The Economist

Dismantling Dodd-Frank

Israel's land grab

China's transgender Oprah

A special report on mass entertainment

FEBRUARY 11TH–17TH 2017

Courting Russia

Can it end well?


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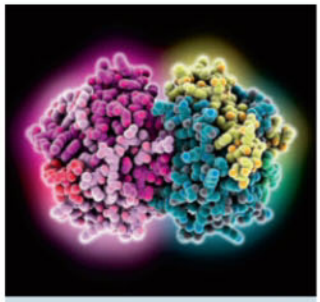

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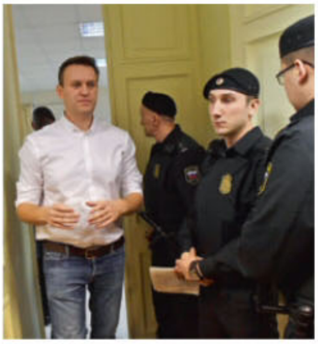
Politics



A **Russian** court reaffirmed the conviction for embezzlement of Alexei Navalny, the country's most popular opposition politician. The conviction relates to business Mr Navalny conducted with a state timber company, and is widely seen as a pretext to disqualify him from running in the country's presidential elections in 2018. His initial conviction in 2013, just before his campaign in the Moscow mayoral race, was declared invalid by the European Court of Human Rights.

François Fillon affirmed he will not drop out of the presidential election in **France** despite a scandal over employing his wife and children at taxpayers' expense. Mr Fillon, the Republican candidate, has been unable to prove that his wife performed any work. The affair has hurt him in the polls and could pave the way for Emmanuel Macron, an independent, to reach the election's second round.

Romania scrapped a decree that would have decriminalised official corruption if the damages amounted to less than $47,600. The decree sparked protests that brought hundreds of thousands of people onto the streets. It could have exempted the head of the ruling party from facing charges of paying people for work they may not have performed.

A bill to allow the **British** government to trigger Article 50, the legal means of leaving the EU, completed its swift passage through the House of Commons. After three days of heated debate the bill survived intact. MPs from the opposition Labour Party were ordered by its leader to support it, deepening its internal rifts. The bill now goes to the unelected House of Lords, which faced veiled threats about its abolition if it amends or delays the legislation. Theresa May, the prime minister, has taken Britain a big step closer towards the Brexit door.

Man with a ban

The Trump administration went to the federal appeals court to get its ban on **refugees** and citizens from seven countries reinstated, after a lower court stayed it. The lower court's decision allowed people who had been denied entry to travel to the United States. In a furious tweeting storm, Donald Trump questioned the judges' impartiality.

Betsy DeVos was confirmed by the Senate as Mr Trump's education secretary, but only after Mike Pence cast a vote to break a 50-50 tie. It was the first time an American vice-president has had to use his tie-breaking vote as the Senate's presiding officer to ensure the confirmation of a president's cabinet appointment. **Jeff Sessions** was confirmed as attorney-general.

Not part of the new democracy

A UN report accused the police and army in **Myanmar** of systematic and widespread abuse of the Rohingya minority, including looting, arson, rape and murder. The pope also condemned the treatment of the Rohingya.

An **Australian** senator defected from the ruling Liberal National coalition to set up a rival party. Cory Bernardi says Australia needs a more conservative force.

The **Philippine** government called off peace talks with communist rebels and ended a ceasefire after insurgents killed three soldiers.

A suicide-bomber attacked **Afghanistan's** supreme court in Kabul, killing at least 20 people. The UN reported that almost 3,500 civilians were killed and 7,900 injured in conflict-related violence in the country last year, the most casualties since it began documenting them in 2009.

Scores of people were killed by **avalanches** in northern Afghanistan, but many remain trapped under the snow and the toll is expected to rise.

China's participation in a conference at the Vatican on organ trafficking raised eyebrows. Its representative heads the country's organ-transplant programme and his attendance was a sign of warming relations between the Vatican and China. But some delegates resented China's presence—its hospitals have used organs harvested from executed prisoners for transplants.

Land grab

Israel's parliament passed a law that will allow for the retroactive legalisation of unauthorised building on some privately owned Palestinian land in the West Bank. Governments around the world condemned the move as an obstacle to peace; Israel's courts could yet strike it down.

The Trump administration announced new sanctions against **Iran**, after it conducted a missile test. Although this marked a more aggressive stance, the administration said the deal brokered with Iran to monitor its nuclear programme remains intact.

The UN launched a $2.1bn appeal for aid to **Yemen**, where the humanitarian situation is catastrophic and rapidly deteriorating. Saudi Arabia has been fighting Yemen for the past two years.

Amnesty International accused the **Syrian** government of having executed as many as 13,000 people at a prison north of Damascus, some after two-minute trials.

Members of parliament in **Somalia** cast ballots in a presidential election held in an airport under the protection of troops from the African Union. The poll followed another unorthodox one last year when 14,000 delegates who had been chosen by clan elders voted for members of the lower house.

The president of **Nigeria**, Muhammadu Buhari, extended what his office had said was a holiday in Britain for medical tests amid mounting concern at home over his health.

My way or the highway

Peru's attorney-general ordered the arrest of the country's former president, Alejandro Toledo, saying that he received $20m in bribes from Odebrecht, Brazil's biggest construction company. The money was allegedly paid to secure a contract to build a road from Peru to Brazil. Mr Toledo denies wrongdoing.

Colombia's government began peace negotiations with the ELN, the country's second-largest guerrilla army. In November the government ratified an agreement that ended its 52-year war with the FARC, the largest rebel group.

Jovenel Moïse, who has never held public office, was sworn in as **Haiti's** president. The country has been governed by an interim president since Michel Martelly left office last February. Both are members of the Haitian Bald Head Party.

Business

Donald Trump took aim at the Dodd-Frank reforms of financial services, which were drawn up in response to the 2008 crisis. He told the Treasury to review the extent to which **financial regulations** contradict the "core principles" of the new administration, a broad edict that will revisit a host of measures disliked by the banking industry. He also ordered a review of the "fiduciary rule", which is due to come into effect this spring and requires anyone giving investment advice to act in the "best interest" of their client.

The blame game

America's **trade deficit**, another of Mr Trump's bugbears, rose to $502bn last year, the highest since 2012. A strong dollar hampered American exports. Mr Trump has blamed the deficit on currency manipulation by other countries, although the shortfall from trading goods with China and Germany fell to $347bn and $65bn respectively, and stayed steady with Japan at $69bn. The trade deficit with Mexico was slightly higher at $63bn.

China's reserves of foreign exchange dropped to under $3trn in January, the lowest level in nearly six years. The People's Bank of China has been selling dollars to prop up a weakening yuan, which fell by 6.6% against the greenback last year, the most in decades.

Market jitters about the future of the **euro zone** helped push the spread on yields of French, Greek and Italian bonds over that of German bunds to recent highs. The politics of the currency bloc have started to preoccupy investors again, given concerns about the ability of Greece to pay its debt and the possibility of snap elections in Italy. In France the rise of Marine Le Pen, a right-winger who has threatened to pull the country out of the euro if she wins the presidential election, has coincided with the implosion of the centre-right's campaign.

Meanwhile, Mario Draghi said now was not the time to start tapering the **European Central Bank's** stimulus programme. The ECB's president was responding to criticism about the policy in Germany, where his critics link a recent rise in inflation to the bank's ultra-low interest rates.

The **Turkish lira** had another wobbly week, falling by 1.6% against the dollar in a day, after the Turkish president criticised the central bank for not lowering interest rates, which he described as a "means of exploitation". The feud between Recep Tayyip Erdogan and the central bank has knocked confidence in the bank's independence, though the president had seemed to be warming to the idea of raising rates to help the struggling lira.

Legacy effects

Having embarked on a round of new investments to augment its assets, **BP** said it needed the price of a barrel of oil to rise to $60 by the end of the year in order for it to break even (Brent crude has not traded at $60 since mid-2015). The oil company reported a headline loss of almost $1bn for last year. It booked a further $7.1bn in charges related to the Deepwater Horizon disaster, which happened in 2010, bringing its total pre-tax bill for the catastrophe to $62.6bn.

Rio Tinto's underlying profit rose by 12% to $5.1bn last year. The mining group was boosted by a rebound in commodity prices: the price of iron ore, its biggest business, rallied by 80% in 2016. Recovering some of its previous swank after years of cost-cutting, Rio increased the size of its dividend and announced a $500m share buy-back.

A federal court blocked the $48bn merger of Anthem and Cigna, two giant **health insurers,** on antitrust grounds. It is the second big merger in the industry to fall foul of the courts recently (Aetna's acquisition of Humana has also been rejected), rolling back the wave of consolidation prompted by Obamacare.

General Motors reported solid earnings for 2016. The world's third-largest carmaker profited from surging revenue in its North American market, boosted by cheaper petrol prices that made pickup trucks and SUVs more economical for consumers. But it recorded another loss in Europe, which it blamed on Brexit. GM said the referendum in Britain to leave the EU had cost it $300m, mostly because of the currency turmoil that followed the vote; without Brexit it would have broken even in Europe.

Blue-sky thinking

Uber hired a former engineer at NASA, Mark Moore, to help develop its **flying-taxi division**, aptly named Elevate. Mr Moore had previously spent 30 years at the space agency working on advanced aircraft design. His decision to fly the NASA nest is not that surprising given that he contributed to Uber's policy paper on automated flying vehicles, published last October. It won't be easy for the ride-hailing firm to put taxis in the sky. The biggest current challenge is sufficient battery power before it can really take off.

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

Courting Russia

Donald Trump seeks a grand bargain with Vladimir Putin. This is a terrible idea

GEORGE W. BUSH looked into Vladimir Putin's eyes and thought he saw his soul. He was wrong. Barack Obama attempted to "reset" relations with Russia, but by the end of his term in office Russia had annexed Crimea, stirred up conflict elsewhere in Ukraine and filled the power vacuum that Mr Obama had left in Syria. Donald Trump appears to want to go much further and forge an entirely new strategic alignment with Russia. Can he succeed, or will he be the third American president in a row to be outfoxed by Mr Putin?

The details of Mr Trump's realignment are still vague and changeable. That is partly because of disagreements in his inner circle. Even as his ambassador to the UN offered "clear and strong condemnation" of "Russia's aggressive actions" in Ukraine, the president's bromance with Mr Putin was still smouldering. When an interviewer on Fox News put it to Mr Trump this week that Mr Putin is "a killer", he retorted: "There are a lot of killers. What, you think our country's so innocent?"

For an American president to suggest that his own country is as murderous as Russia is unprecedented, wrong and a gift to Moscow's propagandists. And for Mr Trump to think that Mr Putin has much to offer America is a miscalculation not just of Russian power and interests, but also of the value of what America might have to give up in return.

The art of the deal meets the tsar of the steal

Going by the chatter around Mr Trump (see page 18), the script for Russia looks something like this: America would team up with Mr Putin to destroy "radical Islamic terror"—and in particular, Islamic State (IS). At the same time Russia might agree to abandon its collaboration with Iran, an old enemy for America in the Middle East and a threat to its allies, including Bahrain and Saudi Arabia. In Europe Russia would stop fomenting conflict in Ukraine, agree not to harass NATO members on its doorstep and, possibly, enter nuclear-arms-control talks. In the longer term, closer ties with Russia could also help curb Chinese expansion. Stephen Bannon, Mr Trump's most alarming adviser, said last year that he had "no doubt" that "we're going to war in the South China Sea in five to ten years." If so, America will need allies, and Russia is a nuclear power with a 4,200km (2,600-mile) border with China. What's not to like?

Pretty much everything. Russian hacking may have helped Mr Trump at the polls, but that does not mean he can trust Mr Putin. The Kremlin's interests and America's are worlds apart.

In Syria, for example, Mr Putin makes a big noise about fighting IS terrorists, but he has made no real effort to do so. His price for working with America could be to secure a permanent Russian military presence in the Middle East by propping up Bashar al-Assad, whose regime was revealed this week to have hanged thousands of Syrians after two- or three-minute trials. None of this is good for Syria, regional stability or America. Even if Mr Putin and Mr Trump shared a common goal (they don't) and Americans did not mind becoming complicit in Russian atrocities (they should), American and Russian forces cannot easily fight side by side. Their systems do not work together. To make them do so would require sharing military secrets that the Pentagon spends a fortune protecting. Besides, Russian aircraft do not add much to the coalition air power already attacking IS. Ground troops would, but Mr Putin is highly unlikely to deploy them.

Likewise, Russia is not about to confront Iran. The country's troops are a complement to Russian air power. Iran is a promising market for Russian exports. And, most of all, the two countries are neighbours who show every sign of working together to manage the Middle East, not of wanting to fight over it.

The notion that Russia would be a good ally against China is even less realistic. Russia is far weaker than China, with a declining economy and population and a smaller army. Mr Putin has neither the power nor the inclination to pick a quarrel with Beijing. On the contrary, he values trade with China, fears its military might and has much in common with its leaders, at least in his tendency to bully his neighbours and reject Western lecturing about democracy and human rights. Even if it were wise for America to escalate confrontation with China—which it is not—Mr Putin would be no help at all.

The gravest risk of Mr Trump miscalculating, however, is in Europe. Here Mr Putin's wishlist falls into three classes: things he should not get until he behaves better, such as the lifting of Western sanctions; things he should not get in any circumstances, such as the recognition of his seizure of Ukrainian territory; and things that would undermine the rules-based global order, such as American connivance in weakening NATO.

Mr Putin would love it if Mr Trump gave him a freer hand in Russia's "near abroad", for example by scrapping America's anti-missile defences in Europe and halting NATO enlargement with the membership of Montenegro, which is due this year. Mr Trump appears not to realise what gigantic concessions these would be. He gives mixed signals about the value of NATO, calling it "obsolete" last month but vowing to support it this week. Some of his advisers seem not to care if the EU falls apart; like Mr Putin, they embrace leaders such as Marine Le Pen who would like nothing more. Mr Bannon, while admitting that Russia is a kleptocracy, sees Mr Putin as part of a global revolt by nationalists and traditionalists against the liberal elite—and therefore a natural ally for Mr Trump.

Played for a sucker by a silovik

The quest for a grand bargain with Mr Putin is delusional. No matter how great a negotiator Mr Trump is, no good deal is to be had. Indeed, an overlooked risk is that Mr Trump, double-crossed and thin-skinned, will end up presiding over a dangerous and destabilising falling-out with Mr Putin.

Better than either a bargain or a falling-out would be to work at the small things to improve America's relations with Russia. This might include arms control and stopping Russian and American forces accidentally coming to blows. Congressional Republicans and his more sensible advisers, such as his secretaries of state and defence, should strive to convince Mr Trump of this. The alternative would be very bad indeed. ■

Israel and Donald Trump

If you build it, they will fight

Land grabs make peace harder, as Donald Trump should tell Binyamin Netanyahu next week

ON FEBRUARY 6th Israel aimed a nasty blow at what remains of its peace process with the nearly 5m Palestinians who live in the territories it seized 50 years ago. Its coalition government, led by Binyamin Netanyahu, voted a bill through the Knesset which allows, in certain circumstances, for the legalisation of Jewish construction on privately owned Palestinian land. One effect could be that around 50 "outposts", scattered around the West Bank and illegal under Israeli law, will now be safe from the threat of demolition.

Condemnation quickly flowed in from around the world—not just from among the 138 countries that recognise Palestine as a state, but from many that do not, including Britain, France and Germany, Israel's most reliable friends outside America (which stayed silent). Germany's government said that the move "disappointed many in Germany who have deep ties to Israel and who have stood by it".

The new law may yet be struck down as unconstitutional by Israel's fiercely independent courts. Even if it is not, the number of housing units likely to be affected is relatively small (around 4,000). Proper compensation must be paid to the Palestinian landowners. And the bar that has to be met for what the bill euphemistically calls "regularisation" is fairly high: settlers will have to convince the courts that they did not know the land was privately owned. Nonetheless, the law creates a new pothole in the road to peace, for two reasons.

First, all settlements and outposts are obstacles that must be dealt with if there is to be a peace deal (see page 41). In particular, those outside the "separation barrier" that Israel has been building since 2002 and which would broadly serve as the border if there were an agreement, make things considerably harder. Many of the outposts the new law will affect are deep in the West Bank, and add to the number of committed settlers who would have to be moved after any deal. Freed from the threat of demolition by the authorities, those outposts are only likely to expand.

Second, the law's passage through parliament is a sign that the political position of Mr Netanyahu is weakening, while those to his right are gaining ground. Although he has admitted that the law is unhelpful, dangerous even, since it exposes Israel to possible prosecution by the International Criminal Court, he felt obliged to push it through. That was the demand of the main settler-supporting party, Jewish Home, on which Mr Netanyahu depends to keep his coalition in power. Mr Netanyahu, who is fighting off corruption allegations, dared not risk a showdown with the party's leader, Naftali Bennett. The danger is that an emboldened Mr Bennett will now proceed to his planned next step, the progressive annexation of bits of the West Bank (he wants 61% of it). He and his settlers hope that the election of Donald Trump means America will no longer stand in their way. Last month a group of settler leaders gleefully flew to Washington to see Mr Trump sworn in.

Down to Mr Trump

They may have cheered too soon. Plans to move the American embassy to Jerusalem are being reviewed; last week Mr Trump's spokesman said that creating and expanding settlements "may not be helpful". Mr Trump has said he wants to make peace in the Middle East. If he is serious, he needs to tell Mr Netanyahu when he visits next week that America still stands behind the "two-state solution": the creation and recognition of a workable Palestinian state alongside a secure Jewish one. And he must stress that both building outside the barrier and unilateral annexation are dangerous impediments to what he calls the "ultimate deal". ■

The European Union's exit charge

Time to pick up the tab

Britain is about to be hit with a colossal bill that could blow up the Brexit negotiations

THESE are exhilarating times for the 52% of British voters who last summer opted to leave the European Union. After months of rumours that an anti-Brexit counter-revolution was being plotted by the Europhile establishment (who even won a Supreme Court case forbidding the government from triggering Brexit without Parliament's permission), it at last looks as if independence beckons. This week the House of Commons voted to approve the process of withdrawal. The prime minister, Theresa May, will invoke Article 50 of the EU treaty next month, beginning a two-year countdown to freedom.

But the triumphant mood is about to sour, for a reason few people have grasped. The first item on the agenda in Brussels, where divorce terms are to be thrashed out, will be a large demand for cash. To Britons who voted to leave the EU because they were told it would save them £350m ($440m) a week, this will come as a shock. The mooted bill is huge—some in Brussels talk of €60bn ($64bn), enough to host the London Olympics five times over—and its calculations open to endless argument. Until now the Brexit debate has focused on grander matters, such as the future of the €600bn-a-year trading relationship between Britain and the EU. Yet a row over the exit payment could derail the talks in their earliest stages. ▸▸

The tab is eye-watering. Britain's liabilities include contributions to the EU's pension scheme, which is generous and entirely unfunded. The biggest item, which Britain will surely challenge, is the country's share of responsibility for a multibillion-euro collection of future projects to which the EU has committed itself but not yet allocated a budget. These liabilities, and sundry smaller ones, may be offset a little by Britain's share of the EU's assets, mostly property in Brussels and elsewhere around the world. By one analysis (see page 46), the bill could be as little as €25bn or as much as €73bn.

So there is plenty to haggle over. But the very idea that the charge is something to be negotiated irritates many Eurocrats, who see it as a straightforward account to be settled. The European Commission's negotiators insist that the divorce agreement must be signed off before the wrangling can begin on anything else, such as future trading relations. Britain would prefer to tally up the bill in parallel with talks on other matters, in order to trade more cash for better access.

Garçon! This isn't what I ordered

It is in everyone's interests to reach an agreement. If talks fail and Britain walks out without paying, the EU will be left with a big hole in its spending plans. Net contributors, chiefly Germany and France, would face higher payments and net recipients would see their benefits cut. For Britain the satisfaction at having fled without paying would evaporate amid rancid relations with the continent, wrecking prospects of a trade deal; a rupture in everything from intelligence-sharing to joint scientific research; and, perhaps, a visit from the bailiffs of the International Court of Justice. Such an outcome would be bad for the EU but it would be even worse for Britain.

That imbalance will become a theme of the Article 50 negotiations. It suggests that the British will have to do most of the compromising. Mrs May must not waste the two-year timetable haggling over a few billion, when trade worth vastly more hangs in the balance. The EU can help by agreeing to discuss the post-Brexit settlement in parallel with the debate about money. Rolling the lot into one would increase the opportunities for trade-offs that benefit both sides.

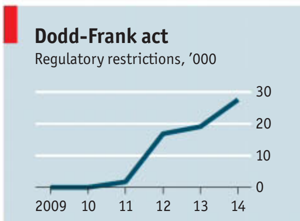
But there is a danger of hardliners in London and Brussels making compromise impossible. Some in the European Commission are too eager to make a cautionary tale of Britain's exit. And they overestimate Mrs May's ability to sell a hard deal at home. The British public is unprepared for the exit charge, which is not mentioned in the government's white paper on the talks. The pro-Brexit press, still giddy from its unexpected victory last summer, will focus both on the shockingly large total and also on the details (here's one: the average Eurocrat's pension is double Britain's average household income). It has flattered Mrs May with comparisons to Margaret Thatcher, who wrung a celebrated rebate out of the EU in 1984. A small band of Brexiteer MPs have a Trumpian desire to carry out not just a hard Brexit but an invigoratingly disruptive one. Mrs May's working majority in Parliament is only 16.

Everyone would be worse off if the Article 50 talks foundered. Yet the breadth of the gap in expectations between the EU and Britain, and the lack of time in which to bridge it, mean that such an act of mutual self-harm is dangerously possible. ■

Financial regulation in America

The litter of the law

Simpler rules must not come at the expense of safety



THE prospect of deregulation helps explain why, since Donald Trump's election, no bit of the American stockmarket has done better than financial firms. On February 3rd their shares climbed again as Mr Trump signed an executive order asking the Treasury to conduct a 120-day review of America's financial regulations, including the Dodd-Frank act put in place after the financial crisis of 2007-08, to assess whether these rules meet a set of "core principles".

To critics of Dodd-Frank, this is thrilling stuff. They see the law as a piece of statist overreach that throttles the American economy. Plenty in the Trump administration would love to gut it. The president himself has called it a "disaster". Gary Cohn, until recently one of the leaders of Goldman Sachs, a big bank, and now Mr Trump's chief economic adviser, promises to "attack all aspects of Dodd-Frank".

Opponents of moves to unwind regulation are as apocalyptic. Wall Street caused the crisis, they observe; undoing Dodd-Frank would lead to the next disaster by letting bankers run riot again. That would harm customers and taxpayers, as would suspending the introduction of the fiduciary rule, another Obama-era regulation requiring financial advisers to act in clients' best interests. A demand that America stop co-operating with international regulators, issued to the Federal Reserve by Patrick McHenry, a Republican congressman, is a sign of the growing pressure for the wrong sort of deregulation.

It would be hard for the Trump administration to get a full repeal of Dodd-Frank through Congress (see page 57). But his team could still change an awful lot—for good or ill. Their goal should be to simplify America's financial rule book, without softening its force.

Dodd and buried

When it was passed in 2010 Dodd-Frank was a monster of a law and was programmed to spawn more regulations. It imposed more than five times as many restrictions as any other law passed by the Obama administration. More constraints were added to the federal banking code between 2010 and 2014 than existed in 1980.

As the clauses multiplied, so did the compliance burden on banks. Between 2010 and 2016, Dodd-Frank soaked up 73m paperwork hours and $36bn in costs. The big banks complain, but they have the heft to cope. The financial implications are worse for small lenders. A study by the Minneapolis Federal Reserve found that adding two extra members to their compliance departments tips a third of small banks into the red.

Onerous though it is, however, the act also achieved a lot. ▸▸

Measures to beef up banks' equity funding have made America's financial system more secure. The six largest bank-holding companies in America had equity funding of less than 8% in 2007; since 2010 that figure has stood at 12-14%. Rules to increase the transparency and safety of derivatives markets were welcome; so, too, were rules to make it easier to wind down a failing bank. And despite concerns that the country's big banks are disadvantaged internationally, they rule the roost of global finance: the top five banks in the investment-banking league tables in 2016 were all American. Indeed, few things would more quickly undermine these institutions abroad than a decision to stop playing by international rules.

How, then, to keep the good and get rid of the bad? First and foremost, avoid backsliding on capital requirements. The surest way to cope with a financial crisis is for banks to have lots of equity funding. Separate proposals from Jeb Hensarling, another Republican congressman, and Tom Hoenig, the vice-chairman of the Federal Deposit Insurance Corporation, offer regulatory relief only to lenders that meet a very high capital bar. That is the direction to take.

Next, unravel the sprawl. Consolidating America's overlapping financial agencies into fewer regulators would be a boon for everyone except their staff. So too would adopting principles-based regulation to replace detailed prescriptions that add to compliance costs but not to stability or efficiency. The Volcker rule, for example, could have been distilled to a simple principle of "not conducting proprietary trading"; instead it ended up taking up almost 300 pages to define. It is a similar story with the fiduciary rule—a fine principle bogged down in overprescription.

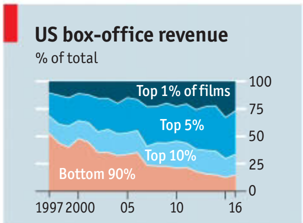
Third, require greater accountability of financial regulators. When they levy fines or label an institution as systemically important or fail institutions on stress tests, regulators should have to explain their reasoning, so that everybody is clear about what counts as acceptable behaviour. The Consumer Financial Protection Bureau is one agency that deserves to survive, but the unusually mighty powers of its director should be pared back and its funding should come from Congress rather than the Federal Reserve.

As ever with Mr Trump's nascent administration, it is hard to know what lies ahead—and easy to be fearful. But a sensible approach to reform would look something like this: keep capital high and rules simple. Judge what comes from Mr Cohn's assault on regulation by that standard. ■

Entertainment

The paradox of choice

Consumers have never had it so good. But forget talk of democratising entertainment



FOR couch potatoes and bookworms, filmgoers and music-lovers, this is a golden age. The internet provides an almost endlessly long menu of options to meet the almost infinitely quirky tastes of humanity. Smartphones have put all kinds of entertainment—from classic rock to prestige television to silly YouTube clips—at the fingertips of billions across the planet.

Yet, as our special report this week describes, these same technologies have a paradoxical effect. Although they expand choice, they concentrate attention on the most popular hits and the biggest platforms. Perhaps because entertainment is a social activity, perhaps because consumers are baffled by the range of choices, they depend on the rankings and recommendation algorithms of platforms like Netflix, YouTube and Spotify to guide them to their next dose of content. And they are drawn to familiar titles that stand out from the clutter.

So big brands continue to thrive. Of the thousands of films released worldwide last year, the top five box-office earners were all made by Disney. At the other end of the spectrum, the "long tail" of niche offerings is proving to be extremely skinny. Listeners spent money on digital copies of a total of 8.7m different songs in America last year, almost 5m more than in 2007, according to Nielsen, a research firm. But the number of songs that sold more than 100 copies remained at 350,000. And the number of songs that sold just one copy increased from under 1m to 3.5m. It is as hard as ever for talent to break through.

Who wins and loses from this? Consumers are the biggest beneficiaries. The long tail is always there for people with eclectic tastes. Lots of content, from YouTube videos to some music-streaming services, is free. And fevered competition for consumers' attention, the scarcest resource in the entertainment industry, has raised the quality of paid-for services. Nowhere is this more visible than in television. In 2016 more than 450 scripted original shows were available on American TV, more than twice as many as aired in 2010. Amazon and Netflix are investing billions of dollars. In response, cable networks that once grew fat on subscription fees are having to invest.

On the production side, the winners are companies that can sustain this spending on premium fare—Disney's box-office dominance, for instance, rests on its purchases of Marvel, Lucasfilm and Pixar—or that have built platforms with large numbers of users, like Facebook and YouTube, or that can master both distribution and content, as Amazon and Netflix aim to. This is the logic behind AT&T's proposed $109bn deal to buy Time Warner, marrying America's biggest distributor of pay TV to one of the biggest producers of television and film.

The remote principle

One big loser stands out. Cable TV in America has been perhaps the most lucrative business model in entertainment history. But its formula of adding channels and charging more no longer appeals. Seduced by cheaper, more flexible internet offerings, Americans have begun dropping pay TV at the rate of more than 1m households a year (live sports is one of the last pillars supporting the system). The decline of pay TV exemplifies the paradox of choice. There may be more things to watch and listen to than ever before, but there is only so much content that people can take. And the choices they make will concentrate power in the hands of giants like Disney, Netflix and Facebook. Far from democratising entertainment, the internet will entrench an oligarchy. ■

Investing in social goods

Schumpeter perpetuated the myth that there is an inherent conflict for investors between doing well and doing good (January 21st). Asking whether it is shareholders or "the people" who matter most is a false dichotomy. Another view sees financial returns to shareholders deriving from broader contributions to society. In Canada consumers trust and support brands that are consistent with their broader values around society's well-being, environmental responsibility and community contribution. Such behaviour encourages greater loyalty and lowers price sensitivity, both factors that affect the bottom line. There are also tangible benefits to a firm from engaging with employees and from lower staff turnover. We need investment models where the interests of society add to shareholder returns, not ones that consider them a cost.

SAUL KLEIN
Dean
Gustavson School of Business
Victoria, Canada

Not all investors demand high and fast returns. Pension funds benefit from longer-term strategies and investment in R&D, which will pay out in the decades to come. There is widespread evidence that a balance between profit, people and planet is the pragmatic plan for companies that wish to be successful now, and in 30 years' time.

PAIGE MORROW
Head of Brussels operations at Frank Bold
Brussels

"The contest between shareholders and the people" is a phrase best saved for a populist rally. Shareholder value does not come in "shades of grey", it comes in numbers, such as return on equity or on invested capital. And as long as the use of creative accounting is limited, it is very unlike *The Economist* to propose that such a hard-data approach should be disdained.

NINA WIERETILO
Oxford

Evaluating aboriginal policy

"Ministering to his own" (January 28th) looked at attempts to evaluate the more than 1,000 policy programmes in Australia that are geared towards aboriginals. But the statement by the Centre for Independent Studies that only 88, or less than 10%, have been evaluated is outlandish. In 2012 I helped to analyse 98 government-funded evaluations in relation to the "national emergency" in the Northern Territory alone.

The real issue is not the number of evaluations, but the willingness of government to react to their findings. Nowhere is this clearer than with the welfare-income management measure. One comprehensive evaluation demonstrated no discernible benefit. The government's response was first to demean and then ignore the evaluation's findings. The Productivity Commission, the Australian government's key policy-advisory body, recently called for a fundamental change in approach: knowing more about what works and why and using such evidence to design policies that achieve positive outcomes, with positive being defined by the aboriginal and Torres Strait islander peoples, not just by government.

PROFESSOR JON ALTMAN
Deakin University
Melbourne

Bridge building

Your article on the challenges that Bridge International Academies face in Uganda and Kenya gave the sense that the governments there were not prepared to work constructively with private firms ("Assembly line", January 28th). My experience running a network of 30 low-cost secondary schools in Uganda and Zambia has been different. Through close collaboration with government, PEAS now educates 1% of Ugandan secondary-school pupils under a public-private partnership.

Productive partnerships between governments and non-state organisations can help get every child a high-quality education. But for those partnerships to work, both sides need to build a lot of trust. Whatever the rights and wrongs of the recent headwinds facing Bridge, it is only one part of a complex and rapidly developing story.

JOHN RENDEL
Founder
PEAS
London

How left is California?

I disagree with your description of California as the "most progressive state" in America ("California steaming", January 21st). In 2008 we voted against gay marriage. We have only just legalised marijuana, four years after Colorado and Washington state. Hillary Clinton won the Democratic primary here, not the progressive Bernie Sanders. Instead of considering free college tuition, as New York has recently proposed, California's public colleges are increasing their fees. If anything, California is one of the most institutionalised states, favouring Democratic policies and politicians over progressive ones. It is a different shade of blue.

KYLE UKES
Anaheim, California

Modern data

While you are considering the advice of Geoffrey Pullum to allow split infinitives (Letters, January 21st), may I suggest you also have another look at your dogged insistence on treating "data" as a plural? It hasn't been a proper plural for at least the past two decades. Throughout the English-speaking world it has become a mass noun, like "water" or "sand". The singular "datum" has clearly followed "agendum" into complete disuse, a single piece of data now being a "bit".

DAVID CHAPLIN
Cape Town

Charting Congolese pop

You did not do justice to the roots of Congolese pop music ("The sound of politics", January 14th). The first Congolese music hit was "Marie-Louise" by Wendo Kolosoy in 1948. Before "Independence Cha Cha" in 1960, there was a decade of hit songs, including "On entre OK, on sort KO".

STEVEN SHARP
Williamsburg, Virginia

Crime doesn't pay

The timing of the campaign by West Yorkshire's police commissioner calling for the police to be able to sell assets seized from criminals was particularly unfortunate ("Scrounging for coppers", January 21st). His call coincided with the trial of a senior West Yorkshire officer for allegedly selling industrial quantities of seized class-A drugs. The residents of West Yorkshire would rather the police waited until the law was changed by Parliament before availing themselves of such profitable fundraising activities. It would be better if the force concentrated on its day job, namely catching a few more criminals on the loose.

PETER BRYSON
Addingham, West Yorkshire

A world of deception

I enjoyed Lexington's observation that "populist insurgencies are rarely defeated with slogans in Latin" (January 28th). In recent days, however, I'm reminded that they sometimes can be explained by slogans in Latin: *mundus vult decipi.*

DONALD JACKSON
Tulsa, Oklahoma

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EUROPEAN CENTRAL BANK

EUROSYSTEM

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Champions of the world

ATLANTA, KIEV AND MOSCOW

Donald Trump's idea of a grand bargain with Russia is delusional. But Vladimir Putin will welcome it

FOR decades, Russian leaders insisted that America had no claim to moral superiority. For every Soviet and post-Soviet misdeed, from labour camps to invasions, they adduced an American counterpart. Such equivalence was anathema to American statesmen, who claimed to abide by higher standards.

Until now. In an interview with President Donald Trump broadcast on February 5th, Bill O'Reilly of Fox News described Vladimir Putin as a "killer". A nod from Mr Trump seemed to allow that this might be the case, which would in itself have been an arresting evaluation of another head of state. The president then went on to say that there were "a lot of killers" and to question whether his own country was "so innocent". His tough-talk tarnishing of America's reputation was unprecedented. But the equivalence it posits sits easily with the way Mr Trump seems to see Mr Putin's Russia: as a potential partner.

In 2016 Mr Trump was consistently effusive about Mr Putin—"very smart!"—contrasting his popularity among Russians favourably with Barack Obama's standing in American polls. He poured scorn on evidence that the Kremlin was behind the hacking of Democratic bigwigs' e-mails during the election campaign, preferring to denigrate America's intelligence agencies. *Kompromat* or collusion have been suggested as possible explanations for this unshakable warmth. Official inquiries—if they are allowed to proceed—may shed light on claims that Mr Trump's campaign team collaborated with Moscow.

Scattered comments by the president and his aides imply an alternative explanation: the administration envisages a grand diplomatic bargain with Russia that encompasses arms control, counter-terrorism, the status of Crimea, economic sanctions and relations with China, an arrangement in which the two leaders indomitably face down all comers like some maverick geopolitical wrestling team.

This stance does not just go against the views of those Republicans who, along with much of America's foreign-policy establishment, regard Mr Putin as a gangster. It also contradicts Mr Trump's two predecessors. Mr Obama blithely wrote Russia off as an irksome regional power, nuclear-armed and prone to harassing its neighbours but doomed to decline into irrelevance. George W. Bush, who on meeting Mr Putin professed to have looked into his soul and to have liked what he saw, later oscillated between symbolic protests against the Kremlin's depredations and fitful efforts to ignore them.

This all means that any bargain will face opposition in Congress and quite possibly even in Mr Trump's cabinet. Still, public opinion provides an opening: polls suggest Mr Putin is viewed more favourably, and his country less warily, than before Mr Trump embraced him. In Russia state propaganda has burnished Mr Trump's image and soothed anti-Americanism.

In terms of style, the putative tag team looks rather well matched. Neither is fond of the liberal, rules-based global order. Both can lie without blushing. It is easy to imagine Mr Trump sharing Mr Putin's approach to diplomacy, too. Like the Russian, he seems sure to prefer bilateral deals to messy supranational bodies and is likely to define America's national interest in narrowly military and commercial terms. Both men seem willing to link disparate issues and regions in a general barter. Neither is much exercised by human rights. Both regard the humiliation of adversaries as a salutary exercise of power.

Buttering up the butcher

Yet as a means to further Mr Trump's avowed goals in the Middle East and elsewhere the idea has three deep flaws. One is the damage it would do to America's existing alliances and international reputation. The second lies in the immutable realities of great-power relations, underpinned by history and geography that no deal-making can wholly negate. The last is that Mr Trump seems to be making a classic presidential beginner's mistake in dealing with the Kremlin, one that Mr Bush committed when looking for a soul and that Mr Obama made when he attempted a "reset" in relations with Russia in 2009: wishful thinking.

The first thing Mr Trump seems to want is an ally against the so-called Islamic State (IS). His notion that Russian forces have been battling IS in Syria is mistaken: they have mostly bombed other opponents of Bashar al-Assad, Mr Putin's client. But that could change—especially, observes Andrew Tabler of the Washington Institute for Near East Policy, now that Mr Assad's own position in Damascus looks more secure.

What, though, could Russia offer? Mr Putin's way of war, in Aleppo as in Grozny, makes use of indiscriminate bombardment and deliberate targeting of civilians; Russian air power might thus be used against Raqqa and other IS strongholds in ways that American aircraft cannot. But even if that were acceptable, it would hardly be a solution. It is only by occupying territory that IS can be beaten; and Russia offers little by way of boots on the ground.

Russia has no need for ground troops in Syria because its forces are in de facto alliance with those of Hizbullah and Iran. This throws into sharp relief differences between America and Russia on who counts as a terrorist. Mindful of Russia's 20m Muslims, Mr Putin has been as tactful as was Mr Obama in separating the concepts of Islam and terrorism. He has said the Orthodox church can be seen as having more in common with Islam than with Catholicism, and that "Islam is an outstanding element of Russia's cultural make-up, an organic part of our history." His grotesque satrap in Chechnya, Ramzan Kadyrov, enforces *sharia* (Islamic law) there.

Beyond Mr Putin's awkward mix of brutality, cynicism and cultural pragmatism, there is the problem that a Syrian settlement palatable to the White House, let alone America's Sunni Arab partners—whose support would be crucial for any forces actually taking territory from IS—would have to see Iran's influence minimised. But Russia would be very hard put to acquiesce in such a plan. Its relationship with Iran, while testy, is more nuanced than the White House seems to realise.

Iran is Russia's neighbour across the Caspian Sea and the Caucasus. The two vie for influence there and in Central Asia. Because an Iranian nuclear bomb would threaten Russia's primacy in the region, Russia was happy to take a role in the deal that constrained Iran's nuclear programme. But proximity also makes Mr Putin wary about antagonising the Iranians. As Nikolay Kozhanov of the European University at St Petersburg says, the Russians have interests at stake that the Americans do not, including energy projects and pipelines in and around the Caspian. They want to sell Iran arms, including surface-to-air-missiles and civilian nuclear power plants; they need to co-operate with Iran to keep Mr Assad in power. They are very unlikely to want to tear up the nuclear deal, something Mr Trump has threatened.

On a bigger scale, the same factors—geography, security and commerce—would nobble any bid by Mr Trump to conscript Russia as a bulwark against China. The civility he has conspicuously extended to Mr Putin has not applied to Xi Jinping, whom Mr Trump angered over Taiwan even before he took office. As Dimitri Simes of the Centre for the National Interest, a think-tank, notes, American diplomats have worried about Sino-Russian cosiness for decades. Stephen Bannon, Mr Trump's influential strategist, undoubtedly sees China as a major adversary. A bid to realign the three powers lies at the heart of Mr Trump's grand bargain.

This may be even less realistic than the hope of turning Russia against Iran. China and Russia are hardly close allies. Among other reasons for mistrust, the old Russian anxiety over Chinese expansion in Siberia, a fear stoked by the lopsided populations on either side of the Amur river, has never gone away. But Mr Putin began a pivot towards Asia in the mid-2000s, well before Mr Obama undertook his own version of such a manoeuvre. Initially a feint as much as a strategy, one conceived as a response to what Mr Putin saw as Western hostility, it has since acquired substance. Alexander Lukin, of the Higher School of Economics in Moscow, sees it as "largely irreversible". When Western sanctions over Russia's incursions into Ukraine in 2014 began to bite, China became a valuable source of credit. It has invested in Russian oil-and-gas firms; Russia sells it high-tech weapons.

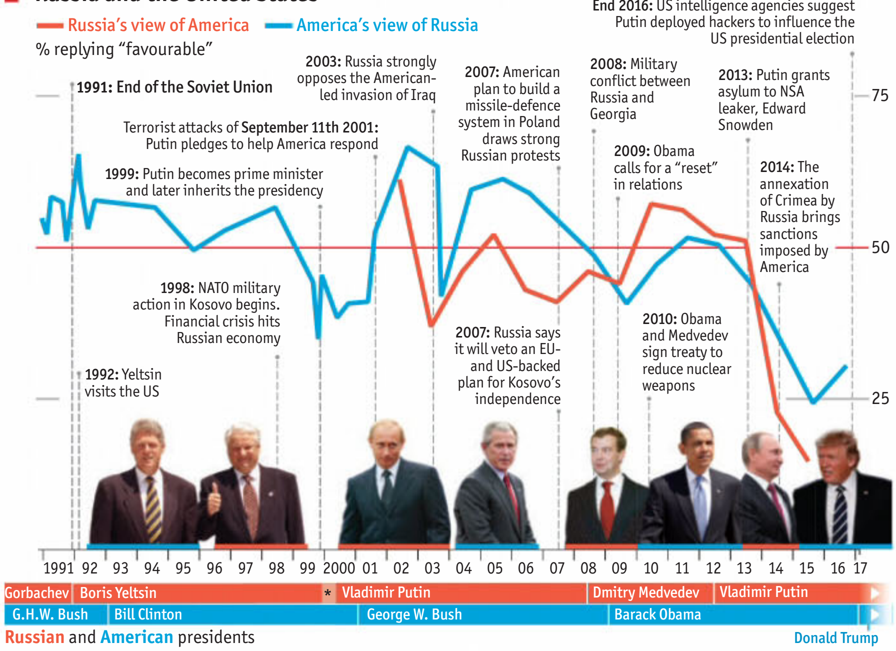
Other benefits America might seek in a grand bargain include a reduction of Russia's campaign of bullying and destabilisation in the Baltic states and movement on arms control. Here, again, the scope for progress is narrow. A deal on long-range nuclear weapons which limits both countries to 1,550 deployed warheads is set to expire in 2021. Mr Trump could extend it, or try to reduce that cap; he might also want to do something about Russia's huge numerical advantage in tactical nuclear weapons. But America's missile-defence capabilities—which Russia sees as a threat to its deterrence—would be dragged into any such negotiations, and the missile-defence facilities in Europe are there to deal with Iran. A deal which reduced their capability should—at least in a normal world, and assuming Congress is not wholly supine—be hard for Mr Trump to swallow, or sell.

The bear's necessities

In much of this, Mr Trump seems to overestimate Russia's clout as well as its alignment with his goals. He mistakes the strut of a bully for the swagger of a superpower. The "strength" he admires relies on strategic assets handed down from the Soviet past—its Security Council seat and nuclear weapons—and its hydrocarbon reserves, bolstered by Mr Putin's knack for asymmetric thuggery. Unrestrained by allies, scruple or domestic opposition, he is a dab hand at disinformation and discrediting critics whom he does not dispose of in other ways. But his Russia is more of a prickly, meddling power than a global, transformative one. Diplomatic isolation and an economy throttled by corruption frustrate any grander ambitions.

Russia can, however, seize an opportunity; and Mr Trump presents it with one, whatever role Mr Putin had in his rise to power. (While Mr Trump did not take the

Russia and the United States



Sources: Gallup; Pew Research Centre; *The Economist*

*Yeltsin resigns from office and Putin becomes acting president

intelligence regarding Russian hacking seriously, Mr Putin evidently did. Several officers of Russia's federal security service have been arrested for treason in what may be a hunt for a cyber-mole. A senior Kremlin insider was found dead, supposedly of a heart attack.)

Relief on sanctions is the most obvious item on the Kremlin's agenda for Mr Trump's presidency, one that would have the double effect of helping Russia's economy and dividing America's allies. But other things may matter to Mr Putin more. Obligingly, Channel One, Russia's main state television channel, provided a list of them a few days after Mr Trump's inauguration—a list which sounded rather more achievable than Mr Trump's objectives.

First was that anti-terror alliance, for "nothing brings [countries] together as much as a fight against a common enemy." Second, Russia wants to stop any further expansion of NATO after the accession of Montenegro. Countries barred might well include Sweden or Finland, and would definitely include Ukraine. Mr Trump's description of NATO as "obsolete" has been welcome. If Russia were to meddle in its Baltic neighbours, cabinet members who profess devotion to the alliance, such as Rex Tillerson, the secretary of state, and James Mattis, the secretary of defence, might struggle to persuade Mr Trump to honour the commitment to mutual defence at its core. If he did not, NATO would in effect be dead: the ultimate prize for Mr Putin.

Third on Channel One's list was the recognition of Crimea as Russian territory, along with a de-facto veto over Ukraine's future. The Kremlin wants to retain its grip on the country's wretched east—where fighting has flared up again—and so secure a stranglehold on its policies (see page 38). Conversely, America and its partners have insisted on a withdrawal of Russian troops, the re-establishment of Ukraine's control of its borders, and regional elections monitored by international observers.

Here, on the face of it, the signs are not encouraging for Mr Putin. Mr Tillerson affirmed in his confirmation hearing that the annexation of Crimea, and Russia's push into eastern Ukraine, were illegal. But Mr Trump could resolve this contradiction by arguing that accepting Russia's hold on Crimea would only be to acknowledge reality. Using the same rationale, he may urge Petro Poroshenko, Ukraine's president, to tolerate Russia's sway in the east. That, in turn, could trigger a collapse of the government in Kiev, which would suit Mr Putin. Because Mr Poroshenko's government played a role in the ousting of Paul Manafort, at one time a senior figure in Mr Trump's campaign, it might be welcome in Washington, too.

Remember the Decembrists

Fourth on Channel One's list was an end to "global policing" by America, and a clear recognition of the two countries' spheres of influence. That sounds extravagant. But it may be plausible. Apart from the odd hotel deal, Mr Trump has evinced little interest in the parts of the world—eastern Europe, the Balkans and the former Soviet Union—that Mr Putin would like to suborn. Mr Trump "has no intention of carrying the torch of democracy into every corner of the world", observed Valery Fadeev, Channel One's anchor. Not on the list, but worth bearing in mind, is that Mr Trump's opposition to global action on climate may look helpful to a country that depends on oil and gas exports.

The Kremlin does not expect immediate concessions. According to Nikki Haley, America's new ambassador to the UN, sanctions relief is not imminent. Contradictory reports about what Mr Trump has said to Mr Poroshenko and Yulia Tymoshenko, one of his political opponents, suggest that he is either undecided or confused about the next steps in Ukraine. Yet the ideological value of Mr Trump's victory for Russia is already enormous. It removes one of the biggest threats to Mr Putin's power: the attraction of America as an alternative system of governance to the authoritarian model he has constructed.

His is not a new worry. Soviet and Russian leaders have in the past venerated America as well as demonising it. (Stalin advocated a "combination of Russian revolutionary élan with American efficiency".) They knew its example encouraged rebels and idealists. The Decembrist revolt of 1825, in which army officers rose against Tsar Nicholas I, took inspiration from the Declaration of Independence. In 1917 some pro-revolution Russians saw America as a guiding star: Russia was to be a new America, a better and fairer one. The Soviet authorities tried, largely in vain, to root out American books, music and clothes.

They were right to be concerned: America's successes undermined Soviet rule. After communism collapsed, America became an ideal. That started to change after Russia's financial meltdown in 1998 and the American-led intervention in Kosovo. With Russia unable to compete economically or support its clients, its public fell back on a simple conviction: we are stronger because we are morally superior.

Coming to power at the turn of the millennium, Mr Putin co-operated with America until 2003, the year that saw Mr Bush's invasion of Iraq and Georgia's Rose revolution. The next year Ukraine's Orange revolution got under way. Mr Putin believed that America had toppled the leaders of the two former Soviet republics; he had a strong aversion to seeing anything similar in Moscow. In 2011 he blamed Hillary Clinton, then America's secretary of state, for demonstrations against him, pushing relations to a new low.

For Mr Putin, the downside of Mr Trump's win is that it prevents him from invoking America as an enemy. This could be only a temporary setback: despite his disdain for NATO and liberal interventionism, Mr Trump may well lash out militarily somewhere, at which point anti-American propaganda can, if necessary, be cranked back up. For now, Mr Putin will be content that an American leader is at last paying him the respect he feels he deserves.

The irony is that any Russian who grew up before 1989 can see in Mr Trump the perfect Soviet caricature of a hateful American imperialist. Now, though, this same image lets the Kremlin's propagandists present him as an ally in the global fight between right-minded nationalists and decadent Western liberals, a battle that will continue in the upcoming elections in Germany and France. Russian television particularly relishes footage of demonstrations in America and Europe. They represent a thrilling new front in a civilisational struggle led by Mr Putin—and now joined by the president of the United States. ■

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Presidential authority

Washington v Trump

NEW YORK

An aptly named case provides the first test of institutions under the new president

AMERICA, along with its new president, is getting a crash course in the role of the federal judiciary. On February 3rd, one week after Donald Trump issued an executive order banning travel from seven Muslim-majority countries and suspending America's refugee programme, a federal district court in Seattle temporarily halted Mr Trump's plan. Judge James Robart said there is "no support" for the government's argument that the ban made America safer. Four days later, at least two members of a three-judge panel on the 9th Circuit Court of Appeals seemed unimpressed when the government challenged Mr Robart's ruling. For now, America remains open to permanent residents, visa-holders and refugees seeking its shores—and Mr Trump must grapple with the unfamiliar feeling of not getting his way.

The battle over the stymied plan—which the White House insists is wholly different from the "total and complete shutdown of Muslims entering the United States" that Mr Trump first announced on the campaign trail in December 2015—proceeds on two parallel tracks. In the courts, judges and lawyers wrangle over an array of legal questions involving constitutional provisions, congressional statutes and the doctrine of legal standing. Meanwhile on Twitter, the president is undermining support for the process. After Mr Robart stopped the 45th president's executive order in its tracks, Mr Trump tweeted: "When a country is no longer able to say who can, and who cannot, come in & out, especially for reasons of safety & security—big trouble!" In a follow-up missive, he went one step further: "The opinion of this so-called judge…is ridiculous and will be overturned!" Some conservatives who oppose Mr Trump worry about the damage he could do to the country's governing institutions and customs. This is an early test.

So far, the courts have performed their usual role. The judiciary has often checked presidential authority in foreign affairs, security and immigration, notes Mark Peterson of UCLA. Immigration is the area "most prone to such a judicial role", he says. While the White House is correct to note that Article II of the constitution and the Immigration and Nationality Act of 1952 grants the president wide discretion in immigration enforcement, amendments to the law in 1965 preclude restrictions on the basis of an individual's national origin, race and other such broad categories. The text of Mr Trump's executive order may not be cast in explicitly religious terms, but public statements by both him and his allies leave little doubt that it is rooted in a suspicion of Muslims. In the hearing before the 9th Circuit on February 7th in *Washington v Trump*, these comments proved a liability for the government.

August Flentje, the lawyer for the president, argued that Mr Robart's ruling had upset the balance the Trump administration had struck between "welcoming people into our country" and "making sure our country is secure". That balancing is the task of the political branches, he said, not the courts. But when repeatedly pressed to cite evidence showing that visitors from the seven countries covered by the ban—Iran, Iraq, Libya, Somalia, Sudan, Syria and Yemen—posed an actual risk of terrorism to America, Mr Flentje had little to offer. Merely mentioning that the Obama administration considered the countries to be terror-prone, one judge complained, is "pretty abstract" and justifies a visa requirement, not an all-out ban.

Facing steady resistance from the panel, and remarking, "I'm not sure I'm convincing the court", Mr Flentje punted. He asked the judges to at least consider lifting Mr Robart's restraining order with regard to people who have never been to America. There is no good reason, Mr Flentje implied, to give every foreign national from those seven countries free rein to visit. This last-ditch argument—that Mr Robart's move went too far and covered too much—was Mr Flentje's best. In response, Noah Purcell, the lawyer for Washington state, noted two reasons why the travel ban should remain suspended in its entirety. Targeting Muslims violates the First Amendment rule against religious establishments, he said. And the interests of America's legal residents are harmed when their relatives in the Middle East and Africa are banned from visiting them.

This is how the boundaries of presidential authority are gradually discovered. If Mr Trump loses his appeal in the 9th Cir- ▸▸

cuit, the government will ask the Supreme Court to weigh in. Given the four-four ideological split there, the on-again, off-again travel rules may remain in limbo for a while. The next test will come if this ends with a ruling against the administration. All presidents encounter resistance from judges, but only Andrew Jackson challenged the authority of the courts, says Mr Peterson (Mr Trump has returned Jackson's portrait to the Oval Office). That confrontation changed America: Jackson's presidency saw the spread of judicial elections, to bring the judges into line with the wishes of voters. Whatever the outcome of *Washington v Trump*, the president will leave his stamp on the courts. As well as picking a new Supreme Court justice, he will soon set about filling over 100 vacancies in the nation's district and appellate courts. ■

Donald Trump and satire

Super soaking

WASHINGTON, DC

Lessons in civics from comedians

BARACK OBAMA was bad for satirists, even if few seemed to mind. Moderate, upstanding and cool, the first black president gave close observers of human ridiculousness little to work with. Most gave up and welcomed him admiringly onto their shows. "I can't believe you're leaving before me," Mr Obama, appearing on "The Daily Show" for the seventh time, told its outgoing host, Jon Stewart. It was not the relationship to power the acerbic Mr Stewart would have liked. Thankfully, Donald Trump is making satire great again.

The most conspicuous beneficiary, "Saturday Night Live" (SNL), a hitherto jaded platform for comedy skits on NBC, is seeing its best ratings in over 20 years. This is partly thanks to Alec Baldwin's parody of the president as an irascible halfwit. But the chaos in the month-old administration has provided additional targets. On February 4th SNL unveiled a hilarious parody of Sean Spicer, the White House press secretary, as a gum-chewing maniac. The belligerent Mr Spicer has since appeared cowed.

There are a couple of lessons here for more sober political commentators. One is to abandon the complacency about Mr Trump that, until Mr Baldwin took over in October, had rendered SNL's portrayal of him toothless and pointless. Another is to let the weirdness of this presidency speak for itself. "America first, Australia sucks. Your reef is failing. Prepare to go to war," the SNL Trump blustered down the phone to Australia's president, Malcolm Turnbull, on February 4th. That, minus the threat of war, is pretty much what Mr Trump said to Mr Turnbull in a recent phone call.

Other satirists are finding Mr Trump's tendency to defy parody harder to handle. "It's really tricky now as satire has become reality," Trey Parker, co-creator of "South Park", a satirical cartoon which presented the Trump-Clinton contest as the "giant douche or the turd sandwich", has said. The *Onion* has the same problem. One of the satirical online paper's recent headlines, "Eric Trump Scolds Father That He Mustn't Inquire About The Businesses, For He's Sworn Not To Tell," is a pretty faithful description of the firewall between the 45th president and his family firm.

Indeed, many of the headlines generated by Mr Trump's administration are deeply Onion-esque. Kellyanne Conway, a Trump spokeswoman, was briefly barred by CNN for using alternative facts—her references to a fictitious jihadist atrocity, which Ms Conway called the "Bowling Green Massacre", were the last straw. Mr Trump's wife, Melania, has sued a newspaper for reporting lurid untruths about her on the basis that this cost her the "once-in-a-lifetime opportunity" of making millions as "one of the most photographed women in the world". No satirist could do better. SNL's response, in sending up Mr Spicer, is to shift the focus onto one of the relatively normal players in Trump world, to show how pervasively strange it is.

At first glance, none of this should bother Mr Trump. SNL's weekly audience of 10m represents less than half his Twitter following and is dominated by left-leaning millennials who would sooner work in an abattoir than vote Trump. Yet Mr Trump, who unlike his core voters devours the mainstream media and loves to hobnob with the celebrities who appear on shows like SNL, minds the lampooning a lot. "Not funny, cast is terrible, always a complete hit job. Really bad television!" he tweeted last month. SNL's response was to start planning ways to take Mr Baldwin's impression, which the actor has described as a civic duty, to a wider audience. ■

Legal migration

Code red

Keeping out software engineers

MOST of the debate about immigration in America concerns the illegal sort. But legal immigration can be controversial too, even when the migrants in question have either an unusual talent for writing computer code or improbably long legs. The H-1B visa programme is aimed at skilled workers in "speciality occupations", mostly medicine and information technology (though fashion models can also qualify). Currently the programme is limited to 85,000 visas a year, with 20,000 carved out for those who earn postgraduate degrees from American universities. Most workers must make a minimum of $60,000 a year to qualify. Critics argue that the programme has strayed from its original purpose and is now being abused by firms to replace Americans with cheaper labour. Three bills to curtail H-1Bs have already been introduced to the new Congress. Reports suggest that an executive order may also be in the works.

Demand for the visas far exceeds the 85,000 cap, meaning that the government has to ration them to firms by lottery. Indian outsourcing firms like Tata Consultancy Services (TCS), which provides low-cost back-office services, are now the biggest employers of H-1B workers. Analysing data compiled by Théo Négri of jobsintech.io, *The Economist* found that between 2012 and 2015 the three biggest Indian outsourcing firms—TCS, Wipro and Infosys—submitted over 150,000 visa applications for positions that paid a median salary of $69,500. In contrast, America's five biggest tech firms—Apple, Amazon, Facebook, Google and Microsoft—submitted just 31,000 applications, and proposed to pay their workers a median salary of $117,000.

Although it is true that foreign workers at the Indian consultancies receive more visas than higher-skilled workers at better-known firms, a simple solution exists. Congress could raise the number of visas issued. Given that the unemployment rate for college graduates sits at 2.5%, it is fair to say that most native workers displaced by H-1Bs land on their feet. Reducing the number of visas for TCS and its brethren would probably result in them shifting work to India. A better change would be to end the rule whereby H-1B recipients must stay with the company that sponsored them. For within their ranks may lurk the next Elon Musk or Sergey Brin.

Political history

The little man's big friends

DOUBLE SPRINGS AND MACON COUNTY

In Alabama, support for Donald Trump followed a pattern that stretches back more than a century

"IMAGINE," says Glenn Drummond, gesturing at the farmland beyond the window of his pick-up truck, "this was all pine forest." Early 19th-century travellers on this part of the old federal road in Macon County, Alabama, "didn't know what was behind the next tree." There were bears, rattlesnakes and defiant Native Americans, on whose trading path the road was built. Today there is an archaeological dig at Warrior Stand, where a Creek Indian chieftain ran a hostelry, which has unearthed English pipes and French gunflints; at Creek Stand, a few miles along, is a quaint Methodist church. Then the modern road turns away from the old route, which is traced by a dirt track before disappearing into fields and copses.

Running from Washington to New Orleans, briefly known as the "Appian way of the South", the federal road was soon made redundant by steamboats, railways and the telegraph. But during its brief heyday it sparked a war with the Creek, then helped to vanquish them. After conquest came migration: "Once the Indians were whipped," says Mr Drummond, an expert on the road, "a flood of settlers came down it." Some of the earliest took the fertile land of central Alabama—known as the Black Belt for its rich soil—and established cotton plantations, importing slaves to work on them. Others did the same on the flood-plain of the Tennessee river. Later, poorer migrants settled the sandy Wiregrass region in the south-east, and in the beautiful but less fecund northern hills, where there were few slaves and fewer roads.

This economic pattern soon became a political one that, in essence, has endured across two centuries—even as the electorate has evolved and the road that helped to delineate it was reclaimed by the wilderness. In that pattern, Alabama's yeomen farmers, and their descendants, have sporadically risen up against the plantation class and its modern equivalents, typically when hardship rallied them to a charismatic leader's standard.

The cycle has been consistent, but the story is nuanced. Populism in Alabama—as in other places that helped to elect Donald Trump—has not always been driven by prejudice, as might be supposed; on the contrary. It was powered as much by a sense that government was a racket and politicians tools of the plutocracy, a deep and often reasonable conviction.

Birth of a free state

Mr Trump's inauguration speech was well-received at Jack's, a fast-food outlet in Double Springs, in northern Alabama, where the television was tuned to Fox News. "One of the best speeches I've ever heard," said a customer who, like many, was dressed in work boots and camouflage gear. "He'll be tough." The enthusiasm was unsurprising. Alabama gave Mr Trump one of his widest winning margins in November, and Winston County, of which Double Springs is the seat, supplied the biggest in the state: 90% of its voters backed the new president.

Outwardly Winston County conforms to outsiders' expectations of the rural South. It has two main religions: the University of Alabama's football team and the Baptist church. Turnings from its forest-lined roads feature multiple signs to backwoods chapels. The county is still "dry"; Double Springs itself narrowly voted to permit sales of alcohol four years ago. (Arrests for drunk-driving have since declined, says Elmo Robinson, the mayor, as people no longer get their whiskey in Jasper, in neighbouring Walker County, and guzzle it on the way back.) On the eve of the inauguration, at karaoke night in the only restaurant that serves booze, men in cowboy hats crooned country songs about God and adultery.

But Winston and the counties around it are more politically complex than they might seem, and have always been. Instead of using the federal road, early European settlers there largely came down through the Appalachians from other mountainous areas, taking land that could be bought cheaply and in small plots or squatting on it for nothing. They practised subsistence farming, hunting and fishing for extras. Like Mr Trump, these yeoman farmers venerated Andrew Jackson, the brutal, populist president from 1829 to 1837.

Life was insular: Skip Tucker, former editor of a newspaper in Jasper, says it was called the *Daily Mountain Eagle* because the mule-driver who delivered its first press joked that only an eagle could gather the news. Still, tension soon flared with land speculators, bankers and domineering plantation-owners. After all, says Ed Bridges, retired director of the state's Department of Archives and History, the hill-country yeomanry were the "descendants of the serfs and peasants of Europe" and "feared the rise of a new aristocracy".

When the civil war came, tension escalated into conflict. Winston County was the poorest in the state. Like other Appalachian parts of the South, it contained few slave-owners—just 14. Some such communities were recruited to the Confederate cause through appeals to regional loyalty or white supremacy. Not Winston: as Don Dodd, a local historian, records in his chronicle of the county, a resolution passed by a meeting at Looney's Tavern reasoned that if a state could secede from the Union, a county could secede from a state. ("The Free State of Winston!", scoffed a dissenter.) The citizens asked to be left to pursue their destiny "here in the hills and mountains of north-west Alabama". They weren't left alone. Instead they waged a miniature guerrilla war against conscription officers and pillagers. Deserters sheltered in the secluded crags and coves; Bill Looney, the tavern-owner, was known as the "Black Fox" for his prodigious feats piloting them to Union lines.

Today a statue outside the court house in Double Springs depicts a hybrid Yankee and rebel soldier (most such monuments in the South mourn only Johnny Reb). Mr Dodd's inscription notes that more than ▸▸

twice as many locals fought for the Union as for the Confederacy, about which townsfolk still talk bitterly. Something of the old intransigence survives, along with resentment of bullying elites. Drive from Double Springs to Haleyville, the county's biggest town, and you pass a barn proudly proclaiming "The Free State of Winston". "We're still independent-minded people," says Mayor Robinson. That spirit soon erupted again.

The people want relief

Reuben Kolb was rich, but, like Mr Trump's, his disgruntled supporters didn't mind. He commanded a Confederate artillery unit during the war, briefly managed an opera house and then, as a farmer in southern Alabama, developed an unusually hardy watermelon seed, which he called Kolb's Gem. The seeds were distributed in self-promoting packets that bore his name and moustachioed features. Kolb became the figurehead of another great surge of anti-elitism.

In the decades after the civil war, the yeoman farmers of Alabamian hill counties like Winston, and in the Wiregrass, believed they were being exploited. And they were. Land values plummeted even as property taxes rose. Needing cash, many began growing cotton, the price of which promptly collapsed. Some were ruined by the interest charged by supply merchants or—after they sold up and were forced into tenant farming—by rapacious landlords. In "Poor But Proud", Wayne Flynt, a historian, charts the trajectory of David Manasco, a farmer in Winston County. In 1860 he owned land and property worth $1,400, no mean sum. By 1880 he was a sharecropper, the lowest form of tenancy.

As well as the hardship, there was a loss of honour. The soil may have been thin, but at least it had been theirs, and there was the hope of acquiring more of it. They had sunk from the freedom of the frontier to dependency. "We in Alabama have had more of that than most of the rest of the nation," says Mr Bridges of that downward mobility. It hasn't abated. These days many of the modest homes scattered amid Winston County's deep forests and unexpected lakes are for sale. In what is still among the poorest parts of one of America's poorest states, shops, warehouses and even some of those superabundant churches are shuttered. Junkyards abound. Around Double Springs, says Mr Robinson, the biggest employers are sawmills and mobile-home manufacturers; he hopes more tourists will come. The skyscrapers of Birmingham seem remote, just as the industrial prosperity of the vaunted post-war "New South" did to Kolb's followers.

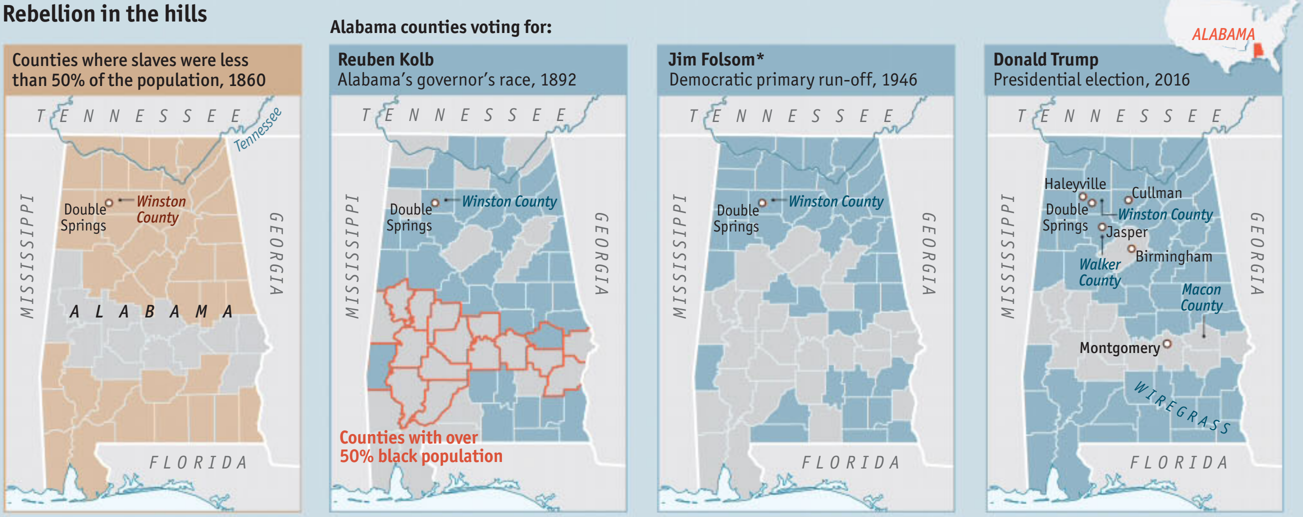
"The people want relief," he exclaimed, "and God knows they have a right to demand it." His campaigns were part of a broader farmers' movement that in the agricultural depression of the 1890s was channelled into the Populist Party. In 1892 Kolb ran for governor as a Jeffersonian Democrat—ditching the Democratic label altogether was too risky—but then, and again in 1894, his platforms were Populist. He advocated graduated taxes, better public schools, banking and currency reform and fairer railroad prices. In a coalition that took in Alabama's new industrial workers, he vowed to keep convict labourers out of mines, where they were used to break strikes. He attributed the farmers' grievances, even those caused by ineluctable market forces, to machinating cliques, rather as Mr Trump claimed globalisation could be reversed by squeezing bosses.

Children from Kolb-supporting families sported corn-cob necklaces. But the contest was brutal. The so-called Bourbons—oligarchic Democrats who represented tax-averse industrial barons, known as "Big Mules", and the planters—slung as much mud at Kolb as the pre-internet age could muster. As William Rogers recounts in "The One-Gallused Rebellion", he was accused of padding his expenses during his time as commissioner of agriculture, and of diddling a counterpart in a cotton sale. The slurs backfired, as they often do: Kolb, noted a contemporary, "is indebted to his enemies for his prominence." In the end they resorted to fraud—real fraud: violence, bribery, ballot-stuffing, inflated returns. Officially defeated, Kolb claimed victory and took a symbolic oath of office. But a rumoured insurrection did not materialise. "He was swindled," says Mr Flynt.

Look at the results, and it is obvious where the fraud was perpetrated. Kolb swept the Wiregrass and the highland counties. He lost because of lopsided Bourbon wins in the Black Belt—where thousands of African-Americans, not yet disenfranchised, supposedly voted against their own interests, which Kolb pledged to protect. Tactical it may have been, but his support for black rights, including the vote, was progressive for its time. True, many whites were sceptical. (Racial attitudes in the hills are still not perfect, says Mr Dodd, despite—or because of—the paucity of black people.) Yet the most striking aspect of this populist upsurge is that racism was not a motive for it but a barrier against its success. White supremacy, and the need to defend it, were invoked by the wealthy to thwart a movement that, as Martin Luther King later said, was "uniting the negro and white masses into a voting bloc that threatened to drive the Bourbon interests from the command posts of political power."

The same goes for another tub-thumper who took on the Big Mules—and, in 1946, won. Jim Folsom grew up in south-east Alabama and as a teenager worked in a cotton gin during harvest seasons. Later he was a merchant mariner, a barker at a the-

Rebellion in the hills



Sources: University of Alabama; "The One-Gallused Rebellion", by William Warren Rogers; "Southern Politics in State and Nation", by V.O. Key; Dave Leip's Atlas of U.S. Presidential Elections

*More than 55%

Big Jim Folsom puts his enormous feet up

atre in New York and a work-relief director under the New Deal. He moved north to Cullman, now a lively town distinguished by a pretty covered bridge and an eccentric monastic grotto, from where he sold insurance, a helpfully itinerant profession for an aspiring politician. His first wife served as a social worker in neighbouring Winston County. He was six feet eight inches tall. Mr Dodd recalls that when Folsom stayed with his family in Double Springs, his mother put a chair at the end of the bed to accommodate his gargantuan frame.

Covering up dirty tracks

In some ways, the situation of what had once been Alabama's robust yeomanry was even more parlous in 1946 than in Kolb's era. After his barely suppressed insurgency the Bourbons passed a new constitution, again ramming it through with fraud in the Black Belt. Its black voters allegedly backed a plan that disenfranchised almost all of them through poll taxes, literacy tests and other ruses. Quite intentionally, the same measures stripped the vote from large numbers of poor whites as well. Meanwhile debt made tenancy inescapable for many formerly landowning families, driving them down its Dantean rungs and towards destitution. The boll weevil, another implacable force, swarmed up from Mexico and ravaged cotton crops as destructively as any army. Then came the Depression.

Folsom's policies resonated, and still do. He pledged to spend more on schools and pensions and to end, at last, the unfair competition of convict labour. He was not a fan of "dumping American money overseas". He wanted to do away with voting restrictions. Perhaps above all, though, he said he would improve the state's infrastructure, in particular by paving farm-to-market roads. In an area still bypassed by interstates, as it was by the old federal road, that basic shortage persists. Mayor Robinson says his biggest challenge is securing grants for local upgrades. "Hopefully [Mr Trump] will come and do something with the infrastructure," he says, referring to one of the president's main themes.

The ongoing need points up two consistent features of life and politics in the hill country. The first is its isolation, cultural as well as geographical, which endures despite the patina of sameness conferred by fast-food chains and motels. The other is a conflicted attitude to government among its warily hospitable residents. They still think it's a racket, and, as ever, take pride in self-sufficiency. Here, says Ronald Jackson, whose family has lived in Winston County since before the civil war, "you don't depend on the government, you take care of your own." At the same time, unblinkingly and understandably, they want a bigger chunk of its largesse.

"I don't answer to no professional politicians," Folsom said in 1944. "I answer only to the people." He had never held office before, and like Mr Trump's his shoestring campaign was staffed by inexperienced relatives and friends. Hardly any newspapers endorsed him; as George Sims notes in "The Little Man's Big Friend", he was written off as a lightweight showman. Demotic, entertaining, tirelessly peripatetic, the show worked. Rather like Mr Trump's baseball cap, the army boots he wore on the stump marked him as a regular guy. He toured with the Strawberry Pickers, a hillbilly band, plus a corn-husk mop and suds bucket (for contributions), with which he promised to clean up Montgomery, the state capital, just as Mr Trump said he would "drain the swamp".

The *Huntsville Times* called his victory in 1946, secured in much the same counties that had backed Kolb, "a blind, unreasoning revolt." From the start, scandal threatened to capsize his governorship. As well as "Big Jim" he was known as "Kissin' Jim" for his habit of kissing long lines of girls at his rallies. He alienated the "lying newspapers" as thoroughly as has Mr Trump (Kolb didn't care for them either).

Nevertheless, after an obligatory hiatus, Folsom strolled to re-election in 1954. His popularity was straightforward: the legislature stymied his constitutional changes, but his road-building programme got through. "They always promise the world," Mr Jackson says of politicians, but Folsom "did what he said he'd do." This is another ingrained characteristic. For all the hyperbole of elections, expectations are modest in hard-bitten places like Double Springs and—helpfully for Mr Trump—the bar for political honour is low. Mr Jackson voted for him because "he might halfway manage the government without bankrupting it or giving it away."

Folsom's second term was marred by scandals over cronyism, slush funds and his boozing, for which "gone fishing" was the preferred euphemism. But, in the end, his relatively liberal stance on race was also turned against him. There were parts of Alabama, he complained, "where a negro doesn't stand a Chinaman's chance of getting fair and impartial justice." He tried to boost the pitiful number of registered black voters. He compared efforts to nullify the Supreme Court's desegregation orders to "a hound dog baying at the moon and claiming it's got the moon treed". When politicians stirred up racial resentment, he said, "You know damn well they are trying to cover up dirty tracks."

In the election of 1962 he faced George Wallace—whose exhortation of "law and order" anticipated Mr Trump's, and who may be closer to most Americans' notion of an Alabama demagogue. Wallace had denounced Folsom as "soft on the nigger question"; Folsom trimmed, but lost anyway. Still, if Mr Trump's campaign echoed Wallace's, it also recapitulated Folsom's. The electoral maps hint as much: the old pattern held up, as not just Winston County but other strongholds of the yeomanry embraced him. (These days, of course, the electors in the Black Belt are mostly black, and overwhelmingly vote Democratic like their Bourbon predecessors.)

It isn't only Alabama. The political histories of Georgia and North Carolina, through which the federal road also ran, can be charted on similar maps, with the same ancient cultural divisions between uplands and lowlands, and between regions where slaves were numerous and where there were few. The roots of these entrenched habits of mind and voting show that, as Mr Bridges, the archivist, puts it, Alabamians won over to populism were "not simply emotional victims of demagogues". Often they have had a clearer grasp of interests and injustices than that presumption allows. Above all, says Mr Dodd, the historian of Winston County, the descendants of Alabama's yeoman farmers are, like their forebears, "tired of people looking down on them". ■

Lexington | French lessons

Trumpism may puzzle Americans, but Europeans have seen its like before

IT WAS a moment to make French nationalists spill their *pastis*. Marine Le Pen, a populist seeking the presidency of France, launched her campaign this month by praising American voters, saying they had "shown the way" by electing Donald Trump. After all, Mr Trump is a star of American reality television who subsists on Diet Coke, Big Macs and exceedingly well-done steaks. France uses legal quotas to keep Hollywood films and American TV hits at bay, and made a national hero of a sheep farmer (now an elected member of the European Parliament) for attacking a McDonald's restaurant with a tractor.

Ms Le Pen has tactical reasons to embrace Mr Trump. As her National Front rises in the polls, she calls his election part of a global "awakening" that will next carry her to victory. But to a degree often missed in America, she is an ideological soulmate, too.

By American lights, Mr Trump is a puzzle. On the one hand he favours proposals loved by the right, pledging to lower taxes and deregulate business. On the other he backs ideas cherished on the left, as when he says government should offer health insurance "for everybody", regardless of ability to pay. Pundits debate whether he is a "New Deal Republican" inspired by Ronald Reagan, a Nixonian centrist or more of a fist-shaking nativist in the mould of Andrew Jackson. Actually, though Mr Trump reflects all those influences and more, there is an easier way to understand him. Quite a lot of the time, he sounds European.

The parallels extend to his rhetoric. Take promises to detect and expel Muslim extremists. Mr Trump told an audience of soldiers on February 6th that America should admit only "people that love us and want to love our country". Europeans hear echoes of a National Front slogan dating back to the 1980s: "Love France or leave it". Compare Mr Trump to Ms Le Pen, or other populist-nationalist leaders such as Geert Wilders in the Netherlands and Nigel Farage, the former head of the United Kingdom Independence Party who helped lead his country to Brexit, and areas of agreement abound.

Like America's president, Europe's demagogues describe a world in which strong nations must rise up against rootless, self-dealing transnational elites. They promise to lower taxes but also assure their (often snowy-haired) voters that they will preserve old-age benefits from cuts. They are typically authoritarians who would spend more on crime-fighting and defence, and back something like "extreme vetting" for Muslims and refugees. They suggest that workers need protecting from legal as well as illegal immigrants. Most question whether climate change is as dangerous as experts say. Mr Farage and Ms Le Pen scold the European Union for provoking President Vladimir Putin, and cheer Mr Trump's talk of closer Russian ties (indeed Russian bankers have, in the past, loaned the National Front large sums). Mr Wilders is warier of Mr Putin, though just as hostile to the EU.

Trump's America: the old in the new world

Point out parallels between Trumpism and the European hard-right, and some Republican grandees shrug. Over breakfast in Washington clubs, or in Capitol Hill chats, bigwigs say that European socialism is very bad, of course, and that neo-Nazis are to be shunned. But calling someone a European conservative is not so alarming—at this point some may mention Margaret Thatcher, reverentially. In fact terms like "left" and "right" are misleading in Europe. French conservatives may be warier of free markets and keener on state intervention than Swedish social democrats.

A more relevant divide involves attitudes to competition. One European ideological bloc (which might be called Anglo-Saxon) sees competition as, on balance, a useful discipline, making companies and countries stronger and more attuned to the needs of consumers and citizens. Asked for the opposite of competition, that first camp might answer: a monopoly. A rival bloc sees competition as a threat to be managed or resisted. Asked for competition's opposite, that second camp might answer: solidarity.

The divide is partly cultural, and America has broadly stood on the Anglo-Saxon side of it, even when putting up protectionist barriers to imports. The Founding Fathers wanted to build a country in which a stranger with a good idea would have the chance to make a fortune. It is telling that in the English language competition can be "fair" or "unfair". Fairness is an abstract idea subject to objective tests—ie, are firms colluding or foreign countries dumping goods into markets at a loss? But in French, Spanish or Italian, competition is "loyal" or "disloyal". That's a more emotive concept. It conjures up images of an artisan in a hilltop town, betraying fellow-members of his guild or clan by producing cheaper bread or shoes. That has consequences: lots of Europeans expect politicians to shield firms deemed national champions from competition or to subsidise jobs in favoured industries.

Mr Trump is uncomfortably close to that second camp. His chief ideological adviser, Stephen Bannon, openly yearns for a more closed, clannish America. In a 2015 radio interview Mr Bannon grumbled about the number of Silicon Valley CEOs from Asia, saying: "A country is more than an economy. We're a civic society." Candidate Trump promised to be "very loyal to the country" and that "American hands will rebuild this nation". In a post-election speech he laid out his credo: "The relationships that people value in this country are local: family, state, country," he thundered. Similar language thrills many in ageing, anxious Europe. It resonates in Trump's America—a world of rural counties and small, bleak towns that, on many measures, is more like Europe. Polling data show that Trump supporters have a median age of 57, almost nine in ten of them are white, and most do not have college degrees. Overall, Americans have a median age of 38 and attend college at steadily rising rates; about a third of them are non-white. Trumpian nationalism is potent stuff. It is also backward-looking and tribal. That's not the American way. ■

Also in this section

NAFTA

Reshape or shatter?

OTTAWA AND MEXICO CITY

A renegotiation of the North American trade deal will not give Donald Trump what he wants

DONALD TRUMP called the North American Free-Trade Agreement (NAFTA) with Mexico and Canada the "worst trade deal ever approved in this country". Soon it will become clearer what he intends to do about it. He has three choices: tear it up, bully the United States' partners into making concessions that merely damage the agreement or go for a renegotiation that benefits all three.

The process for making big changes to NAFTA has started. On February 3rd the Mexican government began a 90-day consultation with businesses on what its negotiating position should be. Wilbur Ross, who will lead the American negotiators after the Senate confirms him as commerce secretary, says NAFTA is "logically the first thing for us to deal with". Notification to Congress, which must happen 90 days before talks can start, could come soon.

NAFTA is not the failure Mr Trump claims it is. Trade in goods among its three partners has more than trebled since it took effect in 1994; 14% of world trade in goods takes place under its rules. Cross-border supply chains have made American firms more competitive. The manufacturing jobs it has created in Mexico have slowed migration to the United States.

All three governments agree that it could be made to work better. "Any agreement can be improved," said David MacNaughton, Canada's ambassador to the United States, the day after Mr Trump won the election. The 23-year-old agreement could be modernised in ways that benefit the United States.

But a normal renegotiation may not be possible under Mr Trump. He has battered the United States' relationship with Mexico by insulting migrants and demanding that Mexico pay for a border wall. He has threatened to impose tariffs as high as 35% on Mexican cars, which would violate NAFTA (and breach the rules of the World Trade Organisation). No conceivable renegotiation of NAFTA will bring what Mr Trump wants most from it: lots more factory jobs in the United States and a dramatic reduction of its $63bn merchandise-trade deficit with Mexico.

The idle rich

Hourly compensation costs* in manufacturing, $

Source: The Conference Board

*Includes direct pay, social insurance spending and labour-related taxes

Mr Ross's language is less alarming than that of his soon-to-be boss. Yet he may do no more than put a friendlier face on Mr Trump's protectionism. A billionaire investor in old-technology companies that benefit from protection, Mr Ross is no free trader. According to a report by the *Globe and Mail*, a Canadian newspaper, he has identified two priorities for NAFTA renegotiation: the dispute-settlement process and "rules of origin". These rules put a ceiling on the value of inputs that an exporter to another NAFTA country can buy from outside the area. Both ideas are contentious.

The United States has long grumbled about the independent NAFTA panel that rules on anti-dumping duties, which a country imposes when it thinks that its trading partner is competing unfairly. It has ruled, for example, that duties on softwood lumber from Canada are a violation of American law. Mr Ross is likely to demand changes that weaken the panel.

Tightening rules of origin, which determine how porous the walls are around a free-trade area, is another goal. In the case of transport equipment, the biggest category of goods traded within NAFTA except for oil and gas, as much as 62.5% of the value of components must be made in North America if they are to be exported freely. Mr Ross probably wants to raise that requirement and close loopholes within it, which could encourage carmakers to source more parts from suppliers in the three countries.

Mexico and Canada might not object to that. In negotiating the Trans-Pacific Partnership (TPP), a 12-country agreement from which Mr Trump has now withdrawn, both countries pushed for tougher rules of origin than did the United States. "We're trying to see if there is a creative way of raising the regional value added in North America," says Jaime Zabludovsky, head of the Mexican Council on Foreign Relations, who is helping the Mexican government in its consultations with business.

But the idea poses dangers. If North American firms had to buy more inputs within NAFTA they might become less competitive against the likes of China and Japan, both at home and abroad. Tighter rules in industries with low tariffs, like cars, could become self-defeating; if they are too tight, companies could simply decide to pay tariffs, rendering NAFTA irrelevant. Another idea that might tempt Mr Ross—allowing individual NAFTA partners to set their own rules of origin—could disrupt supply chains as much as imposing tariffs within the group. It is a non-starter as far as the Mexicans are concerned.

Making NAFTA more like the TPP might help placate Mr Trump, even though he rejected the bigger deal. The TPP strengthens workers' rights, for example to strike and bargain collectively. That is a good thing from Mr Trump's point of view because it should help Americans compete with Mexican workers on a more equal footing. NAFTA also has a workers'-rights component, but it is in a side agreement and maybe less enforceable. The TPP has America-friendly rules for technology trade, which NAFTA lacks. It punishes online piracy and bars governments from imposing customs duties on digital devices, for example.

Mr Ross may also try to knock down the remaining barriers to American exports and investment put up by its NAFTA partners. Mexico, for example, imposes cumbersome testing procedures on imports of electrical equipment and limits purchases of residential property by foreigners near its coasts. The list of complaints about Canada is at least as long. It includes protection for dairy and poultry farmers, limits on foreign ownership of telecoms firms and provincial monopolies on the sale of alcohol.

If that is Mr Ross's agenda, negotiations will be difficult enough. Mexico, the world's fourth-largest car exporter, will be reluctant to agree to tighter rules of origin that would make its manufacturers less competitive. Canada will resist any watering down of its ability to appeal against American anti-dumping duties. Making NAFTA more like the TPP is harder than it sounds. Mexico accepted stronger protection for labour only because the TPP offered access to the enormous Japanese market. The United States, which already gives Mexico entry to its market, is offering no extra inducement.

Even if Mr Ross prevails on such questions, his new boss is not likely to be satisfied. Enforceable labour standards cannot eliminate the cost advantage of Mexican manufacturing workers (see chart on previous page). Tougher rules of origin might shift some production from Asia to NAFTA, but would not ensure that the investment goes into American factories rather than Mexican or Canadian ones. No revised trade deal can reverse the decline in manufacturing employment over the past few decades. Nor will it erase the United States' trade deficit with Mexico, says Jeff Schott of the Peterson Institute for International Economics in Washington.

So the chances are that the confrontation with which Mr Trump began his presidency will continue. His attempts to browbeat Mexico into submission may have the opposite effect. After recovering from the initial shock of Mr Trump's onslaught, Mexico is beginning to fight back. Its government now says it would rather walk away from NAFTA than accept a new deal that is worse than the current one. Enrique Peña Nieto, Mexico's deeply unpopular president, received rare acclaim after he cancelled a meeting with Mr Trump planned for January 31st. He knows that the shattering of NAFTA would cause hardship. But Mexican voters will rightly blame Mr Trump. ■

Green activism

Dying to defend the planet

Why Latin America is the deadliest place for environmentalists

ISIDRO BALDENEGRO LÓPEZ, a farmer and a leader of the indigenous Tarahumara people, had spent much of his life campaigning against illegal logging in the Sierra Madre region of northern Mexico. On January 15th he was shot dead. His father died in the same way, for defending the same cause, 30 years before.

Defending nature is a dangerous occupation, especially in Latin America. According to a recent report by Global Witness, an NGO, 185 environmental activists were murdered worldwide in 2015, an increase of 59% from the year before. More than half the killings were in Latin America. In Brazil 50 green campaigners died in 2015. Honduras is especially perilous: 123 activists have died there since 2010, the highest number of any country relative to its population. Berta Cáceres, an indigenous leader who was a prominent campaigner against dams and plantations, was murdered there last March.

Fallen friend of the forest

Why is Latin America so deadly? One reason is its abundant natural resources, which attract enterprises of all sorts, from multinationals to mafias. When prices are low, as they are now, the most rapacious do not go away; to maintain their profits they become more aggressive, says David Kaimowitz of the Ford Foundation, which gives money to good causes. New technologies open up new battlefronts. Soyabeans bred to grow in tropical conditions have encouraged farmers to displace cattle ranchers, who in turn have advanced into the rainforest. Small prospectors can now extract gold from soil rather than just hunting around for nuggets. That opens up new areas for exploitation, such as San Rafael de Flores in south-eastern Guatemala, where activists have been murdered.

Often, as with Mr Baldenegro and Ms Cáceres, the resisters are from indigenous groups; a third of the environmentalists murdered in 2015 belonged to such groups. Their defence of traditional livelihoods like fishing often complements global campaigns on issues like climate change. Indigenous peoples and other small communities manage territories that contain nearly a quarter of the carbon sequestered in tropical forests, estimates Rights and Resources International, an advocacy group. Their alliances with international pressure groups have brought more attention but have not reduced the violence.

Confrontation often happens along frontiers that are either lawless or poorly policed. After Ms Cáceres was murdered, police told journalists she had been killed in an attempted robbery. They have since arrested eight suspects, including serving and former military officers and two employees of the firm developing the dam she opposed. But the Honduran government has yet to order an investigation into the people who ordered the killing, says her family. The company denies any involvement in the crime. In Mexico, the governor of Chihuahua state, where Mr Baldenegro was killed, says he wants an investigation, but little progress has been reported.

The odds of finding the culprits are greater if the victim is foreign. Dorothy Strang, an American nun who fought to protect the Amazon rainforest, was killed in Brazil 12 years ago. Both the gunman and a rancher who had hired him eventually went to jail. But that is an exception.

Indeed, governments often take sides against the activists, even though many have signed a convention drawn up by the International Labour Organisation that requires them to consult groups affected by development projects. In December last year Ecuador's environment ministry said it would shut down Acción Ecológica, a group that backed the Shuar people in a fight over the opening of a copper mine. The government says the group encouraged violence. Brazilian lawmakers are considering a change to legislation that activists fear could prevent the creation of new indigenous reserves.

In Honduras, politicians have been linked to attacks on opponents of a hydropower project at Los Encinos in the west, according to Global Witness. It cites Roberto Gómez, an indigenous activist, as saying that his group was "evicted by a squadron of around 15 police", joined by civilians. They "destroyed our crops, they burnt our food", he says. Until governments fight such violence instead of abetting it, the ranks of martyrs will grow. ■

Brazilian manners

A more correct Carnival

SÃO PAULO

More people are complaining about rude songs

CROSS-DRESSING, undressing, bad taste and ribaldry are features of every Brazilian Carnival (this year's begins on February 24th). Transgression has always been part of the point. But this year the bacchanal's political incorrectness is provoking a backlash, especially in Rio de Janeiro, where the festival is at its glitziest. And the demand for sensitivity has created another backlash of its own. In an editorial published on February 4th, O *Globo*, a liberal newspaper, lamented that "to police this Rio patrimony is to leave samba behind".

The fuss is mainly about *marchinhas*, singalongs performed in Carnival street parades known as *blocos*. Often, the lyrics are unashamedly rude. Classics such as "Mary the Dyke" and "Zezé's Head of Hair" do not evince respect for homosexuals. Zezé "looks like a perv/don't know if he is", goes the latter. Even politer songs are failing to pass politically-correct muster. Mulheres Rodadas (roughly, "well-worn women"), a feminist *bloco* in Rio de Janeiro, wanted to remove from its repertoire "Tropicália", a much-loved song by Caetano Veloso, one of Brazil's most popular singer-songwriters. Unlike many *marchinhas*, it contains no obviously offensive language. But some Brazilians think its glowing tribute to *mulatas* objectifies mixed-race women.

Mr Veloso does not share that view. "My father was *mulato*. I think of myself as *mulato*. I love the word," he protests. That easygoing attitude is probably more common than censoriousness. The ditties sung in street parties, many of which date back to the 1930s, are an integral part of Brazil's cultural canon. *Marchinhas* should not be judged outside their historical context, says Rosa Maria Araújo, who heads Rio's Museum of Image and Sound. Many composers were themselves black or gay, she observes, and used subversive lyrics to fight prejudice, not to entrench it. Fernando Holiday, a centre-right councillor in São Paulo, is more forthright. "It's ridiculous," he fumes.

Mr Holiday, who is black, attributes the anti-*marchinha* upsurge to the implosion of Brazil's left following the impeachment last August of Dilma Rousseff, the left-wing president. That ended her Workers' Party's 13-year reign and ushered in a conservative government led by her erstwhile deputy, Michel Temer, and stuffed with old white men like himself. Diversity-loving progressives, including many artists and *bloco* organisers, were appalled. (Mr Temer's appointment earlier this month of Luislinda Valois, a black woman, as human-rights minister will do little to placate them.)

Shut out of formal channels of political expression, grassroots campaigners must look elsewhere to champion imperilled progressive causes, explains Esther Solano, a sociologist at São Paulo's Federal University. Imperatriz Leopoldinense, a Rio samba school, enraged conservative farmers with its plan to depict them as enemies of Indians and forests in its Carnival spectacle. At the same time, Ms Solano adds, right-wingers emboldened by their political success feel freer to rail against those whom they see as whingeing liberals.

Débora Thomé, one of the Mulheres Rodadas, thinks the whole palaver "silly". But if it draws attention to Brazilians' all-too-common mistreatment of women, gays and blacks, then it is worth it, she says. A political scientist in her day job, Ms Thomé also points to a more encouraging trend. Despite apparent setbacks in Brazil and in Donald Trump's United States, young people around the world are becoming more tolerant. That includes Mulheres Rodadas, who chose to tolerate "Tropicália" after all. ■

Also in this section

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Labour mobility in Asia

Waiting to make their move

SHANGHAI

Asia struggles to match supply and demand for workers

THE agencies are anonymous and unobtrusive amid the glamorous hustle of Shanghai, the better to stay in the shadows. They deal in an illegal but highly desirable product: people, specifically Filipina domestic workers to serve China's growing middle class. Filipina helpers, says one agent, will follow your exact instructions, whereas locals are choosy and tend to handle only one task: if they clean, for instance, they will not look after children. Filipinas' diligence makes them popular. The Philippine consulate in Hong Kong estimates that more than 200,000 undocumented Filipinas work as domestic helpers in China, earning 5,000 yuan ($728) per month, far more than they could make back home. As for legal troubles, the agents are reassuring. Fines can be hefty but are rarely imposed. One agent admitted that a client was caught employing an illegal worker; the worker was sent home, but the client was not fined.

Another Filipina no doubt took her place. The Philippines abounds with labour, and China needs domestic workers. This exemplifies two demographic trends in Asia. Poor, young South and South-East Asian countries suffer low wages and underemployment, while richer, ageing countries in the north need more people to bolster their workforces. Theoretically, this problem contains its own solution: millions of young workers should go north and east. Receiving countries would benefit from their labour, while their home countries would benefit from their remittances and eventually from the transfer of skills when the workers return, as many migrant labourers do.

Practice, however, is less accommodating than theory. The Asian "model" of migration tends to be highly restrictive, dedicated to stemming immigration, rather than managing it. Entry is often severely curtailed, permanent settlement strongly discouraged and citizenship kept out of reach.

Rich in people, poor in migrants

Asia is home to about half of the world's people, but is the source of only 34% of its emigrants and host to only 17% of its immigrants. About a third of Asians who have left their country have laid their hats somewhere else in Asia. But despite wide income and age gaps between one end of Asia and the other, two-thirds of intra-Asian migrants remain in their own part of the region. South Asians migrate elsewhere in South Asia, East Asians stick to East Asia, and so on.

Much of this labour is irregular. Thailand, for instance, may have as many as 5m migrant workers, mainly from neighbouring Myanmar, Cambodia and Laos. Many of them lack visas—particularly those in construction and services. Three years ago, a rumoured crackdown on illegal labour sent around 200,000 Cambodians fleeing for the border. The resulting paralysis of the construction industry, among others, prompted Thailand to reverse course quickly and implement a brief amnesty during which workers could apply for temporary documents. Some workers do not bother with those, complaining that the process of getting them is too time-consuming and expensive. Still, millions remain willing to take the risk of working illegally or semi-legally in Thailand because wages back home are so low.

China has long been able to satisfy its demand for labour by moving rural citizens to cities. Over the past 30 years around 150m Chinese have left the countryside to staff factories, cook in restaurants and clean homes. But with China's population ageing, foreign workers have begun filling the gap: as many as 50,000 Vietnamese illegally cross the border into the southern province of Guangxi each spring to help harvest sugar cane. In 2015 the provincial government started a programme to bring Vietnamese workers into local factories in one city. Off to a good start, it is being introduced in other parts of Guangxi.

China remains a net exporter of labour, but the balance is shifting quickly. Over the next 30 years its working-age population will shrink by 180m. How China handles this fall will play a large role in shaping Asian migration patterns. Manufacturers can move factories to labour-rich countries, or invest in automation. Other industries lack that option. The ILO forecasts that China will need 20m more domestic workers as it ages.

The impending collapse of the workforce is not an exclusively Chinese problem. To keep the share of its population at working age steady, East Asia would have ▸▸

to import 275m people between the ages of 15 and 64 by 2030. South-East Asia would have to attract 6m, though that number masks wide gaps: Singapore, Malaysia, Vietnam and especially Thailand need workers, while Myanmar, Indonesia and the Philippines have too many. South Asia, meanwhile, could afford to lose 134m workers—India alone could send more than 80m abroad—without worsening its dependency ratio. China's projected shortfall in 2030 is equivalent to 24% of its current working-age population; in Bangladesh the likely surplus is 18% (see map).

Some countries have become more flexible. Foreign workers are around 40% of Singapore's workforce, with slightly less than half of those on restrictive domestic-work and construction visas. To prevent foreigners from undercutting domestic wages, employers must pay levies for each foreign worker they hire.

Paid leave

Such financial incentives can help regulate inflows of foreign workers. They can also help encourage outflows, ensuring that temporary migration does not become permanent. In 2003 South Korea introduced a quota scheme allowing small firms, mostly in labour-intensive manufacturing, to employ foreigners from poor countries for limited periods—"sojourns", as the authorities put it, of up to four years and ten months. To make sure that the sojourners do not overstay their welcome, they are charged in advance for the cost of returning home. Their employers also deduct a percentage of their salary, which is given back to them only as they leave the country. (It can be paid to them in person after they pass the immigration desk.) These temporary workers account for about a quarter of the 962,000 foreigners (3.5% of the labour force) now working in South Korea.

Japan has long preferred exporting capital to importing labour. Its multinationals have set up plants across South-East Asia to make Japanese goods, bringing factories to foreign workforces, not the other way around. But this approach has its limits. For the sort of non-tradable services especially in demand in ageing countries, such as domestic care and nursing, it is useless. Japanese companies can build their cars in Vietnam, but their executives cannot (or at least ought not to) send their mothers to Danang when they start to get frail.

Hong Kong has opened its borders to foreign nurses, nannies and maids. It introduced a scheme to import domestic workers in 1974: the same year, coincidentally, that the Philippines adopted its policy of encouraging people to find jobs overseas. By the end of 2015 Hong Kong had over 340,000 foreign domestic "helpers"—one for every 7.3 households. Over half still come from the Philippines, with another 44% from Indonesia. Their employers must provide food, board, travel to Hong Kong and wages of at least HK$4,310 ($556) a month. Including those costs, as well as the implicit cost of their rent, they earn a little less than a Hong Konger working 60 hours a week at the minimum wage—but much more than they would at home.

By the mid-2000s, over half of married mothers with a college degree in Hong Kong employed foreign domestic help. By taking on duties traditionally shouldered by wives and mothers, these foreigners have made it easier for many local women to pursue careers outside the home.

Governments often worry that immigrants will be a substitute for native employment, rather than a complement to it. Hong Kong's foreign maids were both. They "displaced" local women from unpaid employment in the home. But in so doing, they provided a powerful complement to their paid employment outside it.

Foreign domestic workers may have other beneficial side-effects. A study of the United States showed that immigrant inflows lower the cost of child care and modestly increase fertility rates among native women with college degrees. Immigration may therefore have a triple benefit for Asia's ageing societies. Foreign workers add to the labour force themselves, they help native women take fuller part in it, and they help them bear the workers of tomorrow. What a pity Asia does not make more use of them. ■

Working-age people needed to immigrate/emigrate by 2030 to keep dependency ratio at 2016 level
As % of current working-age population

Sources: United Nations; Taiwan National Development Council

Communist insurgency in the Philippines

An extra mile

MANILA

A 50-year-old conflict resumes

IT HAD already been looking grim: communist insurgents were saying they would abandon a six-month-old ceasefire on February 10th because the government was refusing to free some 400 captured comrades. Then, on February 1st, communist guerrillas waylaid and murdered three unarmed soldiers in civilian clothes, said the army. The police found 76 bullet wounds in the corpses. The killings enraged Rodrigo Duterte, the Philippines' president, who vented: "What, is a soldier a dog?" In the end it was Mr Duterte who called off the government's ceasefire and the peace talks it had fostered.

Mr Duterte had said before that he was willing to "walk the extra mile" to end the 50-year-old insurgency. But this week Mr Duterte not only suspended peace talks with the communist National Democratic Front (NDF), but also called for the re-arrest of members who had been released from detention so that they could take part in the talks. He says he now regards the NDF and its guerrilla wing, the New People's Army (NPA), as terrorists. "I'm asking the soldiers, go back to your camps, clean your rifles and be ready to fight," he said. In the following days the security forces reported a growing number of encounters with the NPA. The defence minister, Delfin Lorenzana, declared: "It is an all-out war."

The government and the NDF had initiated separate ceasefires in August, paving the way for peace talks in Oslo, brokered by the Norwegian government. But in the absence of agreed terms or a monitoring mechanism, the truce was always going to ▸▸

be shaky. The guerrillas persisted in extorting money from businesses, while the security forces kept encroaching on NPA territory. The chief negotiator for the NDF, Fidel Agcaoili, accused the government of using the truce "as a cover for state security forces to engage in hostile actions, provocations or movements, surveillance and other offensive operations".

The defence ministry retorted, before the government cancelled its ceasefire: "Security forces will continue to maintain peace and order and run after lawless elements whoever and wherever they are." It added: "We do not recognise the NPA's claims to areas which they believe are under their control."

The fighting, when it resumed, was neither much heavier nor much lighter than it had been in the three decades since the first efforts were made to bring about peace. The communist revolution, although occasionally still deadly, is feeble. The collapse of communism elsewhere in the world has left the NDF isolated. Its leaders, the most prominent of whom live in exile, are elderly.

The armed forces estimate that the NPA has roughly 5,000 guerrillas scattered around the country, chiefly on the southern island of Mindanao, where Mr Duterte is from. Those 5,000 are theoretically fighting to overturn the constitutional order in a country of 102m people. In practice they cling on mainly by threatening violent reprisals against businesses that fail to pay what they call "revolutionary taxes".

The sticking point in the talks before they foundered had been the detainees. The communists regard them as political prisoners. The government considers them common criminals, whatever the motivation for their crimes. The minimum the NDF seems likely to accept in return for ending its rebellion is amnesty for its forces, whether detained or at large. It must press its demand before its revolution fizzles out completely and its leaders die of old age. The government, however, is disinclined to grant an amnesty. It not only wants the communists to agree to abandon the armed struggle permanently; it also wants convincing evidence that they will stick to such a pledge.

The Philippine state, unlike the revolution and its leaders, is not on its last legs, so has time on its side. And Mr Duterte is popular, thanks partly to his tough-guy persona. (This week he told cops accused of corruption that they could resign or be sent to a region racked by conflict with Islamists.) He says he might resume peace talks with the NDF if there were a compelling reason to do so. The communists, he remarked this week, have been fighting for 50 years. "If you want to extend it for another 50 years—so be it," he said. "We'd be happy to accommodate you. After all, I said, 'I walk the extra mile.'" ■

America and its Asian allies (1)

Fairway friends

TOKYO

Japan's prime minister cosies up to America's new president

AMONG the books said to be by the bedside of Shinzo Abe, Japan's prime minister, is "The Art of the Deal", Donald Trump's autobiographical ode to sharp-elbowed capitalism. Mr Abe appeared to borrow from the book's brash credo last November: while the rest of the world was still gasping at Mr Trump's election, Mr Abe jumped on a plane and went to meet the president-elect. It was Mr Trump's first meeting with a foreign leader after his election. As a gift, Mr Abe brought a gold-plated golf club.

On February 9th Mr Abe will fly to America again, for a proper summit with the new president. This time he is bringing an even more lavish gift: a plan to create 700,000 jobs. The aim, the prime minister told parliament, is to help upgrade America's infrastructure. His plan involves Japanese investment to build high-speed rail links in Texas and California, to decommission America's fleet of ageing nuclear power plants and to collaborate in the development of robots and high-tech weaponry. Some of the money could come from Japan's ¥135-trillion ($1.2 trillion) public-pension fund, the world's largest.

Mr Abe has been jolted into action by the stench of protectionism wafting across the Pacific. Instead of lamenting the demise of the Trans-Pacific Partnership (TPP), a giant multilateral trade agreement that Mr Trump killed as soon as he took office, Mr Abe wants to try to bag a bilateral deal with the new occupant of the White House, says Jesper Koll, a fund manager and informal adviser to Japan's government. Mr Trump, after all, has made positive noises about such pacts, which could salvage some of the substance of TPP.

The explicit quid pro quo for a shower of Japanese investment, says Takao Toshikawa, a veteran political journalist, will be an assurance from Mr Trump that he will not downgrade the two countries' defensive alliance. The president has threatened to reduce America's military presence around the world unless its allies bear more of the cost. But during a recent visit to Tokyo James Mattis, America's defence secretary, labelled Japan "a model of cost-sharing" and gave America's clearest pledge yet that its commitment to defend Japan includes the disputed Senkaku islands in the East China Sea (known as Diaoyu in China), which Japan administers but China claims.

Mr Abe is hoping to bond with Mr Trump over a round of a golf at Mar-a-Lago, the president's private resort in Florida. In this, as in so much else, the Japanese leader seeks inspiration from his grandfather, Nobusuke Kishi. As prime minister in 1957 Mr Kishi played golf with Dwight Eisenhower, the president of the day. Three years later they signed the security treaty that Mr Mattis has just reaffirmed.

Still, Mr Abe is taking a political risk by cosying up to a leader many Japanese distrust. A recent poll in the *Yomiuri Shimbun*, Japan's most popular newspaper, found only 8% of respondents expected relations with America to improve under its new president. Working closely with Mr Trump will also further alienate China. The biggest worry of all, says Mr Koll, is having to trust Mr Trump. ■

Side by side, again

America and its Asian allies (2)

Two short fuses

CANBERRA

Donald Trump is testing Australia's alliance with America

AFTER Donald Trump's victory in November, Malcolm Turnbull quickly congratulated him, having obtained Mr Trump's telephone number from Greg Norman, the new president's golfing buddy. Australia's prime minister claimed a similar background to Mr Trump's, as "businessmen who found our way into politics somewhat later in life", and a shared "pragmatic approach" to solving problems. Another call, just two months later, has shattered this supposed solidarity. It has also prompted many Australians to question their country's closest alliance.

On February 2nd the *Washington Post* published an account of the second call. Mr Turnbull raised a deal his government had struck with the administration of Barack Obama, in which America agreed to resettle refugees trying to reach Australia who had been diverted to Nauru and Papua New Guinea. Mr Turnbull later assured Australians that Mr Trump would "honour" the deal. But the leaked account differed. Mr Trump reportedly called it the "worst deal ever", accused Australia of seeking to export the "next Boston bomber" and told Mr Turnbull that his was the "worst call by far" among his conversations with world leaders that day.

Mr Turnbull is renowned for his own short fuse. Indeed, some colleagues see him as a "sophisticated" version of Mr Trump. Clashing with Mr Trump seems to have done him little political damage at home. But if Mr Trump says he will not accept the 1,250 refugees, many of whom are from Muslim countries, that could change. The camps where the refugees are being held are a constant source of diplomatic irritation and embarrassment; the government would dearly like to close them. One fear is that Mr Trump might ask for something in return, such as sending more troops to the Middle East, that would go down badly with many Australians.

The alliance with America is the centrepiece of Australia's foreign policy. Indeed, it has strengthened in recent years, with America stationing troops in Darwin, in the far north. But China's emergence as Australia's biggest trading partner has prompted a debate about how to strike a balance in relations with the two countries, and Mr Trump's election has intensified it. A poll last year by the Lowy Institute, a think-tank, found almost half of Australians thought their country should distance itself from America "if it elects a president like Donald Trump". James Curran, a historian, argues in "Fighting with America", a new book, that Australia should ditch "worn rhetoric" and "alarming complacency" about relying on America for its security, and look at the relationship afresh. Penny Wong, the shadow foreign minister, reckons uncertainties around the Trump administration's Asia-Pacific policy mean the alliance could be at a "change point".

Julie Bishop, the foreign minister, does not go so far. But the fact that China underpins Australia's prosperity, through its demand for minerals, food and other goods, makes her question some of Mr Trump's policies, especially the threat of trade barriers against China. She is "disappointed" that Mr Trump pulled out of the TPP, a planned free-trade pact of 12 Pacific countries. Ms Bishop does not rule out pushing on with the pact among the remaining 11 members, and says she would "welcome" interest from China in joining it.

Australia's options are limited. Michael Wesley of the Australian National University argues that, without its alliance with America, Australia would be a "totally different country", having to spend far more on its own defence and even acquiring nuclear weapons. Policymakers seem intent instead on trying to keep America engaged—or that was the plan, at any rate, until Mr Turnbull's ill-fated phone call. ■

Politics in Tamil Nadu

Rank and bile

DELHI

A vicious inheritance battle engulfs the state government

ON THE various occasions that O. Panneerselvam, or "OPS", served as the chief minister of the southern Indian state of Tamil Nadu, he made a point of being invisible. He knew that Jayaram Jayalalithaa, the head of his party, the All India Anna Dravida Munnetra Kazhagam (AIADMK) and chief minister for most of the past 15 years, had chosen him as a stand-in whenever she was battling corruption charges or illness precisely because he was so self-effacing. Even after "Amma"—"Mother"—a former idol of the Tamil film industry, died in December, Mr Panneerselvam meekly agreed to step aside as chief minister in favour of V.K. Sasikala (pictured), a woman who has no political experience beyond having lived with Ms Jayalalithaa for the past 30 years, but is claiming her mantle.

On the night of February 7th, however, OPS embraced the sort of melodrama he has so long eschewed. Sitting cross-legged before a flower-strewn memorial to Jayalalithaa, he spent 40 minutes in silent meditation, as television crews assembled and news alerts set smartphones bleeping. At last he spoke—or rather, he declared, the spirit of Amma spoke through him. She had instructed OPS to tell the truth: that he had been unfairly forced from office by Ms Sasikala, who has already become secretary-general of the AIADMK. Others soon joined in. One of the party's founders claimed that Jayalalithaa had been poisoned and pushed down the stairs. Ms Sasikala called OPS the real traitor, and fired him as the party's treasurer. Tamil Nadu's governor is supposed to be swearing in the new chief minister this week, but the outgoing one seems to want to rescind his resignation.

Usurper or heir?

Ms Sasikala was Jayalalithaa's live-in assistant and gatekeeper. In 1992 they were photographed at a temple taking turns to pour holy water on one another from silver urns, a ceremony typically performed by husbands and wives. But they were a tempestuous pair: Jayalalithaa twice booted Ms Sasikala from her house before relenting. They were both charged for amassing "disproportionate assets"; Jayalalithaa was briefly forced to step down—one of the occasions when OPS took her place. The charges may yet snare Ms Sasikala.

The AIADMK has always relied on larger-than-life personalities to win votes. By the time Jayalalithaa died her face and name decorated countless canteens, hospitals and government handouts. In such a personalised system, OPS has no incentive to go quietly.

Banyan | Country or continent?

In its integration, India is somewhere between the United States and the European Union

IN A speech to London's Constitutional Club in 1931, Winston Churchill poured scorn on the idea of India. "India is a geographical term. It is no more a united nation than the equator," he spat, a slur that invites such uniform disagreement from Indians as to disprove itself. Less well known, but more worthy of debate, is the previous line of Churchill's speech: "India is no more a political personality than Europe," he contended.

The personalities of both India and Europe have changed a great deal since 1931. But in explaining India to outsiders, Banyan often finds it helpful to compare it to the European Union (EU) rather than to the United States. Neither parallel does India justice, of course. The frequent comparisons to America can imbue India with a false cohesion. The less common comparison to the EU suggests a false disunity. But if the two parallels are judiciously combined, the falsities may help to cancel each other out.

One obvious example is Indian politics. This month voters took part in elections for the state legislatures of Punjab and Goa. As is often the case, turnout was higher than in India's national election in 2014. In comparison with the United States, where races for national office, especially the presidency, overshadow state-level contests, that is a puzzle. In comparison with the EU, where elections in member states command far more attention than races for the European Parliament, it seems less strange.

The composition of India's legislature also looks more like Strasbourg's multicoloured mosaic than Washington's two-tone Congress. The Lok Sabha, India's lower house, seats as many as 35 parties. With the exception of the Bharatiya Janata Party and Congress, few of them have influence beyond one or two states. If America is the benchmark, the obvious question is why India's voters have failed to coalesce around rival nationwide philosophies of government. But if the template is Europe, the fragmentation is easier to grasp. Few of Europe's parties could appeal across national lines, however compelling their policies.

Another example is language. India's constitution lists 22 "scheduled" languages. An American might wonder how it copes. But the EU, with 24 official languages, is even more polyglot. India's national anthem had to be translated into Hindi from the original Bengali. But the EU's anthem has no official lyrics, so as to leave open the question of what tongue to sing them in. Pick any two Indians at random, and the chance that they share the same mother tongue is less than 20%, according to data compiled by Romain Wacziarg of the University of California, Los Angeles, and his colleagues. But for the EU as a whole, according to Banyan's calculations, the odds are less than 10%. Linguistically, then, India is neither as unified as the United States nor as divided as the EU.

National welding

The author of India's anthem, Rabindranath Tagore, also saw value in comparing his country to both Europe and America. Like India, the United States faced the problem of "welding together into one body various races". This challenge set both countries apart from Europe, which, Tagore felt, could take its racial unity for granted. Indeed, he saw Europe as one people divided into many states, unlike India's many peoples "packed into one geographical receptacle".

The gap between India's many peoples remains large. The GDP per person of Bihar, India's poorest state, is only a fifth of Haryana's and little more than a tenth of Goa's. That is a much bigger income gap than between Mississippi and Massachusetts, but comparable to the gulf between Bulgaria and Belgium.

These gaps have motivated increasing numbers of Indians to move from one part of their geographical receptacle to another. The government's latest economic survey, written by Arvind Subramanian, its chief economic adviser, calculates that interstate migration nearly doubled between the 1990s and the 2000s, yielding a migrant population of over 55m in 2011 (roughly 4.5% of India's population). That may fall well short of American mobility, but compares favourably with the EU, where 13.6m citizens (2.7% of the total population) live in another member state.

The movement of goods tells a similar tale. In India, unlike America, state prerogatives often trump the imperatives of interstate commerce. Trade is distorted by a patchwork of local levies, which the central government is keen to replace with a new goods and services tax. The familiar sight of lorries queuing at state borders suggests an economy that is hopelessly fragmented. But again, the benchmark matters. Drawing on new data, Mr Subramanian shows that trade among India's states is now equivalent to about 54% of GDP, rather higher than many suspected. That is low compared with America (78%), but impressive compared with the EU (20%).

Net trade is even more dramatic. India's single market and currency allow some states to run enormous trade deficits with others. Four run deficits in excess of 20% of local output. That is far greater than the euro area has been able to sustain.

India's divisions hamper it in its dealings with other nations. Its diplomacy has a reputation for parochialism and mal-coordination—an elephantine inability to "dance". But perhaps it is not given enough slack. Compared with the EU, India's foreign policy is positively twinkle-toed. India, lest it be forgotten, is as populous as 150 other countries combined. By encompassing all of these people in a single political entity, it dramatically reduces the complexity of global governance—even if it does not always feel like that. Had the republic not succeeded in refuting Churchill, had it disintegrated into multiple sovereign states, the world's negotiating tables might have needed to accommodate dozens of additional quarrelling players. When the Americans want to talk to India, they know whom to call—however frustrating the conversation sometimes proves to be. ■

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Reality television

China's transgender Oprah

BEIJING

A television star reveals a lot about changing social attitudes

CHINA'S favourite chat-show host has had an extraordinary career. Jin Xing was the country's most successful dancer before becoming a colonel in an army entertainment troupe. He won fame in America, where the *New York Times* called him "a Chinese genius". He trained dancers in Brussels and Rome, before returning to China for a sex-change operation. As a woman, she resumed her career as a ballerina, set up the country's first private ballet company, ran a bar in Beijing and married a German businessman.

In a conservative society where even homosexuality is frowned upon, let alone sex-reassignment, her life would seem to place Ms Jin well outside the stodgy mainstream of Chinese broadcasting (she is pictured at her home in Shanghai). Yet Ms Jin, who is 49, is the country's most popular television judge. She began with a local version of "So You Think You Can Dance" and hit the jackpot with "The Jin Xing Show", a variety and chat programme with an audience of around 100m. She has appeared with her husband on the Chinese version of "The Amazing Race", in which couples race each other around the world. Her latest venture, "Chinese Dating", is in its first season.

Ms Jin's story reflects remarkable changes in Chinese society since her childhood. She joined the army at the age of nine and endured a training regime that, as she puts it, would count as child abuse in the West. During her surgery, an oxygen shortage damaged her left leg so badly that doctors thought she would be lucky to walk again. Gruelling retraining enabled her to resume dancing within a year.

Those struggles with adversity have helped Ms Jin win favour among older Chinese, a more conservative cohort that is also, surprisingly, her biggest fan base. Many of them, too, have suffered enormous hardship—during the Cultural Revolution of the 1960s and 1970s, and the famine that followed the Great Leap Forward of the late 1950s, in which tens of millions died. Even those born after 1980—roughly half the population—know well what their elders endured.

Identity crises

The tension between Ms Jin's persona as a patriotic Chinese, and the one she displays as a globetrotter with a foreign husband (in January she joined the global elite at the World Economic Forum in Davos), is one that is widely understood among her compatriots. They have become the world's great travellers. Over 100m got visas for holidays abroad last year, more than the citizens of any other country. Ms Jin describes herself as having been "a little Chinese boy thirsting for the West". She writes of dreaming about Coca-Cola and freedom in Paris, or surreptitiously reading porn magazines and cruising gay bars in Greenwich Village. In her memoir, "Shanghai Tango", she says that in the gay communities of New York, she feels herself to be "a traveller in a foreign land twice over"—as a woman in a man's body and as a Chinese person abroad (who happens to be, she might have added, ethnic Korean).

In Belgium she feels haunted by the Chinese words she sees on signs in the streets; their calls, she writes, "get louder and louder". She looks at a Ming vase at a market in Brussels and feels "ashamed" of Chinese who live abroad and have "only contempt" for their ancestral heritage.

China has several cultural figures who are better known in the West than at home. Ms Jin could have been another. But she chose to return home for her sex-change surgery, at some personal risk since the procedure was almost unknown there. "I was born in China," she says. "It is in China I must be reborn as a woman."

Xi Jinping, China's president, presents himself as a staunch defender of "traditional" Chinese culture, and warns of the danger of Western "infiltration". His preferences were clear in a recent official directive, which calls for the protection of China's "cultural security". But like most of her compatriots, Ms Jin is happy to take what she wants from both China and the West.

On the face of it, she embodies everything that is untraditional. Her rejection of being a man flies in the face of Confucian culture. The television manner for which she is famous—a blunt, cut-the-crap sassiness—is the opposite of stereotypical feminine deference. Yet her life as a woman has not been a simple rebellion against convention. By adopting three children and marrying (albeit a foreigner), she created around herself what she calls "a real Chinese family". The values she espouses are old-fashioned even in China. In her new dating game, the contestants may not choose a match without their families' per- ▶▶

mission; indeed, it is the families who interview the contestants' prospective partners—resulting in rampant sexism, with women being asked about children and men about money. This has been too much for some viewers; online commentators have slammed the format as chauvinist and "retro". But Ms Jin's popularity suggests many young people believe that tradition should not be discarded.

In her memoir, Ms Jin talks about two historical figures whom she calls role models. One is Sai Jinhua, a prostitute who became the mistress of the imperial envoy to Germany and used her knowledge of the language to save the Qing emperor from German troops sent to crush the Boxer Uprising in 1900. (Jealous officials jailed her for her pains.) Ms Jin notes approvingly how Sai "rebelled" against what had appeared to be her destiny as a pauper.

The other model, more surprisingly, is Jiang Qing (Madame Mao), one of the Cultural Revolution's most reviled figures, who cheered on the Red Guards as they tortured and killed her enemies. Ms Jin calls her "full of charm and intelligence" and the creator of "major masterpieces" during that period (Jiang Qing oversaw the production of operas about the Communist Party's early days). It is a sign of how much China is changing that its cast of heroines encompasses not only the heroic harlots and villainous empresses of the past, but also a transsexual conservative talk-show host. ■

Unpopular films

Blame the critics

BEIJING

A new film starring Matt Damon sparks debate about the role of reviewers

CHINESE cinema-goers are used to the government's tight grip on the film industry. In deference to the Communist Party's qualms, filmmakers eschew happy endings for teenage lovers or homosexuals, let alone anything critical of the party itself. To boost audiences for home-grown productions, the authorities have recently tried a new form of control: clamping down on unflattering reviews. Long-suffering film fans see this as a step too far.

Their anger erupted in December after the release of "The Great Wall", a Chinese-made fantasy starring an American actor, Matt Damon (pictured, trying to save China from an alien invasion). Xinhua, an official news agency, praised the film as "innovative" and accused its many online detractors in China of "giving it a hard time just for the sake of it" (critics had panned the film for being heavy on special effects and light on plot). The bad reviews, it said, would make it harder for Chinese films to go global. A few days later *People's Daily*, the party's main mouthpiece, weighed in. It said low ratings on Chinese websites for "The Great Wall" (which opens in America on February 17th), and for two other Chinese films, had been the result of "malicious" reviews and the manipulation of data. One of the websites it named, Maoyan, promptly removed its Rotten Tomatoes-style display of critics' aggregated scores, citing the need for an "upgrade".

Assailed by aliens, and reviewers

Netizens were incensed. They rushed to another chastised website, Douban, to give the three films in question the lowest rating. One online comment that got 24,000 "likes" read: "That's right! We don't have bad films in China, just bad audiences!" Surprisingly, both Xinhua and *People's Daily* appeared to back down. They published commentaries saying that unflattering reviews were not enough to ruin good films and that criticism should be tolerated. The Xinhua article that had caused the furore was deleted from their websites.

Many filmgoers suspect the two organisations had been miffed by the poor performance of Chinese films relative to foreign ones. To the official media, it had seemed easier to shoot the messenger than examine why state-supervised studios are churning out so many films that audiences do not want to see. ■

Chinese statistics

Getting safer?

Look closer at the data

GOING by the numbers, China's notoriously hazardous coal mines have become distinctly less perilous in recent years. In January the government said that 538 people had died in mining accidents in 2016, a mere 11% of the death toll a decade earlier. The number of deaths per million tonnes of coal extracted was the lowest ever. For Chinese industry generally, safety data are improving. In 2002 140,000 people died in work-related accidents. Last year the toll was less than one-third of that. On roads there has been similar progress: 58,000 deaths in 2015, down from 107,000 in 2004. Officials admit the statistics remain "grim", but their efforts to improve safety would seem to be paying off.

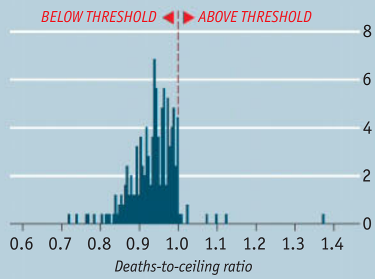
Perhaps, but the numbers should be treated with caution. A forthcoming paper by Raymond Fisman of Boston University and Yongxiang Wang of the University of Southern California analyses a government campaign launched in 2004 to reduce accidental deaths at work and on roads. It imposed annual ceilings on such fatalities, nationally and locally. Officials would be punished if targets were exceeded.

To see how this has worked, Mr Fisman and Mr Wang calculated the deaths-to-ceiling ratio (reported deaths divided by the mandated ceiling) for each province. It might be expected that most provinces would be close to the target—whether slightly above or slightly below. But almost all the ratios the scholars calculated were shy of 1 (see chart). This suggested fiddling—it was very unlikely that the government had set the ceilings too high. Safety standards, the authors conclude, have not improved as much as the numbers appear to show.

Yeah, right

Chinese provinces, ratio of reported accidental deaths* to death ceilings set by government

Distribution, 2005-12, %



Source: "The Distortionary Effects of Incentives in Government", by R. Fisman and Y. Wang, 2017

*Traffic and workplace deaths

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The Dutch election

Act "normal" or get out

AMSTERDAM

Geert Wilders, an anti-Muslim populist, is dragging Dutch politics in his direction

"THERE'S something wrong with our country," began an open letter to the Dutch people published last month. It went on to moan about those who "abuse our country's freedom to cause havoc, when they came to our country precisely for that freedom", and warned them to "act normal or leave". The author was not Geert Wilders, leader of the anti-Muslim Freedom Party (PVV), but Mark Rutte, leader of the free-thinking Liberals (VVD) and prime minister of a country that presents itself as one of the most tolerant in the world. "Act normal" (*doe normaal*) is a common injunction in Dutch; it can mean "Don't be obnoxious" or "Don't be silly." But here it had a dark, exclusionary ring.

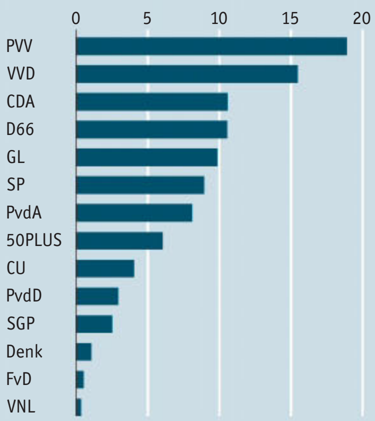
Mr Rutte's letter marked how much Dutch politics has changed as the country prepares for a national election on March 15th. The vote will test the strength of European populism in the era of Brexit and Donald Trump, and will be seen as a portent of the French and German elections later this year. If Mr Wilders comes first, says Cas Mudde, an expert on populism at the University of Georgia, "The media will represent him and his European collaborators as 'the choice of the people'." That would boost France's Marine Le Pen, Germany's Frauke Petry and others of their ilk.

The Netherlands has often been a bit of a bellwether for northern Europe. Its left-wing student rebellion arrived early, in 1966. Wim Kok, a Labour prime minister elected in 1994, propagated Third Way centre-left policies before Tony Blair and Gerhard Schröder did. Anti-Muslim populism took off earlier than elsewhere in Europe, and the country elected a centre-right government in 2002, again foreshadowing Britain and Germany.

In those years the competition for the top spot in Dutch elections was generally between the largest right- and left-wing parties. But today it is Mr Rutte's centre-right Liberals and Mr Wilders's nationalist PVV who are vying for the lead—and for some of the same voters. Mr Rutte's letter was an attempt to woo the working-class white constituents whom the PVV calls "Henk and Ingrid". The letter's underlying theme of moral panic over immigration aped Mr Wilders's speeches.

Geert on top

Netherlands, voting intention in March general election, February 4th 2017, %



Sources: Peilingwijzer; Tom Louwerse

The previous election in 2012 turned on austerity policies and a deep recession. Mr Rutte's government, a grand coalition with the centre-left Labour party, has carried out some important reforms, and the economy is on the upswing. The central bank recently raised its growth forecast for 2017 to 2.3%. Still, the mood is sour. The Dutch enjoy good health care and generous pensions, yet these and immigration are the subjects they most want politicians to address, according to Ipsos, a pollster. The VVD's plan, says one campaigner, is to reassure people that the party will protect both social benefits and modern Dutch values.

The biggest loser from the country's grumpy mood will probably be Labour (PvdA), which (like Germany's Social Democrats and France's Socialists) has lost support on the left by governing in the centre. Polls show it shrinking from 38 seats to 12 in the 150-seat parliament (see chart). A few of its voters have drifted to the PVV, which favours more state benefits as well as fewer immigrants. More have embraced the Greens, the far-left Socialists, or 50 Plus, a pensioners' party. All of these are political outsiders. Established parties, such as the Christian Democrats and the left-liberals of D66, could steal votes from the Liberals' left flank. With more than a dozen parties likely to make it into parliament, such mid-sized actors will be crucial.

The polls put Mr Wilders in the lead by a few percentage points (though the PVV usually underperforms on election day). Yet even if his party becomes the largest, he has almost no chance of leading the country. Most parties have ruled out joining a coalition with him. Meindert Fennema, a political analyst, notes another obstacle: "Wilders, of course, doesn't want to be prime minister." It would damage his outsider brand. His only other brush with power, when he backed Mr Rutte's minority government from 2010 to 2012, ended when he pulled out rather than share blame for unpopular austerity measures.

Yet keeping the election's winner out of government would bode ill for democracy, and substantiate Mr Wilders's accusations that elites are ignoring the will of the people. And the "Wilders effect" on other parties is immense. Few dare mutter a positive word about Europe or refugees. Parties across the spectrum talk about national identity or "progressive patriotism" (a catchphrase that is as empty as it sounds).

This is only exacerbating the Netherlands' problems with integration. A recent report by the Netherlands Institute for Social Research found that four out of ten Dutch citizens of Turkish, Moroccan, Surinamese or Antillean descent do not feel at home in the country. Floris Vermeulen, a political scientist at the University of Amsterdam, thinks gestures such as Mr Rutte's letter will either discourage minorities from voting or drive them towards the new DENK (Think) party, which targets disillusioned Muslims and ethnic minorities.

With so many parties, and 70% of Dutch voters yet to make up their minds, predicting the election's outcome is foolish. Easier to forecast is the direction of the country. Mr Rutte's letter praised such Dutch values as gay rights and the freedom to wear short skirts, and did not explicitly criticise Muslims. But its condemnations of people who decline to shake women's hands, or who "accuse regular Dutch people of being racist", made it clear who was allegedly failing to "act normal". ■

Ukraine's divided east

Put asunder

KIEV AND AVDIIVKA

Reuniting the country may no longer be desirable or possible

FROM her roadside stall in eastern Ukraine, Svetlana Tsymbal watches the cars creep past the Mayorsk checkpoint. This used to be a peaceful provincial highway. Now it is a border crossing at the front line of a conflict that has left some 10,000 people dead. Parents return home "to the other side" after visiting children. Pensioners cross to receive payments on Ukrainian-held territory. Traders lug supplies and sometimes contraband back and forth. The road is lined with mines.

It has been nearly three years since Russian-backed separatists seized chunks of eastern Ukraine's Donetsk and Luhansk regions. The Minsk agreements, signed in February 2015, envision Russia returning control over the border and withdrawing its troops, and Ukraine holding local elections and granting the occupied territories "special status". A stretch of relative quiet in 2016 raised hopes of progress. But in late January, combat erupted around the industrial hub of Avdiivka. The fighting has slowed, but the outbreak showed how intractable the conflict has become. "How can we go back to the way things were?" asks Ms Tsymbal. "Blood has been spilled."

Most Ukrainians say the war in Donbas, as the region is known, is the country's most important issue. Yet they dislike the proposed solutions: fewer than 10% view the Minsk agreements positively. Although the Ukrainian government publicly supports implementing them, in private officials say that doing so could be disastrous. Compromise is politically fraught. Nadia Savchenko, the Ukrainian fighter pilot who returned from Russian captivity to a hero's welcome last year, had her allegiance questioned after meeting with separatist leaders. Some of President Petro Poroshenko's rivals have called for blockading the territories. "This is our September 11th, just stretched out over three years," says Pavlo Malykhin, the head of Avdiivka's civil-military administration.

From the point of view of Ukraine and its backers, the Minsk agreements were imposed at gunpoint. Russian regular forces, equipped with artillery, armour and anti-aircraft support, intervened to rescue the separatist militias in mid-2014 and soon outmatched the Ukrainian Army. "[At one point] I was down to one battalion," says Mr Poroshenko. In 2015, "90% of all negotiations in Minsk were simply about halting fire." Russia got almost everything it wanted: a Russian-controlled autonomous territory with its own militia and administration. Given Ukraine's economic problems, Mr Putin expected it to collapse quickly.

Shotgun divorce

Instead it survived. While still weakened by corruption, Ukraine has stabilised its economy, pushed through some reforms and rebuilt its military. "When I came to power we had no army, a massive budget deficit, a 50% inflation rate and no money," says Mr Poroshenko. "Today I have one of the strongest armies in Europe, with unique experience of fighting a hybrid war against Russia." Ukraine's combat-ready forces total 250,000 men, of whom 60,000 are deployed in the east. In Donbas they have been creeping forward, seizing positions in the "grey zone" occupied by separatists in violation of the agreements.

Yet Russia, too, has been building. It has created a force estimated at 40,000 men in the separatist territories, including, covertly, about 5,000 Russian soldiers. It has rebuilt the local administration, repaired road infrastructure and eliminated some of the unrulier rebel commanders. (One such commander, Mikhail Tolstykh, better known as "Givi", was blown up with a grenade launcher on February 8th.) Mr Putin now hopes to use the Minsk process to incorporate this separatist administration ▸▸

Square peace agreement, round war

into Ukraine. Yulia Mostovaya, the editor of *Zerkalo Nedeli*, an independent weekly, says this would be like implanting a cancerous cell into Ukraine's body. It would give Russia control over a portion of the electorate and could lead to further disintegration of the country. Many in Kiev would prefer to preserve the status quo.

In Avdiivka that status quo has its costs. "Before, we could duck into Donetsk for pizza, we were the centre of the region," says Galina, a shopkeeper at the town market. "Now we're the edge of Ukraine." The city depends on a Soviet-era coking factory (one of the largest in Europe) near the front lines. The factory, part of the oligarch Rinat Akhmetov's sprawling empire, once sat at the heart of a regional supply chain, turning Donbas coal into coke for steel mills. Now dozens of employees live with one foot on either side of the line.

Politically, the town is divided. Many support Russia and its separatist proxies—partly because they watch Russian state TV. In Ukraine's western regions, 79% favour membership of the European Union, while only 3% prefer the Russian-led Customs Union; in eastern regions under Ukrainian control, just 24% prefer the EU and 40% the Customs Union. "We have different values," says Galina.

On the plus side, eastern Ukraine is not split along ethnic, religious or linguistic lines, argues Alex Ryabchyn, a Donetsk native and MP. Relationships remain strong despite the fighting. "The first thing we do when the shelling ends and we come out of the shelters is to call friends and relatives on the other side," says Musa Magomedov, director of the Avdiivka coking factory. An officer in a Ukrainian unit who goes by the nickname "Granite" tells of meeting in the grey zone an old comrade from his days in the Soviet army who is now on the opposite side of the line. "We threw back 100 grams [of liquor] and talked," he says.

Yet in many ways, Donetsk and Luhansk are now more integrated into Russia than Ukraine. Commerce is carried out in roubles. Schools have moved to Russian educational standards. According to RBC, a Russian business newspaper, Russia has begun accepting passports from the unrecognised republics when people buy train and plane tickets. "Donetsk is not coming back," says Sergei Chumak, a technician at the coking factory.

The new American administration has not decided what it wants in Ukraine. Yulia Tymoshenko, a former prime minister who wants to supplant Mr Poroshenko, flew to Washington last week to ingratiate herself with Donald Trump. Some think he may strike a bargain with Mr Putin (see page 18) to push Ukraine to implement the Minsk agreements on Moscow's terms. That, says Ms Mostovaya, "would raise the question of what our soldiers were fighting and dying for all these years." ■

Corruption in Romania

People v pilferers

BUCHAREST

Romania decides that, on reflection, corruption should still be illegal

AFTER just three weeks in power, Romania's new prime minister, Sorin Grindeanu, could look out of his window and see a huge crowd carrying banners reading: "You have succeeded in uniting us." Unfortunately for Mr Grindeanu, they did not mean it in a good way. For over a week, throngs estimated in the hundreds of thousands have turned out to protest against the passage of an emergency ordinance that could sabotage the country's much-praised anti-corruption campaign. Even after the government cancelled the ordinance, the protests have continued.

The emergency decree, which the government passed on January 31st, in effect decriminalised official misconduct resulting in financial damage of less than 200,000 lei ($47,600). The new limit would have spared the leader of the ruling Social Democratic Party (PSD), Liviu Dragnea, who has been charged with abuse of power for granting contracts worth $26,000 to associates who allegedly performed no work.

Within an hour of the measure's adoption, more than 10,000 protesters were on the streets. The next night an estimated 250,000 gathered in more than 50 cities and towns across the country. The president and vice-president of the European Commission, Jean-Claude Juncker and Frans Timmermans, released a statement saying the fight against corruption "needs to be advanced, not undone". The demonstrations peaked at over 500,000 people last Sunday, even though the government had rescinded the emergency ordinance earlier that day. Protesters wanted to ensure the government did not backslide.

The issue of corruption has dominated Romanian politics for years. The previous elected government was brought down by protests in November 2015, after graft among fire-safety inspectors led to a Bucharest nightclub blaze that killed 64 people. The country sits 57th on the corruption-perceptions index of Transparency International, a watchdog. Despite years of anti-corruption efforts, many analysts believe little has changed. "I don't think Romania has made significant progress against corruption," says Alina Mungiu-Pippidi, a Romanian corruption expert.

Good-government advocates have found a champion in Laura Codruta Kovesi, the combative chief prosecutor of the National Anti-Corruption Directorate (DNA). The DNA has convicted thousands of people of graft, including many high-ranking officials. In 2015 it indicted Romania's then-sitting prime minister, Victor Ponta; the case against him continues. It has become one of the most trusted institutions in the country, behind only the church, the army and the gendarmerie. Among the placards at the protests were many that read "Hands off DNA".

Romanians had braced themselves for opposition to the anti-corruption campaign after the PSD resoundingly won last December's elections. It took 45% of the vote; its closest rival, the National Liberal Party, won just 20%. The party's leader, Mr Dragnea, was blocked from becoming prime minister because of an earlier conviction for election fraud, for which he carries a suspended sentence. If convicted of abuse of power, he would face jail.

The government has blamed the protests on poor communications, scheming by the country's president, Klaus Iohannis (who is a Liberal), and even professional agitators. A month after Mr Grindeanu's swearing-in, there is already speculation that he may resign. Florin Iordache, the justice minister, is unlikely to survive for long.

The long-term impact of the protests is uncertain. Many of those who marched last week had helped bring down the government in 2015, only to watch some of the same faces return to power. Other proposals to lighten or shorten sentences remain under discussion. The government insists they are aimed at relieving overcrowded prisons, but many Romanians think they are excuses to let corrupt officials go free.

One of the protesters in Bucharest, Paul Morosanu, a psychologist, carried a placard that read "89 Reloaded", referring to the protests that brought down Romania's communist regime. He was on the streets not to roll back one new law, he said, but to overthrow an entire political constellation that has been developing for 27 years. "Before, we didn't have a face for what we were fighting," Mr Morosanu said. "This law gave it a face." ■

Charlemagne | Surplus war

Germany's current-account surplus is a problem, but not for the reasons Donald Trump thinks

WHAT awkward timing. On February 9th Germany reported the world's largest current-account surplus, of about €270bn (almost $300bn), beating even China's. Meanwhile, the country with the world's biggest deficit remains America, which under its new president, Donald Trump, is browbeating friend and foe alike in the name of putting "America first". Mr Trump's economic adviser, Peter Navarro, has even accused Germany of currency manipulation. By his logic, Germany "exploits" America and others because it uses the euro, which is weaker today than the old Deutschmark would be, making German cars, machines and other exports more competitive.

Coming just weeks after Mr Trump casually threatened to slap a 35% tariff on imported BMWs, such talk has Germans' full attention. His verbal assaults on the rules-based trading order, along with his disdain for NATO and the European Union, strike at the heart of post-war Germany's identity and national interest, which is to be embedded in Europe and the West as a peaceful mercantile nation. But if Mr Trump thinks the angst he is causing gives him bargaining power over Germany, he is naive.

His administration's mistake is to attack Germany with flawed logic. Yes, the euro is weak relative to the dollar. But so are other currencies. Germans think Mr Trump has only himself to blame. He has promised huge tax cuts and increases in infrastructure spending, which will drive up interest rates in America, boosting the dollar. Mr Navarro's suggestion that Germany deliberately attempts to weaken the euro makes no sense. The European Central Bank (ECB) may be based in Frankfurt. But its president, Mario Draghi, is keeping interest rates near zero and buying bonds (in the European version of "quantitative easing") primarily to stimulate economies outside Germany.

Indeed, German economists and pundits are Mr Draghi's most vocal critics. They have complained for years that low interest rates rob German savers and ruin German life insurers. If the government shows restraint in criticising Mr Draghi, that is thanks to another German tradition: respect for the independence of central bankers. When Mr Draghi began loosening monetary policy, "I told him he would drive up Germany's export surplus," Wolfgang Schäuble, Germany's finance minister, told *Tagesspiegel*, a German newspaper. "I promised then not to criticise this course publicly. But I do not then want to be criticised for the consequences of this policy."

By choosing the wrong line of reasoning, Mr Trump has unwittingly let the Germans off the hook in a more fundamental debate. After all, Germany's trade surpluses have been controversial for years. Long before Mr Trump ran for office, the European Commission in Brussels, the International Monetary Fund in Washington, America's treasury department and the OECD, a club of mostly rich countries, were already berating Germany for causing imbalances in the European and global economies.

The real German problem

Their analysis starts more than a decade ago, when German employers and unions agreed to restrain wage growth. Workers weren't thrilled, but everyone agreed that Germany was not competitive enough. This amounted to a devaluation of Germany within the euro zone. The best way out of today's imbalances, economists say, is not to keep cutting wages in down-and-out countries like Greece, but to let them rise in Germany. Wages have been going up—by 2.3% last year—but should grow faster.

The other factor is that Germans, in an ageing society, have for years been saving much more than they invest. Individuals are filling piggy banks for their retirement. And firms, expecting lower returns from older, smaller populations in the future, are investing abroad instead of at home. At the same time, the government, also citing demography, in 2011 adopted a "debt brake", limiting its new borrowing at just the moment when ultra-low interest rates would make debt service almost free. The resulting excess savings are capital that Germany sends abroad. They are the corollary of Germany's current-account surpluses.

There is a case that Germany invests too little. Marcel Fratzscher, an economist, estimates this "investment gap" at €100bn annually. Many in the centre-left Social Democratic party (SPD) agree with him. They include Martin Schulz, the SPD's freshly chosen candidate for chancellor in the election scheduled for September 24th. He has jolted his party in the polls. The SPD is now roughly even with the centre-right bloc of Angela Merkel. Should Mr Schulz win, government spending could rise.

Other German economists, such as Clemens Fuest, doubt that the gap is big. In the 1990s, after reunification, investment soared as eastern Germany got new roads, buildings and plants. Eventually that exceptional spending had to end, says Mr Fuest, and recently Germany's investment ratio has been stable. In 2015 it was 19.9%, a bit higher than the EU average. Boosting investment is a good idea, he thinks, but no realistic increase could reverse a current-account surplus that amounts to 9% of GDP.

If Germany really wanted to attack its surpluses, it would have to do something drastic, he thinks, such as lowering value-added tax (making goods cheaper, domestic or foreign) while raising payroll taxes (making only German labour dearer). But that is a non-starter politically. Another option is for the government to stop saving and start deficit-spending. But that too is anathema in the Berlin consensus. As the German campaign heats up, all sides are instead likely to praise the surplus as a sign of export prowess. Sigmar Gabriel, the foreign minister and a leading Social Democrat, gave a taste of this defiance when he responded to Mr Trump's tariff threat by taunting America to "make better cars". One day, when enough elderly Germans actually cash in their savings, German surpluses will turn to deficits. Until then, Germany's policy stand-off with the world will continue. ■

The Economist

SPECIAL REPORT

MASS ENTERTAINMENT

February 11th 2017

Winner takes all

Winner takes all

Technology has given billions of people access to a vast range of entertainment. Gady Epstein explains why they still go mostly for the big hits

ONE OF THE axioms of technological progress is that it democratises entertainment, distributing delights to the masses that were once reserved for the elites. More high-quality entertainment is available to more people on the planet than ever before. At the same time individuals across the globe can find an audience much more easily than was previously possible. The ability to access whatever entertainment people want digitally and on demand has transformed diversions in societies both rich and poor, changing the lives of billions.

Even more remarkably, mass entertainment today can be tailor-made, not one-size-fits-all. There is something for everyone and at any time that suits. At the beginning of the day in New York the dreary subway ride to work is filled with music. In Tokyo the journey home from the office is a time to devour manga on a mobile phone. In the evening in a rustbelt city outside Beijing, workers who cannot afford a night out may tune into broadcasts live-streamed by their fellow citizens. Billions of people can choose from a large range of mobile games at any time.

In his book "The Long Tail", published in 2006, Chris Anderson, a technology writer who used to work for this newspaper, observed that the internet has opened up potential markets for any niche product, no matter how quirky. A decade on, any star on YouTube can attest to that. From a child unboxing toys to the delight of toddlers around the world to a puckish Swedish gamer with millions of teenage fans, running one's own virtual TV channel online can be worth tens of millions of dollars to a lucky few.

And yet as a business, entertainment has in some ways become less democratic, not more. Technology is making the rich richer, skewing people's consumption of entertainment towards the biggest hits and the most powerful platforms. This world is dominated by an oligarchy of giants, including Facebook, Google, Amazon, Netflix and Disney (as well as Alibaba and Tencent within China's walled ecosystem). Those lacking sufficient scale barely get noticed. Paradoxically, enabling every individ- ▸▸

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ual and product on the planet to find a market has made it next to impossible for the market to find them. Consumers generally favour whatever they find on their mobile screens or at the top of their search results. The tail is indeed long, but it is very skinny.

Being able to produce a blockbuster hit has become even more valuable than it used to be. It turns out that everyone wants hits—the more familiar the better, says Derek Thompson, author of a book entitled "Hit Makers". Despite the availability of entertainment specially tailored for each individual, people still crave experiences they can share with others. What they want most is what everyone else wants.

The same technological tools that have atomised entertainment have also made it easier to aggregate audiences. Rankings of the most popular downloads or streams are self-reinforcing. Recommendation algorithms steer people to what others like them have also watched or listened to. The social-media impact of the biggest hit in any genre is dramatically greater than that of any lesser hit, thanks to network effects. It seems clear now that the future of mass entertainment is not "selling less of more", as Mr Anderson put it, but selling a lot more of less.

The film business illustrates the point. Of the thousands of films released worldwide in 2016 (including well over 700 in America alone), the top five performers at the box office were all made by Disney. The 13 films the company released last year, plus remaining business from "Star Wars: The Force Awakens", accounted for one-fifth of total film revenue worldwide. Disney has focused on big-event films with iconic characters and storylines that have global appeal (and that fuel its unparalleled businesses in consumer-product licensing and theme parks). Only a few years ago the big studios would typically aim for 20-25 films apiece to provide a margin for error. Some still do, but Disney's more focused approach, investing almost exclusively in blockbusters, is paying off with a much higher rate of return.

When Bob Iger took over as CEO in 2005, he felt sure that, in an era of proliferating content, big brands would become more valuable—the bigger the better. The company went on to spend $15.5bn to amass an arsenal of content brands that became the envy of the media world: Pixar Animation Studios, Marvel Entertainment and, in 2012, Lucasfilm, maker of "Star Wars". "We saw in each one of those a brand that would matter in a new world order," says Mr Iger.

The blockbuster effect has been even more striking on the digital platforms that were supposed to demonstrate the benefits of the long tail. On iTunes or Amazon, the marginal cost of "stocking" another item is essentially zero, so supply has grown. But the rewards of this model have become increasingly skewed towards the hits. Anita Elberse, of the Harvard Business School, working with data from Nielsen, notes that in 2007, 91% of the 3.9m different music tracks sold in America notched up fewer than 100 sales, and 24% only one each. Just 36 best-selling tracks accounted for 7% of all sales. By last year the tail had become yet longer but even thinner: of 8.7m different tracks that sold at least one copy, 96% sold fewer than 100 copies and 40%—3.5m songs—were purchased just once. And that does not include the many songs on offer that have never sold a single copy. Spotify said in 2013 that of its 20m-strong song catalogue at the time, 80% had been played—in other words, the remaining 4m songs had generated no interest at all.

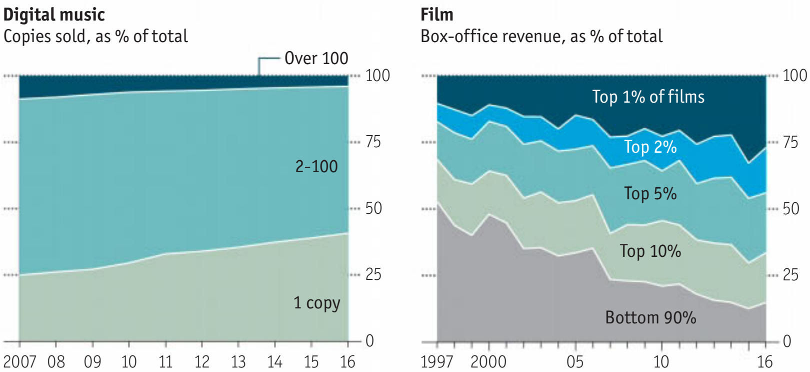
There is almost no limit on the supply of entertainment choices, but people's awareness of them is constrained by the time and attention they can spare

Music-streaming services have not been around for long enough to allow a definitive assessment of their market impact, but as they attract more casual music fans (as opposed to deeply knowledgeable nerds), the hits can be expected to benefit. In 2015 the top 1,000 songs were streamed 57bn times in America, accounting for 18.8% of the total volume of streams, according to BuzzAngle Music; last year the top 1,000 songs accounted for 92bn streams, or 23% of the total.

The economics of blockbuster films, which are shown in cinemas, might seem different from those of blockbuster music and TV streaming, but in the digital age they and other entertainment products have much in common. There is almost no limit to the supply of entertainment choices in every category, but people's awareness of these products and their ability to find them is constrained by the time and attention they can spare. Overwhelmed by the abundance of choice, they will generally buy what they are most aware of. The algorithms used to make recommendations, offered by many sites, reinforce this trend: they push consumers to what is popular rather than send them off to explore obscure parts of the tail. This helps explain why Netflix, which specialises in supplying film and video on demand, has repeatedly bet big on event television, from its hit "The House of Cards" to the lavish production of "The Crown", about Britain's royal family. It has also spent hundreds of millions of dollars to secure the rights to Disney films. It still views itself as a long-tail company, but although it spends billions of dollars to serve lots of different market niches, especially geographical ones, subscribers generally make a beeline for the top 50 or so.

At the same time a lot of entertainment has been commoditised as the barriers to production and distribution have come down. An item further down the long tail may rarely be chosen, but is not "scarce" in the sense that it can command a premium; on the contrary, a relatively obscure item is worth very little. One reason is that the internet leads consumers to expect most things to be free, especially content without a brand name. Second,

The blockbuster effect



Sources: Nielsen; Box Office Mojo

consumers believe (rightly) that there is not much difference between most of the obscure items on offer. And third, they reckon (also usually correctly) that those items have cost hardly anything to produce, so they are almost worthless. Conversely, consumers will pay a premium for famous brand names.

This is partly to do with the way search engines and social platforms work. Facebook, YouTube and Snapchat readily deliver huge amounts of entertainment free. At the same time they offer individual performers, artists and writers a greatly increased chance of finding some sort of audience, be it next door or halfway across the world. On average, 60% of the viewers of an individual creator's YouTube channel live outside the country where the artist is based. This may be a fairer way of achieving stardom than in the pre-internet era, when traditional media companies picked winners and pushed them to the public via narrow distribution channels. Likewise, the 710m people online in China have discovered another independent path to fame, which is likely to spread to other parts of the world. Live-streaming has helped millions of Chinese internet users, many of them in rural villages or dreary industrial towns, personalise mass entertainment for each other. In such ways, with lower barriers to finding an audience (whether of one or many), millions of people around the world are using the internet as a lottery ticket to stardom. It is still a very long shot, but in theory the opportunity is now available to everyone.

That translates into more entertainment of all kinds being produced and consumed than ever before. On the whole, though, the rewards of the digital economy accrue mostly to the big platforms and media companies. Eric Schmidt, the executive chairman of Alphabet, Google's parent, has said that his company's thinking has been greatly influenced by the long tail; but he has also acknowledged that most of the money is to be made in the head.

The enduring dominance of the blockbuster has implications for the way consumers will be entertained for decades to come. Global competition for their attention, and their wallets, will bring about more mega-mergers like the one proposed between AT&T, a telecoms and pay-TV firm, and Time Warner, one of Hollywood's greatest content creators. The $109bn offer indicated that AT&T felt the need to own great content to differentiate itself in the market. Likewise, it hinted at an uncertain future for content companies that cannot make sure they have an audience. For now, the competition among studios and video programmers is delivering more high-quality television for everyone than ever before, but it is also stoking fears of a collapse to come. This report will examine the proposition that the world

If you liked that, you will love this

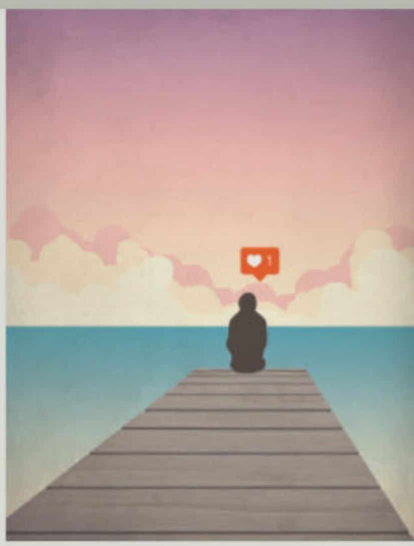
Recommendation algorithms should balance the familiar with the new

AT LAST YEAR'S consumer-electronics show in Las Vegas, Reed Hastings, the CEO of Netflix, set out an ambitious goal for serving his customers: "One day we hope to get so good at suggestions that we're able to show you exactly the right film or TV show for your mood when you turn on Netflix."

But what is exactly the right show? Mr Hastings's company has been a pioneer in the science of recommendation algorithms, dating back to its days as a humble DVD-by-mail company. Netflix's thinly sliced classifications of films and TV shows, and its equally finely graded assessments of customers' viewing preferences, established the standard for product suggestions.

Still, algorithms take some of the adventure and serendipity out of hunting for new entertainment, and rarely nudge a customer towards anything way off his radar. This is a challenge for independent producers of music, literature or film, who already find it extremely difficult to get noticed amidst so much choice. Recommendation software can make the problem worse.

Suggestion algorithms can exploit what customers are known to like by pushing similar fare, or they can encourage them to explore things they might be less familiar with. Typical algorithms tend to exploit known preferences more than encourage exploration. When a customer buys a book, for instance, Amazon will recommend books



on similar subjects that previous shoppers have also bought. Netflix will suggest a show based on the choices of other people with similar viewing histories.

Some recommendations are fairly crude, as when an online store repeatedly offers more of something the consumer has already bought and is unlikely to want more of, like an umbrella. Others are more adventurous, encouraging the customer to try something new. But if they go too far, they risk putting him off. "It's more predictable to use similar recommendations over and over to get the engagement," says Robert Kyncl, chief business officer of YouTube. "But the pay-off is much greater when you introduce something that is a bit of an odd choice and it works."

Spotify, a music-streaming service, offers a different model with its Discover Weekly playlist, which it produces for more than 100m customers. It analyses billions of users' playlists to find songs that others with similar interests have liked. These tracks are combined into a playlist of 30 songs (perhaps including some familiar as well as new ones) delivered each Monday.

The company says the service is used by tens of millions of listeners and gives a significant boost to thousands of performers each week. By limiting the list to a couple of hours-worth of listening, and by setting an expiration date each week, Spotify creates a sense of scarcity to keep listeners engaged.

Music lends itself well to this treatment. Streaming services have catalogues of around 30m songs each, compared with mere thousands of film and TV titles. And songs, unlike films, are short enough for a poor recommendation not to matter much. Spotify's experience shows that algorithms can occasionally nudge people away from hits and expand their horizons.

Stay tuned. If you liked this article, read the next one.

may be getting close to peak TV.

The best time to gain (or lose) audience—and to challenge the dominance of an established platform—is when technology makes a leap. That is why media, gaming and tech companies are investing billions in virtual reality and augmented reality. Such technologies can change the way that people experience storytelling and persuade them to suspend disbelief. James Cameron showed with his superb 3D imagery in “Avatar” how a leap in visual technology can create an outsized blockbuster. Now Disney is racing with other studios and tech giants to come up with the next leap, alternative realities. This report will argue that the most promising of these technologies are still far from ready, though many people will take to lesser, cheaper forms of them, such as those they can experience on their smartphones.

I was there

Between the avalanche of digital entertainment and the still-distant promise of alternative realities, there is still a huge market for experiencing something real in person. The few hits that have captured the public imagination command a hefty premium. From “Hamilton” on Broadway to the mixed-martial arts combatants in the Ultimate Fighting Championship, people will pay thousands of dollars for the privilege of being there, even though they can experience the same thing or at least hear the same songs in digital form for a small fraction of the price.

For the majority who must consume entertainment remotely, most of the battles are still about screens, be they the size of a smartphone or half a wall, and about minutes of attention within particular apps. But although consumers seem to have a dizzying array of choices, most of them do not take full advantage of them. What they pick is increasingly determined by the algorithms driving this competition (see box, previous page), and those algorithms mostly send them straight to what everyone else is consuming. Blockbusters are the safe bet. ■

TV and video

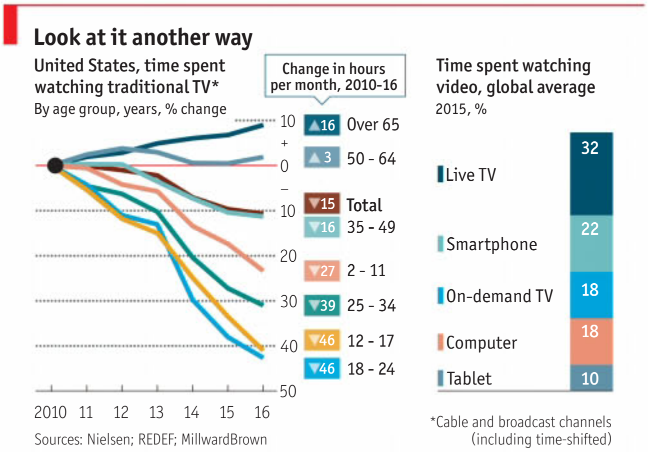
A slow-motion revolution

Traditional TV is too lucrative to ditch just yet

WHEN CHARLIE BROOKER, the creator of “Black Mirror”, a television series about the social impact of new technology, goes away for the weekend with his family, his young son occasionally encounters something perhaps too barbaric even for his father’s dystopian show: an old-fashioned TV set with channels and a fixed schedule of programmes. Instead of being able to watch whatever he wants at any time, he has to wait until a certain hour on a certain day on a certain channel. “It just strikes him as terrifyingly antiquated,” says Mr Brooker.

That kind of television will eventually be consigned to oblivion. People will be able to pick any show at any time from just a few favourite platforms, like Netflix (where “Black Mirror” resides) or Amazon, as well as Facebook and Snapchat for videos shared by friends and celebrities. Everything from Fox, say, will be on one channel instead of many. And Mr Brooker junior will easily be able to search an army of brands: a Lego channel, a Harry Potter channel, a “Star Wars” channel.

That moment may be drawing nearer, but there are still plenty of obstacles in the way. The internet has already changed what viewers watch, what kind of video programming is produced for them and how they watch it, and it is beginning to disrupt the television schedules of hundreds of channels, too. But all this is happening in slow motion, because over the past few decades television has developed one of the most lucrative business models in entertainment history, and both distributors and networks have a deeply vested interest in retaining it.



Existential threats

Pay and broadcast television, still the foundation of video entertainment at home in much of the world, is being eroded from two sides. At one end, people are watching videos free on large social platforms like Facebook, Instagram (which is owned by Facebook), YouTube and Snapchat. Each of these platforms now claims billions of views a day. Free videos are supported by advertising, which will begin to eat into the TV advertising market, currently worth $185bn. Many of these videos may be disposable (literally so in the case of Snapchat, where stories usually disappear after 24 hours), but social platforms like Facebook have excellent information on who is watching and for how long, enabling them to sell highly targeted advertising. Facebook, YouTube and Snapchat also have the scale needed to keep users on their platforms for long periods at a time. On average, Facebook users spend nearly an hour a day using Facebook itself, Instagram and Messenger, in addition to the time they spend on WhatsApp.

At the other end, people are consuming premium-quality video on subscription services such as Netflix, Amazon and Hulu in America and on many other streaming services around the world. Netflix’s 94m subscribers watch the service for nearly two hours a day, and rising. Netflix and Amazon are amassing big user bases by charging a low subscription—$8 to $12 a month—and investing heavily in ad-free content. That spending spree is driving up the cost of producing quality television for everyone else. Thus internet economics is gradually strangling a well-established business model: cable TV.

The shift from broadcast to cable television in the late 20th century was something of a long-tail event. Media companies delivered a large package of channels that contained something for everyone, initially at a reasonable price. The total audience for television kept growing as customers were offered more channels to choose from, and the distributors and makers of video content reaped rewards from subscriptions and advertising. The number of channels proliferated as media companies discovered that serving niche audiences could generate big revenues: Fox News, created in 1996, contributes more profit than any other asset in Rupert Murdoch's empire, much as ESPN, an all-sports network, remains the most lucrative part of Disney (and the most profitable channel of them all).

Yet as media companies kept adding channels, pay TV stopped being a good deal for viewers. Back in 1995 Americans had an average of only 41 channels to choose from, and watched ten of them a week. By 2008 cable subscribers had an average of 129 channels to choose from and watched 17.3 of them a week, according to Nielsen, a market-research company. Five years later they had access to 189 channels but were still watching only 17.5 of them each week, almost the same as before. There is a limit to how much of the tail consumers can eat.

At the same time they are paying much more for having so many options, and schedules are inflexible. In America the typical pay-TV bill has nearly doubled in a decade, to more than $100 a month, according to Leichtman Research Group, whereas disposable incomes have mostly remained flat. That created an opportunity for internet video providers. Netflix could give viewers a lot of programmes in one place, to watch whenever they wanted, for less than $10 a month. And social networks were offering video on demand free.

So regular TV watching is in decline. In America, the most developed market, viewing of broadcast and cable TV by all age groups fell by 11% in the six years to the autumn of 2016, to slightly more than four hours per day, according to Nielsen data compiled by Redef, a media newsletter. Over the same period viewing by those aged 12-24 dropped by a staggering 40%. Market penetration of pay TV in America has slipped from nearly 90% in 2010 to just over 80% as people abandon cable altogether (cord-cutters), switch to less expensive packages (cord-shavers) or never sign up for pay-TV bundles in the first place (cord-nevers).

Cord-cutting is only beginning in America, and as yet plays no part in less developed markets, where both penetration and prices are much lower. But if it goes on, it will be devastating to the content companies, which have been enjoying gross profit margins on cable of 30-60%.

Somewhat ironically, these trends help explain why TV is now the best it has ever been. In the new age of premium television, networks and streaming services are competing for subscribers. Television used to rely on broad formulaic programming in its quest for advertising dollars, but that began to change in the 1990s when HBO, a premium cable channel without advertising, began offering high-quality programmes in order to win subscribers. Cable channels like FX (owned by Fox) followed, building passionate fan bases for great shows to justify higher cable fees and to keep subscribers on board.

You've never had it so good

Streaming services have now sharpened the competition for viewers' attention. Netflix, Amazon and Hulu between them will spend well over $10bn on television content this year. HBO has responded by raising its budget to over $2bn a year. This contest has given viewers "Game of Thrones" and "Westworld" on HBO and "The Crown" on Netflix—shows that cost $10m or more an episode to make, three or four times as much as the television dramas of old. It has also caused Netflix to pay tens of millions of dollars for a third season of Mr Brooker's show, "Black Mirror", prising it away from Britain's Channel 4.

Not everyone will be a winner. Last year more than 450 scripted original shows were available on American television, more than twice as many as six years earlier. This year there may be 500, signalling the approach of what John Landgraf of FX calls "Peak TV", the point at which there is more television than the media economy can sustain. In its study of the future of video, Redef noted that programming executives are cancelling far more scripted shows than they used to.

Traditional media companies are trying to defend the pay-TV system that made them rich. Hulu—co-owned by Disney, Fox, Comcast and Time Warner—and AT&T, a pay-TV and telecommunications giant, are among those offering a cheaper version of pay-TV—a "skinny bundle"—streamed over the internet. AT&T made an even bolder, if riskier, move last autumn by bidding for Time Warner. If approved by regulators, the $109bn acquisition would give AT&T vertical integration to protect it if and when the current pay-TV system crumbles.

But that day of reckoning is still some way off. The last remaining stronghold of the pay-TV oligopoly is live programming, especially sports, which traditional networks do very well. Sports events are among the few remaining true "mass" experiences; the entire audience watches the same thing at the same time, which big advertisers find irresistible. At a "sports summit" in December hosted by MoffettNathanson, a research firm, Nielsen produced a chart showing just how much sport has come to dominate traditional TV. Sports programmes accounted for 93 of the 100 most viewed broadcasts in 2015, compared with only 14 ten years earlier.

Advertising rates in general have been flat or declining in most of the industry, but spending on ads for sports has risen rapidly, by 50% in the decade to 2015, according to Nielsen and MoffettNathanson. This remains true even as the number of viewers has begun to decline because programmes that can attract large audiences are so scarce. Live sports are also an important selling point for pay-TV customers, allowing sports channels to charge cable and satellite distributors more for carrying their networks.

ESPN, owned by Disney, has about 90m subscribers and enjoys fee revenues of nearly $8bn a year, making it by far the highest-grossing cable channel anywhere.

The cost of sports rights too has been rising dramatically around the world as sports leagues exploit the traditional TV system's desperate need for them. In America the annual fees that ESPN and three of the four big broadcast networks are paying for the rights to broadcast the National Football League to early next decade have nearly doubled in ten years, to an average of about $5.5bn a year. ESPN and TNT, owned by Time Warner, are paying a combined $24bn for the rights to broadcast National Basketball Association (NBA) games over nine years, almost three times as much as they were paying under their previous deal.

Investors are asking how long this can go on. ESPN has lost millions of subscribers in recent years, but says that the network's value will continue to grow (Disney does not report ESPN's profits separately). The escalating fees charged for sports channels will put more pay-TV customers off.

Viewers will also turn to other options, especially on mobile phones and tablets, for which the streaming rights are sold separately. Telecommunications companies around the world are likely to offer increasingly large fees to stream sports over their data networks. Streaming of live sports will become more common, though initially on a limited scale; the technology for concurrent streaming of a big sporting event to tens of millions of fans is still some way off.

More importantly, the existing business model remains too lucrative to abandon so soon. But eventually fans may find themselves watching sports on screens in a completely different way: in alternative realities. ■

Alternative realities

Up close and personal

But you still have to wear the headgear

A PARIS CAFE basement, 1896. The Lumière brothers screen their 50-second film, known as "Train Pulling into a Station", to an audience said to have been taken aback at the sight of a train moving towards them as if it might jump off the screen. That was the beginning of movie magic. But what if the train could jump off the screen?

San Francisco, the Presidio, 2016. Vicki Dobbs Beck, who runs Lucasfilm's ILMXLAB, and John Gaeta, who was responsible for the stunning slow-motion visual effects of "The Matrix", are showing off the future of "mixed reality" in the cinema. The most exciting possibilities are still on the whiteboards of the mind. Imagine a horror film in which, at a crucial moment, a creature leaps from the screen into the audience. This is not yet possible, and even once it is, spectators will still have to wear special glasses to experience the effect.

The problem with the technology of alternative realities—virtual and augmented—is that their science-fiction versions have been too impressive. Popular culture has fostered fantasies of being able to move through, see, touch and interact with a manufactured world that seems real: a theme park populated with artificially intelligent physical beings in "Westworld"; the holodeck in "Star Trek"; a seductive consciousness with the sultry voice of Scarlett Johansson in "Her".

In the physical world, alternative realities will one day allow humans to live out their hopes, dreams and fears from their living room. That is why billions of dollars are being invested in such technologies. But what is currently available is much clunkier, if plenty of fun. Virtual reality (VR) is still experienced in relative physical isolation. People can explore the depths of the ocean, as with Sony's PlayStation VR. They can play virtual table tennis with someone not physically present, as with Oculus Rift's "Toybox". They can immerse themselves in a first-person shooter game on almost any VR platform. They can watch television dramas play out in their 360-degree world, with the cast moving behind and around them, as filmed by Jaunt Studios in California. They may even feel singed by the spray of molten lava as they duel Darth Vader with a light sabre.

But to do these things they have to put on a headset and disconnect from each other in the physical world. That limitation will inevitably slow the pace of adoption. Samsung, makers of a headset called Gear VR, designed for mass-market use, tried to deal with this head-on in a recent advertising campaign. It depicted a family taking turns trying on a Gear headset, with the grandfather telling the grandmother: "You've got to try this!"

Many in the alternative-realities business are more excited about augmented reality. With this technology, people put on glasses to look at images projected into the real world which they can still see around them. Microsoft has a version of this in HoloLens. Magic Leap, a secretive company in Florida that has raised more than $1bn from investors including Google, has dropped tantalising hints about the realities it can create. It is co-operating with Disney—via ILMXLAB—to create "Star Wars" experiences for fans, but that work is still strictly under wraps.

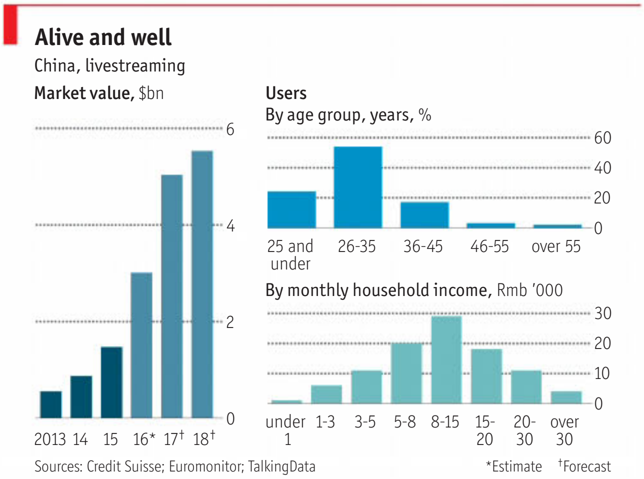
Keep it simple

To be widely accepted, technologies will have to fit into people's lives without much friction. Consumers latch onto things because they are affordable and easy to adopt, and because everyone else has got into them too. They do not have to be particularly high-tech. Google Glass was a high-end augmented-reality product but proved a bit too nerdy for the masses. Snap's much cheaper Spectacles, which like Glass can record video from the wearer's vantage point, will probably prove more popular with Snapchat's young users. Pokémon Go, the mobile game that became an immediate hit last year, simply puts Pokémon characters in the field of vision of players' smartphones. ▸▸

Any VR kit that sells well in the next year or two is likely to be a low-end version that pairs with a smartphone.

The more advanced alternative realities of the gaming world will come next. Your correspondent recently donned a "Synesthesia Suit", developed in Japan, that stimulates the wearer with physical sensations, like little buzzes and vibrations as he plays a VR game. "Haptic technology" is another coming thing, though still more exciting in concept than in practice. The most obvious customers and evangelists for such advances in VR are serious gamers, partly because they are geeks and want to be in on the latest cool thing, and partly because they have an appetite for the pricey hardware—PCs and gaming consoles—needed for superior VR experiences. The most popular gaming format, first-person shooter games, lends itself naturally to VR; it is fun to be able to duck incoming fire, swivel and blast away at a baddie.

Most important, though, gamers in a way already inhabit alternative realities, playing in vividly imagined worlds with almost cinematic graphics. VR is a natural step towards making those games feel even more real. Getting there will not be altogether straightforward even for serious gamers: first-rate VR can give users motion sickness. And the cost is still offputting; the Sony PlayStation VR will set you back $399 for the headset and another few hundred dollars for a console. Your reward may be a terrific fright. "Resident Evil 7: Biohazard", released for Sony PlayStation VR in January, is full of monsters coming at you—far scarier than a train jumping off the screen. ■



China

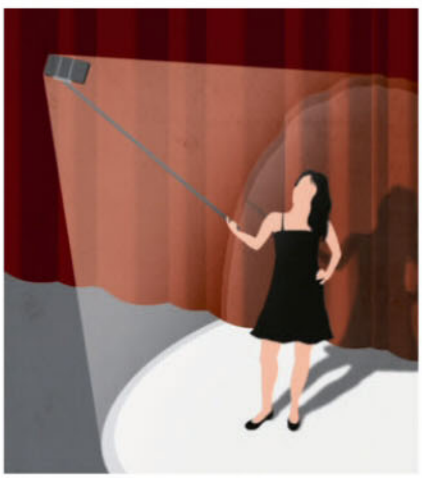
Life is but a stream

A new way of bringing colour to dreary lives

LAST YEAR ZHAO XINLONG, aged 25, and his wife and baby boy moved from his parents' farm into a mid-rise apartment in town. It has been a tough adjustment. Luan County is a rustbelt community on the polluted outskirts of the steel city of Tangshan in north-east China. Mr Zhao's monthly income from driving a taxi has plummeted by more than half in the past couple of years, and he has not found it easy to make friends in his new abode.

But when he gets online in the evening, he becomes a different person: Zhao Long'er, an entertainer. Using Kuaishou, a Chinese video-sharing and live-streaming app, he broadcasts to a live audience of hundreds, sometimes thousands, of fellow Chinese every night. Taken together, they add up to more than 100,000. Many of them are *diaosi*, people who mockingly identify themselves as losers in dead-end jobs. Online he can relate to them, telling them stories, dirty jokes, whatever is on his mind.

Occasionally advertisers pay him small sums to put commercials out over his stream, including things like weight-loss products and "gold" jewellery from Vietnam. Most of his followers are also from north-east China. They chat with him online and sometimes give him digital stickers representing things like a beer that fans buy online and can be converted into cash. The individual amounts are usually small, but they add up. Live-streaming his life earns Mr Zhao about $850 a month, twice as much as his day job.



Twinkle, twinkle, little stars

The internet has amplified people's interest in the world's biggest stars, helping their fans feel a little closer to them, thanks to social media. But it has also made it possible for anybody to become a little star in their own corner of the universe, connecting intimately with subsets of fans. In much of the rest of the world the most popular of these are teen idols on YouTube, Instagram and Snapchat. Most people over 25 would struggle to name a YouTube star other than possibly PewDiePie, a Swedish gamer with a global following of more than 50m.

China's craze for personal live-streaming runs far deeper, into third-tier cities and remote rural areas where the internet is the one and only fun and cheap place to hang out. These personal broadcasts are not simply videos that fans watch, but more interactive experiences. The fans make requests, chat with their idols and give them virtual gifts. Many of those watching are small-time live-streamers themselves. They are turning each other into mass entertainment.

It is a big and growing business. China's live-streaming industry more than doubled in size last year, with revenues of around $3bn, according to Credit Suisse, a bank. More than 100 companies now offer the service, providing the platform for performers in exchange for a hefty cut of their earnings (one, YY, is publicly listed on NASDAQ, with $269m in gross revenues from live-streaming in the third quarter of last year, a year-on-year rise of more than 50%). That compares with box-office receipts for the Chinese film business, the world's second-largest, of $7bn last year. Of the 710m people with internet connections in China, nearly half have used live-streaming apps.

Many in the audience are *diaosi* looking for free entertainment and sometimes a substitute for romance. Women outnumber men as live-streamers, but most of the audiences are male. The government has imposed guidelines aimed mostly at the seamier side of the business, like the erotic eating of bananas (now banned). The most successful live-streamers tend to be attractive young singers of either sex, who can sometimes muster millions of fans. The most popular of them earn more than $1m a year, almost all of it from virtual gifts, but most of them are lucky to see a few hundred dollars a month, broadcasting anything from eating meals to visual pranks to warbling tunes requested by fans. Mr Zhao laments that to boost his earnings, he has to tell more dirty jokes.

Live-streaming emerged in China after the financial crisis of 2007-08, as internet companies with questionable business models looked for a way to survive. Six Rooms, or 6.cn, may have been the first to offer live-streaming as a service for a mass audience. It was one of numerous YouTube-like video-sharing businesses (YouTube itself is blocked in China) burning money in 2008 and failed to secure a new round of funding. In desperation its CEO and co-founder, Liu Yan, turned to live-streaming.

In 2007 Mercedes-Benz, a carmaker, had paid 300,000 yuan ($39,000) to his site to live-stream an event, and his company had developed an inexpensive way to provide such a service on a wider scale to allow people to chat with each other and exchange virtual gifts. That helped make personal broadcasting a social game which could be monetised in a way not replicated on major social platforms of the West. In China, as well as in South Korea and Japan, where live-streaming has also caught on, virtual items have long had an underlying monetary value.

Now that the business model has been proven, all the Chinese internet giants have entered the live-streaming business. Pioneers like YY and Six Rooms must compete with bigger social platforms like Tencent. Six Rooms was acquired by a Chinese entertainment conglomerate for close to $400m in 2015, but Mr Liu, 44, remains the CEO. He has been using machine learning to work out what kinds of live-streamers inspire the most devotion from fans and get the most virtual gifts, down to preferences for facial features, tone of voice and regional provenance. He plans to unveil an even more ambitious effort soon: hired performers whose traits are determined, and perhaps enhanced, by machine learning. At this rate, life on the long tail of entertainment may start getting more difficult for rustbelt dreamers. ■

Live events

The roar of the crowd

Being there in person is still the best entertainment

LATE ON A Saturday night at New York's Madison Square Garden in November, a crowd of more than 20,000 people, including many who have flown in from far-flung places, is buzzing with anticipation. This is the first mixed-martial-arts (MMA) event held in New York state, where the combat sport was outlawed until recently. Fans have paid a total of $17.7m, a record gate for any event at this historic arena.

This evening they have already sat through many lesser bouts. Now Conor McGregor from Ireland, one of the most popular fighters in the Ultimate Fighting Championship, the leading MMA promotion company, walks towards the ring to the cheers of thousands bedecked in Irish green. He is seeking to take the mixed-martial-arts organisation's lightweight championship belt, held by Eddie Alvarez, to become the holder of title belts in two different weight classes at the same time. Mr Alvarez enters to the sound of boos. In the second round Mr McGregor wallops Mr Alvarez to win by a technical knockout.

Now that is mass entertainment. The night of fights had a great many more viewers than any contest in ancient Rome's Colosseum. More than 1.3m people had paid to watch the McGregor fight on television, at $49.99 or more a pop. But the best time of all was had in the arena itself, where little had changed since the days of the gladiators. Humans love to watch a fight and get the biggest rush out of seeing it in person.

Make it special

There is a future in it, as long as you are putting on a good show. The business managers of the contest, rescued from the scrapheap of fringe sports in 2001 for a mere $2m, skilfully used social media and imposed a few safety rules (like prohibiting the use of shoes) to build an avid fan base and ensure a modicum of respectability for the sport. Last year they sold the company to WME-IMG, a talent agency, for $4bn.

The availability of high-definition video on people's screens or music in their earphones anywhere at any time does not seem to have sapped their enthusiasm for the din and discomfort of a standing-room-only crowd. If anything, they may be placing even more of a premium on live, shared experiences.

Among other things, that may help explain the rising popularity of music festivals around the world. Live Nation, a concert promoter that works with many of the world's leading performers, reported revenues of $7.2bn in 2015, its fifth straight year of growth, and expects 2016 to show another increase. Michael Rapino, the company's CEO, told investors that technology actually helps drive interest in music around the world, creating more demand for concerts. That has helped many musicians willing to tour earn a lot more than they could from digital sales and streaming, and not just the big names. According to Nielsen, Americans spend more to listen to music live than in any other form. Revenue from live concert tickets in America more than doubled in the decade to 2015, to $6.9bn.

Theme parks, an industry that in the early 2000s was thought to be languishing, are also doing well, with global revenues exceeding $40bn in 2015. Attendance and spending have grown every year since the financial crisis, according to the International Association of Amusement Parks and Attractions, an industry trade group. The past few years have seen a large boost

Driven to distraction

The dark side of smartphones

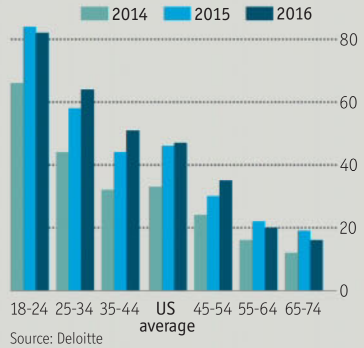
TECHNOLOGY HAS ENABLED people to fill every moment of their lives with a stimulus of one sort or another. It has eliminated the boredom of solitude, replacing it with a continuous need for instant gratification. Or rather, as Tristan Harris, a former product manager at Google, puts it, it is technology companies that have made this trade for humans, designing platforms, games and apps to keep them hooked.

Worries about the warping effect of technology are nothing new. Every tremor of progress in history has been accompanied by a moral panic. The printing press allowed "evil men" to "flood the market with anything that hints of lasciviousness", warned a monk in Venice in the 1470s. Any form of entertainment is especially suspicious. Reading books, going to the theatre or cinema, listening to new music, playing video games—all have been presented as threatening to undermine authority, degrade human relationships and lure people into sin.

But the smartphone is different from all of them. Never before has one device combined every element of modern mass media: telephony, texting, music, video, the internet, social media, video games, even

Addicted

How many times would you estimate you look at your phone in a day?
United States, by age group, years



Source: Deloitte

voice-activated artificial intelligence. It is a personalised delivery vehicle for every technological breakthrough that has ever caused concern. And consumers have taken it up with tremendous relish. Edison Research, in a survey last year of about 2,000 Americans over the age of 12, found that three-quarters owned smartphones, just nine years after the first iPhone was introduced. According to Pew, a research outfit, nearly half of American adults say they could not live without their smartphones. In two recent studies young adults were found to use their smartphones more than 80 times a day (see chart).

Sherry Turkle of MIT, who has been studying the effects of technology on users' psyches for decades, believes that smartphones have made it harder for people to form connections with each other, or even to be at ease on their own. Some participants in one study, which required them to sit alone without a smartphone for 15 minutes, chose to give themselves a painful electric shock to escape the boredom.

Such findings might trigger yet more alarmist technophobia. Young people's constant interactions on Snapchat and Instagram, and their Pavlovian responses to social-media notifications, may be the new normal. Mr Harris suggests that their devices were specially designed to encourage this change in behaviour. Tech companies have a responsibility, he concludes, to give users more power to turn off their screens. The availability of software that allows users to lock themselves out of the web shows that at least some people feel in need of such help.

from less developed markets, especially China.

This is another area where it pays to be in the blockbuster business. The theme parks of entertainment conglomerates with attractive, globally recognised characters, from Disney's Pixar and Marvel heroes to NBCUniversal's licensing of Harry Potter, have thrived, whereas those without such attractions have struggled. Nick Varney, CEO of Merlin Entertainments, which operates multiple Legoland and other theme parks, says there is a "growing disparity between haves and have-nots". Legoland is one of the haves. Merlin is expanding rapidly in Asia, including plans for a Legoland in Shanghai, to go up on the opposite side of the city from the much larger $5.5bn Shanghai Disney Resort.

Disney clearly wanted to make a showcase out of the Mouse's first park on the Chinese mainland, and believes that its fans' experiences there are building its name in China. On a mild Monday in December some of the younger visitors took multiple turns on a sleek rollercoaster ride based on the film "Tron", and families with small children watched highly choreographed live shows with mostly Chinese casts and some eye-catching stunts.

One of the world's more expensive live entertainments just now is "Hamilton: An American Musical". A ticket can cost well over $1,000 on the secondary market on Broadway or in Chicago, and will command much the same price when it arrives in San Francisco soon and in London later this year. Why pay so much? On streaming services the musical's songs are available for a fraction of a penny. But the 12-year-olds everywhere who have memorised the lyrics clearly think the live show is worth it, even if their parents blanch at the cost. ■

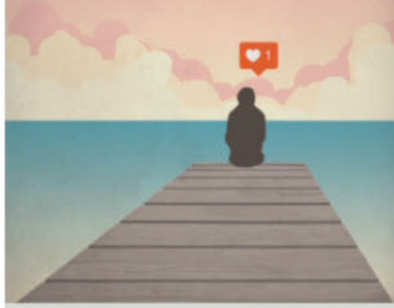
Monetising eyeballs

The attention economy

Forget the long tail

TWO ENTERTAINMENT TITANS dominated the charts for the last few months of 2016: the mighty Walt Disney and Ryan, a five-year-old boy. Disney's blockbuster films topped America's box office in nine of the last ten weeks of the year. Ryan's YouTube channel, featuring his parents' daily videos of him at his home in California, was the site's most watched in America for the last 20 weeks of the year. Most of his audience is made up of children in his own age group, gleefully looking at him unboxing and playing with toys, some of them from the Disney empire.

The internet has made the lottery of stardom available to anyone with a smartphone. This allows for a few random individual winners like Ryan, whose parents have earned millions of dollars from advertising on the channel in a couple of years; or for an everyman in China's rustbelt to become a live-streaming celebrity. But the real business of entertainment is about owning one of the handful of digital platforms that can command consumers' attention, including the one that made Ryan a star.



That is why Google's purchase of YouTube in 2006, for \$1.65bn, and Facebook's acquisition of Instagram five years ago, for \$1bn, now look inspired. The idea behind Facebook's \$22bn bid for WhatsApp three years ago was also to increase the company's hold on users' increasingly fragmented attention: most people look at their phones dozens of times a day, and messaging is often the first thing they do. As video becomes more integrated into messaging apps, that purchase will look even smarter.

The industry is now trying to guess whether the global leader in blockbuster content, Disney, will also buy a distributor. Under Bob Iger as CEO, the company's strategy has been to buy up the best intellectual property in entertainment: Lucasfilm and Star Wars; Marvel Entertainment; and Pixar Animation Studios. Under Disney's control, each of these brands has become even more valuable and even better-known globally. Disney gets a huge amount of attention. But since people are watching less traditional TV and consuming more video in other forms, even makers of great content are at risk of losing audience, so it may make sense to own a platform on which it can be served up.

Hollywood has recently been pushing the idea that Disney might buy Netflix, the global leader in streaming premium entertainment (including Disney films). In an interview with *The Economist*, Mr Iger was careful not to comment on Netflix, since even a denial that the idea was under consideration might have moved markets. He envisages a future where each of his company's famous brands can be its own entertainment service, so there would be an internet-only "Star Wars" channel, a Marvel channel, an animation channel and so on. ESPN, he says, can become the "Netflix of sports".

A bit much

The entertainment business is a never-ending and ever-intensifying war for consumers' limited time and attention. Around the clock, each minute is contested by companies like Facebook, Instagram, Google, YouTube, Snap, Amazon, Disney, Comcast, AT&T, Sky, Fox and Netflix. Consumers can take in only so much of what is on offer. As this report has shown, faced with an overwhelming array of choices and guided by menus, digital rankings and suggestions calculated by algorithms, they increasingly pick from just a few of the most popular items. Technology and media companies are doing their utmost to induce users to spend even more time on each of their platforms every day. From tweaking algorithms to stepping up notifications to endlessly scrolling feeds, technology has turned human distraction into its metric of profit.

As this report has shown, the good part of this is that almost every imaginable bit of entertainment is now at the fingertips of billions—around the world, across social and ethnic groups and appealing to all tastes, including some that people did not previously realise they had, like watching others play games or unbox toys. This seems intuitively democratic and welcome. But despite all these available choices, technology increasingly shapes what humans select, steering them towards what is most popular and most distracting. In this way the digital age has concentrated the power to entertain on a fortunate few, rather than distributing it along the long tail.

A battle for dominance is taking shape in two different arenas, of free (ad-supported) and premium content. The first is being waged by the social platforms that trade in users' eyeballs rather than subscriptions. The ability to amass great scale, thanks to network effects, will make them difficult to dislodge as providers of free entertainment—especially so in the case of Facebook.

In the second arena, providers of premium content like Netflix and Amazon are competing against the traditional media powerhouses to see who can persuade the most people to pay for their products. This is an expensive battle in which the ultimate winners are still far from clear. Netflix will spend at least \$7bn this year on content, including on new programming in countries around the world, in a bid to become a global TV network. Its rivals are also spending billions in an arms race that, for now, is producing the best (and the most) television in history.

There is a limit to how much people can consume, and how many services they will subscribe to

Yet there is a limit to how much people can consume, and how many services they will subscribe to, so some contestants are bound to fall by the wayside. In the attention economy it pays to have the biggest platforms and the flashiest brands. Technological progress might yet tilt the playing field to a newcomer, especially if some visionary of virtual or augmented reality comes up with anything close to the fantasies of science fiction. In parallel to such efforts, there will always be a market for unique live experiences that yank people away from their screens, be it a giant rock concert or an intimate sleight-of-hand performance by a master magician.

But whatever the arena, the biggest crowds will increasingly gravitate towards just a small number of the most popular hits. Until recently that was seen as a natural consequence of the physical limits on production and distribution. It now turns out that, even in a potentially unlimited digital marketplace, social networks, rankings, recommendation algorithms and the like focus people attentions on just a few items in the same way. The story of mass entertainment in the internet age is a paradox. Technology has given people too many choices, and then instantly relieved them of the need to make them. ■

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Israel and the Palestinians

The ultimate fantasy

JERUSALEM

The chances for peace were thin even before Donald Trump's election; they now look even thinner

THE settlement of Beit El (pictured) sits on a lonely hilltop deep inside the West Bank, between the river Jordan and the Green Line that divided Israel from its Arab foes after a ceasefire in 1949. Built on private land seized by the Israeli army in the name of security in 1970 but soon made available for settlement by Israeli civilians, it has grown into a community of 6,500 people, including 350 students at its *yeshiva* (Jewish religious academy). What is left of an old perimeter fence stands rusting; a new one, drawn much wider, surrounds a larger and still growing Beit El.

Under any plausible peace deal between Israel and the Palestinians, Beit El would have to be cleared. It lies outside not just the Green Line but well beyond the separation barrier, part towering wall and part fence, that Israel has been building since 2002. Most observers reckon that the barrier will become the border if peace is ever agreed. It runs mostly along the Green Line, but in several places makes deep salients into the West Bank.

Donald Trump has called peace between Israel and Palestine the "ultimate deal". He has asked his son-in-law, Jared Kushner, to work on it. But as Binyamin Netanyahu, Israel's prime minister, prepares to fly to Washington to meet the president on February 15th, peace seems farther off than ever. Since Mr Trump's inauguration, Mr Netanyahu's government has approved 6,000 new homes in existing settlements in the West Bank and East Jerusalem. On February 6th, the Knesset passed a law legalising in some cases settlers' homes illegally built on private Palestinian property.

Mr Trump, so the builders reckon, looks unlikely to put much pressure on Israel to hold back. Indeed, he gave $10,000 to Beit El in 2003. His proposed new ambassador to Israel, David Friedman, is president of the American Friends of Beit El Yeshiva association. Israel's settlers could not wish for a more sympathetic envoy, or a more sympathetic president. The occupation of the West Bank is 50 years old in June, and shows no sign of ending.

The Great Cunctator

That suits the cautious Mr Netanyahu well. His strategy for the past eight years has been to do nothing: to go on paying a degree of lip-service to the idea of the "two-state solution" agreed in outline by Israelis and Palestinians at Oslo in 1993 (with the difficult details left for later), but not to make any actual progress towards it.

The appetite for peace in Israel is constrained by fear, which Mr Netanyahu exploited to help win his fourth election in 2015. Recent opinion polls still put his centre-right coalition well ahead of the disunited opposition. The latest wave of violence, what some call the "knife *intifada*", started in October 2015. By the time it fizzled out last summer, 38 Israelis and 235 Palestinians had died. And the murders have not entirely stopped. Last month a suicidal assailant drove a lorry into a group of Israeli soldiers in Jerusalem, killing four of them.

The Palestinians' government has an awful record of glorifying terrorism. Its president said of the knife *intifada* that every drop of blood spilled in Jerusalem was "pure". One of his possible successors called the attackers heroes. In the previous *intifada* of 2000-05, more than 1,000 Israelis (and 3,000 Palestinians) died.

The disasters that have followed the Arab spring of 2011 have reminded Israelis that Arab regimes are fragile and unpredictable. Libya, Syria and Yemen are collapsed states; Jordan and Egypt are stable, but not reliably so. However, it is Gaza's recent history that worries them most.

In 2005 Israel withdrew from Gaza, a strip of land twice the size of Washington, DC, with three times the population and not many jobs. Hamas, a radical Islamist group, took over. It supports attacks on Israelis, does not recognise Israel's right to exist and has never signed up to the Oslo agreements. This stance, and a reputation for being less corrupt than the more mod- ▸▸

erate Fatah faction, helped it to win a Palestinian election the following year. It then chased Fatah MPs out of Gaza.

Since then Gaza, impoverished by a tight Israeli blockade and frequent incursions (not to mention Hamas's mismanagement), has continued to pepper Israel with home-made rockets, most recently this week. A network of tunnels has been used not just to smuggle but to infiltrate Israel and kidnap Jews.

To Naftali Bennett, who leads the pro-settler Jewish Home party in Mr Netanyahu's coalition government, the lesson of Gaza is that the two-state solution cannot work. "There is no way that I am ever going to allow a Muslim state to be created on my mountains, looking down at my airport and my capital," he says. The secular face of his party, the justice minister Ayalet Shaked, agrees. "More peace talks meet Einstein's definition of insanity," she says. "Doing the same thing over and over again, and expecting a different outcome." Mr Netanyahu has derided a future West Bank state as "Hamastan B". During the campaign in 2015 he said that Palestinian statehood would not happen on his watch.

One reason so little has changed is that no one has pushed Mr Netanyahu very hard to make peace. Even Barack Obama, whose distaste for him was obvious, never put Israel under great pressure. Last year America concluded a new ten-year defence deal at the record level of $38bn. Even December's critical UN Security Council resolution merely restated past policy. Sticks that might have hurt Israel, such as the recognition of Palestine as a full member of the UN, or a UN demand for a two-state solution within a mandated time-limit, have not been wielded, and seem most unlikely to be under Mr Trump.

Mr Netanyahu has improved Israel's relations with Russia and China. Egypt and the Gulf states are also quietly friendly: they share his hostility towards Iran, and are more interested in thwarting it than in helping the Palestinians. He has restored diplomatic ties with Turkey, in the past a firm supporter of Hamas. The BDS movement (Boycott, Divestment, Sanctions) generates noise but no pain; foreign investment in Israel is three times higher than in 2005, when the campaign began.

West Bank paralysis

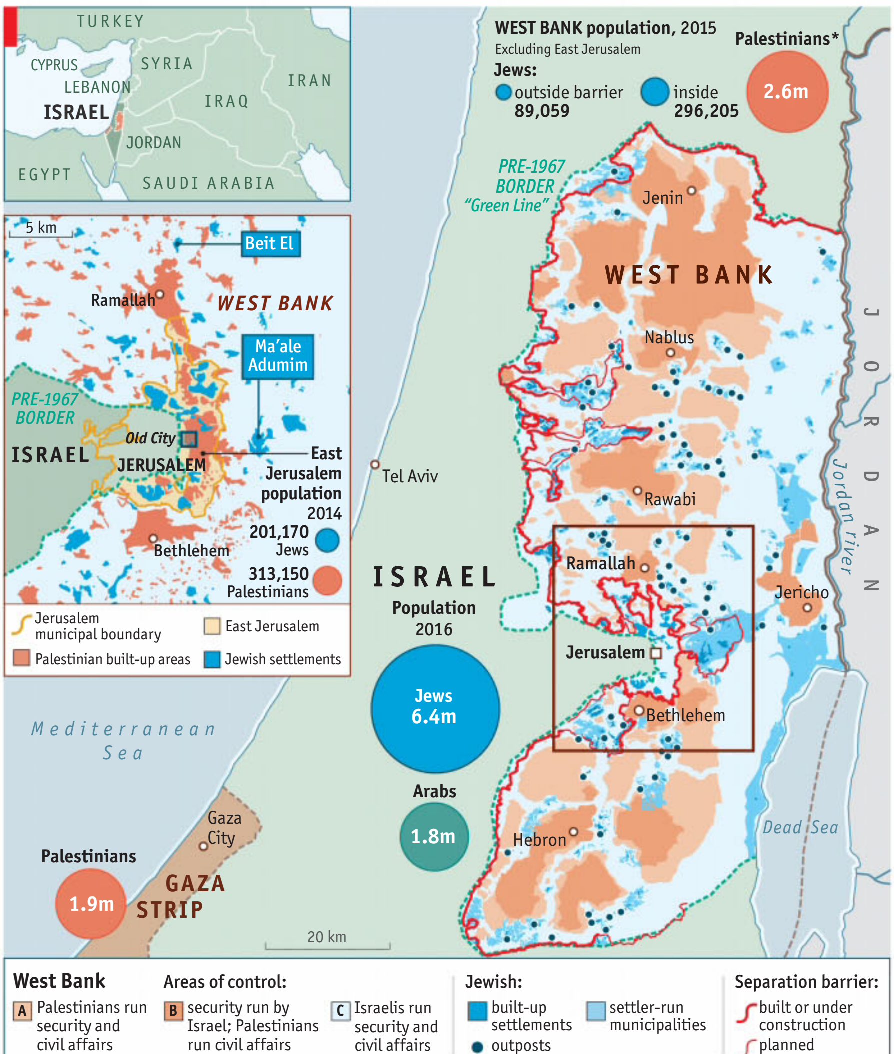
Mr Netanyahu has an accomplice in preserving this state of affairs: Mahmoud Abbas, the president of the Palestinian Authority, who rules the West Bank from his fortress-like compound, the Muqata, in Ramallah. The 81-year-old Mr Abbas is in a spectacularly weak position. He has just started the 13th year of his four-year term. He was elected in January 2005; since then the break with Hamas has made it impossible to conduct either presidential or parliamentary elections in Gaza. So he lingers on, without a democratic mandate, presiding over only the West Bank. Should an election be held, polls predict that Hamas's probable candidate, Ismail Haniyeh, a dynamic 54, would beat him.

The corrupt and poorly managed Authority is wholly dependent on Israel. Most of its revenues come from customs duties, collected by Israel since it controls the seaports, airports and land crossings through which goods destined for the West Bank must travel. Israel can cut those off at any time, and in the past has done so.

At least 100,000 Palestinians commute daily from the West Bank to work in Israel, half with permits, the rest smuggled in. Another 50,000 or so work in Israel's 130 settlements, many of them building new houses for the next wave of settlers. With 26% unemployment and an employed workforce that numbers not much above 1m, these are big numbers, and Mr Abbas knows that a break with Israel would wreck his economy.

Crucial to him, too, is security co-operation with Israel. Although the PA is supposed to run security inside the Oslo-defined "Area A", comprising the main West Bank cities, Israeli forces routinely enter them to grab suspected terrorists, including Hamas operatives. This protects the lives of Mr Abbas and his officials, as well as those of Israelis. A return to full-scale *intifada* looks unlikely for these reasons, and also because the Israelis have got much better at detecting enemies. Social media and electronic snooping make it easier to keep track of jihadists. "We go after the infrastructure: those who supply the weapons, the cars, the inciters," explains an army major at Judea and Samaria Divisional headquarters, in the West Bank.

So Mr Abbas has nothing to gain by ending co-operation with Israel. But neither can he make the concessions that might lead to peace. These would be horribly painful: accepting the barrier as a new border (with some compensating Israeli land returned); allowing a permanent Israeli military presence in the West Bank; giving up the "right of return" for refugees who fled in 1948 and 1967. Palestinian public opinion is passionately against such concessions to an Israel they mistrust. Ha-



Sources: Peace Now; B'Tselem; JIIS; Israel Central Bureau of Statistics; Palestinian Central Bureau of Statistics; *The Economist* *2016 Estimate mas would probably resist them violently.

A deal on such terms would not be considered fair by many people or governments outside Israel either. Yet the harsh reality is that it is the only one Israel is likely to offer, since it is so much stronger than the Palestinians and feels so little need to compromise. Even talking about such a deal hurts Mr Abbas and boosts Hamas. It is much easier for him to stall.

At a crossroads

Politicians as far apart as Mr Bennett and Tzipi Livni, a former foreign minister and a leader of the Zionist Union, a left-of-centre parliamentary group, do not agree on much. But both argue that the stasis that has marked Mr Netanyahu's reign could now change. With Mr Trump in the White House, a big constraint on Israeli action—the fear of American condemnation and UN action—seems to have gone. "This is the first time in 50 years that Israel has to decide what it wants to do," says Mr Bennett. Ms Livni echoes him: "We are at a crossroads; there are two visions for our future; a two-state solution, or a Greater Israel."

By withdrawing his eight Jewish Home MPs from the ruling coalition, which has a majority of only six, Mr Bennett could bring it down at any time. That could trigger an election, which the polls say would see him take several seats from Mr Netanyahu's Likud. Eager to avoid this fate, and weakened by a police investigation for corruption, Mr Netanyahu risks being dragged ever further to the right by Mr Bennett. As well as authorising the building of 6,000 new homes in the settlements so far this year, last week he promised settlers evicted from an unauthorised settlement that he would provide a new, recognised one.

Mr Bennett makes no secret of what he wants: the annexation of all of Area C, comprising 61% of the entire West Bank. As well as the roughly 200,000 Israelis who live in East Jerusalem (annexed in 1967 by Israel, though no other country accepts this), Area C is home to almost 380,000 Israelis, but only around 150,000 Palestinians. They are hampered by the Israeli occupation when they try to build, or run businesses, or move about; 3G telephony on Palestinian networks, despite Israeli promises, has not materialised. Their slender numbers, though, mean that Israel could in theory annex Area C without threatening Israel's Jewish majority, even in the long term. Currently, there are about 6.4m Jews in Israel (the official number includes those in East Jerusalem and the West Bank) and 1.8m Arabs.

Annexing all of the West Bank would be another matter. There are about 2.6m Palestinians there, besides the 313,000 in East Jerusalem. Israel would have to decide whether to grant them political rights, which would alter the composition of the country completely and forever. The other option would be something like the old South African apartheid. No mainstream Israeli politician supports this, though plenty of zealots do.

How long will it last?

Mr Bennett is still part of a small minority. And even he aims to achieve his goal only in steps. His first aim is to take in Ma'ale Adumin, a large settlement of some 40,000 people five miles east of Jerusalem. Mr Bennett picked it to be provocative, since it is both big and well into the West Bank, though within a still-uncompleted salient of the separation barrier.

However, it is not clear that he has enough support to get the ruling coalition to approve his proposed annexation bill. Nor is it clear that he would bring down the government if he fails. Mr Netanyahu, ever cautious, has so far managed to persuade the coalition to avoid taking a decision until after he has seen the American president, and will probably urge Mr Trump to oppose it. But if Mr Trump were to signal approval, the annexation of Ma'ale Adumin could swiftly pass. Other settlements within the barrier might follow.

Annexation beyond the barrier would be a much more dangerous move, creating the Greater Israel that Ms Livni has warned against and making any future peace deal much harder, if not impossible. It also risks triggering a violent reaction. Yet that does not mean it will not happen. This week's decision by the Knesset to, in effect, legalise certain land seizures in the West Bank, some of them well beyond the barrier, is a step in that direction.

You go your way and I'll go mine

There is another way that the future could unfold. The two largest parties on the centre-left are Labour and Yesh Atid, the personal vehicle of a former TV chat-show host, Yair Lapid. Both favour a complete separation between Israel and the Palestinians: a detailed Labour plan suggests falling back to the separation barrier and bringing all that territory into Israel. They would then aim to negotiate security arrangements for the West Bank with regional Arab powers and with the Palestinians themselves.

Where all such plans falter is over security. To the Palestinians, any deal that does not nail down a final departure date for Israeli troops is not compatible with sovereignty. But until there is a new Middle East, it is hard to see any Israeli prime minister providing such a pledge. Trusting the UN, or the Americans after their experience with Mr Obama, let alone a pan-Arab force, would look too risky.

The left is not in any position to put its plan into action. But politics in Israel is subject to sudden realignments: when he was prime minister in 2005 Ariel Sharon abruptly left Likud to set up a new party, Kadima, which led a new ruling coalition. Likud might fracture in the months ahead. Mr Netanyahu would like to bring Labour into his coalition, and its struggling leader, Isaac Herzog, might even agree. He could then be shot of Mr Bennett, and might explore a separation deal.

Or, if Mr Netanyahu were forced to resign following an indictment arising from his corruption probes, Mr Lapid or Mr Herzog might piece together a centre-left government. This might come after a snap election and include disenchanted parts of Likud, such as a faction led by a former defence minister, Moshe Yaalon. The new prime minister could then start peace talks, if he dared. A generous package of economic incentives, including rights for Palestinians to build into Area C from the edges of crowded Areas A and B, plus an offer of land swaps, might bring Mr Abbas to the table. But the security issue would remain. Without a solution to it, the Palestinians are unlikely to agree—though some on the Israeli right think they might be persuaded by large dollops of investment.

Might Israel instead impose separation unilaterally, pulling back to the barrier, but continuing to keep its army in the West Bank, and perhaps recognising Palestine? That too seems tricky: there are close to 90,000 Jews living in settlements beyond the barrier. Perhaps half of these might agree to move, if offered homes inside the wall (cheap accommodation is one of the things that makes the settlements attractive). But 40,000-50,000 of the settlers are reckoned to be there for ideological reasons. Moving so many against their will would be very hard; leaving them behind might endanger their lives.

A unilateral move like this, however, would at least end the 50-year-old occupation before yet another generation of young Israelis and Palestinians is brutalised by it. And it could lead to a Palestinian state that the world might then recognise. That would indeed be a two-state solution; but not a stable or a secure one. No one would win Nobel prizes for that. ■

Iran and America

Remaking Iran's revolution

Ahead of elections, Donald Trump is helping Iran's radicals

THE ritual chants of "Death to America" had grown fainter in recent years. The feverish crowds had thinned. Some demonstrators seemed to wave Uncle Sam banners less to jeer America than to cheer it. Yet thanks to Donald Trump this year's annual rally to commemorate Islamic Revolution Day on February 10th in Tehran looks set to be one of Iran's biggest. Mr Trump's tweets have upset even the secular middle class (for example: "Iran is playing with fire—they don't appreciate how 'kind' President Obama was to them. Not me!"). The new president has also imposed fresh sanctions and an executive order (currently suspended by the courts) blocking Iranians from travelling to America.

Hardliners who had warned that America was targeting Iran's people, not just its regime, say they are vindicated, and that their government will not trust America again. "Thank you, Mr Trump, for showing the true face of America," mocked Ayatollah Ali Khamenei, the Supreme Leader, in an anniversary address. Even reformists, who had dismantled Iran's nuclear programme and handed over enough fissile material to build ten nuclear bombs as part of the deal, feel betrayed. Javad Zarif, Iran's foreign minister, who negotiated the deal with six world powers, has lost his smile. Iran has difficult days ahead, he growled. Even Muhammad Khatami, a former president who had tried to mend fences with the West, called on reformists to join hardliners in decrying America.

This anger seems likely to spill over into presidential polls in May. Hassan Rouhani, the president, had hoped that his chances would be bolstered by the nuclear deal. Relief from sanctions helped Iran's economy grow by 4% in 2016, and the IMF had expected growth to reach 6% this year. But Mr Trump's rhetoric has scared off potential investors, especially large corporations that had been enthusiastic about the opportunities. "The gold rush is over," says one British official-turned-businessman. Mr Rouhani, his opponents say, has failed to deliver.

The hardliners have yet to select a presidential candidate. Marzieh Vahid-Dastjerdi, the Islamic Republic's first female minister, had been mooted in the hope she might garner the women's vote. Now the conservatives seem to be leaning towards running a military man. "If Qassim Sulemani stands, he will win," says a confidante of Mr Khamenei's, referring to the head of the Quds Force, the foreign legion of Iran's Revolutionary Guards, which is fighting across the Middle East.

Even without a conservative president, the hardliners are flexing their muscles. Fajr, Iran's annual film festival and cultural showcase, banned ten local films this year, including one that had replaced women's headscarves with wigs. They were too feminist, said an organiser. In the past, Mr Rouhani has overruled the censors. This time around, he has yet to secure the approval of the Guardian Council, a conservative-dominated body that vets parliamentary candidates and laws, and is staying his hand.

Is a further deterioration in relations between Iran and America inevitable? Many in Mr Trump's entourage see Iran's missile tests not just as domestic acts of defiance but as projections of regional reach. They want to help Israel and Sunni Arab states put Iran back in its box. James Mattis, Mr Trump's defence secretary and a former commander of American forces in the Middle East, will not have forgotten that Shia militias backed by Iran killed many of his soldiers in Iraq. Iran's Sunni rivals also see an opportunity. "We agree with Trump that the nuclear deal has given a green light to Iran to do whatever it likes in the region," says Khamis al-Khanjar, a Sunni leader in Iraq.

But others, including Britain, argue that a tougher line on Iran will embolden its hardliners. They might yet be heard. Mr Trump's latest sanctions seem largely symbolic, affecting just 25 people and companies. The nuclear deal survives. For now, the war is only one of words. ■

Nigeria

Big bother

LAGOS

A telling row over a Nigerian reality show

THE Nigerian edition of "Big Brother" has the same mix of narcissism, banality and back-stabbing found in every other version of the show. But an extra controversy was added to the fallouts and flirtations when Nigerians learned that their programme, in which contestants are locked in a house and filmed 24/7, was being made in South Africa. On January 24th the country's information minister, Lai Mohammed, opened an investigation into "the issue of possible deceit", urging those who had "bombarded" him with complaints to stay calm.

MultiChoice, the production company behind "Big Brother Naija", was unapologetic, pointing out that it was easier and more cost-effective to stage the show in its existing house in Johannesburg. During the only previous Nigerian edition a sponsor had removed the fuses from the house's generators in a dispute over advertising, taking the programme off-air for eight hours, says Remi Ogunpitan, a producer at the time. Eleven years later Nigeria's power supply is still erratic, and the price of diesel for generators has more than doubled in the past six months because of short supplies.

This is just the latest spat between Nigeria and South Africa as they spar for economic supremacy in the continent. In 2014 Nigeria leapfrogged its rival to the position of Africa's largest economy, when its GDP was recalculated by the government and found to be almost double the previous estimate. (Its population is more than three times South Africa's.) But it was overtaken again last year because of falling oil prices and the subsequent devaluation of its currency, the naira. In 2015 Nigeria slapped MTN, a South African mobile-phone company, with a billion-dollar fine for failing to disconnect unregistered SIM cards, which it claimed could have been used by the jihadist fighters of Boko Haram. On the cultural front "District 9", a South African-directed film released in 2009, depicted Nigerians eating the flesh of, and prostituting themselves to, aliens.

Dystopian sci-fi movies aside, Nigeria dominates entertainment. Africans devour Nollywood films and Nigerian pop music fills dance floors across the continent. Far from being offended, many Nigerians simply see the bother over "Big Brother" as a wake-up call to their government—and further proof, if any were needed, that their country is a tough place to do business.

Drugs and ivory

Jumbo cartels

The emerging links between drug smuggling and ivory poaching

WHEN a middle-aged Kenyan called Feisal Mohamed Ali was found guilty in July 2016 of possessing more than two tonnes of ivory and sentenced to 20 years in jail, conservationists welcomed the verdict as a victory for elephant protection. An "ivory kingpin" had received his comeuppance, dealing a powerful blow to those behind a scourge that threatens the survival of Africa's elephants.

Yet wildlife and drugs investigators in Kenya and America believe that Ali may not be the kingpin of an ivory smuggling gang but merely a lieutenant in a larger, well-established criminal organisation that is smuggling drugs as well as ivory and rhino horn. That these two sorts of criminality may be run by the same organisations is significant. It not only suggests that an illicit trade in heroin from South Asia that goes through east Africa and then onto the rich world is contributing to environmental harm along the way. It also suggests that rich-country police forces, which half-heartedly investigate the illegal trade in animal products because it they see it as a remote problem, might become more interested in tackling it as part of their war against the drugs trade, a problem their taxpayers do care about.

The allegations linking these two sorts of smuggling networks have emerged through a long-running effort by American prosecutors to extradite two brothers from Kenya, Baktash and Ibrahim Akasha. They were arrested by Kenyan police more than two years ago after allegedly handing over 99kg of heroin and 1kg of methamphetamine to people who were in fact working for America's Drug Enforcement Administration (DEA). Last month the prosecutors finally got their way, and the brothers and two alleged accomplices arrived in New York on January 31st.

Although the brothers are charged with alleged drug smuggling, sources within the investigation claim that it has also connected them to the smuggling of ivory and rhino horn, and believe that Mr Ali was a link in their bigger network.

DEA Special Agent Thomas Cindric, of the Special Operations Division in Washington, says: "We know the Akasha family is involved with the ivory trade, we have recorded conversations where they talk about ivory. We had undercover meetings where they talked about being involved in ivory. They're like the mafia in the US, they're multifaceted. These guys are drug and ivory traffickers. And the smuggling routes for ivory are the same as the smuggling routes for drugs."

The allegation is supported by a transcript, seen by *The Economist*, that purports to be of a recorded conversation between Ibrahim and a DEA source that took place in April 2014. "I have ivory here from Botswana, from Mozambique, from all over. I have a lot here and it sells," Ibrahim allegedly said in April 2014. "I have ivory, rhino horn." Mr Cindric confirms the authenticity of the recording.

The charges are denied by the brothers' Kenyan lawyer, Cliff Ombeta, who told *The Economist* his clients "have never been involved in any kind of dealings in ivory. They have never been arrested or been investigated in any offence relating to ivory. They have never stocked any ivory for themselves or anyone else for any reason whatsoever." He also denies any business connection between Mr Ali and his clients.

Poaching is a menace not just to Kenya's elephants, but to all Africa's. A recently concluded aerial survey found the continental population to have dropped by nearly a third between 2007 and 2014, to around 415,000. For traffickers smuggling multi-tonne shipments of elephant tusks from Africa's parks and wildernesses to Asian markets, where today they fetch around $1,100 per kilogram, the Kenyan port of Mombasa is the exit point of choice. It coincides with one of the main routes for heroin from Afghanistan to Europe where shipments are unloaded from dhows and cargo ships in Kenya and Tanzania and then broken into smaller packages that are carried by air to Europe.

"Transnational organised crime is a business, and the ultimate goal is money—not ideology or anything else. It doesn't matter if it is drugs, weapons, ivory, people; it's just about moving illicit goods for profit," says Javier Montano, a wildlife-crime expert at the United Nations Office on Drugs and Crime in Nairobi.

DNA tracking of ivory seizures shows that Mombasa, in parallel with its emergence as a heroin-smuggling hub, is also home to one of just three trafficking networks moving elephant tusks out of Africa (the others are located in Entebbe in Uganda, and Lomé in Togo). Prosecutions are commonly for a single seizure but Samuel Wasser, a biologist at University of Washington in Seattle, said this understates the scale and complexity of the illegal trade. A DNA map he devised in the 1990s has linked numerous seizures of more than 1.5 tonnes to the Mombasa network.

Mr Wasser's work shows that individual ivory shipments are not one-off deals and that the ivory is rarely shipped out of the country from which it is sourced. A parallel investigation by the Satao Project, a company that investigates wildlife crime, has also connected a number of large ivory seizures to organised crime. As evidence emerges that the same organisations use common logistics networks to move both poached products and drugs, investigators are hoping new avenues for prosecuting both crimes may open up. It is "like getting Al Capone for tax evasion", says one. ■

Powerful enemies

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The Brexit bill

From Brussels with love

BRUSSELS

The European Union is preparing to hit Britain with a hefty exit charge. A bitter argument over money could derail the talks

THE mother of parliaments has spoken. On February 8th a large majority of MPs backed a bill authorising the government to begin Britain's withdrawal from the European Union by triggering Article 50 of the EU treaty. (A few dissenters were told off for singing "Ode to Joy", the EU's anthem, in the chamber.) After approval from the Lords, it should become law in March. But a different sort of Brexit bill is approaching, and will be harder to manage. It could yet scupper the whole process.

Before Britain's referendum last June, Leave campaigners promised voters that Brexit would save the taxpayer £350m ($440m) a week. That pledge was always tendentious. But officials in Brussels are drawing up a bill for departure that could mean Britain's contributions remain close to its membership dues for several years after it leaves. In a new report for the Centre for European Reform, a think-tank, Alex Barker, a *Financial Times* correspondent, puts the figure at anything between €24.5bn ($26.1bn) and €72.8bn.

The bill comprises three main elements. All, in Brussels's view, derive from the legal obligations implied by Britain's EU membership. The first, and largest, covers the gap between payments made in the EU's annual budget and the larger "commitments" made under its seven-year budgetary framework, approved by Britain and the 27 other EU governments. This overhang has been steadily growing. Britain's share of what Eurocrats call the *reste à liquider* (or amount yet to be paid) would be around €29.2bn, Mr Barker estimates.

The second element covers investment commitments to be executed after Britain leaves the EU in 2019. Most of this is "cohesion" funding for poorer countries (think motorways in Poland). Mr Barker reckons Britain's share could amount to €17.4bn. The government will struggle to explain why voters should be on the hook for payments made after Brexit. But the European Commission will argue that Britain's approval of the current budget, which runs until 2020, obliges it to cough up.

Pensions make up the third component. The liabilities for the EU's unfunded scheme stand at over €60bn. Britain may be prepared to cover its own nationals. But European officials insist that all liabilities are a joint responsibility, as Eurocrats work for the EU, not their national governments. This may be the fiercest row of all.

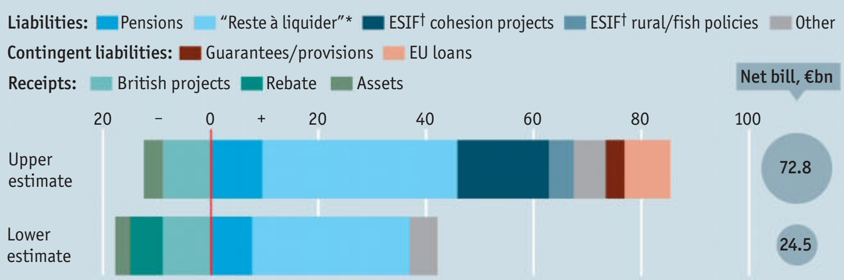
Brussels's demand will combine these three elements with a few miscellaneous items, and may adjust for Britain's share of EU assets, its budget rebate and payments it is due from the EU (see chart).

Michel Barnier, who will lead negotiations on behalf of the commission, is said to consider that the bill stands between €40bn and €60bn. The upper figure has anchored debate in Brussels, but attracts few takers in London. Some Brexiteers believe Britain has no obligation to pay anything at all once it leaves. If a compromise cannot be reached, Britain might find itself hauled before the International Court of Justice. The talks may be over almost before they have begun.

Sequencing presents a second problem. Mr Barnier insists on settling the bill and other divorce terms before substantial talks on the much bigger matter of a post-Brexit settlement, including a trade deal, can begin. But British officials want to negotiate in parallel, and perhaps to link the departure sum to the degree of access Brit- ▸▸

Cheque, please

Britain's potential bill for leaving the European Union, €bn



Source: Centre for European Reform *Commitments yet to be paid †European Structural and Investment Funds ain will enjoy to the EU's single market after it leaves. The law lends Britain half a hand: Article 50 says that a departing country's withdrawal agreement shall take account of "the framework for its future relationship" with the EU. But hardliners like France insist on keeping the two issues apart. And with only two years to conclude an Article 50 deal, Britain cannot waste time talking about talks.

Some British officials note that the other EU governments can tweak Mr Barnier's negotiating guidelines if they find his line too tough. Britain might seek to exploit this by offering sweeteners: defence co-operation with the Baltics, perhaps, or infrastructure grants to Poland. The trouble is that reducing Britain's bill means cuts to the overall budget, which would irk countries that do well from it, or extra payments from the wealthier governments to make up the shortfall. That creates an unusual alignment of interests among the 27. "If there's one thing net payers and net recipients agree on, it's to make the bill for Britain as high as possible," says an EU official.

Most governments do not rule out a compromise. German officials, for example, will consider opening trade talks before the divorce is settled, so long as Britain accepts the principle that it has obligations that extend beyond its departure. As for the figure itself, like all EU budgetary negotiations it will be resolved via late-night Brussels summitry. "It's like buying a carpet in Morocco," says Jean-Claude Piris, a former head of the EU Council's legal service. "The figures are always negotiable."

But there are reasons to fear a breakdown. Theresa May, the prime minister, has done little to prepare voters for this debate. Neither her speeches nor the government's white paper on Brexit have said anything about an exit payment. A whopping financial demand will therefore inflame Britain's tabloids, limiting her room for manoeuvre. More worryingly, both sides believe they hold the whip hand. British officials think the hole Brexit blows in the EU's budget will force the Europeans into compromise for fear of getting nothing if the talks derail. EU officials, for their part, are convinced that the prospect of no withdrawal agreement, and therefore no trade deal, will terrify Britain into submission. "They'll be begging on their knees at the WTO," says one.

The EU is skilled at brokering compromise on budgets. Perhaps that will prove true for the Article 50 talks, too. But two things set the upcoming negotiation aside. First, there is no precedent. Second, goodwill towards Britain has largely evaporated; it will be negotiating with the EU as a third country, not a partner. Informal meetings between British and European officials have already witnessed blazing rows. About the only thing the sides agree on is that they may be heading for deadlock. ■

Brexit and the lessons of empire

The art of leaving

How to break up and stay friends

IF THE current crop of Whitehall mandarins think they have their hands full negotiating an exit from the European Union, they should spare a thought for their predecessors. Britain's withdrawal from its empire in the 1940s-60s required its civil service to negotiate exits from dozens of different territories, often in months. The arch-imperialist Winston Churchill called it a "scuttle".

Yet the winding up of empire for the most part achieved what many considered impossible: breaking up and staying friends. Many peoples labouring under the yoke of British imperialism hated the colonialists, yet few of the former colonies refused to join the Commonwealth as newly independent countries. What might Britain's Brexit negotiators learn from that relatively painless transition?

The aims in most imperial exit negotiations were threefold, as summarised by one official: to ensure an orderly withdrawal, to maintain political stability and to "safeguard our own trading and investment interests". The second point was important as the backdrop to the end of empire was, as it is now, a revanchist Russia (then the Soviet Union), threatening eastern Europe and thus Britain's strategic interest of maintaining the balance of power on the continent.

America, Britain's main partner in NATO, was just as alarmed by Britain giving up its worldwide military and political role as the Obama administration was by Brexit. Dean Rusk, the secretary of state at the time, harangued his hapless British counterpart about the dangers of withdrawing into a "little England" obsessed with economising and the National Health Service. Rusk said that he "could not believe that free aspirin and false teeth were more important than Britain's role in the world." He might have said something similar about the Leave campaign's promise to divert EU dues to the NHS.

Partly to satisfy its obligations to the Atlantic alliance, therefore, Britain went to considerable lengths to cultivate post-imperial friendships, especially when withdrawal threatened economic stability in a former colony. Take Singapore, which was highly dependent on the income from Britain's huge naval bases. The bases employed a sixth of the island's workforce and accounted for a fifth of its GDP. Acknowledging that Britain's sudden withdrawal in the late 1960s could imperil the very survival of the new republic, Britain thus agreed to give £50m (about £850m, or $1.1bn, in today's money) in aid to Singapore over five years.

Arthur de la Mare, the departing high commissioner, fulminated that this was "a bribe to keep the Singaporeans sweet". But it worked. Singapore remains a staunch ally, as does Malaysia, which got £25m in similar circumstances. Malta, the chair of the EU presidency as Brexit gets under way, got £51m over ten years.

The origins of Britain's huge aid budget can be traced to the same era. In 1946-70 about £350m was spent developing colonial economies. Sarah Stockwell of King's College London says that the resulting goodwill helped British firms and institutions to win business. The Royal Mint, for example, won contracts to produce the currencies of countries like Ghana. (Its first image of Malawi's tyrannical president, Hastings Banda, was a bit too insightful. Giving an "impression of harshness", the drawing was revised.)

"If you scratch an American," lectured Rusk, "you find an isolationist." That, too, has a certain echo in today's White House. As for Brexit, the lesson of empire is that a generous payment here and there can go a long way. ■

India had Gandhi, Britain has Farage

Bagehot | The green-belt delusion

Britain's fantasies about the countryside cause untold misery

IF ANYTHING deserves the label "wasteland", this place does. Pylons and tangles of bramble high as houses tower over a lonely oil drum and a collapsed metal fence. In the distance planes approaching Stansted airport whine; refrigerator units at a nearby food-processing factory hum. Set in the frozen mud is a mosaic of industrial detritus, bits of brick and pipe, beer cans and a discarded condom wrapper. A jaunty yellow arrow informs passers-by that this scraggy parcel of Harlow, in Essex, is a public right-of-way.

Notwithstanding the condom wrapper, there are few signs that locals get any enjoyment from it. Given its good road connections and the chronic shortage of local housing, a sensible jurisdiction would make it available for a couple of blocks of flats, or a few dozen homes with gardens. A study by the local council last year found that protecting it serves no discernible purpose. Developing it would cause Harlow neither to sprawl, nor to annex another town, nor to lose its character. Yet protected this wasteland shall remain; a useless eyesore trapped in the insensitive, crushing grip of London's green belt.

Such doughnuts encircle most of Britain's big cities. Some of the land they imprison, especially around Manchester, Leeds and south London, is beautiful. But often this is protected by designations of "area of outstanding natural beauty" or "ancient woodland". And much of the rest is unlovely, inaccessible or both: intensive agricultural land, horse paddocks, endless golf courses and pointlessly empty parcels like this one in Harlow. For another example, take the chunk of the green belt that lies directly to the north of the town's main station. A few flat fields bordered by a thundering road and a supermarket, this too serves no aesthetic or environmental purpose and, a mere 30-minute train ride from central London, would be ideal for houses.

Such development is desperately needed. Britain's broken and cruel housing market may be the country's most grotesque inequity. In 1997 it took a middle-income household three years to save up a deposit to buy a house; today it takes 20 years. Ever more Britons are consigned to properties that cramp, impoverish or otherwise limit them. Measures to solve the crisis without opening the green belts, including those in the government's new white paper on housing, deregulate land good for a few thousand houses here and there. Merely loosening the corsets would mean millions, the order of magnitude at which any solution lies. Barney Stringer, a regeneration expert, reckons liberalising 60% of the green belt within 2km (1.2 miles) of a railway station would create room for 2m homes. Alan Mace of the London School of Economics suggests such numbers could be reached by opening up corridors along big transport routes, such as the London-Cambridge road on which Harlow lies. New "garden cities" on these arteries, like Ebbsfleet in Kent, are part of the answer.

Just one thing stands between a housing-starved Britain and these wise proposals: politics. Most voters would benefit, directly or indirectly, from the construction of millions of new houses on unremarkable but conveniently located parts of the green belts. Yet elections do not work like that. The liminal zones tend to contain lots of NIMBYish, not-quite-rural and not-quite-urban bellwethers, which matter disproportionately. And the pathology extends far beyond their borders. A survey by the Campaign to Protect Rural England in 2015 found that 62% of urban dwellers want to protect the green belt. Reason barely comes into it.

Which is no coincidence, because Britain's relationship with the countryside is emotional. Blame the Victorian bourgeoisie, who built vast, hellish metropolises where they lived in increasing material comfort, wistfully recalling rural life. They read pastoral novels and pasted vegetal designs on the walls of brick villas modelled after remote castles and sylvan cottages. They built railway lines that took them just far enough out of the cities to feel they were experiencing rustic life. In this spirit their children and grandchildren would create the green belt.

Their instincts live on. Britain has plenty of countryside for those who want to live there, as anyone who has flown over it will attest. But over 90% of its citizens (more than in any other big Western country) opt to dwell in towns and cities. They seem to be in denial. Much of the country's aesthetic and entertainment culture offers them seductive morsels of rural life. Hit television programmes like "The Great British Bake Off" and "Springwatch" constitute one example. New housing estates are pastiches of village architecture, all small windows, frilly gables and pitched roofs. The National Trust, a charity dedicated to preserving old houses and attractive landscapes, has more members than all the political parties put together.

The political deadlock behind the housing crisis will only be broken when Britain comes to terms with its urban character. That might mean better valuing city gardens and parks, which support more biodiversity than heavily agricultural land. It might also mean a more unapologetically urban architecture. Modernist developments like Abode in Cambridgeshire and New Islington in Manchester—bold shapes, big windows, buildings at ease with themselves—show the way.

Ill fares the land

Such notions may sound frivolously middle-class. But if they help budge the politics of the crisis, they are anything but. For the pain it causes is no less acute for being lived out quietly, in private. Think of those left homeless, those who cannot afford an annual holiday, those condemned to horrible commutes; of those couples without the money to move in together (or to separate); of the young adults unable to live near the apprenticeships or jobs they want. Perhaps such victims are too diverse to organise, march and make their voices heard. But their misery is real and visceral. And all for so much golf course, sod and bramble. ■

Refugees and technology

Migrants with mobiles

ATHENS, DUNKIRK, MALMO AND ROME

Technology has made migrating to Europe easier. Over time, it will also make migration easier to manage

SOMETIMES Hekmatullah, a 32-year-old Afghan, has to choose between food and connectivity. "I need to stay in touch with my wife back home," he says, sitting in a grubby tent in the Oinofyta migrant camp, near Athens. Because Wi-Fi rarely works there, he has to buy mobile-phone credit. And that means he and his fellow travellers—his sister, her friend and five children—sometimes go hungry.

Such stories are common in migrant camps: according to UNHCR, the UN's agency for refugees, refugees can easily spend a third of their disposable income on staying connected. In a camp near the French city of Dunkirk, where mostly Iraqi refugees live until they manage to get on a truck to Britain, many walk for miles to find free Wi-Fi: according to NGOs working there, the French authorities, reluctant to make the camp seem permanent, have stopped them providing internet connections. Some of the residents buy pricey SIM cards brought over from Britain, where buyers need not show an ID, as they must in France. A lucky few get airtime donations from charities such as "Phone Credit for Refugees and Displaced People".

When refugees leave their homes they enter what Carleen Maitland of Penn State University calls an "informational no-man's-land". Where should they go, and whom should they trust? Phones become a lifeline. Their importance goes well beyond staying in touch with people back home. They bring news and pictures of friends and family who have reached their destination, thereby motivating more migrants to set out. They are used for researching journeys and contacting people-smugglers. Any rumour of a new, or easier, route spreads like wildfire. "It's like the underground railroad, only that it's digital," says Maurice Stierl of Watch The Med, an NGO that tracks the deaths and hardships of migrants who cross the Mediterranean, referring to the secret routes and safe houses used to free American slaves in the 19th century.

Outside Moria, a camp on the Greek island of Lesbos, food shacks run by locals have sprung up. All provide phone-charging points; groups of migrants huddle around them. Minutes can be bought with cash from charities such as Mercy Corps, which operates in Lesbos and Athens. Yahye, a 26-year-old from Somalia, uses his to check the news from across Europe each day, trying to gauge where he might be accepted. He had planned to go to Norway, until his research put him off. "Norway does not want a lot of refugees," he says. Now his goal is Germany.

In Britain Najeeb, a 30-year-old Syrian engineering student, illustrates how a single piece of information can make all the difference. Unlike most of the more than 1m refugees who arrived in Europe in 2015, he came neither by boat nor by foot, but flew from Greece to London. His smuggler, to whom he paid €10,000 ($11,000) for as many fake passports as he would need, had advised him to use a small airport on one of the Greek islands, where security can be lax. To know when it was best to try to get on a plane, he had to stay in constant contact with his smuggler. On his third attempt, he got through.

Digital duelling

Information and communications technology show up right through what researchers call the "refugee life-cycle". People in northern Iraq use WhatsApp and Viber to talk to friends who have made it to Germany; UNHCR uses iris scans for identification in camps in Jordan and Lebanon; migrants on flimsy rubber boats in the Mediterranean use satellite phones provided by people-smugglers to call the Italian coastguard; and geeks in Europe teach refugees how to code so that they can try to get jobs. Aid groups must work out who needs their help. Governments must monitor their borders and keep track of arrivals.

As African migrants continue to travel by boat to Italy, and the 60,000 refugees, including many Syrians, who are stuck in camps in Greece try to find ways to get out, Europe is experiencing what Alexander Betts of Oxford University calls a "technological arms race". It starts before a migrant arrives in Europe. The situation room of ▸▸

the Maritime Rescue Co-ordination Centre (MRCC) in Rome is dominated by two large screens, one showing boats run by NGOs and EU military vessels in the central Mediterranean, and the other conditions at sea. Employees of the Italian navy take calls on an array of red telephones from migrants with satellite handsets whose boats are in distress and inform any rescue boats in the vicinity. It is essential that the location is pinpointed: the central Mediterranean, which 180,000 migrants crossed last year alone, is the deadliest migration route.

Once a migrant has made it across a border, by whatever means, governments and aid agencies will attempt to monitor his movements by adding him to one of a number of increasingly sophisticated databases. The oldest and biggest is UNHCR's ProGres, which grew out of the Kosovo crisis in the late 1990s. When the agency realised that it was ill-equipped to track those fleeing from the fighting, it began standardising its procedures and technology. Today ProGres contains data—name and age, as well as facts about relatives, health issues and applications for refugee status—for more than 7m refugees, about 11% of all displaced persons globally.

ProGres is also used to verify identity. In some camps UNHCR now uses biometric data, such as fingerprints and iris scans, to make sure aid goes to the intended recipients. In Jordan and elsewhere in the Middle East many of the 2m refugees reliant on the UN's World Food Programme identify themselves at eye scanners when buying groceries or withdrawing money at an ATM. After biometrics were introduced in the Kenyan refugee camps of Kakuma and Dadaab in 2013, their recorded populations fell steeply, saving $1.4m a month that the programme had previously paid out to fraudsters to support imaginary refugees.

Europe has had a similar database, Eurodac, since 2003. It stores fingerprints from asylum-seekers and notes where they were first fingerprinted. (Under an EU-wide agreement, the country they arrive in first is supposed to be responsible for processing asylum claims.) The strain Eurodac was put under when Syrians started arriving by the hundreds of thousands in 2015 was visible in places like the Moria camp in Lesbos. During a visit last year migrants could be seen being interviewed and fingerprinted in shacks. Rumours swirled that patchy internet connections sometimes left the registration computers unable to check the Eurodac database. Border officials said that some migrants had been able to register several times without being found out, meaning they could sell fake registrations to others whose origins were less likely to lead to asylum.

The European countries that have received the most refugees have worked hard to upgrade their systems. Since last year all agencies dealing with refugees in Germany have had to link their databases (the new law has a quintessentially German name: "Datenaustauschverbesserungsgesetz"). Asyl Online, a new system built by Germany's federal office for migration and refugees, enables a refugee to be registered in just a few minutes, including checks to see whether an asylum claim has already been made elsewhere in the EU. The process used to take two days.

Sweden, which for its size accepted more refugees than any other European country in 2015, has spruced up its registration systems, too. In the city of Malmo a former television studio now houses one of the country's largest migration centres. Behind a clean, spacious waiting room are a series of interview rooms equipped with fingerprint-scanners and cameras. A migration officer can continue processing asylum-seekers even if they have moved away from Malmo: some rooms in the centre are set up for video-conferencing.

As more information about migrants is collected and stored, some risks are becoming clear. Sensitive data could fall into the wrong hands, for example those of the government a refugee is fleeing from. UNHCR's policy is that refugees' data can only be collected with their consent, but that is a slippery concept in the context of an asylum claim. "Will a refugee, who does not enjoy the protections of citizenship, be granted privacy rights to data stored in a cloud service?" asks Ms Maitland of Penn State University in a forthcoming book about migration and technology.

Another risk, says Ms Maitland, is mission creep. Germany wants to speed up the integration of asylum-seekers by adding information about schooling and qualifications to Asyl Online. But not all extensions to databases will be so obviously in migrants' interests. Pressure is mounting to give law-enforcement bodies more access to Eurodac. In America the databases of the Department of Homeland Security and other agencies are already linked, creating what some call a system of "automated immigrant policing". Since his inauguration last month Donald Trump has said he wants his administration to publish weekly lists of crimes committed by immigrants. Details are unclear, but presumably these databases would make this easier.

UNHCR has tightened its privacy policies in recent years. But some question whether building ever-more-powerful identity-management systems is in any case the best approach. iRespond.org, an NGO, for instance, has developed a more focused service that allows medical charities in poor countries to keep track of patients without having to operate their own databases: rather than maintaining a long list of names and other data, it stores only unique biometric identifiers.

The most immediate risk posed to migrants by communications technology is perhaps the spread of misinformation. According to Petra Matic, a volunteer at the camp in Dunkirk, when the nearby Calais camp started to be cleared in October a false rumour spread that residents would be deported to Iraq. Karim, one of the refugees in the camp, arrived from Germany, where he had been recognised as an asylum-seeker and was attending school. He had heard that Britain, where his brother lives, would now accept all refugees aged under 17. He is wrong, and is risking his life every night trying to get onto a truck crossing the Channel.

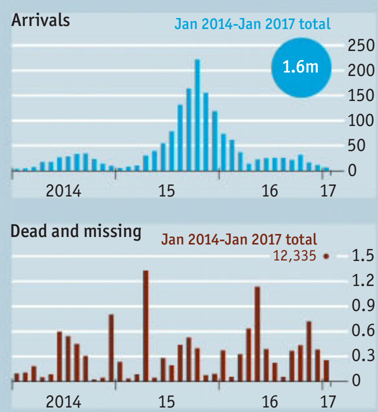
Dial M for Migrant

Some organisations are trying to use migrants' reliance on online information in ways that benefit both migrants and their host countries. The European Asylum Support Office, which runs the EU's relocation scheme, has created a Facebook page, an app and videos about life in various countries other than Germany and Sweden, in an effort to persuade some of the migrants clustered in those two countries to consider moving on. In Berlin the ReDI School of Digital Integration is teaching migrants how to code. Last year the philanthropic arm of Google donated $1m to the Clooney Foundation for Justice, a charity, to create pop-up schools in Lebanese camps with laptops pre-loaded with teaching materials. Better access to Wi-Fi would make such efforts easier and cheaper.

In Europe, even in camps where charities have been able to set up Wi-Fi, refugees are mostly left to while away their time on social media, rather than encouraged into digital classrooms. One reason is that host governments are wary that camps will become permanent—and reluctant to accept that many migrants will never return to their own countries. But as the Syrian war drags on, this is becoming untenable. Encouraging migrants to study online would help them integrate and, eventually, become productive in their new homes. ■

Losing sight of shore

Migrants crossing the Mediterranean, '000



Sources: UNHCR; International Organisation for Migration

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Internet regulation

Eroding exceptionalism

Regulators and courts in America and Europe are chipping away at the legal immunity of internet firms

GOOGLE, Facebook and other online giants like to see their rapid rise as the product of their founders' brilliance. Others argue that their success is more a result of lucky timing and network effects—the economic forces that tend to make bigger firms even bigger. Often forgotten is a third reason for their triumph: in America and, to some extent, in Europe, online platforms have been inhabiting a parallel legal universe. Broadly speaking, they are not legally responsible, either for what their users do or for the harm that their services can cause in the real world.

It is becoming ever clearer, however, that this era of digital exceptionalism cannot last for ever. Governments and courts are chipping away at the sovereignty of internet firms, and public opinion is pushing them to police themselves better. Given their growing heft, this shift is likely not just to continue but to accelerate.

When the internet went mainstream in the mid-1990s, online firms feared being held liable if their services were used in illegal ways—for instance, when subscribers posted copyrighted content or defamatory information. The danger was underlined in 1995, when an investment firm sued Prodigy, an early online service, alleging that it had been defamed in one of its discussion forums. Plaintiffs later dropped the suit, but they had claimed $200m in damages.

To shield firms against potentially ruinous suits, as well as to protect free speech online, Congress in 1996 added a section to a law that otherwise focused on the more headline-grabbing topic of obscene material online: the Communications Decency Act (CDA). This section, now known by its number, 230, immunised online firms for torts committed through their services. Soon afterwards the European Union created a similar safe-harbour rule in its own e-commerce directive of 2000.

All this can be seen as an implicit subsidy for a nascent industry, according to Anupam Chander of the University of California, Davis. Online firms have been exempt from regulations that apply to offline firms, he argued in a paper in 2013. That is similar to the way in which American courts in the 19th century gave railroads and other firms a leg-up by limiting liability for harm caused by defective machinery.

Only a few exceptions to immunity were allowed. One was obviously illegal content, such as child porn. As a result of lobbying by film studios and record labels, the exceptions also included copyrighted material. In 1998 Congress also passed the Digital Millennium Copyright Act, which requires online firms to take down infringing content as soon as they have been put on notice. In Europe similar rules apply.

Although limiting liability online was intended to protect sites hosting digital content, it carried over to service platforms. Airbnb, which lets people rent out their homes, has long held that it is not responsible for the actions of hosts and guests. Uber, a ride-hailing service, has argued that it is just a technology firm and needn't comply with many of the detailed regulations that apply to conventional transport businesses (which must, for instance, conduct more thorough security checks on drivers than Uber carries out). Accordingly, the terms of service for such platforms usually disclaim any liability.

If the tide is turning, it is the result of a combination of causes. One reason to expand liability for online platforms is their size: they are no longer fragile startups. Airbnb's inventory of 2.3m rooms makes it bigger than the three largest hotel chains—Hilton, Marriott and InterContinental—combined. Incumbents are demanding that online rivals obey rules that constrain everyone else. "The internet is no longer a discrete side activity," says Jonathan Zittrain of Harvard Law School.

Airbnb stands accused of reducing the supply of affordable housing in big cities. Uber is said to worsen traffic problems and to weaken public-transport systems by luring away passengers. Facebook and Twitter are accused of enabling the spread of fake and biased news during America's election. Such services have also become favourite hangouts for bullies and trolls.

As these "negative externalities" become more obvious, public calls for regulators and the platforms themselves to take action is mounting. Facebook is a case in point. After Donald Trump's victory, it came in for much criticism for not having done enough to limit the spread of fake news. In Germany, many worry that false news, particularly Russian misinformation campaigns, could influence federal elections in September.

It is also becoming exceedingly hard to maintain that platforms are—like telecoms networks—"neutral". The argument that they do not interfere in the kind of content that is shown was a key rationale for exempting them from liability. But they are starting to resemble regulators themselves, which makes it odder still that they act outside legal limits. Facebook's algorithms de- ▸▸

termine what members see in their news feeds. Uber's software decides what drivers get paid. It is getting easier to police platforms, too, thanks to artificial-intelligence techniques which can recognise and predict patterns of bad user behaviour.

Unsurprisingly, given Europe's penchant for regulation, and the fact that most big platforms are based in America, European bodies have been first to take steps to rein them in. An important change was a decision in 2014 by the European Court of Justice, the European Union's highest court, to establish a "right to be forgotten". Search engines must stop linking to information about a person if it is found to be "inadequate, irrelevant or excessive" and if the person has asked the firms to do so. Later this year, the same court will be asked to decide whether Uber is just a digital service or a transport company; if it is judged to be the latter, it will need to comply with a web of rules written in the analogue age, which would lift its costs significantly.

The European Commission, the EU's executive body, last year proposed plans to regulate platforms. It will not change its e-commerce directive, but it has pushed platforms into signing up to a "voluntary" code of conduct which commits them to actively and swiftly remove illegal hate speech such as racial abuse (instead of reacting to complaints). Some EU member states are considering going further: the German government may bring in a law to impose fines of up to €500,000 ($534,000) on a platform like Facebook if it fails to take down illegal content within 24 hours.

Section 230 of the CDA is under pressure, too. True, the Supreme Court recently refused to revive an unsuccessful lawsuit against Backpage, an American site for classified ads with a popular adult section, which had been accused of facilitating forced prostitution. But last year saw a "swarm" of adverse Section 230 rulings, says Eric Goldman of the Santa Clara University School of Law.

Too much mayhem

In May a court allowed a lawsuit to proceed against Model Mayhem, a network that connects models and photographers, for having failed to warn users that rapists have used the site to target victims. In June a judge decided that Yelp, a site for crowdsourced reviews, cannot challenge a court order to remove a defamatory review of a lawyer by a client. Courts and lawmakers are not about to abolish section 230, says Daphne Keller of the Centre for Internet and Society at Stanford Law School, but it is unlikely to survive for decades.

Service platforms are also facing new operational restrictions. Late last year Uber ended an experiment with self-driving cars in San Francisco after resistance from the authorities. Uber is also embroiled in lawsuits in several countries

He's worried

over whether its drivers should be treated as full-time employees (in October a London court said they are, entitling them to the minimum wage and holiday pay). Many cities are creating new rules, or enforcing old ones, on who can rent out their homes and for how long. One example is New York's move in October to pass a law imposing fines of up to $7,500 on hosts who advertise stays of 30 days and less on Airbnb and similar sites.

Tech firms fear what regulators might do. Content platforms say that in the short term they fret most about being required energetically to police their platforms, which would be difficult and costly and could turn them into censors. All share a longer-term concern that they could end up being regulated in exactly the same way as pre-internet incumbents, which would make them less profitable and perhaps even destroy their business models.

The industry would naturally prefer self-regulation. Platforms not only have strong incentives to spot bad actors, but good information to identify them and the means to sanction in response, notes Urs Gasser of the Berkman Klein Centre for Internet & Society at Harvard University. Yet self-regulation goes only so far: platforms may have not much incentive, for instance, to do something about noisy short-term tenants or to limit drivers' working hours.

They are working hard, nonetheless, to show willing. Only a few weeks after Mark Zuckerberg, Facebook's boss (pictured), batted away criticism of the company's election coverage, he announced that the firm would work with fact-checking sites to verify news and allow users to flag fake stories. Uber, for its part, recently launched Movement, a website sharing its aggregate ride data with urban-planning agencies, so that they can see, for instance, what effect a baseball game has on traffic patterns.

If there has to be regulation, Nick Grossman of Union Square Ventures, a technology investor, wants regulators to shift from the idea of handing out permission to do things to an accountability-based approach he calls "Regulation 2.0". In the past, he argues, regulators were "data-poor": to do their job, local agencies, for instance, had to actively select who was allowed to do what by handing out licences—to drive a cab, say. Now that data are plentiful and available in real time, regulators could instead check regularly on whether service providers are following certain policy goals.

Internet activists and the firms themselves may deplore the fact that the early heyday of digital exceptionalism is drawing to a close. Michael Masnick, the editor of Techdirt, a site covering tech policy, worries about limits on free speech, and also warns that regulation can stymie innovation. Rules are disproportionately costly for small firms. Google has the money to hire enough lawyers to handle requests based on the right to be forgotten. For smaller search engines, it is a big burden.

But giving platforms a free pass is increasingly difficult for regulators and courts: they simply have become too important for the economy and society more generally. Successful online platforms, in other words, carry the seeds of their own regulation. ■

American retailing

Run ragged

NEW YORK

Attempts to turn around two ailing icons of American retailing

NEW YORK's fashion week, which will start on February 9th, promises the usual show of glamour, but a more fascinating industry display came a week earlier. On February 2nd Ralph Lauren, a well-known brand, said that the executive it had hired in 2015 to overhaul its business would leave. On February 3rd the *Wall Street Journal* reported that Macy's, America's biggest department store, might be bought by Hudson's Bay, a smaller Canadian rival. Each is an institution of American retailing. Each is a reminder of how hard it is to keep pace.

Consumer habits have changed especially rapidly in their world. Frocks, bags and shoes are now disproportionately bought online compared with other goods. Last year clothes and accessories accounted for a fifth of e-commerce, estimates Cowen, a financial-services firm; far higher than their 8% share of total retail spending. Cowen expects Amazon to surpass Macy's as America's top clothing seller this year.

For manufacturers, such as Ralph Lauren, the picture is more mixed. For some clothing firms, particularly small ones, Amazon offers a new way to reach consumers, free from the archaic commercial terms that department stores often foist on suppliers. Many big manufacturers, however, are wary. They face new competitors online and they fret that selling on Amazon will weaken control of their brands and their positioning. Ralph Lauren has not sold clothes directly to Amazon so far, despite the platform's explosive growth.

Consumers have altered how they shop offline, too. Those who prefer brand names can find them in "off-price" stores such as TJ Maxx, which buys extra inventory from shops and manufacturers and resells it at a deep discount. Nor have department stores found a riposte to the inexpensive and on-trend offerings of H&M, a Swedish firm, or of Zara, owned by Spain's Inditex.

Department stores and their suppliers still work on a slow schedule. Clothes often languish on racks until retailers, desperate to purge inventory, slash prices. This pattern has helped crunch margins at both Macy's and at Ralph Lauren, which counts Macy's as its biggest customer. Both are trying to adapt. Stefan Larsson, the chief executive Ralph Lauren brought in to replace the firm's eponymous founder, is a veteran of H&M. He set about slashing production times and trying to make fewer, more popular styles that can sell without discounts.

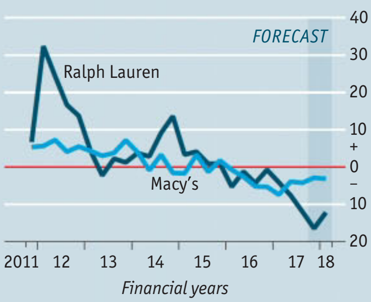
But Mr Larsson's ideas for the "creative and consumer-facing" parts of the business, he told analysts, diverged from those of Mr Lauren, who remains chairman and chief creative officer. The company says it is still committed to Mr Larsson's strategy, but investors are not so sure. After the news of his departure, Ralph Lauren's share price dropped by more than a tenth.

Macy's is in the midst of its own transition. This year Terry Lundgren, the company's long-serving boss, will hand control to Jeff Gennette, currently a senior manager, who must attempt an even more dramatic recovery. Macy's is due to close 100 stores and sack about 10,000 of its employees. Together with a real-estate investor, it is mulling the fate of about 50 other properties. The company is also investing in e-commerce and its own answer to TJ Maxx, which is called Backstage. Progress is slow. "They're all the right strategies but unfortunately it may be too little, too late," says Kimberly Greenberger of Morgan Stanley, a bank. Now Hudson's Bay, the owner of Saks Fifth Avenue, may try to buy Macy's—together, the two might be able to limit discounting, or Hudson's Bay might wring more value from the American firm's portfolio of prime property.

Amid the uncertainty around both firms, one direction looks set: each is deliberately shrinking. Ralph Lauren's sales are falling as the company sends less inventory to wholesalers. Macy's, which will soon have 18% fewer stores than it did in January 2016, will probably need to cut even further. "This is just the start," says Ms Greenberger. In a new era, survival requires being cut down to size. ■

Hard-to-wear trend

Revenue, % change on a year earlier



Source: Bloomberg

Winter sports

White out

MORZINE

A warming world is both a boon and a headache for snowmaking companies

THE creamy glide of fresh powder sends skiing enthusiasts into ecstasies. Scraping over brown patches and dodging lumpen rocks inspires far less enthusiasm. Thousands of families will hit Europe's slopes this month, hoping that snow conditions will be more favourable than at the start of the season in December. A warming world is changing precisely how, when and where snow falls. For the winter-sports industry, such shifts could hit profits harder than a springtime avalanche.

The snowfall season has become shorter in places such as the Alps, says David Robinson of Rutgers University in New Jersey, as snow arrives later and melts earlier than it once did. Resorts at lower altitudes are among the most vulnerable. Since the 1970s the duration of the snow season, averaged over the northern hemisphere, has declined by five days a decade, according to the European Environment Agency. Huge regional variation exists, however, both in Europe and elsewhere. Californian slopes that were unable to open in recent years because of snow shortages had to close at the start of 2017 because too much of the stuff had fallen.

For resorts worried about weird weather, there are plenty of firms to help with piste-covering. Fan guns, snow lances and other devices use water and compressed air to allow tiny snow crystals to form if it is cold enough. A tiny number of European companies dominate the international market—worth €275m ($290m)—for such gadgets: TechnoAlpin, Demaclenko and SUFAG. TechnoAlpin only deals in selling, installing and maintaining snowmaking systems; the others are part of larger groups which make equipment such as ski lifts. TechnoAlpin accounts for more than half of global market share in snowmaking, according to Max Rougeaux, a manager at the firm, and it produces about 4,500 machines a year. Turnover

Better than mud

has grown from €90m in 2011 to €170m last year as more and more resorts try to satisfy snow-seekers.

The cost of covering pistes with manufactured snow depends on many factors, including the type of terrain (rocky outcrops make matters harder). But as a rough rule, it costs about €1m for every square kilometre whited. Executives in northern Italy have invested heavily already: some resorts, such as Val Gardena, are able to produce complete coverage from snow guns. Austrian ones want to catch up, and have shelled out about €1bn on snowmaking over the past decade. Customers also abound in China, Australia, Argentina and America.

But no snowmaker can stand still when global temperatures are changing. So firms plough back around 5% of revenues into researching how to make snow even when temperatures are around 0°C. Humidity affects the process: the damper the air the less moisture it can absorb and the colder it must become for snow crystals to form from water droplets. Snowmakers have enjoyed much success recently—but profits will be limited if their flakes turn to slush. ■

Grab v Uber

Road warriors

SINGAPORE

A South-East Asian startup must contend with Uber on home soil

SCOOTER-DRIVERS in bright green helmets enliven the dusk of rush hour in Ho Chi Minh City, Vietnam's commercial centre. This conspicuous fleet is carrying round clients of Grab, a South-East Asian ride-hailing firm. Its operations, connecting travellers with taxis, private cars and motorbike taxis in six countries, straddle a region that is twice as populous as America and swiftly urbanising. Its future seems assured, if it can compete with Uber, a deep-pocketed American competitor.

Grab started life at Harvard Business School, where its 34-year-old boss, Anthony Tan, met his co-founder, Hooi Ling Tan (the pair are unrelated). Its headquarters are in Singapore. Anthony's father runs Tan Chong Motors, a car assembler and distributor which is among Malaysia's largest companies, but he does not have funding from the family outfit.

Mr Tan denies that he is building South-East Asia's answer to Uber, and says he is more inspired by Chinese technology firms such as Tencent, an online-gaming and social-media firm that owns WeChat, a fantastically popular mobile-messaging service, and Alibaba Group, an e-commerce giant. In particular, Grab aims to emulate WeChat's success in popularising mobile payments through smartphones.

A big chunk of the $1bn of cash that Grab holds for investing purposes will be ploughed into its digital-payments system, "GrabPay", which started operating in January 2016. In November 2016 Grab updated GrabPay, turning it from a digital-payments processor which was mostly of use to people who already had credit and debit cards, to a digital wallet which South-East Asians can top up with credit by making cash payments at banks and some convenience stores. At present people mainly use GrabPay to pay for Grab rides, but the aim is that customers will eventually use it to buy all manner of daily items.

But such dreams depend on Grab seeing off local rivals and defending its business from Uber, which is roughly 20 times as valuable. Grab's investors include Temasek, Singapore's state investment firm, and China Investment Corporation, a Chinese one. In September, SoftBank, a Japanese telecoms and technology firm that is owned by Masayoshi Son (who last year announced a $100bn tech-investment fund in partnership with Saudi Arabia and other investors), led a group that put $750m into Grab, valuing it at more than $3bn.

Uber operates in all the same countries—Indonesia, Vietnam, the Philippines, Thailand, Malaysia and Singapore—but in 20 cities compared with Grab's 34. The American firm last year suffered a setback which, paradoxically, makes it a stronger rival: in August it abandoned its costly efforts to crack China, and sold its business there to Didi Chuxing, a local competitor which is also an investor in Grab. The deal freed up resources which Uber is now using to push deeper into Grab's territories.

Fierce discounting of rides has been one result. Uber's chances of dominance in South-East Asia have increased in the past 12 months or so, says Florian Hoppe of Bain, a consulting firm, because it has been improving its local strategy—from having relatively few people on the ground and a narrow range of services to selling the same broad products as Grab: taxis, private cars and two-wheeler ride-hailing.

Grab still claims to have services that are better suited to South-East Asians. Mr Tan points to its GrabHitch offering, for example. Many people in Jakarta, Indonesia's capital, live in suburban developments many miles from the central business district, and make long journeys on their scooters into work every day. GrabHitch allows them to advertise the route and time of their trip in the hope of finding someone who wants to hitch a lift on the back of their scooter, paying a nominal sum to cover petrol and bike-maintenance costs. Uber doesn't offer anything as informal or low-priced.

Indonesia is a key battleground: its population of 257m accounts for more than one-third of the region's people. Since launching its motorbike taxis in Jakarta in May 2015, Grab has gradually overhauled the lead formerly enjoyed by Go-Jek, a local ride-hailing business, and seems to be drawing ahead. Uber, which came late to the market, is now in third place. On February 2nd Grab said it will invest $700m into Indonesia over the next four years. For Grab, South-East Asia's traffic-clogged mega-cities are not "just another" market, says Mr Tan. "This is our home." ■

Overtaking manoeuvres

Tata Group

Board stiff

MUMBAI

Tata has now got rid of Cyrus Mistry. But its governance problems continue

PROFIT is to good corporate governance what tides are to swimming trunks: when the former is high, absence of the latter tends to go unnoticed. The ebbing of profits at Tata, India's largest conglomerate, in recent years has prompted a power struggle that in turn has exposed the often dysfunctional relationship between several dozen businesses, holding companies, people and charities that use the Tata name. The struggle is now over: on February 6th, Cyrus Mistry, Tata's boss until last October (pictured on next page, on the right) was finally booted out of the company. Natarajan Chandrasekaran (on the left), the boss of one of the group's key operating firms, Tata Consultancy Services, takes over as chairman on February 21st.

Executives at the 149-year-old group hope that will close a grim chapter in its history. Mr Mistry, whose family owns an 18% stake in Tata Sons, the main holding company, which is unlisted, reacted badly to being evicted as its chairman last year. The move to oust him was set in motion by Ratan Tata, the group's 79-year old patriarch (and Mr Mistry's interim successor). During Mr Mistry's reign, Mr Tata had remained at the helm of the Tata Trusts, charities that control 66% of Tata Sons.

For months, Mr Mistry refused to step down from chairing the boards of listed Tata firms, such as Tata Steel or Tata Motors (owner of Jaguar Land Rover), which the group effectively controls but in which Tata Sons typically owns a 30% stake (see chart on next page). The very last board he clung on to, that of Tata Sons itself, is rid of him as of this week. ▸▸

Chandra in, Cyrus out

Before leaving he made all manner of claims of financial and corporate-governance impropriety at Tata. Regulators are said to be looking into some of them; Tata denies them all. But in the hundreds of pages of affidavits filed in various tribunals by both sides, and seen by *The Economist*, a recurring theme emerges, that the relationships between the Trusts, Tata Sons and Tata companies are governed primarily by personal relationships and deference to tradition. There is little sense that things are going to change. The hope seems to be that Mr Chandrasekaran can grow profits again and put such problems out of mind.

Mr Mistry's most striking claim is about the current board of directors of Tata Sons. It is arguably India's most august corporate body—directors include the dean of Harvard Business School (HBS), a former Indian defence secretary and several respected industrialists. Mr Mistry contends that it is little more than a rubber stamp for decisions made by the Trusts, ie, by Mr Tata. A change to the articles of association of Tata Sons in 2014 gave the Trusts more access to information across the entire group. The Trusts already had the ability to influence decisions by nominating a third of the Tata Sons board. Acting together, those directors can veto the entire board's decisions.

The ousted man says Mr Tata ramped up meddling into the activities of both Tata Sons and some operating firms, aided by a roster of long-retired executives who serve as Tata trustees. This view is backed by the Tata Group's top lawyer, who in January 2016 wrote that if internal documents were somehow leaked to the media, they would "project to the external world that the Trusts are controlling our empire, and Tata Sons board is more a dummy."

A lack of clarity over what authority the Trusts have in relation to Tata Sons, and vice versa, was also acknowledged in internal e-mails by Nitin Nohria, the dean of HBS, who has served on the Tata Sons board as a Tata Trusts appointee since September 2013. Some governance experts have criticised his position there, because the Trusts and some group firms made a $50m gift to HBS to fund a building that was named in Mr Tata's honour. Mr Nohria wrote in court documents that neither the donation, arranged shortly before he became dean in 2010, nor the fact that he was appointed by the Trusts, should mean that he is not acting in the interest of Tata Sons.

The main corporate-governance problem is that the interests of minority shareholders, whether they are invested in Tata Sons or in the various operating companies, risk being trampled over if unaccountable trustees are ruling the roost. But at the level of the businesses, improvised governance processes also slowed down decision-making to a crawl. Turf battles created confusion among executives as to who was in charge.

Mr Tata, in the legal filings, says it is untrue that the Trusts call the shots: he merely gave his advice when asked to, and infrequently at that. Other trustees say they chipped in recommendations to Tata companies on important matters in a personal capacity. On behalf of the Trusts, they merely sought better visibility into what money the charities might receive as dividends from Tata Sons.

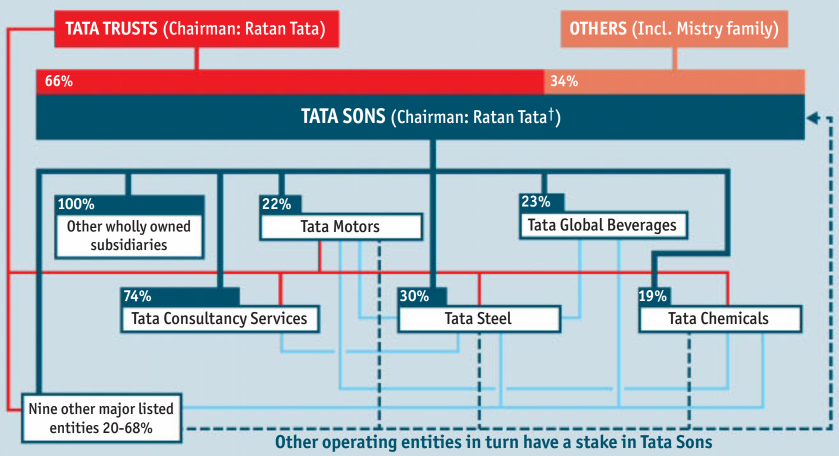
Yet at least one internal letter from Mr Tata suggests that he clearly expected the directors nominated by the Trusts to convey the Trusts' views to the Tata Sons board rather than exercise their own judgment. In one instance, in June 2016, two directors nominated by the Trusts left a Tata Sons board meeting for nearly an hour to confer with Mr Tata. Mr Mistry says this proves Mr Tata controlled the board; both directors have said that the matter discussed was trivial.

In India, "good corporate governance" is often used as a euphemism for "not being crooked". By that standard, Tata still does well. Yet the manner in which Mr Mistry was defenestrated has raised eyebrows in Mumbai's business community. On Mr Tata's recommendation, the Tata Sons board was suddenly increased in size from six to nine directors just weeks before it voted to oust the chairman, which helped secure Mr Mistry's dismissal.

Tata insiders who reckon the crisis that befell them was purely driven by lacklustre profitability are misguided. The poor governance that goes with the group's Byzantine, multi-layered structure contributed to those low profits as well as to the bruising power struggle of recent months. Will Mr Chandrasekaran have the skill or the mandate to simplify the group's structure and rein in the influence of Tata Trusts? Although Mr Tata will leave the board of Tata Sons later this month, he shows little sign of retiring from his job as the chairman of the Trusts. But Mr Chandrasekaran's allies say in private that he has one huge advantage: having fired one successor, Mr Tata knows he cannot sack another without further damaging his legacy. ■

Ta ta for now

Structure of Tata Group, various operating companies and holding stakes*



Source: Company reports

*At end-March 2016 †Interim position until February 21st, then N. Chandrasekaran

Correction: Our article on Snapchat in the issue dated February 4th stated that around 41% of Americans aged 18 to 34 use the messaging service every month. In fact, they do so every day. Sorry.

Schumpeter | Snaptrap

Snap's IPO is part of a wider trend towards corporate autocracy

DEMOCRACY is in decline around the world, according to Freedom House, a think-tank. Only 45% of countries are considered free today, and their number is slipping. Liberty is in retreat in the world of business, too. The idea that firms should be controlled by diverse shareholders who exercise one vote per share is increasingly viewed as redundant or even dangerous.

Consider the initial public offering (IPO) of Silicon Valley's latest social-media star, Snap. It plans to raise $3-4bn and secure a valuation of $20bn-25bn. The securities being sold have no voting rights, so all the power will stay with Evan Spiegel and Bobby Murphy, its co-founders. Snap's IPO has echoes of that of Alibaba, a Chinese internet giant. It listed itself in New York in 2014, in the world's largest-ever IPO, raising $25bn. It is worth $252bn today and is controlled by an opaque partnership using legal vehicles in the Cayman Islands. Its ordinary shareholders are supine.

Optimists may dismiss the two IPOs as isolated events, but there is a deeper trend towards autocracy. Eight of the world's 20 most valuable firms are not controlled by outside shareholders. They include Samsung, Berkshire Hathaway, ICBC (a Chinese bank) and Google. Available figures show that about 30% of the aggregate value of the world's stockmarkets is governed undemocratically, because voting rights are curtailed, because core shareholders have de facto control, or because the shares belong to passively managed funds that have little incentive to vote.

Cheerleaders for corporate governance, particularly in America, often paint a rosy picture. They point out that fewer bosses are keeping control through legal skulduggery, such as poison pills that prevent takeovers. Unfortunately, these gains have been overwhelmed by three bigger trends. The first is that technology firms can dictate terms to infatuated investors. Young and with a limited need for outside capital, many have come of age when growth is scarce. Google floated in 2004 with a dual voting structure expressly designed to ensure that outside investors would have "little ability to influence its strategic decisions". Facebook listed in 2012 with a similar structure and in 2016 said that it would issue new non-voting shares. Alibaba listed in New York after Hong Kong's stock exchange refused to countenance its peculiar arrangements. Undaunted, American investors piled in.

At the same time there has been a drift away from the model of dispersed ownership in emerging economies, with 60% of the typical bourse being closely held by families or governments, up from 50% before the global financial crisis, according to the IMF. One reason has been lots of IPOs of state-backed firms in which the relevant government retains a controlling stake. Hank Paulson, a former boss of Goldman Sachs, helped design many of China's privatisations in the early 2000s. "The Chinese could not surrender control," his memoirs recall. Mr Paulson hoped that the government would eventually take a back seat, but that has not happened. Other emerging economies, including Brazil and Russia, copied the Chinese strategy of partial privatisation. And across the emerging world, tightly held family firms, such as Tata in India and Samsung in South Korea, are bigger than ever.

Voter apathy is the third trend, owing to the rise of low-cost index funds that track the market. Passive funds offer a good deal for savers, but their lean overheads mean that they don't have the skills or resources to involve themselves in lots of firms' affairs. Such funds now own 13% of America's stockmarket, up from 9% in 2013, and are growing fast. A slug of the shareholder register of most listed firms is now comprised of professional snoozers.

For many in business the decay of shareholder democracy is irrelevant. After all, they argue, investors own lots of other securities—bonds, options, swaps and warrants—that don't have any voting rights and it doesn't seem to matter. At well-run firms such as Berkshire, shares with different voting rights trade at similar prices, suggesting those rights are not worth much. Some managers go further and argue that less shareholder democracy is good, because voters are myopic. Last year Mark Zuckerberg, Facebook's boss, pointed out that with a normal structure the firm would have been forced to sell out to Yahoo in 2006.

It doesn't take a billionaire to poke holes in this logic. For economies, toothless shareholders are damaging. In China and Japan firms allocate capital badly because they are not answerable to outside owners, and earn returns on equity of 8-9%. A study in 2016 by Sanford C. Bernstein, a research firm, got Wall Street's attention by calling passive investing "the silent road to serfdom". Without active ownership, it said, capitalism would break down.

Democratic deficit

At the firm level, voting rights are critical during takeovers, or if performance slips. At Viacom, a media firm with dual-class shares, which ran MTV in its heyday but which has stagnated for the past decade, outside investors are helpless. Control sits with the patriarch, Sumner Redstone, aged 93, who has 80% of its votes but only 10% of its shares. Yahoo (once as sexy as Snap) has lost its way, too. But because it has only one class of shares, outsider investors have been able to step in and, using their voting power, force the firm to break itself up and return cash to its owners.

The system may be partially self-correcting. Some passive managers, such as BlackRock, are stepping up their engagement with companies. If index funds get too big, shares will be mispriced, creating opportunities for active managers. If shares without votes are sold for inflated prices, their owners will eventually be burned, and won't buy them again. And if fashionable young firms miss targets, they will need more cash and will get it on worse terms. But in the end shareholder democracy depends on investors asserting their right to vote in return for providing capital to risky firms. If they don't bother, shareholder democracy will continue to decline. That is something to think about as fund managers queue up for Snap's IPO. ■

Also in this section

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American financial regulation

Shearing and shaving

Donald Trump starts a long struggle to overhaul the Dodd-Frank act

AT FIRST blush, there is little to be excited about. The eighth executive order of Donald Trump's infant presidency, signed on February 3rd, lists seven "core principles" for regulating America's financial system. These include the prevention of bail-outs by taxpayers; advancing the American interest in international negotiations; and tidying the unruly thatch of federal regulation. The treasury secretary and regulators must report by early June on how well existing laws fit the bill. "There is little in the actual executive order that the Obama administration would have disagreed with," says Doug Elliott of Oliver Wyman, a consulting firm.

And yet. Although the edict does not mention the Dodd-Frank act of 2010, which redefined financial regulation after the crisis of 2008, it is chiefly aimed at that law. (Another presidential memorandum paves the way to aborting a rule tightening financial advisers' obligations to Americans saving for retirement.) Many banks, especially smaller ones, loathe the 848-page act and its reams of ensuing rules. According to Davis Polk, a law firm, 111 of its 390 "rule-making requirements" have not yet even been finalised. Mr Trump has called Dodd-Frank a "disaster" and vowed to "do a big number" on it. How big a number his team has in mind—and how much it can manage—is still not entirely clear.

Thanks in part to Dodd-Frank, America's banks are far safer than they were: the ratio of the six largest banks' tier-1 capital (chiefly equity) to risk-weighted assets, the main gauge of their strength, was a thread-bare 8-9% before the crisis; since 2010 it has been 12-14%. Among much else, the act also introduced stiff stress tests of the most important banks' ability to withstand further storms; obliged them to draw up "living wills" to prepare for bankruptcy, should calamity strike; and banned them from trading in securities for their own profit, a restriction known as the Volcker rule.

Enough, say bankers. Mr Trump, though he bashed Wall Street on the campaign trail, now seems to agree. Gary Cohn, his chief economic adviser and president of Goldman Sachs until December, told the *Wall Street Journal* that because banks must "hold more and more and more capital...that capital is never getting out to Main Street America." Dealing with multiple regulators, he said, was holding lending back. He also cast doubt on other bits of Dodd-Frank, notably its procedures for liquidating big banks when the bankruptcy code cannot be applied.

That echoes complaints voiced many miles from Wall Street. Wayne Abernathy of the American Bankers Association, a trade body, argues that community banks are shunning loans to new or marginal customers, rather than having to justify themselves to several regulators. "Lending is being narrowed down to mortgages, familiar customers and agriculture," he says. This in turn exposes banks to another complaint from supervisors: that their lending is too concentrated.

In softening Dodd-Frank's impact, administration looks easier than legislation. Dodd-Frank gives regulators power to intervene, but it also gives them discretion to desist, as Mr Trump may tell them to do. Rules not yet completed may be allowed to die; others enforced less vigorously; consistency among regulators can be encouraged. This may take time. Steven Mnuchin, Mr Trump's choice for treasury secretary, is likely to be confirmed soon, but important lower-ranking jobs in the department, also needing senators' approval, must be filled. Mr Trump also must find a vice-chairman of the Federal Reserve with responsibility for financial supervision. Once he does, Daniel Tarullo, the Fed governor who has been standing in, is expected by many to resign. Slots at other regulators are either vacant or soon will be.

Barriers to exit

The obstacles to changing laws are higher. Although the Republicans hold both houses of Congress, they have only a 52-48 lead in the Senate, shy of the 60 votes needed to break a filibuster. Persuading eight Democrats to support legislation making life easier for banks is a tall order.

Still, Mr Elliott notes, some bipartisan agreement in Congress is possible—notably on raising the threshold for a bank to be a "systemically important financial institution", or SIFI, from \$50bn of assets, to perhaps \$250bn: the 34 SIFIs undergo annual stress tests and capital reviews conducted by the Fed. That would suit, among others, Zions Bancorp, a Utah-based lender with assets of \$63bn—an improbable systemic threat. It has taken on nearly 500 staff to deal with compliance, internal auditing and so forth and spent many millions on ▸▸

quantitative models. These now underpin its decision-making about capital and lending, and Zions is not inclined to cut back on their use. But Harris Simmons, its boss, would like "relief from being subject to the Fed's black box".

Proposals that may affect the spending of public money, which require only a simple majority, could also be forced through. This could allow Republicans to rein in the Consumer Financial Protection Bureau, a body created by Dodd-Frank and financed by the Federal Reserve, rather than directly by Congress. It may also allow them to gut the liquidation procedure, which envisages a temporary fund of public cash—to purists, an unacceptable taxpayer bail-out.

Jeb Hensarling, a Republican congressman from Texas, is likely to reintroduce legislation he proposed last year, offering big banks less onerous regulation, including relief from the Volcker rule, in exchange for higher capital: a minimum leverage ratio—of equity to unweighted assets—of 10%. But this attempt may fail in the Senate. Few big banks are eager to return to proprietary trading in any case; and they think they have plenty of capital, thank you.

Thomas Hoenig, vice-chairman of the Federal Deposit Insurance Corporation, a bank supervisor, disagrees. "We need to have a simple way of measuring capital—the leverage ratio—and that ratio needs to be around 10%," he says. In June the average for America's eight globally significant banks was just 5.75%. With much stronger banks, other bits of regulation could fall away. Stress tests could be run by lenders themselves, rather than the government, and there would be no need for Dodd-Frank's contentious liquidation procedure.

Nothing so radical looks likely. But lighter regulation makes sense, especially for smaller banks. Less capital, especially for big ones, assuredly does not. ■

Buttonwood | Time and tide

It is not easy for investors to recognise a bubble

BUBBLES put the fun into financial history. Who can resist stories about Dutch tulips that were worth more than country estates or the floating of an "undertaking of great advantage but no one to know what it is"?

Economists have long debated whether bubbles can be identified, or indeed stopped, before they can cause widespread damage, as the crisis of 2007-08 did. But spotting them is easier said than done: even tulipmania may have been caused by a quirk in the wording of contracts that meant speculators would, at worst, walk away with only a tiny loss.

For many investors, the more important question is whether it is possible to avoid being sucked into a bubble at the top, and suffering declines like the 80% drop experienced by the NASDAQ 100 index of technology stocks between March 2000 and August 2002. Two essays in a new book*, from the CFA Institute Research Foundation and the Cambridge Judge Business School, indicate just how difficult market timing can be.

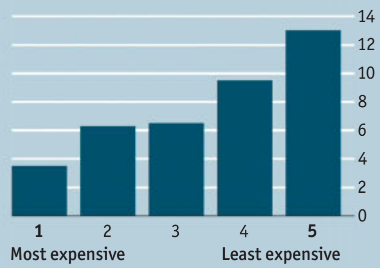
The first, from William Goetzmann of Yale School of Management, looks at the history of 21 stockmarkets since 1900. Mr Goetzmann defines a bubble as a doubling in a market's value, followed by a 50% fall. He found that a doubling in a single year occurred just 2% of the time (in 72 cases). On six occasions, the market also doubled over the next year, whereas a 50% fall in the subsequent year occurred on just three occasions; Argentina in 1976-77, Austria in 1923-24 and Poland in 1993-94. Even after a further five years, markets were more likely to double again than to fall by half.

There were many more occasions when markets doubled over three years; around 14% of the total. After such rises, the markets dropped by half in the following year on fewer than one in 20 occasions. The markets lost half their value over the next five years around one tenth of the time. But in a fifth of such episodes, the market doubled again. On this basis, a sharp rise in a market is more of a buy signal than a sell indicator. That helps explain why investors find it so difficult to get out at the peak.

Buy cheaply

Real annual returns over the next ten years when purchasing US equities at varying market levels*

By quintile, 1900-2014, %



Source: AQR

*Determined by earnings yield calculated using cyclically adjusted price-earnings ratio

You can argue whether Mr Goetzmann's definition of a bubble is the right one. He looks at overall markets, rather than individual industries such as technology. GMO, a fund-management group, uses a different concept—namely, that a bubble occurs when the price of an asset rises by more than two standard deviations above its previous long-term trend.

Another approach is to look at fundamentals. Asset prices are supposed to reflect the current value of future cash flows. In theory, a doubling in a market could reflect a sudden improvement in the outlook for that asset class, and thus be entirely rational. One valuation approach, often referred to in this column, is the cyclically adjusted price-earnings ratio, or CAPE, which averages profits over ten years. Highs in the ratio coincided with market peaks like 1929 and 2000.

In another chapter of the book, Antti Ilmanen of AQR Capital Management looks at the CAPE ratio as a market-timing measure (see chart). At first sight, this seems very promising. Buying the American equity market when it was cheapest brought an annual real return of 13% over the ensuing decade; buying it when it was dearest earned a return of just 3.5%. (He inverted the ratio to get an earnings yield, but that does not affect the results.)

The problem, however, is that the full historical range of valuations is available only with hindsight. Investors in the 1930s did not know that they would be buying at the cheapest level the 20th century would see. And the ratio is of little use in the short term: the market looked overvalued on the CAPE measure for much of the 1990s, not just at the peak.

So Mr Ilmanen devises a simple approach to show whether investors using the range of CAPEs that would have been known at that point could have been used to time the markets since 1900. Over the full period this tactic mildly outperformed a "buy-and-hold" strategy, but all the outperformance occurred in the first half of the sample. It would have underperformed for the past 50 years.

This is not very encouraging. Neither a doubling of the market nor a historically high valuation are reliable sell signals. Of course, that shouldn't be too surprising. If timing the market were easy, big swings in prices would not happen in the first place.

* "Financial Market History: Reflections on the Past for Investors Today", edited by David Chambers and Elroy Dimson.

Economist.com/blogs/buttonwood

Banking and the elderly

Not losing it

Banks need strategies to help customers suffering cognitive decline

"THE older the wiser" may ring true for much of life, but not for our ability to handle money. Studies suggest financial decision-making ability tends to reach its peak in a person's mid-50s, after when deterioration sets in. "Age-friendly" banks are beginning to learn how to protect vulnerable older customers.

The most dramatic forms of age-related mental deterioration are neurodegenerative diseases, like Alzheimer's. But even "normal" ageing can cause cognitive change. Financial-management skills are often early casualties, because they demand both knowledge and judgment.

Older people are more likely to struggle with day-to-day banking and are more susceptible to poor investment decisions. They are also more vulnerable to fraud or to financial exploitation, often by relatives. In 2010 the over-65s in America made up 13% of the population but had over a third of the wealth. British pensioners became especially vulnerable when reforms in April 2015 allowed them to withdraw savings previously locked up. Newspapers fretted that people would splurge their pensions on Lamborghinis. A greater concern should have been that they became easy prey for scammers. By March 2016 cold-callers had approached more than 10m people about their pensions, according to Citizens' Advice, a charity.

It is difficult to monitor financial abuse, because victims rarely report it. True Link Financial, a financial-services firm, estimates annual losses in America from financial exploitation and abuse of the elderly at between $3bn and $37bn. In Britain the Financial Conduct Authority has issued warnings about investment-fraud schemes, coaxing the elderly into trading their savings for shares, wine or diamonds (which never arrive).

The older brain seems more susceptible to "too good to be true" scams, from lotteries to dating schemes. According to the "Scams Team" at Britain's National Trading Standards, a consumer-protection body, the average age of victims of mass-market-ing scams is 75. Louise Baxter, the team's manager, says cognitive decline in older people is a risk factor that criminals exploit, and the dangers are likely to rise in tandem with the incidence of dementia. Phil Mawhinney, from Age UK, a charity, says people living alone, as half of Britons over 75 do, are more likely to be befriended by a fraudster. So-called "sucker lists" of easy targets circulate among criminals.

Banks have been slow to respond, at first seeing these risks as purely a matter for customers. (As one manager puts it, they "have the liberty to make dumb financial decisions.") Most "age-friendly" measures have focused on physical limitations (such as talking ATMs for the blind) or helping people get online. However, many banks are recognising cognitive decline as their problem, too. Barclays, a British bank, uses voice recognition to help customers who have trouble with passwords. Banks are training staff in how to spot dementia and signs of financial abuse. First Financial Bank, in America, gives staff who uncover a scam a "Fraud Busters" pin. And better ways to identify fraud are popping up: algorithms can help staff detect changes in spending patterns. Barclays used data from old cases to pinpoint 20,000 high-risk customers, whom it monitors and advises.

The trickiest issue for banks, ethically and legally, is how and when to act on concerns over a client's ability to manage money. The last-resort measure, most commonly used for the incapacitated, is a power of attorney, usually given to a family member chosen in advance. But this can put people at risk of opportunistic relatives. It may also curtail autonomy too severely. Banks are experimenting in this grey area, for example by giving relations "read-only" access to accounts, so they can monitor payments, or by allowing the bank to delay a payment and contact advisers if it is worried. A limited form of power of attorney, with authorisation for only certain payments, is also emerging.

Much of the financial damage done by cognitive decline results from late detection of problems. A decline in someone's financial skills can be an early warning of dementia or other problems. Jason Karlawish, an expert on Alzheimer's at the University of Pennsylvania, thinks banks—and their technology—are uniquely placed to identify older people who are at risk and refer them to doctors or social workers. He coined the phrase "Whealthcare" to describe how looking after people's money can give insights into their health. "If you do it right, I think customers will like it," he adds. "Nobody wants to lose their money and certainly not their brain." ■

No cheques and balances

Brexit

Not all black

What Britain's negotiators could learn from New Zealand's experience

THE future of British trade after Brexit is shrouded in uncertainty. It is an unprecedented process, so it is hard to know where to look for clues as to how it may work out. One possibility is a country whose trading patterns were perhaps more disrupted than any other's by Britain's accession to the European Economic Community (EEC) in 1973: New Zealand.

Just as Brexit is likely to mean the end of British access to the single market, so "Brentry" ended New Zealand's preferential access to the "mother country". In 1961, when Britain first announced its intention to join the EEC, it took about half of New Zealand's exports—a similar proportion to the EU's share of British exports today.

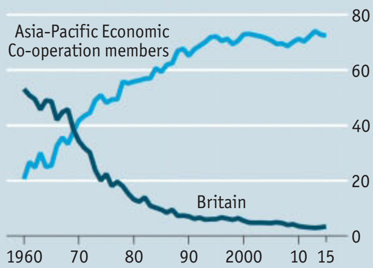
New Zealand's prime minister at the time, Keith Holyoake, warned his British counterpart, Harold Macmillan, that, without safeguards for its exports, New Zealand would be "ruined". After years of negotiations, a transitional deal in 1971 agreed quotas for New Zealand butter, cheese and lamb over a five-year period, which helped to ease the shift away from Britain. Similarly—if in a much shorter time-span—Brit- ▸▸


Economic Data
Money, Banking & Finance
Population, Employment & Labor Markets

Keeping it local

New Zealand, goods exports by destination

% of total export value



Source: IMF

ain's prime minister, Theresa May, now hopes to negotiate a transitional deal to smooth its departure from the EU.

New trading relationships can mitigate the loss of preferential access. New Zealand signed a free-trade deal with Australia in 1965, which boosted exports of manufactured goods. The share of trade with America and Japan also rose, once access to their beef markets had been negotiated. By the time Britain eventually joined the EEC in 1973, it took only 25% of New Zealand's goods exports (and a paltry 3% now). More trade deals followed, including with China and South Korea. Mrs May's government makes much of the prospects of concluding trade deals with non-EU countries—including, in fact, New Zealand.

Trade agreements, of course, entail compromises. In the 1960s, almost all of New Zealand's exports of butter went to Britain. High levels of protectionism in rich countries meant no market could replace it. As a result, points out Brian Easton, of the Auckland University of Technology, New Zealand's trade negotiators chose to maximise their EEC butter quota at the expense of access for other goods. British negotiators too will face plenty of tricky choices. A free-trade deal with New Zealand itself, for example, would enable access for British exports, but competition from New Zealand would squeeze British lamb producers. Similarly, countries such as India and Australia might seek a relaxation in immigration rules in return for the free movement of goods and services. Since it is believed concerns about immigration weighed heavily with Brexit voters, that is unlikely to prove popular.

The British and New Zealand cases differ in some important ways. Britain's economy in recent years has been one of Europe's fastest-growing. But the 1970s were tough for the New Zealand economy. Brentry was just one of many blows to buffet it. The oil shock, turbulence in commodity prices and a rise in protectionism in rich countries led to bouts of recession. A spate of radical liberalisation in the 1980s put the economy on a sounder footing.

Also, New Zealand built closer trading links with neighbours. China, Australia and other members of the Asia-Pacific Economic Co-operation group, founded in 1992, now account for 72% of its exports (see chart). But ties with the neighbours are the very ones Britain wants to loosen. It will need relationships with countries that are farther away. And history shows that the greater the distance between two countries, the less they trade with each other. Technology may be weakening the link between trade and geography, but it is unlikely to make up for Britain's reduced access to markets nearer by.

Less tangible factors may also make Britain's negotiating position more awkward. New Zealand was able to play on British guilt over its abandonment of the Commonwealth. Memories of the second world war were still fresh: New Zealand's soldiers had fought alongside the British; its farmers had nourished the home front. In contrast, few in the EU have much sympathy for the renegade British. And when Mrs May's ministers do talk about the war, they usually make matters worse. ■

North Korean data

Best guesses

Creative ways of measuring the North Korean economy

FACTS about the North Korean economy are not so much alternative as non-existent. The country has never published a statistical yearbook. If it did, no one would believe it. Nicholas Eberstadt of the American Enterprise Institute, a think-tank, calls analysis of its economy "essentially pre-quantitative".

The most-cited estimate of the size of the economy comes from South Korea's central bank. Its methodology is opaque but is based, at least in part, on the South Korean intelligence agency's estimates of the North's physical output, which is then translated to South Korean prices. But it is hard to estimate market valuations for goods that are not traded on the market, and physical goods make up only a fraction of overall economic output. Another technique is to "mirror" statistics from the country's trading partners. But most North Korean trade is with China, where statistics are unreliable.

An area of darkness

The advent of satellite imaging has helped, providing researchers with better estimates of manufacturing output, coal production and urbanisation. Yet another strategy is to work out national income from non-economic data. The Hyundai Research Institute, a consultancy, publishes another widely cited estimate of the North Korean economy based on a model that incorporates both infant-mortality rates and crop yields, two variables for which the numbers are at least plausible.

A recent paper by Suk Lee of the Korea Development Institute, a South Korean government think-tank, puts a new spin on this approach. It estimates North Korea's national income by comparing the share of its households that use solid fuels for cooking with that in other lower-income countries. The data, as reported by the North Korean census of 2008, show that nearly 93% of households lack access to gas or electricity and rely on firewood or coal. Assuming the numbers bear some relation to reality, they put North Korea in line with countries such Uganda and Haiti, and suggest that North Korea's purchasing-power-adjusted income per person was somewhere between $948 and $1,361 in 2008.

North Korea's economy has made great strides since the country's famine in the 1990s. The government has tacitly allowed the market economy to grow. Although the rest of the country is still indisputably poor, visitors to Pyongyang, at least, cannot help but note the rise of shops and taxis. The paradox is that as the North Korean economy modernises, the data may actually be deteriorating. The size of the country's apparently burgeoning service sector is a complete mystery. Many scholars believe that the South Korean numbers are too low. Welcome though it is for poor North Koreans, growth may be bad for statisticians.

China's central bank

Technically independent

The big implications of a small rate rise

IF ASKED before the start of 2017 to bet on which important central bank would be the first to raise interest rates this year, the safe choice would have been the Federal Reserve. Some gamblers, relishing the long odds, might have gone for the Bank of England or even taken a flutter on the European Central Bank. All these guesses would have been wrong. The first to budge this year? The People's Bank of China.

On February 3rd the Chinese central bank raised a series of short-term rates. The decision received scant attention. The increases were, after all, small: one-tenth of a percentage point for the main rates. It also seemed quite technical, primarily affecting liquidity tools that lenders can tap if short of cash. And there was no fanfare: the central bank did not publish an explanation.

But China's move is important for two reasons. First, it highlights the government's dilemma in managing the economy. Growth is expected to slow from last year's pace of 6.7%, and recent surveys suggest that momentum is already ebbing. Sentiment is fragile: investment by private companies last year increased at its slowest pace in more than a decade. This would normally not be the time to launch a monetary-tightening cycle. However, other dangers loom. The housing market is frothy. Credit growth has been excessive. And financial institutions have used increasing amounts of debt to buy bonds.

The central bank hopes to strike a balance. By nudging up money-market rates, it wants to push lenders and investors to pare back their borrowing. But it also wants to avoid harming growth.

It is a fine line. Chinese policymakers at least have one advantage over peers in developed economies: they can count on the press to amplify their message. State television said the rate rise would affect financial institutions, but not the public—as if it were somehow possible to segregate one from the other.

This points to the second ramification: the way in which the People's Bank of China conducts monetary policy is changing. It is beginning to look a little more like central banks in developed economies as it shifts towards liberalised interest rates. Rather than simply ordering banks to set specific lending or deposit rates—the focus for many years in China—it is altering the monetary environment around them. China does not yet have an equivalent of the federal-funds rate in America or the refinancing rate in Europe, but it has a few candidates for its new benchmark interest rate. The seven-day bond-repurchase rate, which influences banks' funding costs, is in pole position.

There is also an element of political intrigue in this transition to a more mature monetary framework. The Chinese central bank sits under the State Council, or cabinet, which has the final say over lending and deposit rates as well as other big policy decisions. Repo rates, by contrast, are seen as sufficiently abstruse for the central bank to decide on its own when it wants to change them.

In other words, the more technical a policy is, the more technocrats can carve out space for themselves. Yet this also gives the Chinese central bank one more reason to raise rates cautiously. Were its actions to have a bigger impact on the economy, its newfound, if limited, independence would not last long. ■

Euro-zone bond markets

Unhappy birthday

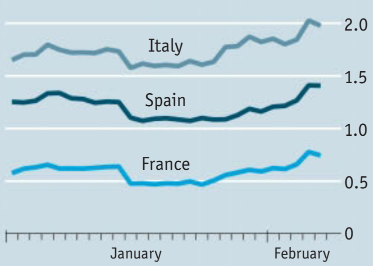
There is more to the latest euro-area bond-market jitters than political risk

IT was not an ideal way to mark a silver jubilee. The 25th anniversary of the signing of the Maastricht treaty, which gave life to the idea of a single European currency, fell on February 7th, the same day that the IMF published its annual health-check on the Greek economy. It said most (but not all) of its board favoured more debt relief to get Greece's public finances in order—an idea quickly trashed by euro-zone officials.

A day earlier the spread between ten-year government bonds in France and Germany had reached its widest level in four years. The proximate cause seemed to be a growing concern about political risks to the euro. François Fillon, once the front-runner in the race for the French presidency, is embroiled in a scandal and losing ground. A fear is that his fall from grace might boost support for Marine Le Pen, leader of the National Front, who wants France to leave the euro and the EU.

Edging upwards

Ten-year government-bond spreads over German bonds, percentage points



Source: Thomson Reuters

Shorter odds on a Le Pen victory would certainly justify a higher risk premium on French bonds. Yet there is more to the latest bout of euro-area bond jitters than a sharper focus on politics. After all, bond markets shrugged off the resignation of Matteo Renzi, Italy's prime minister, in December. "I don't believe there is greater political risk in Europe than there was one month ago or three months ago," says a senior analyst at a big bond fund. A big influence, rather, is the growing conviction that the European Central Bank (ECB) will soon decide to wind down its programme of quantitative easing, or QE.

The ECB announced in December that it would reduce from April the amount of bonds it buys each month, from €80bn ($85bn) to €60bn. Mario Draghi, the bank's boss, insisted this was not a "taper", a word that implied a gradual reduction in purchases to zero. But the published minutes of the ECB's December meeting suggested that QE was nevertheless running out of road. It was acknowledged, for instance, that there were legal risks in ditching a self-imposed rule that the ECB should not buy more than a third of any country's government debt. This rule puts a cap on the Bunds the ECB can buy, since Germany has a shrinking debt pile. That matters because Germany also has the euro zone's largest economy and bond purchases are proportionate to economic heft. It would cause a stink if the ECB decided to buy proportionately more bonds of high-debt countries such as Italy—or indeed France.

There are other reasons to believe the ECB is heading for the QE off-ramp. The euro-zone economy is puttering along nicely. Although the core rate of inflation, which excludes volatile food and energy prices, is stuck below 1%, headline inflation has picked up sharply and will rise further in the spring, as last year's big fall in oil prices drops out of the annual rate. The QE programme was conceived when deflation was greatly feared. Now that the risk of it is diminished, it is harder for the ECB to justify further hefty asset purchases—even if there were enough eligible bonds to buy.

"The direction of travel is clear," says David Riley, of BlueBay Asset Management, and that raises a question. In the absence of ECB purchases, what is the right spread and yield for the government bonds of France, Italy, Spain and the rest? It is a reappraisal of this kind that lies behind a general upward drift in euro-zone bond spreads in recent weeks (see chart). For now, they do not look excessive. But if there are further signs that QE is winding down, expect them to widen further, irrespective of the politics. ■

Data, financial services and privacy

Like?

Should our bankers be our Facebook friends?

DONALD TRUMP's health-insurance premiums could soon go up, and not just because of his love of burritos. Data-crunchers have found a link between the negativity of someone's tweets and his risk of dying of heart disease. The education levels of your Facebook friends or the activity on your phone can help reveal how likely you are to repay a loan. Money-managers are rummaging ever more curiously through customers' digital lives.

This is all part of an "intensifying data arms-race in finance", says Magda Ramada Sarasola from Willis Towers Watson, a consultancy, which claims that no industry used more big data last year. Banks and insurers used to rely only on what customers and credit agencies told them, but today websites and mobile-banking apps let them get much more close and personal. Less conventional sources are also popular. Social-media profiles, web-browsing, loyalty cards and phone-location trackers can all help. In a trial, FICO, America's main credit-scorer, found that the words someone uses in his Facebook status could help predict his creditworthiness (tip: avoid "wasted"). Even facial expressions and tone of voice are being studied for risk.

Believers say such trawling will get customers cheaper and better products. But consumer advocates accuse the industry of deliberate vagueness about its intentions. Financiers, unlike gamblers, have always used data. But most people, when they accept the terms of a new app or click away that annoying cookie message, have no idea what they give away, to whom and for what purpose. According to the European Commission's statistics agency, Eurostat, 81% of Europeans feel they don't wholly control their online data; 69% worry that firms may use their data for purposes other than those advertised.

Regulators are taking an interest. In September Britain's Financial Conduct Authority said it worried that big data could price risky clients out of insurance. In May the European Banking Authority warned that the integrity of the financial sector could be at stake if insecure data use eroded trust. In December European regulators listed concerns over privacy and ethical issues. They are now consulting the industry to see if stricter rules are needed.

Data can improve predictions of whether someone will fall ill or drive into a tree. Good algorithms are faster and cheaper than underwriters. Insurers also claim that the better they know customers, the more they can help change bad habits. The industry insists more customer data mean "tailored" products: someone about to bungee jump can be warned that his life policy doesn't cover this, and be offered an add-on. Banks can protect customers against fraud if they follow their whereabouts. These techniques can also help people outside the financial system gain access to finance. For the 64m Americans without sufficient credit history and the 2bn people around the world without a bank account, this would be good news.

But critics fear too much data-crunching could actually increase financial exclusion. The riskiest customers, and those offline, might be priced out. The more the industry relies on complex—and proprietary—algorithms, feeding machines that keep learning, the harder it will be for customers, and regulators, to untangle why they were rejected. And algorithms can be wrong. A bilingual speaker's search-engine entries could look erratic; a social-worker's location-tracker could imply a risky lifestyle. And since it is unclear how judgments are made, says Frederike Kaltheuner, from Privacy International, "you could get stuck in a Kafkaesque situation where you're put in a certain box and can't find out why, and can't get out."

Yet privacy is a fluid concept. A survey last year by EY, a consultancy, found that around half of digitally savvy customers were happy to share more data with their bank, if they got something back. It also depends on context. When Tesco, a British retailer, uses data from loyalty cards to offer shoppers discounts on their favourite treats, few are bothered. But use the same data to help calculate an insurance premium (as it does), and many find it creepy.

Keeping customers happy is not about what is legal, but about what they think is off-limits. People give uninformed consent to all sorts of things online. But users can feel tricked and spied on if they learn their data have been sold or used in unexpected ways. Retailers struggle with this too, but customers expect their bank to respect their privacy more, says Torsten Eistert from A.T. Kearney, a strategy firm.

Trading data

Regulators have a role to play, particularly in dealing with questions of discrimination and exclusion. If using someone's browsing history to exclude them from an offer for a cheap flight is OK, is it also reasonable to use those data to lock them out of health insurance (eg, by assuming that someone who Googles doughnut shops is a bad risk)? Now that Amazon sells loans, Alibaba has a payments business and Facebook has patented a credit-rating system, regulators should be at least as worried about non-traditional financiers and fintech startups, which sometimes escape regulation. The European General Data Protection Regulation, which comes into force next year, covers privacy issues fairly comprehensively. It should help clarify the rules on handling personal data.

Supervisors are slow, however. It is up to the industry to respond to customers' demands well before regulators require it. New businesses that give people more control over data, such as digi.me, which lets users share data only with those they want, hold promise. If such tools help users become their own data-brokers, they may be willing to share more data with their mortgage lenders or insurers. But trust will truly be earned only if financial firms, old and new, get ahead of the game and start talking to customers about what's really going on behind their screens. ■

Free exchange | It's been a privilege

As America grows weary of dollar dominance, the world grows nervous

TRUMPISM is in part an expression of American exhaustion at bearing burdens it first took up 70 years ago. Donald Trump has moaned less about the dollar than about shirking NATO allies or cheating trade partners. Yet the dollar standard is one of the most vulnerable pillars of global stability. And the world is far from ready for America to ditch its global financial role.

Unlike other aspects of American hegemony, the dollar has grown more important as the world has globalised, not less. In the Bretton Woods system devised for the post-war world, Western economies fixed their exchange rates to the dollar, which was in turn pegged to the price of gold. After the fracturing of this system under the inflationary pressures of the 1970s, the dollar became more central than ever. As economies opened their capital markets in the 1980s and 1990s, global capital flows surged. Yet most governments sought exchange-rate stability amid the sloshing tides of money. They managed their exchange rates using massive piles of foreign-exchange reserves (see chart). Global reserves have grown from under $1trn in the 1980s to more than $10trn today.

Dollar-denominated assets account for much of those reserves. Governments worry more about big swings in the dollar than in other currencies; trade is often conducted in dollar terms; and firms and governments owe roughly $10trn in dollar-denominated debt. New research by Ethan Ilzetzki, of the London School of Economics, and Carmen Reinhart and Kenneth Rogoff, of Harvard University, concludes that the dollar is, on some measures, more central to the global system now than it was immediately after the second world war. It remains the world's principal "anchor" currency, against which others seek to limit volatility.

America wields enormous financial power as a result. It can wreak havoc by withholding supplies of dollars in a crisis. When the Federal Reserve tweaks monetary policy, the effects ripple across the global economy. Hélène Rey of the London Business School argues that, despite their reserve holdings, many economies have lost full control over their domestic monetary policy, because of the effect of Fed policy on global appetite for risk.

Leaders of other economies bristle at this. During the heyday of Bretton Woods, Valéry Giscard d'Estaing, a French finance minister (later president), complained about the "exorbitant privilege" enjoyed by the issuer of the world's reserve currency. America's return on its foreign assets is markedly higher than the return foreign investors earn on their American assets (foreign governments hold vast amounts of safe but low-yielding dollar assets, like Treasury bonds, as reserves). That flow of investment income allows America to run persistent current-account deficits—to buy more than it produces year after year, decade after decade.

The cost of freedom

Exchange-rate management

Sources: IMF; Bureau of Economic Analysis

This has become a privilege America seems eager to discard. An overvalued currency and persistent trade deficits are fine for America's consumers, but painful for its producers. The reserve accumulation of the past two decades has gone hand-in-hand with a soaring current-account deficit in America. Imports have grown faster than exports; new jobs in exporting industries have not appeared in numbers great enough to absorb workers displaced by increased foreign competition. Tariffs cannot fix this problem. The current-account gap is a product of underlying financial flows, and taxing imports will simply cause the dollar to rise in an offsetting fashion.

America's privilege also increases inequality, since lost jobs in factories hurt workers while outsize investment performance benefits richer Americans with big portfolios. Because the rich are less inclined to spend an extra dollar than the typical worker, this shift in resources creates weakness in American demand—and sluggish economic growth—except when consumer debt rises as the rich lend their purchasing power to the rest.

Chalk the headaches generated by low interest rates up to the dollar standard, too. Some economists reckon they reflect global appetite outstripping the supply of the safe assets America is uniquely equipped to provide—dollar-denominated government bonds. As the price of safe bonds rises, rates on those bonds fall close to zero, leaving central banks with ever less room to stimulate their economies when they run into trouble.

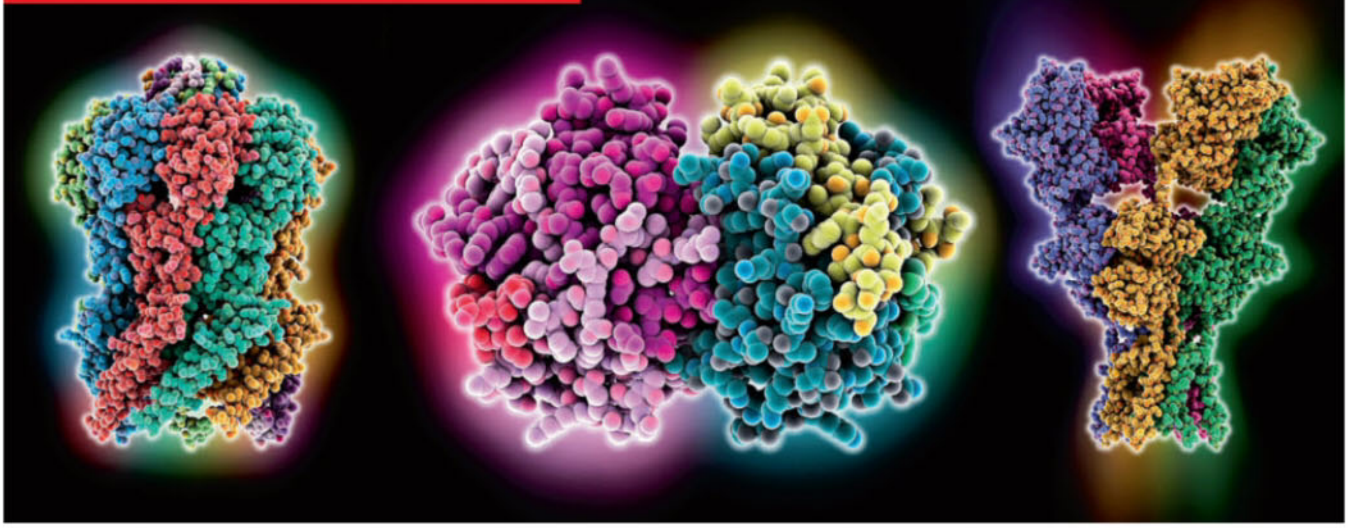
A new golden age

A benign solution seems obvious: the dollar should share its role with other currencies. But one candidate to share the load—China's yuan—is inhibited by tight limits on Chinese financial markets. Nor is increased dependence on China an attractive option for governments seeking to reduce their exposure to authoritarian-minded, transparency-averse regimes with unclear motives. The role of the euro, the other logical option, is constrained by existential political risk and the scarcity of safe euro-denominated bonds. What is more, the world's big economies have much to lose from an end to American monetary hegemony. Their politically convenient trade surpluses for one; the value of the enormous piles of dollar-denominated assets for another.

History suggests two ways in which Mr Trump might undermine the dollar's role. Bretton Woods broke apart as a result of a fatal flaw: governments were desperate for dollars, but in creating more of them America fanned inflation, which made its gold peg unsustainable. Similarly, should Mr Trump's efforts to make America great again through tax cuts and spending lead to ever larger budget deficits and rising inflation, American assets might lose their lustre. America might resemble the 1970s again: with soaring prices and interest rates, but free of its exorbitant burden.

Alternatively, the dollar might go the way of the inter-war gold standard. That collapsed amid a breakdown in international cooperation, as governments of uncompetitive economies put up tariffs and then withdrew from the system altogether through the erection of capital controls. It would be tragic if history's lessons were forgotten and had to be learned all over again. ■

Economist.com/blogs/freeexchange



Molecular biology

Folding stuff

Also in this section

Shape determines a protein's function. Determining that shape, though, is tricky

ABOUT 120,000 types of protein molecule have yielded up their structures to science. That sounds a lot, but it isn't. The techniques, such as X-ray crystallography and nuclear-magnetic resonance (NMR), which are used to elucidate such structures do not work on all proteins. Some types are hard to produce or purify in the volumes required. Others do not seem to crystallise at all—a prerequisite for probing them with X-rays. As a consequence, those structures that have been determined include representatives of less than a third of the 16,000 known protein families. Researchers can build reasonable computer models for around another third, because the structures of these resemble ones already known. For the remainder, however, there is nothing to go on.

In addition to this lack of information about protein families, there is a lack of information about those from the species of most interest to researchers: *Homo sapiens*. Only a quarter of known protein structures are human. A majority of the rest come from bacteria. This paucity is a problem, for in proteins form and function are intimately related. A protein is a chain of smaller molecules, called amino acids, that is often hundreds or thousands of links long. By a process not well understood, this chain folds up, after it has been made, into a specific and complex three-dimensional shape. That shape determines what the protein does: acting as a channel, say, to admit a chemical into a cell; or as an enzyme to accelerate a chemical reaction; or as a receptor, to receive chemical signals and pass them on to a cell's molecular machinery. (Models of all three, in that order, are shown above.)

Almost all drugs work by binding to a particular protein in a particular place, thereby altering or disabling that protein's function. Designing new drugs is easier if binding sites can be identified in advance. But that means knowing the protein's structure. To be able to predict this from the order of the amino acids in the chain would thus be of enormous value. That is a hard task, but it is starting to be cracked.

Chain gang

One of the leading researchers in the field of protein folding is David Baker of the University of Washington, in Seattle. For the past 20 years he and his colleagues have used increasingly sophisticated versions of a program they call Rosetta to generate various possible shapes for a given protein, and then work out which is most stable and thus most likely to be the real one. In 2015 they predicted the structures of representative members of 58 of the missing protein families. Last month they followed that up by predicting 614 more.

Even a small protein can fold up into tens of thousands of shapes that are more or less stable. According to Dr Baker, a chain a mere 70 amino acids long—a tiddler in biological terms—has to be folded virtually inside a computer about 100,000 times in order to cover all the possibilities and thus find the optimum. Since it takes a standard microprocessor ten minutes to do the computations needed for a single one of these virtual foldings, even for a protein this small, the project has, for more than a decade, relied on cadging processing power from thousands of privately owned PCs. Volunteers download a version of Dr Baker's program, called rosetta@home, that runs in the background when a computer is otherwise idle.

This "citizen science" has helped a lot. But the real breakthrough, which led to those 672 novel structures, is a shortcut known as protein-contact prediction. This relies on the observation that chain-folding patterns seen in nature bring certain pairs of amino acids close together predictably enough for the fact to be used in the virtual-folding process.

An amino acid has four arms, each connected to a central carbon atom. Two arms are the amine group and the acid group that give the molecule its name. Protein chains form because amine groups and acid groups like to react together and link up. The third is a single hydrogen atom. But the fourth can be any combination of atoms able to bond with the central carbon atom. It is this fourth arm, called the side chain, which gives each type of amino acid its individual characteristics.

One common protein-contact prediction is that, if the side chain of one member of a pair of amino acids brought close together by folding is long, then that of the other member will be short, and vice versa. In other words, the sum of the two lengths is constant. If you have but a single protein sequence available, knowing this is not much use. Recent developments in ▸▸

genomics, however, mean that the DNA sequences of lots of different species are now available. Since DNA encodes the amino-acid sequences of an organism's proteins, the composition of those species' proteins is now known, too. That means slightly different versions, from related species, of what is essentially the same protein can be compared. The latest version of Rosetta does so, looking for co-variation (eg, in this case, two places along the length of the proteins' chains where a shortening of an amino acid's side chain in one is always accompanied by a lengthening of it in the other). In this way, it can identify parts of the folded structure that are close together.

Though it is still early days, the method seems to work. None of the 614 structures Dr Baker modelled most recently has yet been elucidated by crystallography or NMR, but six of the previous 58 have. In each case the prediction closely matched reality. Moreover, when used to "hindcast" the shapes of 81 proteins with known structures, the protein-contact-prediction version of Rosetta got them all right.

There is a limitation, though. Of the genomes well-enough known to use for this trick, 88,000 belong to bacteria, the most speciose type of life on Earth. Only 4,000 belong to eukaryotes—the branch of life, made of complex cells, which includes plants, fungi and animals. There are, then, not yet enough relatives of human beings in the mix to look for the co-variation Dr Baker's method relies on.

Others think they have an answer to that problem. They are trying to extend protein-contact prediction to look for relationships between more than two amino acids in a chain. This would reduce the number of related proteins needed to draw structural inferences and might thus bring human proteins within range of the technique. But to do so, you need a different computational approach. Those attempting it are testing out the branch of artificial intelligence known as deep learning.

Linking the links

Deep learning employs pieces of software called artificial neural networks to fossick out otherwise-abstruse patterns. It is the basis of image- and speech-recognition programs, and also of the game-playing programs that have recently beaten human champions at Go and poker.

Jianlin Cheng, of the University of Missouri, in Columbia, who was one of the first to apply deep learning in this way, says such programs should be able to spot correlations between three, four or more amino acids, and thus need fewer related proteins to predict structures. Jinbo Xu, of the Toyota Technological Institute in Chicago, claims to have achieved this already. He and his colleagues published their method in PLOS *Computational Biology*, in January, and it is now being tested.

If the deep-learning approach to protein folding lives up to its promise, the number of known protein structures should multiply rapidly. More importantly, so should the number that belong to human proteins. That will be of immediate value to drugmakers. It will also help biologists understand better the fundamental workings of cells—and thus what, at a molecular level, it truly means to be alive. ■

Obituary

The joy of stats

Hans Rosling, statistician, died on February 7th, aged 68

STATISTICS has not, traditionally, been an exciting word. Its most common prefix is the word "dry". Ask people what they think of statistics, or try to use some in an argument, and you will often get the quote attributed to Benjamin Disraeli that lists them alongside lies and damned lies. That is a shame: tables of figures may look dull, but they are a better guide to what is happening in the world than anything on television or in the press.

Hans Rosling had no time for the idea that statistics were boring. Armed with everything from a few Lego bricks and a pocketful of draughts pieces to snazzy, specially made computer graphics, he had a talent for using numbers to tell exciting stories. Not just exciting, but optimistic, too, for the tales those numbers told were of a world which, despite the headlines, was rapidly becoming a better place.

He knew what he was talking about. Besides being a statistician, he was also a doctor with experience in some of the world's poorest corners. He did his PhD in Africa, studying a disease called konzo that strikes people whose diets include a lot of semi-processed cassava, which contains high levels of cyanide. But it was his flair for the dramatic that allowed him to share that expertise with other people.

It was a job that needed doing. By the 1990s he was teaching global health at the Karolinska Institute, in Stockholm. He found that his students—the cream of Sweden's academic crop—had little idea about the world. When he gave them five pairs of countries and asked which of each pair had the higher rate of child mortality, the average number of correct answers was just 1.8. "Swedish students, in other words," he said, "know…less about the world than a chimpanzee." (The chimp, by choosing randomly, would score 2.5 out of five.) The same applied to his academic colleagues—who, as he pointed out with a twinkle in his eye, were responsible for handing out the Nobel prize for medicine.

He was a natural showman. In 2007 he finished a talk on global development with a demonstration of sword-swallowing, ingesting a Swedish-army bayonet live on stage. As his fame grew, he became a regular at gatherings of the great and the good, presenting talks at TED (a series of conferences supposed to give novel ideas an airing; his were much better than most) and attending Davos, an annual gathering of the masters of the universe in Switzerland.

His stock-in-trade was debunking gloomy stereotypes about poor countries and economic development. There were five surprising facts, for instance, that he loved to hammer home: population growth is slowing rapidly; the divide between the global rich and poor is blurring; humans are living much longer than 50 years ago; many more girls are getting an education; and the number of people in extreme poverty fell by a billion between 1980 and 2013.

Dr Rosling's talent was to make those facts sing—to remind his audience that these dry-sounding numbers are, in fact, the sum total of billions of real lives that are better than they would have been half a century ago. His elevation annoyed some critics. Paul Ehrlich, a biologist who had, in the 1970s, predicted that hundreds of millions of people would starve by the end of that decade, accused him of being a Pollyanna. But it was hard to argue with his facts. Most simply celebrated him as a communicator of some happy truths.

Dr Rosling himself was sceptical about how much impact he had really made. People seemed to cling to their gloomy, wrong assumptions about the world. In 2013, in an interview with the *Guardian*, he reflected: "When we asked the Swedish population how many children are born per woman in Bangladesh, they still think it's four to five." In reality, the numbers have not been that high for 20 years. The current rate is 2.3—less than South Africa, and only slightly higher than New Zealand. ■

Materials science

A film worth watching

Keeping cool without costing the Earth

ABOUT 6% of the electricity generated in America is used to power air-conditioning systems that cool homes and offices. As countries such as Brazil, China and India grow richer, they will surely do likewise. Not only is that expensive for customers, it also raises emissions of greenhouse gases in the form both of carbon dioxide from burning power-station fuel and of the hydrofluorocarbons air conditioners use as refrigerants.

As they describe in a paper in this week's *Science*, Ronggui Yang and Xiaobo Yin of the University of Colorado, in Boulder, have a possible alternative to all this. They have invented a film that can cool buildings without the use of refrigerants and, remarkably, without drawing any power to do so. Better yet, this film can be made using standard roll-to-roll manufacturing methods at a cost of around 50 cents a square metre.

The new film works by a process called radiative cooling. This takes advantage of that fact that Earth's atmosphere allows certain wavelengths of heat-carrying infrared radiation to escape into space unimpeded. Convert unwanted heat into infrared of the correct wavelength, then, and you can dump it into the cosmos with no come back.

Dr Yang and Dr Yin are not the first to try to cool buildings in this way. Shanhui Fan and his colleagues at Stanford University, in California, demonstrated a device that used the principle in 2014. Their material, though, consisted of seven alternating layers of hafnium dioxide and silicon dioxide of varying thicknesses, laid onto a wafer made of silicon. This would be difficult and expensive to manufacture in bulk.

Dr Yang's and Dr Yin's film, by contrast, was made of polymethylpentene, a commercially available, transparent plastic sold under the brand name TPX. Into this they mixed tiny glass beads. They then drew the result out into sheets about 50 millionths of a metre (microns) thick, and silvered those sheets on one side. When laid out on a roof, the silver side is underneath. Incident sunlight is thus reflected back through the plastic, which stops it heating the building below.

Preventing something warming up is not, though, the same as cooling it. The key to doing this is the glass beads. Temperature maintenance is not a static process. All objects both absorb and emit heat all the time, and the emissions are generally in the form of infrared radiation. In the case of the beads, the wavelength of this radiation is determined by their diameter. Handily, those with a diameter of about eight microns emit predominantly at wavelengths which pass straight through the infrared "window" in the atmosphere. Since the source of the heat that turns into this infrared is, in part, the building below, the effect is to cool the building.

That cooling effect, 93 watts per square metre in direct sunlight, and more at night, is potent. The team estimates that 20 square metres of their film, placed atop an average American house, would be enough to keep the internal temperature at 20°C on a day when it was 37°C outside.

To regulate the amount of cooling, any practical system involving the film would probably need water pipes to carry heat to it from the building's interior. Manipulating the flow rate through these pipes as the outside temperature varied would keep the building's temperature steady. Unlike the cooling system itself, these pumps would need power to operate. But not much of it. Other than that, all the work is done by the huge temperature difference, about 290°C, between the surface of the Earth and that of outer space. ■

Pollination

Where the bee sucks

Plans for artificial pollinators are afoot

IT IS, in one way, the ultimate drone. In another, though, it is the antithesis of what a drone should be. Drones are supposed to laze around in the hive while their sisters collect nectar and pollinate flowers. But pollination is this drone's very reason for existing.

The drone in question is the brainchild of Eijiro Miyako, of the National Institute of Advanced Industrial Science and Technology, in Tsukuba, Japan. It is the first attempt by an engineer to deal with what many perceive as an impending agricultural crisis. Pollinating insects in general, and bees in particular, are falling in numbers. The reasons why are obscure. But some fear certain crops will become scarcer and more expensive as a result. Attempts to boost the number of natural pollinators have so far failed. Perhaps, thinks Dr Miyako, it is time to build some artificial ones instead.

His pollinator-bot does not, it must be said, look much like a bee. It is a modified version of a commercially available robot quadcopter, 42mm across. (By comparison, a honeybee worker is about 15mm long.) But the modifications mean it can, indeed, pollinate flowers. Specifically—and crucially—Dr Miyako has armed it with paintbrush hairs that are covered in a special gel sticky enough to pick pollen up, but not so sticky that it holds on to that pollen when it brushes up against something else.

Previous attempts to build artificial pollinators have failed to manage this. Dr Miyako, though, has succeeded. Experiments flying the drone up to lily and tulip flowers, so that the gel-laden hairs come into contact with both the pollen-bearing anthers and the pollen-receiving stigmata of those flowers, show that the drone can indeed carry pollen from flower to flower in the way an insect would—though he has yet to confirm that seeds result from this pollination.

At the moment, Dr Miyako's drones have to be guided to their targets by a human operator. The next stage will be to fit them with vision that lets them recognise flowers by themselves. Fortunately, visual-recognition software is sufficiently developed that this should not be too hard. In future, when you are walking through an orchard in bloom, listen out for the humming of the drones as well as the buzzing of the bees.

Female genital mutilation

Culture wars

Understanding why the mutilation of women happens may help stamp it out

GENES that increase an individual's reproductive output will be preserved and spread from generation to generation. That is the process of evolution by natural selection. More subtly, though, in species that have the sorts of learnable, and thus transmissible, behaviour patterns known as culture, cultural changes that promote successful reproduction are also likely to spread. This sort of cultural evolution is less studied than the genetic variety, but perhaps that should change, for a paper published this week in *Nature Ecology and Evolution*, by Janet Howard and Mhairi Gibson of the University of Bristol, in England, suggests that understanding it better may help wipe out a particularly unpleasant practice: female genital mutilation.

FGM, as it is known for short, involves cutting or removing part or all of a female's external genitalia—usually when she is a child or just entering puberty. Unlike male circumcision, which at least curbs the transmission of HIV, the AIDS-causing virus, FGM brings no medical benefit whatsoever. Indeed, it often does harm. Besides psychological damage and the inevitable risk that is associated with any sort of surgery (especially when conducted outside a clinic), FGM can cause subsequent obstetric complications and put a woman at risk of future infections. All these seem good reasons why it would harm reproductive output and thus be disfavoured by evolution, whether biological or cultural. Yet the practice persists, particularly in parts of Africa and among migrant populations originating from these places. Ms Howard and Dr Gibson wanted to understand why.

To do so they drew on data from five national health surveys carried out in west Africa (specifically, Burkina Faso, Ivory Coast, Nigeria, Mali and Senegal) over the past ten years. These provided data on the FGM-status—mutilated or otherwise—of more than 60,000 women from 47 ethnic groups. That enabled Ms Howard and Dr Gibson to establish the prevalence rates of mutilation in each of these groups, and to search for explanations of any variation.

They first confirmed formally what common sense would suggest is true—that the daughters of a mother belonging to an ethnic group where FGM is widespread are, themselves, more likely to have undergone it than those of a mother not belonging to such a group. But there was more to the pattern of those results than mere correlation. The average rates of mutilation in the groups the researchers looked at tended to cluster towards the ends of the distribution, near either 0% or 100%, rather than being spread evenly along it.

In the argot of statistics, then, the distribution is U-shaped. This suggests something is pushing behaviour patterns away from the middle and towards the extremes. What that something might be is in turn suggested by the two researchers' second finding: the consequences of mutilation for a woman's reproductive output.

All or none

For convenience, Ms Howard and Dr Gibson defined a woman's reproductive output as the number of her children still living when she reached the age of 40. Just over 10,000 women in the five pooled surveys were over this age, and it was from them that the researchers drew their data. Analysis showed that in ethnic groups where mutilation was common, mothers who were themselves mutilated had more children over their reproductive lifetimes than did the unmutilated. In groups where mutilation was rare, by contrast, it was the other way around. At the extremes, in groups where mutilation was almost ubiquitous or almost unheard of, the average difference amounted to a third or more of an extra child per lifetime. That is a strong evolutionary pressure to conform to the prevailing social norm, whatever it is.

What causes this difference Ms Howard and Dr Gibson cannot say for sure, but they suggest that conforming to whichever norm prevails might let a woman make a more advantageous marriage, and also give her better access to support networks, particularly of members of her own sex. Cultural evolution, in other words, is generating conformity in the same sort of way that biological evolution does when the plumage of a male bird has to conform to female expectations of what a male looks like if that male is to mate successfully, even though the particular pattern of his plumage brings no other benefit.

All this does, though, offer a lever to those who are trying to eradicate FGM, for unlike genetic norms, cultural ones can be manipulated. The distribution's shape suggests that, if mutilation rates in societies where FGM is now the norm could somehow be pushed below 50%, then positive feedback might continue to reduce them without further effort (though such effort could well speed things up).

One thing that is known to push in the right direction is more and better education—and not just for girls. That is desirable, though, for reasons far wider than just the elimination of FGM. More specifically, in a companion piece to Ms Howard's and Dr Gibson's paper, Katherine Wander of Binghamton University, in New York state, offers a thought inspired directly by the new research. She wonders if fostering social connections between "cut" and "uncut" women in a community might reorganise support networks specifically in a way that reduces the advantages of mutilation.

More widely, the method Ms Howard and Dr Gibson have pioneered, of looking for unexpected advantages that help explain the persistence of other undesirable behaviours, might be applied elsewhere. So-called "honour killings" would be a candidate for such a study, as would the related phenomena of daughter neglect and the selective infanticide and selective abortion of females. On the face of things, these might be expected to be bad for total reproductive output. But perhaps, as with FGM, that is not always the case. And, if it is not, such knowledge would surely help in the fight against them. ■

Just stop it!

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Lost Europe

Mapping history

A gifted writer travels through Europe's mountainous south-eastern corner

Border: A Journey to the Edge of Europe. By Kapka Kassabova. *Granta; 379 pages; £14.99. To be published in America by Graywolf in September; $16*

TRAGEDIES and mistakes are strewn across Europe's borderlands. Nowhere more so than in the continent's mountainous south-eastern corner, where the Iron Curtain once divided communist Bulgaria from capitalist Greece and Turkey. The land is haunted by that divide, and by vanished kingdoms, peoples and wars. Kapka Kassabova's poignant, erudite and witty third book, "Border", brings hidden history vividly to light.

The central theme of the book, topically, is frontiers. Lines on the map that are drawn and policed by the powerful, protect one sort of interests while severing others. "An actively policed border is always aggressive," she writes. "It is where power acquires a body, if not a human face, and an ideology."

Some of the book's most striking passages are about "well-oiled feudal barbarity", the abominable treatment that was meted out to those who tried to escape: tricked and betrayed, beaten and jailed, or shot in cold blood and left to bleed to death. At a time when memories of the Soviet empire's vast prison camp are fading, the story Ms Kassabova has to tell is important. She grew up in communist Bulgaria and remembers that system's arbitrary cruelty, which finds echoes today in the mistreatment of refugees and migrants.

The post-communist era brought new problems: corruption, petty nationalist quarrels and environmental ruin. Ms Kassabova's book drips with scorn for the spivs, goons and far-off politicians whose greed and carelessness wreak such mischief and misery. She was inspired to write it after witnessing the "roughshod levelling" of her adopted home in the Scottish Highlands, and later, when helping Bulgarians clean up after a flood caused by illegal logging and the looting of sand, she shouts, "Something must be done." "It's because you don't live here...You still believe in justice," comes the crushing retort.

A particular treat is her ear for lurid local myths. Extraterrestrial beacons, mysterious balls of fire, lost pyramids and a secret site guarded by specially bred Uzbek vipers all get a look in. The first account of the region was in the fifth century BC, by Herodotus. Ms Kassabova gamely takes up the first historian's torch. Her writing also has echoes of Patrick Leigh Fermor's epic tramp across the pre-war Balkans. But her sparse, ironic style lacks the self-conscious self-indulgence of Fermor's prose, and is all the better for it.

She treads lightly but distinctly through the stories she tells, displaying an enviable mixture of rapport with her subjects and detachment from their peculiarities. Leaving her favourite valley in the Strandja mountains was "like pulling myself out with a corkscrew", she writes. She highlights stories barely known outside the region, such as the communist Bulgarian regime's vindictive deportation of 340,000 ethnic Turks in the 1980s and the doomed 15-year struggle of the Goryani (Woodlanders) against communist rule. Their fate is absent from Bulgaria's modern history: their mouths, she writes, "are full of earth".

Yet the author's astringent approach to myths and falsehoods could be more evenly applied. Many might quibble with Ms Kassabova's unsupported assertion that the Goryani were the "largest, longest-sustained resistance movement against Soviet state terror in eastern Europe" (Ukraine's and Poland's anti-communist guerrilla movements were the biggest, and the last Estonian partisan was on the run until 1978). The story of an East German family fleeing to the West in a home-made balloon is not, as she dismisses it, "apocryphal": the briefest research reveals that it really happened, in 1979. Britain's foreign espionage service is MI6, not MI5.

But these flaws pale against the strength of the book: its treatment of history's blessings and curses. Past imperial ages—chiefly Byzantine and Ottoman—laid down complex, and mostly harmonious, layers of languages, ethnicities, cultures and religions, erased in the name of nation-building and tidiness. Communities with roots going back centuries were pulled up and dumped across borders that had once hardly mattered, into countries that they scarcely knew. It is a "melancholy miracle", writes Ms Kassabova, that "odd ragged bits of this once-rich human tapestry" survive. They could have no better chronicler. ■

Nature notes

The undercover life of animals

The Evolution Underground: Burrows, Bunkers, and the Marvellous Subterranean World Beneath Our Feet. By Anthony Martin. *Pegasus; 405 pages; $28.95. To be published in Britain by W.W. Norton in March; £22.99*

IN THE card game of survival, the pocket gopher has been dealt a royal flush. When Mount St Helens erupted in 1980 and vaporised 600 square kilometres (230 square miles) of the Cascade mountains in Washington state, the small mammal hunkered down in its burrow, and—unlike elk, mountain goats and coyotes, which perished in their thousands—emerged from the conflagration intact. It relied on a tactic first exploited 545m years ago by trilobites and marine worms: duck and cover.

In "The Evolution Underground" Anthony Martin of Emory University digs into the subterranean strategies of prehistoric and contemporary animals, from insects to giant sloths and, to a lesser extent, humans. Mr Martin is a geologist, paleontologist and, notably, an ichnologist—a scientist who studies animal traces such as burrows, tracks and trails. They offer subtle clues that help shift the dramatic narrative of prehistoric life forward. Trace fossils evince movement, whether the footprints of a dinosaur or the sinuous bore hole of a worm. They also reveal behaviour—the nesting habits of horseshoe crabs, the digging methodology of ants, even the existence of a burrowing dinosaur, *Oryctodromeus cubicularis*, co-discovered by Mr Martin in 2005 in south-western Montana.

In the Permian, Triassic and Cretaceous eras burrowing animals ("prehistoric preppers", he calls them) survived the great extinctions that obliterated other fauna, including dinosaurs. Today underground warrens enable lungfish in Africa to survive drought, iguanas in the Bahamas to weather hurricanes and alligators in Georgia to sit out wildfires.

Because extremes in temperature are ironed out underground, the virtues of subterranean living have been used to human advantage as well. Homes and hotels carved from abandoned opal mines in Australia provide shelter from desert temperatures of 40-45°C (104-113°F) in summer. Likewise, shoppers in Montreal's La Ville Souterraine escape the -25°C wind-chilled Canadian winter.

Mr Martin offers a more ominous example of defensive digging in cold-war era bunkers like "Site R" in Pennsylvania, which was built in the early 1950s. Hewed from metamorphic rock 200 metres (650 feet) beneath a mountain, the nuclear blast-proof compound with capacity for 3,000 people features a barber shop, fitness centre and a chapel. The military-communications centre is also a bolthole for the president of the United States.

Congress had its own escape hatch, code-named "Casper," built beneath the Greenbrier, a smart resort in White Sulphur Springs, West Virginia. Unlike the digs of another underground lodger—the gopher tortoise, which shares its space with hundreds of other species—the bunker's welcome mat was not extended to friends and family. No matter. In 1992, after the *Washington Post* blew the lid off Casper, the site was closed and later became a tourist attraction.

In the raise-you-one nuclear-proliferation stakes, the Soviet government built bunkers, too. In 1991 a report by the Defence Department noted two: one under the Kremlin and another near Moscow State University—more evidence, Mr Martin says, of the zenith reached by governments planning to "survive worst-case scenarios inflicted by human-caused ... disasters". Magical thinking, that survival stuff. Though a volcano-proof burrow is a winning strategy for a pocket gopher, a "nuke-proof" bunker may be more indicative of a losing game for humans. ■

The pocket gopher's pocket plaza

Thoughts on time

Clock-watching

Why Time Flies: A Mostly Scientific Investigation. By Alan Burdick. *Simon & Schuster; 320 pages; $28*

TIME is such a slippery thing. It ticks away, neutrally, yet it also flies and collapses, and is more often lost than found. Days can feel eternal but a month can gallop past. So, is time ever perceived objectively? Is this experience innate or is it learned? And how long is "now", anyway? Such questions have puzzled philosophers and scientists for over 2,000 years. They also began to haunt Alan Burdick of the *New Yorker*. Keen for answers, he set out "on a journey through the world of time", a lengthy trip that spans everything from Zeno's paradoxes to the latest neuroscience. Alas, he arrives at a somewhat dispiriting conclusion: "If scientists agree on anything, it's that nobody knows enough about time."

Humans are apparently poor judges of the duration of time. Minutes seem to drag when one is bored, tired or sad, yet they flit by for those who are busy, happy or socialising (particularly if alcohol or cocaine is involved). Eventful periods seem, in retrospect, to have passed slowly, whereas humdrum stretches will have sped by. Although humans (and many animals) have an internal mechanism to keep time, this turns out to be as reliable as a vintage cuckoo clock. "It's a mystery to me that we function as well as we do," observes Dan Lloyd, a philosopher and time scholar at Trinity College in Hartford, Connecticut.

St Augustine, a fourth-century philosopher and theologian, was the first to recognise time as a property of the mind, an experience of perception and far from absolute. His insight turned what had been a subject of physics into one of psychology, and it informs much of the work of later scientists. In the mid-1800s William James, a philosopher and psychologist, noted that the brain does not perceive time itself but its passage, and only because it is filled in some way. He grew baffled by efforts to quantify the present, observing that any instant melts in one's grasp, "gone in the instant of becoming".

Of all interior clocks, the circadian is perhaps best understood. Nearly every organism has a molecular rhythm cycle that roughly tracks a 24-hour period. In humans all bodily functions oscillate depending on the time of day. Blood pressure peaks around noon; physical co-ordination crests in midafternoon; and muscles are strongest at around 5pm. Night-shift workers are not as productive as they think ▸▸

they are. Cataclysms of human error, including accidents at Chernobyl and aboard the *Exxon Valdez*, all took place in the small hours, when workers are measurably slowest to respond to warning signals. Long-distance travel often makes a hash of the body's "synchronised confederacy of clocks", disrupting not only sleep but metabolism. The jet-lagged body recovers at a rate of about one time zone per day.

Mr Burdick spent quite a lot of time on this book, beginning it just before his twin sons were born and finishing it when they were old enough to suggest titles. It reads like a discursive journey through a vague and slippery subject, a thoughtful ramble across decades and disciplines. Although the study of time has yielded few firm conclusions, one lesson is poignantly certain: most people complain that time seems to speed up as they get older, in part because they feel more pressed for it. "Time", writes Mr Burdick, "matters precisely because it ends." ■

Civil wars

Brother against brother

Civil Wars: A History in Ideas. By David Armitage. *Knopf, 349 pages; $27.95. Yale University Press; £18.99*

IN DECEMBER 2011, months after fighting broke out in Syria, a State Department spokesman was asked if the conflict was really a civil war. He dodged the term, which is fraught with legal, military, political and economic implications for the intervention of outside states. Bashar al-Assad called his enemies "terrorists". The Syrian people understood their conflict more hopefully, as a revolution (though one exile insisted to the *Guardian*: "This is not a revolution against a regime any more, this is a civil war.") In July 2012, after 17,000 deaths, the Red Cross at last acknowledged that Syria was engaged in "armed conflict not of an international character".

Civil war, writes David Armitage, a historian at Harvard University, is "an essentially contested concept about the essential elements of contestation". Intrastate war has replaced wars between states as the most common form of organised violence: the annual average of intrastate wars between 1816 and 1989 was a tenth of the number in each year since 1989. Only 5% of wars in the recent period have been between states. But an abundance of cases has not improved clarity. "Civil war" can be invoked to bring a conflict within the constraints of the Geneva Convention and to authorise intervention, including millions of dollars in humanitarian aid. But it can also be used to dismiss conflicts as internal matters, as happened with Rwanda and Bosnia in the 1990s. It is rewritten as "revolution" when rebels are victorious—but was the American Revolution not a civil war within the British empire? Ruling powers, quick to deny the legitimacy of their challengers, reduce it to illegal insurrection. "Civil war", by contrast, recognises rebels as an equal, opposing party—in effect, a separate nation.

In "Civil Wars" Mr Armitage traces the evolution of an explosive concept, not to pin down a proper meaning but to show why it remains so slippery. The Romans, to whom he attributes the origin of the idea, spoke of *bellum civile* with horror: a conflict against enemies who were really brothers, for a cause that, consequently, could not be just, it defied their very criteria for war. It was the savage, suicidal turning of a civilisation on itself. Yet, it seemed an inescapable feature of Roman civilisation; its foundational curse, a recurrent phenomenon like the eruptions of a volcano. "No foreign sword has ever penetrated so," wrote the poet Lucan. "It is wounds inflicted by the hand of fellow-citizen that have sunk deep." Their corpus of pained reflections meant civil war was long viewed through "Rome-tinted spectacles".

The age of revolutions in the late 18th century recast civil war as part of a visionary programme of change and emancipation. But the forward-looking idealism of the Enlightenment did not banish the senseless barbarism of civil war so much as create new conditions for violence. It is hard to disregard the sense that revolution, for all its Utopian promise, is merely a species of civil war.

International law has attempted to civilise civil war. But as Mr Armitage reminds readers, the modern order rests on sovereign inviolability and the pursuit of human rights, two principles that are in conflict, making clear guidelines elusive and incomplete. The original Geneva Convention of 1864 did not even extend to civil wars: "It goes without saying international laws are not applicable to them," explained a drafter. Today's legal protocols may only make leaders avoid the term, complicating the humanitarian response it is meant to trigger.

Globalisation has added further conceptual twists. The first world war, John Maynard Keynes said, was really a "European civil war". In the view of Carl Schmitt, a German political theorist, Leninist socialism unleashed a "global civil war". To many today, transnational terrorism is another kind of civil war without borders. Foreign intervention means that even conflicts that begin within borders increasingly spill beyond them, with reverberations across the globe. In 2015, 20 of 50 internal conflicts were internationalised civil wars. The Roman notion of civil war

as a wound that never quite heals haunts these conflicts and politics itself, which is, in the words of Michel Foucault, just civil war "by other means". In an era of transnational populism and anti-globalist revolt, this notion is resonant. The meaning of civil war, as Mr Armitage shows, is as messy and multifaceted as the conflict it describes. His book offers an illuminating guide through the 2,000-year muddle and does a good job of filling a conspicuous void in the literature of conflict. ■

French fiction

From the bottom up

The End of Eddy. By Edouard Louis. Translated by Michael Lucey. *Harvill Secker; 192 pages; £12.99. To be published in America by Farrar, Straus & Giroux in May; $25*

"YOU don't get all that used to pain really," writes Edouard Louis about the perpetually sore hands and stiff joints of a cousin who worked as a supermarket checkout girl. Although this autobiographical novel, by a French writer who is still only 24, has stirred a whirlwind of controversy about truth and fiction, class and sexuality, it never moves far from the ordeal of sheer physical suffering.

Eddy Bellegueule—his birth name translates as "Eddy Prettymug"—grows up as a bullied misfit amid the post-industrial underclass of Hallencourt, in northern France. Cursed as a "faggot", Eddy, "the odd boy in the village", is repeatedly brutalised both at home and at school. In vain, he tries to fit in, pretending to have a taste for football, girls, even for homophobia, until escape becomes "the only option left to me". In this culture where male violence appears "natural, self-evident", Eddy's father not only terrorises his family but himself. He suffers excruciating back pain that leaves him "screaming in [the] bedroom" and drives him from his job at a brass foundry. Everywhere, "masculine neglect" in families that have dropped out of steady employment means that these "tough guys" inflict the worst violence on their own bodies. They suffer drunk-driving accidents, chronic pain, untreated injuries and "alcohol-induced comas". One forgotten man even "died in his own excrement". In fighting and abuse, agony begets agony.

A bestseller when it came out in France in 2014, "The End of Eddy" triggered a very French critical skirmish. By this time, Mr Louis had changed his name and gone on to shine at the elite Ecole Normale Supérieure in Paris. Did the book betray Eddy's stricken family as his growing attraction to boys rather than girls "transformed my whole relationship with the world"? Does this narrative of hell in Hallencourt, at once visceral and cerebral, demonise the so-called *Lumpenproletariat*, or depict tragic victims trapped in roles "both imposed by social forces ... and also consciously assumed"? A disciple of Pierre Bourdieu, a French sociologist, Mr Louis denounces the "class violence" of inequality and opposes the tide of right-wing populism that has swept through such abandoned communities. Michael Lucey's translation conveys both the scorching sorrow and the cool intelligence of a book that—half-misery memoir, half-radical tract—finds a voice for so much pain. The scapegoat of Hallencourt has become its spokesman. ■

Wolfgang Tillmans

Fiery angel

Two exhibitions show the restless energy of a German master-artist

THE photograph of two skinny, half-naked 20-somethings defined a generation. "Lutz and Alex Sitting in the Trees" was a near perfect evocation of the counterculturalism of rave in the early 1990s. The image was so iconic that even people who have never heard of Wolfgang Tillmans, the German artist who shot it, would recognise it right away. The photograph was published in a cool British magazine in 1992, but Mr Tillmans is a hard worker with a prodigious output and he has done a great deal since then.

Two new exhibitions, one in London and another which opens in late May near Basel, will show visitors what he has achieved. The first, at Tate Modern, explores Mr Tillmans's more recent experimental work, from his dramatic colour abstractions to his still lifes of kiwi fruit lobsters and cigarettes, which owe a debt to their 17th-century Dutch antecedents. A slide show of up to 500 buildings shot in 37 countries presents a harsh commentary on architecture today. There is also a room designed for listening to music in perfect studio conditions, since Mr Tillmans believes that, at its best, popular music is art, too.

Indeed, he has never distinguished between high art and low. He is as happy to see his work in magazines as in museums, and regards his occasional DJ sets in nightclubs as part of his art project. It is this democratic approach, as much as the aesthetic content of his work, that has won him so many fans.

The last time Mr Tillmans had a show at the Tate was in 2003 (he won the Turner prize in 2000, the first non-British artist to do so). He has chosen that date as the jumping-off point for this exhibition and may even be using it to separate himself from his past. There is no "Lutz and Alex"; none of the photographs of the Concorde jet, which he made in 1997 and which went on to cement his reputation as an artist to be reckoned with. Instead, the artist who started out closely observing his own tribe has gone on to explore a wider world. At the Tate visitors will be able to lose themselves in images so large that they could swallow you up—a seascape measuring three metres by four and a market scene in Ethiopia that occupies an entire wall.

Going Dutch

The emotion for which Mr Tillmans has always been known, the romance even, is still there, as he continues to conjure from this two-dimensional medium a three-dimensional world. A new work of a blue jacket and shiny navy shorts gently crumpling together has the real-life contours of finely painted renaissance drapery. "I'd just done a blue wash," he explains of the effortless pairing of garments. "These possibilities emerge 24 hours a day." What look like a series of natural occurrences, though, are rarely quite that. "It is a fiction that looks like reality," he says. "But it's easy to make things look complicated and I aim for the opposite." And the politics prevails, as in views of the sea from the island of Lampedusa in the Mediterranean, where searchlights scour the ocean.

As a teenager, Mr Tillmans was fascinated by London (a series of works from the 1980s imagined him living a fantasy life in the city). He moved there in his mid-20s and then, as he became more successful in America, to New York. But he failed to find his inner American and returned to Britain soon after.

Since 2011 Mr Tillmans has been working from a studio in Berlin in a Bauhaus-style building that dates back to 1928. In a sequence of spectacular spaces that are flooded with daylight, as many as 15 assistants help to prepare shows, manage the archive and support Mr Tillmans in the production of his work. A second studio, over the road and up several flights of stairs, is the artist's more private space. It was here, for example, that he made a small-scale maquette of his Tate show, arranging postage-stamp reproductions in its miniature galleries. He will do the same for his second, equally majestic, exhibition at the Beyeler Foundation near Basel. Not a single piece of work will be repeated between the two shows, though the Beyeler exhibition promises rather more figurative work, particularly the shots of slender men for which he is known.

Mr Tillmans divides his day into two long shifts, the first with his team in the 1928 building and the second in isolation across the street. His secret, he says, is "micro naps". If the pace is relentless, he is driven, it seems, by a passion for discovery that in his childhood lured him to astronomy and physics and as an adult has made him determined to give everything a go. He has just returned to making music—rumbling vocals over staccato techno beats—under the name Fragile. "The pressure of experimentation is greater than the fear of embarrassment," he says. "That is the essence of art." ■

Conferences

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment	Current-account balance		Budget balance	Interest rates, %	Currency units, per $	
	latest	qtr*	2016†	latest	latest	2016†	rate, %	latest 12 months, $bn	% of GDP 2016†	% of GDP 2016†	10-year gov't bonds, latest	Feb 8th	year ago
United States	+1.9 Q4	+1.9	+1.6	+0.5 Dec	+2.1 Dec	+1.3	4.8 Jan	-476.5 Q3	-2.6	-3.2	2.39	-	-
China	+6.8 Q4	+7.0	+6.7	+6.0 Dec	+2.1 Dec	+2.0	4.0 Q4§	+210.3 Q4	+2.4	-3.8	3.11§§	6.88	6.57
Japan	+1.1 Q3	+1.3	+0.9	+3.0 Dec	+0.3 Dec	-0.2	3.1 Dec	+190.9 Dec	+3.7	-5.5	0.10	112	116
Britain	+2.2 Q4	+2.4	+2.0	+1.9 Nov	+1.6 Dec	+0.7	4.8 Oct††	-138.1 Q3	-5.4	-3.7	1.38	0.80	0.70
Canada	+1.3 Q3	+3.5	+1.2	+1.5 Nov	+1.5 Dec	+1.5	6.9 Dec	-53.6 Q3	-3.5	-2.4	1.62	1.31	1.40
Euro area	+1.8 Q4	+2.0	+1.7	+3.2 Nov	+1.8 Jan	+0.2	9.6 Dec	+394.6 Nov	+3.3	-1.8	0.30	0.93	0.90
Austria	+1.2 Q3	+2.4	+1.5	+2.3 Nov	+1.4 Dec	+0.9	5.7 Dec	+8.0 Q3	+2.5	-0.9	0.63	0.93	0.90
Belgium	+1.1 Q4	+1.6	+1.2	+0.4 Nov	+2.6 Jan	+1.8	7.6 Dec	+3.4 Sep	+1.0	-3.0	0.88	0.93	0.90
France	+1.1 Q4	+1.7	+1.2	+1.8 Nov	+1.4 Jan	+0.3	9.6 Dec	-26.8 Dec‡	-1.1	-3.3	1.10	0.93	0.90
Germany	+1.7 Q3	+0.8	+1.8	-0.6 Dec	+1.9 Jan	+0.4	5.9 Jan	+296.9 Nov	+8.9	+0.6	0.30	0.93	0.90
Greece	+1.6 Q3	+3.1	+0.4	+2.3 Nov	nil Dec	nil	23.0 Oct	-1.0 Nov	-0.3	-7.7	7.87	0.93	0.90
Italy	+1.0 Q3	+1.0	+0.9	+3.2 Nov	+0.9 Jan	-0.1	12.0 Dec	+50.9 Nov	+2.7	-2.6	2.24	0.93	0.90
Netherlands	+2.4 Q3	+3.1	+2.0	+4.8 Dec	+1.7 Jan	+0.1	6.4 Dec	+57.1 Q3	+8.1	-1.1	0.55	0.93	0.90
Spain	+3.0 Q4	+2.8	+3.2	-1.6 Dec	+3.0 Jan	-0.3	18.4 Dec	+24.3 Nov	+1.8	-4.6	1.82	0.93	0.90
Czech Republic	+1.6 Q3	+0.9	+2.4	+2.7 Dec	+2.0 Dec	+0.7	5.3 Jan§	+3.7 Q3	+1.7	nil	0.49	25.2	24.3
Denmark	+1.1 Q3	+1.5	+1.0	+10.0 Dec	+0.5 Dec	+0.3	4.3 Dec	+24.5 Dec	+7.3	-1.4	0.35	6.94	6.70
Norway	-0.9 Q3	-1.9	+0.6	-2.2 Dec	+3.5 Dec	+3.5	4.7 Nov‡‡	+18.0 Q3	+4.2	+3.5	1.78	8.30	8.61
Poland	+2.0 Q3	+0.8	+2.6	+2.4 Dec	+0.8 Dec	-0.7	8.3 Dec§	-3.1 Nov	-0.5	-2.4	3.77	4.03	3.99
Russia	-0.4 Q3	na	-0.5	+3.0 Dec	+5.0 Jan	+7.1	5.3 Dec§	+22.2 Q4	+2.0	-3.6	8.22	59.2	78.1
Sweden	+2.8 Q3	+2.0	+3.1	-0.9 Dec	+1.7 Dec	+1.0	6.5 Dec§	+22.2 Q3	+4.6	-0.3	0.68	8.84	8.48
Switzerland	+1.3 Q3	+0.2	+1.4	+0.4 Q3	nil Dec	-0.4	3.3 Dec	+68.2 Q3	+9.4	+0.2	-0.10	0.99	0.99
Turkey	-1.8 Q3	na	+2.4	+1.2 Dec	+9.2 Jan	+7.8	11.8 Oct§	-33.7 Nov	-4.4	-1.1	10.94	3.71	2.95
Australia	+1.8 Q3	-1.9	+2.4	-0.2 Q3	+1.5 Q4	+1.3	5.8 Dec	-47.9 Q3	-3.1	-2.3	2.70	1.31	1.41
Hong Kong	+1.9 Q3	+2.5	+1.2	-0.1 Q3	+1.2 Dec	+2.4	3.3 Dec‡‡	+13.3 Q3	+2.8	+1.3	1.84	7.76	7.79
India	+7.3 Q3	+8.3	+6.9	+5.7 Nov	+3.4 Dec	+4.8	5.0 2015	-11.1 Q3	-0.6	-3.8	6.75	67.2	67.9
Indonesia	+4.9 Q4	na	+5.0	-2.3 Nov	+3.5 Jan	+3.5	5.6 Q3§	-19.2 Q3	-2.1	-2.3	7.64	13,325	13,625
Malaysia	+4.3 Q3	na	+4.3	+6.2 Nov	+1.8 Dec	+2.1	3.4 Nov§	+5.6 Q3	+1.7	-3.4	4.13	4.44	4.16
Pakistan	+5.7 2016**	na	+5.7	+7.8 Nov	+3.7 Jan	+3.8	5.9 2015	-5.0 Q4	-1.8	-4.6	8.15†††	105	104
Philippines	+6.6 Q4	+7.0	+6.9	+14.6 Nov	+2.7 Jan	+1.8	4.7 Q4§	+3.1 Sep	+0.9	-2.3	4.25	49.9	47.7
Singapore	+1.1 Q3	+9.1	+1.8	+21.3 Dec	+0.2 Dec	-0.5	2.2 Q4	+63.0 Q3	+23.6	+0.7	2.22	1.41	1.41
South Korea	+2.3 Q4	+1.6	+2.7	+4.3 Dec	+2.0 Jan	+1.0	3.2 Dec§	+98.7 Dec	+7.4	-1.6	2.13	1,147	1,197
Taiwan	+2.6 Q4	+1.9	+1.1	+6.2 Dec	+2.2 Jan	+1.4	3.8 Dec	+74.7 Q3	+13.0	-0.4	1.13	31.1	33.3
Thailand	+3.2 Q3	+2.2	+3.2	+0.5 Dec	+1.6 Jan	+0.2	0.8 Dec§	+46.4 Q4	+10.7	-2.1	2.57	35.0	35.5
Argentina	-3.8 Q3	-0.9	-2.2	-2.5 Oct	— ***	—	8.5 Q3§	-15.7 Q3	-2.7	-4.7	na	15.7	14.3
Brazil	-2.9 Q3	-3.3	-3.5	nil Dec	+5.4 Jan	+8.1	12.0 Dec§	-23.5 Dec	-1.2	-6.3	10.26	3.12	3.92
Chile	+1.6 Q3	+2.5	+1.7	+0.3 Dec	+2.8 Jan	+3.8	6.1 Dec§‡‡	-4.8 Q3	-1.6	-2.8	4.16	647	710
Colombia	+1.2 Q3	+1.3	+1.6	+1.6 Nov	+5.5 Jan	+7.5	8.7 Dec§	-13.7 Q3	-4.8	-3.8	6.74	2,881	3,361
Mexico	+2.0 Q3	+4.0	+2.1	+1.3 Nov	+3.4 Dec	+2.9	3.7 Dec	-30.6 Q3	-2.9	-2.6	7.37	20.5	18.7
Venezuela	-8.8 Q4~	-6.2	-13.7	na	na	+424	7.3 Apr§	-17.8 Q3~	-2.9	-24.3	10.43	9.99	6.31
Egypt	+4.5 Q2	na	+4.3	-1.2 Nov	+23.3 Dec	+13.8	12.6 Q3§	-20.8 Q3	-6.9	-12.2	na	18.0	7.83
Israel	+5.2 Q3	+3.6	+3.5	-4.5 Nov	-0.2 Dec	-0.5	4.3 Dec	+13.3 Q3	+3.3	-2.2	2.32	3.75	3.89
Saudi Arabia	+1.4 2016	na	+1.4	na	+1.7 Dec	+3.5	5.6 2015	-46.8 Q3	-5.7	-11.4	na	3.75	3.75
South Africa	+0.7 Q3	+0.2	+0.5	+0.5 Nov	+6.8 Dec	+6.3	27.1 Q3§	-12.3 Q3	-3.8	-3.4	8.85	13.4	16.1

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, Nov 35.38%; year ago 25.30% †††Dollar-denominated bonds.

Markets

	Index Feb 8th	one week	% change on Dec 31st 2015 in local currency	in $ terms
United States (DJIA)	20,054.3	+0.8	+15.1	+15.1
China (SSEA)	3,316.3	+0.2	-10.5	-15.5
Japan (Nikkei 225)	19,007.6	-0.7	-0.1	+7.5
Britain (FTSE 100)	7,188.8	+1.1	+15.2	-2.1
Canada (S&P TSX)	15,554.0	+1.0	+19.6	+26.4
Euro area (FTSE Euro 100)	1,098.1	-0.5	+0.3	-1.1
Euro area (EURO STOXX 50)	3,238.0	-0.6	-0.9	-2.3
Austria (ATX)	2,706.1	-0.8	+12.9	+11.3
Belgium (Bel 20)	3,584.0	+0.2	-3.1	-4.5
France (CAC 40)	4,766.6	-0.6	+2.8	+1.3
Germany (DAX)*	11,543.4	-1.0	+7.5	+5.9
Greece (Athex Comp)	610.9	-1.3	-3.2	-4.6
Italy (FTSE/MIB)	18,771.8	+0.2	-12.4	-13.6
Netherlands (AEX)	483.5	+0.8	+9.4	+7.9
Spain (Madrid SE)	942.5	-0.2	-2.3	-3.7
Czech Republic (PX)	955.2	+1.8	-0.1	-1.6
Denmark (OMXCB)	804.3	-2.4	-11.3	-12.2
Hungary (BUX)	32,595.9	nil	+36.3	+37.3
Norway (OSEAX)	771.2	-1.0	+18.8	+26.8
Poland (WIG)	55,642.6	nil	+19.7	+17.3
Russia (RTS, $ terms)	1,164.7	-0.2	+53.8	+53.8
Sweden (OMXS30)	1,549.2	+0.1	+7.1	+2.1
Switzerland (SMI)	8,378.7	+0.6	-5.0	-4.3
Turkey (BIST)	88,249.1	+1.6	+23.0	-3.3
Australia (All Ord.)	5,703.4	nil	+6.7	+12.1
Hong Kong (Hang Seng)	23,485.1	+0.7	+7.2	+7.0
India (BSE)	28,289.9	+0.5	+8.3	+6.6
Indonesia (JSX)	5,361.1	+0.6	+16.7	+20.8
Malaysia (KLSE)	1,688.5	+1.0	-0.2	-3.5
Pakistan (KSE)	49,875.0	+0.8	+52.0	+51.9
Singapore (STI)	3,066.5	nil	+6.4	+6.7
South Korea (KOSPI)	2,065.1	-0.7	+5.3	+7.6
Taiwan (TWI)	9,543.3	+1.0	+14.5	+20.8
Thailand (SET)	1,589.3	+0.8	+23.4	+26.7
Argentina (MERV)	19,147.9	-0.3	+64.0	+35.3
Brazil (BVSP)	64,835.4	nil	+49.6	+89.6
Chile (IGPA)	21,292.9	+1.4	+17.3	+28.5
Colombia (IGBC)	10,058.8	-0.8	+17.7	+29.7
Mexico (IPC)	46,921.7	-0.2	+9.2	-8.1
Venezuela (IBC)	28,274.6	+0.6	+93.8	na
Egypt (EGX 30)	13,228.3	+5.1	+88.8	-18.1
Israel (TA-100)	1,244.9	-0.7	-5.3	-1.7
Saudi Arabia (Tadawul)	6,967.4	-1.9	+0.8	+0.9
South Africa (JSE AS)	51,803.5	-2.4	+2.2	+18.2

The Economist poll of forecasters, February averages (previous month's, if changed)

	Real GDP, % change Low/high range 2016	2017	average 2016	2017	Consumer prices % change 2016	2017	Current account % of GDP 2016	2017
Australia	2.2/2.6	2.1/2.9	2.4	2.6	1.3	2.1	-3.1 (-3.2)	-2.2 (-2.3)
Brazil	-3.6/-3.3	0.1/1.5	-3.5 (-3.4)	0.7 (0.9)	8.1 (8.4)	4.9 (5.2)	-1.2	-1.5 (-1.4)
Britain	2.0/2.1	1.0/1.7	2.0	1.4 (1.2)	0.7	2.6 (2.5)	-5.4 (-5.6)	-4.6 (-4.7)
Canada	1.0/1.5	1.2/2.3	1.2	1.9 (1.8)	1.5	1.9	-3.5	-2.9
China	6.6/6.8	6.2/6.8	6.7	6.5 (6.4)	2.0	2.2	2.4 (2.3)	2.1
France	1.1/1.3	1.0/1.6	1.2	1.3 (1.2)	0.3	1.4 (1.2)	-1.1 (-1.2)	-1.0 (-1.2)
Germany	1.6/1.9	1.1/1.9	1.8	1.5	0.4	1.8 (1.6)	8.9 (8.8)	8.4 (8.2)
India	6.0/7.6	6.3/8.4	6.9 (7.0)	7.4	4.8 (4.9)	4.8	-0.6	-1.0 (-0.9)
Italy	0.8/1.0	0.6/1.1	0.9	0.8	-0.1	1.2 (1.0)	2.7 (2.4)	2.4 (2.2)
Japan	0.5/1.1	0.7/1.6	0.9	1.2 (1.1)	-0.2	0.8 (0.7)	3.7	3.5
Russia	-0.8/-0.2	0.6/2.6	-0.5	1.3	7.1 (7.0)	4.9 (5.0)	2.0 (2.3)	2.9 (2.8)
Spain	2.9/3.3	2.0/3.0	3.2	2.4 (2.3)	-0.3	2.0 (1.5)	1.8 (1.7)	1.5
United States	1.5/1.9	1.5/2.7	1.6	2.2 (2.3)	1.3 (1.4)	2.3 (2.4)	-2.6	-2.7 (-2.5)
Euro area	1.6/1.8	1.2/1.8	1.7 (1.6)	1.5 (1.4)	0.2 (0.3)	1.5 (1.4)	3.3	3.0

Sources: Bank of America, Barclays, BNP Paribas, Citigroup, Commerzbank, Credit Suisse, Decision Economics, Deutsche Bank, EIU, Goldman Sachs, HSBC Securities, ING, Itaú BBA, JPMorgan, Morgan Stanley, Nomura, RBS, Royal Bank of Canada, Schroders, Scotiabank, Société Générale, Standard Chartered, UBS. For more countries, go to: Economist.com/markets

Other markets

	Index Feb 8th	one week	% change on Dec 31st 2015 in local currency	in $ terms
United States (S&P 500)	2,294.7	+0.7	+12.3	+12.3
United States (NAScomp)	5,682.5	+0.7	+13.5	+13.5
China (SSEB, $ terms)	338.7	+0.1	-20.6	-20.6
Japan (Topix)	1,524.2	-0.2	-1.5	+6.0
Europe (FTSEurofirst 300)	1,434.2	+0.1	-0.2	-1.7
World, dev'd (MSCI)	1,802.3	+0.5	+8.4	+8.4
Emerging markets (MSCI)	921.7	+1.0	+16.1	+16.1
World, all (MSCI)	435.9	+0.5	+9.1	+9.1
World bonds (Citigroup)	894.0	+0.6	+2.8	+2.8
EMBI+ (JPMorgan)	793.9	+1.2	+12.7	+12.7
Hedge funds (HFRX)	1,213.6§	+0.2	+3.4	+3.4
Volatility, US (VIX)	11.5	+11.8	+18.2	(levels)
CDSs, Eur (iTRAXX)†	75.1	+2.1	-2.6	-4.0
CDSs, N Am (CDX)†	66.8	+1.5	-24.4	-24.4
Carbon trading (EU ETS) €	5.2	-0.2	-37.6	-38.5

Sources: Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §Feb 7th.

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

The Economist commodity-price index

2005=100

	Jan 31st	Feb 7th*	% change on one month	one year
Dollar Index				
All Items	148.7	148.3	+2.5	+19.5
Food	160.2	160.1	+2.0	+10.9
Industrials				
All	136.9	136.0	+3.1	+31.9
Nfa†	148.8	150.5	+6.0	+40.6
Metals	131.8	129.8	+1.7	+28.0
Sterling Index				
All items	215.0	216.9	+0.4	+39.2
Euro Index				
All items	171.1	169.3	-0.3	+24.1
Gold				
$ per oz	1,211.5	1,234.0	+3.9	+3.4
West Texas Intermediate				
$ per barrel	52.8	52.2	+2.7	+84.2

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.

Grocer and proud of it

Sir Ken Morrison, chairman for 55 years of Morrisons supermarkets, died on February 1st, aged 85

AS HE patrolled the aisles of his shops in Leeds, Boroughbridge or wherever he might be, in his yellow and black Morrisons tie and his short-sleeved "get cracking" shirt, Ken Morrison's eyes would gleam with happiness. He was a grocer, the best job in the world. Better still, he was the best grocer in Yorkshire, God's own county, where folk didn't part with their money without a good excuse. The fact that his food-supermarket chain had also grown into Britain's fourth-biggest, up from his father's egg-and-butter stall in Bradford market, was also gratifying. Record sales and profits for 35 years, between flotation in 1967 and entering the FTSE 100 in 2001, were not to be sneezed at. But nothing was more energising than that daily round of pacing the floor, chatting to customers and giving the staff either pats on the head or kicks up the backside, as warranted.

During these strolls he missed nothing out. He checked the vegetables weren't wilting and the cream not sloppy on the eclairs, and would take the cellophane off sandwiches to see how fresh they were. Watching such details was the habit of a lifetime. How many hours had he spent as a boy in that dark shed behind the house, holding eggs up to a candle to make sure there were no chicks inside? He'd done that from the age of five, helped out on the stall from nine and taken it over at 21, with no training save what he'd picked up at the dinner table. He knew his craft. For example: you could tell how a business was doing not by the shiny front door (though, by 2016, 11m customers a week were coming through his), but from what it threw away. If time allowed his visits would include a good look through the bins at the back, which was one reason why he didn't often wear a suit.

Any sort of waste annoyed him. Wasting words, for one. Why use 100 when 50 would do? Why use 50 when a look was enough? When some chap asked him once to explain his "store-siting policy" he said, "We get on a bus and we look for chimney pots." Silly bugger. Wasting time was no good either, such as filling in the form to get in "Who's Who". But wasting money was the worst. Buying what you didn't need, borrowing to get it. He so hated debt that when he took out a bank loan once to build up the business, he never used it. The business grew very nicely anyway, from the first shop in Bradford with three checkouts and self-service, in 1958, to the town's first supermarket (in the old Victoria cinema, in 1961) and on from there.

He didn't gamble, except the once: his £3.3bn ($6bn) takeover—not merger, as he told their executives in plain words on deal day—of the Safeway chain in 2004. It gave him the chance to get 479 more shops all over the country, but there were good and bad sides to that. A lot of the shops were on their uppers, for a start. But even trickier was the task of taking a Yorkshire chain down south. He didn't like going there himself, and whenever in London couldn't wait to get back to egg and chips in Bradford. Down south they ate things like salmon and spinach salad, and wouldn't know a black pudding if it hit them on the head. Morrisons by contrast was a temple of the great northern pie: steak and ale, minced beef and onion, rhubarb. A bell rang every time a batch came fresh from the oven, their flavour was proudly stamped round the rim, and in Skipton a man worked full-time to sample them for tastiness.

The north-versus-south clash got better eventually, when the economic downturn made southerners appreciate a bargain. The takeover's disastrous effect on profits lasted a decade, unfortunately, and meanwhile the world was changing. Jumped-up discounters were offering crazy prices. Tesco and Sainsbury's were racing away with online shopping, small local shops, points cards and all that gimcrackery. He didn't join in. Nothing wrong with being old-fashioned. He liked the 1970s vinyl chairs in his office; they weren't worn out yet. He believed in manual stock and cash controls. Just the look of his stores, with butcher's and baker's and cheese stalls arranged as "Market Street", was meant to recall Bradford shopping in the old days.

The secret of being a successful grocer was simple and didn't change. Know your customers, insist on quality, keep prices down. If in doubt, have a cup of tea. That was it. Forget statistical studies, retail engineering and all that rubbish. Why hire fancy consultants, if you could spot problems yourself? Why appoint a non-executive director, when you could get two hard-working check-out girls for the same money? Why bother with the internet, if you could send the groceries round by bike?

What customers want

But progress, so-called, beckoned. From 2006 he suffered chief executives to come in from outside, though the first patently wasn't even a retailer, and all of them needed watching, which he did by having fish-and-chip lunches with them on Fridays. All that internet stuff came too, of course. Customers seemed to want it now.

Last year he saw his business return to healthy growth and profit. Back where it had always been until the Safeway bout of indigestion, and where it should be. Because, you know, it was still his, though he had retired in 2008 to his chateau in Myton-on-Swale. And every shop kept his presence in it, checking the dates on the sliced ham and rattling the bins. ■


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