers, the Islamic State's lethal legacy will endure for decades, buried in ground it no longer controls, waiting for an unlucky footstep. Equally troubling, especially in Syria, is the extraordinary amount of munitions dropped on urban areas, mostly by the Syrian regime and its backers. Experts believe clearing Syria of undetonated bombs, missiles and mines will take at least 30 years. The leftover explosives will hamper economic recovery, slow the return of refugees and hobble efforts to rebuild the nation long after the shooting stops. ■

One down, many thousands to go

Israel

Prime minister v pundits

JERUSALEM

Binyamin Netanyahu takes on the media at the risk of his coalition crumbling

ISRAEL'S prime minister recently told an American audience that "there is no country in the world where the press is freer [than Israel]. There is no country in the world that attacks its leader more than the Israeli press attacks me. That's fine. It's their choice. They are free press and they can say anything they want." Yet even as Binyamin Netanyahu extols the virtues of a free press and Israel's democracy abroad he is risking the survival of his governing coalition by trying to take control of parts of the media at home.

The prime minister has embarked on a campaign against Israel's new public broadcasting corporation, which is scheduled to begin operating on April 30th. Despite having voted three years ago in favour of a law disbanding the old, unwieldy Israel Broadcasting Authority (IBA), Mr Netanyahu is now convinced that its replacement threatens his government. He wants to institute controls over the new corporation, to be called Kan ("Here"), although he has still not spelled out precisely what these might entail.

The controversy pitted Mr Netanyahu against his finance minister, Moshe Kahlon, leader of the centrist Kulanu Party. Without his votes the broadcasting law cannot be changed. If Mr Kahlon were to quit the governing coalition, it would collapse. On March 30th Mr Netanyahu said that he had reached a compromise with Mr Kahlon whereby the corporation would begin broadcasting in May but without its news division, which will be formed as a separate entity. This allows Mr Kahlon to save face, while serving Mr Netanyahu's purpose of squelching the independence of the corporation's journalists.

Few members of the coalition, even those from Mr Netanyahu's Likud Party, supported the prime minister's brinkmanship. He had let it be known that he was prepared to dissolve the Knesset and hold a snap election, more than two years ahead of schedule, if he had not got his way. Such a course would have defied political logic. The six-party coalition holds a stable majority in the Knesset, with 66 of the 120 seats, and recently passed a two-year state budget which will allow it to continue functioning well into 2019.

One explanation for all this manoeuvring is Mr Netanyahu's long-held (and not entirely unjustified) belief that the Israeli media are out to get him. Why allow yet another news organisation, and state-funded at that, to join the fray? Still, Mr Netanyahu has succeeded in winning four elections despite the hostility of much of the press. With almost 2m followers on Facebook, an astonishing number for a leader of a country of 8m citizens, Mr Netanyahu has bypassed the mainstream media. So why is he still obsessed by it?

Some argue it is because the prime minister likes to operate in constant election mode and feels a need to rally his base around the fear of a common enemy. The theme of the previous election in 2015, when he warned Likud supporters that "Arab voters are heading to the polling stations in droves," was fear of Israel's Palestinian minority. Whether or not the broadcasting crisis is resolved, it seems that Mr Netanyahu's platform for the next election, whenever it takes place, will feature a good deal of media-bashing. ■

Egypt and America

Loved up

CAIRO

Fake news of a real bromance

DONALD TRUMP'S decision to give up his salary as president was not inspired by similar gestures made by previous American leaders, such as Herbert Hoover and John F. Kennedy. Rather, Mr Trump was "following in the footsteps" of Abdel-Fattah al-Sisi, the president of Egypt, claimed two Egyptian newspapers. Mr Sisi, after all, is Mr Trump's "role model", said an Egyptian television host. He was on top of Mr Trump's guest-list for the inauguration, reported an Egyptian news website.

Such fake news is easily debunked. Mr Trump promised to forgo his salary before ever meeting Egypt's strongman. Mr Sisi, who cut his own salary only by half, did not attend the inauguration. But the relationship between the two leaders, who will meet in the White House on April 3rd, has captivated Egypt's scribes and talking heads. Many of them see Mr Trump's affection for Mr Sisi as a matter of national pride worth celebrating—and exaggerating.

Take Mr Trump's phone call to Mr Sisi in January, which the White House described in anodyne terms. Egyptian journalists, by contrast, were ecstatic. Newspapers cited officials who claimed that the call heralded a new era in relations. A TV host, Amr Adib, suggested that Mr Trump was in awe of Mr Sisi's leadership. "How have you guys survived the past 40 months?" Mr Trump asked Mr Sisi, according to Mr Adib, referring to Egypt's many problems.

To be sure, there is genuine "chemistry" between the two leaders, as Mr Trump said after meeting Mr Sisi in September. Mr Sisi, in turn, was the first foreign leader to congratulate Mr Trump on his election win. Both men are prickly, imperious and prone to spreading conspiracy theories. Unlike Barack Obama, Mr Trump seems to care little about Egypt's atrocious human-rights record and supports Mr Sisi's dark view of the Muslim Brotherhood, the Islamist group that he pushed out of power.

It is possible that Mr Sisi's support did not in fact help Mr Trump win, as one Egyptian newspaper (citing an obscure presidential adviser) asserts—or that "Egypt was the only country in the world confident in Donald Trump's victory," as another publication, *Youm7*, has claimed. Still, perhaps flattery gets you somewhere. Mr Trump has banned travellers from six Muslim-majority countries. Egypt is exempt for now.

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Protests in Russia

The young and the restless

MOSCOW

Just when the opposition seemed moribund, Aleksei Navalny brings it to life

NOBODY inside or outside Russia saw it coming. The government seemed to have established complete control over politics, marginalising the opposition with nationalist adventures in Ukraine and Syria. Vladimir Putin's approval rating had stabilised at more than 80%. After Donald Trump's victory in America, the Kremlin had proclaimed the threat of global liberalism to be over. And yet on March 26th, 17 years to the day after Mr Putin was first elected, tens of thousands of Russians took to the streets in nearly 100 cities to demonstrate against corruption, in the largest protests since 2012.

The protests began in Vladivostok and rolled across the country to Moscow and St Petersburg, which saw the largest crowds. Riot police arrested more than 1,000 people in Moscow alone. The state media ignored the demonstrations; the top Russian search engine, Yandex, manipulated its results to push reports of them down the page. The Kremlin was speechless.

The marches came in response to a call from Aleksei Navalny, an opposition leader and anti-corruption campaigner who wants to run for president next year. Despite the government's crackdown on activism, Mr Navalny has doggedly continued publishing exposés of corruption on social networks and YouTube, and expanding his volunteer organisation. His latest target is Dmitry Medvedev, the prime minister. On March 2nd Mr Navalny released a film alleging that Mr Medvedev had used charities and shell companies to amass a collection of mansions, yachts and other luxuries. The video has been watched 15m times on the internet.

The decision to target Mr Medvedev was strategic. Whereas Mr Putin is praised for restoring Russia's geopolitical power, Mr Medvedev is seen as weak and held responsible for Russia's economic woes. He is often ridiculed for his taste for Western gadgets and frequent gaffes. ("We have no money, but you hang in there," he told pensioners in Crimea last year.) He is equally disliked by security-service hardliners, such as Igor Sechin, Mr Putin's closest confidant, and by moderate technocrats such as Aleksei Kudrin, a former finance minister. Yet the protests were not restricted to Mr Medvedev. Denis Lugovskoi, an engineering student who demonstrated in Orel, 325km (200 miles) south of Moscow, says they were aimed at the whole political elite.

Although the crowds were thinner than those in Moscow in 2011-12, they were in some respects more alarming for the Kremlin. The protests of five years ago, sparked by rigged parliamentary elections, were largely confined to Moscow and St Petersburg, and deliberately lacked unified leadership; the educated, urbane protesters considered this a sign of political maturity. Now both demography and geography are much broader. Protests took place in industrial towns in the heartland, such as Nizhny Tagil and Chelyabinsk, and in poorer cities such as Nizhny Novgorod. Meanwhile, Mr Navalny has become the movement's clear leader. On March 27th a court sentenced him to 15 days in jail for organising an unauthorised demonstration.

The crowds also reflected a generational shift. Whereas the protests in 2011-12 had a middle-aged core, the rallies on March 26th were filled with people in their teens and 20s with few memories of their country before Mr Putin. With their diverse class backgrounds, the Kremlin cannot portray them as spoiled city hipsters or pitch them against blue-collar workers, as it did with the protesters five years ago. Unlike the 30-somethings who took to the streets back then, these younger protesters have little to lose.

When the feeling's gone

With the economy in trouble, the patriotic buzz of Mr Putin's military exploits is fading. Denis Volkov of the Levada Centre, an independent pollster, writes that for most Russians, the annexation of Crimea "has lost its relevance". The Kremlin, which successfully suppressed the protests five years ago, has fewer tools at its disposal. Arresting or beating up teenage demonstrators would risk bringing their parents onto the streets. And one of the Kremlin's chief ideological weapons, the fear of returning to the chaos of the 1990s, is lost on a generation that has no memory of it. Another favourite concept, Russia's resurgence to great-power status, is also of limited use: most of the protesters take it for granted.

A group of anthropologists from the Russian Presidential Academy who have studied attitudes among young people say they lack the fear of authority instilled during the Soviet era, and are more attached than their elders to universal values such ▸▸

as honesty and dignity. The Soviet coping mechanisms of cynicism and double-think are notably absent among the young. They see Russia's current elite as financially and morally corrupt, and find Mr Navalny's simple slogan, "Don't lie and don't steal", compelling.

Television, the medium which Mr Putin's government uses to manipulate mass opinion, has little effect on the young, who mainly get their news from the internet. The power of the regime's use of television relies on the majority of Russians choosing to be passive spectators of the political narratives which the government creates for them. According to the Levada Centre, most Russians believe that "nothing depends on us." The younger generation appears to be different. "I need to exercise my civil rights if I don't want to live my life complaining about the country in which I was born," says a 20-year-old student in Moscow. "It is wrong to say that 'nothing depends on us.' Of course it does." ■

Portugal's recovery

Growing out of it

LISBON

A Socialist government raises pensions, yet shrinks the deficit

NO ONE would have called António Costa, Portugal's Socialist prime minister, a fiscal hawk when he took office in November 2015. After finishing second to the centre-right Social Democrats in an inconclusive general election, he cobbled together a coalition with the far left, promising to "turn the page on austerity". Conservatives dubbed his pact with radicals and communists the *geringonça*, a term for an improbable contraption. He pledged both to reverse the austerity measures attached to Portugal's bail-out during the euro crisis and to meet stiff fiscal targets. Many called it voodoo economics.

Yet Mr Costa has kept his word. In 2016, according to figures released on March 24th, his government cut the budget deficit by more than half to just under 2.1% of GDP (see chart), the lowest since Portugal's transition to democracy in 1974. His administration restored state pensions, wages and working hours to pre-bail-out levels, and also brought the deficit well under the 2.5% target set for it by the European Union. It is the first time that Portugal has complied with the euro zone's fiscal rules.

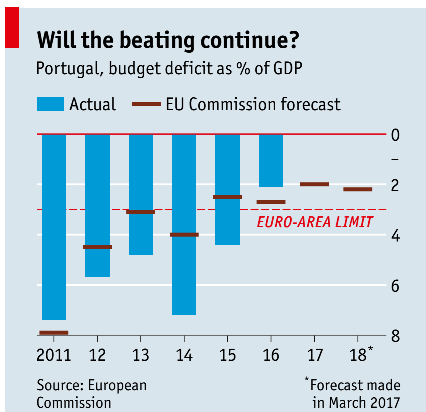
The government has grown accustomed to beating international forecasts: the finance ministry drily noted this week that the European Commission had been "gradually catching up with reality" as it adjusted its deficit projections steadily downwards in 2016. The economy has grown for 13 quarters, expanding at an annualised rate of 2% in the fourth quarter of last year. The left-wing pact that opponents expected to unravel within a year has endured, and polls put the Socialists ten percentage points ahead of the Social Democrats, a position of which Europe's other centre-left leaders can only dream.

"Mr Costa has certainly defied expectations," says Antonio Barroso of Teneo Intelligence, a risk consultancy. Mário Centeno, the finance minister, wants the EU to free Portugal from its excessive-deficit procedure, a disciplinary mechanism used to enforce the euro area's fiscal rules. "Portugal would then join the club of successful 'turnaround' stories in the euro zone's periphery, alongside Ireland and Spain," says Federico Santi of the Eurasia Group, another consulting firm.

The ultimate prize would be an investment-grade credit rating. Every rating agency apart from DBRS, a small Canadian firm, has classed Portugal's sovereign debt as junk since the beginning of the country's bail-out programme, which lasted from 2011 to 2014. Mr Centeno thinks their failure to recognise the strength of the recovery amounts to unfair treatment and burdens the government with high borrowing costs. Interest rates, he complains, absorb more of Portugal's budget than of any other EU country's.

Rating upgrades, however, may not be imminent. The European Commission warned this week that Portugal's banks remain fragile. The government plans to inject €2.5bn ($2.7bn) to recapitalise state-owned Caixa Geral de Depósitos, the country's largest bank, which could increase this year's budget deficit. The sale of Novo Banco, the lender salvaged from the collapse of Banco Espírito Santo in 2014, is expected to be concluded shortly, but may also entail additional state liabilities. Mr Costa blames the EU and the IMF for failing to provide enough aid to the financial sector during the bail-out, leaving his government, which has spent €4.4bn on bank rescues, to clear up the mess. But economists also remain concerned about public debt, which inched up to 131% of GDP last year despite the shrinking deficit.

"The country's high debt levels remain the elephant in the room," says Mr Barroso. Should the euro zone face a shock, such as Marine Le Pen winning France's presidential election, Portugal is the country most likely to face a debt crisis, he thinks. The Portuguese tout the shrinking deficit as proof that their Keynesian approach to growth works. But until Mr Costa shows that he can repeat last year's budget success, many will remain sceptical. "Supporting domestic demand through a slightly looser fiscal policy may have paid off," says Mr Santi, "but it is no substitute for the structural reforms Portugal still needs." ■



Foreign policy in France's election

Beyond the Hexagon

PARIS

Candidates battle over visions of the country's place in the world

WHAT did Marine Le Pen, the head of France's National Front, expect to gain by visiting Moscow on March 24th? Her core supporters relished seeing her with Vladimir Putin, a strong woman standing next to a strongman. Ms Le Pen came away claiming that the world now belongs to nationalist populists such as Mr Putin, Donald Trump, India's Narendra Modi and, implicitly, herself. Interestingly, the visit did not seem aimed at the usual goal of candidates who go abroad: reassuring voters that they can safely be trusted with foreign policy.

In French campaigns, gravitas-enhancing trips beyond the *Hexagone* (as mainland France is known) are especially popular with candidates who have little experience of governing. This year Ms Le Pen has been to America (where she was seen sipping coffee in Trump Tower in New York), Germany, Lebanon and Chad. Emmanuel Macron, the young centrist who is tied with her for first place in the polls, has been to Algeria, Britain, Germany, Jordan and Lebanon, in part to reach out to expat voters and donors.

Ms Le Pen's trip to the Kremlin was risky. She needs to broaden her support beyond her current one-quarter of the electorate by appealing to more moderate voters. She hopes to poach some from François Fillon, the centre-right Republican candidate, who has been dogged by corruption claims. (Mr Fillon, too, is chummy with Russia, but that is not what most of his supporters like about him.) Ms Le Pen's endorsement of Russia's invasion of Crimea, her wish to pull France out of NATO's unified military command and the fact that in 2014 her party took a loan of nearly $10m from a Moscow-based bank will not help her lure moderates—or anyone who has been paying attention to Mr Putin's unlovely record.

Most French voters are not fond of Russia. In a Pew survey in 2015, 70% said they viewed Russia unfavourably and 85% did not trust Mr Putin. So Mr Macron is in the mainstream in calling Ms Le Pen's fascination with him "toxic". Her bet, however, is that by celebrating Brexit and hobnobbing with the Russian autocrat, she can present herself as part of a glorious worldwide march of nationalists, who are destined to defeat pusillanimous globalisers such as Mr Macron. She told industrialists in Paris this week that as a "big country", France does not need others to prosper. She wants to limit foreign trade and migration, reinvigorate ties with France's former African colonies and withdraw from the EU. She depicts Mr Macron, a former Rothschild banker, as a privileged child of finance in thrall to a crumbling EU "empire".

François Heisbourg, a foreign-policy expert who has advised Mr Macron, worries that such a strategy could prove effective, especially in the second-round run-off. Public opinion is "hardly enamoured with globalisation", he notes. Matthew Goodwin of the University of Kent sees Ms Le Pen's outreach to other populist leaders as an attempt to associate herself with "an alternative world order".

Two against the EU

Maybe so, but it is a scary one. A strategist for Ms Le Pen's team recently travelled to London to tell investors that her plan to quit the euro and hold a referendum on EU withdrawal need be no more disruptive than Brexit. That would hardly be reassuring even if it were true, which it is not.

Ms Le Pen says that what matters is not whether you are left or right, but whether you are a nationalist or a globalist. Mr Macron agrees. This week he told businessfolk in Paris that Brexit will prove a lamentable and costly error. He also flew 9,400km (5,840 miles) to the island of Réunion, a French territory in the Indian Ocean. Globalisation is a fact, he said; the answer is limited, "intelligent regulation". Plenty of French bigwigs agree, too. A Socialist former prime minister, Manuel Valls, endorsed Mr Macron this week, as did several centre-right senators.

Yet some 40% of voters remain undecided. If, as polls currently suggest, the contest comes down to Mr Macron and Ms Le Pen in the second-round run-off, they will not be able to complain that they were not offered a clear choice. ■

Slovakia's political mystery

Family drama

PRAGUE

Who kidnapped the president's son?

IN AUGUST 1995 Michal Kovac Jr, whose father was president of newly independent Slovakia, was stopped in his car by armed men who handcuffed him, forced him to drink two bottles of whisky and began driving him to an unknown destination. When he tried to jump out of the car, they beat him and shocked him with a stun gun. The 34-year-old Mr Kovac woke up in Austria, where police arrested him in connection with a German financial probe. They said they had been tipped off to his whereabouts by a Slovak informant. An Austrian court soon released him because of the illegal manner of his detainment. He was never charged.

Slovak police and justice officials investigating the kidnapping were frustrated when a key witness went into hiding and his police contact was killed with a car-bomb. Still, they managed to prepare an indictment, which was later leaked. It pinned the crime on private thugs hired by the Slovak secret services (SIS), whose head, Ivan Lexa, was the right-hand man of Vladimir Meciar, the prime minister at the time. The senior Mr Kovac was a political opponent of Mr Meciar's. But before charges could be brought, Mr Meciar passed an amnesty law that buried the case.

Mr Meciar has spent the past few years in quiet retirement at his mansion, christened "Elektra". But on March 2nd a docudrama about the case, "Unos" ("Kidnapping"), opened in Slovakia, putting the old case back in the headlines. Mr Meciar felt obliged to appear on television to defend himself. Polls showed that 63% of Slovaks favoured revoking the amnesty law, and on March 13th Robert Fico, the current prime minister, announced that he would do so.

Mr Fico faces declining approval, especially among young voters. He may be defending himself against any appearance of complicity; his first government, in 2006, included Mr Meciar's party. But he is also being pushed by popular anger at corruption, as the popularity of "Unos" shows. "Politicians should know that crime and wrongdoing can be punished, even after such a long time," says Milan Stranava, the film's producer. Any punishment will come too late for the elder Mr Kovac. He died in October 2016.

Charlemagne | Pivot towards Tokyo

As the world sours on trade, Brussels is sweetening on it—starting with Japan

WHAT a difference a few months makes. Barely half a year ago the European Union's (EU's) trade policy was a mess. A much-touted trade and investment partnership (TTIP) with the United States was on life support, trashed by NGOs and consumer groups, and disowned by some of the politicians who had asked for it in the first place. A deal with cuddly Canada (CETA) barely survived an encounter with a preening regional parliament in Belgium. Governments were scrapping over how to respond to state-subsidised Chinese steel, and Britain, among the club's weightiest pro-trade voices, had voted to leave the EU, a decision made flesh by the government's Article 50 letter this week.

And now? Trade is "going to be huge in the coming months", says a European diplomat. His word choice is a reminder of the reason for the change: Donald J. Trump. One of the American president's first acts was to withdraw from the Trans-Pacific Partnership (TPP), a trade deal covering a dozen countries around the Pacific Rim. Mr Trump complains about Germany's trade surplus, and his administration hints that it will ignore rulings from the World Trade Organisation. The leader of the free world is pulling up the drawbridge, and the EU (which negotiates trade deals on behalf of its member governments) has spotted an opportunity.

Better still, Mr Trump's inward turn has left America's other spurned partners seeking new friends. The prime candidate is Japan, the world's third-largest national economy. Bitterly disappointed by Mr Trump's decision to quit the TPP, Japan happens to have been negotiating a trade deal with the EU since 2013. Cue an unexpected burst of Japanese Europhilia. Last week Shinzo Abe, the prime minister, toured European capitals to gladhand his counterparts and tout the virtues of globalisation. Japan and the EU, he said in Brussels before his delighted hosts, would "show to the world the flag of free trade as a model". The two sides hope to conclude their talks this year. If the boost to growth would be less than stellar—the EU projects a long-term GDP increase of 0.76%—a deal between two economic giants would still demonstrate to the world that globalisation can survive an American retreat.

And why stop with Japan? Mr Trump's election may have placed TTIP in the deep freeze, but there are plenty more potential partners for Europe waiting in the wings, including Mercosur, a Latin American grouping. Mexico, never far from a Trumpian tongue-lashing, is another candidate. Nor is such optimism limited to trade. If Mr Trump, who this week scrapped some of Barack Obama's clean-energy rules, withdraws from the Paris climate-change deal, Europe may seek to deepen its environmental partnership with China. "Positive globalisation" is the new mantra.

True, Europe's trade naysayers have hardly given up the fight; EU deals with Singapore and Vietnam will face tricky votes in the European Parliament later this year. Cecilia Malmstrom, the EU's doughty trade commissioner, is touring the EU making the case for deals that uphold European values. But officials quietly harbour the hope that America's president has helped their case by turning opposition to trade toxic. Thanks to Mr Trump's influence the public mood in Germany, in particular, has become much less anti-trade since last year.

But hold the exuberance. It is "utter tosh" to imagine that strategic interests trump plain mercantilism in EU trade talks, says Hosuk Lee-Makiyama, director of the European Centre for International Political Economy, a think-tank in Brussels. Japanese diplomats agree that Mr Trump's election has pushed them closer to Europe, but doubt that it will have a material effect on the negotiations (which resume next week). Mr Abe's government stared down Japan's coddle farmers during the TPP talks, but may not be willing to take them on again. Other outstanding issues in the talks, from car tariffs to data flows, are no easier to solve in the shadow of The Donald. And raising expectations carries its own risks for the Europeans. One trade official says he fears the EU might now be tempted to go for quick rather than ambitious deals. If so, bad news for those European dairy farmers gazing longingly at the Japanese consumer market.

Who do you give a gold-plated golf club to in Brussels?

More importantly, Mr Abe is hedging his bets rather than executing a strategic pivot. His jaunt around Europe follows two visits to America, including a jolly golfing weekend at Mr Trump's Florida resort that culminated in a joint pledge to deepen economic co-operation. His government, reasonably or otherwise, hopes this will lead to a bilateral trade deal. Contrast Angela Merkel's recent trip to the White House. At a frosty joint press conference Mr Trump carped about German trade negotiators before sending the chancellor packing with a couple of petulant tweets about defence spending. Officials in Berlin were furious.

All this complicates Japan's negotiations with Europe, for Mr Abe may not want to make the EU a generous offer that becomes a template for the more important American talks to come. Moreover, America's government can credibly link trade to broader issues, including its Asian security posture—which matters when North Korea is once again lobbing ballistic missiles into the Sea of Japan. Such grand bargains are harder to strike for the EU, a club in which trade talks are handled by Brussels but national governments remain in charge of military matters.

Europe should understand this. It backed TTIP not just to create jobs and growth, but to cement the transatlantic alliance and set mutual standards that much of the rest of the world would have been forced to follow. That the transatlantic talks were floundering long before Mr Trump took office said something about the EU's ability to conduct foreign policy through trade agreements. As for Japan, the two sides' efforts are genuine and the chances of a deal look better than ever. But do not be fooled: it would be a consolation for American withdrawal, not a triumph for the liberal world order. ■

Also in this section

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Britain and the European Union

A race against time

The two-year countdown to Brexit has begun. It leaves Britain little time to get through a bulging, contentious agenda

BACK in October Theresa May promised to invoke Article 50, the legal procedure for leaving the European Union, by the end of March 2017. On March 29th the prime minister duly sent a six-page letter to Donald Tusk, the president of the European Council of heads of EU governments. Article 50 sets in motion a negotiating process with a two-year time limit that can be extended only by unanimous agreement of all EU governments. Mrs May told Parliament this was a time for the country to come together. And in her letter she promised her European partners (seven times) that she wanted a "deep and special partnership" with the EU.

No doubt mindful of the two-year deadline, the response from Brussels was swift. Mr Tusk issued a curt acknowledgment and said he would publish draft guidelines for the negotiations shortly. He confirmed that, after debate among EU governments, the European Council would meet on April 29th to approve the guidelines; later, governments will approve a negotiating mandate for the European Commission. The April meeting will fall between the two rounds of France's presidential election, giving leaders something else to chew over. They will also have in mind Germany's election in September.

A discussion that has so far mainly been among parties at home will now shift to the real battleground, between Britain and its EU partners. The British team will find that, for those partners, unity of the 27 is the main goal. Mr Tusk's response says that the EU's priority is to minimise uncertainty for "our citizens, businesses and member states". And although the constructive tone of Mrs May's letter was welcomed, many jibbed at her threat to link security and the fight against crime and terrorism to securing a trade deal.

The first tussle with Michel Barnier, a former French foreign minister who is the commission's Brexit negotiator, will be over whether the talks should start with the terms of divorce and only later discuss a trade deal. This is what the European Council wants. Mrs May will argue that both issues should be negotiated simultaneously, since Article 50 talks of a settlement "taking account of the framework of [a leaving country's] future relationship". But the others are likely to stand firm.

Splendid integration

One reason for this is that the divorce talks alone will be difficult enough. The commission's negotiating mandate will include agreeing on the rights of 3m EU citizens to stay in Britain and 1m Britons to stay in EU countries; finding some way to avert a hard border between Northern Ireland and the Irish republic; and settling the exit bill that it claims Britain must pay. The first should be uncontroversial, though it may take some time to settle. The second will be testing, because Britain's plan to leave the EU's single market and customs union seems to imply border controls. Yet it is the third that could be the most explosive.

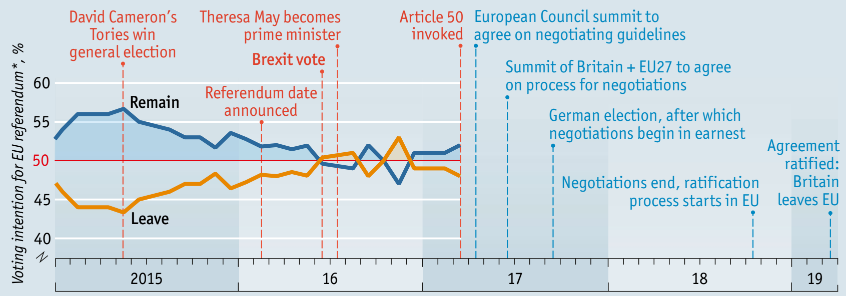
The commission claims that past commitments plus future obligations mean that Britain owes the EU as much as €60bn ($65bn). It believes this debt could be enforced at the International Court of Justice. Mrs May's letter refers to the matter only obliquely. David Davis, her Brexit secretary, likes to quote a report from the House of Lords citing legal advice that, after Brexit, Britain will owe the EU nothing. More fanciful Brexiteers even claim that the EU owes Britain money for its share in the capital of the European Investment Bank.

Rows over money have always been the bitterest of all in the EU. The departure of such a big net contributor will cause pain, one reason why the commission has talked up the size of the exit bill. The voting rules under Article 50 do not make Britain's position any easier. The divorce settlement must be approved by a "qualified majority" of EU countries, excluding Britain, and by the European Parliament. The parliament's Brexit point-man, Guy Verhofstadt, threatens to cause trouble.

There is a serious risk that the budget row will blow up the talks before they start. Mr Barnier has tried to avoid this by suggesting it is possible to agree to some broad principles for a settlement and leave the exact amounts for later haggling. That could take place when the discussion moves on to future trading arrangements. Alas, these could prove even harder to settle than the Article 50 divorce itself.

Mrs May has made clear that her priorities are to take back control of migration, breaching the EU's principle of free movement of people, and to escape the jurisdiction of the European Court of Justice (ECJ). This means, as she accepts, that Britain must leave the EU's single market and cus- ▸▸

How it May happen



Sources: NatCen; Institute for Government

*Polls after June 2016 measure support for referendum result

toms union. She rejects off-the-shelf models for a new trade relationship. Instead, she wants a bespoke free-trade deal that gives, to the maximum extent possible, barrier-free access to each other's market.

This will be tricky to agree on, and even harder to ratify. In many countries the opponents of free trade will stand in the way. Negotiations take years: they started between Canada and the EU in 2007 and the resultant CETA deal is still not fully in force. The rules for approving a Britain-EU free-trade deal will be a problem, for as a "mixed" agreement it must be ratified by all national parliaments in the EU as well as some regional ones (including Wallonia's, which almost kiboshed CETA).

Tangled up in red tape

Substituting new rules for those of the single market is even more complicated than agreeing on a free-trade deal, for they intrude into almost every part of business activity. A special number of the *Oxford Review of Economic Policy** gives an idea of the vast spread of policies that must be changed post-Brexit. Besides the economic and legal impacts, it includes chapters on a new migration regime, financial-services regulation, competition policy, regional aid, state aid, industrial policy, transport, agricultural support and higher education.

Against a tight deadline, the complexity of these issues will be a huge challenge. Anand Menon of King's College, London, director of The UK in a Changing Europe, an academic network, reckons the Brexit negotiations will be the most difficult and complicated that any post-war government has faced. The Institute for Government, a think-tank, adds that Britain's civil service is at its smallest since the war; it also notes gaps in the staffing of the relevant departments.

Trade negotiators insist a deal will take longer than two years. Some Brexiteers disagree, pointing out that, unlike normal trade talks, the two sides start in complete convergence, since Britain has been an EU member for 44 years. To cement this, they note that the misnamed Great Repeal Bill, promised by the government this week, will translate almost all current EU laws into British law. Yet it is not the starting point that matters, but what happens when a post-Brexit Britain freed from the ECJ begins to diverge from the EU's norms.

In truth, the nub of the single market is not its scrapping of tariffs or even customs checks, but its getting rid of myriad non-tariff barriers thrown up by different rules and standards. The government is hinting that, for practical reasons, it might stick with some EU regulators (such as, perhaps, the European Medicines Agency) for some time after Brexit. But as Mujtaba Rahman of the Eurasia Group, a consultancy, says, this ducks the point that, if Britain wants to retain barrier-free access to the single market, it may have to observe all EU regulatory standards anyway.

Another argument from Brexiteers confronted by Article 50's two-year deadline is that there is little to fear if there is no deal at all. Mrs May herself has insisted that "no deal for Britain is better than a bad deal for Britain", though she did not repeat this in her letter. No deal means reverting to trade on World Trade Organisation terms. As Open Britain, another think-tank, notes, this implies not just all of the EU's non-tariff barriers, but tariffs of 10% on cars, 15% on food and 36% on dairy products. It would end Britain's access to the EU's trade deals with 53 other countries. Last year the Treasury said this option would reduce GDP by 7.5% after 15 years. The House of Commons Foreign Affairs committee recently warned against the no-deal option.

If a comprehensive trade agreement cannot be made in two years, an obvious conclusion follows: some transitional arrangement will be needed after March 2019. Mrs May's letter nods to this by talking about "implementation periods". The trouble is that any such arrangement may itself be hard to agree on, especially if there is lack of clarity over the final destination. The simplest idea is to prolong the status quo, but that may be hard for Mrs May to sell at home if it entails both free movement of people and a role for the ECJ.

And then there are the implications for the United Kingdom. Some policies needing redesign post-Brexit, such as fisheries, are matters for devolved governments. This week the Scottish Parliament backed the demand of its first minister, Nicola Sturgeon, for a second independence referendum. In Northern Ireland, where attempts to form a new power-sharing executive have broken down again, Sinn Fein is calling for a referendum on whether to join the Irish republic. Mrs May has vowed to protect the "precious, precious union", but she knows that both Scotland and Northern Ireland voted to stay in the EU last June.

At least she can take comfort in the ineffectiveness of the opposition at home. Both Labour and the UK Independence Party are beset by weak leadership and internal feuding. Yet her control over Parliament is not absolute. Her working majority is just 17. Passage of the Great Repeal Bill may be contentious, and it is only the first of up to 15 parliamentary bills necessitated by Brexit. Several MPs are loudly promising to hold Mrs May and Mr Davis to account over their Brexit promises. This week Sir Keir Starmer, the shadow Brexit secretary, produced six tests for judging if Labour should support the final deal, while a cross-party group under the auspices of Open Britain came up with ten points. The House of Lords, most of whose members are strongly anti-Brexit, may also make difficulties for Mrs May.

In the end, however, her biggest problem may not be with her opponents or with her EU partners across the negotiating table. As so many previous Tory prime ministers have found, it will be with her own backbenchers. Hardline Brexiteers are ready to denounce any compromise in the negotiations as a betrayal. Mrs May has raised their expectations, as well as those of voters, about the benefits of Brexit. When it becomes clear that there are costs instead, she may find her high popularity ratings fast withering away. ■

*Available at http://bit.ly/2oc0PdH

Bagehot | What would Walter say?

Our outgoing columnist laments the condition of the British state

TO CALL Britain's referendum on Brexit a great act of democracy is both to describe it and to debase the word "democracy". Campaigners traded not hard facts last June but insults to the electorate's intelligence. Remainers foresaw immediate economic Armageddon outside the EU, while Leavers insinuated that millions of scary Muslims would move to Britain if the country stayed in the club. Aspersions were cast on opponents' motives and character. Dodgy statistics were shoved through letterboxes and plastered on the sides of buses. On the big day turnout was mediocre for such an epoch-making decision: the 52% who backed Brexit constituted just 37% of eligible voters.

A low-rent, bilious referendum has begotten low-rent, bilious politics. It has cowed the House of Commons, the "despotic and final" authority of the British system, in the words of Walter Bagehot, the Victorian constitutionalist and former editor of *The Economist* whose name dignifies this column. MPs are paid to be representatives, not delegates, obeying their own judgment over the roiling opinions of their constituents. But the force of the referendum, a McCarthyite mood in the Brexiteer press and a prime minister whose original support for Remain seems more baffling by the week combined to neuter the legislature. Hundreds of parliamentarians filed, dead-eyed, through the lobbies granting Theresa May the untrammelled power to conduct and conclude exit talks most of them believe will do Britain harm. The referendum has tamed an institution meant to be constructively feral.

Parliament's spinelessness is matched only by its marginalisation. In his book, "The English Constitution", Walter Bagehot described the "nearly complete fusion" of executive and legislature as a foundation of the British political system. ("To belong to a debating society adhering to an executive…is not an object to stir a noble ambition," he noted.) Mrs May's Great Repeal Bill, the coming legislation putting European laws on British books, offends this tradition. Its "Henry VIII" clauses would enable the prime minister to fiddle unilaterally with the tide of rules as it washes into Britain's environmental, employment, legal and tax regimes.

Ordinarily the opposition might be relied on to stand up to this sort of thing. But Jeremy Corbyn is no ordinary opposition leader. Only he could convene an "emergency" rally outside Parliament to protest against the triggering of Article 50 and then fail to turn up, while simultaneously whipping his own MPs to support it. If Mr Corbyn causes the prime minister any worry it is that she might forget his name in an interview. At this rate, domestic scrutiny of the government's negotiations with the EU will be patchy and, freshly Brexited, Britain will not face a serious choice at the 2020 election.

Then there is the cultural legacy of the referendum, which created the ugly precedent that someone's views on things like trade, immigration and financial regulation are matters of policy second and expressions of his very faith in the nation first. This elision of Brexit and the national interest has curdled British politics. "ENEMIES OF THE PEOPLE", bellowed the right-wing *Daily Mail*, when judges ruled that Mrs May had to consult Parliament on launching the talks. More than that, it goes against the Westminster system's way of doing things: unlike, say, France or America, Britain mostly keeps the tribalism and ceremony of the state (the "dignified" parts of the constitution, as Walter Bagehot put it) separate from the practical functioning of government (its "efficient" parts). Brexit has forced them together.

To follow some of the coverage of British politics you would think that the Scots, now closing in on a second independence referendum, all hated the English and adored the EU; that the old cared nothing about the prospects of the young; that the young were all vacuous virtue-signallers; that Remainers were snobby metropolitans who can state their bank balances only to the nearest thousand pounds and that Leavers were knuckle-dragging racists. It is odd to live in a country whose very name—the United Kingdom—sounds increasingly sarcastic.

This Britain feels quite unlike the one that hosted the Olympics with such cheer five years ago. These two moments, London 2012 and Article 50, 2017, bookend your columnist's time covering its politics. Now he is moving on, to a new beat in Berlin. He leaves as prone to gloom about Britain as he was to optimism when he started. The meanness of its politics, the struggling condition of its public services, the coming economic and diplomatic turmoil, the unrealistic expectations of Brexit among voters—it all bodes poorly. To be sure, "muddling through" is something Britain is good at and will no doubt manage, one way or another. But the country deserves better. Things did not have to be this way.

Go for a constitutional

The best antidotes are apolitical. Far from Westminster there exists a country more mosaic-like than the raw divisions of its politics allow. A quarter of voters in Islington and Edinburgh opted for Leave; as many residents of Boston, the Lincolnshire town that backed Brexit most keenly, voted to stay in the EU. Millions of pensioners were for Remain. Millions of youngsters wanted out.

Beyond the headlines and TV studios, Britain's everyday impressions are mostly those of a homely and mingled place, not a bitter and binary one. The blare of pop songs on shop radios, the church bell across the marshes, the simian whoops and cackles on market-town high streets of a Friday night. The shared shrugs and sighs after a train has waited too long at a station for some misery-unleashing fault not to have materialised. The vinegar-haddock-urine smell of seaside towns; the perfume-booze-sweat crush of commuters travelling home from booming cities. The saris, shiny suits and waxed jackets, the hipster moustaches and old-school mullets. The emergence from a car park or railway station to be confronted with a scene of architectural horror—or unprepossessing and unexpected gorgeousness. ■

The war on poverty

Fewer, but still with us

The world has made amazing progress in eradicating extreme poverty. The going will be much harder from now on

TO PEOPLE who believe that the world used to be a better place, and especially to those who argue that globalisation has done more economic harm than good, there is a simple, powerful riposte: chart 1, below. In 1981 some 42% of the world's population were extremely poor, according to the World Bank. They were not just poorer than a large majority of their compatriots, as many rich countries define poverty among their own citizens today, but absolutely destitute. At best, they had barely enough money to eat and pay for necessities like clothes. At worst, they starved.

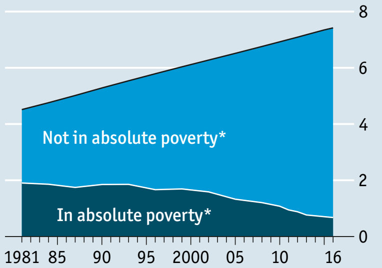
Since then the number of people in absolute poverty has fallen by about 1bn and the number of non-poor people has gone up by roughly 4bn. By 2013, the most recent year for which reliable data exist, just 10.7% of the world's population was poor (the modern yardstick for destitution is that a person consumes less than $1.90 a day at 2011 purchasing-power parity). Poverty has almost certainly retreated further since 2013: the World Bank's finger-in-the-wind estimate for 2016 is 9.1%. Homi Kharas of the Brookings Institution, a think-tank, calculates that someone escapes extreme poverty every 1.2 seconds.

This is impressive and unprecedented. Economic historians reckon that it took Britain about a century, from the 1820s to the 1920s, to cut extreme poverty from more than 40% of its population to below 10%. Japan started later, but moved faster. Beginning in the 1870s, the share of its population who were absolutely poor fell from 80% to almost nothing in a century. Today two large countries, China and Indonesia, are on course to achieve Japanese levels of poverty reduction more than twice as fast as Japan did.

Unfortunately, this happy chapter in world history is drawing to a close. The share of people living in absolute poverty will almost certainly not decline as quickly in the future—and not because it will hit zero and therefore have nowhere to fall. Even as the global proportion of poor people continues to drift slowly downwards, large pockets of poverty will persist, and some of them are likely to swell. The war on want is about to settle into a period of grinding battles in the trenches.

Hold the champagne 1

Global, number of people, bn



Sources: World Bank; *The Economist*

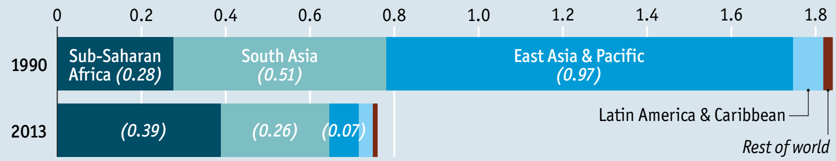
*Less than $1.90 per day, at 2011 purchasing-power parity

Until recently the world's poorest people could be divided into three big groups: Chinese, Indian and everybody else. In 1987 China is thought to have had 660m poor people, and India 374m. The concentration of destitution in those two countries was in one sense a boon, because in both places better economic policies allowed legions to scramble out of poverty. At the last count (2011 in India; 2013 in China) India had 268m paupers and China just 25m. Both countries are much more populous than they were 30 years ago.

Some of the decline in poverty in China and India is artificial, caused by more accurate household surveys and new estimates of purchasing power. But most of it is real. In both countries, economic growth has benefited the poor as well as the rich, peasants as well as city-dwellers: the magic ingredient in China's poverty-reduction formula since the 1980s has been not its factories but its highly productive small farms. Much the same is true of other Asian countries. Carolina Sanchez, a manager at the World Bank, is particularly impressed by Bangladesh, where many sparsely educated women have been able to find good jobs in textile factories. ►►

Where misery persists 2

Number of people living in absolute poverty*, bn



Source: World Bank

*Less than $1.90 per day, at 2011 purchasing-power parity

These days about four-fifths of all extremely poor people live in the countryside, and just over half of them live in sub-Saharan Africa (see chart 2). Africa is as studded with examples of failure as Asia is filled with success stories. Look at Nigeria, says Kaushik Basu, an economist at Cornell University. In 1985 the share of Nigerians below the international poverty line was estimated to be 45%—a lower proportion than in China or Indonesia. Now Nigeria has a much higher share of poor people than either country. The World Food Programme, an arm of the UN, is sending bags of grain to the lawless, hungry north-east (see page 37).

Sub-Saharan Africa is not actually going backwards. Its absolute poverty rate has fallen from 54% in 1990 to 41% in 2013. But because Africa's population is growing so quickly—by about 2.5% a year, compared with 1% for Asia—and because the poverty rate is declining only slowly, the number of poor Africans is higher than it was in the 1990s. With more destitute inhabitants than any other region, sub-Saharan Africa now drives the global poverty rate.

Working towards welfare

That is bad news, because African poverty is particularly intractable. The first problem is that economic growth has been weak, considering the continent's swelling population. According to the IMF, since 2000 GDP per head at purchasing-power parity has doubled in sub-Saharan Africa; in emerging Asia it almost quadrupled. Oil-producing states such as Angola and Nigeria have gone through booms that have done little to cut deep poverty—and, anyway, have been followed by busts.

A second problem is that many African governments are flimsy, incompetent, authoritarian or rapacious. The OECD, a club of mostly rich countries, counts 56 places in the world as "fragile"—mostly countries, but including the West Bank and Gaza Strip. Fully 36 are in Africa. The continent is not as ravaged by war as it was in the 1980s and 1990s, but it still has some disastrous countries, such as the Democratic Republic of Congo and South Sudan, and a larger number that occasionally lapse into political violence, such as Ivory Coast and Kenya. Violence both creates poverty and distracts governments from the work of dealing with it.

The third problem is that poor people in Africa are commonly very poor indeed. Compare Rwanda with Bangladesh. Both are low-income countries; both are reasonably competently governed; both have grown well in the past few years. But Rwanda's poor are much poorer than Bangladesh's. Many get by on around $1 a day (see chart 3). Suppose, says Laurence Chandy of UNICEF, that Rwanda experiences 5% growth per head every year for ten years and this growth is spread evenly. At the end of that impressive run, a quarter of Rwandans would still be below the absolute poverty line.

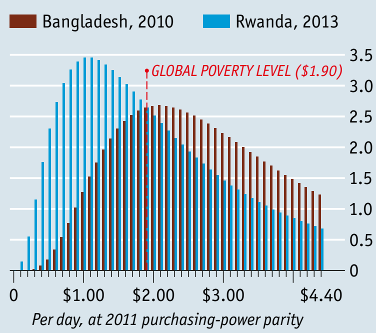
Rwanda is in a worse position than Bangladesh—except in one sense. Because it has a large lump of people below the $1.90 poverty line, Rwanda ought to be able to pull ever more people over the line for every point of growth (assuming the growth is evenly spread). In Bangladesh the opposite is true. It has a lump of people who are just clear of poverty and a diminishing proportion just below the line who can easily be pulled over. Bangladesh has made excellent progress against poverty so far. It will probably make slower progress from now on.

India is in a similar position to Bangladesh, points out Mr Basu, who used to be the chief economic adviser to India's government. With huge numbers of people who are barely out of poverty, it now needs to prevent near-paupers from falling back, while also dragging the poorest out of destitution faster than economic growth alone could do the job.

In short, India and countries like it need proper welfare systems. They are still some way from getting them. In general, government spending is a smaller share of GDP in lower-middle-income countries than in poorer or richer ones. South Asia is especially mean compared with Latin America. In 2014 India spent just 0.7% of its GDP on social safety-net programmes. Three years earlier Brazil had spent 2.4% of its GDP on such programmes. And half of India's spending went on rural public-works projects and feeding children in schools. Brazil's payments were nearly all cash transfers, which are more efficient. India has trimmed some spectacularly ill-targeted handouts, such as fuel subsidies, and is musing about a universal basic income, made possible by its biometric identity system, which now covers an astounding 1.1bn people. But that is still talk.

New ladders needed 3

Share of population by consumption level, %



Source: Brookings Institution, World Bank

As extreme poverty disappears everywhere except in Africa and in Asian countries with weak welfare systems, the campaign to eradicate it is likely to slow down. The World Bank reckons that about 4% of the world's population will still be poor in 2030 if economies continue to grow as quickly as they have in the past ten years and poor people's incomes grow at the same rate as everyone else's. The number of poor people might even rise a little.

The last-mile problem

After decades of astonishing progress, a spell of sluggish poverty-reduction would be a great disappointment. Among other things, it would probably mean a prominent target being missed. In 2000 the members of the UN agreed to try to cut poverty to half of the 1990 level by 2015. Progress was so quick that the world got there at least five years early. So two new targets have been set—the first of a long list of "sustainable development goals". The world is now supposed to cut the absolute poverty rate to 9% by 2020 and 3% by 2030. The first of these targets can and probably will be hit. The second looks out of reach.

Still, a global target for reducing absolute poverty seems increasingly beside the point, because poverty is less and less global. In the mid-19th century every continent had a large population of poor people. Now, after absolute poverty has been virtually eradicated in one region after another—Europe, North America, Latin America and now East Asia—it has become a plague specific to South Asia and sub-Saharan Africa. It seems likely that poverty will become ever more African.

It is possible to imagine a future in which the global poverty rate continues to drop even as poverty becomes more entrenched in a few unlucky countries, scarred by war and bad government. That would be a huge improvement on the past, but hard to cheer. A broadly poverty-free world, but with sad, durable exceptions, is not good enough. ■

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High-end retailing

Lux in flux

MILAN

Luxury-goods firms can no longer rely on China to propel growth

IT TAKES at least a month to wash, comb, spin and otherwise prepare fine mohair to become cloth that is stitched into suits by Ermenegildo Zegna, a 107-year-old Italian brand. In Trivero, an Alpine village west of Milan, 150 artisans in an elegant factory work at carding, dying, weaving and warping. As looms rattle, bespectacled women stretch cloth over illuminated screens and check for imperfections. Others use a rack crammed with dried Spanish thistles to remove excess hair from fabric.

Zegna, run by its fourth generation of family owners, is distinctive in many ways. Big corporate successes are rare in Italy, which tends to nurture smaller firms. Sales from Zegna's 500-odd shops worldwide, plus earnings from selling to other producers, amount to an annual €1.2bn ($1.3bn) or so. It controls its entire supply chain, which is unusual even in an industry that cherishes raw materials. Three years ago it bought a 6,300-acre farm with 10,000 sheep in Australia. A spokeswoman brags that vertical integration at Zegna runs "from sheep to shop".

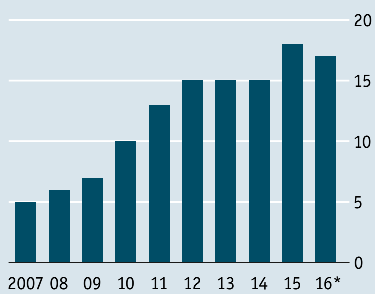
The company is also unusual because it has stayed independent of the few swaggering giants that bestride the luxury-goods world, of which the biggest is LVMH, Bernard Arnault's 30-year-old conglomerate; it incorporates Louis Vuitton, Dior and many other brands. Other groups include Kering, also based in Paris and the owner of Gucci, and Richemont, a Swiss specialist in watches and jewellery. (The luxury sector is also replete with minnows, of course—single brands with revenues of just a few hundred million euros, such as Versace and Missoni.)

But in other ways, Zegna is typical of the luxury business. European manufacturers dominate this €250bn industry, accounting for around 70% of production. And Zegna's past growth and present challenges are shared by firms of all sizes.

Luxury firms have prospered in the past by forging into new markets: first Japan, then America, then China, notes Armando Branchini of the European luxury-brands association in Milan. Jean-Christophe Babin, the boss of Bulgari, an Italian jeweller, says it was the spread of high-end, beautiful malls in Asia that did most for growth. In particular, status-hungry Chinese consumers propelled luxury's recent long expansion. Olivier Abtan of the Boston Consulting Group in Paris describes ever-richer Chinese consumers, with an utter "lack of inhibition" in displaying their wealth, as the best possible boost that the luxury industry could imagine.

Bling v Xi Jinping

China, personal luxury goods market, €bn



Source: Bain & Company *Estimate

The boss of one of the conglomerates recalls how difficult it was to balance rapid expansion of his brands against losing a perception of exclusivity. He resolved the dilemma by taking the theory of the "Veblen good"—one for which demand soars as it becomes more expensive—to an extreme, slapping ever-larger price tags on the firm's posh handbags and other items.

This Chinese boom is over. In the past four years Xi Jinping, China's authoritarian leader, has cracked down on political rivals suspected of corruption, discouraged ostentatious displays of wealth and turned Chinese tourists off shopping abroad by levying heavier duties on those who return with armfuls of Hermès bags.

Worse, because it could be a permanent shift, firms report changing tastes among Chinese consumers. They have been shunning big, shiny logos and—like Western shoppers—are now mixing cheap fast-fashion items with fewer luxury pieces. Last year, estimates suggest, China's huge luxury market shrank (see chart).

Solid economic growth in America in the past few years has helped sustain sales: stockmarkets and appetite for luxury goods reliably rise in step. Some retailers do report a recent uptick in Chinese demand over the past six months. Yet no one expects a return to the glory days. Terrorist attacks in Europe, slower growth in air traffic and lower spending in the region's airports are also hurting luxury sales. The watch business has been particularly hard ▸▸

hit (see next story). In Milan the chairman of a famous Italian fashion brand warns of saturated markets. Adding new shops in China is not viable, he says, when "you already have 200 retailers selling every sort of luxury item". He expects this year to be much like 2016—flat.

Mr Abtan foresees years of modest global growth, perhaps of around 3%. A spokesman at Gucci says that the overall market is growing at "perhaps 1-2%, so the pie is not getting bigger". The challenge at Gucci, he adds, is to achieve more "sales density" from existing shops.

Which kind of firm is best placed to deal with slower growth: giants, minnows or medium-sized firms like Zegna? The advantages of being a conglomerate in luxury include having more muscle to secure brands favoured spots and lower rents inside shopping malls. Luxury groups can also multiply the effect of their marketing and share back-office services.

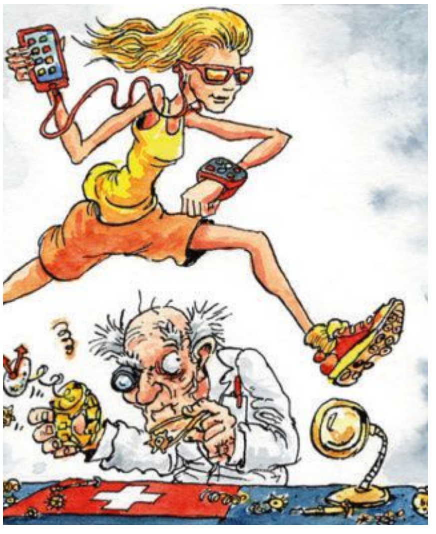
A new argument for independent firms such as Hermès or Prada to join the big groups is the imperative to go digital. Luxury firms were slow to adopt sophisticated digital strategies so long as the going was easy. Only 8% of total personal luxury-goods sales take place online, compared with 16% for the rest of retail (excluding items such as petrol and groceries). But now the industry wants that to change.

Michele Norsa, a former boss of Salvatore Ferragamo, an Italian maker of shoes, notes that new online habits are being led by young consumers who account for a growing share of luxury spending. Online markets have appeared for second-hand sales; fancy frocks can be hired for a few nights from websites such as Rent the Runway. The big firms are thinking of how to profit from such new markets—something that small firms might struggle to do.

An Italian lawyer who has been involved in several big deals in the luxury sector expects more consolidation, and not only because the industry is slowing. In the online world, firms especially crave fine-grained data about the most attractive customers—for example, on the "super spenders", the minority of the ultra-wealthy who account for an outsized share of total spending.

Until now, brands within groups have jealously guarded customer information from each other. But conglomerates may start sharing. Next month LVMH will launch a common digital platform for its brands that will yield new sorts of data. It will compete with rival luxury sites such as Net-a-Porter, and promote the idea of "omnichannel" shopping (combining online and in-store purchases). A decade ago established brands "didn't see online platforms as even compatible with luxury products," says José Neves, the founder of Farfetch, an online seller of luxury goods. Now they see that having their own online presence is essential, he says.

Mr Abtan of BCG says the big groups are probably best placed to go down such digital avenues. They can invest and buy expertise to push traffic from websites to shops. Firms of Zegna's size also need to bring in skills and should be able to afford it. But the minnows may struggle. The next challenge for luxury-goods firms will be about more than controlling supply chains and colonising posh malls. They will have to understand as much as they can about consumers and their digital habits. From "sheep to screen" will soon matter at least as much as "sheep to shop". ■



Swiss watchmakers

Wound up

LA CHAUX-DE-FONDS

Swiss watchmakers try to keep pace

BASELWORLD, a giant watch fair that ended this week, usually runs like clockwork. Companies show off new products; buzz and higher sales follow. However, something seems to have jammed. Exports of Swiss watches sank by a tenth in 2016, the worst performance since the financial crisis. Swatch, the world's biggest watch company, saw profits plunge by 47%. In February exports were 10% lower than they had been a year earlier.

Swiss watchmakers have been around for long enough not to panic: Blancpain, owned by Swatch, dates back to 1735; Vacheron Constantin, owned by Richemont, a Swiss luxury conglomerate and Swatch's closest rival, was founded 20 years later. In La Chaux-de-Fonds, a watch-manufacturing hub, workers toil much as they always have, at chin-high desks, using slim instruments to assemble springs, wheels, jewels and other tiny parts. But swings in demand have of late been particularly extreme.

The period from around 2004 to 2012 saw high growth. Chinese shoppers accounted for about half of Swiss watch sales during that time, reckons Thomas Chauvet of Citi, a bank. Manufacturers introduced pricier products and raised the cost of existing ones. The financial crisis was a blip. Chinese demand for watches, as for handbags and fashion, has since waned. Nor has it helped that many companies were slow to adjust to a changing market, continuing to push products onto fragmented wholesalers around the world that had little power to resist big brands' terms.

The immediate question is whether this source of demand will recover. The fact that exports to mainland China have recently risen slightly may simply reflect the fact that fewer Chinese are buying watches in Europe, due to higher import duties and fears of terrorism. Sales in Hong Kong, the industry's most important market, remain depressed.

In the longer term, the worry in the industry concerns the young. Apple now claims to be the world's second-largest watch brand, after Rolex. "Will they consider the watch as a possible status symbol or as an information-tool or as a design product?" asks Jean-Claude Biver, who runs the watch business at LVMH, a luxury-goods conglomerate. "Who knows?"

Watchmakers are ill-suited to a generation with fickle tastes. They are often slow to recognise changes in demand; many firms are only now starting to track which models sell to which consumers, where. Even for watchmakers with better data, the meticulous nature of making and assembling components means they will find it hard to build a flexible supply chain.

Firms' responses to the challenges have varied. Swatch is mostly carrying on as usual. As for Richemont, last year it bought back older inventory from the stores it distributes to in order to clear shelf space for new models. As part of an organisational change, from March 31st onwards the bosses of individual watch brands will report directly to Richemont's chairman, Johann Rupert, which the firm believes will make it nimbler.

At LVMH, Mr Biver is also trying hard to hook millennials: about two-fifths of advertisements, he says, are directed at those who cannot yet afford his firm's watches. Last year its TAG Heuer brand introduced a connected watch developed with Google and Intel, which sold well. Other brands seem set to follow its lead: in May Richemont's Montblanc will start selling a smartwatch with a heart-rate sensor and a built-in microphone, among other features. But the smartwatch category itself is far from established. In trendsetting Silicon Valley and elsewhere, the status timepiece of choice is often a smartphone. ■

Indian education

Cramville

HYDERABAD

For real knowledge, not just a degree, come to Ameerpet

UNIVERSITY campuses can take a while to get going in the mornings, as students recover from extra-curricular antics. Contrast that with Ameerpet, a squeezed neighbourhood of Hyderabad that has become India's unofficial cramming-college capital. By 7.30am the place is already buzzing as 500-odd training institutes cater to over 100,000 students looking to improve their IT skills. If there are ivory towers here, they are obscured by a forest of fluorescent billboards promising skills ranging from debugging Oracle servers to expertise in Java coding to handling Microsoft's cloud.

Expertise in the IT industry erodes fast as software programs are upgraded or become obsolete. Indian outsourcing giants such as Infosys and Wipro spend heavily to keep employees' skills up to date. But staff looking to change their career paths—to say nothing of those who didn't crack the interview in the first place—need rapid systems upgrades of their own. Training courses authorised by software providers exist but cost up to 375,000 rupees ($5,765). Fees at Ameerpet's informal institutes are typically below 25,000 rupees for classes lasting three to six months.

The glitziest of Ameerpet's establishments have some of the trappings of MBA programmes: they dish out business cards to students they call "trainee associates" and help them polish their CVs. But many courses that are in high demand from students from across the country are taught in primitive classrooms filled with plastic chairs. Costs are low in part because institutes use pirated software, avoiding expensive licences. Raids occur sometimes, and the servers have to be wiped clean. But help is at hand to reinstall the software quickly. It is what the attendees will soon be paid to do, after all, once they land a job.

The focus in Ameerpet is on teaching salary-boosting skills at warp speed. Many instructors are moonlighting from their own IT jobs. In the classroom they use projects that simulate real-world scenarios. Study material is repeatedly refreshed to reflect current job descriptions at leading IT firms across India, not an outdated curriculum. "In college you get a degree. You come to Ameerpet for education," says Narasimham Peri, a researcher at Britain's Bristol University.

Ameerpet succeeds because it fills the gap between Indian IT's global reach and the poor education Indians receive outside a top tier of engineering colleges. According to a government report published last month, three-fifths of engineering graduates in India are unemployable. Over half of the country's 3,300-odd engineering colleges are not up to standard. Nasscom, a lobby group for the IT industry, estimates that only three out of every ten faculty members who teach are qualified. Prestigious government-run institutes are reluctant to allocate more seats for students and believe that quality comes through squeezing supply. "That's terrible," says Mohandas Pai, a former director at Infosys.

Even so, it is surprising that Ameerpet is as busy as it is. Routine IT-maintenance tasks of the sort done by its graduates, after all, can increasingly be assigned to machines. Hiring by the Indian IT sector is at a ten-year low and some firms are even shedding workers. But Ameerpet will prevail, says Suresh Golla, who runs a popular coaching class there. He has started to stream lectures to woo foreign students, who are willing to pay far more than Indians. And there are still plenty of local aspirants keen to gatecrash careers that their formal educational qualifications suggest they do not deserve. ■

Eat your heart out, Stanford

Scott Gottlieb and the FDA

Drug of choice

The nominee to run the Food and Drug Administration is a sound pick

WHEN the names of potential candidates for the new head of America's regulatory agency for drugs, the Food and Drug Administration (FDA), were first circulated, you could almost hear the sound of jaws hitting desks throughout the pharmaceuticals industry. One contender was Jim O'Neill, head of Mithril Capital Management, an investment firm, who is such a libertarian that he doesn't think the FDA should insist that medicines have to work. Another was Balaji Srinivasan, an entrepreneur from Silicon Valley, who thought roughly the same.

Removing such a core regulation might seem appealing to business. In fact, the idea of not approving drugs for efficacy is as unwelcome to the industry as it is to doctors and patients. It spends billions of dollars every year on research to deliver better treatments; this would be impossible to justify if drugs had merely to be safe. Patients, meanwhile, would face the awful prospect of having to identify which life-saving medications worked.

So, when the name of the FDA nominee was announced in March, there was widespread relief. Scott Gottlieb (pictured) a resident fellow at the American Enterprise Institute, a conservative think-tank, is qualified, experienced and knowledgeable. He is a doctor, has been a policy adviser and has also worked at the FDA before, as the deputy commissioner for ▸▸

medical and scientific affairs.

Some reckon that he has too many ties to the drug industry: he is on the boards of five health companies, for example, and does investing and consulting work. Yet his inside knowledge should also give him an edge when dealing with its tricks. His main priority, people in the industry reckon, will be to improve and enhance the FDA, not to dismember it.

Mr Gottlieb will certainly wish to find more ways of speeding drug approvals. The agency has done much on this front already. Yet inconsistency continues: some divisions of the FDA respond to routine inquiries from companies in a few weeks; others take three months. Mr Gottlieb has also criticised the agency for having a culture that values "excessive desire for certainty". Attempts to change this will elicit criticism that patient safety is in jeopardy. Yet in some cases it is clear that the demand for ever-larger clinical trials of new drugs has done little for safety, raised costs and rewarded chiefly the very largest companies that can afford to run them.

One path will be to advance the trend for gathering evidence from trials that take place in the real world, not under tightly controlled conditions. GlaxoSmithKline, a British pharmaceutical group, recently completed the world's first such test for a drug, Relvar, which treats asthma and chronic obstructive pulmonary disease. The four-year trial was conducted by monitoring thousands of patients' electronic medical records.

Generic drugs is another area where Mr Gottlieb has signalled his views. In a commentary for the *Wall Street Journal* in August, he criticised the policymaking that had kept some generic medicines off the market, raising prices. He may want to tackle the rising cost and complexity of filing applications to market generic drugs—the problem that allowed Martin Shkreli, a controversial entrepreneur, to raise the price of Daraprim, an anti-parasitic drug, by 5,000% in 2015, causing fury.

The FDA also needs to run faster to keep abreast of innovation. Sudip Parikh, a policy adviser at the Drug Information Association, another think-tank, says the rate of change means that decades-old rules and regulations may not function well for new treatments. Some rules will be too restrictive, others too permissive. On the one hand, for example, more should be done to allow digital health-care products to escape the grasp of the FDA; on the other, the use of stem cells should face more scrutiny. Many clinics offer unregulated stem-cell treatments because of a loophole in the law. Three people were recently found to have been blinded by such treatments.

Mr Gottlieb still has to gain approval from the Senate, which will examine his industry ties and his zeal for deregulation. If confirmed, he may find that the biggest challenge is managerial. The FDA is a complicated agency of 17,000 staff and Mr Gottlieb may have little financial room for manoeuvre: under Donald Trump and a Republican Congress, the hope of more funds is slim. Mr Parikh says that if the FDA is to be more efficient and its regulations less burdensome, it still needs the right number of scientists and inspectors. Mr Gottlieb may have the technical ability to administer the correct medicine to the agency. But whether the government will foot the bill is another matter. ■

Internet advertising

Advalanche

SAN FRANCISCO

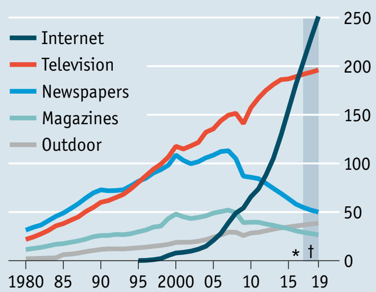
A row about YouTube puts a spotlight on digital advertising's problems

EVEN advertisers can be seduced by slick marketing. Google and Facebook have built huge businesses by promising that online ads are more effective and easily measured than traditional media, such as television, radio and print. This year the amount spent on internet advertising, globally and in America, is forecast to surpass television advertising for the first time (see chart). But a controversy at YouTube, an online-video site owned by Google, shows how digital advertising still has problems to sort out before it lives up to the dazzling sales pitch.

A slew of advertisers, including stalwarts such as Coca-Cola, Walmart and General Motors, have announced plans to suspend usage of, or move ad spending away from, YouTube because ads (in some cases their own) were appearing alongside offensive content, including videos by jihadist and neo-Nazi groups. Google's own brand has suffered: the damage to the firm's sales could be as much as $1bn in 2017, or around 1% of its gross advertising revenue. Shares of its parent company, Alphabet, have fallen by around 3% owing to the controversy.

Sliced and diced

Advertising spending, worldwide, $bn



Source: Zenith *Estimate †Forecast

It is not the first time that brands have fretted about where their ads appear. In 2013 Nissan drew headlines when it placed an ad alongside a video of a beheading on the website Forbez DVD. There have been other incidents. But never before have so many advertisers raised concerns about what they call brand "safety" all at once and staged such a dramatic boycott.

The timing may not be coincidental. Television networks are gearing up for negotiations with advertisers as part of America's "upfronts", in which brands commit around 70% of their TV-ad budgets for the year. It is in their interest to encourage big brands to look critically at digital advertising, which has been trouncing nearly all the other categories. The furore over extreme content escalated after the *Times*, a London-based newspaper owned by Rupert Murdoch, whose empire also contains many television properties, ran a story in mid-March with the headline, "YouTube hate preachers share screens with household names". Advertisers may also be hoping to negotiate better pricing on their future internet-ad buys by taking a strong stand on this issue, says Mike Henry of OpenSlate, which helps brands place ads on YouTube.

Few can now do without ads that are bought "programmatically", meaning in an automated fashion using algorithms. The technique allows brands to follow internet-goers wherever they spend time and direct ads specifically at them. "What's strange is that everyone was so fascinated with targeting ads that they forgot to ask themselves the mundane question of what content they are appearing next to," says Rich Raddon of Zefr, an ad-tech firm.

In other ways, too, digital advertising is falling short. In September Facebook admitted that it had inflated the reported time consumers spent watching video advertisements, and since then has acknowledged further measurement snafus. All these issues have invited censure, including from Marc Pritchard, whose role as marketing chief of the consumer-goods giant Procter & Gamble makes him one of the overlords of advertising. "Surely if we can invent technology for driverless cars and virtual reality we can find a way to track and verify media accurately," he said.

Although advertisers may be frustrated with YouTube's poor oversight of where ads appear, there is a limited supply of high-quality online video. YouTube is like a restaurant in a small town: the service may be slow and the quality of food unpredictable, but there are few alternatives, so the clientele sticks around. Today Google and Facebook control around three-fifths of spending on digital ads in America, and their share is only expected to rise.

Google and Facebook might consider making concessions to advertisers. At the moment Google does not allow third parties, such as the firm Integral Ad Science, to filter or block inappropriate content on behalf of advertisers, even though these independent firms have the technological tools to do so. That could change if advertisers continue to exert pressure.

Advertisers can monitor ad placement, too. There are tools for this: on YouTube and elsewhere on the internet, firms can select keywords so that they stay away from certain contexts. Banks can avoid videos and articles that mention foreclosure, for example, and carmakers can choose not to bid on ad space near articles about crashes. But only about 15% of advertisers are using this sort of tool, reckons Scott Knoll, the chief executive of Integral Ad Science. In the future more will probably turn to such solutions, and also pay for outside measurement to check if their ads are being seen. Technology has brought headaches for advertisers, but that won't prevent them investing in more of it. ■

Nuclear power

Fallout

NEW YORK

Westinghouse files for bankruptcy

THERE are few more storied innovators than Westinghouse. Founded in 1886, it is the company that brought electricity to the masses. When you plug in your toaster or flip your light switch, you have George Westinghouse's alternating-current system to thank. In the 21st century the firm seemed poised to unleash a new revolution in nuclear energy. Its AP1000 pressurised water reactor was supposed to make nuclear plants simpler and cheaper to build, helping to jump-start projects in America and around the world.

But those nuclear ambitions have gone awry. On March 29th the firm filed for Chapter 11 bankruptcy in New York. Its troubles have been a running sore at Toshiba, its Japanese parent, a headache for its creditors, and the latest bad tidings for a nuclear industry beset with problems.

Toshiba was triumphant in 2006 when it paid $5.4bn for Westinghouse after a bidding war, beating out General Electric (founded by George Westinghouse's archrival, Thomas Edison). Around the same time, Southern and SCANA, two big utilities based in Georgia and South Carolina, respectively, chose the AP1000 design for new nuclear plants.

But these American projects soon faced the problems that have long plagued nuclear construction. In Westinghouse's bankruptcy filing, the company explains a dismal chain reaction. Unexpected new safety and other requirements from American regulators caused delays and additional costs. That sparked a fight between the utilities, Westinghouse and its construction contractor, a subsidiary of Chicago Bridge & Iron (CB&I), about who should bear them. The brawl exacerbated delays.

In an attempt to push the projects forward, Westinghouse acquired CB&I's subsidiary, then became mired in litigation over the terms of the deal. It also signed new contracts with consortia led by Southern and SCANA, agreeing to shoulder unanticipated costs. Those costs mounted. Construction continued swallowing more time and labour than Westinghouse had hoped. In February Toshiba announced a $6.1bn write-down for the two American projects. Stephen Byrd of Morgan Stanley, a bank, anticipates that the total costs of the plants, if completed, would be about twice Westinghouse's original estimate.

The nuclear business has imperilled Toshiba itself. The company's health had improved in the aftermath of a huge accounting scandal in 2015, but its nuclear unit dragged it back down. Toshiba now appears desperate to shrink as a way to grow. It was eager for Westinghouse to file for bankruptcy before the end of its financial year. It also intends to sell its lucrative chip business. Shrinking might indeed help Toshiba focus on its strengths, as a specialist in the design and production of heavy machines such as turbines, coolers, motors and control systems.

But the Westinghouse bankruptcy is unlikely to be neat. Southern and SCANA may go to court to seek payment from Toshiba: the Japanese company has guaranteed ¥650bn ($5.9bn) against the spiralling cost of the projects. Any suggestion that Toshiba is bilking the utilities would anger Donald Trump. The AP1000 projects' future was recently discussed in a meeting of officials from America and Japan.

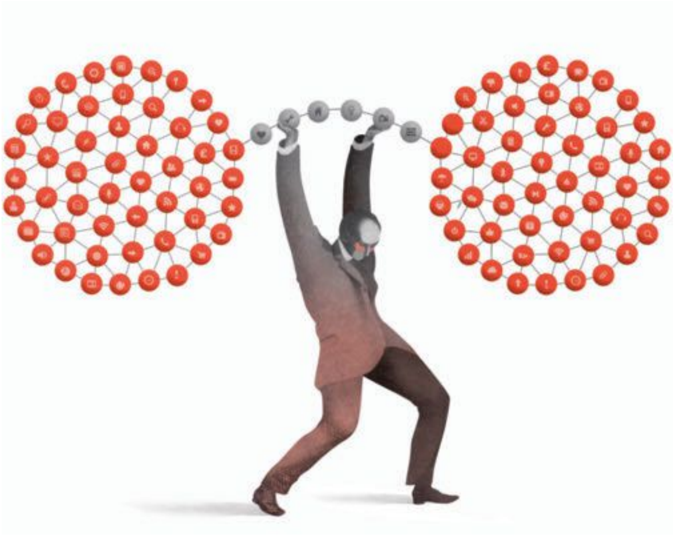
The degree of diplomatic friction depends on what happens to the projects. Westinghouse expects to continue working on the reactors in Georgia and South Carolina as bankruptcy proceedings go on, but the utilities may abandon the plants or seek another firm to build them. There have been rumours that Korea Electric Power, a state-controlled utility, might take over, but Westinghouse's steep losses may keep it away. "This has bankrupted Westinghouse," says Mr Byrd. "Why would another firm step into that situation?"

The future for other AP1000 reactors looks bleak. A plant in China is years behind schedule. In America, the troubles in Georgia and South Carolina may bolster support for more modest nuclear projects, says Tyson Smith, a nuclear-energy expert at Winston & Strawn, a law firm. On March 15th the country's nuclear regulator said it would review an application for America's first small modular nuclear reactor (SMR), from a company called NuScale, in Oregon. The SMR technology has been touted as a cheaper, easier way to build nuclear capacity. But it will have to compete with inexpensive natural gas, wind farms and solar plants. Those hoping for an American nuclear resurgence may have to wait a long time yet. ■

Who will see it through?

Schumpeter | Sonic boom

Masayoshi Son, a Japanese technology tycoon, begins a $100bn shopping spree



IF YOU want to find a spectacular vision of the future, Silicon Valley is not the only place to look. In Tokyo Masayoshi Son, the boss of SoftBank, a Japanese telecoms group, is starting an investment fund worth $100bn which, he hopes, will make him the Warren Buffett of technology. "Masa" is no stranger to risky bets: SoftBank was an early investor in Alibaba, a Chinese e-commerce company, and has sunk $22bn in Sprint, a struggling American telecoms firm. Now he has been seized by the kind of Utopian fever that would make the Sage of Omaha choke on his Cherry Coke.

Mr Son, who is 59, believes that the world will soon encounter what is known as the Singularity, the point at which artificial intelligence exceeds the human kind. The brains of people and machines will become enmeshed (see page 67). Every person will have over 1,000 devices linked by a seamless global network, with the data analysed by machines in the cloud. As well as smart glasses, people will wear smart shoes and every car and washing machine will link up to the web. This internet revolution, says Mr Son, will be more momentous than the first.

He has begun making acquisitions. Last year he spent $31bn buying Britain's ARM Holdings, which designs the chips in mobile devices (it will be owned jointly by SoftBank and the fund). He also invested a total of $2bn in OneWeb and Intelsat, two satellite-technology firms that aim to launch thousands of microsatellites to orbit the Earth providing high-speed internet access. Tech firms around the world are bracing for more swoops by Mr Son, who says his aim is to build a business empire lasting 300 years. What he doesn't mention is that he also wants to prove beyond all doubt that his fortune is due to skill, not one lucky deal.

Mr Son believes he has anticipated successive paradigm shifts in technology. The son of an ethnic-Korean pig farmer, whose childhood was spent in a shack in southern Japan, Masa wept joyfully when, as a teenager, he first saw a picture of a microchip. He learned programming while at the University of California, Berkeley, then in the 1980s sold software in Japan. He was an early investor in internet firms, buying a share of Yahoo in 1995 and the Alibaba stake in 1999. Later he invested in mobile telecoms, first in 2006 with his purchase of Vodafone's Japanese mobile arm and then of Sprint in 2013. Now SoftBank is huge, with an enterprise value (its market value plus its net debt) of $193bn.

Yet Mr Son's career is still defined by Alibaba. In 1999 he was visited in Tokyo by Jack Ma and Joseph Tsai, co-founders of a fledgling website in Hangzhou. Mr Son tapped on a calculator as they haggled and agreed that SoftBank would buy 30% of the young firm for $20m. The deal was "based on my sense of smell", Mr Son said later. Now Alibaba's market value is $270bn, and, after selling some shares last year, SoftBank still owns 28%.

About 95% of SoftBank's market value is accounted for by the Alibaba stake, so the rest of what it does, from telecoms to venture capital, may be worth little, once debts are deducted. Mr Son says that SoftBank has made an internal rate of return of 43% on all its other investments, excluding Alibaba, but the basis of his calculations is unclear. There have been triumphs—SoftBank made $5bn buying and selling Supercell, a Finnish gaming firm, between 2013 and 2016. But the group has produced little cash-flow, and Mr Son's deals have left it with $110bn of net debt.

So Mr Son has a minority investment in a great firm, but has yet to build one himself from scratch. And SoftBank's poor finances are impeding his ambitions. Because his stake is only 19%, he cannot raise cash by selling shares without weakening his grip on the firm. He could sell the rest of the Alibaba stake, but appears reluctant to let go altogether. Or he could try to broker a merger of Sprint with T-Mobile, another American telecoms firm, allowing SoftBank to rid its balance-sheet of Sprint's $31bn of net debt. Until now antitrust regulators have opposed a deal. But Mr Son hopes that the Trump administration will be more amenable.

The alternative is partially to bypass SoftBank, which is what the new $100bn fund achieves. Mr Son will have more discretion over what to buy, free of grumbling public shareholders. Outside investors will give him huge firepower. Saudi Arabia's public investment fund, for example, has promised to give him buckets of cash. The fund and its debts will be kept off SoftBank's books.

Masachism

Investors in the new vehicle and owners of SoftBank shares should have three worries. First, while Mr Son's ideas stand out for their intensity, they are not entirely original. Others in tech share his vision of ubiquitous, web-linked devices with their data crunched by machines, so the values of firms involved in these areas are sky-high; SoftBank paid 71 times earnings for ARM. Second, Mr Son can lose focus. Some of the startups he particularly admires, such as Uber and Airbnb, are only loosely related to his notion of the internet. Others are even more tangential. On March 20th SoftBank bought a $300m stake in WeWork, a trendy office-rental firm with a dizzying valuation.

The third worry is governance. Mr Son's mind skips from one obsession to the next. In 2014-15 he was briefly infatuated by India's tech scene, for example, and appointed Nikesh Arora, an Indian-born former Google executive, as his heir apparent, only to ease him out a year later, in 2016. It is clear that one man with a messianic streak will dominate the fund as well as the running of SoftBank. Mr Son's dual role also produces conflicts of interest: if there is a juicy deal, who benefits—the fund or the firm?

For Mr Son, these are quibbles that will fade into irrelevance over his 300-year horizon. He has said that, looking back on his first six decades, he regrets that he "focused too much on the daily routine and didn't really think big." So far only 3% of his brainpower has been devoted to big investment decisions, he believes. Now more than half of his mental capacity will be directed at fulfilling his destiny. Masa is just getting started. ■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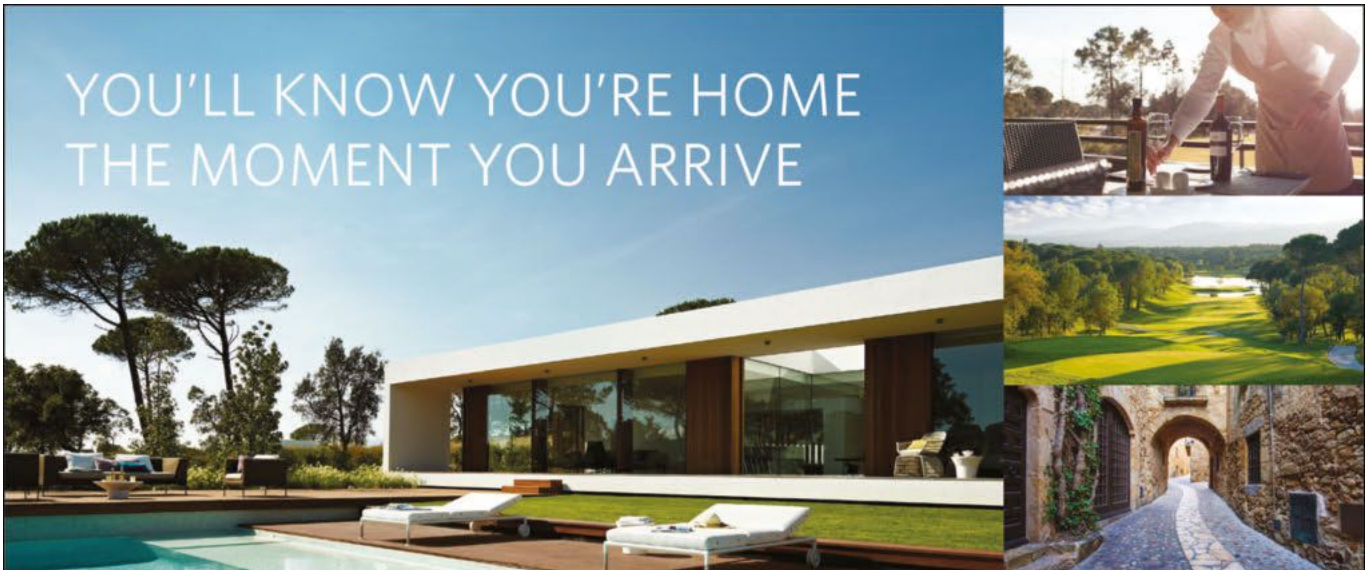
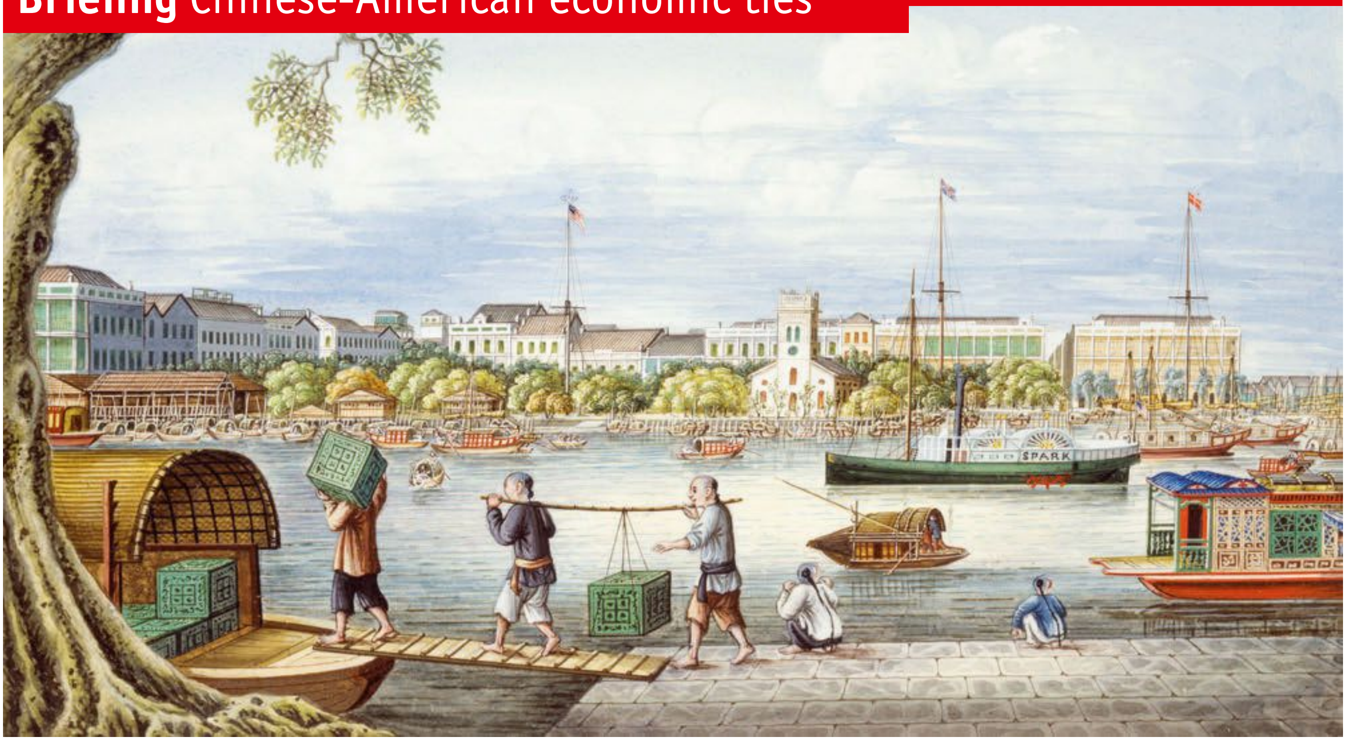

YOU'LL KNOW YOU'RE HOME
THE MOMENT YOU ARRIVE



The silk-silver axis

SHANGHAI

The world's most important economic relationship is also its most fraught

IN 1784 the *Empress of China* set sail from New York, on the first American trade mission to China. Carrying ginseng, lead and woollen cloth, the merchants aboard dreamed of cracking open the vast Asian market. But the real profit, they found, came on their return, when they brought Chinese teas and porcelain to America. As other ships followed in its wake, the pattern became clear. Americans wanted more from China than Chinese wanted from America, and the difference was made up with a steady outflow of silver from America into China. The *Empress* had launched not just commercial ties between the two great countries but also an American deficit in its trade with China.

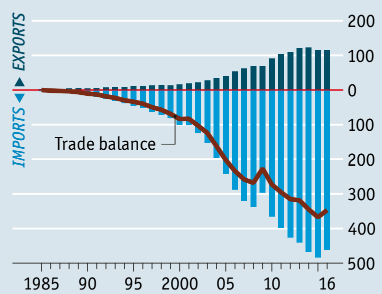
The modern incarnation of this deficit is still driven by the flow of consumer goods, but nowadays electronic gadgets. In recent years it has reached a record size (see chart 1). When Xi Jinping, China's president, meets Donald Trump—a meeting is reportedly planned in Florida early in April—the deficit will top the agenda. In his run to the White House, Mr Trump promised a combative stance against China on trade. Some expect America to slap punitive tariffs on Chinese goods, triggering an all-out trade war. Others think a grand bargain that defuses tensions is possible.

Many American businesses, bruised in their dealings with China, cautiously welcome a harder line. For their part, Chinese businesses feel unjustly singled out. Both sides are nervous, conscious that the world's most important economic relationship is also its most complex. America and China are bound together by cross-border flows of goods, cash, people and ideas that are bigger than ever. These ties have greatly benefited the two countries' prosperity. A rupture would be severely damaging for both.

The original sin, for Mr Trump's most hawkish advisers, is the trade imbalance. Before China joined the World Trade Organisation (WTO) in 2001, China accounted for less than a quarter of America's total trade deficit; over the past five years, it has made up two-thirds. Peter Navarro, head of Mr Trump's new National Trade Council, sees the deficit as a drag on America's economy. Close it, he argues, and America's GDP will be bigger. And he sees a way to do so: take on China over its unfair trade practices, from currency meddling to export subsidies. In 2012 he released a documentary, "Death by China", as a call to arms.

It's yuuge 1

United States goods trade with China, $bn



Source: Census Bureau

Mr Navarro's views rely on crude arithmetic that defies the most basic economic logic. In fact, big deficits often accompany fast growth. And it is misleading to focus on bilateral imbalances in an age of global supply chains. Counting the bits and pieces from other countries that go into "made in China" smartphones, fridges and televisions, China's trade surplus with America is about a third smaller than officially reported.

Yet the gap ought perhaps to be smaller still. American companies insist that, with a level playing field, they would be able to sell much more to China. Some of the obstacles in their way are obvious. Carmakers, for instance, face 25% import tariffs. More often, barriers are subtler. Medical-device makers cite onerous licensing procedures and seed firms lengthy approvals.

Indeed, America had been adopting a firmer approach to China on trade long before the election. Barack Obama's administration stepped up pressure through the WTO. Of America's 25 formal WTO complaints filed after 2008, 16 were against China. The administration also initiated 99 anti-dumping and countervailing-duty investigations against China, more than against any other country (see chart 2).

China sees a pattern of unfair treatment. For Mei Xinyu, a researcher at the commerce ministry, what is wrong with the bilateral relationship is obvious: "American protectionism". America has to cure its own ills and building walls won't help, he says. Most emblematic is America's decision to withhold "market-economy status" from China, which allows higher duties to be put on Chinese imports.

Chinese officials cite another example of unequal standards—the time-worn American complaint, made especially loudly by Mr Trump, that China fiddles its currency to cheapen its exports. China certainly does manage the yuan, but over the past decade it has let it appreciate by nearly two-fifths against a broad currency basket—more than any other big economy has.

Left to its own devices, the trade relationship between China and America should become more balanced in time. As China's middle class grows, its consumers are buying more from abroad. Chinese demand for American agricultural products, especially soyabeans, has boomed. China is already buying more services from America then vice versa. One of America's biggest exports to China is education. The number of Chinese students in America has reached nearly 330,000—almost a third of all foreign students—and is up more than fivefold over the past decade.

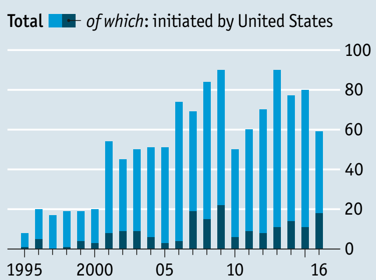
Battle lines

But if Mr Trump carries out his most extreme threats and whacks a 45% across-the-board tariff on Chinese goods, trade flows between the two giants—the world's biggest bilateral trading relationship—would shrivel. Collateral damage to the global economy would be immense. The very survival of the rules-based international trading system would be at stake.

China would, in a conventional analysis, suffer more in a trade war. About a fifth of its exports go to America, equating to nearly 4% of Chinese GDP. Less than a tenth of American exports go to China, worth less than 1% of American GDP. But a fight would also hit America hard. No other country could easily replace China in making many of the products, from toys to textiles, that fill American shops. Consumers would face sharply higher prices. American companies that have used China as a production base would struggle to reconfigure their supply chains. If American firms brought factories back home, prices would rocket. Goldman Sachs, an investment bank, estimates that the cost of producing clothing would increase by 46% and smartphones by 37%.

Dump before Trump 2

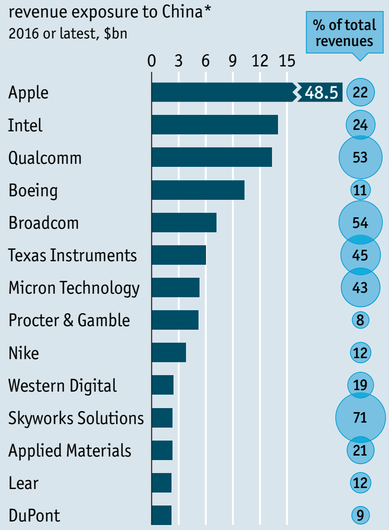
Worldwide anti-dumping and countervailing cases against China



Source: WTO

Chinese to the core 3

American companies with highest revenue exposure to China*
2016 or latest, $bn



Source: Bloomberg

*Of those which report China or Greater China revenues

Moreover, China would retaliate. Even if America as a whole runs a deficit, it has industries and companies that increasingly rely on Chinese demand. Nearly half its fruit and seed exports go to China. China is in some months the world's biggest market for iPhones. Semiconductor-makers such as Qualcomm and Broadcom derive most of their revenues from China (see chart 3).

All this helps explain why Mr Trump has so far trod softly in confronting China. James McGregor, Greater China chairman of APCO Worldwide, a lobbying firm, says that American bosses have been streaming into Washington for meetings with the Trump team to appeal for calm and to teach them that "China is not a country to be toyed with." But perhaps Mr Trump has merely been distracted by the rocky start to his domestic agenda and it is only a matter of time before he lashes out at China. If he does, though, he will soon learn that trade is not the only show in town. Investment gets much less attention but is also vital to the relationship.

Start with a myth—that China can bankrupt the American government. Over the past decade, China has invested more than $1trn in Treasuries. At its peak, America owed more money to China than to anywhere else. Pundits fret that, were China to dump its bonds, American interest rates would shoot up and the dollar plummet.

But that is to misunderstand the financial mechanics. The Federal Reserve has demonstrated that it can buy far more government bonds than any foreign or domestic holder can sell. China thus cannot dictate interest rates in America, much less push it into penury. And the volatility of the dollar is also a Chinese concern. Because Chinese companies borrowed heavily abroad, dollar strength has made their debts more costly in yuan terms.

Financial exposure goes the other way, too. Back in 2015 the Fed was planning to embark on a series of interest-rate increases. In the end it managed to deliver its second rise only at the very end of 2016. Jitters over China's economy had stayed its hand. American investors have learned that news out of China can wreak havoc on their portfolios. Anxiety about China has triggered two of the three most recent "risk-off" episodes in global markets, as captured by the VIX, a measure of stock-market volatility, popularly known as the "fear gauge". This is the crucial point: it is not that China has the financial upper hand over America, or vice versa; it is that they are increasingly joined at the hip.

Mutually assured destruction

And these are just the financial linkages, which remain limited by China's capital controls. Look at the physical investment ties between China and America and the mutual vulnerabilities are even more glaring. According to official data, roughly 1% of the stock of American direct investment abroad (money spent on assets such as factories, warehouses and shops) is in China. But this misses much of the cash routed through the Cayman Islands or Hong Kong for accounting reasons. An analysis last year by the Rhodium Group, an American research firm, took a granular approach to calculate that the true stock of American foreign direct investment (FDI) in China built up from 1990 to 2015 was $228bn, three times the official figure.

American companies initially lighted on China as a cheap manufacturing base; as costs there have risen, that wave of investment has tailed off. A new influx seeks to tap China's consumer demand. In 2016 China was the leading emerging market into which American firms poured FDI. China's booming middle class is forecast by McKinsey, a consultancy, to grow from just 6% of urban households in 2010 to over half of the total by 2020.

For firms that have made it in China, the rewards have been immense. Through joint ventures with local partners, GM sells more cars, and makes more profits, in China than it does anywhere in the world. Over the next two decades, Boeing estimates, China will buy 6,000 new aeroplanes, becoming its first trillion-dollar

market. Starbucks is opening new cafés in China at a pace of over one a day. On official estimates, some 1.6m people in China now work for American subsidiaries.

But success stories of American companies in China will not exactly warm the hearts of Mr Trump's band of economic nationalists. What they want is money invested in America, not more profits made abroad. Forget for a moment that this policy risks doing more harm than good (preventing Apple or GM from going big in China would hurt them financially). The more relevant point—the one likelier to sway Mr Trump—is that the bigger investment flows these days are from China into America.

Chinese investment into America used to be tiny. No longer (see chart 4). Rhodium estimates that it leapt from about $16bn in 2015 to some $46bn in 2016, compared with $13bn invested by American firms in China. Chinese investments are already thought to support roughly 90,000 American jobs across several dozen states. The money is spread across virtually every area of the economy. Chinese companies have bought Hollywood production companies, car-parts- and appliance-makers, semiconductor firms and more.

China is well aware that its investors can also convey a positive message. Witness Jack Ma's meeting with Mr Trump, just before his inauguration. Mr Ma, founder of Alibaba, a Chinese e-commerce giant, boasted that his shopping portal would create 1m jobs in America, giving small businesses and farmers a platform to export to Asia. The promise was far-fetched (Mr Trump might appreciate that). But there was a kernel of truth: Chinese investors are only getting started in America.

Were it just a question of money, these investment trends ought to be the clincher, giving America and China every reason to stay on each other's good side. But investment cannot be divorced from power, and that poses complications. Most obvious are national-security concerns. Both China and America have become more active in restricting each other's technology and blocking deals that they fear might compromise their security.

But commercial competition casts an even bigger shadow. China and America are increasingly butting heads. "Made in China 2025", an industrial plan unveiled in 2015, is indicative of how China is gunning for industries that America and other foreign countries have dominated. China aims to become a leader in ten strategic sectors, ranging from next-generation IT to agricultural machinery.

Critics in America warn that China's state-driven model for advancing in these industries will cause damage around the world. Their worry is that China will deploy much the same industrial policy that it has used in sectors from wind power to high-speed rail: pressure on foreign firms to share technology; protection of local firms; targets to phase out imports; and generous state funding. "This could lead not only to China taking over market share but, because of its scale, destroying entire business models," says Scott Kennedy of the Centre for Strategic and International Studies, a think-tank in Washington, DC.

Another casus belli

How America might respond to this perceived threat remains hazy. A committee recommended to Congress last year a ban on all investment in America by China's state-owned enterprises (SOEs)—a measure as likely to lead to a full-blown trade war as Mr Trump's 45% tariff wall. A recent review of the semiconductor industry called for a stiffer response to China's market distortions. Others argue that fears of "Made in China 2025" are overblown. Government interventions may work in industries such as solar power and railways, which are dominated by subsidies and public-sector procurement. But they have already been seen to fail in consumer industries such as carmaking.

China's government has tried to rebut critics of its industrial plan. The point, it says, is merely to give companies guidance about future trends. Meanwhile, Chinese firms, for their part, fear that obstacles in America are proliferating. He Fan, a prominent Chinese economist, says the feeling is that business in America is becoming more politicised. "You can only have long-term investment when the rules are clear," he says. "Previously that was America's strong point. Now it's uncertain."

Easily lost amid the blaze of recriminations is the extent to which competition between China and America can also yield benefits. The two countries are already spurring each other to innovate. American venture capitalists are well embedded in the software cluster in Beijing and the hardware ecosystem in Shenzhen, a city in southern China. American private-equity firms are prominent in China, making bets on industries ranging from health care to energy. American multinationals used to build shiny R&D centres in Shanghai and Beijing to please officials, but did little original work in them. Now, firms ranging from industrial conglomerates like GE to biotech giants such as Amgen are doing some of their cutting-edge research in China.

China's most inventive firms are also investing heavily in America in search of talent and new patents. Just this week, Tencent, a tech giant, said it was spending $1.8bn to buy 5% of Tesla, a maker of electric cars. Huawei, Alibaba and Baidu are its near-neighbours in Silicon Valley. BGI, the world's biggest genome-sequencing firm, is opening a laboratory in Seattle to be closer to the Gates foundation, a big client. Mindray, a medical-devices firm, has a couple of American R&D labs. Lenovo, the world's biggest maker of personal computers, is inventing and manufacturing B2B products in North Carolina.

One possibility is that, as these kinds of cross-border business operations become more widespread, the Chinese-American economic relationship will settle down. Competition will be welcomed as healthy, not feared as destructive. But it is likely to be a long time before that happens. It would help if the governments could see eye to eye—in particular, if they could agree on a long-stalled bilateral investment treaty; and if they could reach an understanding on trade before their disagreements threaten the WTO itself.

Both outcomes, however, are highly unlikely. The diplomacy needed to navigate the shoals of their economic ties is in short supply. China's success in low-end manufacturing has already caused a backlash in America. As Chinese firms take on companies at the heart of the American economy, the friction will surely increase. It is enough to make one nostalgic for the days when their business involved little more than swapping silver for silk. ■

It's alright, Ma, I'm only squeezing

Also in this section

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Energy in Asia

Canary in the coal mine

Weak electricity demand in China and India is clouding the outlook for coal

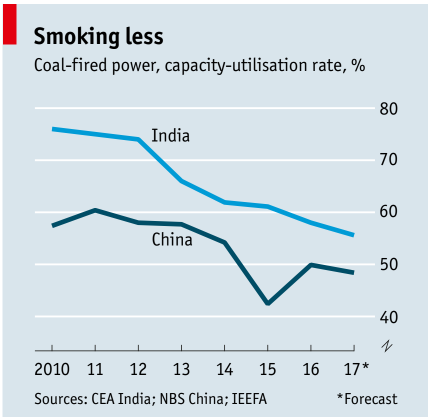
THE Hazelwood power station in Australia's state of Victoria started generating electricity 52 years ago. The stark symbol of an era when coal was king, Hazelwood was one of Australia's dirtiest: its fuel was the Latrobe valley's brown coal, a bigger polluter than the black sort. The station was due finally to close on March 31st. Days earlier, chimney stacks were demolished at Munmorah, a black-coal station north of Sydney, already closed. Australia has shut ten coal-fired power stations over the past seven years, yet coal still generates about three-quarters of its electricity.

This fits a pattern across much of Asia, which accounts for two-thirds of the world's coal demand. The biggest economies besides Japan, which hopes to replace nuclear with "clean" coal, are either closing down old plants or rethinking plans to build new ones. This is casting a deepening cloud over the coal industry.

Two reasons explain the looming overcapacity in countries ranging from China and India to Australia (South-East Asia remains hooked on coal). Firstly, electricity demand is stagnant, falling or growing less strongly than expected, which has put considerable financial strain on power plants burning coal. Second, countries are seeking alternative sources of power, especially renewables, to reduce pollution and curb carbon emissions. As the cost of renewables becomes more competitive with coal, it further blackens its future.

Coal's first headache, the falling energy intensity of economic growth (ie, less energy is needed to produce the same levels of growth), is a common feature in the rich world, as economies switch from manufacturing towards services, use more LED lighting and make appliances such as refrigerators and air-conditioners more energy-efficient. According to the International Energy Agency, a forecaster, Australia and Japan have among the rich world's lowest levels of energy intensity.

China and India are going the same way. Primary energy demand in China declined in 2015, the first fall in almost 20 years, largely reflecting a shift away from heavy manufacturing, as well as energy-efficiency gains. The same year, China's coal demand plummeted by about 4%.



For similar reasons, India's growth in electricity demand, at around 5% a year, lags behind that of GDP as a whole, at about 7%. In both India and China, authorities have overestimated the growth in electricity consumption, procuring coal-fired power that is not used by the grid. The result is that coal plants in both countries are operating far below their potential capacity, says Tim Buckley of the Institute for Energy Economics and Financial Analysis, an environmental think-tank (see chart).

Such wastage has deterred investment in new coal-fired plants. A report in March produced by, among others, CoalSwarm, an NGO, found that developers in China and India have recently put 68 gigawatts (GW) of planned coal-plant construction on hold, though there is still a construction pipeline of about 145GW and 50GW, respectively. India's Central Electricity Authority sees no need to build more coal-burning plants during the next decade besides those already in the pipeline, because so many are underused. "Coal-based generation is becoming non-viable," says E.A.S. Sarma, a former power secretary in the Indian government.

That has big costs. About 240m Indians lack access to electricity, and as Arunabha Ghosh, head of the Council on Energy, Environment and Water, an Indian think-tank, points out, Indians' power consumption is less than a third of the global average. He notes that part of the blame for sluggish demand is the dire financial state of India's electricity-distribution companies, which lose money on every unit of power they supply, because of transmission losses and customers' failure to pay.

The government of Narendra Modi, the prime minister, is trying to fix the distribution companies' problems. But in the meantime renewable energy prices are falling fast, making the investment case for coal even bleaker. An auction in February ▶▶

to provide 0.75GW of solar capacity in Madhya Pradesh, a state in central India, saw bids as low as 2.97 rupees (4.6 cents) per kilowatt hour, a third below the previous record in 2016. Developers say new coal-fired power plants would struggle to compete with that. The auction was particularly successful because the "solar park" is on land with a grid connection, and offers a more robust payment structure than in previous auctions. Mr Modi will need dozens more such parks to meet his goal of 100GW of solar capacity by 2022. This in turn will need a huge amount of financing. But there is no shortage of bidders.

Meanwhile, the pace of solar installations in China is likely to slow, following a record 34GW last year, because the cost reductions are being matched by a drop in the subsidy in the feed-in-tariff that China pays to solar-power generators. Nonetheless, Bloomberg New Energy Finance, a consultancy, estimates that from 2016 the amount of new renewable-energy capacity in China is likely to have started exceeding new fossil-fuel plants. It expects the same to happen in India from 2018.

Adding to competition for coal in Asia is liquefied natural gas (LNG), imports of which surged by 37% into China last year and by 30% into India, according to industry figures released this week. They partly reflect a surge in supply from Australia.

Although Australian LNG may be welcome in Asia, and has benefited the Australian economy with investments of A$200bn ($150bn) in a decade, it is causing unexpected problems in electricity markets back home. That is because, after blackouts in South Australia last year, Australian states need more gas as they close coal-fired power stations but find much of it being siphoned off for export.

Rod Sims, head of the Australian Competition and Consumer Commission, a

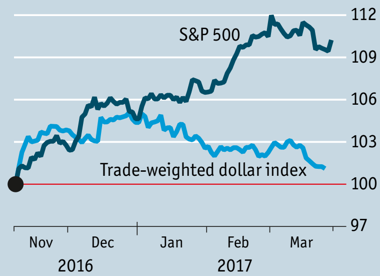
Buttonwood | Repent at leisure

Investors are realising Mr Trump's promises may not be fulfilled

HONEYMOONS don't last for ever. Having been a reluctant bride to President Donald Trump when courted in the run-up to November's election, the American stockmarket quickly melted into a mood of romantic euphoria. Shares rose by 12% between election day and March 1st (see chart). But in recent days, sentiment has dimmed. There is talk of the "Trump-disappointment trade".

Losing steam

November 8th 2016=100



Sources: Thomson Reuters; Federal Reserve Bank of St.Louis

For the markets to experience some kind of sell-off is hardly a surprise. The S&P 500 index had gone more than 100 days without a 1% decline, the longest such streak since 1995. And the setback should not be exaggerated. The S&P 500 remains well above its pre-election level, compared with the dollar, which has given up around half its gains. The ten-year Treasury-bond yield, which hit 2.62% on March 13th, has dropped back to 2.38%.

The immediate cause of the retreat seemed to be the failure of Mr Trump to repeal his predecessor's health-care bill. That logic was hardly a great advertisement for capitalism, implying that the fewer Americans had access to health insurance, the happier investors would be. But the broader rationale seemed to be that, if the Republicans could not meet this campaign promise, then they also would struggle to push through the tax cuts which investors were counting on to push up corporate profits and improve economic growth. A basket of shares of firms that pay the highest tax rates as a proportion of profits, compiled by Goldman Sachs, an investment bank, is now lower than it was before the election.

On its own this change of mood made investors look naive. Mr Trump came to office as a political neophyte with a reputation for being sketchy on policy detail. His differences with the congressional Republican Party were made clear throughout the campaign. No one should have expected a smooth roll-out of policy. Nor is a lower corporate-tax rate a sure route to growth. Britain has cut its marginal rate from 28% to 20% since 2010, without sparking a runaway boom.

In any case, given the lengthy negotiations needed to create a tax package, and the inevitable lag before the policy has an effect on the economy, it would probably be 2018 before the impact of a fiscal stimulus became clear. And if any pickup in growth is delayed, then the Federal Reserve may have less need to push interest rates up as rapidly, weakening the appeal of the dollar for international investors. The latest forecast from the tracking model of the Atlanta Fed suggests that first-quarter growth in America may have been only an annualised 1%.

With analysts forecasting 12% growth in S&P 500 companies' profits this year, in other words, there was scope for disappointment for the stockmarket. That was especially so since American shares are trading on a cyclically adjusted price-earnings ratio of 29, a level exceeded only in the booms of the late 1920s and 1990s.

Globally, however, stockmarkets are not dependent on Mr Trump to push through his agenda. Their mood started to brighten last spring as concerns about "secular stagnation" and a hard landing for the Chinese economy began to dissipate. By the end of 2016 Asian exports were picking up, commodity prices were rebounding and growth forecasts for 2017 were being revised higher.

So investors started the year in optimistic mood. A recent survey of fund managers by Absolute Strategy, a research firm, found that 74% expect global equities to produce better returns than government bonds over the next 12 months and 70% expect global profits to rise.

Recent positive data have included the German Ifo survey of business confidence, which was its strongest since 2011; a rebound in euro-zone consumer confidence; and Chinese industrial profits, which were 31.5% higher in January and February than in the same period a year ago. Emerging markets have risen much faster than the S&P 500 this year, gaining 12%, and trade on an historic price-earnings ratio of less than 14, according to Société Générale, a French bank.

So the markets might have been doing very well even if the presidential election had produced a different outcome. Indeed, the Trump agenda could well be more of a threat than a promise for international investors, particularly if the administration pursues a more protectionist line or makes a blunder in its approach to flashpoints with China, Iran or North Korea. Markets turned round so dramatically on the morning after Mr Trump's election that investors may yet have cause to remember the old saying: "Marry in haste; repent at leisure."

Economist.com/blogs/buttonwood

regulator, says the boom in liquefying natural gas for export has "upended" the gas market on the east coast, where most people live. EnergyQuest, a consultancy, calculates that until three years ago, volumes of domestic and LNG production ran neck and neck. Last year LNG output rose by 56%, and is now more than twice the size of domestic production. Australia's domestic gas prices, in turn, have risen to reflect export prices, which has inevitably driven up household energy bills.

The shortages are not easy to replace. New South Wales and Victoria, the most populous states, have restricted or banned drilling for coal-seam gas because of environmental worries about hydraulic fracturing, or "fracking". South Australia, like Queensland, has no such bans. Strike Energy, an Australian firm, is test-drilling for coal-seam gas in the Cooper Basin, an outback gas-reserve region. David Baker, its managing director, says its main target market is Adelaide, the state capital. But another could be Gladstone, a hub for LNG-exporters in Queensland.

Until more gas becomes available, some are calling for governments to quarantine certain volumes of export gas for home consumption. Matt Canavan, the resources minister, admits Australia's gas problems have kept him awake at night. Bucking the market by reserving gas, however, would cause an outcry. So, for that matter, would going back to coal. ■

Equity research

Breaking up is hard to do

New regulations will shake up the equity-research industry

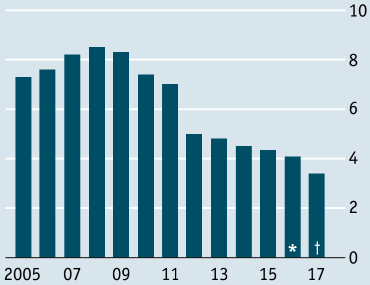
EQUITY research, the business of providing analysis of companies' financial performance, may be a stodgy industry but it is not a simple one. Regulators fret about the sector's Byzantine payment structure: investment banks dominate the market, but do not charge for it. They dole it out free to clients in the hope of future trading business. The understandable fear is that this set-up produces conflicts. Banks may be wary of issuing reports critical of companies; fund managers may end up choosing banks because of their research rather than the efficiency of their brokerage services. New regulations will overturn this model entirely.

MIFID 2, an ambitious set of European financial rules coming into effect next January, will force asset managers to disclose how much they spend on research. So banks will have to "unbundle" their services, billing clients for research and trading separately. Although the rules are being introduced by European regulators, banks across the world will have to change their pricing practices to comply.

Downgraded

Research budgets at global investment banks

$bn



Source: Frost Consulting *Estimate †Forecast

These rules will be hugely, and beneficially, disruptive to a grossly inefficient industry. At present, banks blast their clients' inboxes with thousands of reports, only a fraction of which are read. The problem is that most research is not very useful—it is hard to come up with original insights about big companies when dozens of other researchers are trying to do the same. So when they are presented with a bill for it, many fund managers will balk at paying for research they ignore.

The equity-research industry was already in trouble. Trading profits at banks have declined since the financial crisis, so they have had to cut costs. Estimates from Frost Consulting show that research budgets at major investment banks have fallen from a peak of $8.2bn in 2008 to $4bn in 2016 (see chart). Headcount seems to be falling, too. Coalition, a research firm, estimates that research jobs at banks have fallen by about 10% since 2012, roughly in line with the decline of front-office jobs as a whole. Moreover, the trend in the industry is towards increased use of "passive" investment funds that simply track a market index. So the demand for research services is in secular decline.

Equity research will not disappear entirely, in part because the industry performs other functions. Surveys have shown that investors are less interested in researchers' exact forecasts or analysis than in their general industry knowledge. Moreover, much of equity research is actually about "corporate access", ie, connecting investors with company managers. Fielding phone calls and acting as chaperones may not be as glamorous as publishing market-moving reports. But they are at least labour-intensive activities. Top analysts will still be valued, as will those specialising in niche fields. Independent research firms will benefit. But fund managers will have to do more of their own analysis. And persuading investors to pay for mediocre research will be harder. ■

Italy's bad debts

Cleaning up

MILAN

The life and times of an Italian non-performing loan

MARIO (not his real name) from the pretty Italian city of Vicenza opened an account at a local bank in 1992. It afforded him an overdraft of the equivalent of €10,000. He needed it to pay the bills of his wholesale textiles company. Over the years his firm's cash problems worsened. In 2013, after Mario had exceeded his overdraft limit by €7,000 ($9,300), the bank gave him an unsecured loan of €50,000.

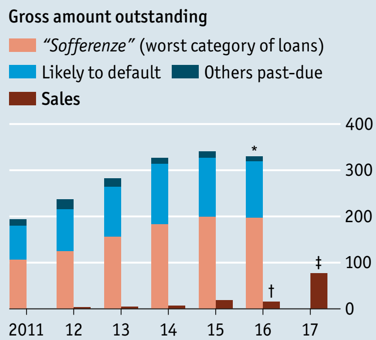
The first repayment was due in January 2014, yet by June Mario had filed for voluntary bankruptcy. The bank—now owed €70,300—presented itself to the court as a creditor. It entered into an arrangement, but in December sold the loan for 5% of its book value to Banca IFIS, an Italian lender building a portfolio of soured debts. Banca IFIS employed an external debt collector and by the following April, Mario had repaid €17,000. Having made a tidy profit on its investment, Banca IFIS told the bankruptcy court the debt had been cleared.

It seems puzzling that Mario was granted a loan after being overdrawn for so long. Andrea Clamer, head of Banca IFIS's bad-loans division, says such mysteries are central to understanding Italy's bad-loan mountain. Questionable lending practices, inefficient courts and a long recession all conspired to create €331bn-worth of "deteriorated" loans, including €197bn of non-performing loans (NPLs), by June of last year (see chart). At 21.4% of Italy's total gross loans, that was over four times the ratio in 2008 and triple the EU average.

ABI, the Italian banks' association, reckons that 80% of the growth of NPLs can be attributed to the civil-justice system (by far the biggest single factor), sluggish eco- ▸▸

Past their peak?

Italian non-performing loans, €bn



Sources: PwC; Bank of Italy; ABI *End June †Estimate ‡Forecast nomic growth (the next biggest) and taxation. On average a bankruptcy takes 7.4 years. Only one-quarter of cases are resolved in less than two years. Some last more than two decades.

Bad loans have quadrupled in value since 2008, notes Andrea Mignanelli of Cerved, a data provider. But no bank has quadrupled their staff to manage them. Lenders have been loth to sell their loans. Many have them in their books at around 40% of their face value, whereas investors are prepared to pay around half that. Banks' capital ratios are already thin; disposals would stretch them further.

Government efforts to boost the market have flopped. GACS, a state-guarantee scheme for NPL-backed securities, has been used just once since its launch in February 2016. Atlante, a private bank-rescue fund set up at the government's behest partly to kick-start a bad-debt market, has not raised as much capital as hoped. More happily, last year was the first since 2008 in which Italy's total NPL exposure fell. ABI expects the share of existing loans turning bad to keep falling over the next two years. Last year the stock of bad loans stabilised; in 2017 more are likely to be sold.

Under pressure from the European Central Bank to clean up their balance-sheets, banks are being forced to come up with detailed plans. In February UniCredit, Italy's biggest bank, agreed a deal with Fortress and Pimco, two funds, to offload €17.7bn-worth of bad loans. Intesa Sanpaolo, the second-biggest, this month committed to reducing its stock of deteriorated credit by €15bn over three years. Monte dei Paschi di Siena, where a government rescue is under way, is due to unveil a new plan for its €27.8bn-worth of NPLs.

Unsecured loans, like Mario's, account for roughly half the total stock. Much of the rest is secured by property, the value of which crashed in the crisis. In 2014 Algebris, an asset manager, opened an office in Italy to specialise in property-backed bad loans. It has invested most of the €437m it raised for its first fund, and with property prices recovering a little, is now raising a second fund, of around €1bn.

Some accuse the European authorities of having been too severe on Italian banks, which, given more time, might command better prices for their bad loans. On March 20th the ECB appeared to take note. Guidelines to banks again stressed the need to deal with duff loans, but accepted that it could take time. Meanwhile, bad-debt specialists can point to some successes. Credito Valtellinese, a midsized bank, sold its 40-person NPL-management division to Cerved in 2015. The next year collections on bad loans increased by 92%, thanks to a doubling in staff numbers, better IT systems and performance-related pay. Hardly rocket science, but more than Mario's local bank could have achieved. ■

Indonesia's tax amnesty

A small price to pay

JAKARTA

Tax dodgers are lured into the daylight

LAST year Indonesia's finance minister, Sri Mulyani Indrawati, invited chief executives, directors and shareholders from the country's leading industries to banquets at her ministry. As they munched, she would give presentations setting out who among them had—and, by omission, who had not—signed up to the government's tax amnesty. "This may be the most expensive dinner in your lifetime," the 54-year-old economist recalls telling them.

Indonesia's tax amnesty, which began in July 2016, ended on March 31st. More than 800,000 evaders declared 4,700trn rupiah ($350bn) in assets previously hidden from the authorities. That is a staggering sum, equivalent to 40% of Indonesia's GDP and 90% of the money supply, and revealing of the epic scale of tax-dodging.

The willingness of tax cheats to come clean partly reflects the generous terms on offer. Assets declared in the first three months were taxed at just 2-4%, compared with the individual income-tax rate of up to 30%. Those declared in the next three months were taxed at 3-6%, and those in the final three months at 5-10%. The government collected additional revenue of 125trn rupiah, equivalent to less than 3% of the total assets declared. The OECD, a club of mostly rich countries, has criticised the amnesty for rewarding tax cheats.

Maybe, but it was also one of the world's most successful in terms of revenue raised. The money will help replenish government coffers at a time when revenues from commodities are still far below the levels in 2014, when prices for natural resources were at their highest. In recent years the government has cut spending to prevent its budget deficit from breaching a legal limit of 3% of GDP. This, in turn, is denting economic growth. Last year government spending shrank in real terms for the first time since the Asian crisis of the late 1990s; that is one reason why growth, at 5% in 2016, remains stubbornly below the government's target of 7%.

But beyond the immediate revenue windfall, the success of the amnesty depends on whether it marks a lasting upturn in tax receipts. Only 30m people out of a labour force of 118m are registered with the tax office and only 10m of them file a tax return regularly. At around 10% of GDP, Indonesia's tax ratio is one of the lowest in South-East Asia (see chart) and compares with an average of 34% among OECD countries. The government hopes that the amnesty will add new names to the tax register and thus bring about a steady increase in the numbers paying the tax they owe.

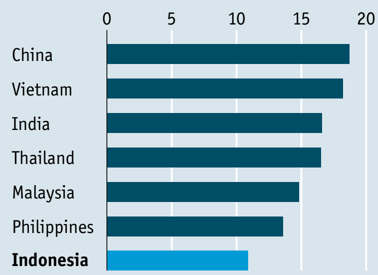
Ms Mulyani, praised for her fearless reforms as finance minister under the previous president, Susilo Bambang Yudhoyono, in 2005-10, says she aims to raise the tax ratio to 13% of GDP. Since returning to government in July 2016, after a stint at the World Bank in Washington, DC, she has set up a "reform team" at her ministry to improve procedures, introduce new technologies and recruit more auditors.

In January Indonesia signed up to an OECD scheme known as the Common Reporting Standard. Signatories, including many of the havens where Indonesians traditionally stash their wealth, such as Singapore, have agreed to share information on foreign account-holders. Indonesia's government is also pushing a law to make it easier for the tax office to probe domestic bank accounts.

Ms Mulyani's previous reformist stint as finance minister came to an end after a feud with a politically connected tycoon. This time, with the support of the current president, Joko Widodo, she seems determined to continue where she left off. "Pay tax and pay it properly," she says. "This time we really mean it." ■

The land of the tax-free

Tax burden, 2015 or latest, as % of GDP



Source: The Heritage Foundation

The market for sand

A shore thing

A construction boom in Asia strains the seemingly limitless supply of sand

INDIA'S "sand mafia" is doing a roaring trade. The *Times of India* estimates that the illicit market for sand is worth around 150bn rupees ($2.3bn) a year; at one site in Tamil Nadu alone, 50,000 lorryloads are mined every day and smuggled to nearby states. Gangs around the country frequently turn to violence as they vie to continue cashing in on a building boom.

Much of the modern global economy depends on sand. Most of it pours into the construction industry, where it is used to make concrete and asphalt. A smaller quantity of fine-grade sand is used to produce glass and electronics, and, particularly in America, to extract oil from shale in the fracking industry. No wonder, then, that sand and gravel are the most extracted materials in the world. A 2014 report by the United Nations Environment Programme (UNEP) estimates they account for up to 85% by weight of everything mined globally each year.

With house-building in the West yet to recover fully from the 2007-08 crisis, Asia has been, by far, the main source of demand. Figures from the Freedonia Group, a market-research firm, suggest that, of the 13.7bn tonnes of sand mined worldwide for construction last year, 70% was used in Asia. Half was used in China alone, where the government estimates that it built 32.3m houses and 4.5m km (2.8m miles) of road between 2011 and 2015.

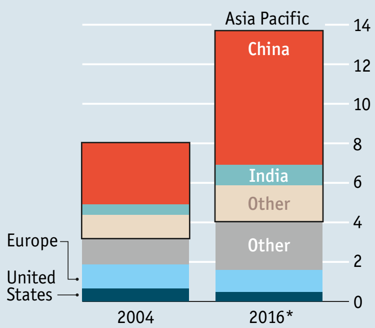
Sand often makes up the very ground that is built on, too. By virtue of dumping vast quantities of sand into the sea, Singapore is now over 20% larger than it was when it became independent in 1965. China and Japan have reclaimed even greater swathes of land, and China has outraged global opinion by building artificial islands on disputed rocks in the South China Sea. Elsewhere, reclamation has been an unhappy necessity: the Maldives and Kiribati have had to counter rising sea levels by taking sand from smaller islands or the seabed to shore up larger ones. As sea levels rise further, and urban populations swell—the UN predicts a rise of almost 1bn by 2030—sand will be even more sought after.

Sand may appear plentiful, but is in fact becoming scarce. Not all types are useful: desert sand is too fine for most commercial purposes. Reserves also need to be located near construction sites; as transport costs are high compared with the price, it is usually uneconomical to transport sand a long distance. That, though, does not stop countries with limited domestic resources (and deep pockets). Singapore and Qatar are big importers; the Burj Khalifa skyscraper in Dubai was built using Australian imports.

Such quantities

Global demand for construction sand

Tonnes bn



Source: The Freedonia Group

*Estimate

Sand is being extracted at a far greater rate than that at which it is naturally replenished, and the depletion of existing reserves is damaging the environment. Dredging in rivers and seas pollutes natural habitats, affecting local fishing and farming industries. Mining in China's Poyang Lake—which the UNEP reckons may be the world's largest sand-extraction site—is thought to have lowered water levels. Beaches in Morocco and the Caribbean have been stripped of sand, lowering their capacity to absorb stormy weather. As a recent report on emerging environmental problems by a team of scientists, led by William Sutherland at the University of Cambridge, points out, those risks will only grow as sand-scarcity worsens.

In the West such concerns have led to restrictions on where sand can be mined. In America, for example, mining it offshore or near large residential areas is restricted. Regulations are in place in many developing countries too. Thinning coastlines, and the disappearance of some islands altogether, led Indonesia and Malaysia to ban sand exports to Singapore. Myanmar banned sand mining on some beaches, and Cambodia and Vietnam placed restrictions on exports.

Powdered gold

Against the grain

But the rules are not always enforced. Indian officials charged with monitoring mining tend to be intimidated by the "mafia", alleges Sumaira Abdulali of Awaaz Foundation, a charity in Mumbai; even if gangs have permits, they get away with mining well above legal limits. The state makes little effort to track sand, so illegally mined grains can be traded relatively easily. The UNEP estimates that half of all sand used in construction and industry in Morocco comes from illegal coastal mining. The beaches, ironically, are being stripped to help build tourist infrastructure. In Cambodia charities allege that recorded exports of sand to Singapore have been systematically underreported to cover up illegal mining. (The Cambodian government responded in November by suspending all sand exports.)

Substitutes for sand do exist. Mud can be used for reclamation, straw and wood to build houses, and crushed rock to make concrete. Asphalt and concrete can be recycled. Production processes will shift towards these alternatives as the price of sand rises, argues Freedonia's Zoe Biller. In some rich countries that shift is already under way, encouraged by government policy. According to Britain's Mineral Products Association, 28% of building materials used in Britain in 2014 had been recycled. European plans to recycle 75% of glass by 2025 should lower demand for industrial sand. Singapore plans to rely on Dutch expertise for its next reclamation project. Using a system of dykes and pumps, this will be less dependent on sand.

Reduced demand from Singapore might discourage illegal mining in nearby countries. Rising prices will eventually force developing-country builders to explore alternatives to sand. But without better law enforcement, high sand prices also make illicit mining more lucrative. Despite the damaging consequences, the sand mafia will continue raking it in for a while. ■

Free exchange | Remember the mane

As robots encroach on human work, study the fate of the horse

IN THE early 20th century the future seemed bright for horse employment. Within 50 years cars and tractors made short work of equine livelihoods. Some futurists see a cautionary tale for humanity in the fate of the horse: it was economically indispensable until it wasn't. The common retort to such concerns is that humans are far more cognitively adaptable than beasts of burden. Yet as robots grow more nimble, humans look increasingly vulnerable. A new working paper concludes that, between 1990 and 2007, each industrial robot added per thousand workers reduced employment in America by nearly six workers. Humanity may not be sent out to pasture, but the parallel with horses is still uncomfortably close.

Robots are just one small part of the technological wave squeezing people. The International Federation of Robotics defines industrial robots as machines that are automatically controlled and re-programmable; single-purpose equipment does not count. The worldwide population of such creatures is below 2m; America has slightly fewer than two robots per 1,000 workers (Europe has a bit more than two). But their numbers are growing, as is the range of tasks they can tackle, so findings of robot-driven job loss are worth taking seriously.

The paper's authors, Daron Acemoglu of the Massachusetts Institute of Technology (MIT) and Pascual Restrepo of Boston University, are careful to exclude confounding causes as best they can. Their results are not driven by a few robot-intensive regions or industries, and are distinct from the effect of trade with China, or offshoring in general. Increased robot density does not seem to raise employment among any group of workers, even those with university education. Since relatively few industrial robots are in use in the American economy, the total job loss from robotisation has been modest: between 360,000 and 670,000. By comparison, analysis published in 2016 found that trade with China between 1999 and 2011 may have left America with 2m fewer jobs than it would otherwise have had. Yet, if the China trade shock has largely run its course, the robot era is dawning.

Economically speaking, this should not be a problem. Automation should yield savings to firms or consumers which can be spent on other goods or services. Labour liberated by technology should gravitate toward tasks and jobs in which humans retain an advantage. Yet that should also have been true of horses. The use of tractors in agriculture rose sharply from the 1910s to the 1950s, and horses were displaced in vast numbers. But some useful horse-work remained (as indeed it does today). The difficulty facing horses was in reallocating the huge numbers displaced by technology to places where they could still be of use.

The market worked to ease the transition. As demand for traditional horse-work fell, so did horse prices, by about 80% between 1910 and 1950. This drop slowed the pace of mechanisation in agriculture, but only by a little. Even at lower costs, too few new niches appeared to absorb the workless ungulates. Lower prices eventually made it uneconomical for many owners to keep them. Horses, so to speak, left the labour force, in some cases through sale to meat or glue factories. As the numbers of working horses and mules in America fell from about 21m in 1918 to only 3m or so in 1960, the decline was mirrored in the overall horse population.

The analogy with horses can clearly be taken too far. Yet the experience is instructive. Automation is reducing human wages; Messrs Acemoglu and Restrepo reckon that one additional industrial robot per thousand workers reduces wages across the economy by 0.5%. Real wage growth in many rich economies has been disappointing for much of the past two decades. Low wages are enabling some reallocation of workers. An overwhelming share of the growth in employment in rich economies over the past few decades has been in services, nearly half in low-paying fields like retailing and hospitality. Employment in such areas has been able to grow, in part, because of an abundance of cheap labour.

Yet low pay leads to policies that complicate the labour-market adjustment. Instead of bumping off excess labour, rich economies provide some social support: unemployment benefits, social security or disability payments, and assistance with housing and food. When the jobs on offer are poor, that cushion, though meagre, can be enough to draw people out of the labour force into indolence—particularly if families offer extra help.

The horses of instruction

Horses might have fared better had savings from mechanisation stayed in rural areas. Instead, soaring agricultural productivity led to falling food prices, lining the pockets of urban workers with more appetite for a new suit (or car) than anything four-legged. Similarly, the financial returns to automation flow to profitable firms and their shareholders, who not only usually live apart from the factories being automated but who save at high rates, contributing to weak demand across the economy as a whole. Indeed, roughly half of job losses from robotisation (as from exposure to Chinese imports) are attributable to the knock-on effect from reduced demand rather than direct displacement.

Today's horses are not entirely without work. Some still find gainful employment; a few are very valuable indeed. For people to fare better, and retain more than a rump of work reserved for those of exceptional ability, they must prove a better match for clever machines than horses were for mechanical equipment. And societies should perhaps respond with more determination and care than horse-owners did a century ago. ■

Correction: The chart in last week's column cited the wrong paper by Anne Case and Angus Deaton as the source. It should have been "Mortality and morbidity in the 21st century", published this year. Sorry.

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Brains and computers

We can remember it for you wholesale

Elon Musk enters the world of brain-computer interfaces

EVER since ENIAC, the first computer that could be operated by a single person, began flashing its ring counters in 1946, human beings and calculating machines have been on a steady march towards tighter integration. Computers entered homes in the 1980s, then migrated onto laps, into pockets and around wrists. In the laboratory, computation has found its way onto molars and into eyeballs. The logical conclusion of all this is that computers will, one day, enter the brain.

This, at least, is the bet behind a company called Neuralink, just started by Elon Musk, a serial technological entrepreneur. Information about Neuralink is sparse, but trademark filings state that it will make invasive devices for treating or diagnosing neurological ailments. Mr Musk clearly has bigger plans, though. He has often tweeted cryptic messages referring to "neural lace", a science-fictional concept invented by Iain M. Banks, a novelist, that is, in essence, a machine interface woven into the brain.

Although devices that can read and write data to and from the brain as easily as they would to and from a computer remain firmly in the realm of imagination, that has not stopped neuroscientists (and, of course, Mr Musk) from indulging in some speculation. Theodore Berger of the University of Southern California, in Los Angeles, has proposed that brain implants might be used to store and retrieve memories. Dr Berger's prosthesis would be intended to help those whose brains cannot form long-term memories because they are damaged. But if the idea worked, there seems little reason why those without damage should not and would not want something similar. Mr Musk himself, more ambitiously still, imagines an implant that would let the wearer tap directly into the internet, and all of the computational power available there.

Of minds and melding

Behind this suggestion lies Mr Musk's argument, made repeatedly, that human beings need to embrace brain implants to stay relevant in a world which, he believes, will soon be dominated by artificial intelligence. Proposing the artificial augmentation of human intelligence as a response to a boom in artificial intelligence may seem a bit much. But Mr Musk's new company is not alone. A firm called Kernel is following a similar path.

To start with, Kernel's engineers hope to build devices for the treatment of neurological conditions such as strokes and Alzheimer's disease. Ultimately, however, they want to create cognition-enhancing implants that anyone might care to buy. Kernel was founded in October 2016 by Bryan Johnson, an entrepreneur who, like Mr Musk, got rich by processing payments online (PayPal, which Mr Musk helped found, bought Braintree, Mr Johnson's company, in 2013). Mr Johnson put $100m of his own money into Kernel, stating that "unlocking our brain is the most significant and consequential opportunity in history."

In some ways, Mr Johnson and Mr Musk are merely the new boys in what is quite an old field. The first brain implants, carried out in the 1970s, were prosthetic visual systems, though they did not work well. Cochlear implants, to restore hearing, have done much better. Hundreds of thousands of people now have them—though, strictly speaking, they talk to auditory nerves rather than to the brain directly, which simplifies the task. For some people, the symptoms of Parkinson's disease can be kept in check by electrodes the diameter of a strand of spaghetti inserted deep into the brain. And one of the latest ideas in the field is to read and interpret brain activity, in order to restore movement to the limbs of the paralysed (see next article).

In one important way, however, Kernel and Neuralink are different from previous efforts. Though aimed initially at medical applications, they also explicitly nod to the possible non-medical uses of this kind of implant technology. In February Mr Musk said that he thought "meaningful" interfaces between the brain and computation were five years away. The creation of Neuralink suggests that he, like Mr Johnson, is putting his money where his mouth is.

Most neuroscientists would, it must be acknowledged, regard all this as heroically optimistic. In a review of the field, published in January in *Nature Reviews Materials*, Polina Anikeeva and her colleagues at the Massachusetts Institute of Technology (MIT) wrote that, although Moore's Law and the miniaturisation of electronics have brought devices down to a size where their insertion into the brain can be considered, big challenges lie ahead. ▸▸

The brain's complexity, and researchers' present lack of understanding of how that organ's component cells work together to do what they do, makes designing interfaces between brain and machine hard. But, even were it simple in principle, the rigid, silicon-based tools of modern computing do not mesh easily with the squishy soft-tissue of biology. Implants often generate scars around themselves. And the surgery needed to put them in place carries risks of its own.

There may, though, be alternative approaches. One such is being tested by a group at Florida International University, in Miami, led by Sakhrat Khizroev. Dr Khizroev and his team use magnetoelectric particles so tiny that they can interact with the electric field generated by an individual nerve cell. The team inject these particles, tens of billions at a time, into a vein in a rat's tail, then drag them into the animal's brain using magnets. Each particle produces an electric field when stimulated by an external magnetic field. This may, in principle, permit a researcher to use such a particle to influence the electrical states of nearby nerve cells—and thus, in essence, reprogram them. How that would be done in practice, though, is obscure.

Another approach, being pioneered by Jose Carmena of the University of California, Berkeley, and his colleagues, uses devices the size of a grain of rice to convert ultrasonic energy beamed towards them into electricity that can stimulate nerve or muscle cells. Ultrasound travels through the body, so can power and control such devices without wires.

Both Dr Khizroev's technique and Dr Carmena's are less invasive than the current standard brain interface, a patch of needlelike electrodes known as a Utah array that is plugged into the brain's surface. This is far too blunt an instrument to send any but the crudest signals into a brain. But, regardless of the precise approach taken to hardware, another problem the field faces is that no one understands the mechanism behind the natural equivalent of software—the way the brain encodes information. Such interfaces as do exist have to be trained, rather than instructed what to do. Instruction would be possible only if brain signals were properly understood.

It is not yet clear which technological routes Mr Musk's and Mr Johnson's commercial efforts will take, though Kernel recently bought Kendall Research Systems, a spin-off from MIT that builds devices which use light, rather than electricity, to stimulate the brain. But the two firms' shared underlying premise—that medical purposes might lead to more consumer-orientated applications—does seem a sensible way to do things.

People understand that medical procedures can be risky. As long as it is done in good faith, they will tolerate experimentation on people that would be intolerable in non-medical circumstances. That will let Neuralink, Kernel and those that come along afterwards build up expertise that might be turned to more general effect in the future.

As for Mr Musk himself, Neuralink brings to five the number of ambitious technology companies in which he is involved. The others are Tesla (electric cars, batteries and solar power), which this week attracted an investment from Tencent, a Chinese tech giant; SpaceX (rocketry); the Boring Company (tunnelling); and Hyperloop (vacuum trains). It is hard to discern the connections between these ideas. But, in Mr Musk's mind, they are presumably already laced together. ■

Biomedical engineering

Moving moments

A device that lets a paralysed patient control his arm offers hope to others

DURING a 250km (150-mile) bike ride for charity in Ohio, William Kochevar found himself cycling behind a post-office van when it pulled over to make deliveries. Distracted and tired, Mr Kochevar did not brake in time. The accident, in 2006, left him paralysed from the shoulders down. Now, with the help of electrodes that transmit signals from his brain to his muscles, he has been able to grasp a fork and feed himself for the first time in over a decade. The procedure that allowed Mr Kochevar to achieve the feat is reported in the *Lancet* this week.

Bolu Ajiboye and Bob Kirsch, biomedical engineers at Case Western Reserve University, in Cleveland, used functional magnetic-resonance imaging to locate nerve cells responsible for arm movements in the left motor cortex of Mr Kochevar's brain. The technique highlighted a patch of his brain to which the blood supply increased whenever Mr Kochevar imagined moving his right arm. The team then implanted at that spot two 4x4mm chips, known as Utah arrays, each armed with 96 tiny electrodes, to measure the electrical activity of the 100 or so nerve cells there. They also implanted 36 stimulating electrodes in the muscles of his right hand and arm.

With the Utah arrays in place, Mr Kochevar was asked to imagine moving a virtual arm in a computer simulation, and, later, to imagine moving his own arm while it was being moved for him. The patterns of electrical activity from the nerve cells firing in Mr Kochevar's brain were fed to a computer algorithm, which matched them to the motions of the virtual arm and later, his own arm. After this training, the algorithm was able to detect brain activity associated with Mr Kochevar's intention to move his arm and then trigger the contraction of muscles needed to bring about the desired motion.

Because Mr Kochevar had lost the nerves required to move many of his shoulder muscles, his arm movements were assisted by a motorised platform, which he also controlled remotely. Around a year after receiving the implants, he was able to grasp a coffee cup and drink from it with a straw. To feed himself took a further year of training.

The technique Dr Ajiboye and Dr Kirsch employed to achieve all this, which is called functional electrical stimulation (FES), has been used in monkeys and has also permitted paralysed human patients to move a robotic arm. Last year a different ▶▶

Mr Kochevar eats his lunch

group of researchers reported that the technique had allowed a paralysed man who was still able to move his elbow to reach and grasp objects. Mr Kochevar's paralysis is more severe, however, and the motions he can perform with the aid of FES are more complex.

Even so, there are hurdles to clear before FES can be used routinely. The electrodes implanted into the brain do not last more than a few years. More robust ones need to be developed before FES can be deployed widely. Several groups are working on that. Also, both the brain electrodes and the electrodes to the arm and hand are connected to the outside world by cables. Wireless connections would be better. Such a set-up was demonstrated last year in monkeys. With luck, people will not have to wait much longer to follow suit. ■

Global air pollution

Trading in mortality

By importing goods, rich countries export air pollution—and with it, deaths

GOVERNMENTS fret over traffic and other local nuisances that create filthy air. But research just published in *Nature* by Zhang Qiang, of Tsinghua University in Beijing, and an international team including environmental economists, physicists and disease experts, suggests the problem has a global dimension, too. Dr Zhang's analysis estimates that in 2007—the first year for which complete industrial, epidemiological and trade data were available when the team started work—more than 3m premature deaths around the world were caused by emissions of fine particulate matter (known as PM2.5, because the particles in question are less than 2.5 microns across).

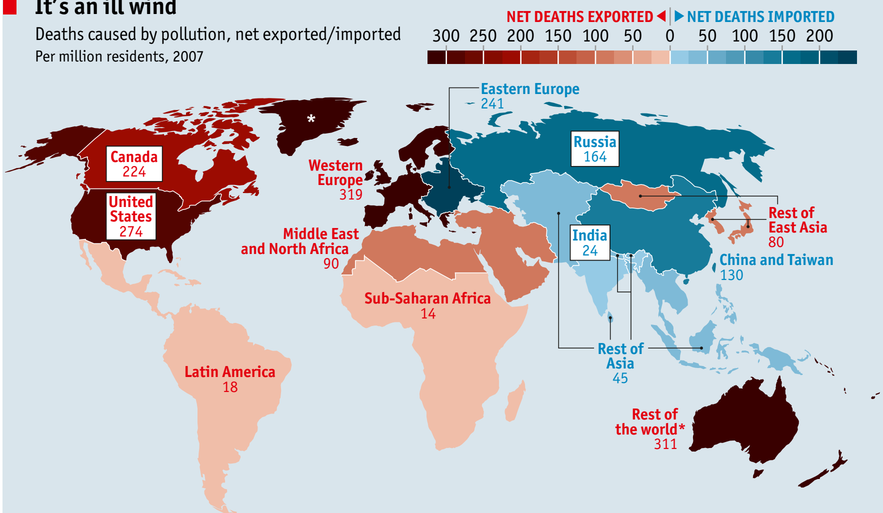
Of these, the team reckon just under an eighth were associated with pollutants released in a part of the world different from that in which the death occurred, thanks to transport of such particles from place to place by the wind. Almost twice as many (22% of the total) were a consequence of goods and services that were produced in one region (often poor) and then exported for consumption in another (often rich, and with more finicky environmental standards for its own manufacturers).

In effect, such rich countries are exporting air pollution, and its associated deaths, as they import goods. As far as China is concerned, that phenomenon is probably abating. Chinese coal consumption has been on the wane since 2013, so premature deaths there from toxic air are now probably dropping. But other industrialising countries, such as India, may yet see an increase.

It's an ill wind

Deaths caused by pollution, net exported/imported

Per million residents, 2007



Sources: *Nature*; World Bank

*"Rest of the world" includes Greenland

Detecting chemical weapons

Laying a glove on it

A simple device can warn the wearer of noxious substances

NERVE agents such as sarin and VX can kill quickly in low doses. Kim Jong Nam, half brother of Kim Jong Il, North Korea's leader, was recently murdered by having VX smeared on his face at Kuala Lumpur airport. Though the use of nerve agents is supposed to be banned by treaty, governments and terrorists have deployed them, and may do so again in the future. At the moment, there is no simple way for soldiers in the field, or inspectors looking for manufacturing and storage sites, to detect nerve agents. The electrochemical sensors involved are bulky and awkward to use.

On civvy street, meanwhile, similar chemicals are employed as pesticides to ward off insects that might otherwise damage fruit and vegetable crops. If such crops are not thoroughly washed after picking, or have been overdosed in the first place, then they, too, may present a health hazard. Yet inspecting them to see if they are contaminated can also be a hassle.

It would be better all round if people had suitable detection technology available at their fingertips. And Joseph Wang of the University of California, San Diego, reports in *ACS Sensors* that he has a system that achieves this quite literally.

Sarin, VX and their kind are chemicals called organophosphorus compounds, which can be deactivated by an enzyme known as organophosphorus hydrolase. Existing nerve-agent detectors record changes induced by the presence of organophosphorus compounds in the electrical resistance of gels impregnated with this enzyme. Dr Wang's trick is to miniaturise the process so that it fits on a glove.

To make their device, he and his colleagues print electrodes made of silver and silver chloride, and of carbon, onto the index fingers of rubber gloves. These electrodes run from the knuckle to the fingertip, where they almost, but not quite, meet. The zone of near-meeting is coated with a layer of gel containing organophosphorus hydrolase. The gel connects the ends of the electrodes together, completing the circuit. The knuckle-ends of the electrodes, meanwhile, are designed to meet a special ring, worn over the glove, that both supplies them with current and transmits information on the strength of that current to a nearby mobile phone—setting off an alarm if the current varies in a way that indicates the enzyme is reacting with a nerve agent.

To gather a residue sample from a surface, the glove's thumb has a carbon disc printed onto it which the wearer rubs across a suspicious area. All he has to do then is press index finger and thumb together and, if the alarm goes off, he knows the surface in question is contaminated.

Tests with organophosphorus compounds smeared on glass, wood, stainless steel and plastic, and also four types of fruit and vegetable, suggest the idea works in principle. If it works in the field (and if suitable alternative enzymes can be found), it might be extended to the detection of other chemicals of interest, such as gunshot residues, drugs and explosives. ■

Bird brains and traffic accidents

Small is not beautiful

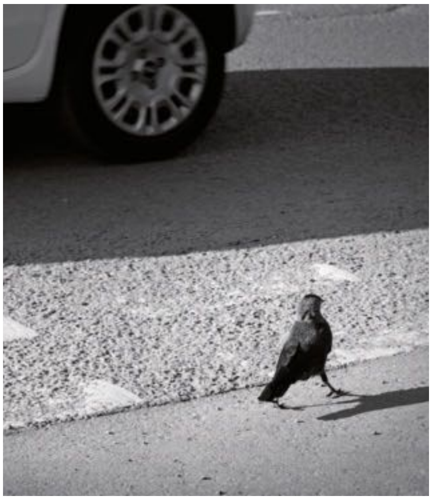
A new evolutionary pressure may be at work in the avian world

NATURAL selection is a harsh interrogator at the best of times. But if you are a bird, it has an extra question, not asked so forcefully of animals that cannot fly: "is that extra gram of weight really necessary?" Contrary to the insult "bird-brained", birds are not notably more stupid than mammals, but the pressure to keep organs light applies to the cerebrum as much as it does to anything else.

For the past century, though, birds have faced a new enemy that might require them to get smarter: the motor car. These days, cars and other motorised vehicles kill around 250m birds a year. That sounds like a significant selective pressure, so Anders Moller, an evolutionary biologist at the University of Paris-Sud, in France, decided to find out whether it really was.

Dr Moller's hypothesis was that avoiding vehicles needs intelligence, and intelligence needs a big brain. The conclusion of this syllogism is that small-brained birds are more likely to be road-kill than large-brained birds are. To test this idea, though, he needed data on a lot of dead birds.

That serendipity plays a part in science is undeniable. Fleming's chance observation of *Penicillium* mould on bacterial plates led to antibiotics. Kekulé's dream of carbon atoms dancing in rings led to his model of the structure of benzene. Dr Moller's serendipity was to meet, 30 years ago, a taxidermist called Johannes Erritzoe. Mr Erritzoe has, during his career, exhaustively recorded details of the specimens that have passed through his hands. These details include the weights of the internal organs, and likely cause of death, of 3,521 bird specimens of 251 species.



I'm okay. I know the Green Cross Code

Since they met, Dr Moller and Mr Erritzoe have collaborated on many papers. This time, they asked whether there was a difference between the weights of the organs of birds killed by traffic and of those that had died of other causes. They found, as they report in *Royal Society Open Science*, that there was not—with a single exception. The smaller a bird's brain, when controlled for its body size, the more likely it was to have been road-kill. Some 60% of the smallest-brained birds Mr Erritzoe handled had died this way. Among the largest-brained, death by traffic was unheard of.

All this suggests a selective pressure on birds in parts of the world with lots of traffic to acquire bigger brains, even at the cost of the extra energy required to keep those brains airborne. It also leads to a prediction, in a field of science—evolutionary biology—that is rarely in a position to make them. This is that the average weight of bird brains may rise over coming decades. Whether anyone with Mr Erritzoe's enthusiasm for data collection will provide the means to test that prediction is, though, a different question. ■

Vaccines

Taking stock

Managing supplies of vaccines is a huge problem—and not just in poor countries

KEEP a tomato cool in a refrigerator and it will stay fresh far longer than it would at room temperature. Accidentally freeze it, though, and you will reduce it to a disgusting mush.

A similar problem plagues the storage of vaccines. About six in ten of those procured by UNICEF, the UN's children's fund, must be stored at a temperature between 2°C and 8°C. Generally, the focus of efforts to do this is on the top end of the range, with the establishment of "cold chains", the links of which are refrigerators on the journey from factory to clinic, to stop vaccines overheating. Less effort is put into making sure a vaccine never gets too cold. But a vial of vaccine that has been accidentally frozen, and then thawed, may lose its potency as surely as one that has been warmed up.

A study published this week in *Vaccine*, by Celina Hanson of UNICEF and her colleagues, suggests that the overchilling of vaccines is alarmingly common. Dr Hanson and her team reviewed research that measured how often vaccines were exposed to temperatures below the lower limit. They combed through papers published between 2006 and 2015, and found 21 relevant studies conducted in 18 countries. Though not a representative global sweep, the studies in question covered both rich countries and poor ones, from several continents. Among the places they examined were America, China, India and a number of African states.

Intriguingly, the problem of overchilling was worse in the rich world than the poor. The papers Dr Hanson looked at reported that, on average, 38% of vaccine shipments in rich countries and 19% of those in poor countries had experienced temperatures that were too low. Regardless of a country's wealth, about a third of its vaccine-storage units, which ranged from small refrigerators to huge cold rooms, were chillier than was safe.

Routine monitoring weeds out some frozen vaccines. Nurses in poor countries use a "shake and look" test to spot tell-tale crystals, for example. But the share of compromised vials that goes undetected and ends up in ineffective jabs is unknown. Studies that examine the consequences further down the line are rare, but those that exist suggest freezing matters.

According to one such study, which was conducted in America and published in 2011, places with a higher proportion of refrigerators with temperatures below zero also had higher rates of pertussis (whooping cough). A ten-year-old piece of research from Mongolia, where temperatures in winter can be as low as -55°C, found that children vaccinated against hepatitis B in winter months were more than twice as likely to be diagnosed subsequently with that disease than were those vaccinated in other months.

Another problem of vaccine distribution, "stock-outs", is also the subject of a paper in this week's *Vaccine*. Patrick Lydon of the World Health Organisation (WHO) and his colleagues analysed data from 194 countries that had been submitted to the WHO and UNICEF between 2011 and 2015. In an average year, a third of these countries had at least one vaccine out of stock at national level for a month or longer. Stock-outs were most common in sub-Saharan Africa, where bungled procurement and tracking of vaccines is common. But they were far from rare in Europe, as well. In an average year one European country in six reported a stock-out.

Mr Lydon and his colleagues did not collect data on how many children missed jabs as a result of stock-outs, so the consequence of such laxity is unknown. But childhood vaccination is important. The WHO calculates that vaccines already prevent between 2m and 3m deaths a year, but that this figure would rise by a further 1.5m if all children received the recommended jabs. That careless handling and careless stock-management are making this goal harder to achieve is a scandal. ■

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Faith and tradition in China

Pilgrims through this barren land

A resurgence of religious faith is changing China

The Souls of China: The Return of Religion after Mao. By Ian Johnson. *Pantheon; 455 pages; $30. Allen Lane; £25*

HISTORICALLY in China, state and religion were always united, forming a spiritual centre of gravity. China was poor but its identity was clear, its vision for the future based upon its knowledge of the past. Communist revolutionaries saw these religious traditions as an impediment to progress and a reason why the country remained poor. So they set about destroying the entwined belief system of Confucianism, Daoism and Buddhism, and replaced it with the new trinity of Lenin, Marx and Mao. Only by doing so, they believed, could China be saved.

When Mao died in 1976, belief in communism began to erode. Now, four decades on, his successors have found the absence of a belief system to be a problem. At least in Europe, the ebb of the Christian tide left a deeply rooted rule of law and a compassionate welfare state. Shorn of Dao and Mao, modern China has been left with a corrupt party state and a brutal, wild west capitalism. In a recent poll 88% of people said they believed that there was a moral decay and a lack of trust in society.

This is part of a much bigger crisis of identity. The outside world sees a thrusting, confident new China, but many people (and party leaders) are still trying to work out what it means to be Chinese in the modern world. The order of human relationships has been damaged by socialist modernity. The nation's *feng shui* has been rattled. As one historian put it: the Middle Kingdom has lost its middle. In a society without universal rules, many yearn for a new, or reconstituted, moral order.

A sure sign of the confusion was the sight of China's party chief, Xi Jinping, standing at Confucius's birthplace in 2013 and paraphrasing the sage: "A state without virtue cannot flourish; a person without virtue cannot succeed." Aware of the political implications of a society lacking virtue, Mr Xi has launched a campaign of national renewal based on revitalising China's traditional values and melding them to the Communist Party. This is no small switch, since these are the same traditional values that the party spent 60 years trying to destroy. Mr Xi seemed to say that only if ancient beliefs are revitalised can China be saved.

One change has been the arrival of serious spiritual competition in the form of Christianity. Long derided as a foreign religion, it has become Sinicised over decades and is now supported by the growing enthusiasm of the young, urban middle class, who see it as refreshing and socially engaged. Whereas 185m people consider themselves Buddhist and 173m say they engage in some Daoist practices, there are now as many as 80m Christians in China, many of whom like the faith's links with the West and its commitment to social change—the very things the party abhors.

This heady spiritual mix is the subject of Ian Johnson's new book, "The Souls of China". Mr Johnson has long delved into the Chinese soul, winning a Pulitzer prize in 2001 for his reporting in the *Wall Street Journal* on the party's suppression of Falun Gong, a spiritual movement. He compares the religious revival with the Great Awakenings in America in the 18th and 19th centuries, when a stirring of popular Christian belief led to major social and political change. He believes the West, by focusing on the politics and economics of China, is missing the massive cultural shift of hundreds of millions of Chinese people turning to religious faith for answers. "We thought we were unhappy because we were poor," says one interviewee. "But now a lot of us aren't poor any more and yet we're still unhappy."

The book presents a fascinating panorama: wealthy urbanites on Daoist pilgrimages and young Christian activists learning how to campaign against forced abortion. Mr Johnson is sceptical about the party's top-down morality campaign. "A government that relies on fear cannot instil morality; it can only enforce behaviour," he writes. Much more important, he feels, is the sense of bottom-up empowerment that faith often provides. The state will continue trying to co-opt religious groups it believes are safe, and to crush the ones it perceives as more dangerous, which means that traditional religions such as Buddhism and Daoism are likely to be the winners.

Mr Johnson believes that faith can co-exist with the party but it will continue to be an uneasy truce, as more Chinese people decide how they want to live. The party wants believers' morality without their activism, but is finding that the two are ▸▸

inseparable, especially for Christians. The sermons of Wang Yi, a house-church pastor in the city of Chengdu, epitomise the changes taking place across the country, perhaps because he presents a clear vision of the future that is neither the party narrative nor just a reversion to the past: "We are creating a Jerusalem," he says. "This is the city on the hill." The Daoists and the Buddhists have changed, too, adapting the rhythms of the past to a more modern beat. They have lost much of the old fatalism under which people accepted their lot, and they now have a vision of their own of a more moral, less brutal society, where relationships matter and people know how to live in harmony, even if they are poor. As one of the book's protagonists, a Daoist undertaker and fortune-teller, says: "You create your own fate." ■

Sexual selection

Gender fluidity

Testosterone Rex: Myths of Sex, Science and Society. By Cordelia Fine. *W.W. Norton; 266 pages; $26.95. Icon; £14.99*

BOYS like sticks and girls prefer dolls, or so the tidy evolutionary story goes. Because stone-age men hunted game and competed for mates, boys want to play rough, take risks and assert dominance. Because women mainly cared for babies, girls still hope to nurture. Given these hardwired differences, it is only natural that it can sometimes seem that men are from Mars and women from Venus.

In "Testosterone Rex" Cordelia Fine of the University of Melbourne takes aim at those who suggest that evolutionarily determined sex differences—and the power of testosterone—can explain why most CEOs are men and few physicists are women. She argues that essentialist presumptions that rationalise an unequal status quo are "particularly harmful to women".


Seeking status

Evolutionary determinists suggest that females are a resource that males fight over. A female's reproductive output is limited by her physiology no matter how many mates she has. A male's is limited by the number of females he can inseminate. Because of this, males are more likely to seek status, take risks and fight rivals in order to woo as many fertile partners as possible. Females either choose the winners, or the winners choose them, depending on the species. But tell this to the wildly promiscuous female Savanna baboon or the fiercely competitive female bush cricket. Ms Fine uses studies of behaviour from across the animal kingdom to argue that neither sex has a monopoly on competitiveness, promiscuity, choosiness or parental care. Females who sample widely tend to be more reproductively successful (which is why a lioness may mate up to 100 times a day with different lions during oestrus), and those who jockey for dominance are often rewarded with more food.

Among humans, the conventional view is that men are programmed to act like Casanova. After all, a man can ejaculate 100 times in the time it takes a woman to complete a menstrual cycle. But Ms Fine argues that relentless male promiscuity has limited benefits. Because randomly timed sex will impregnate a healthy woman only around 3% of the time, she finds that a man would have to have sex with more than 130 women just to have a 90% chance of beating the fertility rate of a monogamous couple. This, she notes, may be one of the reasons why a majority of men—like women—say they would prefer to be in a sexually exclusive relationship.

Ms Fine does not dispute that sexual selection has shaped brains and bodies, or that genes and hormones influence how animals think and behave. An ever-changing "mosaic" of features—some more common in females, others more common in males, some common in both—guides both men and women. But, she argues, people tend to overestimate these differences and underestimate the value of environmental factors, such as rearing conditions, ecological resources and social conditions: that is, the nurture side of the nature-nurture debate. She points to a recent study of young Chinese men and women playing a risk-taking game, which found that the women were every bit as bold as the men when they played privately, but they took fewer risks—and the men took more—when their games were observed by an attractive member of the opposite sex. Ms Fine suggests that a desire to appeal to the observer nudged the players to heed gender norms.

Some neuroscientists speculate that sexual traits are vulnerable to environmental forces to ensure that animals can adapt to different habitats. This seems to be especially necessary for humans, who must learn how to cope in groups as diverse as matrilineal Arctic foragers and patrilineal tropical horticulturalists.

In her zeal to challenge evolutionary determinists, however, Ms Fine takes a swipe at some straw men. Few serious theorists argue that male and female brains are categorically different, or that individuals are not influenced by environmental pressures. Parents who have both boys and girls may cock an eyebrow at the way she largely ignores studies of actual sex differences, preferring to blame much of gendered behaviour on socialisation. As for testosterone, only the most reductive observer would claim that absolute levels of the hormone "cause" behaviour, so it is not surprising when Ms Fine explains that its effects on brains and bodies is more nuanced. She also offers evidence that seems to undermine her point that testosterone does not necessarily make men more risky or competitive: apparently the testosterone levels of Wall Street traders go up as they make more money (a phenomenon known as the "winner effect"), which seems to spur them to take more risks.

Despite this, Ms Fine's is a provocative and often fascinating book. Armed with an array of studies on everything from rats to humans, she shows that adaptive traits can take different forms depending on the circumstances, and nothing is fixed. ■

New fiction

Heady stuff

Erotic Stories for Punjabi Widows. By Balli Kaur Jaswal. *HarperCollins; 309 pages; £14.99. To be published in America by William Morrow in June*

EROTICA is a hot topic for publishers. Americans bought 28.5m romantic novels in print form in 2015. Romance Writers of America, a trade association, says the genre accounts for a third of all novels sold. Random House and Amazon have recently launched imprints to try to sate readers' lust for steamy stories. HarperCollins paid a six-figure sum for one such titillating book at the London Book Fair in 2016.

Balli Kaur Jaswal's "Erotic Stories for Punjabi Widows", the book in question, is not your usual lip-biting, troubled-billionaire fare. It follows Nikki, a university dropout and "fem fighter", who signs up to teach a creative-writing course to older Sikh women in Southall, a London suburb with a sizeable Indian population. Unable to read or write in English, the widows turn to telling stories, reliving their most passionate moments or picturing what they "were never given in the first place". Though they lack the necessary vocabulary—the stories are filled with references to "aubergines", "cucumbers", "sticks" and "lady pockets"—it quickly becomes clear that these supposedly conservative women do not lack imagination.

Yet these stories, where lascivious ladies demand what they want from husbands and lovers of both sexes, chafe against the sensibilities of a community that still upholds a strict honour code. The Brothers, a group of bullish young men, "consider themselves Southall's morality police", even offering bounty-hunting services to families with wayward daughters. The unresolved deaths of Karina, Gulshan and Maya, three defiant young women, are the subject of knowing whispers and salacious rumours. While the widows delight in finding their voices, it becomes increasingly clear that some women have paid a heavy price for trying to be heard.

"Erotic Stories for Punjabi Widows" balances darkness and light, social commentary and ecstatic escapism: it is a well-gauged equilibrium that keeps the sex writing from feeling monotonous, and reinvigorates the subplots of honour killings and arranged marriages. Ms Jaswal has written a funny and moving tale of desire and its discontents. It serves as a reminder that even the most traditional societies often come in 50 shades of grey. ■

David Jones, painter-poet

Modernist man

David Jones: Engraver, Soldier, Painter, Poet. By Thomas Dilworth. *Counterpoint; 432 pages; $39.50. Jonathan Cape; £25*

THIS is a story of undeserved neglect, the first full telling of the life of a shy, awkward and generally poverty-stricken man who hid his light beneath a bushel and so neglected his appearance that he was often taken for a tramp. David Jones, who was born in 1895, was a poet and a painter; some regard him as the greatest painter-poet since William Blake. His achievements as a Modernist writer rank him alongside T.S. Eliot and James Joyce.

Jones grew up in south London, the son of a printer's overseer. His childhood was Dickensian, his schooling fitful and he was often sick. But his knowledge of scripture was prodigious and his reading wide-ranging. From a young age Jones became passionately attached to the idea of Wales (his father was Welsh), and the wrong that had been visited upon the Celts by the English. The death of Prince Llywelyn ap Gruffydd in 1282 not only put paid to the political identity of Wales; it would occupy the painter-poet's thoughts for the rest of his life. Mining the myths of Wales would be central to his work. One of his greatest regrets was that, though he studied Welsh on and off for decades, he never quite mastered it. His Welshness was, as his biographer, Thomas Dilworth, writes, "an imaginative acquisition".


It never left him

He went to art school at the age of 13, having already drawn a magnificent dancing bear when he was seven. In 1915, aged 19, he joined the Royal Welsh Fusiliers and was sent to the Somme. He spent 117 weeks at the front, a terrible experience which, when finally expressed in words more than two decades later, would result in "In Parenthesis", one of the greatest poetic responses to the first world war. Remembering the conflict would be a disease of which he could never rid himself.

Jones's paintings and poetry appeared successively, not simultaneously. Whereas his poetry was usually dense and allusive, worked over again and again (and thus of great appeal to commentators), his paintings could be quickly made. When complete, they were diaphanous and airy, full of wondrous and immediate beauty, especially when he painted flowers at a window. There was a letting go about these works and a marvellous naivety. Jones's religion—he converted to Catholicism in 1921, much to the horror of his parents—grounded and enriched him. For the painter-poet art was sacramental, a setting apart and a raising up. Nothing pleased him more than listening to Gregorian chant on his scratchy gramophone. ■

Classical music

An elegant primer

Language of the Spirit: An Introduction to Classical Music. By Jan Swafford. *Basic; 321 pages; $28*

JAN SWAFFORD'S new book, "Language of the Spirit", is a self-guided tour. "When a piece [of music] or a composer grabs you, go out and look for more on your own," he says. And he has plenty of suggestions to get you started on streaming services such as Spotify or YouTube.

The "classical" genre on Spotify comes some way down the list, and classical buffs have been fretting for ages that audiences are getting greyer and smaller. Even so, many people have at least a passing acquaintance with some of the superstars of the classical repertoire: Beethoven's Ninth Symphony, say, or Mozart's "Eine kleine Nachtmusik", or Handel's "Messiah". If that has made them wonder how to put these works into context, this introduction to classical music is just what they need.

Mr Swafford is a music writer (who, among other things, has written a scholarly but highly readable biography of Beethoven) as well as a composer, and has been teaching music for decades, most recently at the Boston Conservatory. This book distils his experience of passing on his knowledge and experience to others, and making it enjoyable for them.

Music has been part of human life almost from the outset: archaeological digs have turned up flutes at least 40,000 years old. But the sort of Western classical music this book covers did not really get going until monks in the 11th century AD found a way of writing it down, which made it possible to conceive and precisely re-enact long and complex pieces.

The book starts at the beginning, with a section on music through the Middle Ages and the Renaissance, and then proceeds through the various periods—Baroque, Classical, Romantic, Modernist and beyond. Each period is introduced with a brief essay on the new and exciting things it brought, followed by individual essays on the great composers of that time. The plan is not particularly original, but the execution is. Thumbnail sketches of the composers bring them to life as individuals and as musicians, and explain how they relate to the artistic and political environment of their time.

Reading about the classical giants one after the other, you begin to feel that their fame came at a high price. Many of them were child prodigies (Mozart being one of the best-known examples), who were mercilessly pushed to perform; most were plagued by money troubles and ill health throughout their lives; and few enjoyed satisfactory personal relationships.

Musicologists generally agree about the brightest stars of the classical repertoire, and here they all are, above all Bach, Beethoven, Handel, Mozart and a raft of Romantics, from Schubert to Wagner. Mr Swafford also thinks a lot of Haydn and, being American himself, gives prominence to a number of American composers. When it comes to the 20th and 21st centuries, the names proliferate and judgment becomes more difficult, partly because "history has only begun to do its job of deciding who thrives and who fades"; and partly, he says, because media, and particularly online media, have given music a new kind of immortality.

Between the stories of the composers, Mr Swafford slips in many interesting digressions. One is an excellent explanation of the difference between tonal music, based on scales and keys, and the atonal sort, which dispenses with such conventions. Another is an evaluation of the early-music movement (using historical instruments and performance) that "really came of age in the 1970s."

A third is about the complicated art and science of piano tuning. The interval between each note is determined by a mathematical ratio, and the 12 notes in an octave get you to a higher or lower version of the note you started on. But if you observe exactly the right distance between each note, you end up, for reasons that are still not clear, with an octave that sounds slightly out of tune, so the discrepancy has to be redistributed among all 12 notes. This "tempering" can be done in a variety of ways.

All the while, Mr Swafford entertains as he informs. But in the end, music to him is a thing unto itself, "a language of the spirit—its essence can't be captured in words." ■

Johnson | Everybody has their opinion

English lacks an uncontroversial gender-neutral pronoun, but it does have a traditional solution

COPY editors are opinionated. Whether titles of books should be in italics or in inverted commas can divide them more decidedly than the Sharks and the Jets. So at a recent meeting of the American Copy Editors Society, the "Chicago Manual of Style" and the Associated Press (AP) stylebook, both widely followed, announced a change that sent waves through the audience. In AP's wording, "*They/them/their* is acceptable in limited cases as a singular and-or gender-neutral pronoun, when alternative wording is overly awkward or clumsy."

English lacks an uncontroversial pronoun that lets you talk about a person of a generic or unknown gender—known as an "epicene" pronoun, from the Greek for "common to all" (genders). Some would say that "each president chooses his own cabinet" is epicene—but psychological research proves that the *his* calls to mind a man. (If you truly believe *his* is gender-neutral, try "Steve, Sally, Mary and Jane each had his hair cut today.")

Other languages face the problem in different guises. In French the possessives *son*, *sa* and *ses* do double duty as "his" and "her". *A chacun son opinion* can be read as "Each has his opinion" or "Each has her opinion." But French can't avoid the issue entirely: *Chaque président choisit son cabinet* ("each president picks his cabinet") uses a masculine noun for president, which the French traditionally consider epicene, for a generic or unknown president. But if the president is a woman, the title becomes the clearly feminine *présidente*. So "generic" titles like *président* do subtly indicate a man.

Nearly always, if a language must choose one gender to be generic, it is the masculine. Banawá, spoken in Brazil, is an exception, but its speakers also happen to treat women and girls quite brutally,

according to Dan Everett, a linguist who has studied them. Grammar is not destiny.

The AP and Chicago (and the forthcoming edition of *The Economist* stylebook) open the door to a controversial—but surprisingly traditional—solution to the problem: "each president chooses their own cabinet". Some people say it is illogical: *each president* is singular, and *their* is clearly plural. Efforts to use *their* instead of *his* are modern political correctness running roughshod over grammatical good sense.

But that is wrong. *Their* can do double-duty just as *your* can for both singular and plural. *You* has a partly parallel history. First, it was the object form of *ye* for a plural: *we-us*, *ye-you*. Then it replaced *ye*: *we-us*, *you-you*. It was then used as a polite way to refer to a single person, much like the French *vous*. Then it started edging out the common way to refer to a single person, *thou*. From second-person-plural pronoun in the objective case to a singular in the nominative is a pretty big shift. Pressing *they/their/them* into service for a generic or unknown referent is actually less of a leap.

Supporters of the epicene *they* argue that it is high time this was accepted, in a world aware of sex discrimination. But this is unlikely to convince traditionalists. A better argument is that the singular *they* is hardly a newfangled political invention. The Oxford English Dictionary's first citation for a sex-neutral, indefinite *they* is from about 1375. (Singular *you* as a subject dates back only to 1405.) Singular *they* appears subsequently in an unbroken stream of high-quality sources from the King James Bible ("in lowlinesse of minde let each esteeme other better then themselues") to the writings of Walter Bagehot, a former editor of *The Economist* ("Nobody fancies for a moment that they are reading about any thing beyond the pale of ordinary propriety") to today. The American Dialect Society crowned singular *they* its word of the year for 2015.

The alternatives are worse. *He or she* quickly becomes wearisome on repetition. Alternating *he* and *she* is distracting. Inventing pronouns does not help: from *hersh* to *ze*, made-up gender-neutral pronouns have never taken off and probably never will.

One alternative would be to make the referent plural: "Presidents choose their own cabinets." This is usually the best thing to do. But there are times when a writer wants to conjure an individual, albeit a generic one. In such cases, the truly newfangled options have failed to gain widespread acceptance among editors and writers of quality. Singular, epicene *they* has not just modern gender equality but seven centuries of the finest literary tradition on its side. As usage disputes go, this should be an easy one.

BANK OF MONGOLIA (CENTRAL BANK)

BANK OF MONGOLIA

invites interested consulting firms to express interest in undertaking the consultancy on conducting Diagnostic Studies on commercial banks

Project Ref. No.: Cons 01/2017 Date: April 1st 2017

The Bank of Mongolia (BOM) intends to contract the consultancy service for conducting Diagnostic Studies on commercial banks. The **objective of this consultancy is** to ensure banks' assets are valued appropriately and that banks have adequate capital to absorb current and future losses on existing delinquent assets and to help verify the health of the banking system and guide further enhancements of banks' credit risk management frameworks. The exercise will allow the BOM to verify adequate capitalization of the participating banks on a forward-looking basis, taking into account any adjustments to asset classification and expected provisioning/ loss reserve levels. The assessments under the consultancy will be completed within 90 calendar days from the date of signature of the contract between the Consultant and the Bank of Mongolia.

Consultant shall be the office of internationally recognized and reputable consulting firm with relevant experience in providing consulting services in the area of Asset Quality review (AQR) in accordance with a methodology used in OECD countries and assessment of credit risk management frameworks based on international best practice. Consultants should fulfil and declare they have the **financial and technical** capacity to perform the contract and have met the selection (longlisting) criteria for their submissions to be considered further.

For further details on the eligibility criteria and other important information, please visit the BOM link: https://www.mongolbank.mn/documents/notice.pdf

Only the shortlisted consultants will be notified. The BOM reserves the right to exclude consultants if it becomes aware that they do not have the financial and technical capacity to perform the contract.

If you require additional information regarding this consultancy, please send your inquiry during April 3rd – April 19th 2017 between 11:00AM - 5:00PM (ULAT) via email, **etender@mongolbank.mn or telephone: 976-11-328482; 976-11-320847.**

Deadline: Interested consultants should submit its interest along with the supporting documents to the address below before ***15:00 hours on April 21st 2017 (ULAT)***.

Mr. Batsaikhan Namkhai, Evaluation Committee, Bank of Mongolia, Baga toiruu 3, Ulaanbaatar 46, 15160, Ulaanbaatar, Mongolia, Main entrance, room 2 (Chancellery)

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Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance	Interest rates, %	Currency units, per $	
	latest	qtr*	2017†	latest	latest	2017†		latest 12 months, $bn	% of GDP 2017†	% of GDP 2017†	10-year gov't bonds, latest	Mar 29th	year ago
United States	+1.9 Q4	+1.8	+2.3	+0.3 Feb	+2.7 Feb	+2.3	4.7 Feb	-481.2 Q4	-2.8	-3.5	2.40	-	-
China	+6.8 Q4	+7.0	+6.5	+6.3 Feb	+0.8 Feb	+2.3	4.0 Q4§	+210.3 Q4	+2.0	-4.1	3.07§§	6.89	6.51
Japan	+1.6 Q4	+1.2	+1.1	+3.7 Jan	+0.5 Jan	+0.8	3.0 Jan	+186.5 Jan	+3.6	-5.4	0.06	111	113
Britain	+2.0 Q4	+2.9	+1.6	+3.2 Jan	+2.3 Feb	+2.6	4.7 Dec††	-138.1 Q3	-4.4	-4.0	1.17	0.81	0.70
Canada	+1.9 Q4	+2.6	+1.9	+2.6 Dec	+2.0 Feb	+1.8	6.6 Feb	-51.2 Q4	-2.8	-2.9	1.59	1.34	1.32
Euro area	+1.7 Q4	+1.6	+1.6	+0.6 Jan	+2.0 Feb	+1.6	9.6 Jan	+392.3 Jan	+2.9	-1.6	0.34	0.93	0.89
Austria	+1.7 Q4	+2.0	+1.5	-1.1 Jan	+2.2 Feb	+1.7	5.7 Jan	+8.0 Q3	+2.6	-0.9	0.61	0.93	0.89
Belgium	+1.2 Q4	+2.0	+1.3	-1.6 Jan	+3.0 Feb	+2.0	7.7 Jan	+3.4 Sep	+0.9	-2.7	0.81	0.93	0.89
France	+1.1 Q4	+1.7	+1.3	-0.4 Jan	+1.2 Feb	+1.3	10.0 Jan	-34.5 Jan‡	-0.9	-3.1	1.00	0.93	0.89
Germany	+1.8 Q4	+1.7	+1.6	nil Jan	+2.2 Feb	+1.8	5.9 Feb	+287.1 Jan	+8.3	+0.5	0.34	0.93	0.89
Greece	-1.4 Q4	-4.8	+1.2	+7.3 Jan	+1.3 Feb	+0.8	23.1 Dec	-0.6 Jan	-1.2	-6.4	6.95	0.93	0.89
Italy	+1.0 Q4	+0.7	+0.8	-0.5 Jan	+1.6 Feb	+1.2	11.9 Jan	+50.9 Jan	+2.4	-2.4	2.30	0.93	0.89
Netherlands	+2.5 Q4	+2.5	+1.9	+1.5 Jan	+1.8 Feb	+1.1	6.3 Feb	+64.8 Q4	+8.4	+0.5	0.47	0.93	0.89
Spain	+3.0 Q4	+2.8	+2.5	+7.2 Jan	+3.0 Feb	+2.2	18.2 Jan	+24.6 Dec	+1.5	-3.3	1.69	0.93	0.89
Czech Republic	+1.9 Q4	+1.6	+2.5	+9.6 Jan	+2.5 Feb	+2.4	5.1 Feb§	+2.3 Q4	+0.7	-0.5	0.99	25.1	24.2
Denmark	+1.9 Q4	+0.9	+1.3	+2.5 Jan	+1.0 Feb	+1.2	4.2 Jan	+25.3 Jan	+6.8	-1.4	0.64	6.92	6.66
Norway	+1.8 Q4	+4.5	+1.8	+0.6 Jan	+2.5 Feb	+2.4	4.2 Jan‡‡	+18.1 Q4	+5.3	+2.8	1.72	8.53	8.48
Poland	+3.2 Q4	+7.0	+3.2	+1.2 Feb	+2.2 Feb	+1.8	8.5 Feb§	-0.6 Jan	-1.3	-3.2	3.54	3.93	3.80
Russia	-0.4 Q3	na	+1.4	-2.7 Feb	+4.6 Feb	+4.7	5.6 Feb§	+22.2 Q4	+2.8	-2.9	8.13	56.7	69.0
Sweden	+2.3 Q4	+4.2	+2.4	+1.3 Jan	+1.8 Feb	+1.6	7.4 Feb§	+23.7 Q4	+4.9	-0.4	0.64	8.89	8.28
Switzerland	+0.6 Q4	+0.3	+1.4	-1.2 Q4	+0.6 Feb	+0.2	3.3 Feb	+70.6 Q4	+9.6	+0.2	-0.07	1.00	0.98
Turkey	-1.8 Q3	na	+2.4	+4.2 Jan	+10.1 Feb	+8.8	12.7 Dec§	-33.2 Jan	-3.4	-2.1	11.07	3.65	2.86
Australia	+2.4 Q4	+4.4	+2.6	+1.0 Q4	+1.5 Q4	+2.1	5.9 Feb	-33.1 Q4	-1.4	-1.8	2.73	1.31	1.32
Hong Kong	+3.1 Q4	+4.8	+2.6	-0.7 Q4	-0.1 Feb	+1.7	3.3 Feb‡‡	+14.5 Q4	+5.9	+1.5	1.64	7.77	7.76
India	+7.0 Q4	+5.1	+7.2	+2.7 Jan	+3.7 Feb	+4.8	5.0 2015	-11.9 Q4	-1.1	-3.2	6.75	64.9	66.5
Indonesia	+4.9 Q4	na	+5.2	+4.5 Jan	+3.8 Feb	+4.2	5.6 Q3§	-16.3 Q4	-2.0	-2.1	7.07	13,314	13,398
Malaysia	+4.5 Q4	na	+4.4	+3.5 Jan	+4.5 Feb	+3.2	3.5 Jan§	+6.0 Q4	+3.1	-3.1	4.11	4.42	4.00
Pakistan	+5.7 2016**	na	+5.2	+1.1 Jan	+4.2 Feb	+4.9	5.9 2015	-4.9 Q4	-1.7	-4.8	7.59†††	105	105
Philippines	+6.6 Q4	+7.0	+6.4	+9.3 Jan	+3.3 Feb	+3.3	6.6 Q1§	+0.6 Dec	+0.8	-2.6	5.35	50.2	46.4
Singapore	+2.9 Q4	+12.3	+2.1	+12.6 Feb	+0.7 Feb	+1.1	2.2 Q4	+56.7 Q4	+19.3	-1.0	2.22	1.40	1.37
South Korea	+2.4 Q4	+2.0	+2.5	+1.7 Jan	+1.9 Feb	+1.7	5.0 Feb§	+96.8 Jan	+6.2	-1.0	2.16	1,114	1,164
Taiwan	+2.9 Q4	+1.8	+1.8	+10.6 Feb	nil Feb	+2.1	3.8 Feb	+70.9 Q4	+11.5	-0.7	1.11	30.3	32.6
Thailand	+3.0 Q4	+1.7	+3.4	+1.3 Jan	+1.4 Feb	+1.3	1.2 Jan§	+46.4 Q4	+11.6	-2.0	2.63	34.4	35.4
Argentina	-2.1 Q4	+1.9	+2.7	-2.5 Oct	— ***	—	7.6 Q4§	-15.0 Q4	-2.9	-4.1	na	15.5	14.9
Brazil	-2.5 Q4	-3.4	+0.7	+1.4 Jan	+4.8 Feb	+4.5	12.6 Jan§	-22.8 Feb	-1.6	-7.7	9.85	3.12	3.67
Chile	+0.5 Q4	-1.4	+1.8	-0.9 Jan	+2.7 Feb	+3.0	6.2 Jan§‡‡	-3.6 Q4	-1.2	-2.1	4.12	663	683
Colombia	+1.6 Q4	+4.0	+2.4	-0.2 Jan	+5.2 Feb	+4.0	10.5 Feb§	-12.5 Q4	-3.6	-2.8	6.70	2,886	3,053
Mexico	+2.4 Q4	+2.9	+1.6	-0.1 Jan	+4.9 Feb	+4.9	3.5 Feb	-27.9 Q4	-2.6	-2.5	7.11	18.8	17.5
Venezuela	-8.8 Q4~	-6.2	-5.5	na	na	+562	7.3 Apr§	-17.8 Q3~	-1.6	-19.6	10.43	9.99	6.31
Egypt	+3.4 Q3	na	+3.9	+16.0 Jan	+30.2 Feb	+19.2	12.4 Q4§	-20.1 Q4	-6.2	-10.8	na	18.1	8.88
Israel	+4.3 Q4	+6.5	+3.9	+3.2 Jan	+0.4 Feb	+0.6	4.3 Feb	+12.4 Q4	+4.4	-2.3	2.16	3.63	3.83
Saudi Arabia	+1.4 2016	na	+0.8	na	-0.1 Feb	+2.0	5.6 2015	-24.9 Q4	-2.1	-7.3	3.68	3.75	3.75
South Africa	+0.7 Q4	-0.3	+1.2	+0.5 Jan	+6.3 Feb	+5.7	26.5 Q4§	-9.5 Q4	-3.4	-3.1	8.74	12.9	15.4

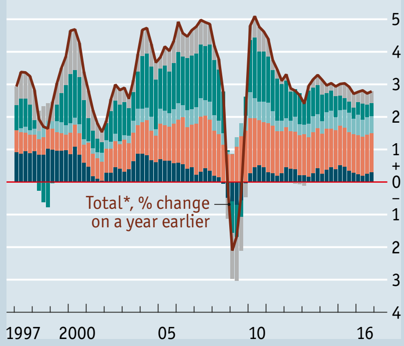
Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014 **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, Jan 29.53%; year ago 30.79% †††Dollar-denominated bonds.

Markets

	Index Mar 29th	one week	% change on Dec 30th 2016 in local currency	in $ terms
United States (DJIA)	20,659.3	nil	+4.5	+4.5
China (SSEA)	3,394.4	-0.1	+4.5	+5.4
Japan (Nikkei 225)	19,217.5	+0.9	+0.5	+5.6
Britain (FTSE 100)	7,373.7	+0.7	+3.2	+3.7
Canada (S&P TSX)	15,657.6	+2.0	+2.4	+2.6
Euro area (FTSE Euro 100)	1,176.6	+1.7	+5.8	+7.8
Euro area (EURO STOXX 50)	3,475.3	+1.6	+5.6	+7.6
Austria (ATX)	2,836.7	+1.3	+8.3	+10.4
Belgium (Bel 20)	3,787.5	+1.5	+5.0	+7.0
France (CAC 40)	5,069.0	+1.5	+4.3	+6.3
Germany (DAX)*	12,203.0	+2.5	+6.3	+8.3
Greece (Athex Comp)	668.6	+4.4	+3.9	+5.9
Italy (FTSE/MIB)	20,276.8	+1.6	+5.4	+7.4
Netherlands (AEX)	513.6	+0.8	+6.3	+8.3
Spain (Madrid SE)	1,046.2	+1.3	+10.9	+13.0
Czech Republic (PX)	982.7	+0.4	+6.6	+8.7
Denmark (OMXCB)	821.6	+1.2	+2.9	+4.8
Hungary (BUX)	32,233.0	+1.3	+0.7	+2.4
Norway (OSEAX)	755.7	-1.1	-1.2	-0.3
Poland (WIG)	58,709.7	-0.1	+13.4	+20.4
Russia (RTS, $ terms)	1,124.9	+0.2	-2.4	-2.4
Sweden (OMXS30)	1,584.4	+1.4	+4.4	+6.7
Switzerland (SMI)	8,661.5	+1.1	+5.4	+7.4
Turkey (BIST)	89,269.7	-0.6	+14.2	+10.0
Australia (All Ord.)	5,910.7	+3.1	+3.4	+9.3
Hong Kong (Hang Seng)	24,392.1	+0.3	+10.9	+10.6
India (BSE)	29,531.4	+1.2	+10.9	+16.0
Indonesia (JSX)	5,592.5	+1.1	+5.6	+6.8
Malaysia (KLSE)	1,750.4	+0.1	+6.6	+8.2
Pakistan (KSE)	48,375.6	-1.3	+1.2	+0.7
Singapore (STI)	3,184.6	+2.1	+10.5	+14.5
South Korea (KOSPI)	2,167.0	-0.1	+6.9	+15.9
Taiwan (TWI)	9,856.3	-0.7	+6.5	+13.5
Thailand (SET)	1,575.0	+0.5	+2.1	+6.2
Argentina (MERV)	20,203.3	+2.7	+19.4	+22.2
Brazil (BVSP)	65,528.3	+3.2	+8.8	+13.6
Chile (IGPA)	24,269.8	+3.3	+17.1	+18.3
Colombia (IGBC)	10,153.4	+1.0	+0.5	+4.5
Mexico (IPC)	49,036.5	+1.1	+7.4	+17.5
Venezuela (IBC)	42,344.0	+14.5	+33.6	na
Egypt (EGX 30)	12,987.7	+0.8	+5.2	+4.6
Israel (TA-100)	1,252.7	-0.9	-1.9	+4.1
Saudi Arabia (Tadawul)	6,949.0	+1.7	-4.0	-4.0
South Africa (JSE AS)	52,444.8	+0.7	+3.5	+9.4

World GDP

The world economy grew by 2.8% in the last quarter of 2016 compared with a year earlier, according to our estimates. The contributors to global growth have shifted over the past two decades. China's economy may be slowing—it expanded by less than 7% in the fourth quarter of 2016—but it still accounts for over two-fifths of global growth. America was the main propellor of the world economy 20 years ago, accounting for 30% of the total. It is now behind China and India in third place, contributing a mere 11%. Hong Kong was a bright spot in the fourth quarter of last year: growth in service exports helped the economy expand by 3.1% year on year, up from 2% in the previous quarter.



*Estimates based on 61 economies representing 83% of GDP. Weighted GDP at purchasing-power parity

Sources: Haver Analytics; IMF; *The Economist*

Other markets

	Index Mar 29th	one week	% change on Dec 30th 2016 in local currency	in $ terms
United States (S&P 500)	2,361.1	+0.5	+5.5	+5.5
United States (NAScomp)	5,897.5	+1.3	+9.6	+9.6
China (SSEB, $ terms)	339.5	-2.9	-0.7	-0.7
Japan (Topix)	1,542.1	+0.8	+1.5	+6.7
Europe (FTSEurofirst 300)	1,493.8	+1.2	+4.6	+6.6
World, dev'd (MSCI)	1,858.9	+0.9	+6.1	+6.1
Emerging markets (MSCI)	970.3	+0.3	+12.5	+12.5
World, all (MSCI)	450.6	+0.8	+6.8	+6.8
World bonds (Citigroup)	904.1	+0.5	+2.3	+2.3
EMBI+ (JPMorgan)	804.5	+0.5	+4.2	+4.2
Hedge funds (HFRX)	1,219.4§	+0.1	+1.3	+1.3
Volatility, US (VIX)	11.2	+12.8	+14.0	(levels)
CDSs, Eur (iTRAXX)†	74.5	-3.1	+3.3	+5.3
CDSs, N Am (CDX)†	67.5	-2.0	-0.3	-0.3
Carbon trading (EU ETS) €	4.8	-4.0	-27.5	-26.1

Sources: IHS Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §Mar 27th.

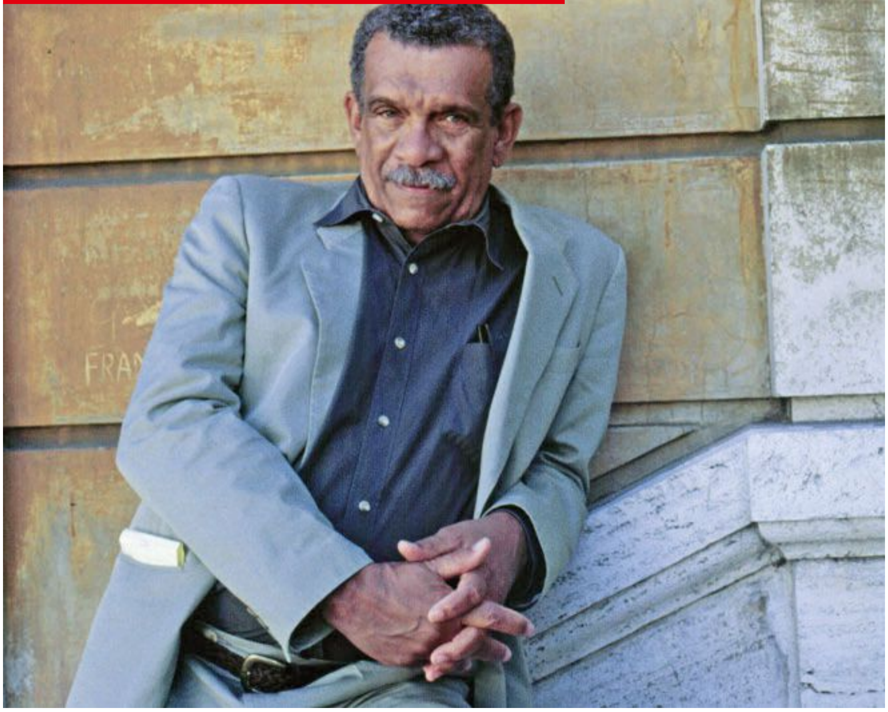
Indicators for more countries and additional series, go to: **Economist.com/indicators**

The Economist commodity-price index

2005=100

	Mar 21st	Mar 28th*	% change on one month	one year
Dollar Index				
All Items	146.4	144.5	-1.5	+9.7
Food	155.9	153.7	-1.7	+0.2
Industrials				
All	136.4	134.9	-1.4	+23.5
Nfa†	145.2	141.8	-1.7	+21.6
Metals	132.7	131.9	-1.2	+24.4
Sterling Index				
All items	213.3	209.6	-2.3	+24.8
Euro Index				
All items	168.3	165.3	-3.7	+12.9
Gold				
$ per oz	1,243.3	1,255.3	-0.1	+2.4
West Texas Intermediate				
$ per barrel	47.3	48.4	-10.4	+26.2

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



Songs of the sea

Derek Walcott, poet of the Caribbean, died on March 17th, aged 87

OVER more than five decades of producing some of the 20th century's best poetry, Derek Walcott found many local metaphors for his trade. He was a bent astronomer, tracing out the circle of time in the singeing stars above the mango trees; the careful stenciller of a flowered window frame, or the planer of a canoe; an egret stalking the reeds, his pen's beak "plucking up wriggling insects/like nouns and gulping them".

Above all, though, he was a poet-mariner, a rusty-head sailor with sea-green eyes, "a red nigger who love the sea", as locals said: red because he had Dutch, English and black in him, the inevitable mingling of voyagers to the Caribbean. All roads led to the sea, it was always visible; the roar of the surf was in his body, and its rhythm in the lines he wrote. Each dawn, after cigarette and coffee, he was called to his blue portable typewriter "like a fisherman walking towards the white noise/of paper, then in its hollow craft sets his oars." His pen became a sea-dipping swift crossing and recrossing the waters, like memory, or a crab, "obliquity burrowing to surface". Inevitably the hero of his greatest poem, "Omeros", was a simple fisherman, Achille, who in a conscious echoing of Homer set his pirogue on the ocean and simply sailed away. His story was written in *terza rima*, flexible and ever-flowing.

The sea was history: beneath it were the wrecked ships that had fought for the islands, British, Dutch and French, with their drowned sailors and drowned slaves, the women now manacled with cowrie shells. It floated Achille to Africa and Africa to the West, each prisoner carrying its rhythms but not its language to the other world,

> and what began dissolving
> was the fading sound of their tribal name for the rain,
> the bright sound for the sun, a hissing noun for the river,
> and always the word "never", and never the word "again".

Yet Mr Walcott did not believe slavery should be dwelt on, like a chafing sore. He raged at it, but the sea erased everything, and the surf's lines were *ici pas ni un rien*: what has been done is nothing, start again.

His personal life knew the same flux: three wives, all treated badly, to his later grief; many liaisons. His loves too were expressed in sea-language: post coitum "the eight limbs loosen, like tentacles in water"; in the morning he would lie watching "the fall and rise/of suspiring linen, like a skiff at anchor". He would cup a breast as he fondled a white stone from the beach. These propensities, noted when he was teaching in America in the 1980s and 1990s, cost him the chance to be, in 1999, Britain's poet laureate and, ten years later, professor of poetry at Oxford. He was not concerned, for he did not want to drop his anchor long on any northern shore.

The horned island

The one point of fixity in his life was his home island of St Lucia, where the indigo horns of the Pitons rose to the sky, where the coppery sea-almonds shook in the wind and clay paths wound, through green bananas, to the villages of rusted galvanise; where all was bright and present-tense, all the time. St Lucia was the beautiful Helen the colonisers had fought over, reimagined as a black housemaid strolling the beach in a yellow dress, swinging a plastic sandal; who "dint take no shit/from white people", and whose waist swayed like palms in the weather.

There he had first found the "foreign machinery" of English literature: Dickens and Scott on the shelves at home, "The World's Classics" in the barber's shop, Kipling, Shakespeare and Milton at school, and imagined his own shadow falling on those distant, cobbled streets. There he began to write seriously at 11, a poem a day in an exercise book, and at 19 published his first collection, paid for by his mother.

He was madly in love with English then, and knew that his calling was to be a great English poet. A great English playwright, too, perhaps; he wrote 80 or so plays, and set up theatre workshops in both Trinidad, his base for 20 years, and Boston. A London house, Cape, published his first book outside the West Indies in 1962. But he found an inevitable cleavage between these worlds: that in both hustling America and drizzling, hedge-bound England, with their strange snows and disorientating cities, he would always be an exile, patronised as "a Commonwealth writer" or, by some blacks, as a craven admirer of the Western canon. He strove not to forget his native *patois* of the babbling cedars, ground-doves and sea, or the astonishment of colour and light: a light that made him a painter, like his father, as well as a writer, and led him to consider the poet's craft as a celebration and a prayer.

He had travelled often and far, but concluded that poetry was best done within a perimeter of about 20 miles. The truest, simplest, potentially the greatest, lay close to home: in the red flares of the flame tree, the "leoparding light" of the forests, the gossip of café and rumshop, the thick-leaved breadfruit yards. And, most of all, in the ocean. Without it, he pushed his pen "through a thick nothing"; with it, he had a shining shield, a theatre, a light-sparkling hoard, a music, an untiring lover. The last line of "Omeros" was his own: "When he left the beach the sea was still going on." ■


"A true victory
is a victory over oneself."
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