The Economist

The long arm of American law

Betting on China's bad debts

Chickenomics: clucking profitable

Restraining killer robots

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The mother of all messes



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Theresa May's **Brexit** deal suffered a crushing defeat in the British Parliament. Leavers who think the deal does not go far enough in disentangling Britain from the European Union joined Remainers in voting against the government by a majority of 230, the largest defeat of a government on record. Hoping to trigger an election that it thinks it can win, the opposition Labour Party called for a motion of no confidence in the government, which it survived as Tory rebels returned to the fold. Mrs May will have to return to Parliament with a new Brexit blueprint on January 21st.

Macedonia's parliament voted to approve the change of the country's name to North Macedonia, part of a deal that is meant to see **Greece** lift its opposition to the country's membership of the EU and NATO. The agreement still needs to be approved by Greece. The odds for that improved after the prime minister, Alexis Tsipras, narrowly saw off a vote of no confidence.

The mayor of Gdansk, **Poland's** sixth-largest city, was murdered by a knife-wielding assailant in front of a horrified crowd at a charity event. Pawel Adamowicz had been one of the country's most prominent liberals.

The rambling man

Nicolás Maduro was sworn in for a second term as **Venezuela's** president. In a speech that lasted nearly four hours, Mr Maduro promised to quadruple the monthly minimum wage, which would bring it to $7 at black-market rates, and said the distressed economy would boom. Agents of the country's intelligence service briefly detained the newly elected speaker of the opposition-controlled national assembly as well as two journalists. The national assembly declared Mr Maduro a "usurper".

Jair Bolsonaro, **Brazil's** far-right president, signed a decree that eases gun-control laws. Brazilians without a criminal record will be able to buy guns more easily and to keep them at home. Mr Bolsonaro said the measure would give Brazilians a "legitimate right of defence". In 2017 the number of murders in Brazil reached a record of nearly 64,000.

Upping the ante

A court in northern **China** sentenced a Canadian to death for smuggling drugs. **Canada's** prime minister, Justin Trudeau, said this was a matter of "extreme concern" and accused China of "arbitrarily" imposing the death penalty. Relations between the two countries have been tense since Canada's detention in December of a senior Chinese executive of Huawei, a technology company.

China approved the building of a large new **dam** on the Jinsha river, as the upper stretch of the Yangzi is known. The Lawa hydroelectric project, on the border between Sichuan and Tibet, is expected to cost more than 30bn yuan ($4.6bn) and have a total capacity of two gigawatts.

Thai officials said that a long-awaited election to restore democracy, scheduled for February 24th, would be pushed back again. But the prime minister and leader of the country's military junta promised that the ballot would take place before May.

Protests against official corruption gathered strength in **Mongolia**. Perhaps 20,000 people gathered in Ulaanbaatar, the capital, despite the winter freeze to denounce the conduct of the country's two biggest political parties. More demonstrations are planned.

The latest eruption of Mount Merapi, a volcano in central Java, intensified, sending lava down its slopes. The **Indonesian** authorities have not yet issued an evacuation order, but are rushing to repair damaged roads in case of an exodus.

No safe place to hide



Members of al-Shabab, a jihadist group with ties to al-Qaeda, attacked a hotel and office complex in a normally secure neighbourhood of Nairobi, **Kenya's** capital. At least 21 people were killed, including several foreigners. The assailants were armed with grenades and guns; one attacker was a suicide-bomber.

The government of **Zimbabwe** launched a crackdown on protesters after widespread unrest linked to a rise in fuel prices. Access to the internet was blocked, as soldiers patrolled the streets of big cities, arresting and beating young men. At least eight people were killed and hundreds injured. NGOs reported human-rights violations across the country. The government blamed the unrest on the opposition.

The International Criminal Court at The Hague took another knock when its judges acquitted **Laurent Gbagbo**, a former president of the Ivory Coast, who had been charged with crimes against humanity. Last year a Congolese former vice-president, Jean-Pierre Bemba, was also acquitted, and a case against Kenya's current president, Uhuru Kenyatta, had been dropped four years earlier. The court's authority is increasingly questioned, especially in Africa.

A suicide-bomb attack in northern **Syria** killed at least 15 people, including four American servicemen and civilians. The attack was claimed by Islamic State, just weeks after Donald Trump said the jihadist group was defeated and that he would begin withdrawing American troops from Syria.

Meanwhile, **Turkey's** president, Recep Tayyip Erdogan, said his troops would create a 32km-deep "safe zone" in northern Syria to protect civilians. The announcement came after Mr Erdogan held a phone conversation with Mr Trump, who had threatened to "devastate Turkey economically" if it attacked America's Kurdish allies, whom Turkey considers to be terrorists.

Shutdown meltdown

The impasse over funding for a wall on the Mexican border, which has led to the suspension of some public services in America, entered its fourth week, becoming the longest-ever **government shutdown**. The Council of Economic Advisers said the shutdown was having a worse effect on the economy than it had expected. Opinion polls showed that voters blame the president for the shambles.

The Senate held a hearing on whether to confirm Donald Trump's choice of William Barr as **attorney-general**. Although he has argued in favour of expansive powers for presidents, Mr Barr promised to allow Robert Mueller's investigation into Russian provocateurs to proceed unhindered. He also said that Mr Trump had not sought any "assurances, promises or commitments from me of any kind, either express or implied."

Kirsten Gillibrand, a senator from New York, became the second heavy-hitter to enter the race for the Democratic presidential nomination.

Worse-than-expected trade data from **China** accentuated concerns about the country's economic slowdown. Exports fell by 4.4% in December compared with the same month in 2017 and imports by 7.6%. Imports of goods from America slumped by 36% amid the two countries' trade war. Despite the imposition of tariffs, China still recorded an annual trade surplus with the United States of $323bn, up by 17% from the previous year.

China's **central bank**, meanwhile, injected 570bn yuan ($84bn) into the banking system in order "to maintain reasonably adequate liquidity". The Chinese new year, which starts on February 5th, is normally associated with a surge in cash transactions.

Reverse gear

Sales of **passenger cars** in China fell last year for the first time since 1990, puncturing the growth forecasts of the car industry. Despite a strong start to 2018, overall sales of passenger vehicles dropped by 4.1% over the 12 months, dragged down in part by a weaker yuan and the withdrawal of a tax break in late 2017. Sales of electric cars motored ahead, however, accounting for 4% of vehicle sales. The government wants this to reach 20% by 2025.

Carlos Ghosn's application for bail was rejected by a court in Tokyo. Mr Ghosn has been in custody since his arrest in November over allegations of financial misconduct at Nissan, where he was subsequently sacked as chairman. Renault, which owns 43% of Nissan and stood by Mr Ghosn as he was "temporarily incapacitated", was reportedly preparing to replace him as its chief executive and chairman.

Ford and **Volkswagen** launched an alliance through which they will work together on making pickup trucks for the global market and commercial vans in Europe. The carmakers said they were also looking at ways to collaborate on electric cars, autonomous vehicles and mobility services, though they provided scant detail about how they would do that. The announcement left little impression on investors. Ford's share price later tumbled when it warned that its fourth-quarter earnings would fall short of expectations and that it will be "prudent" when forecasting its annual profit.

Precious metals

The consolidation in the gold-mining industry stepped up a notch as **Newmont**, which is based in Denver, agreed to buy **Goldcorp**, a Canadian rival, in a $10bn deal. The combined company will be the world's biggest goldminer, vaulting ahead of the recently merged Barrick-Randgold.

In a rare public interview, Ren Zhengfei, the founder and president of **Huawei**, denied that the Chinese maker of telecoms equipment posed a security threat to other countries, asserting that China does not require it to install "back doors" into network systems. Huawei's apparatus has been barred from government use in America and elsewhere. One of its executives was arrested in Poland recently for spying (he has since been dismissed by the company).

Faced with ruinous liabilities arising from the role its power lines played in sparking wildfires in California, **Pacific Gas and Electric** said that it intended to file for bankruptcy protection as its "only viable option". Fire officials have found that the state's biggest utility was responsible for 17 wildfires in 2017. It is also being investigated over last year's devastating infernos.

Fiserv said it would acquire **First Data** in a deal it valued at $22bn, one of the biggest ever mergers in the financial-services-and-payments industry.



America's big banks reported earnings for the fourth quarter. Despite a fall-off in bond and currency trading, net profit at JPMorgan Chase surged to $7.1bn. Bank of America's quarterly profit of $7.3bn was another record for the bank. And having booked a charge of $22.6bn in the fourth quarter of 2017, Citigroup was able to please investors a year later by reporting a profit of $4.3bn.

A row over pay prompted **Santander** to rescind its appointment of Andrea Orcel, the former head of UBS's investment bank, as chief executive. The Spanish lender balked at fully compensating Mr Orcel for deferred pay, much of it in shares, accrued at the Swiss bank. The sum was reportedly €50m ($57m).

A true pioneer

Tributes were paid to **Jack Bogle**, the founder of Vanguard, who died at the age of 89. Mr Bogle revolutionised the investment industry in the 1970s by launching an index-tracking fund with super-low fees aimed at everyday investors. Some called him the Henry Ford of finance for bringing Wall Street to the masses. Vanguard is now the world's second-largest investment firm with $4.9trn of assets under management. One of his best-known pieces of investment advice was: "Time is your friend; impulse is your enemy."



The mother of all messes

Parliament's rejection of the Brexit deal has created a crisis. Solving it will need time—and a second referendum

No plan by any modern British government has been so soundly thrashed as the Brexit deal thrown out by Parliament on January 15th. The withdrawal agreement, the centrepiece of Theresa May's premiership, which she has spent nearly two years hammering out with the European Union, was rejected after five days' debate by 432 votes to 202. Her own Conservative bankbenchers voted against her by three to one.

The mother of parliaments is suffering the mother of all constitutional crises (see Britain section). Three years ago, in the biggest poll in the country's history, Britons voted in a referendum to leave the EU. Yet Parliament, freshly elected a year later by those same voters, has judged the terms of exit unacceptable. The EU shows little willingness to renegotiate. The prime minister ploughs obdurately on. And if this puzzle cannot be solved by March 29th, Britain will fall out with no deal at all.

To avoid that catastrophe, the priority must be to ask the EU for more time. But even with the clock on their side, MPs seem unlikely to agree on a solution to Brexit's great riddle: what exit terms, if any, truly satisfy the will of the people? With every week in which MPs fail to answer this question, it becomes clearer that the people themselves must decide, in a second referendum.

The rout this week was the result of two years of political misjudgment. The referendum of 2016 was won by just 52% to 48%. Yet rather than consult the defeated side, Mrs May pursued a hardline Brexit, hurriedly drawn up with a handful of advisers and calibrated to please her Conservative Party. After she lost her majority in 2017 the need to build a consensus became clearer still, but she doubled down. Even after Parliament established its right to vote on the final deal, she didn't budge, instead trying (and failing) to frustrate Parliament's vote by running down the clock. The doggedness that has won her many admirers now looks like pig-headedness. The prime minister's promise after this week's crushing defeat to work with opposition MPs comes two years too late.



But the crisis is not just about poor leadership. Brexit has exposed two deeper problems. One concerns the difficulties that will face any country that tries to "take back control", as the Leave campaign put it, in a globalised, interconnected world. If you take back the right to set your own rules and standards, it will by definition become harder to do business with countries that use different ones. If you want to trade, you will probably end up following the rules of a more powerful partner—which for Britain means the EU or America—only without a say in setting them. Brexit thus amounts to taking back control in a literal sense, but losing control in a meaningful one. Leavers are right that the EU is an increasingly unappealing place, with its Italian populists, French *gilets jaunes*, stuttering German economy (see next page) and doddery, claret-swilling uber-bureaucrats in Brussels. But they could not be more wrong in their judgment that the EU's ominous direction of travel makes it wise for Britain to abandon its seat there.

The second essential problem Brexit has exposed concerns democracy. Britain has a long history of representative democracy, in which MPs are elected by voters to take decisions on their behalf. The referendum of 2016 was a rarer dash of direct democracy, when the public decided on a matter of policy. Today's crisis has been caused by the two butting up against each other. The referendum gave a clear and legitimate command to leave the EU. To ignore it would be to subvert the will of the people. Yet the people's representatives in Parliament have made an equally clear and legitimate judgment that Mrs May's Brexit deal is not in their constituents' interests. To sideline MPs, as Mrs May has all along tried to do, would be no less a perversion of democracy.

The prime minister has piled moral pressure on MPs to back the deal anyway, arguing that even if they don't much like it, it is what their constituents voted for. It is not so simple. Mrs May's deal is not as bad as some of her critics make out, but it is far from what was promised in 2016. Ejection from the single market, the decline of industries ranging from finance to carmaking, the destabilisation of Northern Ireland and an exit bill of some $50bn: none of this was advertised in the campaign. Voters may be entirely happy with this outcome (opinion polls suggest otherwise). But there is nothing to say that the vote to leave must entail support for Mrs May's particular version of leaving. That is why all sides can claim to represent the "real" will of the people. For MPs to back a deal that they judge harmful out of respect for an earlier referendum which issued a vague instruction would be neither representative democracy nor direct democracy—it would be one doing a bad impression of the other.

The first step to getting out of this mess is to stop the clock. Because Mrs May's deal is dead and a new one cannot be arranged in the ten remaining weeks, the priority should be to avoid falling out on March 29th with no deal, which would be bad for all of Europe and potentially disastrous for Britain. If Mrs May will not ask for an extension, Parliament should vote to give itself the power to do so. This desperate measure would up-end a long convention in which government business takes precedence over backbenchers'. But if the prime minister stays on the road to no deal, MPs have a duty to seize the wheel.

With more time, perhaps a deal might be found that both Parliament and the EU can agree on. Either a permanent customs union or a Norwegian-style model (which this newspaper endorsed a year ago as the least-bad version of Brexit) might squeak through. But both would demand compromises, such as Britain relinquishing the right to sign its own trade deals or maintaining free movement, that contradict some Leave campaign promises.

That is why the path to any deal, whether Mrs May's or a revamped one, must involve the voters. The give and take that Brexit requires mean that no form of exit will resemble the prospectus the public were recklessly sold in 2016. It may be that voters will accept one of these trade-offs; it may be they will not. But the will of the people is too important to be merely guessed at by squabbling MPs. Parliament's inability to define and agree on what the rest of the country really wants makes it clearer than ever that the only practical and principled way out of the mess is to go back to the people, and ask. ■

Tackling corruption

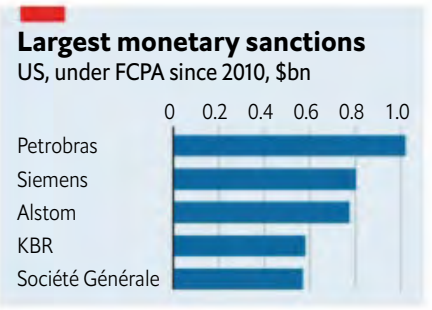
Judge dread

America's extraterritorial legal campaign against business is undermining its own authority

FOR EUROPEAN firms operating in Asia, or Latin American and Asian firms hustling in Africa or the Middle East, business risks abound. Surprisingly high on the list of things that keep bosses awake with cold sweats at night is falling foul of America's Department of Justice (DOJ) or its Treasury Department.

The United States leads the world in punishing corruption, money-laundering and sanctions violations. In the past decade it has increasingly punished foreign firms for misconduct that happens outside America. Scores of banks have paid tens of billions of dollars in fines. In the past 12 months several multinationals, including Glencore and ZTE, have been put through the legal wringer. The diplomatic row over Huawei, a Chinese telecoms-equipment firm, centres on the legitimacy of America's extraterritorial reach (see Business section).

America has taken it upon itself to become the business world's policeman, judge and jury. It can do this because of its privileged role in the world economy. Companies that refuse to yield to its global jurisdiction can find themselves shut out of its giant domestic market, or cut off from using the dollar payments system and by extension from using mainstream banks. For most big companies that would be suicidal.



Wielding a stick is often to be applauded. Were it not for America's tough stance against FIFA, for instance, the dodgy officials who ran world football would not have been brought to book. But as the full extent of extraterritorial legal activity has become clearer, so have three glaring problems.

First, the process is disturbingly improvised and opaque. Cases rarely go to court and, when they are settled instead, executives are hit with gagging orders. Facing little scrutiny, prosecutors have applied ever more expansive interpretations of what counts as the sort of link to America that makes an alleged crime punishable there; indirect contact with foreign banks with branches in America, or using Gmail, now seems to be enough. Imagine if China fined Amazon $5bn and jailed its executives for conducting business in Africa that did not break American law, but did offend Chinese rules and was discussed on WeChat.

Second, the punishments can be disproportionate. In 2014 BNP Paribas, a French bank, was hit with a sanctions-related fine of $8.9bn, enough to threaten its stability. In April ZTE, a Chinese tech firm with 80,000 employees, was banned by the Trump administration from dealing with American firms; it almost went out of business. The ban has since been reversed, underlining the impression that the rules are being applied on the hoof.

Third, America's legal actions can often become intertwined with its commercial interests. As our investigation this week explains, a protracted bribery probe into Alstom, a French champion, helped push it into the arms of General Electric, an American industrial icon. American banks have picked up business from European rivals left punch-drunk by fines. Sometimes American firms are in the line of fire—Goldman Sachs is being investigated by the DOJ for its role in the 1MDB scandal in Malaysia. But many foreign executives suspect that American firms get special treatment and are wilier about navigating the rules.

America has much to be proud of as a corruption-fighter. But, for its own good as well as that of others, it needs to find an approach that is more transparent, more proportionate and more respectful of borders. If it does not, its escalating use of extraterritorial legal actions will ultimately backfire. It will discourage foreign firms from tapping American capital markets. It will encourage China and Europe to promote their currencies as rivals to the dollar and to develop global payments systems that bypass Uncle Sam. And the DOJ could find that, having gone all guns blazing into marginal cases, it has less powder for egregious ones. Far from expressing geopolitical might, America's legal overreach would then end up diminishing American power. ■

France and Germany

Engine trouble

A planned celebration in Aachen is really a sign of weakness

YOU CANNOT doubt the ambition. By choosing Aachen as the place where they will sign their renewed treaty of friendship and co-operation on January 22nd, Emmanuel Macron and Angela Merkel aim to send a strong signal: France and Germany are still at the heart of the European project, guiding and dominating it, even as the British prepare to depart. Aachen was the capital of Charlemagne's ancient Frankish empire, his reincarnation of the lost Roman one. His kingdom encompassed most of the lands of the six founding members of the European Union.

The Aachen treaty is intended to reinvigorate the Franco-German partnership at the core of the EU, and strengthen the Elysée treaty of 1963 which institutionalised it. Alas, the jamboree may do more harm than good. One reason is that, by focusing on form rather than substance, it exposes how far the two countries have drifted apart. Another is that the show of unity perpetuates the notion of a duumvirate that irritates other members of the EU. This is dispiriting. Even without Brexit, the EU needs new energy and leadership to confront its many problems.

One difficulty with Aachen is that, despite the smiles, Franco-German relations are at a low ebb. Mr Macron came into office with ambitions to build up Europe as well as France, but his plans have come to little. The huge new euro-zone budget he pro- ▸▸

posed has been rejected by the flinty Germans, and will be tiny if it exists at all. Progress towards full banking union, including euro-zone-wide deposit insurance, is glacial. France has been disappointed by German reluctance to boost spending, which would generate extra demand across the EU. Now the German economy is flirting with recession.

Germany is just as disenchanted. Mr Macron has done nothing to help Mrs Merkel draw up a Europe-wide scheme for sharing out refugees. He is trying to break up the party-group system at the European Parliament, which will diminish Mrs Merkel's Christian Democrats. He is pressing his form of European defence co-operation as a rival to a German model, though at least there is a promise to increase Europe's ability to act. His surrender to the *gilets jaunes* protesters will bust his budget, damaging his credibility. And the hope of French support for Germany's diplomatic ambitions, in the shape of a shared EU permanent seat at the UN Security Council, has evaporated.

Set against this discouraging backdrop, the Aachen meeting was a chance to forge a new consensus. But the treaty and its various side-documents contain remarkably little: a promise to coordinate positions on some issues (but agreement on exactly what these should be has proved elusive with, for instance, no common view on how to tax global companies); the creation of a cross-border assembly that will meet twice a year, though only to talk; and some deepening of cross-border links on health care and education. Charlemagne would not have been impressed.

Franco-German understanding has always been partly about hiding the economic weakness of France and the strength of Germany. Their differences were fruitful—French views reflect a "southern", broadly Keynesian approach to political economy, whereas Germany represents a "northern", more parsimonious attitude. If the two exemplars of these outlooks could agree on a proposal, then others would probably be able to fall into line.

But even if they can see eye to eye, their ability to impose decisions has waned as the union has expanded. Other governments increasingly resent EU business being stitched up between Paris and Berlin. At the time of the Elysée treaty, when the then EEC was just six members strong, France and Germany had a combined eight votes out of 17, with 12 votes needed to push legislation through the Council of Ministers. Today's "double-majority" voting system requires at least 16 countries, which must also represent at least 65% of the EU's population, to approve something. Between them France and Germany have only about 30% of the EU's citizens. In any case, European politics no longer divides neatly into Latin and Germanic camps. On rule-of-law matters, say, Italy's populist government is closer to the nationalist governments of eastern Europe. On migration, Italy wants others to take its migrants; the easterners refuse to do so.

Franco-German understanding is a necessary but increasingly insufficient condition for progress. Worse, the pairing has few obvious allies. Britain is leaving. Italy is run by populists. Spain has a minority government. Poland and Hungary are run by illiberal parties. And no government wants to give institutions in Brussels more power to take the lead. Mrs Merkel and Mr Macron must realise that they cannot fill Charlemagne's shoes. Their problem is that it is not clear anyone else can either. ■

China and Hong Kong

One country, two song-sheets

Hong Kong's plan for a harsh national-anthem law is a blow to the territory's freedoms

"ARISE! ARISE! ARISE! Millions of hearts with one mind," go the lyrics of China's national anthem, "The March of the Volunteers". Yet many people in Hong Kong are not of one mind with China's government. The territory has been a part of China since Britain handed over the former colony in 1997. But its football fans routinely boo and turn their backs when the Chinese anthem is played. At pro-democracy protests, a few people sometimes even wave the British colonial flag. Some youngsters are also beginning to demand greater independence from China. In 2016 such "localists" gained one-fifth of the popular vote in elections to Hong Kong's legislature, known as Legco.



The Communist Party in Beijing has responded as it always does when confronted: by flexing its muscles. It engineered the expulsion of six localists from Legco. It cheered the local government's decision last year to ban a pro-independence group and expel a British journalist who had had the temerity to invite the group's leader to speak at an event. Now, at the party's behest, Hong Kong is preparing to introduce a law that would punish those who deliberately insult the national anthem with up to three years in jail and a stiff fine (see China section). Schools will be required to teach pupils how to sing the tune with proper decorum. And students had better pay attention: the age of criminal responsibility in Hong Kong is ten, as it is in England (in mainland China it is 14). By the party's design, Legco is dominated by Hong Kongers who are the Communists' cheerleaders. It is certain to pass this draconian bill.

Hold on, the party's critics might say, what about China's promise to let Hong Kong run itself under the slogan of "one country, two systems"? Why is it asking Hong Kong to pass a law that so clearly challenges the freedoms the territory enjoyed when China took over and which the party said it would keep? Under British rule, it was never illegal for Hong Kongers to mock "God Save the Queen". China's answer is, in effect, that "one country" is the more important part of the deal. In 2017 it passed its own national-anthem law. It then tweaked Hong Kong's constitution to require it to do the same. There is a precedent for that. At the time of the handover, Hong Kong had to pass a law against desecrating the national flag because China had such a law, and insisted.

But even the flag law was contentious. In 1999 the territory's Court of Appeal overturned the conviction of two men for violating it, ruling that the bill was unconstitutional. The case went to the supreme court which, to the horror of pro-democracy politicians, upheld the original verdict of guilty. The introduction of the anthem law looks vindictive. China introduced its own such law only after Hong Kong's football supporters took to booing the ▸▸

song. That was in the wake of Hong Kong's "Umbrella Movement", with its weeks-long protests in 2014 demanding an end to party-rigged elections—a great idea to which the party and the government in Hong Kong responded with a resolute no. Displays of contempt for Chinese symbols of state were born out of justifiable bitterness at China's refusal to allow full democracy, which Britain had never established in Hong Kong but the party had once appeared to promise the territory might one day enjoy.

The irony is that China's obduracy is to some extent self-defeating. Unlike the people of Hong Kong, who were given little say over the terms of the British handover, the 24m citizens of Taiwan have more freedom. Their democracy is thriving, and there is no colonial government to tell them what to do. Taiwan, too, has been offered China's ill-defined notion of one country, two systems, if the island agrees to let China absorb its territory. However, the more China abuses Hong Kong's liberties, the less unification will appeal to the Taiwanese.

In a speech on January 2nd, much ballyhooed by China's state media, China's leader, Xi Jinping, said that peaceful reunification with Taiwan under one country, two systems was the "best way". But he also said that China would not renounce the possible use of force against the island. And reunification, he said, was "inevitable". Taiwan's president, Tsai Ing-wen, was right to scoff at his remarks. China's behaviour has amply demonstrated that the party's pledges are not to be trusted. It wants one country with only one party ever allowed to rule it; as for two systems, it is clear which one will have primacy. The anthem law in Hong Kong is a warning of what the future may hold for Taiwan. ■

Arms control

Taming terminators

Humans must keep tight control of autonomous weapons

For thousands of years, weapons went where humans thrust, threw or propelled them. In the past century, they have grown cleverer: more able to duck and weave to their targets; more able to select which of many ships, tanks or aircraft to strike; and more able to wait for the right target to turn up. Increasingly, such weapons can be let loose on the battlefield with little or no supervision by humans.

The world has not entered the age of the killer robot, at least not yet. Today's autonomous weapons are mostly static systems to shoot down incoming threats in self-defence, or missiles fired into narrowly defined areas. Almost all still have humans "in the loop" (eg, remotely pulling the trigger for a drone strike) or "on the loop" (ie, able to oversee and countermand an action). But tomorrow's weapons will be able to travel farther from their human operators, move from one place to another and attack a wider range of targets with humans "out of the loop" (see Briefing). Will they make war even more horrible? Will they threaten civilisation itself? It is time for states to think harder about how to control them.



The UN's Convention on Certain Conventional Weapons (CCW) has been discussing autonomous weapons for five years, but there is little agreement. More than two dozen states (including Austria, the Vatican, Brazil and nuclear-armed Pakistan), backed by increasingly vocal activists, support a pre-emptive ban on "fully autonomous weapons". They point to campaigns against anti-personnel landmines, cluster munitions, and biological and chemical weapons as evidence that this can succeed. Most big powers—among them America, Russia and Britain—retort that the laws of war are already good enough to control autonomous weapons. Some argue that such weapons can be more accurate and humane than today's.

A third group of countries, led by the likes of France and Germany, is urging greater transparency and scrutiny. Autonomous systems make wars more unpredictable and harder to supervise; and they make it harder to assign responsibility for what happens during conflict. This third group is surely right to try to impose at least some controls.

The laws of war are still the right place to start. They do not seek to ban war, but to limit its worst excesses. Among other things, they require that warriors discriminate properly between combatants and civilians, and ensure that collateral damage is proportionate to military gains. Military actions must therefore be judged in their context. But that judgment is hard for machines to form.

In addition, new rules will be difficult to negotiate and monitor. For one thing, it is hard to control what does not yet exist and cannot be precisely defined. How long may a drone hover above the battlefield, empowered to strike, before it has slipped out of the hands of the humans who sent it there? The difference between machines under human control and those beyond it may be a few thousand lines of secret code.

That said, two principles make sense. First, the more a weapon is permitted to roam about over large areas, or for long periods, the more important it is that humans remain "on the loop"—able to supervise its actions and step in if necessary, as circumstances change. That requires robust communication links. If these are lost or jammed, the weapon should hold fire, or return.

A second tenet is that autonomous systems, whether civilian ones like self-driving cars or those that drop bombs, should be "explainable". Humans should be able to understand how a machine took a decision when things go wrong. On one point, at least, all states agree: that the buck must stop with humans. "Accountability cannot be transferred to machines," noted a report of the CCW in October. Intelligent or not, weapons are tools used by humans, not moral agents in their own right. Those who introduce a weapon into the battlefield must remain on the hook for its actions.

A good approach is a Franco-German proposal that countries should share more information on how they assess new weapons; allow others to observe demonstrations of new systems; and agree on a code of conduct for their development and use. This will not end the horrors of war, or even halt autonomous weapons. But it is a realistic and sensible way forward. As weapons get cleverer, humans must keep up. ■

That Democratic wave

The Graphic detail article on "The failure of gerrymandering" (January 5th) suggested that the strong Democratic showing in last November's mid-terms compensated for the "vaunted pro-Republican bias" in drawing the lines of congressional districts. In fact, that bias in the House of Representatives is still strong.

In five states where gerrymandered lines were still in use—Maryland, Michigan, North Carolina, Ohio and Wisconsin—incumbent political parties lost control of only two out of 58 seats, or 3%. In contrast, Pennsylvania, where gerrymandered districts were overturned by a state court, four of the 18 seats flipped party, or 22%. So where gerrymandering was still in effect, it nearly froze representation, even in the face of the biggest wave of voter sentiment in decades.

In a fair system of single-member districts, a majority party almost always wins a greater share of seats than it does votes. This is an old law of political science. For example, in 2014 Republicans won 53% of the two-party national vote and 57% of the seats. Yet in 2018 Democrats won over 54% of the two-party vote but only 54% of seats. In short, Democrats underperformed fair expectations, thanks in large part to distorted district boundaries. This asymmetric performance by the two parties is evidence of a persistent tilt in the political playing field.

To achieve fair elections, it is important to understand the flaws in the electoral system. Under the rules, the Democrats in 2020 could all too easily repeat what happened in 2012: win the presidency and popular vote in Congress, but fail to control the House. Mitigating this unfairness will require legal reforms to deny politicians a free hand in drawing their own district boundaries.

PROFESSOR SAM WANG
Director
Princeton Gerrymandering Project
Princeton, New Jersey

Reforming mosques

You were right to highlight the disengagement of young British Muslims from the country's mosques ("Taking on the old guard", December 8th). Timothy Winter, a lecturer in Islamic studies at Cambridge University and a prominent convert to Islam, has referred to British mosques as "race temples". He isn't suggesting that they are discriminatory. Rather, their imported ethnoreligious customs and pastiche Indo-Saracenic design are alien, and therefore unwelcoming, to a diverse British Muslim polity.

Third spaces, such as the one mentioned in your article, are a step in the right direction. Fellow co-religionists in America, such as Roots in Dallas and Ta'leef in Chicago and the Bay Area, have perfected this model through open, inclusive, youth-focused spaces that allow for the critical engagement of Islam in a culturally relevant American context. The Muslim Council of Britain is crucial in implementing best-practice guidelines for mosques, particularly on inclusivity and good governance. This has indeed disrupted British Islam. But transformative change will only occur when this new, more cosmopolitan generation of Muslims displaces the ancien régime currently running the country's mosques.

ABDULLAH GEELAH
Fellow of the Winston Churchill Memorial Trust
London

A circular argument

The symbolism of the *gilets jaunes* protesting on French traffic roundabouts is deeper than you think ("To the roundabouts", December 22nd). Most of the roundabouts they took over were not the *ronds-points* you mentioned but were *giratoires*. Historically, *ronds-points* operated on the principle that vehicles already on a roundabout give way to cars that are entering it (priority to the right). These in turn would then have to stop to give way to those driving onto the roundabout at the next entry point. This was a recipe for gridlock. Edging through the stationary traffic to cross the Bastille roundabout in Paris could take half an hour.

In the early 1980s, testing began of the *rond-point anglais*. In this English version, those already on the roundabout have priority and those trying to enter it have to give way, which keeps traffic flowing. The unpatriotic title could not be sustained, so they were renamed *giratoires*. Their success and almost universal adoption means that most French roundabouts nowadays with a few exceptions, such as l'Etoile and Bastille in Paris, are *giratoires*, not *ronds-points*.

For the *gilets jaunes* protesting on the handful of remaining *ronds-points*, gridlock may be the best they can hope for. But as Mr Macron has discovered, you have to give way to those on the *giratoire*.

ADRIAN ROBSON
London

Different strokes

How wonderful to see an article on wild swimming ("Cold comfort", December 22nd). It captured the unique combination of anxiety and exhilaration you can experience during an open-water swim. We regularly hear from our readers how swimming outdoors has transformed their lives, from simply improving their fitness to helping them cope with stress, finding their way through a bereavement or reducing symptoms of depression. It's not just the swimming though, it's also the camaraderie and shared shivers and cake that come with it.

Your author also mentioned nearly losing her nerve in Wast Water in England's Lake District and the potential dangers of cold water. Although there are risks, a few simple precautions make outdoor swimming very safe. We have published guidelines on our website and there is more advice on the website of the Outdoor Swimming Society. If you haven't experienced it yet, read the advice and then add outdoor swimming to your list of things to try in 2019. But maybe wait until it's a little warmer.

SIMON GRIFFITHS
Publisher
Outdoor Swimmer Magazine
London

Minnesota Vikings

The growing Somali community in Minnesota ("A tale of two cafés", January 5th) reminded me of another stubborn group of immigrants to that state: Norwegians. The waves of Norwegian immigrants that started to arrive in Minnesota in the late 19th century tended to be poor, rural and uneducated, often with no knowledge of English. They established their own schools and churches, opened restaurants that specialised in delicacies from back home, such as *lutefisk*, cod preserved with lye. And in the middle of a neighbourhood in Minneapolis that has become a revitalised centre for Somali immigrants, lies a Norwegian church that still has a service in Norwegian every Sunday.

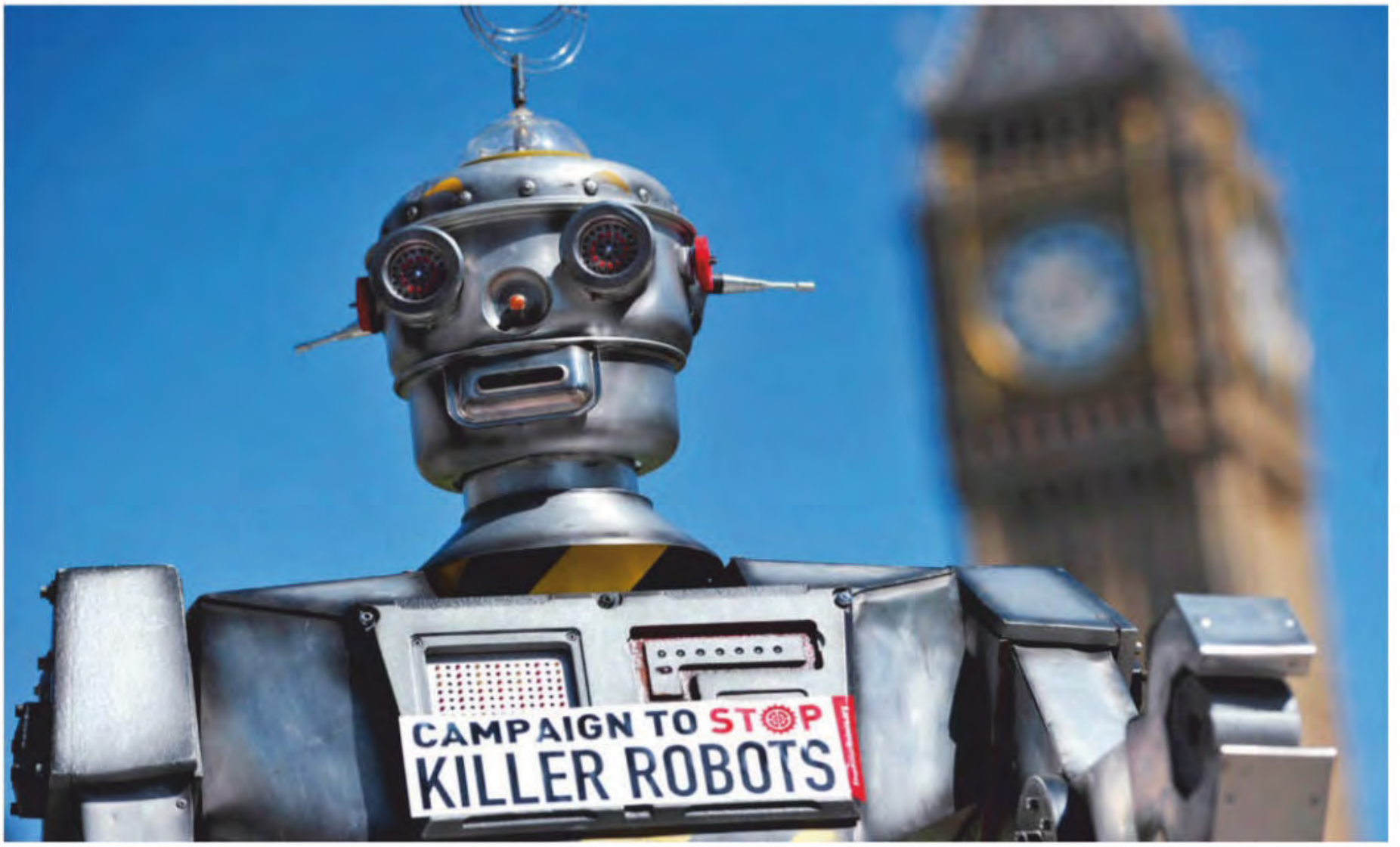
JOHANNES MAURITZEN
Trondheim, Norway

Strictly for the birds

I loved your piece on the bubble in emu farming during the 1990s ("An investment that never took off", December 22nd). I grew up in rural Georgia in a log cabin built by my father and we had a ranch of 100 emus. When the bubble popped, we continued to raise them and use them as a personal food source. My parents no longer own any emus but it was my first experience with the effect of macro markets on everyday life. I am now an investment portfolio manager, so I have come full circle.

CALEB CRONIC
Jacksonville, Florida

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Trying to restrain the robots

SALISBURY PLAIN, STOCKHOLM AND WASHINGTON, DC

The line between human and inhuman weaponry is fuzzy, important and breaking down

THE HAROP, a kamikaze drone, bolts from its launcher like a horse out of the gates. But it is not built for speed, nor for a jockey. Instead it just loiters, unsupervised, too high for those on the battlefield below to hear the thin old-fashioned whine of its propeller, waiting for its chance.

If the Harop is left alone, it will eventually fly back to a pre-assigned airbase, land itself and wait for its next job. Should an air-defence radar lock on to it with malicious intent, though, the drone will follow the radar signal to its source and the warhead nestled in its bulbous nose will blow the drone, the radar and any radar operators in the vicinity to kingdom come.

Israeli Aerospace Industries (IAI) has been selling the Harop for more than a decade. A number of countries have bought the drone, including India and Germany. They do not have to use it in its autonomous radar-sniffing mode—it can be remotely piloted and used against any target picked up by its cameras that the operators see fit to attack. This is probably the mode in which it was used by Azerbaijan during its conflict with Armenia in Nagorno-Karabakh in 2016. But the Harops that Israel has used against air-defence systems in Syria may have been free to do their own thing.

In 2017, according to a report by the Stockholm International Peace Research Institute (SIPRI), a think-tank, the Harop was one of 49 deployed systems which could detect possible targets and attack them without human intervention. It is thus very much the sort of thing which disturbs the coalition of 89 non-governmental organisations (NGOs) in 50 countries that has come together under the banner of the "Campaign to Stop Killer Robots". The campaign's name is an impressive bit of anti-branding; what well-adjusted non-teenager would not want to stop killer robots? The term chillingly combines two of the great and fearful tropes of science fiction: the peculiarly powerful weapon and the non-human intelligence.

But the Harop also shows that such weapons, and the issues they raise, are not entirely new. "Fire and forget" missiles that could loiter for a while before picking up the sort of radar signature that they had been told to attack have been around for decades. They were mostly launched from aircraft, they spent a lot less time loitering and they could not go home and wait for another chance if the enemy's radar refused to play ball. But their autonomous ability to kill was the same. Anti-personnel mines, which have been used for centuries, sit still rather than loiter and kill anything that treads on them, rather than anything which illuminates them with radar. But once such weapons are deployed no human is involved in choosing when or whom they strike.

Acknowledging the long, unpleasant history of devices which kill indiscriminately, or without direct human command, is crucial to any discussion of the risks, and morality, of autonomous weapons. It should not mask the fact that their capabilities are increasing quickly—and that although agreements to limit their use might be desirable, they will be very difficult to enforce. It is not that hard to decide if a landmine fits the criteria that ban such weapons under the Ottawa treaty. But whether a Harop is an autonomous robot or a remote-controlled weapon depends on the software it is running at the time.

Weapons have been able to track their prey unsupervised since the first acoustic-homing torpedoes were used in the second ▸▸

world war. Most modern weapons used against fast-moving machines home in on their sound, their radar reflections or their heat signatures. But, for the most part, the choice about what to home in on—which aircraft's hot jets, which ship's screws—is made by a person.

An exception is in defensive systems, such as the Phalanx guns used by the navies of America and its allies. Once switched on, the Phalanx will fire on anything it sees heading towards the ship it is mounted on. And in the case of a ship at sea that knows itself to be under attack by missiles too fast for any human trigger finger, that seems fair enough. Similar arguments can be made for the robot sentry guns in the demilitarised zone (DMZ) between North and South Korea.

Rise of the machines

The challenge that modern armed forces, and armsmakers like IAI, are working on is the ability to pick the target out from a field of non-targets. There are two technological developments that make the challenge a timely one. One is that computers are far more powerful than they used to be and, thanks to "machine learning", getting much more sophisticated in their ability to distinguish between objects. If an iPhone can welcome your face but reject your sibling's, why shouldn't a missile be able to distinguish a tank from a school bus?

The change is that autonomy in the non-killing aspects of military life is spreading like wildfire. Drones, driverless trucks and crewless submarines are all being used for various purposes, most of them entirely non-lethal. At the British Army's "Autonomous Warrior" exercise in December 2018, on the wet and windswept training grounds of Salisbury Plain in southern England, military officers showed off autonomous vehicles and aircraft designed to watch enemy lines, evacuate wounded soldiers and deliver supplies over the perilous "last mile" up to the front line. "Think C-3PO," says one officer, "not the Terminator."

Autonomous vehicles do not have to become autonomous weapons, even when capable of deadly force. The Reaper drones with which America assassinates enemies are under firm human control when it comes to acts of violence, even though they can fly autonomously.

Satellite remote control, though, involves a time delay which would matter more were the drones being shot at in an all-out war. Co-operation may be better with humans out of the loop, too. The Pentagon's out-there-thinking department, DARPA, is working on autonomous attack swarms more like a murmuration of starlings than a formation of fighter-bombers. What human operators could co-ordinate such dynamics? This is not just an issue for the future. One of the advantages that MDBA, a European missile-maker, boasts for its air-to-ground Brimstones is that they can "self-sort" based on firing order. If different planes launch volleys of Brimstones into the same "kill box", where they are free to do their worst, the missiles will keep tabs on each other to reduce the chance that two strike the same target.

Cost is also a factor in armies where trained personnel are pricey. "The thing about robots is that they don't have pensions," says General Sir Richard Barrons, one of Britain's most senior commanders until 2016. Nor do they have dependents. The loss of a robot is measured in money and capability, not human potential.

If keeping a human in the loop was merely a matter of spending more, it might be deemed worthwhile regardless. But human control creates vulnerabilities. It means that you must pump a lot of encrypted data back and forth. What if the necessary data links are attacked physically—for example with anti-satellite weapons—jammed electronically or subverted through cyberwarfare? Future wars are likely to be fought in what America's armed forces call "contested electromagnetic environments". The Royal Air Force is confident that encrypted data links would survive such environments. But air forces have an interest in making sure there are still jobs for pilots; this may leave them prey to unconscious bias.

The vulnerability of communication links to interference is an argument for greater autonomy. But autonomous systems can be interfered with, too. The sensors for weapons like Brimstone need to be a lot more fly than those required by, say, self-driving cars, not just because battlefields are chaotic, but also because the other side will be trying to disorient them. Just as some activists use asymmetric make-up to try to confuse face-recognition systems, so military targets will try to distort the signatures which autonomous weapons seek to discern. Paul Scharre, author of "Army of None: Autonomous Weapons and the Future of War", warns that the neural networks used in machine learning are intrinsically vulnerable to spoofing.

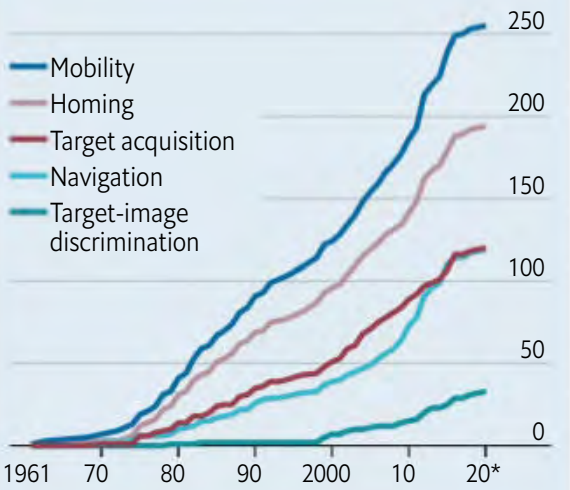
Judgment day

New capabilities, reduced costs, resistance to countermeasures and the possibility of new export markets are all encouraging R&D in autonomous weapons. To nip this in the bud, the Campaign to Stop Killer Robots is calling for a pre-emptive ban on "fully autonomous" weapons. The trouble is that there is little agreement on where the line is crossed. Switzerland, for instance, says that autonomous weapons are those able to act "in partial or full replacement of a human in the use of force, notably in the targeting cycle", thus encompassing Harop and Brimstone, among many others. Britain, by contrast, says autonomous weapons are only those "capable of understanding higher level intent and direction". That excludes everything in today's arsenals, or for that matter on today's drawing boards.

Partly in order to sort these things out, in 2017 the UN's Convention on Certain Conventional Weapons formalised its earlier discussions of the issues by creating a group of governmental experts (GGE) to study the finer points of autonomy. As well as trying to develop a common understanding of what weapons should be considered fully autonomous, it is considering both a blanket ban and other options for dealing with the humanitarian and security challenges that they create.

Get out of their way

Global, cumulative number of deployed weapon systems using automatic technologies

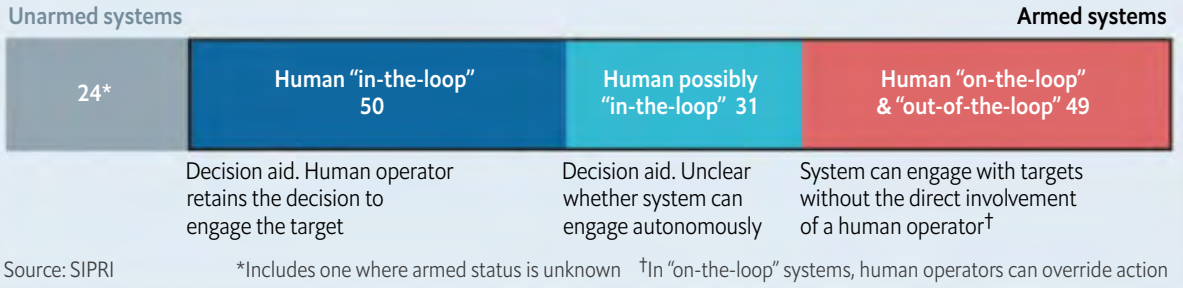


Source: Heather Roff, sponsored by Future of Life Institute *Forecast

From a view to kill

Global, autonomy in existing weapon systems

Analysis of 154 systems with automated-targeting capabilities, November 2017



Source: SIPRI *Includes one where armed status is unknown †In "on-the-loop" systems, human operators can override action

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Most states involved in the convention's discussions agree on the importance of human control. But they differ on what this actually means. In a paper for Article 36, an advocacy group named after a provision of the Geneva conventions that calls for legal reviews on new methods of warfare, Heather Roff and Richard Moyes argue that "a human simply pressing a 'fire' button in response to indications from a computer, without cognitive clarity or awareness" is not really in control. "Meaningful control", they say, requires an understanding of the context in which the weapon is being used as well as capacity for timely and reasoned intervention. It also requires accountability.

Lieutenant-colonel Richard Craig, who leads the British Army HQ's research on autonomous systems, agrees that context is crucial. In some contexts it might be right to vet every target. In others it is sufficient to understand the threat and act accordingly. For example a Phalanx system, he says, "wouldn't be in fully autonomous mode unless there was a high threat. Meaningful human control is to turn it on into that mode, and then to turn it off".

This means that future robot warplanes, such as those being explored by the French-led nEURon programme and Britain's Taranis, both of which are experimenting with automatic target recognition, present the biggest challenge. Long-legged as they are, they may encounter a wide range of target environments that could be hard to anticipate. They could be in or out of meaningful human control depending on where they end up, the competence and experience of the operators, what is likely to step into their path and, potentially, changes to their algorithms made through on-board machine learning. A field day for ethicists; a nightmare for the would-be treaty-makers.

The two dozen states that want a legally binding ban on fully autonomous weapons are mostly military minnows like Djibouti and Peru, but some members, such as Austria, have diplomatic sway. None of them has the sort of arms industry that stands to profit from autonomous weapons. They ground their argument in part on International Humanitarian Law (IHL), a corpus built around the rules of war laid down in the Hague and Geneva conventions. This demands that armies distinguish between combatants and civilians, refrain from attacks where the risk to civilians outweighs the military advantage, use no more force than is proportional to the objective and avoid unnecessary suffering.

When it comes to making distinctions, Vincent Boulanin and Maaike Verbruggen, experts at SIPRI, note that existing target-recognition systems, for all their recent improvement, remain "rudimentary", often vulnerable to bad weather or cluttered backgrounds. Those that detect humans are "very crude". And this is before wily enemies try to dupe the robots into attacking the wrong things.

Necessity and proportionality, which requires weighing human lives against military aims, are even more difficult. "However sophisticated new machines may be, that is beyond their scope," says Major Kathleen McKendrick of the British army. An army that uses autonomous weapons needs to be set up so as to be able to make proportionality decisions before anything is fired.

Salvation?

More broadly, IHL is shaped by the "Martens clause", originally adopted in the Hague convention of 1899. This says that new weapons must comply with "the principles of humanity" and "dictates of public conscience". Bonnie Docherty of Human Rights Watch, the NGO which co-ordinates the anti-robot campaign, argues that, "As autonomous machines, fully autonomous weapons could not appreciate the value of human life and the significance of its loss ...They would thus fail to respect human dignity." A strong argument, but hardly legally watertight; other philosophies are available. As for the dictates of public conscience, research and history show that they are more flexible than a humanitarian would wish.

Leaving aside law and ethics, autonomous weapons could pose new destabilising risks. Automatic systems can interact in seemingly unpredictable ways, as when trading algorithms cause "flash crashes" on stockmarkets. Mr Scharre raises the possibility of a flash war caused by "a cascade of escalating engagements". "If we are open to the idea that humans make bad decisions", says Peter Roberts, director of military sciences at the Royal United Services Institute, a think-tank, "we should also be open to the idea that AI systems will make bad decisions—just faster."



Armless, for now

Beyond the core group advocating a ban there is a range of opinions. China has indicated that it supports a ban in principle; but on use, not development. France and Germany oppose a ban, for now; but they want states to agree a code of conduct with wriggle room "for national interpretations". India, which chaired the GGE, is reserving its position. It is eager to avoid a repeat of nuclear history, in which technological have-nots were locked out of game-changing weaponry by a discriminatory treaty.

At the far end of the spectrum a group of states, including America, Britain and Russia, explicitly opposes the ban. These countries insist that existing international law provides a sufficient check on all future systems—not least through Article 36 reviews, which they say should be taken more seriously rather than ducked, as some countries do today. They argue that the law should not be governed by the shortcomings of current systems when it comes to, say, discrimination.

Some even argue that autonomous weapons might make war more humane. Human warriors break the IHL rules. Properly programmed robots might be unable to. Samsung's SGR-A1 sentry gun, which used to be deployed in the DMZ, could recognise hands being thrown to the air and weapons to the ground as signs of surrender that meant do not shoot. All sorts of similar context-sensitive IHL-based restraint might be written into its descendants' programming. But how long until an embattled army decided to loosen such tethers and let slip the robodogs of war?

Which brings back one of the biggest problems that advocates of bans and controls have to face. Arms control requires verification, and this will always be a vexed issue when it comes to autonomy. "The difference between an MQ-9 Reaper and an autonomous version is software, not hardware," says Michael Horowitz of the University of Pennsylvania. "It would be extremely hard to verify using traditional arms-control techniques."

The urge to restrict the technology before it is widely fielded, and used, is understandable. If granting weapons ever more autonomy turns out, in practice, to yield a military advantage, and if developed countries see themselves in wars of national survival, rather than the wars of choice they have waged recently, past practice suggests that today's legal and ethical restraints may fall away. States are likely to sacrifice human control for self-preservation, says General Barrons. "You can send your children to fight this war and do terrible things, or you can send machines and hang on to your children." Other people's children are other people's concern. ■



Franco-German relations

State of the nations

BERLIN AND PARIS

The EU's two most important countries renew their vows

"GENTLEMEN, NEVER forget that for France there can be no other alternative but friendship with Germany." Half a century after Charles de Gaulle uttered these words to his ministers, the relationship between France and Germany remains the most important in Europe: an emblem of peace and reconciliation, and the foundation stone of European integration.

To renew and strengthen this essential bond, President Emmanuel Macron and Angela Merkel, Germany's chancellor, will meet on January 22nd in the German border town of Aachen (Aix-la-Chapelle in French), where they will sign a 16-page treaty. The ceremony takes place 56 years to the day after de Gaulle and his West German counterpart, Konrad Adenauer, met at the presidential palace in Paris to sign the Elysée treaty, capping the two countries' move from *Erbfeinde* (hereditary foes) to partners in what a later West German chancellor would call the *entente élémentaire*.

The inauguration in 2017 of Mr Macron, a passionate European who spoke of seizing a historic moment to face down nationalism, seemed to offer the best chance in years to restart the Franco-German motor. For Mrs Merkel, who had grown used to disappointment under three previous French presidents, Mr Macron looked like a serious reformer, ready to improve French competitiveness and steady its public finances. Mr Macron hoped to inspire Germany to join him in reforming the euro area and bolstering the EU's resilience. He filled his government with Germanophiles, from his prime minister and finance minister down, and rarely acted before weighing the German response.

Yet a harsh reality has since set in. Despite the ambitions laid out by Mr Macron in a sweeping speech at the Sorbonne in September 2017, the sense of possibility that dominated those early months has mostly evaporated. This is reflected in the low ambition of the new treaty. In place of grand plans for an EU army or commonly guaranteed bonds, you find hopeful language on co-ordinating decisions and plans to deepen municipal co-operation in border regions. An agreement between the countries' parliaments will establish a 100-member joint assembly. Officials speak of turning the model of co-operation embodied in the Elysée treaty into a platform for Franco-German "convergence". But it is aspirational at best. "Fifty-six years on, everyone knows the Elysée treaty," says Henrik Enderlein of the Hertie School of Governance in Berlin. "I doubt anyone will look at the Aachen treaty in 50 years."

Its meatiest provisions concern defence and security co-operation. France and Germany account for almost half the EU's military-industrial capabilities, says Claudia Major at the SWP think-tank in Berlin. If they don't agree, things don't move. The French have welcomed German help in their operations in the Sahel, and the pair work together in the so-called Normandy format with Russia and Ukraine.

Yet there remains a gulf in strategic understanding. "Germany does not need a strong army for its understanding of sovereignty," says Wolfgang Schäuble, president of the Bundestag and one of Germany's great Francophiles. "France is a different story." The Germans strongly opposed the French intervention in Libya in 2011, and remain suspicious that schemes like Mr Macron's European Intervention Initiative, ▸▸

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set up outside the EU, are a ruse to get other Europeans to pay for French action in Africa. French officials are frustrated by German unwillingness to deploy troops, and consider PESCO, a framework for EU defence projects promoted by Germany, as woefully unambitious. This leads to a split-the-difference approach, reflected in Aachen's dispiritingly Eurocentric proposal for France to back a permanent seat for Germany on the UN Security Council.

On the euro zone Mr Schäuble, finance minister in the 2010-12 crisis, says that German positions, including in his centre-right Christian Democratic Union, have notably softened: "Compared to the positions in my parliamentary group six years ago things are much better." Yet it is hard to ignore the gap between achievement and aspiration. Mr Macron had sought a euro-zone budget worth "several points of GDP", as well as a special parliament and finance minister. The budget the euro zone agreed to consider in December is an order of magnitude less ambitious. Banking union proceeds at a glacial pace, thanks in part to German fears about Italy's wobbly lenders.

Inside Europe, the pairing has proved most effective when the two governments have first battled to secure agreement among themselves. "The strength of the relationship is that we come from different directions and find a joint position," says Michael Roth, Germany's Europe minister. Hard-fought compromises tend to endure, and, despite the occasional fear of a Franco-German stitch-up, can sweep up other countries who feel their interests are roughly represented by one or other of the big two.

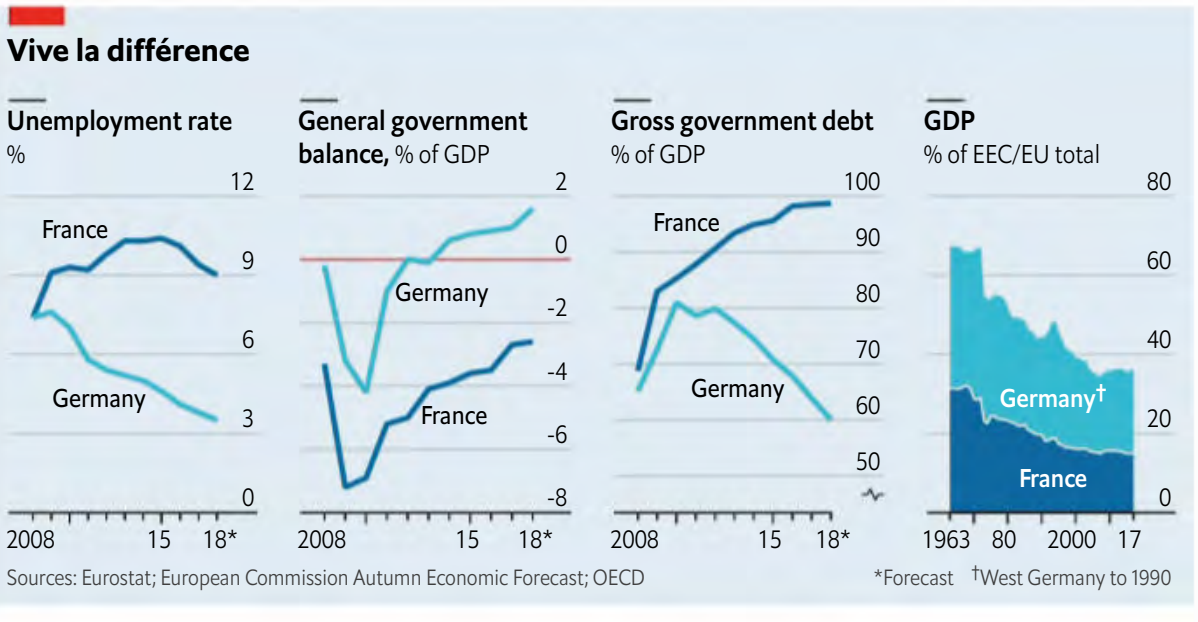
Yet in an enlarged EU other groups, like the central European Visegrad four or the Dutch-led "New Hanseatic League", can make the weather; the Hanseatics represent at least as big a roadblock to Mr Macron's euro-zone plans as Germany. And the motor often sputters. Proposals to harmonise the two countries' corporate-tax systems as the basis for an EU-wide agreement, for example, have been around since 2011. Similarly, a much-heralded French push for an EU tax on digital giants like Google and Facebook has struggled to gain traction in Berlin. In frustration Bruno Le Maire, France's finance minister, has applied a digital tax unilaterally.

The difficulties stem in part from diverging analyses of Europe's place in the world. Mr Macron is impatient to bolster what he calls "European sovereignty" in the face of an increasingly assertive China and an unreliable America. Germany is not immune to such arguments; its manufacturers are belatedly waking up to the Chinese threat, for example. That has helped motivate Germany's push with France to lean on sceptical competition authorities in Brussels to allow the merger of the rail operations of Siemens and Alstom.

Yet as one French official puts it, "Germany is a slow-moving country, and doesn't like big visions." Few Germans share Mr Macron's instinct to turn politics upside-down. To many, compromise sounds suspiciously like watering down rules, or paying for French indiscipline or military adventures. Economically, Germany's strong performance has bred complacency at home and an outsized fear of indiscipline abroad. The French case is not helped when Italy seeks to bail out failing banks with state money or Greek finance ministers threaten to blow everything up.

The ties will endure, if only because France has nowhere else to turn and Germany, especially after Brexit, has no better partners. "Yes, it's difficult," says an adviser to Mr Macron. "But is there anybody else who has ideas?" The heady ambitions of the Sorbonne speech already belong to a different time. There is little chance of progress in 2019 owing to EU and German state elections, and Mr Macron's troubles with the *gilets jaunes* (his trip to Aachen will be his first outside France for nearly a month). Addressing well-wishers during his first visit to Berlin in 2017, Mr Macron said he wanted "even bigger" crowds five years later, once he and Mrs Merkel had brought results. Good luck with that. ■

Vive la différence



Sources: Eurostat; European Commission Autumn Economic Forecast; OECD

*Forecast †West Germany to 1990

Serbia

Ready to join the European Union?

BELGRADE

The country's strongman is being buffeted by protests

IT IS BACK to the future, but this time with iPhones and selfies. As thousands of Serbs protest against their president, Aleksandar Vucic, it is easy to recall the heady days of the 1990s when people marched against Slobodan Milosevic. When he fell in 2000, their slogan was "It is over!" Today's banners proclaim "It has begun!"

The number of protesters who have marched for the past six weeks is disputed. But days before a visit by Russia's President Vladimir Putin on January 17th, they showed no sign of abating. The protests started after Borko Stefanovic, leader of a small leftist party, was coshed and kicked as he arrived on November 23rd for a meeting in the town of Krusevac. The perpetrators, he says, were thugs connected to a local businessman close to Mr Vucic's ruling party. Serbia is a front-runner to join the EU, whose leaders, says Mr Stefanovic, indulge Mr Vucic because they want the Balkans to remain stable and for him to clinch an agreement with Kosovo, which declared independence from Serbia in 2008.

Mr Vucic's critics say he is an authoritarian who controls the national news, especially on television and in newspapers that older Serbs still rely on. Middle-class Serbs in Belgrade, the capital, form the core of the protests, though they have occurred in smaller towns as well. Srdjan Bogosavljevic, a veteran pollster, says his Ipsos monthly data show that 44% of Serbs think the country is heading in the right direction, whereas 33% think the opposite. If Mr Vucic called an election, as he may, 65-75% are thought likely to vote for him or an allied party. Serbia's economy grew by 4.4% last year, unemployment has been dropping and foreign investment is flowing in.

Mr Bogosavljevic says that Serbs are less poor than they were, especially outside Belgrade. Still, up to 50,000 people emigrate every year. Ana Brnabic, Serbia's prime minister, says no decision has been made to call an election. She says she still has lots to do—and is "always interested in constructive criticism". But the protesters' complaints are "not based on facts." She wants to continue reforms and investments in education and digitalisation.

The leaders of Serbia's opposition, who have formed an alliance, do not make speeches to the protesters because they are so diverse that any one of them would be greeted with abuse by supporters of the others. They range from liberals to arch-na-

tionalists. For instance, the enemies of Bosko Obradovic, the leader of Dveri, call him a clerical fascist. He says he is a "modern conservative", keen on democracy and family values. He talks of restoring Serbian rule over Kosovo and of uniting in one state with Bosnia's Serbs. Mr Vucic, he says, is committing "high treason" for talking of a possible exchange of territory with Kosovo's Albanians. Mr Obradovic lauds Mr Putin, Italy's Matteo Salvini and Hungary's Viktor Orban as Europe's future: Serbia "should catch this new geopolitical train". He and the rest of the opposition would boycott an election, he says.

That puts Mr Vucic in a bind. A new parliament full of his supporters but without the bulk of the opposition represented would tarnish Serbia's image as a rough but soon-to-be EU-ready democracy. Mr Obradovic sneers at Mr Vucic as "the last believer in the EU". ■

Macedonia and Greece

A new north

ATHENS

Macedonia is getting a new name

GOOD NEWS from the Balkans is rare. Even after Alexis Tsipras and Zoran Zaev, the prime ministers of Greece and Macedonia, agreed last June to end a 27-year dispute over what to call the former Yugoslav republic, few pundits would have bet that parliaments in Athens and Skopje would ratify the deal.

Yet on January 11th Mr Zaev at last scraped together the two-thirds majority needed for Macedonia's parliament to endorse a constitutional change making "North Macedonia" the country's official name, to go into effect once Greece has agreed too. The extra adjective is intended to assuage long-standing fears in Athens of a territorial claim on the Greek region of Macedonia south of the border. Mr Zaev hopes that talks will start this year to let Macedonia join the NATO alliance and, eventually, the European Union, since Greece is lifting a decade-long veto on both as part of the agreement.

Now, however, it is Mr Tsipras's turn to deliver. His left-wing Syriza government plans to present the name deal to parliament this month. But the governing coalition collapsed at the weekend when Syriza's partner, a right-wing splinter group called the Independent Greeks (ANEL), refused to back the government. Its leader, the defence minister Panos Kammenos, resigned after several days of skirmishing within the cabinet. The split left Syriza five votes short of a parliamentary majority.

Mr Tsipras, an adroit backstage tactician, immediately called for a vote of confidence in his "new" minority government. Four ANEL lawmakers switched sides, along with a defector from To Potami (the River), a small centre-left party, handing Syriza the slimmest of victories in the small hours of January 17th: 151 votes in the 300-member house. But an election must anyway be held by October. It is expected to be in May.

Mr Tsipras can now hope to pull off a similar coup over the Macedonia vote. Even though two of the four ANEL rebels are likely to vote against him, Syriza can count on support from two more To Potami deputies to ensure a second win, according to party officials. The other parties, though, from the centre-right New Democracy to the Greek communists, are all likely to vote against the deal, reflecting a deep-seated nationalism that still prevails among Greek voters. According to opinion polls, more than 60% oppose the agreement, even though Macedonia has yielded to Greek insistence on a change of name.

Mr Tsipras appears unrattled. His standing with his European peers, and especially with the German chancellor, is in noticeably better shape these days. A beaming Angela Merkel, making a 24-hour visit to Athens on January 11th, showered praise on Mr Tsipras, saying she was grateful for his efforts to promote "our shared values" in the Balkans. ■

Gdansk weeps

Death of a mayor

WARSAW

Some see a reflection of Poland's turbulent politics

ON THE AFTERNOON of January 13th Pawel Adamowicz, the mayor of Gdansk on Poland's Baltic coast, had been out on the street collecting money for an annual charity fundraiser. Hours later, he was stabbed on stage at the charity's evening gala, a knife plunged deep into his chest by a lone attacker. People queued up to give blood. But despite doctors' efforts, Mr Adamowicz died the following afternoon. He was 53 years old.

The attack has shaken Poland. Politicians of all stripes expressed their condolences, including Jaroslaw Kaczynski, the reclusive leader of the ruling Law and Justice (PiS) party. PiS and the centrist Civic Platform opposition, to which Mr Adamowicz originally belonged (though he ran for mayor as an independent), are at loggerheads. Many commentators have been anxious to stress that this should be no time for political point-scoring. Yet some inevitably see the attack as a symptom of the polarisation of politics since PiS came to power in 2015.

Mr Adamowicz, who had held the post of mayor of Poland's sixth-largest city since 1998 and was re-elected last autumn, was known for his liberal views. Defying the government's anti-immigration rhetoric, he was one of a dozen Polish mayors to sign a declaration on the "friendly admission of immigrants" in 2017. Like other opposition politicians, he was routinely attacked in the PiS-controlled public and pro-government private media. Others note that the attack took place at the gala of the Great Orchestra of Christmas Charity, an NGO that raises millions of euros for equipment for children's hospitals every year, yet has been attacked in right-wing circles. As a large non-government outfit, it is regarded with considerable suspicion by paranoid statists.

The attacker, a 27-year-old man from Gdansk who had recently been released from prison, is being questioned by police. Speaking from the stage after the attack and before he was arrested, he accused Civic Platform, which was in power in Poland from 2007 to 2015, of putting him in prison. Little is known about his precise motives, or indeed his sanity. But as Poland enters a crucial year, leading up to parliamentary elections in the autumn, Mr Adamowicz's shocking death will weigh heavily.



The lost leader

Charlemagne | Beware the bio-populists

Disease will be a major political battleground in the coming decades



JENNY ARDUINI only ever wanted the best for her young son. The 36-year-old mother from Emilia-Romagna in Italy read that the government was banning unvaccinated children from pre-school classes. That seemed autocratic. The state was imposing its will on families rather than letting them make their own decisions. Ms Arduini had heard that vaccinations could cause autism. "I was really angry," she recalls: "I wanted to defend my child from something bad." Most of all, she felt stifled: "I wanted time to understand, time to work it out, I didn't want to be forced into a choice." A leftist, Ms Arduini is generally sceptical of authority. That made her a supporter of the Five Star Movement, an Italian populist party then in opposition and now in government that preaches direct democracy and parental choice on vaccinations.

So incensed was she that she messaged IoVaccino, a pro-vaccination campaign group, to lambast them for inspiring the law. Ms Arduini's email reached Stefano Zona, a father of three and a doctor specialising in epidemiology. "Jenny was really frustrated and angry," he remembers. Over several months the two discussed vaccinations by phone and online. Often they would talk about fear. What was there to be afraid of? How should one cope with risk? Gradually Ms Arduini came round, Mr Zona appealing to her as a parent of a similar age. Early last year she sent her son for his jabs and remains happy with her choice: "I'm very lucky that my anger ended in dialogue with experts."

Across Europe, the rise of populism is damaging public health. A common feature is scepticism of vaccines. Immunisation rates are declining and the diseases they are designed to stop are on the rise. Measles cases are at a 20-year high. In Italy, which used to be a model of good vaccination practice, take-up has fallen since 2005 to a level lower than that of Ghana. Between 2016 and 2017 the number of measles cases rose sixfold, to around 5,000. France, Serbia and Greece have also seen notable spikes, but the trend applies across almost the entire continent.

Emilia-Romagna, the region where Ms Arduini and Mr Zona live, is the hub of the battle. A prosperous, well-educated place that lies between Florence and Milan and has a tendency towards progressive politics, it made vaccines obligatory for schoolchildren in 2016, the first part of Italy to do so. The government in Rome, at that time centre-left, rolled out a similar law across the whole country in 2017. Yet Emilia-Romagna is also the heart of the "anti-vax" campaign. In 2012 a court in Rimini applied a debunked paper linking autism and vaccines to a parental-choice case, sparking pro-choice movements. Andrew Wakefield, a disgraced British doctor now loved by Hollywood stars, who had written the paper, presented his film on the supposed dangers of vaccinations there. It is also in Rimini, an Adriatic beach resort and a Five Star stronghold, that the powerful anti-vaccination campaign "Comilva" has its Italian headquarters.

The Five Star Movement was anti-vaccinators' first keen political voice. Beppe Grillo, the scruffy blogger who founded the party, has long spread doubt about vaccines. When it entered government last June, Five Star helped elect as prime minister Giuseppe Conte, a lawyer known for defending stamina therapy, a debunked medical method used to treat illnesses like cancer. But now the party is coming round. Last week Mr Grillo even signed a pro-vaccination "pact for science" launched by Roberto Burioni, a campaigning medical professor from Milan. But the right-wing Northern League is stepping into the void left by its governing partner's conversion. Hungry for the votes of anti-vaxers, Matteo Salvini, Italy's interior minister and the League's leader, has adopted Mr Grillo's lines. He calls vaccines "useless and in many cases dangerous, if not harmful", and is trying to reverse obligatory vaccinations, although his bid to do so last summer fell apart.

Like their counterparts in Italy, populists elsewhere—such as Heinz-Christian Strache in Austria and Marine Le Pen in France—have argued for "parental choice", even though vaccines only work to control diseases as contagious as measles if 95% of a population is covered. Grasping for an alternative cause of disease, some settle on migrants. In fact, they are often better immunised than natives, embrace local health care and do not fuss about vaccines. Yet Ms Le Pen rails against "bacterial immigration" while Viktor Orban, the populist Hungarian prime minister, calls migrants "poison". A social-media animated video by the governing Freedom Party shows "Ali", a patient wearing a fez and a moustache, trying and failing to scam his way into a hospital. The government in Vienna has also reversed a planned ban on smoking in public places.

The fear factor

These disparate phenomena point to the rise of what one might call bio-populism. It is increasingly clear that Europe's populists want for the body what they want for the nation: purity, unity and self-governance. Populist health policies mean citizens being free from outside influences—whether vaccines devised by doctors, regulations invented by politicians or diseases supposedly carried by migrants—and in control of their own epidemiology. They are fuelled by fear ("No one else will defend you," notes Ms Arduini) and a curious combination of me-first libertarianism and anti-expertise herd mentality.

Emilia-Romagna shows that there is an antidote to this bio-populism. Many, like Ms Arduini, are changing their minds. Mr Burioni, with his myth-busting Facebook page and bestselling books such as "Vaccines are not an Opinion" and "Why Science can't be Democratic", feels he is making progress. Yet a broader spectre looms. At least one pandemic will probably sweep the interconnected world in the next decades. A Europe sceptical of medical expertise, determined to blame illnesses on outsiders and wrapped in national flags may find it harder to cope with such a crisis. Viruses, after all, know no borders. ■



Brexit and Parliament

The Noes have it

Theresa May's seismic defeat in Parliament raises questions not just about where Brexit goes next but also about her party and democracy in Britain

PARLIAMENT SQUARE was like a circus, with flags, music and a boisterous medley of quarrelling Leavers and Remainers. Inside the House of Commons the mood was more portentous, with MPs talking up their historic moment. Geoffrey Cox, the attorney-general, brought them down to earth by chiding them for being like children in a playground, not legislators. Yet when the vote on Theresa May's Brexit deal came, late on January 15th, it was lost by the truly historic margin of 432 to 202. The majority of 230 against the government is the biggest parliamentary defeat on record for a ruling party (see chart on next page). Fully 118 Tory MPs defied their whip to vote against Mrs May, the biggest such rebellion since 139 Labour MPs voted against the Iraq war in 2003.

In more normal times, such a rout would surely be followed by a resignation. Yet the next day Mrs May easily defeated a vote of no confidence in her government proposed by the Labour opposition leader, Jeremy Corbyn. Neither the Tories nor the Democratic Unionist Party (DUP) that props up her government want an election. Mrs May thus confirmed that she is a great survivor. Because she won a Conservative leadership contest shortly before Christmas, she cannot under party rules be challenged again for the next ten months.

Yet few are happy with her stubborn approach to Brexit. Many people must wonder how the country got into such problems. Before Brexit, Britain had a reputation not just for pragmatism but for sound administration and a predictably sensible legislature. The huge vote against Mrs May's deal is a blow to that. Some will conclude that it is her fault, as a singularly inept prime minister and poor negotiator.

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It is true that she has badly mishandled Britain's exit preparations. Yet there are deeper reasons for the mess.

The first is inherent in Brexit. Some campaigners said that leaving the European Union would be like walking away from any other annoying international organisation. Hence the attraction of a clean break, taking Britain out of the EU's single market, customs union, freedom of movement and the European Court of Justice. But the truth is that, after 45 years of membership, the EU has become a crucial part of the regulatory and institutional framework within which British business and government operate, ranging from airlines to carmakers, banks to drug firms and the police to the security services.

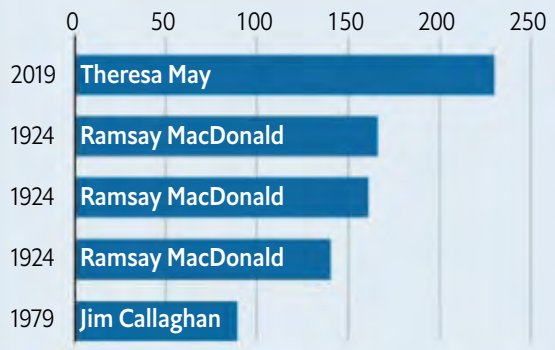
From omelette to egg

Extracting the country from an intricate framework that stretched farther than anyone realised was bound to be extremely difficult and time-consuming. It also meant that Brexit would be a process, not a single event. Pascal Lamy, a French former European commissioner, likens it to taking an egg out of an omelette. As other EU countries have watched this being attempted, even those most irritated by Brussels have concluded that they should not follow suit.

A second issue is the nature of British democracy, and in particular how badly equipped it is to cope with referendums. Other countries that use them, such as Switzerland or Ireland, have constitutional provisions laying down when and how to ▸▸

Top of the flops

Britain, biggest government losses in the House of Commons, margin of defeat

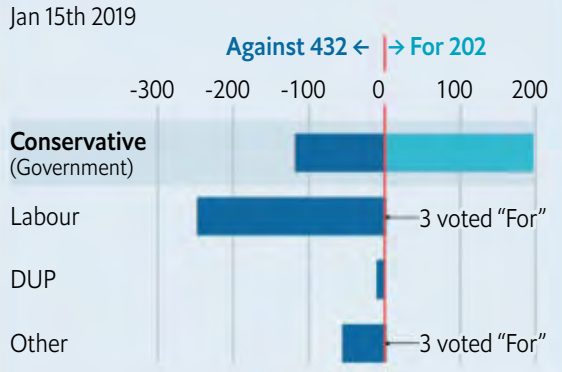


Source: Press Association

Ayes right

European Union withdrawal bill, votes

Jan 15th 2019



Source: Hansard

do so. But the unwritten British constitution confers total sovereignty on Parliament, as the epitome of a representative rather than a direct democracy. This sits uncomfortably with the notion of asking voters to make policy choices, as David Cameron did when putting Britain's EU membership to a referendum in June 2016.

Despite this, Britain has in recent years made extensive use of referendums. Indeed, if one includes regional ones, in the past 20 years it has had more of them than it has had general elections. But the idea that they can settle contentious issues has been repeatedly disproved. The 1975 referendum on membership of the European Economic Community produced a decisive two-to-one result for staying in. Yet within eight years the Labour Party promised to pull out of the EEC without even consulting voters again.

A more recent example is more embarrassing for Mrs May. This week she argued that the result of the 2016 Brexit referendum must be honoured by all, because a 1997 referendum narrowly backing the creation of a Welsh assembly had been similarly accepted. Yet this overlooked the awkward truth that, along with her Tory colleagues, she had voted against the assembly, despite the referendum. What's more, eight years later the Tories were campaigning for a second referendum with the option of overturning the result of the first—something she has explicitly ruled out for Brexit.

A third, related point is the deepening divisions over Brexit. Some had hoped that the narrow result of 52-48% in favour of leaving the EU would create conditions for a middle way. Both sides could have converged on a "soft" Brexit that took Britain out of the EU but kept it closely aligned with most of the rules of its largest trading partner. The model might have been Norway, outside the EU but a full participant in its single market through the European Economic Area.

Still banging on about Europe

In fact the divisions between the two sides have widened. Leavers have become ever more wedded to the desire of hardline Brexiteers for a total break with Brussels. They have taken to deriding Mrs May's deal as "Brexit in name only". Remainers, meanwhile, have become increasingly keen on the idea of having a second referendum to reverse the decision of the first. They, too, have gone out of their way to dismiss softer forms of Brexit, on the basis that they are inferior to full membership. This widening gulf has made compromise harder.

A fourth factor is divisions within parties, especially the ruling Tory party. It has always been a broad church that embraces liberal free-marketeers along with conservatives keener on economic protection. The party is now in its biggest crisis since 1906, when a split put it out of power for almost 20 years. The cause of the split, then as now, was trade. The free-trade wing of the party wanted to stick to the liberal trade policy inaugurated by Robert Peel in 1846. But an imperial-preference faction, led by Joseph Chamberlain, wanted to strengthen relations with the empire by creating a tariff wall around Britain and its dependencies. The split led the Tories into a crushing defeat in the 1906 election.

The parallels with today are striking. The protectionist turn was driven by a charismatic figure in Chamberlain, who used it to advance his leadership ambitions. The Tories lost support among intellectuals and working-class voters fearful that tariffs would mean dearer food. The debate over imperial preference took place on the streets as well as in Parliament. And the Conservative implosion opened the way to a left-wing government that fundamentally changed the balance between capital and labour, and between the landed aristocracy and their tenants.

All these points help explain why Mrs May has found it so hard to do what she calls her duty and deliver Brexit. But a fifth matters, too: her own character and style. As a lukewarm Remainer before becoming prime minister in July 2016, she could have embraced both sides of the Brexit divide and all parties when deciding how to implement the vote. She could have been upfront with the public about the trade-offs inherent in Brexit, which always pointed towards messy compromise. And she might have discussed options more openly with other EU leaders, knowing that they have to agree the terms of any Brexit deal.

Yet she chose to do none of this. Without consulting even her own cabinet she decided in October 2016 to lay down "red lines" for Brexit, which amounted to leaving the single market and customs union, ending the free movement of people and escaping entirely the jurisdiction of European courts. These promises pointed inexorably towards a radical break with the EU. She then opted in March 2017 to invoke Article 50 of the EU treaty, which set a two-year deadline for Britain to leave, without



The evolving will of the people

being clearer on the detailed course that she wanted.

Along the way she ignored the advice of experienced officials and diplomats, losing her ambassador to the EU, Sir Ivan Rogers, in early 2017. Instead she fell back on a coterie of familiar counsellors less knowledgeable about Brussels. She also called an unnecessary election in June 2017, again without consulting colleagues, in which she lost her party's majority, forcing her to rely on support from the DUP, hideously complicating the Brexit negotiations regarding Northern Ireland. And she then conducted the talks largely in secret, not informing her own MPs or even her own Brexit secretary (she is now on her third of them) about what she was doing.

Many of these failings reflect Mrs May's introverted nature. She likes to rely on a small, closed circle of advisers and officials, many of whom she recruited during her six earlier years as home secretary. She is unclubbable, seldom seen in the tea rooms or bars of Parliament. She has few close friends in Westminster, even within the cabinet. None of these qualities is necessarily bad—indeed, the conscientious and hardworking Mrs May initially made a refreshing contrast to her predecessor. But faced with a challenge on the scale of Brexit, these characteristics have helped to land her in the mess she is in today.

In search of an escape route

What happens next? Mrs May responded to her Commons defeat with defiance. She promised to listen to and consult fellow MPs, including senior members of other parties—though Mr Corbyn is refusing to meet her unless she rules out a no-deal Brexit. She also noted that there was still no clarity about what sort of Brexit Parliament could support. If her consultations produced new ideas, she would go back to Brussels to see what could be negotiated. Yet despite her massive defeat, she refuses to change her red lines and still believes that something close to her deal is the only one realistically available. Brexit is just ten weeks away. Mrs May must set out her plans by January 21st. MPs will then be free to propose amendments that could set Brexit on a new course.

The prime minister's instincts will be to build on what she has already secured in the draft Brexit deal. She is ready to go back to Brussels to seek alterations, which will be easier to do in the political declaration about future relations than in the withdrawal agreement, which is a legally binding treaty. The EU is familiar with the need to help countries that have what it calls ratification difficulties. Add a few declarations, offer modest concessions, then ask the country concerned to think again.

This is far harder with Brexit. The scale of Mrs May's defeat will make negotiators in Brussels conscious that, even if they are ready to make changes, they may not be enough to get the deal past MPs. Moreover, they are adamant that they cannot reopen the much-disliked Irish "backstop", which guarantees that there will be no hard border in Ireland by, if necessary, keeping the entire United Kingdom in a customs union with the EU. To concede a legally binding end-date for the backstop or to give Britain a unilateral right of exit from it would undermine the scheme's whole purpose of acting as an insurance policy.

If minor alterations to the current deal will not work, what else might? Different factions of MPs have different answers. Mr Corbyn has called for a permanent customs union, which is favoured even by some Tory ministers. Mrs May might be tempted. But Mr Corbyn's idea of a customs union

Extending Article 50

Extra time—and penalties

Delaying Brexit may mean that Britain has to elect MEPs again

CRITICS OF Theresa May often attack the prime minister for invoking Article 50, beginning the Brexit process, before her government had decided the form of exit it wanted. Setting a two-year deadline that expires on March 29th weakened her negotiating position. Yet there was a reason for the timetable, besides her own haste. It meant that Britain would be out of the EU before the next elections to the European Parliament, which are due between May 23rd and May 26th. Talk of extending the Article 50 deadline, which has grown louder after Parliament's emphatic rejection of Mrs May's Brexit deal this week, threatens to complicate these elections—and not just in Britain.

The plan was (and is) that, since Britain is leaving the EU, it should not elect new MEPs. The European Parliament has already reallocated 27 of the 73 British seats to other EU countries, keeping the rest in reserve for any future expansion of the club. If Article 50 were extended for a couple of months, that might not present a problem. But if the extension meant that Britain was still an EU member in late May, questions would be raised about Britain's MEPs.

Some suggest that today's British members could stay in their posts or be replaced by nominees from Westminster, to avoid holding elections. That might work at least until the new European Parliament formally meets on July 2nd. But it is hard to see a stopgap going beyond then. Any Briton could challenge their loss of voting representation. And the European Court of Justice would surely rule that, as Britain was still formally a member, it must elect MEPs.

Britain's Electoral Commission is ready for this and even has a budget in place to hold such elections. Yet it would seem farcical to do so if Britain were on its way out. As Agata Gostynska-Jakubowska of the Centre for European Reform, a think-tank, notes, it would also stop the reallocation of the 27 British seats, screwing up other countries' polls.



Giving back control

An Article 50 extension would raise another complication. To take effect, any withdrawal treaty must be ratified by the European Parliament. Today's MEPs say they would approve Mrs May's deal. But their final plenary session will be in mid-April. In theory, MEPs could be summoned to an extraordinary session before the new parliament meets in July. But that would be unpopular, especially if it clashed with the elections in May.

The alternative of asking new MEPs to ratify a Brexit deal would be awkward. Committees would not have been formed and the existing Brexit steering group would be shut down. If an eventual deal were made significantly different from the current one—for instance, by revising the terms of the Irish backstop—new MEPs could be tempted to reject it.

Extending Article 50 may seem an obvious course to many MPs in Westminster. Yet it requires the assent of all 27 other EU governments, any of which could demand a price. Even kicking the can down the road is no longer easy.

that gives Britain a say in future trade deals is not on offer from the EU. It would also lose Mrs May a few Tory MPs, including some in the cabinet. Some other MPs would prefer to swing to a softer Brexit called Norway-plus, adding a customs union to membership of the single market. But hardliners want to go in the opposite direction, to a more distant free-trade agreement modelled on the EU's deal with Canada.

With little time left, negotiating an entirely different form of Brexit to Mrs May's seems impracticable. Moreover, as she herself points out, for any alternatives the EU would still insist on an Irish backstop. There is no sign that other EU leaders are prepared to override the deep concerns of the Irish government on this point purely to rescue British MPs from their difficulties. The interests of members always trump those of non-members.

Does this imply a Brexit on March 29th with no deal, the most disruptive outcome and the one business lobbies are most strongly against? Gleeful Brexiteers point out that it is the default option in the absence of other action. Yet it has become clear that a majority of MPs are against it. Commenting after the Commons vote, Mrs May also leaned against the idea. She has equally softened her hostility to suggestions of seeking an extension of the time limit set by Article 50. It would still not be straightforward. It would need the unanimous agreement of other EU governments, although Mujtaba Rahman of the Eurasia Group, a consultancy, believes this would be forthcoming to avoid no deal. It could also mess up the elections to the European Parliament (see box on previous page). But it would at least postpone the prospect of dropping out with no deal in place.

For now, though, Mrs May is against the idea of extension. That is one reason why some MPs are toying with taking charge of the Brexit process themselves. To this end Nick Boles and Sir Oliver Letwin, two Tory MPs, have a plan temporarily to scrap parliamentary rules that give precedence to government business. With help from Labour MPs, they would then pass a bill instructing the government to seek an extension of Article 50 until at least the end of the year. That would take no deal off the table, as well as creating breathing space for MPs and ministers to reflect once again on what form of Brexit to pursue. It might also give enough time to debate whether to hold a referendum on the final deal.

The crisis in which Britain finds itself in large part reflects the problems and contradictions within the idea of Brexit itself. Even so, beset by the ticking clock, rebellious MPs and an intransigent EU, Mrs May will find the next few weeks exceptionally trying. Many will sympathise with her. In truth, though, her own misjudgments have made her task harder. ■

Meanwhile, across the Channel

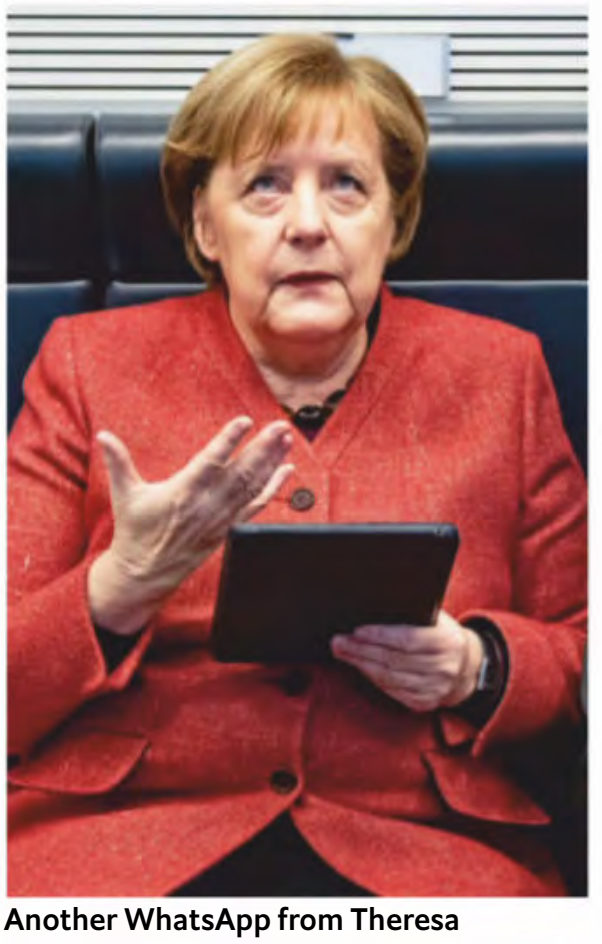
Waiting for Angela

BRUSSELS

Eurosceptic hopes of a European about-turn will be dashed

THE DAY before the Brexit vote in Westminster, some on Fleet Street thought they had spied a last-minute get-out for Theresa May. The *Sun*, a right-wing tabloid, reported that Angela Merkel had offered the prime minister concessions on the Brexit deal in a phone call the day before. The report turned out to be incorrect. A German government spokesman said that the chancellor had made "no assurances" going beyond the deal sealed between Mrs May and the European Council in November. It was just the latest instance of the British press's habit of seeing the German government as a *deus ex machina* that will make a crucial intervention in the closing acts of the Brexit drama.

After the parliamentary vote on January 15th, the reaction of the rest of the EU followed a common script: the ball was in Britain's court. "We are now waiting to see what the British prime minister proposes," said Mrs Merkel a day later. Peter Altmaier, her economy minister and a close ally, declared on German radio that "we should give the British the chance to clarify their position." Michel Barnier, the European Commission's chief Brexit negotiator, told the European Parliament, to storming applause, that "this vote is not a clear manifestation of a positive majority". Privately, too, Brussels officials have said that all now depends on what the British government decides to do next.



Another WhatsApp from Theresa

This is true, but somewhat disingenuous. The EU knows full well that its role will be crucial. The commission has been game-planning a rejection of Mrs May's deal for weeks and intensive talks about how to proceed followed the defeat in Westminster. Most in Brussels accept that if—as is now widely expected—Britain were to request an extension to the Article 50 deadline of March 29th for Brexit, it should win the unanimous approval that it needs in the European Council.

This is true to form. The remaining 27 EU governments have negotiated with a remarkably common front over the past two years. They have maintained their unity despite repeated British predictions that it would fracture. On how to respond to the chaos in Westminster, however, small cracks are emerging.

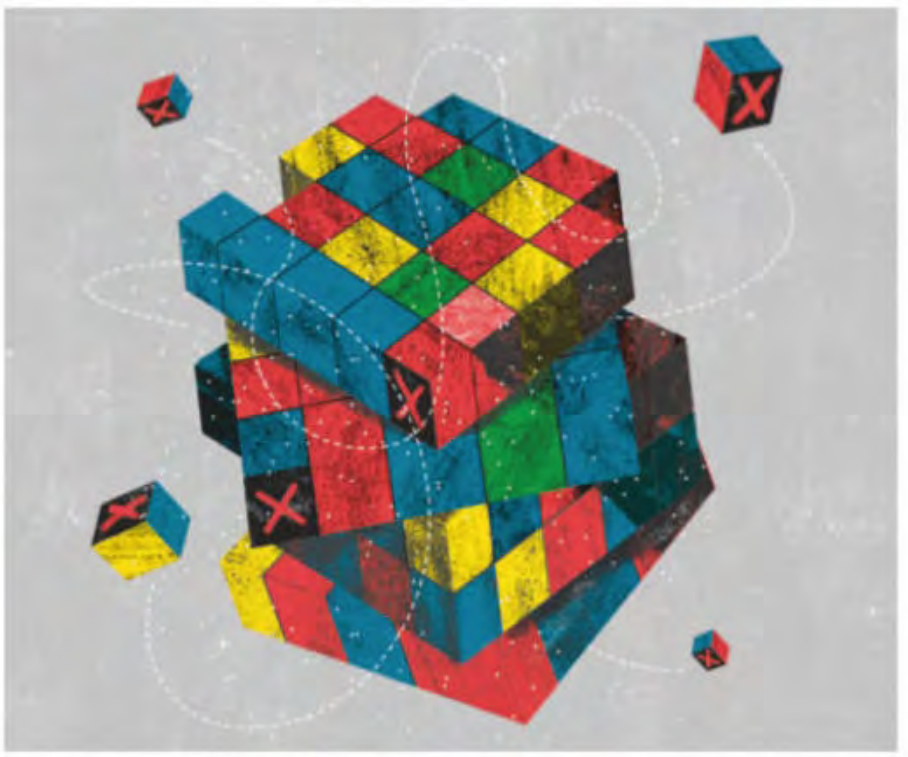
Thus even as the likes of Mrs Merkel and Mr Altmaier preach patience, the French are growing restless. At a public gathering in northern France this week, Emmanuel Macron responded to a question about fishing rights after Brexit with a strikingly frank prediction about what would happen next. The Britons would seek a better deal, the French president predicted. This would prompt few concessions from the remaining members of the EU, he added, going on to foresee an extension to the negotiating period. The French president is a lot less willing to spend time fiddling with the existing Brexit deal.

There is also some dispute over how long to extend Article 50. Many favour only a short extension to keep up pressure on London and avoid a clash with the European elections at the end of May. Yet such considerations could be trumped by the need to avoid a no-deal Brexit. This could be not just disruptive to Europe's economies, but also expensive. A new paper by the Bruegel think-tank in Brussels puts the cost in unpaid bills to the EU alone at some €16.5bn ($18.8bn).

Do not neglect the power of exasperation in all this. Europe faces myriad urgencies, ranging from euro zone reform to defence integration, that have little to do with Brexit. Time spent on British neuralgias is time not spent on these. No force is stronger in Brussels at the moment than the desire to get Brexit out of the way. ■

Bagehot | The great rescrambling

Britain may be headed for a repeat of the 1850s



People have been talking about the collapse of the British party system for decades. Now it may actually be under way. The government has lost its authority. Parties are dissolving into factions. Factions are forming left-right alliances. Backbenchers are seizing the limelight while frontbenchers are hiding in the bushes.

Theresa May's historic defeat on January 15th showed how far the disintegration on the right has gone. Excluding those on the government payroll, Conservative MPs voted against the deal by three to one. Now the focus is shifting to the left. Having lost the vote of no confidence in the government—and hence his chance of engineering a general election anytime soon—Jeremy Corbyn will face mounting pressure to call for a second referendum. This will expose deep divisions within his party: between Remain-supporting middle-classes and the Leave-supporting workers; between Labour's high command and the bulk of its activists; and between Mr Corbyn, who dislikes the idea of another vote, and his chancellor, John McDonnell, who is more open to it.

The most important division in British politics is no longer between Conservatives and Labour, but between Remainers and Leavers. Yet there is also another broad division, between statespeople and anarchists. Statespeople want to prevent a no-deal Brexit at all costs. Backbenchers such as Sir Oliver Letwin and Nick Boles on the right and Yvette Cooper and Hilary Benn on the left have sponsored amendments designed to prevent Britain from leaving the European Union without a deal, by delaying Brexit and forcing Parliament to come up with a deal that it can agree on. Anarchists such as Jacob Rees-Mogg and Dominic Raab, by contrast, regard a no-deal Brexit as a blessing in disguise. It is a way of administering a shock to a complacent establishment and turning Britain into a low-tax, light-regulation Singapore-on-Thames.

Look more closely and you can see four parliamentary groupings with the inchoate characteristics of parties. The highest-profile is the European Research Group of 40-plus Tory MPs. It has a prominent leader (Mr Rees-Mogg), a hyperactive organiser (Steve Baker) and a whipping structure. It is at loggerheads with Tory Remainers. The counterweight to the ERG on the other side of the debate is provided by supporters of a second referendum. This People's Vote group makes a valiant effort to present itself as cross-party. Anna Soubry, a stalwart of the campaign, has been joined by grandees such as Dominic Grieve and young high-flyers such as Sam Gyimah. But it is dominated by MPs from the right wing of the Labour Party.

Between these poles are two groups of pragmatists united by a desire both to avoid damaging democracy by overturning the referendum of 2016, but also to spare the economy from the ravages of a hard Brexit. The first group consists of members of the government and other May loyalists. Mrs May is determined to breathe new life into her deal despite the fact that it looks dead. The second group consists of supporters of a softer Brexit. Mr Boles wants Britain to join the European Economic Area, which has the merit of already existing. Others favour a customs union. A softer Brexit might well command the support of the majority of MPs, but many of those MPs are on the Labour side. Many Brexiteers would rather split their party than support a soft Brexit.

Amid the chaos, the political landscape is shifting. In normal times political talent gravitates to the front benches. Today there is more talent on the backbenches. Mr Corbyn has acted as a talent-repulsion field and Mrs May, never a great promoter of able ministers, has lost 11 members of her cabinet in the past year. The whipping system is at breaking-point as the enforcers lose their ability to bribe and bully and political factions organise themselves via WhatsApp. A few years ago political journalists dreamed of finding the keys to the whips' offices. Now they dream of finding the electronic keys to WhatsApp groups. Grassroots politics is becoming more important. The demand for a second referendum came initially from disgruntled voters rather than from MPs. At the same time, Brexit supporters in Tory constituencies are pressing wavering MPs to honour the Brexit vote.

Against the grain

The closest parallel to all this is the 1850s. Britain was seeing the emergence of a two-party structure, with Robert Peel's Conservatives on one side and the Liberals on the other, until the repeal of the Corn Laws in 1846. However, tariff reform splintered the two great parties, particularly the Conservatives, and created several factions that still marched under the banner of the two parties but which in practice were constantly forming temporary alliances with one another. A third of the Conservative Party supported free trade and two-thirds opposed it. Britain had a succession of minority governments consisting of coalitions of different factions; governments frequently changed without the bother of a general election; and parties were flexible and multi-faceted.

Could Britain be in for a repeat of the 1850s? Today's parties have deep social roots. Tories of different factions continue to socialise with each other despite their profound differences over Brexit. For all their divisions, Tories are united in their determination to keep Mr Corbyn out of Downing Street. Still, Brexit is a powerful acid. If Mrs May delays it—as she should—Britain will have to endure many months of Brexit mania. Even if she finds a way of opting for the softest Brexit possible, Britain's negotiations with the EU will rumble on for years. A second referendum would inflame political divisions. A no-deal Brexit could produce such economic chaos that the Conservative Party would be out of power for decades. Brexit could even lead to a political realignment if moderate Labour MPs use the People's Vote as the nucleus of a new centrist party. One thing is clear in all the confusion: anyone who thinks that Britain can go through the madness of the Brexit drama and then revert to politics as normal is howling at the Moon. ■



Kenya attacked

Terrorism returns to Nairobi

NAIROBI

Despite a long military campaign against al-Shabab, the Somali group can still inflict bloodshed abroad

KENYA HAS a reputation, often deserved, for being among Africa's most successful states. Yet its vulnerability to terrorism has long been a weakness. So there was universal dismay, but little surprise, when jihadist gunmen attacked a hotel and office complex in one of Nairobi's most affluent districts on January 15th.

At least five gunmen forced their way past a security barrier at the 14 Riverside complex, in the suburb of Westlands, in mid-afternoon. One reportedly blew himself up. Others ran through the grounds firing automatic weapons and lobbing grenades. Late lunchers were killed in their seats at a restaurant near the entrance. Office workers and hotel guests hid where they could, as the killers prowled the corridors. "They were literally hunting us, banging on doors and calling us to come out," said a researcher who cowered in an office loo. Kenyan security forces rescued hundreds and killed the gunmen. But at least 21 people died, according to official figures.

Nairobi has been here before. In September 2013 gunmen unleashed slaughter at the Westgate shopping mall, barely a mile away, killing 67 people. Al-Shabab, a Somali group of jihadists linked to al-Qaeda, have claimed responsibility for both attacks; retaliation, they say, for a Kenyan incursion into Somalia.

The latest attack was designed to inflict more than just mortal wounds. As at Westgate, 14 Riverside is frequented by both foreigners and rich Kenyans. Western businessmen liked to stay at its plush hotel. Multinational companies, such as Colgate-Palmolive and BASF, had moved into its five office blocks. The jihadists clearly hoped again to punish the Kenyan elite, unnerve investors and deter tourists. Al-Shabab have carried out massacres elsewhere in Kenya, but breaching the gilded suburbs of the enemy's citadel is particularly satisfying for them. After Westgate, jittery members of Nairobi's middle class demanded a withdrawal of Kenyan troops from Somalia. Mr Kenyatta held firm, but he is likely to face renewed pressure.

Given the five-year lull in attacks on Nairobi, the Riverside massacre demonstrates both the limits of al-Shabab's abilities and the grandiosity of their ambitions. It also suggests that they are far from beaten. African Union (AU) troops have been fighting them in Somalia since 2007. Kenya mounted its own invasion in 2011. More than 300 jihadists have been killed since Donald Trump, America's president, expanded air strikes last year.

Though al-Shabab have been pushed out of cities and towns they once held, they have proved resilient. In the past three years their fighters have launched devastating attacks on AU bases and have repeatedly struck Mogadishu, Somalia's capital. In 2017 one of their bombs killed nearly 600 people. The group is also fighting a low-level insurgency in north-eastern Kenya.

Financial nous partly explains the group's success. Al-Shabab impose duties on farm produce and livestock sales. Somalis braving the roads pay up more willingly at al-Shabab checkpoints, which sometimes seem less predatory than those manned by Kenyan troops. One roadblock ▸▸

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may bring in the equivalent of $10m a year, reckons the UN Monitoring Group on Somalia and Eritrea. For all the casualties it has suffered, the movement is battle-hardened and adapting. Commanders who run successful operations are promoted.

Air strikes alone are unlikely to stop them. Yet a further ground offensive looks unlikely to happen. The AU has 20,000 men in Somalia, but many of them are reluctant to risk their lives as they count the days until they can go home. The AU wants to cut its force by about 1,000 this year, but it has repeatedly delayed the withdrawal because of the slow pace of training Somali soldiers to take over. The Somali government's intelligence agencies, meanwhile, have been extensively penetrated by al-Shabab.

Kenya will therefore have to focus on defending its own borders. Some lessons have been learned since 2013. The army's response to Westgate was badly bungled. Police and army units squabbled over who was in command. When assaulting the building, soldiers opened fire on a special police unit advancing from another part of the mall and killed its commander. The army was also accused of prolonging the siege in order to loot shops, and may have blown up part of the building to cover its tracks. By contrast, army and police units at Riverside fought alongside each other under the single command of the head of a paramilitary unit whose efficacy belies its unofficial motto of "Try it and see".

Under British and American tutelage, intelligence-gathering has become more effective. An attempt to hit Nairobi last February was thwarted after police intercepted a vehicle carrying explosives, grenades and guns in northern Kenya. Yet corruption has undermined progress. Under interrogation, the driver said that the would-be attackers were able to slip in and out of Somalia by bribing border guards. This week they got another chance. ■

Repression in Zimbabwe

Under the cover of darkness

JOHANNESBURG

Government violence exposes the weakness of Zanu-PF

On January 16th Zimbabweans awoke to a text message from Econet, the country's main internet provider. Citing a warrant from the office of the president, the firm said that the day before it had suspended its services. "The matter is out of our control," it added.

States do not order blackouts unless they have something to hide. In response to protests sparked by a rise in fuel prices announced on January 12th, security forces unleashed a violent crackdown. According to local activists, soldiers and police went door-to-door in townships, beating or shooting at protesters. In the capital, Harare, roadblocks manned by thugs from Zanu-PF, the ruling party, stopped the wounded reaching hospitals. Amnesty International says at least eight people have been killed and more than 200 arrested.

The threat of violence served only to encourage participation in the national "stay away" called by trade unions. As *The Economist* went to press, schools, shops and offices in the main cities had been closed since January 14th. "The whole country is at home," said Eddie Cross, a 78-year-old former opposition MP. "I've never in all my life seen anything like this."

After Emmerson Mnangagwa succeeded Robert Mugabe in a coup in late 2017, the new president claimed that Zimbabwe would be "open for business". The events of the past week make that sound hollow. And the crisis has no end in sight.

That is because the ruling junta is more willing to attack protesters than tackle Zimbabwe's fundamental economic problems. After the profligate printing of money prompted a bout of hyperinflation in 2008-09, a government of national unity (with a finance minister from the opposition) cut spending and abolished the Zimbabwe dollar. The American one became the main currency, quenching inflation. The economy recovered swiftly.

But the parsimony did not last after Zanu-PF took full control of the government in 2013. Unable to print real dollars, it made its own version, known locally as "zollars". Though the government insists that a zollar is worth the same as a greenback, the black market says otherwise. On January 16th the zollar was fetching just a quarter of a dollar.

Zimbabweans' frustration was apparent even before the rise in the fuel price. In November official inflation reached 31% (many think this is an understatement), its highest level for a decade. Earlier this month doctors, teachers and nurses went on strike, demanding to be paid in real dollars. Many businesses are on the brink. On January 11th Olivine Industries, which produces cooking oil, halted business and sent home workers, saying it owed its foreign suppliers $11m.

To start to bring an end to the Ponzi scheme of zollars and dollars, the government would need to give up the myth of parity. But Zanu-PF has a vested interest in this arrangement. Some members of its ruling elite can convert a zollar to a dollar at the central bank, while letting ordinary Zimbabweans starve.

Instead of facing reality, Mr Mnangagwa has left the country. After announcing a rise in the price of petrol from 1.32 to 3.31 zollars, he boarded a private jet bound for Russia, the first leg of a jaunt that ends in Davos. In Moscow he signed a deal to give Alrosa, a Russian company, access to the country's diamond fields. This may help a few real dollars trickle into the pockets of Zanu-PF bigwigs, but is unlikely to improve the lot of the rest of the country.

Later on January 16th the internet was switched back on. Social media carried pictures of bloodied bodies. The blackout is over. But Zimbabwe's darkness remains. ■



For a few zollars more

Senegal's presidential election

Plain sailing for Sall

DAKAR

With his main rivals banned, the president will probably win

SEVERAL TIMES a week, police block off Dakar's roads and 4x4s tear through the Senegalese capital. It is election time and Macky Sall, the president, has no time to waste in pesky traffic jams as he races from opening infrastructure projects to meetings at plush hotels.

He need hardly bother. Mr Sall (pictured) looks far too powerful to be unseated in the presidential election on February 24th. Although Senegal has avoided the worst of the corruption—not to mention the coups and civil wars—that have plagued its neighbourhood, it is hardly the model democracy it is often held to be.

Last year the government introduced a law that made it harder to qualify as a presidential candidate. Thousands protested against the act which, by reducing the number of contenders, was widely seen as a way of improving Mr Sall's chances of winning more than 50% of the vote and thus avoiding a run-off.

Sure enough, on January 14th the constitutional court released the shortest candidate list in three decades, with just five names. Mr Sall's two most threatening rivals, the former mayor of Dakar, Khalifa Sall (no relation) and the son of a former president, Karim Wade, have been disqualified because of convictions for fraud and corruption respectively. Many voters think the charges were politically motivated. "This is an ill democracy," says Alioune Tine, a former regional director of Amnesty International, a human-rights group. None of the remaining candidates seems powerful enough to force a second round in which, with a united opposition, they might have unseated the incumbent.

Yet two still stand out. Ousmane Sonko is a former tax inspector who gained prominence when he published a book exposing corruption around Senegal's gas discoveries. Mr Sonko's firebrand call to abandon the CFA franc, which is pegged to the euro, may strike a chord with young voters. But he is campaigning on a shoestring budget and is barely known in the countryside. The other noteworthy candidate is Issa Sall (no relation to either the president or Khalifa Sall), who is backed by the Tijaniyyah Muslim brotherhood and has a following among conservative voters.

The president, in contrast, has all the advantages of incumbency. He won office in 2012 against Abdoulaye Wade, whose term was marred by allegations of corruption and who had sparked huge protests when he contorted the constitution so that he could run for a third term. Although Mr Sall is unpopular among urban voters, he has a large following in the countryside and villages, where his government has built roads and water supplies.



The railroad to Diamniadio

Dakar's streets are lined with campaign posters of the president. One shows him next to a new motorway to the holy city of Touba, an offering to his backers, the Mourides, Senegal's most powerful Muslim brotherhood. Another shows him next to a sports stadium in Diamniadio, a futuristic new city that is intended to ease pressure on Dakar. Looking at the posters and the motorcade, you might think that Mr Sall is sure to win. He probably will. ■

Algerian politics

Who's got the power?

Disagreements are emerging within Algeria's ruling elite

NOBODY WOULD call him quick and lithe. But Abdelaziz Bouteflika has something in common with the cheetahs that dart across the Sahara: he is rarely seen. Algeria's 81-year-old president has made few public appearances since suffering a stroke in 2013 and being confined to a wheelchair. Last month a meeting with Muhammad bin Salman, Saudi Arabia's crown prince, was cancelled ostensibly because Mr Bouteflika had flu.

Yet the president, who has ruled since 1999, will probably win a fifth term in an election scheduled for April. Algeria is hardly democratic. It opened its political system in 1989, but Islamists won the first round of parliamentary polls in 1991 and the army cancelled the rest of the election. Since then elections have not been free or fair. Mr Bouteflika won the last one with a whopping 82% of the vote, even though he hardly campaigned.

Whether he runs (and wins) this time will be up to the cabal of generals, businessmen and politicians, known as *le pouvoir* (the power), that rules Algeria. They have left Mr Bouteflika in place despite his ailments, in large part because they cannot agree on a successor. Even now, most probably support his re-election. Disagreements are usually kept within the shadowy clique. But as the vote approaches, some in *le pouvoir* are raising questions, in public, over the president's future.

Last month, in an interview with *El Watan*, an influential newspaper, Ali Ghediri, a retired general, called on General Ahmed Gaid Salah, the head of the armed forces, to stop "adventurers" within the government from extending the president's tenure. This month Mouloud Hamrouche, a former prime minister, wrote a long essay in *El Watan* bemoaning the state of governance in Algeria. Some politicians have called for the vote, the date of which has not been set, to be postponed.

General Gaid Salah, though, says he supports Mr Bouteflika's re-election. In response to Mr Ghediri's suggestion, he warned that people with "devious intentions" should not speak on behalf of the armed forces. In October he dismissed five generals for corruption, a move widely interpreted as a purge. Some also see his hand behind the sudden resignation, in November, of the head of the largest party in parliament, who was seen to be jockeying for influence in anticipation of Mr Bouteflika's death. "There is an appearance of stability in the Algerian system," says John Entelis of Fordham University. "But go deeper and you see a constant struggle to control the state apparatus."

Mr Bouteflika, who may not be able to speak, has not formally announced his candidacy. But as he drifts towards victory, the problem of his succession remains unresolved. There is no post of vice-president. General Gaid Salah and Mr Bouteflika's brother, Said, have amassed power as the president's health has declined. But the general is approaching 80, and many in *le pouvoir* oppose a dynastic succession. Some speculate that the job of president may eventually fall to Ahmed Ouyahia, the prime minister, or one of his predecessors.

No one knows for sure. After the death of President Houari Boumédiène in 1978, those in power could not decide between Mr Bouteflika and another candidate. They settled on a third man whose rule led to a period of turbulence before Mr Bouteflika's ascent. One thing is clear: ordinary Algerians will have little say in who rules them. ■

Asylum-seekers from the Gulf

Voting with their feet

ABU DHABI

Thousands of Gulf Arabs are abandoning their homeland

CANADA LIES far north of her intended destination, but Rahaf Muhammad is happy to be enduring its harsh winter. The 18-year-old Saudi hoped to end up in Australia after escaping her allegedly violent family. But she was stopped on the way, in Bangkok. Saudi authorities pressed Thailand to send her back home. Ms Muhammad warned that her father, a provincial governor, would kill her. After several harrowing days in an airport hotel she was granted asylum in Canada, where she arrived on January 12th.

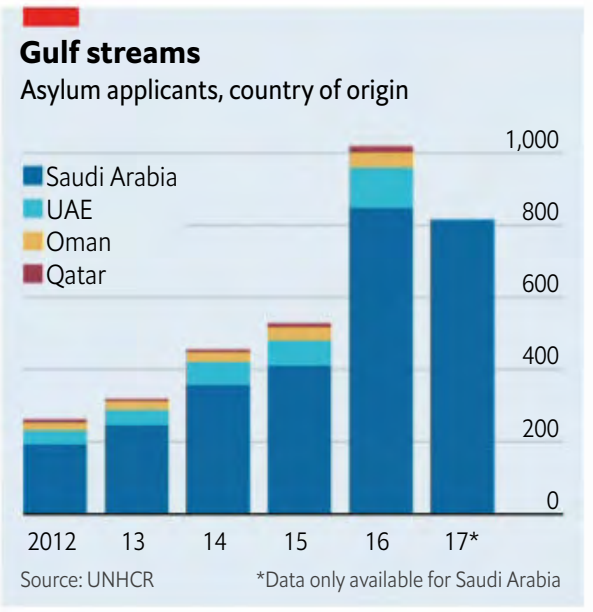
Her case drew global attention, but thousands of other Saudis have been making a quieter exodus from the kingdom. Some, like Ms Muhammad (who dropped her family name, al-Qunun), are women escaping a rigid patriarchy. Others flee because of their political activism. The absolute numbers look small: 815 Saudis applied for asylum in 2017, according to the United Nations' refugee agency. But that is a 318% increase over 2012 (see chart).

The trend is not limited to Saudi Arabia. About three times as many from the United Arab Emirates (UAE) sought asylum in 2016 as in 2012. Tiny Qatar saw its count more than double in the same period. Saudi Arabia has seen the steepest increase, though. It would be tempting to blame this on Muhammad bin Salman, the crown prince, who has overseen a ruthless campaign of repression. Yet the increase started even before he became heir apparent in 2017.

Though most Gulf states weathered the Arab spring without serious unrest, the revolutions elsewhere unnerved them. The UAE stepped up domestic surveillance and rounded up activists. Qatar passed a "cyber-crime" law that is broad and easily abused. Political activity was never encouraged in the Gulf, but after 2011 it was ruthlessly punished.

Asylum claims do not tell the full story, because it is a step that many are unwilling or ineligible to take. Jamal Khashoggi would not have shown up on the UN's tally. But the Saudi journalist took himself into exile in America, fearing he would be unsafe back home—a fear that was confirmed when Saudi agents murdered him in Istanbul last October. Liberal-minded Saudis who can afford to leave the country often cool their heels in London or Washington.

Barely two years ago young people were flocking home to work with Prince Muhammad. Many found the kingdom's social strictures stifling. In the crown prince, though, they saw a kindred spirit, a fellow millennial who wanted to reform the economy and culture. He delivered on the latter, permitting women to drive and allowing once-banned cinemas and concerts.



"And then everything changed," says one 30-something who took a government job. Hardly a fire-breathing dissident, she supports the monarchy and the goals of the Saudi-led war in Yemen (if not Saudi tactics there). But after Khashoggi's murder and the arrests of hundreds of activists at home, she is planning to resign.

The kingdom, as is its wont, blames foreigners for the case of Ms Muhammad. A state-backed "human-rights" group said other countries were "inciting" young women to leave. Saudi Arabia cut ties with Canada in August after the Canadian foreign minister, Chrystia Freeland, criticised the arrest of women's-rights activists. Diplomats have given up hope of resolving the spat, so Ms Freeland was there to welcome Ms Muhammad to Toronto.

Ms Muhammad, for her part, hopes to use her new-found freedom and platform to campaign for other Saudi women. But one of the first things she did on arriving in Canada was buy some warm clothes. ■

Dissent in Iran

Rebel music

An Iranian pop star challenges the regime

THE POP star Mehdi Yarrahi was once a favourite of Iran's ayatollahs. In 2017 he won the award for best pop album from the Ministry of Culture and Islamic Guidance. But now the regime thinks Mr Yarrahi is singing out of tune. In a video for the song "*Pare Sang*" (Broken Stone), the Arab crooner wears a jacket adorned with military medals—and an armband with a swastika on it. Devastating images appear around him: a man seems to have set himself on fire, buildings collapse and families queue at a dry tap. "Another generation went to war and did not return," he sings. "I'm the last one of this tribe, a tribe with no food and no water."

The response to Mr Yarrahi's work highlights the tension between Iran's Persian core and its restless ethnic minorities. He is a hero in his home province of Khuzestan, which is mostly Arab and borders Iraq. Three decades on from Iran's war with Iraq, the region still lies in ruins. The scenes from the video are pulled from its recent history. "The duty of artists is to ask questions and convey the voice of the people to the authorities," says Mr Yarrahi.

Regime loyalists see things differently. They denounce Mr Yarrahi as a traitor and say he is insulting Iran's war dead. Khuzestan has been the scene of anti-regime protests and separatist attacks. Gunmen killed 25 people at a military parade in Ahvaz, the provincial capital, last year. After the video was released Mr Yarrahi was summoned for questioning. But the Ministry of Guidance scotched reports that he had been banned. Rather, it says, he has repented.

By their own standards, the mullahs are showing a soft touch. Some think they are trying to avoid trouble ahead of Islamic Revolution Day next month. Hardliners don't like it. "The more we relax, the more there is dissent," complains a nervous regime hand. At the end of Mr Yarrahi's video a clock ticks and a bell tolls as the words "to be continued" appear on the screen.



Mehdi Yarrahi, reporting for duty



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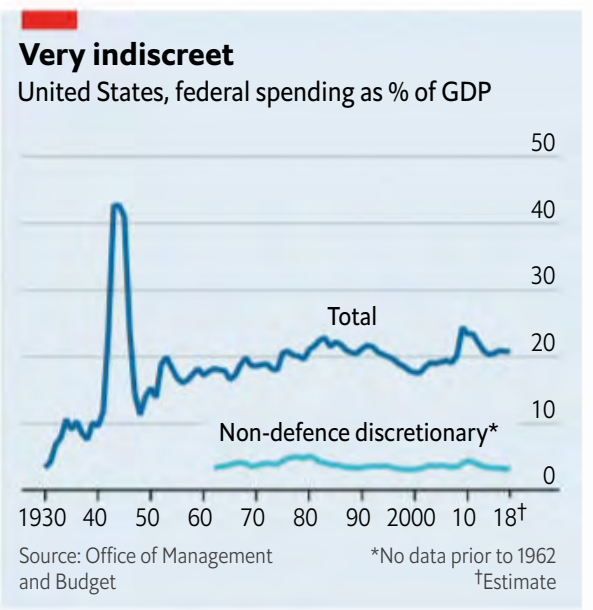
Presidential authority

Lovin' it

Is the American president so powerful that he poses a threat to the republic? Or is he someone who cannot fulfil a straightforward campaign promise?

In 1989 William Barr, then a White House lawyer, wrote a memorandum warning the president to be mindful of attempts by Congress to encroach on his authority. Thirty years on Mr Barr, who will shortly become America's attorney-general, has had to defend himself in his Senate confirmation hearings against the charge, which stems partly from the memo, that he holds an alarmingly expansionist theory of the presidency. Meanwhile, the actual president cannot extract funds from Congress to build a wall along the southern border. The president's main set-piece, the State of the Union, may be postponed on the suggestion of Nancy Pelosi, the House speaker, who reminded the White House that the speech is given at the invitation of her office, and that perhaps a written version would be fine this time?

The conflict between the legislative and executive branches that has given America its longest-ever shutdown is inherent to presidential systems. Juan Linz, a sociologist and political scientist at Yale who died in 2013, argued that though America's constitution has been much-imitated, it only seemed to work in one place. Everywhere beyond America, making the legislative and executive branches coequal eventually resulted in stalemate. In Latin America, Linz observed, the deadlock was often broken by the army taking power. "The only presidential democracy with a long history of constitutional continuity is the United States," he concluded in 1990.



Since then, America's government has suffered three prolonged shutdowns, and is therefore looking a bit less exceptional than it once did. When the two political parties were a jumbled collection of interest groups, conflict was easier to manage. Ronald Reagan could usually find enough like-minded Democrats to work with. Since then each party has become more ideologically uniform, with little overlap between them. The current president cannot find a single member of the House Democratic caucus who thinks that giving him $5.7bn for his wall so the shutdown can end is a reasonable deal.

The dominant view of the presidency has long been that in the conflict with the legislature there is only one winner. Arthur Schlesinger argued in "The Imperial Presidency" that America had already passed the point of no return in the 1970s: the accretion of presidential power could not be undone, nor the office returned to something resembling what the founders intended. Bruce Ackerman, writing in 2010, echoed this in "The Decline and Fall of the American Republic". Neomi Rao, whom President Donald Trump has nominated to be a judge on the DC circuit, published a paper in 2015 on "administrative collusion", by which she meant the spineless tendency of lawmakers to give away powers to the executive. Yet the shutdown is a reminder of how powerful Congress remains.

In some ways the presidency is less powerful domestically than it was 50 years ago. The White House has built up its own ▸▸

legal staff, suborning the Justice Department and pushing the limits of presidential authority wherever possible. Judged by spending, though, the executive branch is actually less imperial than under Eisenhower or Kennedy. The part of the budget that the executive actually spends (non-defence discretionary spending), accounts for a lower share of GDP now than in the 1960s. Congressional deadlock, which has been a feature of government since the mid-1990s, empowers the president in one way, inviting him to attempt rule by decree. It has also weakened the whole system that the president sits on top of.

The concern that an overmighty POTUS is a threat to the republic is a staple of American politics. It is often accompanied by a side-order of hypocrisy. Thomas Jefferson insinuated that the first and second presidents harboured monarchical ambitions and then, when he held the office himself, concluded a deal doubling the territory of the republic without first asking Congress. Conservatives have tended to put up most resistance to presidential overreach, but find their party is now led by a president who has closed down a quarter of the federal government rather than bow to Congress, and wants to make extensive use of eminent domain to build his wall.

Progressives cheered the expansion of presidential power in the 20th century up to the Vietnam war and Watergate. Since then they have worried more about circumscribing the powers of the White House. Before he published "The Imperial Presidency", Schlesinger held a conventionally progressive view of the presidency, which during his lifetime had vanquished the Depression, the Nazis and Jim Crow. When Nixon left the White House, Democrats in Congress then set about codifying what presidents can and cannot do, to prevent future abuses. The first bill introduced by the new Democratic majority in the House is designed to accomplish a similar cleanup for the post-Trump era.

That would be a sensible prophylactic. But it is also worth remembering that after Democrats lost their majority in the House in 2010, Barack Obama spent the remaining six years of his presidency issuing executive orders, most of which were then undone by his successor. Brendan Nyhan, a political scientist at the University of Michigan developed what he called the Green Lantern theory of the presidency, named after a DC Comics character. Mr Nyhan described this as, "the belief that the president can achieve any political or policy objective if only he tries hard enough or uses the right tactic." Progressives who lamented the limitations of Mr Obama's domestic power forgot all about this when Mr Trump took office, and assumed he could govern by force of will. He cannot, and so the shutdown goes on. ■

Shutdown economics

Snowing on the parade

WASHINGTON, DC

The economy is healthy, but the costs of the partial shutdown are growing

BEER BREWERS are facing bottlenecks. Airline passengers are facing queues. Around 800,000 federal employees are not being paid. These are the casualties of America's government shutdown, which began on December 21st and is now the longest on record. It shows few signs of ending; its costs are climbing.

Historically, such shutdowns seem barely to have budged the juggernaut that is the American economy. Economists at the Bureau of Economic Analysis (BEA) estimated that the 16-day funding lapse in October 2013 lowered real GDP growth in that quarter by 0.3 percentage points. This time, as only around 40% of federal employees are affected, most estimates of the weekly impact are even smaller. Economists at Moody's, a rating agency, reckon that for each week it continues, the dent to GDP growth will be 0.04 percentage points.

There are reasons to think that these numbers understate the impact of the shutdown. Kevin Hassett, chairman of the Trump administration's Council of Economic Advisers, said on January 15th that after taking into account unpaid government contractors, his officials had recently doubled their estimates to a hit worth 0.1 percentage points per week. Congress has passed legislation to ensure that federal employees receive back pay. Although the government will have to pay its contractors (with interest) once the shutdown ends, in the past many of those companies did not pass the cash along to workers.



Miles to go

Another caveat is that these figures measure the economic impact of the shutdown by valuing the public services that the government is no longer paying for. When the government reopens, the assumption is that GDP will be bumped up by roughly the same amount it was depressed by, with few lasting effects.

This is quite a narrow view of the impact of shutting down government functions that support other economic activity. The closure of the Tax and Trade Bureau, for example, means that no new labels for nationally distributed beer can be approved, creating a headache for John Laffler of Off Color, an Illinois-based brewer. He wants to launch a new beer, and is keen to package it as soon as possible. He could gamble, pay for packaging and hope that the approval arrives. But that is risky, as there is no knowing what the regulators will approve. (He recalls a droopy-eyed fish being rejected. Demonic ladies dancing with goats were fine.) A wrong decision would cost him money.

Beyond beer, the Securities and Exchange Commission has stopped reviewing IPO filings. Employees at the Transportation Security Administration (TSA), who run airport security checks, on January 16th reported unscheduled absences at a national rate of 6.1%, higher than the 3.7% rate a year earlier. Gummed-up airports cost passengers time and airlines money.

Then there is the hardship faced by workers who are not being paid. In past shutdowns the impact on consumption was softened, as people expected them to be temporary and in the event they were brief. This one has lasted longer, and the poorest among those affected may not have savings to dip into. Mr Hassett says one of his employees is driving for Uber to make ends meet. Thousands of people are worried about losing housing subsidies. Regulators have instructed banks to work with borrowers and extend credit if necessary. But such services are unlikely to be free.

The longer the shutdown lasts, the harder it will be to escape its teeth. On January 11th the TSA announced that employees will be treated to a $500 bonus and a day's pay. The US Department of Agriculture is handing out food stamps for February early, to avoid tens of millions of Americans going without that month. If such loopholes run out, and the shutdown extends until March, then payments for food stamps worth $4.8bn per month will cease flowing. According to the economists at Moody's, that alone would sap GDP by $8.2bn per month, given how quickly it would bite into spending. Shutdowns are non-linear: one that lasts twice as long will incur more than twice the cost. ■



Sororities and fraternities

Toga, toga

Harvard's policy against single-sex clubs is not protecting women

"I JOINED [the Delta Gamma sorority at Harvard University] because I was looking for a group like my high-school friends that shared the same values and would come together regardless of major or extra-curriculars," says Becca Ramos, who was chapter president of Delta Gamma in 2016. "There were so many nights when we studied together into the small hours. We'd go to each other's thesis presentations. I went to one of my sisters' presentation on volcanoes. I knew nothing about volcanoes except that they exploded, but I was so proud of her."

That support network is no longer available. Under new rules, introduced in 2016, members of what Harvard's administration calls "unrecognised single-gender social organisations" are no longer eligible for campus leadership positions (such as captaincy of sports teams) or for dean's letters of recommendation for scholarships. If the organisations went mixed, their members could escape these sanctions. Delta Gamma has closed; all but one of the other sororities have either followed suit or, in a few cases, gone mixed. But the remaining single-sex organisations have not given up. Last month, a group of them filed lawsuits, one in a federal court and one in a Massachusetts court. The university will respond next month.

Despite scandals involving sexual misbehaviour and drunkenness, America's fraternities and sororities are flourishing. Plenty of universities welcome them on campus for the support they provide to students, says Dani Weatherford, executive director of the National Panhellenic Conference, the biggest umbrella organisation of sororities. Undergraduate membership of the NPC's sororities has increased by 60% over the past ten years. But a few universities have clamped down on fraternities. Amherst has banned them altogether; Harvard's policy is nearly as stringent.

The motivation for Harvard's action seems mixed. In her letter to Harvard College's dean, the university's then president, Drew Faust, cited "deeply rooted gender attitudes and the related issues of sexual misconduct", for which the sororities were presumably not being held responsible, as well as "forms of privilege and exclusion at odds with our deepest values" which she accused sororities, fraternities and final clubs (the most exclusive single-sex social clubs) of perpetuating.

The policy has plenty of support. But many oppose it, too. Students marched in protest, and a sizeable minority of faculty are against it, including Harry Lewis, a former dean of the college and a computer-science professor for 44 years who taught both Bill Gates and Mark Zuckerberg. He has a lot of sympathy for the women in his discipline who join sororities. "It's a way of getting away from the guys, who are always looking at them. There'll be two women in a class of 20 men." He characterises the battle as the old, liberal left, libertarians and the right against the new, more authoritarian left and the university authorities.

The argument against the administration is in part one of principle. A former Harvard administrator who regards the clubs as "pretty obnoxious" ("If I had a kid at Harvard who belonged to one I'd tell him he could pay his own tuition") nevertheless argues that freedom of association is important. "If we'd happily write letters for people who were members of the Communist Party or the NRA, it seems lunacy to say that we'd refuse that to somebody who wanted to join one of these clubs."

Opponents also argue that abolishing the organisations is not going to fulfil the administration's aims. If the problem is "gender attitudes", which presumably means discrimination against women, then the policy is counter-productive. Women are losing out more than men: while the sororities have almost all closed, the men's organisations have not. "The men's groups are older and therefore have a larger alumni base," explains Ellen Rothschild, a former president of Harvard's Alpha Phi chapter. "They're able to turn away from the scholarships because they can rely on these outside networks."

If the aim is to reduce sexual harassment, there is little reason to believe that shutting down single-sex clubs would achieve that. A Harvard task force on combating sexual harassment, which urged Ms Faust to "address the distinctive problems presented by the final clubs", based its concerns on a survey in which 47% of Harvard women who had taken part in final clubs' events had experienced sexual harassment, compared with 31% of the female student body as a whole. Critics point out that correlation does not imply causation, and that the same survey showed that 87% of "non-consensual penetration involving physical force" at Harvard took place in dorms, which are run by the university.

If the problem the university wants to address is class exclusivity, rather than gender discrimination, then the university's policy would not mitigate it. There is no reason to believe that mixed-sex clubs would be any less socially exclusive than single-sex ones. Ms Ramos says she and her sisters at Delta Gamma surveyed the sorority and found that it was more socio-economically diverse than the university.

Whoever wins in the courts, one sort of freedom will be the loser. If the administrators win, the students' right to belong to whatever organisations they like will be constrained. If Harvard loses, the right of a private organisation to run itself as it pleases will be limited. ■

A new attorney-general

Barr is no sheep

WASHINGTON, DC

America's incoming chief legal officer looks equipped for the trials ahead

UNDER ANY president but the current one, the appointment of William Barr as attorney-general would be uncontentious. The 68-year-old conservative lawyer is plainly up to a job he has already performed ably—for George H.W. Bush from 1991 to 1993. Yet the strains of being chief law-enforcement officer to Donald Trump are of a different order. And there were indications, ahead of his Senate confirmation hearing on January 15th and 16th, that Mr Barr might yield to them.

The most alarming was his view, expressed last year in an unsolicited memo to the Justice Department, that Robert Mueller had no business investigating Mr Trump for possible obstruction of justice. Based on Mr Barr's sketchy understanding of the special counsel's inquiry into Mr Trump's controversial decision to sack James Comey as FBI director, he described Mr Mueller's obstruction theory as "fatally misconceived". The president was entitled to sack Mr Comey, he argued, so he could ▸▸

not have obstructed justice by doing so.

This was a dubious argument. Most legal scholars think that if Mr Trump fired his FBI director in a malign effort to stop him investigating the Russian election-hacking that is now central to Mr Mueller's bigger probe, it could constitute obstruction. Yet Mr Barr's view was consistent with his expansive view of presidential power, and within the boundaries of reasonable debate. The question before the Senate Judiciary Committee was therefore whether his comments represented ill-informed venting by a casual observer, or a more serious threat to Mr Mueller's investigation.

His testimony pointed to the former, with qualifications. Mr Barr praised Mr Mueller personally, describing him as a "good friend", and said he would be "allowed to complete his work". Refining his view, he also acknowledged instances in which Mr Trump might transgress while exercising his legal powers: for example, if he ended the Mueller probe to protect himself or his family.

It seems safe to assume Mr Barr, whose confirmation looked unstoppable as *The Economist* went to press, will not meddle with the investigation. That makes him an improvement on the acting attorney-general, Matthew Whitaker, who seems to have fewer qualms. In some ways, too, he may improve on the policies of his permanent predecessor, Jeff Sessions. Mr Barr appears to have a more pragmatic view of marijuana policy, for example. Though against legalising pot, he said he would not enforce a federal prohibition in states that have done so, as Mr Sessions threatened to do.

On sentencing and policing, he may also be less hardline than Mr Sessions. Though Mr Barr broadly shares the former attorney-general's tough approach and focus on violent crime, he said his views had moderated a bit. He pledged to implement a criminal-justice reform passed by Congress last year, which Mr Sessions hated. Yet Mr Barr's testimony did not allay another Mueller-related concern—about how he will manage the crucial endgame of the special counsel's investigation.

Asked whether he would make Mr Mueller's final report public, Mr Barr said he would try to. He also rejected a suggestion by the president's chief lawyer, Rudy Giuliani, that the White House could rewrite bits of it: "That will not happen." Yet he noted that the special-counsel regulations would make the report "confidential" in the first instance. That is correct, and sections touching on sensitive national security matters might have to stay under wraps. Yet this is also the likely means by which Mr Trump, citing executive privilege, will try to limit whatever damage he faces from Mr Mueller's findings. And it is not unreasonable to wonder whether Mr Barr will resist or abet him in that. ■

Health policy

After Obamacare

NEW YORK AND WASHINGTON, DC

Democratic-led states and cities pitch ambitious reforms to health care

No wonk asked to describe their ideal health system would reach for the adjective American. Those who can afford it have access to the best care in the world, but costs are high and the country's rate of health-insurance coverage is second to last among the OECD club of mostly rich countries—only Greece does a poorer job. Things would look worse had the Affordable Care Act (ACA), better known as Obamacare, not become law. In 2010, 15.5% of Americans lacked health insurance, compared with 8.7% in 2017. Reducing that to zero would require the kind of universal scheme Democrats crave. But that will not come soon. Meanwhile, Democrats in charge of big states and cities are taking it upon themselves to reduce their uninsured rates even further. Their ideas range from sensible to pie-in-the-sky.

The share of people lacking health insurance varies enormously from state to state. Those that chose not to expand Medicaid (government health insurance for the very poor) out of their disdain for Obamacare have a higher proportion of uninsured people—more than twice as high as those that did expand. Having large numbers of illegal immigrants, who are four times likelier to be uninsured than citizens, also affects the number. Texas, a state with a large undocumented population and tight eligibility criteria for Medicaid, has the nation's highest uninsured rate, at 17.3%. In Massachusetts, by contrast, it is 2.8%.



Gavin Newsom, health freak

Most Democrat-led states have already expanded their Medicaid programmes, though they must still contend with high health-care costs and the problem of uninsured, undocumented people. Gavin Newsom, the new governor of California, issued a plan on day one of the job. Mr Newsom would like to reinstate the requirement that everyone must have health insurance or else pay a penalty. Republicans killed that in the tax legislation of 2017. With those funds he would increase subsidies for people purchasing insurance on the exchanges set up under the ACA. He would use state funds to expand Medicaid coverage for young, undocumented people up to the age of 26 (the current cut-off is 19). Mr Newsom also suggested that California should negotiate directly with pharmaceutical firms over drug prices, a common tactic in other developed countries.

Bill de Blasio, the mayor of New York, turned heads when he announced a seemingly groundbreaking proposal to guarantee health care for the city's 600,000 uninsured people. Mr de Blasio, who appears to be flirting with a presidential run, chose "Morning Joe", a television talk show, to unveil his "most comprehensive plan in the nation"—perhaps the kind of announcement aimed at Democratic primary voters who swoon at those three magic words, "Medicare for all". It certainly seemed welcome to people like Michelle Fraser, a home-health aide in the city who looks after people for a living but cannot afford her own insurance.

Yet, on inspection, the plan is less grand. It is a moderate expansion of existing programmes providing access to city hospitals, pharmacies, primary care and addiction-treatment services for the undocumented and uninsured. The estimated cost of the proposal, about $100m a year, also hints at its modesty. That works out at an expenditure of $167 per uninsured person. The average New Yorker spent $6,056 on health care in 2015, according to the Health Care Cost Institute, which collects data from large insurers.

Other Democratic states are not sitting out. Jay Inslee, the governor of Washington, has proposed a public option on the state's health-insurance exchanges, to provide choice in rural areas and control costs. From New Mexico to Minnesota, Democratic governors may allow residents to buy Medicaid. Each of these approaches could move America closer towards universal coverage, while avoiding the trap of trying to remake its health-care system overnight. Those Democrats vying for the presidential nomination are sure to run on a message of radical upheaval; their lesser-known comrades might actually get something done. ■

Lexington | The wild rise of Mick Mulvaney

President Donald Trump's third chief of staff can expect his tenure to be nasty, brutish and short



MICK MULVANEY, the acting White House chief of staff, likes to speak of the political expertise he has brought to the monumental job he inherited in chaotic circumstances last month. "I absolutely believe there's value to having political acumen in this position," he told Lexington during a fireside chat (it was a cold day and the South Carolinian likes a log fire) in the West Wing.

This makes sense, on the face of it. Mr Mulvaney served in Congress for six years before being picked by Donald Trump to run the Office of Management and Budget. He is personally genial, loves the cut and thrust of politics, and as a former congressman retains access to the House floor. He was there during Nancy Pelosi's recent election as Speaker, jawing with his former Democratic sparring partners as the votes came in: "We talked about kids, talked sports, we also talked about politics." By contrast, his predecessor, John Kelly, was a former general who disdained politicians, and was sometimes blindsided as a result. Yet the fact that Mr Mulvaney's tenure as chief has coincided with the longest federal government shutdown on record, occasioned by Congress's refusal to grant Mr Trump the billions he wants for a border wall, points to the limits of his political nous, or influence, or both.

His expertise is to some degree limited by his politics. Mr Mulvaney rode the Tea Party wave into Congress, in 2010, and stuck to its principles. A founding member of the House Freedom Caucus, he was fiercely partisan, fiscally hawkish in his rhetoric, unstinting in his opposition to the Obama administration—and a fan of government shutdowns to that end. He says his experience of activist politics is helpful, because the president's main opponent, Mrs Pelosi, "is going through her own Tea Party moment right now". But the hard left, though troublesome for Mrs Pelosi, is less mutinous and obstructive than the populist right. Mr Mulvaney's contrary view reflects a familiar misapprehension among partisans that the other side shares their pathologies. It appears to have led him to miscalculate Mrs Pelosi's position.

He initially encouraged Mr Trump to take a tough stance, arguing that Mrs Pelosi's opposition to his demand was based on a fear of the left that would recede if and when she secured the Speakership. Yet Democratic resistance to the president's demand has hardened across the board. This led Mr Mulvaney to push a compromise in which Congress would deliver half the $5.7bn of wall-funding Mr Trump wants. Yet that, by turn, overestimated the president's willingness to concede an inch. In a meeting with Mrs Pelosi and other Democratic leaders, Mr Trump is reported to have yelled expletives at Mr Mulvaney for undermining him.

The president is a much bigger problem for Mr Mulvaney than his political background. Even in a normal administration the job of chief of staff is thankless and relentless. James Baker, who did it for Ronald Reagan, called it "the worst fucking job in government". Under Mr Trump, who resents discipline and contrary advice, dismisses expertise and often favours his relatives in the White House, Ivanka Trump and Jared Kushner, it is set up for failure. That was the fate of both Mr Kelly and, before him, Reince Priebus, Mr Trump's first chief. Mr Mulvaney's tenure will probably end the same way. This is why most of his rivals for the job ruled themselves out—including Mr Trump's first choice, Nick Ayers, an ambitious 36-year-old who returned to Georgia rather than take up arguably the second-most-powerful position in Washington.

Hence, too, Mr Mulvaney has kept his old job at the OMB, ensuring his new one is on a temporary footing, and makes modest claims for it: "No chief of staff has been successful in changing the president," he says. Mr Kelly and other former aides to Mr Trump have described working for him as an exercise in damage limitation. Mr Mulvaney seems to be downplaying how much damage he can be expected to limit.

Many doubt he will even try. Unlike Mr Kelly or Jim Mattis, the departed defence secretary, he has risen rapidly under Mr Trump from comparative obscurity. That probably makes him more reluctant to confront the president—a dispensation he shares with other Trump protégés such as Mike Pompeo, the secretary of state. It is not merely that the parvenus have more to lose by irking their patron. It is also that, having no experience of a normal administration, they are readier to accept the compromises that serving Mr Trump entails. That helps explain why the hawkish Mr Mulvaney has gone along with the president's debt-fuelled spending boom.

This is bad news. Mr Trump's cabinet is getting less experienced, less committed, more pliant, and Mr Mulvaney's rise reflects that. Yet he also has more attributes than his critics allow—including his willingness to compromise. While maintaining that he was at heart a "right-wing nut-job", Mr Mulvaney won quiet plaudits at the OMB, which is no place for head-bangers. Despite his past professed enthusiasm for a "good shutdown", he oversaw emergency funding measures there to help federal agencies cope with one. As a stopgap boss of the Consumer Financial Protection Bureau, which he had previously lobbied to abolish, he did less damage than some predicted. "If I shut it down, I would have been breaking the law," Mr Mulvaney shrugs. Fierce critics of the administration—including Leon Panetta, another OMB director who became White House chief—reserve cautious praise for him.

Far from the raucous caucus

Mr Mulvaney has become less of an extremist. Perhaps his uncompromising former views said as much about the apoplectic state of his party as his view of government. Extremism was the quickest route to advancement for an ambitious Republican in 2010. And Mr Mulvaney's manifest ability to know which way the wind is blowing is also faintly reassuring. Mr Trump's embattled presidency will soon be held to account for the first time, by House Democrats and other investigators. Mr Mulvaney, a lawyer by training, will be careful what presidential actions he is associated with. ■



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Canada

Faded romance

OTTAWA

The Mounties need a makeover. They just got a modest one

In July 1874, 275 members of a new mounted police force rode 1,300km (800 miles) across Canada's prairies, from Dufferin, Manitoba, in search of "Fort Whoop-Up", a trading post in what is now Alberta. Their mission was to stop Americans from swapping whiskey for buffalo hides with the local Blackfoot Indians. Indigenous Canadians along the route whispered that the horsemen's red serge jackets were dyed with the blood of Queen Victoria's enemies. An artist rode with the Mounties. His sketches were published in the *Canadian Illustrated News*.

American journalists took up the myth-making, writing paeans to the 12 Mounties who bravely approached 2,000 Sioux warriors who had entered Canada after the Battle of Little Bighorn in 1876, seeking their submission to Canadian law. Hollywood made more than 250 Mountie-themed movies from the 1900s to the 1950s, including "Rose Marie" in 1936, starring Nelson Eddy and Jeanette MacDonald (pictured above). The films created the image of a steel-jawed hero who brought the law into the wilderness.

No real-life police force could live up to such an image. Certainly, the Royal Canadian Mounted Police (RCMP), formed by the merger in 1920 of the North-West Mounted Police with the Dominion Police, has not. Scandals over the past half-century have tripped it up. In the 1970s it conducted a dirty-tricks campaign against Quebec separatists, which included manufacturing evidence that separatists were acquiring explosives. It botched the investigation of the terrorist attack that destroyed an Air India plane in 1985. In the 2000s its top brass were caught rifling the pension fund.

Lately the RCMP has been engulfed by allegations of harassment, bullying and sexual misconduct. In July a female officer committed suicide after publicly complaining that she had been sexually harassed. In October 2016 the RCMP agreed to set aside C$100m ($75m) to settle a class-action suit brought by serving and former female officers, and apologised to them. Whistleblowers face abuse. One female officer said that she found a dead prairie chicken in her locker after making a complaint to senior officers in 2013 about verbal abuse. "It's a crisis in leadership," says Jane Hall, the head of the RCMP Veterans' Women's Council.

Until now, Canadian governments have been loth to reform an institution that has fiercely protected and marketed its image since its inception. In the 1870s constables who complained to the press could be sentenced to six months in prison. The RCMP sold marketing rights to its image to the Walt Disney Company in the mid-1990s, even as whistleblowers were being hounded out of the force. "Being an iconic organisation gives them a kind of pass," says Christopher Murphy of Dalhousie University, who co-wrote a report in 2007 on RCMP governance.

That has not prevented all change. The RCMP allowed women to enlist in 1973 and handed domestic snooping to the Canadian Security Intelligence Service in 1984. But, intimidated by the RCMP's mythology and fearful of appearing to meddle in police work, Canadian governments have left the force largely alone.

The recent scandals have made that harder. On January 16th Ralph Goodale, Canada's public-security minister, announced the first shake-up in the running of the RCMP since the creation of the intelligence service. It sets up a board of civilian experts who will advise the force's commissioner, Brenda Lucki, on management (though not on police work). Such an "innovation in the structure of the RCMP" is a first for the force, boasted Mr Goodale. He said it would raise "the game in terms of quality of management". Many independent experts had expected a bolder reform.

Canada needs a modernised RCMP. It is the country's federal police force, fighting terrorism, organised crime and drug-trafficking and protecting the border. It is deal- ▸▸

ing with new challenges, such as opioids, cybercrime and new sorts of terrorism, Mr Goodale said. Its 30,000 members provide policing for eight of the ten provinces and for three territories. In 150 municipalities and 600 indigenous communities the Mounties act as the local police, issuing traffic fines and investigating burglaries.

Although their responsibilities have expanded, their structure and organisation are largely unchanged. The North-West Mounted Police was modelled on the Royal Irish Constabulary, created in 1836 to enforce British rule in Ireland. Other Canadian police forces brought in civilian managers beginning in the 1980s and now report either to a civilian commissioner or at least a civilian advisory board. The RCMP, by contrast, remains a military-style organisation, reporting directly to the public-security minister. Its recruiting practices have been compared to those of a religious order. People join the RCMP when they are very young, which helps the force shape them to its ethos. Often these recruits lack university degrees. When it comes to promotions, rank and seniority matter more than competence.

At least 15 reports in the past decade, including two commissioned by public-security ministers, have concluded that the force needs more civilians in senior jobs and an independent body to investigate allegations of harassment and sexual abuse. "The RCMP's approach to training, career streaming, promotion, and education has long ensured that the wrong people often end up in the wrong job," wrote Christian Leuprecht of the Royal Military College in a recent report.

The Mounties' rank-and-file are demoralised by the recent bad publicity, confused by sporadic attempts to reform and overstretched. After three Mounties were killed by a gunman in 2014 in Moncton, in New Brunswick, a court found the RCMP guilty of failing to provide adequate training and equipment. The Mounties' budget has risen (to C$3.6bn from C$2.9bn two years ago) but not in line with their duties, the force complains. It is having trouble recruiting. In 2017, 12% of positions were vacant.

Mr Goodale's reforms represent progress, but are less ambitious than many observers had expected. The new 13-member advisory board, which requires legislation to become permanent, will advise Ms Lucki on all aspects of management, including human relations, information technology and procedures for dealing with harassment. But it cannot compel her to follow its advice. Mr Goodale said that as minister he could order her to heed it. Ms Lucki called the board "a critical step" towards reform.

Missing from Mr Goodale's policy was the creation of an independent ombudsman to deal with bullying and intimidation, a recommendation by experts such as Ms Hall. Mr Goodale may be planning further measures this year.

Hollywood's romance with the Mounties fizzled long ago. The last big Mountie-themed movie was Dudley Do-Right, released in 1999, which was based on a bumbling cartoon character of the 1960s who rode his horse (called "Horse") backwards. Mr Goodale is no doubt hoping that his reforms will begin to point the Mounties in the right direction. ■

Bolivia

Adamant Evo

LA PAZ

Evo Morales's plotting to win re-election has provoked a backlash

UNLIKE OTHER Latin American presidents with authoritarian leanings, Evo Morales has dominated his country less through coercion than through consent. Bolivia's economy has grown by an average of nearly 5% a year during his 13 years in power, double the Latin American average. Although it remains South America's poorest country, extreme poverty has fallen by more than half, according to the World Bank. Indigenous and mestizo Bolivians, a majority of the population, have made social and economic progress under the first president with indigenous roots. In 2017 he celebrated those achievements by building a museum in his home town whose collection features portraits of himself.

Mr Morales, a former leader of a coca-growers' union, has won three elections fairly and by large margins. He hopes to win a fourth in October. But his attempts to prolong his presidency have become increasingly high-handed. He has tightened his hold over the supposedly independent electoral commission. The government has leaned on the press, for example by withdrawing advertising from critical newspapers. Although Mr Morales might win a fair election in October, many Bolivians are worried that he will hold on to office whatever the vote. That fear has provoked a backlash, which has given heart to a divided opposition.



Modest Morales

Mr Morales's candidacy is itself a cheat. On December 4th the supreme electoral tribunal granted his petition to be allowed to run for a fourth consecutive term. This builds on a ruling in 2017 by the constitutional court, which is as tame as the electoral authority, that all elected officials are entitled to run for re-election as many times as they want. Both decisions contradict the constitution adopted in 2009, which says that office-holders may not serve more than two consecutive terms. The rulings also flout the result of a referendum that Mr Morales held in February 2016, in which a narrow majority voted that he should not be able to seek re-election.

On January 27th Bolivia will hold its first-ever primaries to select presidential candidates for each party, under a law passed last August. The opposition denounces them as a device for giving Mr Morales's candidacy a spurious legitimacy.

The grassroots 21F movement, named after the date in February when the referendum was held, has staged strikes and demonstrations since the constitutional court's ruling. Its members are mostly from the middle class, which has grown during Mr Morales's presidency and is now the largest socio-economic group, according to Captura, a consultancy. "Evo should leave power because he lost a referendum," says Eli Peredo, a psychologist who took part in a march on December 6th in La Paz, Bolivia's seat of government. The institutions he now threatens "were set up under a constitution that he was instrumental in bringing to life", she points out.

Some indigenous and social movements that once supported Mr Morales are having doubts. The government "has no right to violate the constitution," says Cristóbal Huanca, an Aymara indigenous leader from a village near Oruro, south of La Paz. The government "treats us as though we are right-wing enemies if we disagree with him," he says. Mr Morales's foes are also indignant about corruption, an old problem that he has failed to control.

Protests late last year turned violent. A woman died on December 6th in the northern city of Riberalta when she fell after challenging anti-government demonstrators who had forced shops to shut down. On December 11th the electoral tribunal's

regional headquarters and a branch of the government-owned telephone company were destroyed in Santa Cruz, an anti-Morales stronghold. The government blamed the demonstrators, mostly university students. Some witnesses claim that government agents had provoked the vandalism. After a lull, protests may well resume soon.

21F avoids aligning itself with any political party. But Mr Morales's rivals for the presidency hope to turn its anger into votes. The politician with the best chance of unseating him is Carlos Mesa, a centrist former president. In 2003, when he was Bolivia's vice-president, he broke with the then-president, Gonzalo Sánchez de Lozada, over Mr Sánchez's suppression of protests against the export of natural gas. That earned Mr Mesa, a historian and journalist by profession, popular respect. Some polls suggest he could beat Mr Morales.

But many Bolivians regard Mr Mesa as a representative of the white ruling class, whose political hegemony Mr Morales ended. The opposition, which spans the political spectrum, has so far failed to unite behind him. Six other candidates plan to challenge Mr Morales. Some have called for a boycott of this month's primaries.

The president has reserves of strength. He is the left's only leader of national stature. His party, the Movement towards Socialism, remains powerful in rural areas. Luis Paredes, a bus driver and coffee farmer who has prospered under Mr Morales, worries about slipping backwards if he loses. The president is not a dedicated democrat, Mr Paredes admits. But "frankly, making sure I have a stable income is more important to me than respecting the constitution", he says. Mr Morales is sure to exploit that sentiment. ■

Bello Adam Smith in Chile



The parable of the cherry orchard

"I BEGAN TO do cherries because it was difficult," says Hernán Garcés. The small sweet fruit is easily damaged by rain, hail or rough handling. They must be harvested by hand and processed individually. But the effort has paid off. Mr Garcés, now known as the "father of Chilean cherries", has just guided the head of China's customs agency round his firm's plant, an hour's drive south of Santiago. Thanks to China's appetite for cherries, Garces Fruit has become the world's biggest producer of them. Its output has increased 25-fold in 15 years. And Chile has a booming new industry. The mix of market forces and government help is an example of what Chile needs to escape from the "middle-income trap".

It is the country's good fortune that the southern-hemisphere cherry harvest comes just before Chinese new year. Newly rich Chinese consumers like to bestow on friends and family a gift of cherries, whose red, round form they see as symbolising prosperity. Exported in elegant 5kg (11lb) boxes, the cherries are marketed as something closer to a luxury product than a humdrum fruit.

This means that quality is paramount. The cherries are pampered. At Greenex, a smaller firm, a $3.2m intelligent processing machine began work last month. It washes the fruit, then guides it into individual channels, where the stems are plucked out. The machine can sort by colour, form, weight and defects, explains Luis Dalidet, the young technician minding it. It discards around 15% of the fruit as inferior. That goes for sale in the local market. The machine will be used for only six weeks or so per year.

Seizing the opportunity of the Chinese market has required innovation. There are new varieties, and better farming practices such as high-density planting. Garces Fruit uses giant fans to warm the trees in winter and, after heavy rains, draughts of air from a helicopter to dry the cherries, since damp can cause them to split. The biggest changes were in logistics. To pack his product Mr Garcés brought plastic bags from the United States that regulate the air inside them (they are now made in Chile). Ships ply the route from Chile to China in 22 days, compared with 40 in the recent past.

Thanks mainly to Chinese demand, Chile exported $1.1bn-worth of cherries in 2018, double the value of 2017 and two-thirds that of its much better-known wine exports. Such is the potential demand in China that Mr Garcés is confident that Chile's cherry exports can double again over the next five years.

That is welcome. If Chile is going to become a developed country, it must reduce its reliance on copper, which accounts for around half of its exports, and develop higher-value products. That transition began in the 1990s, with rising exports of wine, salmon and grapes, but had seemed to stall recently.



Creating new industries sometimes requires government involvement. The cherry industry would not exist but for Chile's free-trade agreement with China and its rigorous sanitary standards, for example. Corfo, the state development agency, provides seed money for innovative ventures. It is inviting bids to build and run a centre to develop lithium batteries. The country also has potential in astrodata, according to Sebastián Sichel of Corfo. With its clear, dark skies, Chile's desert is home to several of the world's biggest telescopes. Astronomy is the highest-paying profession in Chile, says Mr Sichel.

But the cherry industry, and Chile's diversification, also owe much to market forces. Cherries require field labour, which Chileans spurn. Some 700,000 immigrants, mainly from Haiti and Venezuela, arrived between 2015 and 2017, averting a labour shortage. Farmers are tearing out vines to plant cherry orchards, which are more profitable. Farther south, apple growers are switching to hazelnuts for the same reason.

Peru has enjoyed a similar agro-industrial revolution. It rivals Chile in exports of blueberries. Competition is leading to specialisation. Peru and Chile squabble over trademark rights to pisco (a grappa named after a Peruvian seaport). Nevertheless, Chile is now importing Peruvian pisco, a superior product. Although the cheap local version remains the favourite tipple of hard-up young people, some Chilean pisco producers have switched to making good white wine. Had he lived to see this happy evidence of the invisible hand of market forces, Adam Smith might have downed a glass and polished off a bowl of cherries to celebrate.



Indonesia's economy

Awaiting the fanfare

JAKARTA

Efforts to boost growth are being held back by populism

AT A CONFERENCE in Singapore on January 15th, Indonesian officials were out in force. Four senior ministers, the bosses of three state-owned enterprises and a senior civil servant took to the stage to try to drum up private investment in roads and railways. The audience, mainly financiers, nodded along. Not everyone was convinced, though. "The risks don't match the returns," complained one. Red tape is a headache. Changes in government policy could derail an investment. "If things go badly, you get zero."

Such risks are particularly high in Indonesia at the moment. The country is gearing up for presidential and legislative elections in April. The incumbent, President Joko Widodo, or Jokowi, will face Prabowo Subianto, a former general, in a rematch of the previous vote, in 2014. The two were squaring off in the first of five debates as *The Economist* went to press. Jokowi's biggest vulnerability is the economy, where returns have not matched his promises.

During the 2014 campaign Jokowi pledged to deliver GDP growth of 7% a year by the end of his first term. That will not happen. Growth has instead hovered around 5% since he took office. Prospects for 2019 look no better, especially since the central bank has raised interest rates six times in the past nine months to arrest a worrying slide in the currency.

Was Jokowi's promise realistic? The country certainly has enormous potential.

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About half of its 265m people are younger than 30; and its national saving rate is typically above 30% of GDP. Its economy routinely grew faster than 7% a year before the Asian financial crisis of 1997.

But that era offers little guidance to Indonesia today. The country's labour force is growing less quickly than it did in the 1990s. Its oil imports have long since surpassed its exports (although it remains a net seller of commodities in general). And now that its GDP per person exceeds $10,000 (at purchasing-power parity), the scope for rapid catch-up growth has diminished. Once an economy has reached Indonesia's present level of development, growth of 7%, even for a single year, is rare (see chart on next page).

In the years since 1997, China has also become a more decisive influence on Indonesia's fortunes, both as a consumer of its abundant resources and a competitor to its hard-pressed factories. China's rapid rise pumped up commodity prices from 2003 to 2011 and punctured rival manufacturers in a variety of emerging economies. Both trends have contributed to what economists call "premature deindustrialisation" in Indonesia. Manufacturing peaked as a share of GDP over 15 years ago, at a much lower level of income than in America, say, which acquired its rustbelt only after it ▸▸

grew rich. Rather than taking comfortable, post-industrial white-collar jobs, many factory workers moved into less productive employment, such as informal trading, explains Zulfan Tadjoeddin of Western Sydney University.

When Jokowi took office, the World Bank calculated that Indonesia's potential rate of growth was 5.5%. The best way to improve that number would be to revive the manufacturing sector, emulating other Asian countries by becoming part of the global supply chain. Myriad problems stand in the way, many of which the government is taking steps to fix. But too often populist and nationalist tendencies are the main cause of obstruction.

Take Indonesia's neglected infrastructure. Expensive electricity and slow transport put off manufacturers. Jokowi came to power with a $323bn (32% of GDP) plan to solve this, reducing fuel subsidies to pay for it. He aimed to build new airports, seaports and power plants, as well as 3,258km of railways and 3,650km of roads by 2022. To speed up progress, the government also made compulsory land acquisition easier.

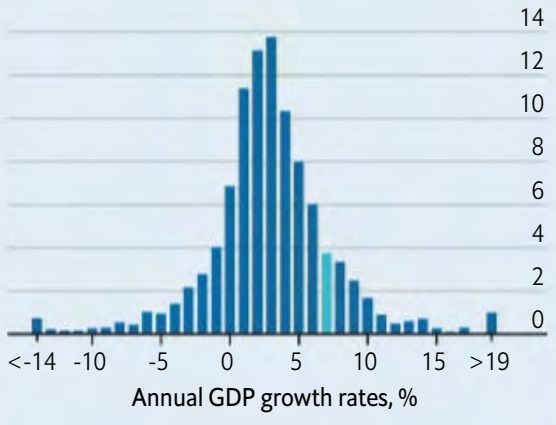
But in last year's budget Jokowi changed course. Expenditure on vote-winning energy subsidies jumped by 69% and the growth of infrastructure spending slowed. How, then, will Jokowi pay for his building plans? So far the infrastructure boom has relied on state-owned enterprises. But the government wants 37% of funding to come from the private sector. Hence the mobs of ministers at conferences.

To woo investors, the government has eased limits on foreign ownership, but only half-heartedly. Every time regulations are loosened nationalists howl, so restrictions remain severe, discouraging investors. Rules aimed at boosting small businesses have the same effect. The OECD, a club mostly of rich countries, looked at foreign direct investment (FDI) rules in 68 rich and middle-income countries. It found that Indonesia had the third-most restrictive regime. Small wonder its FDI as a share of GDP is one of the lowest in the region.

Enslaved by the bell

Distribution of annual GDP growth rates, %

Countries with real GDP per person higher than Indonesia's 2017 level*



Sources: Penn World Table, University of Groningen; World Bank; *The Economist*

*103 countries between 1951 and 2017

High trade barriers have not come down since Jokowi became president. Over half of all imports by value are subject to restrictions. That adds to the price of imported capital goods, like heavy machinery, and thus to manufacturing costs. Exports have also been hampered. In 2014 parliament banned the export of metal ores, a clumsy attempt to boost local refineries. Though the rule was later relaxed, foreign firms fled and mines closed.

Hobbled by economic nationalism at home, Indonesia must also contend with growing economic nationalism abroad. America's trade war with China and rising American interest rates unnerved emerging-market investors last year, contributing to the decline in the rupiah, Indonesia's currency. Over the longer run, however, the country hopes to provide a refuge to manufacturers who now deem China too risky or expensive a place for their next factory. On the eve of the Asian financial crisis, China's income per person was only about 40% of Indonesia's. Now it is about 140%. That Chinese success is also an Indonesian opportunity: it should be able to attract firms that can no longer afford higher-paid Chinese workers.

Unfortunately, Indonesian labour is neither as well qualified nor as keenly priced as it should be. Business leaders complain about a lack of skilled workers. Education standards are low, despite a law forcing the government to spend a fifth of its budget on schooling. Over half of those who finish school are practically illiterate.

Local labour can also be pricey. A survey of firms with ties to Japan by the Japan External Trade Organisation, a government body, shows that the wages of Indonesian manufacturing workers are 45% higher than those of their Vietnamese counterparts. That is partly due to rocketing minimum wages, which are set by local government. Politicians raise the floor to win votes. As a result, the average minimum wage as a share of the average wage grew from 60% in 2008 to around 90% in 2018, according to Ross McLeod of Australian National University. In some districts it exceeds the average salary for the country as a whole by a fifth. This discourages hiring, pushing workers into the informal sector, or drives firms to ignore the rules. To stop this trend the central government capped increases in minimum wages in 2015, but stopped short of reversing previous rises.

If the government's attempts to open up the economy remain feeble, 7% growth will remain out of reach. But a hefty win in April's election could give Jokowi the mandate to make the sweeping changes Indonesia needs. If he wins a second term, he will have to take greater risks to reap the returns he has promised. ■



Politics in Mongolia

Piercing the fog

ULAANBAATAR

Public anger about corruption is growing

More than 20,000 Mongolians braved bone-chilling cold on January 10th to rail against their government in Sukhbaatar square in the centre of the capital. It was the second such protest in a fortnight. The demonstrators, who were allowed into the square only after being breathalysed and frisked, had many grievances, including inequality, unemployment and air pollution. But these scourges, they believe, have a common source: the plundering of the country's wealth by corrupt and feckless political elites.

The protesters offered only the vaguest of prescriptions. Chants and placards called for the downfall of "oligarchs", the seizure of their offshore booty and the dissolution of the "fog" that has shrouded politics in the 29 years since Mongolia emerged from Soviet domination. The reference to fog is a clever and now widespread pun. The Mongolian acronyms for the two dominant political parties—the Mongolian People's Party (MPP) and the Democratic Party (DP)—combine to form the word for fog, *manan*.

Both parties are considered responsible for corruption, since the prime minister is from the MPP, but the president is from the DP. The Mongolian currency, the togrog, has declined 40% against the dollar since 2014. Air quality in Ulaanbaatar is horrendous, especially in winter when yurt-dwellers at the city's edge burn dirty coal ▸▸

for heat. Foreign investment dropped sharply in 2016, and has yet to recover fully. This is partly because of falling prices for Mongolia's most important exports, including copper and coal, and partly owing to an economic slowdown in neighbouring China, the main customer for them. But Mongolia's own politicians have not helped. They have repeatedly renegotiated terms for a big mining project led by a foreign firm, stifled new projects with ill-advised taxes on exploration licences and done too little to diversify the economy.

Most damningly, they have failed to control corruption. Miyegombyn Enkhbold, the speaker of parliament, has been accused of—and has denied—plotting to sell government positions. The protesters want him removed, but there is no legal procedure for that and he has refused to step down.

Another scandal has angered people even more. A government programme providing cheap loans to small and medium-sized enterprises has instead granted them to businesses and people with connections to politicians. Compared with other scandals, involving mining, energy and land, the SME row is small beer, with individual loans of no more than 2bn togrog ($750,000). But several civil servants and a minister have already lost their jobs over it, and the affair has become a rallying point for disenchanted voters.

Amid the popular discontent, politicians from other parties see an opening in the next parliamentary election, due next year. Badrakh Naidalaa, leader of the tiny National Labour Party, says the ruling class of "parasite chieftains" needs to be brought under control. "Their time is coming to an end," he says of the two main parties.

Nambariin Enkhbayar has a similar message. A former president, prime minister and leader of the MPP, he now heads a splinter party that likewise hopes to make gains. Widely accused of corruption himself during his time in power, he takes pride in having coined the *manan* pun. He describes politics as a sham in which the two big parties pretend to fight for power while splitting the spoils in back rooms. He proposes far-reaching constitutional changes that would concentrate power in the presidency. He is contemplating a run for parliament in 2020, and does not rule out a bid to return to the presidency the year after.

All this assumes that big changes do not come sooner. More demonstrations are planned this month, and some protesters are threatening hunger strikes. Dayanjambal, an unemployed office worker with three children who holds a placard reading "Destroy Manan", says that life is growing harder and patience is wearing thin. "Freedom to demonstrate is not real freedom. We need the freedom to make a living." ■

Transport in Myanmar

Four wheels better

YANGON

Motorbikes are oddly absent from the country's biggest city

LATE AT NIGHT Klo He Bin likes to don his biking jacket and take to the roads of Yangon on his Yamaha EasyRider. The other 15 members of his gang, the "Freeriders", cruise alongside, wearing leathers embroidered with their logo. Mr Klo (not his real name) has been a motorbike enthusiast for years and says he likes the freedom that comes with it. However, in Yangon that freedom is restricted. He can roar around the city only after dark, when few policemen are on the streets. That is because in much of Yangon motorbikes are banned.

In most other cities in South-East Asia motorbikes are ubiquitous. Rising incomes have made them attainable. Shoddy public-transport systems and woeful traffic boost their appeal. A survey by the Pew Research Centre in 2015 looked at motorcycle ownership in 44 countries. The top seven were in Asia, with over 80% of households in Indonesia, Malaysia, Thailand and Vietnam owning one. In Hanoi riders terrorise pedestrians who try to cross roads—and sometimes those who stand inattentively on pavements. Across the region, motorbikes shift everything from steel piping to families of five.

All that has been oddly absent in Yangon since 2003. No one knows why. One rumour claims that, before military rule ended in 2016, a biker threatened a general with a finger-gun gesture and was able to escape with ease. Another says the general's daughter died in a motorcycle accident. The ban applies only to central Yangon. Enforcement is patchy: police, who are allowed to ride motorbikes, turn a blind eye in exchange for kickbacks.



Generals' delight

Still, the ban changes life in the city. It is a headache for businesses. Shopowners rely on cars and vans to restock their wares, clogging up narrow side-streets. In other South-East Asian cities startups deliver everything from meals to massages by motorbike. In Yangon the fledgling industry relies on cyclists. Shady Ramadan, founder of Door2Door, a delivery firm, has a fleet of 80 pedallers. In Mandalay, Myanmar's second city, the average delivery takes 32 minutes; in Yangon it takes 50 minutes.

The ban forces most of the city's 6m residents to rely on overcrowded and chaotic public transport to get around. The city's commuter trains are a shambles. Much of the track was laid in colonial times. Trains travel at 5-10kph. About half of journeys are by bus, a higher share than in other South-East Asian cities. The government recently overhauled the network, reducing the number of operators, who used to compete on the same routes, causing buses to race dangerously between stops. It also introduced set wages for conductors, who used to be paid by commission, leading to alarming overcrowding. Yet the system remains far from adequate to serve the city.

Buses are moving more slowly, too, as booming car ownership clogs the roads. It used to be only the army and state-controlled firms that had the right to import cars. A Toyota Land Cruiser would sell for $500,000. When the restrictions were lifted in 2011, cars flooded the market. Prices dropped and the roads began to gum up. Average travel speeds in downtown Yangon fell from 38kph in 2007 to 10kph in 2015.

The motorbike ban has mixed effects on this traffic. On the one hand, it delays the point at which individuals can afford to buy a vehicle, meaning there are fewer vehicles on the road. In Yangon there are about 135 private vehicles for every 1,000 people, barely a quarter of the level in Mandalay. What is more, motorbikes tend to weave in and out of traffic, causing further delays, points out Sean Fox of Bristol University in Britain. On the other hand, the ban boosts the rate of car ownership, which is 40% higher in Yangon than in Mandalay.

The net effect is to reduce congestion, albeit at great inconvenience to many. A study by Hiroki Inaba and Hironori Kato of the University of Tokyo estimates that the ban lowers traffic volume by 18%. That proportion, however, is forecast to shrink to 5% by 2035, as incomes rise and more people buy cars. The case for restricting the freedom of the Freeriders will only get weaker as Yangon grows richer. ■

Urbanism in South Korea

The tyranny of the tower block

SEOUL

A redevelopment epitomises the city's unsentimental approach to planning

THE MOSQUE will be left standing. It is perched on top of a hill not far from Itaewon station, at the foot of Namsan, the mountain that towers over central Seoul. Its forecourt offers a commanding view of a jumble of low-rise houses set along winding streets, which give into ever narrower lanes garlanded with precarious-looking power cables. At night the area becomes a glittering sea of streetlights, with neon crosses marking its many churches. But the view from the hill may soon change beyond recognition. If current plans are realised, the tiny alleys and houses will make way for a regular grid of streets filled with the sort of high-rise apartment blocks in which two-thirds of South Koreans live.

The view is not the only thing that would change. The neighbourhood around the mosque, which straddles the districts of Bogwang-dong and Hannam-dong, is Seoul's most diverse, an oddity in a country with few foreign residents, next to no ethnic diversity and strong social conformity. In addition to a tiny Muslim community, the area is home to a vibrant gay scene, a host of foreign restaurants and the remains of a shabby red-light district that used to cater to soldiers from a nearby American army base. (Most of its personnel have moved to a site outside the city.) Little of that would remain if the redevelopment went ahead, reckons Minsuk Cho, an architect who has built his new office nearby.

The planned redevelopment has deadened the area in some ways, while enlivening it in others. Over the past few years, many residents have left; beyond the main streets, buildings stand desolate and crumbling. But cheap rents in the quasi-condemned buildings have attracted a host of young South Koreans who have set up bars, restaurants, shops and art galleries, and rub along happily with older inhabitants. Eun-me Ahn, a dancer who has lived on the hill for six years, particularly likes the fact that everyone knows everybody else, despite their diverse backgrounds. "My neighbour has been here for 30 years," she says, "and everyone gets along." Little of that will survive if the area is razed as planned, she reckons. "I guess we'll all just have to go somewhere else," she says. "It's a bit sad, because the memory of what it used to be like will disappear."

This being Seoul, the memory Ms Ahn wishes to preserve is quite recent. The layout of the area dates to the 1960s and



An endangered alley

1970s, when South Korea was rapidly urbanising. It started out as a "moon village", one of the many shantytowns that sprang up on the city's hills after the end of the Korean war, so called because the steep terrain did at least provide a good view of the moon. Over time, these settlements acquired paved roads and brick-and-mortar houses, eventually turning into lively working-class neighbourhoods.

The mosque was built in 1976, mostly as a gesture to attract engineers and investors from the Arab world. Saudi Arabia paid for most of it. It has drawn immigrants from Muslim countries to the area, says Muhammad Yun, a 66-year-old Korean who converted to Islam after living in Saudi Arabia in the 1980s and now shows visitors round the mosque. "People around here are welcoming to immigrants," says Usman Khan, who moved to Seoul from Pakistan 20 years ago and has become a citizen. He works in a small supermarket near the mosque, while also running a restaurant in another part of town. Mr Yun says that many of the area's immigrants have been vocal in their opposition to its redevelopment, displaying red flags outside their shops in protest. Mr Khan, however, says he is relaxed about the changes. "I've done so many different things in my life. I'll adapt."

The destruction of the neighbourhood would not be unusual in modern Seoul, which has been characterised by rapid and frequently brutal changes. Japanese colonialists redeveloped much of the city during their occupation from 1910 to 1945. The city, old and new, was almost completely destroyed during the Korean war. Afterwards, the pressing need to accommodate new residents took precedence over preserving existing structures or honouring the city's historical fabric.

Although the current appearance of the neighbourhood is a great improvement on the unpaved roads and shacks of the past, the little houses with their cramped rooms and rusty water pipes are no longer seen as fit for purpose in what has become a rich country. Since the area was earmarked for redevelopment, its decline has been accelerated by neglect. "Most of the houses are now owned by investors who are just waiting for the bulldozers to move in," says Choi Tae-chul, a local estate agent.

Because they are expecting demolition, most landlords have given up making even basic repairs. The house which Ms Ahn rents had water pouring through the ceiling when she moved in; she fixed it up herself. But for many residents, that is not an option. Park Cheong-rye, an 80-year-old woman in a colourful cardigan who is waiting outside a salon to get her hair done, says she understands that the area is in need of improvement. But she would prefer a less extreme approach than knocking it all down. She has sold her house to an investor, but continues to live in it as a tenant: "I don't know where else I could go."

A short walk up the road, Bae Heung-kwon, who is sitting in the back of an open lorry, demurs. "All the residents want redevelopment because that way we can take advantage of the rising property prices by selling to outside investors," says the 80-year-old laundry-owner. He grumbles about an edict from Park Won-soon, the mayor, which has limited the height of the proposed apartment blocks to 22 storeys as a condition for their approval. He feels that the mayor's "European ideas" about the urban environment are short-changing residents. "We wanted 40 storeys, because that way the land would be worth more."

The mayor's ideas actually come from a Korean architect. In 2014 Mr Park created the position of "city architect" for Seoul, aiming to break the hold of speculators and developers on urban planning and to make sure new housing projects take more account of Seoul's heritage and terrain. Seung H-Sang, the first person to do the job, believes that decades of rapid development have cost the city its identity. "We have all ▸▸

these landmark high-rises but they have no relationship to one another," he says. "New buildings should take account of what's already there and also of what used to be there." His first move after taking office was to put a moratorium on projects he thought violated this principle, including the original development plan for Hannam-dong.

Mr Seung dreams of a Seoul in which people can walk unhindered from A to B. To anyone trying to get around the city on foot today, the audacity of that plan quickly becomes clear. Neighbourhoods are often sundered by motorways, canals and railway tracks. Pedestrians who do not know their way can find themselves stranded, far from the right overpass or underpass.

In contrast, the lanes of Hannam and Bogwang are an invitation to linger and explore. Despite their steepness, they are well served by a tiny neighbourhood bus. The area seems suited to Mr Seung's "acupuncture" style of gradual, small-scale regeneration, which Mr Park, the mayor, espouses.

Mr Seung says that everyone must be involved in the planning process to make a city liveable. He criticises the views of the majority: "Koreans think of houses as assets to buy and sell, not as places to live. During the years of the military dictatorship we were told that making money equals happiness, and too many of us still believe that." Mr Seung sees the preference for living in apartment blocks as a remnant of the authoritarian era and therefore something to be overcome. For now, he wants to focus on reducing the number of apartment blocks built. "But eventually, all those ugly blocks should be torn down." Large-scale demolition, it seems, is something all Seoulites can agree on, whatever their taste in architecture. ■

Banyan Island dean

Australia is battling China for influence in the Pacific

AUSTRALIA HAS always been proprietorial about what Scott Morrison, the prime minister, calls its "patch"—those millions of square miles of Pacific Ocean over which the archipelagic countries of Melanesia, Micronesia and Polynesia are scattered. It has also been complacent. The patch was for flying over, not visiting. Until this week no Australian leader had been to Vanuatu since 1990 or Fiji since 2006, and even then only to attend the Pacific islands' annual powwow. Mr Morrison is making history with state visits to both countries. It is, he emphasises, all part of taking the region seriously.

Admittedly, Australia has for ages been easily the biggest trade partner and aid donor in the Pacific, as well as the main destination for Pacific-island immigrants. It has also been the policeman of last resort. But its exports to the region consist mainly of fatty meat, cigarettes and booze. Its investments are in many cases anaemic (Vanuatu invests more in Australia than vice versa). It is often accused of being arrogant and domineering. It had, one of its diplomats says, "dropped the ball".

It is plain why Mr Morrison has picked it up again this week: China. Australia, says Peter Jennings of the Australian Strategic Policy Institute in Canberra, was slow to grasp how quickly China's engagement in the South Pacific had grown. Chinese fishing fleets are sucking tuna from the seas. State enterprises are building roads and modernising airports. A Chinese-built tower dominates the skylines of Port Moresby and Suva, the sleepy capitals of Papua New Guinea and Fiji. Private entrepreneurs pour in after state-owned firms.

China's strategic interest in the region has also grown—leading an Australian foreign-policy white paper, published in 2017, to promise a "step-change" in engagement in the Pacific. But it was the rumour that Vanuatu might let China build a military base that really galvanised the Australian establishment last year. That was a red line: the first potential military threat in Australia's near-abroad since the second world war.

Since then, the Pacific promises have come thick and fast. They include a $2bn fund for infrastructure and new diplomatic missions in the Cook Islands, French Polynesia, the Marshall Islands, Niue and Palau. Australia, along with America and Japan, promises to bring electricity to 70% of households in Papua New Guinea by 2030, up from just 13% today. On the security front, Australia is helping replace the Pacific nations' ageing patrol boats. It insisted that it and not China should help Fiji turn its Blackrock camp into a regional military and police-training facility. A Chinese base, Vanuatu was told, was out of the question.

Australia and its neighbours still do not always see eye to eye. Atoll nations are naturally alarmed about man-made climate change and rising sea levels; Mr Morrison once brought a lump of coal into parliament to sing its praises. But the welcome promised for him this week underscores how happy the region is with Australia's re-engagement. Relations with Fiji had turned frosty after a coup in 2006 by Frank Bainimarama, the head of the armed forces; they now seem to be warming again, helped by Mr Bainimarama's clear wins in two consecutive elections. Australia insists it does not want to force Pacific nations to turn their backs on China. Rather, it wants to be the "partner of choice".



For now, Pacific countries do not mind Australia's red lines; after all, they still benefit from having a choice of suitors. The difficulty will come when China's power grows further. It pays little heed to the tenets of good governance. Its influence is growing fastest where institutions are weakest and money politics is already prevalent, such as Papua New Guinea, Samoa, the Solomon Islands (which does not have formal diplomatic ties with China) and Tonga.

Trying to trump China round the region is like playing whack-a-mole, says Jonathan Pryke of the Lowy Institute, a think-tank in Sydney. Yet China's approach is not guaranteed to succeed in the long run. Growing numbers of Chinese are breeding resentment in places where locals have few good prospects. Ethnic-Chinese shopkeepers who have been in the region for generations are as alarmed about the trend as any. In Papua New Guinea in November stores owned by Chinese were attacked amid police protests over unpaid wages. The Pacific is definitely Australia's patch in at least one sense: if things go wrong, it will have to pick up the pieces.



Anti-anthem protests in Hong Kong

Tuning out

HONG KONG

A tough new law aims to boost patriotism. It will not work

THE BOOS can be heard around Mong Kok stadium, the home of Hong Kong's football team. Some young supporters clad in red home jerseys cup their hands around their mouths, amplifying their displeasure. Such scenes are common anywhere when a player is penalised. But the rowdy fans on this brisk October evening at the club's most recent home match are not angry with the referee. They are trying to drown out China's national anthem, which is played before every game featuring Hong Kong's team. At some matches locals have turned their backs or waved banners reading "Hong Kong is not China".

Embarrassingly for the central government in Beijing, local fans did not boo "God Save the Queen", Britain's anthem, when it was played at fixtures before 1997, the year Hong Kong was returned to Chinese sovereignty. Why such outrage over China's song? It stems from the failure of the "Umbrella Movement" of 2014, which, among other things, demanded direct elections for Hong Kong's chief executive. In its wake many Hong Kongers concluded that what China meant by "one country, two systems" was really just one country, with the Communist Party in charge of it and with Hong Kong enjoying only a semblance of the "high degree of autonomy" that China promised it could have for at least 50 years after Britain's withdrawal.

China continues to fuel that outrage. It now insists that Hong Kong should pass a law banning deliberate disrespect for the anthem, "The March of the Volunteers", and requiring all primary and secondary schools to teach their pupils how to sing it with due decorum. Such a bill is due to be presented to Hong Kong's legislature, known as Legco, on January 23rd. It says that those who "publicly and intentionally insult" the anthem could be fined HK$50,000 ($6,375) and jailed for up to three years. It is all but certain to be adopted. The party has engineered Hong Kong's political structure to ensure that lawmakers who support its policies control Legco.

The new law says its purpose is to "enhance citizen awareness of the People's Republic of China" and "promote patriotism". Some students may indeed enjoy singing the song, even though it is in Mandarin, which is not typically spoken in Hong Kong and some residents have difficulty pronouncing. It is a call-to-arms from the era of China's war against Japan in the 1930s and 1940s: "Brave the enemy's gunfire, march on!", it urges, without mentioning the party. But some young people are angry. In December 2017, as Hong Kong began to mull the law, two students protested against it during a graduation ceremony at the Hong Kong College of Technology by sitting down while the anthem was playing. In November a group of students at the Chinese University of Hong Kong also disrupted such a ceremony with chants denouncing plans for the law.

Pro-democracy legislators say they will vote against the bill because it infringes on freedom of speech, which is guaranteed by Hong Kong's constitution (and China's). They may also be worried about how it will affect them. The law requires that the national anthem be "played and sung" when lawmakers take their oaths of office. Previously the anthem has not been involved. One legislator worries that its "totally unnecessary" introduction may provide a pretext for the government to disqualify ▸▸

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China-sceptic members-elect who fail to demonstrate what it deems to be sufficient respect for the song.

An official at the government's bureau which drafted the bill suggests there will be no punishment of legislators who do not sing along for reasons such as a sore throat. But worries are justified. Since the umbrella protests, calls have been growing for Hong Kong to be granted far greater autonomy from China, if not outright independence. In response, China has become more paranoid, directing Hong Kong's pliant officials to nip any sign of separatism in the bud. Independence-leaning politicians have been kicked out of Legco for failing to take their oaths properly. Others have been barred from running for election. Taiwanese academics critical of China have been refused entry to Hong Kong. Last September the tiny pro-independence Hong Kong National Party was banned. It was the first political group in the territory to be outlawed since 1997 (its leader has appealed against the ruling).

Such restrictions are not endearing the Chinese government to Hong Kongers. A survey by the University of Hong Kong found that in May 54% of respondents lacked confidence in "one country, two systems"—a near-record high. At the time of the handover fewer than one in five had misgivings about the idea. Over the same period those who expressed distrust in the central government rose from fewer than a third to nearly half of those surveyed. A poll last month conducted by the same university found that Hong Kongers would sooner call themselves "global citizens" than "Chinese".

The government in Beijing clearly believes that the best way to cope with this is to get even tougher. But it has yet to deploy a much-feared weapon, known as Article 23. This refers to a clause in Hong Kong's constitution that requires the territory to pass laws against treason, secession, sedition and subversion. An attempt by Hong Kong's government to do so in 2003 was abandoned after hundreds of thousands of protesters took to the streets. The anthem law may be the central government's way of testing the waters before pressing Hong Kong to have another go.

One dedicated football fan and self-professed anthem-booer says the anthem law scares him "only a bit". Supporters "can always wear masks", he explains. Yet he may be wrong to be so nonchalant. Tucked into the anthem bill is a clause that allows the police to take up to two years to bring charges against members of any "large crowd of unidentified culprits". (In less serious cases, the usual time limit for prosecuting people is six months.) The government, it appears, has planned one step ahead. Yet by obsessing over the means, it may have let the end slip away. ■

Relations with Canada

No mercy

BEIJING

A feud with Canada over its detention of a Huawei executive is getting uglier

When Europe's medieval princes met in battle, a grim change could be signalled by raising a red banner, revealing that *bellum hostile*—during which high-ranking prisoners could expect to be ransomed and returned unharmed—had become *guerre mortelle*, or a fight to the death. China's modern-day rulers appeared to send a similar message on January 14th, when a Chinese court sentenced a Canadian man to die for drug-smuggling after a one-day retrial, organised after Canada arrested a well-connected Chinese executive.

The court in Dalian, a northern port, deliberated for only about an hour before imposing the sentence on Robert Schellenberg, a 36-year-old former oilfield worker who says he was framed. He was convicted of trying to smuggle 222kg of methamphetamine to Australia, hidden in tyres. Mr Schellenberg's first trial, which saw him sentenced in December to 15 years in prison, took more than two-and-a-half years. Prosecutors said at his retrial that he was part of an international network, justifying a harsher penalty.

A distinctly elitist logic has seemingly guided China ever since Canadian officials arrested Meng Wanzhou, the chief financial officer of Huawei, a telecommunications giant, on an American warrant. Ms Meng, the daughter of the firm's founder, is on bail at her Canadian home, waiting to hear if she will be extradited to the United States, where prosecutors want her to face charges of deceiving banks about business transactions with Iran that breached American sanctions. Members of China's elite and the general public alike have not concealed their outrage that so powerful a figure—a member of the corporate aristocracy—could be arrested by a country as puny as Canada. They frame the case as a test of strength between China, Canada and America, rather than a question of law.



Schellenberg, back in court

Before Mr Schellenberg's latest sentencing China had already taken what looked a lot like two hostages. Alleging unspecified actions that endangered China's national security, secret police in December detained Michael Kovrig, a former Canadian diplomat turned analyst for the International Crisis Group, a think-tank, and Michael Spavor, a businessman from Canada who has led tour groups into North Korea. Both men are being held in secret detention sites. Unlike Ms Meng, who has high-octane lawyers and is free to roam Vancouver on bail, neither man has been allowed to meet a lawyer or family members.

China's foreign ministry has spent weeks denying that detained Canadians are, in effect, being held for ransom against Ms Meng's release. The trading became a little more visible at a foreign-ministry press conference on January 16th, when a spokeswoman, Hua Chunying, was asked if China was open to Canadian appeals for clemency for Mr Schellenberg. Drug smuggling is a serious crime, Ms Hua replied. Possibly referring to Ms Meng's detention she added: "Canada has been repeating that it is a law-abiding country. We hope that it could earnestly take some concrete actions to show its respect for the rule of law."

Meanwhile, Ms Meng's father, Ren Zhengfei, the 74-year-old founder and president of Huawei, offered foreign journalists a rare interview at his headquarters in Shenzhen. He sought to dispel his firm's sulphurous reputation in America, where officials have urged allies to shun Huawei on security grounds when building new super-fast 5G networks.

Saying that he missed his daughter "very much", Mr Ren responded to critics who call Huawei a tool of China's intelligence agencies. He cited official denials that China's cyber-security laws require "back doors" in high-tech equipment. He said he had never received a request from any government to provide improper information. And, in an unexpected touch, Mr Ren called Donald Trump "a great president" for passing tax cuts. The telecoms tycoon seemed to send the American leader a direct message, suggesting that Chinese investments in America might be scared away by "the detention of certain individuals"; that would not be in America's interests. Spoken like one prince to another. ■

Chaguan | Losing hearts and minds

History shows the folly of China's self-defeating paranoia about Islam



It is a shame that so few Chinese remember General Bai Chongxi, a brilliant tactician during the war against Japan in 1937-45. He showed China that it is possible to be at once a patriot and a devoted Muslim. Bai was a complicated figure. A warlord capable of ruthlessness, he was also a reformer who wanted education to free his fellow Chinese Muslims from isolation and poverty. As a commander of Kuomintang (or Nationalist) troops, he was involved in massacres of Communists. Still, when Chaguan this week visited Bai's home town in Guangxi province, in the south, locals praised his victories over the Japanese. The Bai family mansion is a protected historical site. Austere and grey-walled, it sits amid rice fields and limestone peaks straight from a scroll painting. Its empty interior offers no explanation as to why Bai matters.

He was once one of China's best-known Muslims. Under the autocratic Nationalist rule of Chiang Kai-shek, Bai became head of a body representing the Hui minority, a diverse group of about 10m Chinese united by their Muslim faith. Often indistinguishable from China's ethnic-Han majority, their ancestors include Persian merchants and Central Asians imported by 13th-century Mongol rulers. The body headed by Bai, the China Islamic National Salvation Federation, recruited Muslim troops and made the religious case for war with Japan. It supported Muslim schools and job schemes for refugees. Bai encouraged Hui delegations to tour the Muslim world to seek diplomatic backing for China's war effort.

The general, who died in Taiwan in 1966, might have had useful advice to offer today. China is drawing up a five-year plan to "sinicise" Islam, as if the religion had been polluted by links to the outside world. In recent months Hui communities from Ningxia and Gansu in the north-west to Yunnan in the south have seen private Arab-language schools closed, mosques raided for providing "illegal religious education" and Islamic-style domes removed from buildings. Officials renamed the Aiyi river in Ningxia, a region that is home to around 2m Hui, because its name was "Arabic-sounding". In December Chinese media reported that Gansu and six other regions were abolishing local standards for halal, or Muslim-approved, foods, in the name of fighting extremism and foreign influences. If such measures stir thoughts of repression in the far-western region of Xinjiang, where as many as a million Muslims from the Uighur minority have been sent to re-education camps, that is no coincidence. Ningxia officials recently toured Xinjiang, pledging to learn from its "good practices".

The Hui have faced suspicions of disloyalty before. In 1280 a Mongol emperor of China, Kublai Khan, outlawed halal food and other Islamic customs, reputedly incensed because Muslim merchants had refused a banquet he offered them. In a forthcoming essay for the Rubin Museum in New York, Johan Elverskog of Southern Methodist University describes a panic that gripped the Qing dynasty in the 1760s. Amid reports that Arab-educated Islamic hardliners were stirring up trouble, local officials were told to report all Muslim misdeeds. A new law deemed three or more Muslims found with any weapon to be criminals. "As might have been expected," the professor writes, officials inundated the Qing court with reports of dangerous Muslims, prompting still-harsher laws and further radicalisation of the Hui. In time, rebellions followed.

Yet long before Communist bosses vowed to regulate Islam, Hui elites crafted what amounted to their own sinicised versions of Islam, advocating political loyalty to China's rulers alongside eternal allegiance to Allah. One age of co-operation, about 400 years ago, generated the "Han Kitab", texts that reconciled Confucianism and Islam, teaching Muslims to obey any emperor who upheld a social order aimed at moral perfection. Jump to the 1920s, and a reformist scholar, Wang Jingzhai, promoted the phrase *aiguo aijiao* or "loving our country is as one with loving our faith", which hangs in Chinese mosques. The expression had authority because it was both patriotic and Islamic. It is ascribed to the Prophet Muhammad. Wang translated it after studying in Mecca.

Withdrawing from the world

If it is a shame that Bai Chongxi is largely forgotten, it is heartbreaking to find how defensively he is remembered in places that know his name. Bai's kinsfolk still live in villages near Guilin city. Chaguan found some of them preparing ducks for curing ahead of Chinese new year. Alas, even mild questions about whether their ancestor protected the Hui caused disquiet. "Just stop talking," hissed a woman to an old man surnamed Bai, who had begun answering as he salted duck neck-bones. "We are very happy and there is no ethnic discrimination," said the woman.

In nearby Jiu village, home to a century-old mosque, Wang Yisehakai, the *ahong* or imam, blandly praised General Bai as a pious man who prayed in the heat of battle. He added, improbably: "The most important thing about Bai is that he cared for his parents." Asked about politics, Mr Wang said his community's only ills come from lost faith. He grumbled that fewer than a dozen elderly Hui pray each week at his mosque, which looks like a Chinese temple with its tree-filled courtyard and curving roof.

At the Bai family mansion, Chaguan bumped into four male travellers from Ningxia, sporting straggly beards, long robes and the white prayer caps of pious Hui. One, surnamed Zhou, hailed General Bai's strong faith but scorned any link between Islam and patriotism. "We are put on Earth to have our faith in Allah tested. We are not interested in politics at all," he said. "Such things as *aiguo aijiao* are spoken only by those who don't understand."

Such a historically ignorant vision of Chinese Islam would appal Bai Chongxi, as would official attacks on halal rules. The general was a pragmatist. During wartime rows about dietary codes he proposed creating Hui units with their own food so they could get on with fighting. Communist bosses seem not to care for such approaches. They prefer sullen submission to shared loyalties. ■



Chickenomics

Ruling the roost

COLCHESTER AND GREENWOOD

How chicken became the rich world's most popular meat

IN A SHED on a poultry farm just outside Colchester, in south-east England, thousands of chickens sit on piles of their own excrement. The facilities will not be cleaned until after the birds are killed, meaning they suffer from ammonia burns and struggle to grow feathers. Ants and maggots crawl over the bodies of those that have not made it to slaughter. The chicken industry is a dirty business, but it is also a profitable one. In the OECD, a club of mostly rich countries, pork and beef consumption has remained unchanged since 1990. Chicken consumption has grown by 70% (see chart).

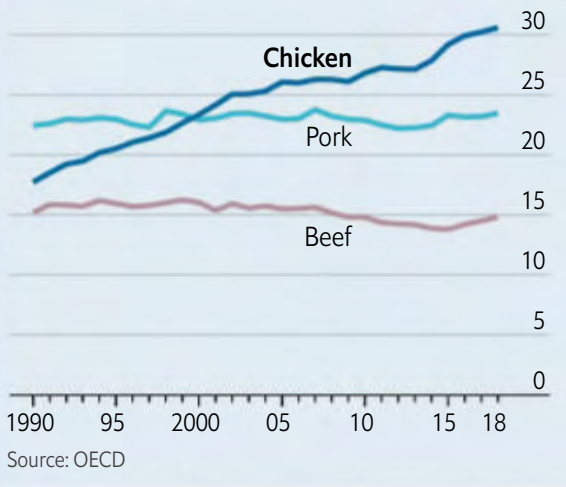
Humans gobble so many chickens that the birds now count for 23bn of the 30bn land animals living on farms. According to a recent paper by Carys Bennett at the University of Leicester and colleagues, the total mass of farmed chickens exceeds that of all other birds on the planet combined. In London, some 50 miles west of Colchester, fried-chicken shops are ubiquitous. Many are named after American states (including Kansas and Montana, not to mention Kentucky). But schoolchildren and late-night partiers are unfazed by the strange names. Nor do they worry much about where their meal came from.

And why should they? Chicken is cheap and delicious. A pound of poultry in America now costs $1.92, a fall of $1.71 since 1960 (after adjusting for inflation). Meanwhile the price of beef has fallen by $1.17 a pound to $5.80.

Fans of cheap chicken have selective breeding to thank. In the 1940s America launched a series of "Chicken of Tomorrow" competitions for farmers. The aim, as described by a newspaper at the time, was to produce "one bird chunky enough for the whole family—a chicken with breast meat so thick you can carve it into steaks, with drumsticks that contain a minimum of bone buried in layers of juicy dark meat, all costing less instead of more." The result was something along the lines of the modern broiler chicken.

Taking flight

OECD countries, meat consumption, kg per person



Source: OECD

Since then chickens have continued to get bigger. A study by Martin Zuidhof of the University of Alberta and colleagues documented this shift by comparing chickens that were selectively bred in 1957, 1978 and 2005. The authors found that at 56 days old the three birds had average weights of 0.9kg, 1.8kg and 4.2kg (see chart on next page). As raising a single big bird is more efficient than raising two smaller ones, it now takes farmers just 1.3kg of grain to produce 1kg of chicken, down from 2.5kg of grain in 1985.

The intense use of antibiotics means that farmers no longer need to spend much time worrying about their chickens' welfare. Before the second world war, most birds were raised on small plots. Farmers kept hens for eggs and sold their meat when they got too old to lay any more. But prophylactics have allowed farmers to pack chickens into conditions that would once have been considered unthinkably cramped and dirty. Birds raised in denser quarters do not move around much, and so require less to eat.

Farmers have also benefited from the ▸▸

healthy reputation of chicken. In the 1980s doctors worried that by eating too much beef and pork people were ingesting lots of saturated fat, which was then thought to increase the risk of heart disease. Those fears have since waned, but new evidence suggests that red meat might increase people's chances of getting colon cancer. In contrast, poultry's image as a healthy meat survives unscathed.

Feet and feathers

It is not just fussy Western eaters who increasingly favour chicken. Rising incomes mean that demand for the meat is growing even faster in poorer countries. As a result, chickens are now the world's most widely traded meat. In economic terms they are, in effect, the opposite of cars. They are produced whole. But their value is maximised once they are broken up.

Though Westerners prefer lean, white meat; many in Asia and Africa prefer dark meat, which includes legs and thighs. These preferences are reflected in local prices: in America breasts are 88% more expensive than legs; in Indonesia they are 12% cheaper. Differences in the price of chicken feet are even starker. The thought of eating talons is abhorrent to many Westerners, but they often feature in Cantonese recipes. China now imports 300,000 tonnes of "phoenix claws" every year.

The fact that different countries specialise in different kinds of production also boosts trade. America and Brazil, the world's two biggest chicken exporters, are agricultural powerhouses that grow huge amounts of feed, the main cost in poultry production. Thailand and China, in contrast, dominate the processed-meat market which requires cheap, skilled labour. Russia and Ukraine, once net importers of chicken, have become net exporters as their grain industries have grown.

Producers that sell their meat abroad expose themselves to risks. Chicken has been a flashpoint in trade negotiations. China imposed tariffs on American birds in 2010 and then banned all imports in 2015, shortly after an outbreak of avian flu. Industry observers are pessimistic the ban will be lifted, much to the dismay of American farmers who would love to be paid more for the 20bn chicken feet they produce every year, which currently become animal feed.

Similarly, the European Union banned the import of chlorinated American chicken in 1997, owing to concern that a chlorine wash allows lower hygiene standards in farms. Arguments over chlorinated chickens also proved a big stumbling block in negotiations for the Transatlantic Trade and Investment Partnership, a now-failed trade deal between America and the EU. Some Britons fear that if they leave the EU any trade deal signed with America would require them to accept imports of such chickens.

Although the chicken boom has been good for consumers, animal-welfare advocates worry that the meat industry's cost-cutting measures have come at the expense of the birds. Vicky Bond of the Humane League, an animal-welfare campaign group, says the size of modern chickens is the cause of the worst problems. Broilers have breast muscles which are too big for their bones to support, leading to lameness. In Colchester the chickens are so unresponsive to humans that they resemble zombies. Indeed, modern chickens have become so big that their muscles prevent them from getting on top of each other to mate (meaning they have to be starved before they are able to consider romance).

Partly because of advocacy by animal-welfare charities, and partly because meat has become so affordable, more consumers are now willing to pay for meat raised in better conditions. Sales of free-range and organic chickens, which—unlike most broilers—have access to the outdoors, are surging. In the Netherlands, a recent public outcry over enormous *plofkip* (which translates as "exploded chicken") was so intense that retailers switched in droves to breeds that grow more slowly. *Plofkip*'s share of the Dutch market plummeted from around 60% in 2015 to 5% in 2017. In Britain sales of free-range eggs have overtaken those of caged ones.

Concerns about the health of livestock have also led the EU to pass some of the world's strictest animal-welfare laws. Battery cages for egg-laying hens were banned in 2012, for instance. Legislative reforms have been harder to come by in America, especially at the federal level. Animal-welfare advocates lament the country's congressional system, which gives disproportionate clout to rural states. Nevertheless, a rare but significant state-level change came last November when Californians voted to pass Proposition 12, which will ban the production and sale of pork, veal and eggs from animals kept in cages, bringing the state's laws roughly in line with those in the EU. The change affects all meat producers who want to sell in America's biggest state, putting pressure on them to change their farming practices.

Public companies have been more responsive than lawmakers to animal-welfare concerns. Activists have achieved remarkable success in recent years by threatening companies with the release of unflattering images and videos of how their food is produced. Research by the Open Philanthropy Project, a group which funds animal-welfare activists, finds that such campaigns have prompted more than 200 American companies—including McDonald's, Burger King and Walmart—to stop buying eggs from chicken raised in battery cages since 2015.

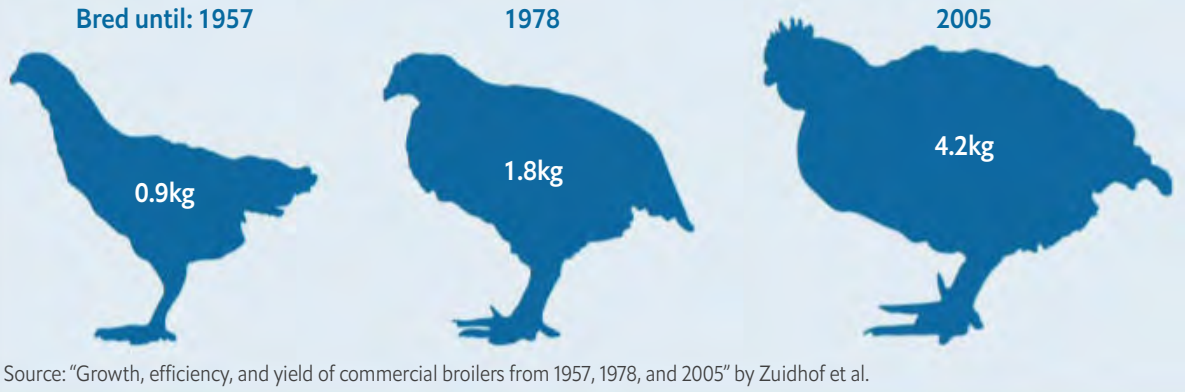
An idea is hatched

Farmers are therefore increasingly interested in improving the lives of their birds. Richard Swartzentruber owns two chicken sheds in Greenwood, a small town in Delaware. The company he supplies, Perdue Farms, has stopped using antibiotics altogether. Mr Swartzentruber's chicken sheds have plenty of windows and doors that open onto a fenced grassy field whenever the weather permits. This comes with trade-offs: chickens might like perching on trees, but so do hawks. Inside the sheds, bales of hay, wooden boxes and plastic platforms are scattered around to entertain his chickens. Such measures have helped him gain a good-farming certificate from the Global Animal Partnership, a charity.

Bruce Stewart-Brown, a food-safety scientist at Perdue Farms, says that his company would love to raise more organic chickens. His ability to provide higher-welfare organic meat is ultimately constrained by market forces, since the feed legally required is pricey. Although larger numbers of people might be willing to pay more for organic or free-range products, most still prefer whatever is cheapest. And, despite growing interest in vegetarianism and veganism, surveys find little evidence that many people in the rich world are turning into herbivores. People may like flirting with plant-based diets. But what they really love is chicken. ■

Pecking order

Broiler chickens, weight at 56 days old



Source: "Growth, efficiency, and yield of commercial broilers from 1957, 1978, and 2005" by Zuidhof et al.



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America's extraterritorial reach (1)

Uncle Sam's game

PARIS

Some of America's laws apply far beyond its shores. That can leave it open to accusations that it is serving its own commercial interests

VANCOUVER AIRPORT is an unlikely venue for the genesis of a global spat. But repercussions from the detention by Canadian authorities of Meng Wanzhou while in transit there on December 1st are still spreading. Ms Meng, finance chief of Huawei, and daughter of the giant tech company's founder, Ren Zhengfei, was arrested at the request of American prosecutors investigating the firm's alleged business ties with Iran, which is under American sanctions. Chinese authorities have arrested a number of Canadians in response; this week a court sentenced another to death for drug- smuggling (see China section).

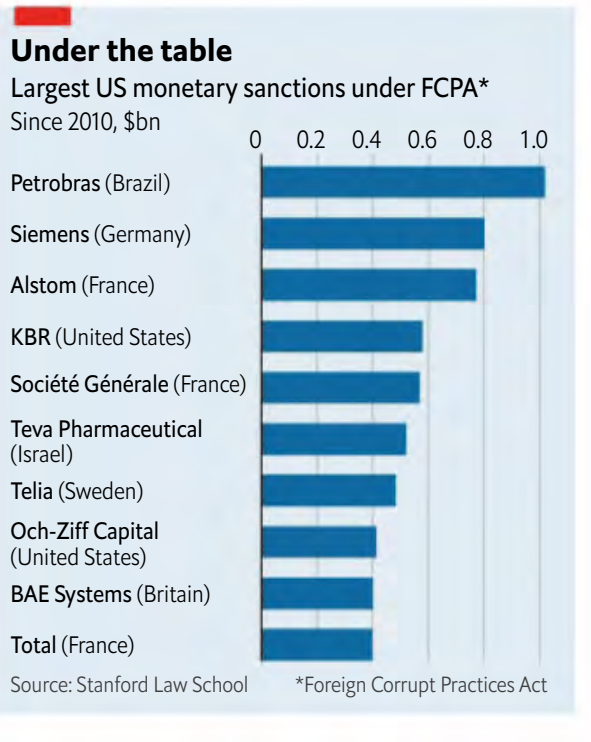
Ms Meng is not accused of breaking Chinese laws, nor those of Canada. That matters little. Since the turn of the century, America has ramped up judicial programmes whose reach is not restricted by its borders. Focused on enforcing its sanctions, reducing corruption in poor countries and fighting money-laundering and terrorism financing, it has found ways of prosecuting companies and their executives far beyond its shores. Ms Meng, who is out on bail and preparing to fight extradition in a hearing expected next month, could face decades in jail.

America's aims are often laudable. Much wrongdoing has been brought to light, and probably prevented, as a result of its actions. But the continued growth of such programmes is raising questions about the fairness of America imposing its mores in overseas jurisdictions. Most of the companies caught in its legal net are foreign, often European. Some come from countries in which doing business with Iran, for example, would be no problem were it not for America's stance. As a result, critics who decry what they call America's financial imperialism are looking for ways to limit its reach.

Policymakers and business figures in Europe are peeved at having to heed American laws, and they suspect other motives. "European companies are increasingly impacted by the extraterritoriality of US sanctions," says Pierre Gattaz, head of BusinessEurope, the European Union's main employer federation. "Moreover, these are increasingly instrumentalised to promote economic interests," he adds. There are instances where America's long legal reach may have given an edge to its own firms over foreign rivals, as in the case of General Electric's purchase of Alstom of France in 2014 (see next article). Ever mindful of diplomatic norms, President Donald Trump has linked Ms Meng's legal fate to the prospects of America getting a good deal in trade talks with China.

It is America's central role in the global economy that gives it the exorbitant privilege of imposing its way in boardrooms across the world. Some forms of sanctions merely ban companies trading in embargoed countries from selling to America. Other programmes, notably the Foreign Corrupt Practices Act (FCPA), which battles against corporate graft, can result in prosecutions in criminal courts.

Several elements tie together America's various legal forays abroad. The first is their creeping extraterritoriality. American ▸▸



law starts with a presumption against application of its statutes beyond its borders. But prosecutors have wide authority over how the laws are interpreted. They have adopted an ever-more-expansive interpretation of who is subject to American law, lawyers say.

A banking transaction that ultimately passes through New York—as many do, given the centrality of American dollars to global trade—can give prosecutors a toehold to inspect it. If two executives outside America use Google's Gmail to communicate about a bribe, say, American prosecutors can claim that the Americanness of the email provider can make it their business.

The global banking system also gives America an advantage. Lenders have been hit hard by American prosecutors, notably BNP Paribas, a French lender walloped in 2014 with an $8.9bn fine for facilitating trade with Sudan, Cuba and Iran. Deutsche Bank was fined $425m in 2017 for helping launder $10bn from Russia. No surprise that most banks would sooner denounce a dodgy client to America's authorities than keep doing business with them.

Along with companies, some banks have had to agree to "monitors"—independent observers paid for by the firm but reporting to American authorities—as a condition of avoiding prosecution. According to the *Wall Street Journal*, it was one such monitor at HSBC (which agreed to monitoring after being fined $1.9bn in 2012 for allowing Mexican drug cartels to launder money through its systems) who notified American prosecutors of suspicious transactions at Huawei. It is the charge that she may have tricked banks into, in effect, busting sanctions, which Huawei denies, that seems to be dogging Ms Meng.

Bartleby Continent cut off



Data from LinkedIn show Britain's waning appeal to Europeans

BRITAIN'S FUTURE relationship with Europe is still uncertain after the overwhelming defeat of Theresa May's deal in Parliament on January 15th. The worry for many British employers is that further messy negotiations and hostile political rhetoric will make it ever harder to attract skilled European workers.

A sharp decline in the number coming is visible. Surveys of airport passengers show that net EU immigration in the 12 months to June 2018 added up to an estimated inflow of 74,000 people, compared with 189,000 in the year before the June 2016 Brexit referendum.

But those figures do not make any distinction between skilled and unskilled workers. An alternative approach is to look at data compiled by LinkedIn, a website that is used by more than 590m workers worldwide, mostly well-paid white-collar ones, to share contact details and employment histories. All LinkedIn users record their location when they join.

These data can be analysed to measure the attractiveness of the British labour market in two ways. First, they can be used to see if members in other countries are searching for jobs in London (the most attractive British city for overseas workers). The numbers show a clear, but not catastrophic, decline in Britain's appeal. London at the start of 2016 was the target of 15% of job hunts by workers from other countries in the EU; the proportion has since fallen to 12.6%.

Rival European cities, such as Amsterdam, Paris and Berlin, have all increased their share of job searches to compensate for London's decline. But Europeans have not been discouraged altogether from moving across the Channel. London remains the most popular city for job searches.

Another way of looking at the numbers is to see how many LinkedIn members move to a new country (this relies on the workers updating their profiles). On this basis, there was a fairly sharp, 10% decline in the number of EU citizens shifting to Britain in 2017, followed by a rebound back to 2016 levels last year.

But the fall and rebound are not adjusted for the fact that LinkedIn membership has increased by over a quarter since 2016. Britain has lost "market share" of skilled immigration, attracting 20.8% of intra-EU moves in 2018, down from 23.6% in 2016. Another way to gauge performance is to look at net inflows. Those to Germany from other EU states have risen by 19% since 2016, while the Netherlands has gained 29%, and France 21%. Britain managed a net gain of 1% over the period.

Britain is still attracting workers from outside the EU, although its relative appeal has declined in this respect as well. Between 2016 and 2018 the number of LinkedIn members from outside the EU moving to Britain rose by 17%, but Germany, France and the Netherlands all achieved percentage rises more than twice as large.



Of course, Britain has not yet left the EU, nor has it announced the exact terms on which European workers will be able to move to the country in future. Initial policy indications are confusing. The government wants lower overall immigration, and will require existing EU residents to jump through bureaucratic hoops to stay in the country. At the same time, it says it wants to attract skilled workers. But Europeans may opt to stay in the EU, where they enjoy the benefits of free movement, rather than risk relying on the hospitality of a British government in a febrile political environment.

So it would not be surprising if future data from LinkedIn showed a further deterioration in the appeal of Britain to skilled Europeans. And that would be a great shame, as the country has a long history of benefiting from European migration, whether it be Flemish weavers in the 14th century or the Huguenots who subscribed 10% of the founding capital of the Bank of England. London is a much more cosmopolitan and attractive city after decades of European immigration than it was when Bartleby started work here in 1980.

More broadly, the data demonstrate that social networks are a valuable source of information about economic and social change. Some hedge funds already look at satellite views of shopping-mall car parks for clues about economic activity, or monitor social media to gauge public attitudes towards famous brands. Perhaps one day, central banks will comb job websites to gauge the state of the labour market before they make their interest-rate decisions.

Economist.com/blogs/bartleby

It seems plain to foreign critics that America disproportionately targets foreign companies. Over three-quarters of the $25bn it has exacted in fines for money-laundering, sanctions-busting and related offences has been against European banks, 15 of which have paid over $100m each, according to Fenergo, a consultancy. American banks have been fined less than $5bn over such misdeeds (though they have been clobbered for other transgressions, such as fraud connected with subprime mortgages). Anti-corruption probes also fall disproportionately on foreign firms. Of the ten biggest FCPA fines, only two have fallen on American companies (see table on previous page).

Proving America treads more lightly at home than abroad is tricky. There may be good reason for the asymmetry. Petrobras, the scandal-laden Brazilian oil and gas firm that recently became the largest FCPA fine recipient, seems worthy of its crown, for example. Europe tolerated corruption at its firms for longer, and their proclivity for doing business in tricky parts of the world may still trip them up. American companies pride themselves on the thoroughness of their FCPA compliance programmes. Meanwhile, the Huawei arrest is an exceedingly rare example of a big Chinese company coming within the ambit of American authorities. ("Because Chinese firms never bribe anyone, of course," snarks a European boss, who suspects geopolitical factors are at play).

The sanctions against Iran, which America reimposed unilaterally three years after a global embargo was lifted, in particular angered European companies. Total, a French energy group, and Siemens, a German engineering outfit, were among those who have reluctantly had to forgo opportunities in a market which European firms have long coveted. Their political allies worry that extraterritoriality could become weaponised under Mr Trump to help American firms overseas. France and Germany are leading efforts for their companies to be able to keep trading with Iran, through a state-backed "special purpose vehicle", although progress is slow.

America's activism is prompting other countries to improve their own graft-busting. "Often, the US has taken on corruption cases because others have been unwilling or unable," says Robert Amaee of Quinn Emanuel, a law firm. That may be changing. Britain has hired an FBI alumna, Lisa Osofsky, to head its Serious Fraud Office, and is now starting to push companies into American-style settlements rather than taking them through protracted court cases. From Singapore to France, anti-bribery investigators are co-operating with their American peers—and getting a cut of the fines levied from companies in return. If you can't beat them, join them. ■



America's extraterritorial reach (2)

The French resolution

PARIS

General Electric's takeover of Alstom shows how America's commercial interests and a corruption investigation became intertwined

Over the past decade, American legal and regulatory authorities have subjected scores of large foreign companies to extraterritorial actions. Paying large fines, which can exceed $1bn, has often been the only way finally to settle such accusations of serious misconduct—typically, corruption or breaching sanctions—outside America. As a result, many bosses and executives are quietly paranoid about the long arm of American sheriffs.

Such cases, however, rarely go to trial, and the firms involved are limited in what they can say about them; surprisingly little is known about how the process works. *The Economist* has identified an exception: Alstom, a French power and transport group that faced an American legal action in 2010-15 and which sold the bulk of its assets to General Electric (GE) in a deal that was announced in 2014 and closed in late 2015.

The case of Alstom and GE is important for three reasons. First, the sums involved are huge: Alstom faced a $772m fine, among the largest ever in a foreign corruption case prosecuted by America. GE paid $17bn to buy the Alstom assets; their subsequent underperformance explains part of the American conglomerate's present dire straits, including the $23bn loss it reported in October 2018.

Second, multiple sources of information mean that a reliable account can be constructed of how a legal process and a commercial one jointly produced a particular outcome for GE. A senior former Alstom executive closely involved in the scandal, Frédéric Pierucci, has published a book this week called "Le Piège Américain" ("The American Trap"). Mr Pierucci is no angel: he is a convicted criminal who, Alstom documents show, knew bribes were being paid to win a contract for a power plant in Indonesia. But we have reviewed American court documents and material from several French parliamentary inquiries (the last of them conducted in 2018), and spoken to industry executives.

Last, the case raises uncomfortable questions about American officials' uncompromising techniques. It suggests that foreign companies may receive more lenient treatment if they pass into American ownership. The possibility of a link between Alstom's legal woes and the sale of its crown jewels to GE has vexed French policymakers, not least Emmanuel Macron, France's president.

Something to declare

Mr Pierucci's private hell began in April 2013 when he was handcuffed upon arrival at New York's John F. Kennedy Airport. The Frenchman knew his employer, Alstom, was in the midst of a protracted tussle with American authorities over bribery allegations. Having expected to be released rapidly, perhaps on bail, he did not share his ▸▸

predicament with his wife for four days. This legal wrinkle was no reason to push back his expected return by the weekend, he thought. Things did not turn out as he planned: Mr Pierucci did not emerge from prison until September 2018.

At around the same time, in 2013, Alstom was racing into commercial heavy weather. Its imperious chief executive, Patrick Kron (pictured below), who had by then presided over the company for a decade, deemed some of its units below scale to compete globally. He had good reason to be looking for a buyer for its flagship power division, which accounted for nearly three-quarters of the group's revenues: demand was sagging for the turbines it sold to electricity-generation plants across the world, performance had been woeful for years and debt had swollen. And across the Atlantic, the chief executive of GE at the time, Jeff Immelt, was searching for a big end-of-reign deal.

Return on graft

But the process of Alstom dismantling itself was being buffeted by an investigation dating from 2010 by America's Department of Justice (DOJ) into exactly how it had managed to bring home billions of dollars in contracts outside America. The French firm had been dragging its feet in responding to the DOJ, infuriating prosecutors. They suspected Alstom of paying a total of at least $75m in bungs in Egypt, Saudi Arabia, the Bahamas, Taiwan and Indonesia, which won it $4bn in contracts. Some of the bribes, including those Mr Pierucci had been involved with in Indonesia from 2002, had been paid by an American subsidiary, and Alstom had financed itself partly in America, giving American authorities their justification to chase Alstom in France and to punish it with a fine far greater than European corruption statutes might have levied. At the time, investors fretted that this could exceed $1bn, damaging the company's balance-sheet and forcing a fire sale of its assets.

The prospect of this, and Mr Pierucci's legal troubles, weighed on Mr Kron as he pondered Alstom's future in mid-2013. The arrest shocked Alstom's top brass: around 30 senior executives were subsequently warned against travelling to America lest they share Mr Pierucci's fate. By spring 2014 at least three of his former associates at Alstom had been arrested by American authorities to bring pressure on the company to co-operate with the DOJ. Court documents suggest that prosecutors ended up with 49 hours of covertly-taped conversations inside Alstom, courtesy of executives-turned-informants.

Two elements of what happened next are disturbing. First is the treatment of Mr Pierucci. Now 51, heavy-set with a tall forehead and a provincial twang, the former industrial-equipment salesman could be typecast as an accountant, not the orange-jumpsuited prisoner he became upon his arrival in America.



After three months in a Rhode Island high-security prison packed with violent offenders, he faced a plea hearing. The choice was stark. One route was to plead innocent and face trial; a risky proposition, since prosecutors in Mr Pierucci's case were pushing for charges which would translate into prison sentences ranging from 15 to 19 years. He was advised that preparation for the trial would take three years and would cost millions of dollars.

That left the option of pleading guilty, co-operating with the authorities, and facing only a few more months of prison. Mr Pierucci says he admitted that he was guilty of bribing Indonesian officials—which emails cited by the DOJ suggest he was aware of, even if he did not instigate the crime—on the understanding that he would receive a sentence of no more than six months, most of which he had served.


Kron got the last laugh

But despite this he was detained for another year, then spent over three years out on bail from June 2014 to October 2017, and then went back for another year in jail. He says he spent over 250 days at one point without seeing direct sunlight or breathing outside air.

Part of Mr Pierucci's outrage reflects America's harsh judicial system: a legal playbook devised to bring down mobsters and racketeers has since been repurposed for the corporate world. Europe's approach to white-collar criminals is softer, for better or worse. But Mr Pierucci's claim that he was an "economic hostage" carries weight. DOJ officials have indeed linked his imprisonment to Alstom's failure to co-operate with their inquiry.

The broader worry is that the DOJ's investigations distorted Alstom's sale process, giving an edge to a potential American purchaser. The French parliament has returned time and again to the circumstances of the deal with GE. For a country that once blocked the takeover of a yogurt firm, Danone, on the basis of its strategic importance, the sale to a foreign rival of a firm that maintained turbines for France's nuclear power stations and submarines remains highly sensitive.

According to executives there at the time, Alstom first explored a deal with GE just after Mr Pierucci's guilty plea in July 2013. Legal pressure on Alstom, and on Mr Pierucci, seemed to ease once it became possible that much of his employer would come under GE's ownership. For one thing, the arrest of executives stopped. The fourth to be detained in the case, while in the American Virgin Islands, was seized one day before news of the deal became public on April 24th 2014. Two months later, in the same week that Alstom's top brass signed off on the sale to GE, Mr Pierucci's long-standing bid to be released on bail was approved, after 14 months inside.

There is no suggestion of wrongdoing by GE itself, merely that American supremacy in imposing anti-corruption norms globally may have given American firms an advantage. GE had an edge over non-American firms vying to buy Alstom's assets, such as Siemens of Germany and Mitsubishi of Japan, insofar as their legal departments may have been less well-versed in negotiating American legal settlements.

That mattered. In the purchase agreement, GE agreed to pay whatever fine was meted out to Alstom Power for past wrongdoing, even though the fine the French firm faced also related to past activities of other parts of the group. Foreign rivals interested in joining the bidding would also have to gauge the size of that potential legal liability, but may have been at a disadvantage: GE, like other American firms, employs multiple former DOJ staffers, according to their LinkedIn profiles. (Later, the

DOJ decreed that what remained of Alstom in France should pay the fine, not GE.)

An American group such as GE could also help Alstom navigate judicial waters. Lawyers for GE conferred with the French firm's lawyers ahead of its agreement with the DOJ, long before the deal formally closed. The DOJ settlement mentions how GE promised to "implement its compliance programme and internal controls" at Alstom. In American courts, such assurances may carry more weight coming from well-known local firms, not foreign ones. Unlike Siemens, which has also felt the weight of the DOJ on corruption charges, Alstom was able to avoid an intrusive American "monitor" being embedded inside the firm. Insofar as the aim of American prosecutors was to wean Alstom off its wayward behaviour, the job could in effect be outsourced to GE.

Mr Kron has been repeatedly asked by parliamentarians if legal pressure—perhaps on him personally—influenced his decision to sell most of Alstom to GE. He forcefully denies this, dismissing links between the sale and the DOJ investigation as the work of conspiracy theorists. But the theory has gained traction in high places. Questioned by parliament in 2015, the then economy minister, Emmanuel Macron, said it had been "his heartfelt belief" that pressure from the DOJ had weighed on Mr Kron. "Personally, I was myself convinced of the causal link between the investigation and Mr Kron's decision [to sell to GE], but we have no proof," he said.

On December 19th 2014, at an extraordinary meeting of shareholders in Paris, Mr Kron got formal support for the sale. Disheartened retail shareholders in the auditorium cheered those who opposed the deal (institutional shareholders had backed it). One asked Mr Kron if Alstom's legal troubles had forced this unexpected event. "Stop banging your head trying to find fictitious arguments to justify a good deal," Mr Kron replied. "This kind of masochism is terrible!" Both GE and Alstom declined to comment for this article; the DOJ did not respond to calls for comment.

Electric shock

The Alstom purchase has backfired dramatically for the American group. Troubles at GE's power division explain in part why its shares have collapsed by two-thirds in the past five years (see chart on previous page). Mr Immelt's successor, John Flannery, an architect of the Alstom deal, was fired on October 1st, after a year in the hot seat. Alstom lives on at home in France as a smaller group, and is trying to persuade European regulators to allow its last big business unit to be absorbed by Siemens.

Looking back, Mr Kron, who stepped down as Alstom's boss a few months after its main assets were sold, sees what happened at GE as vindication that his thinking was guided by commercial logic, not judicial pressure. Insofar as GE overpaid for Alstom's assets, the deal counts as a resounding victory for the French group's erstwhile shareholders.

Yet the method by which America secured a legal settlement was brutal. In order to be legitimate, a legal process must be transparent and independent—and be seen to be so. In this case, the legal process and the commercial one became uncomfortably intertwined. On the very same winter day in 2014 that the sale to GE was approved by shareholders, Alstom's lawyers signed documents admitting charges brought by the DOJ. They agreed to settle these with the $772m fine. Alstom's legal troubles were now over, just as the company, as it once was, ceased to exist. ■

Founders' control

Bezos v Bezos

NEW YORK

How a break-up could affect control of the world's most valuable company

"When you have loving and supportive people in your life, like MacKenzie...you end up being able to take risks." So declared Jeff Bezos, boss of Amazon, the e-commerce giant, last April. This affirmation by the planet's richest man of the contribution of his wife of 25 years to the company (she was in the founding team) takes on a new significance now that the power couple is preparing to split.

When a founder divorces it can affect firms and shareholders in several ways. Most consequential are changes in corporate control. In the case of Wynn Resorts, a casino group, for example, its founder, Steve Wynn, was challenged for control by his former wife, Elaine, after a bitter divorce in 2010. She became the largest shareholder in the group and demanded governance reforms.

Mr Bezos is not thought to have a prenuptial agreement. In the state of Washington, where the couple mainly live, Ms Bezos is entitled to half of her husband's $137bn fortune (if the divorce is filed elsewhere, her share may be lower). Critically, Mr Bezos owns a smaller proportion of his firm than other tech founders: whereas Mark Zuckerberg, for example, controls 51.3% of Facebook's voting rights through a dual-class structure, Mr Bezos controls only about 16% of Amazon and has no special voting rights.



From bedroom to boardroom?

The divorce could weaken his hand in two ways. His stake could be cut to 8% (though Ms Bezos may accept some cash or put her shares in a trust), changing the balance of power with the largest institutional investors—Vanguard has a 6% stake, for example. And she may demand a board seat. It is conceivable that she might then oppose her ex-husband's plans at the company. She might push for pay rises for workers, say, that hurt profits (Amazon is already under pressure in this regard).

To reassure shareholders, reckons William Klepper of Columbia Business School, author of "The CEO's Boss", Amazon's board must now hold discussions with Mr Bezos about how any share transfer will take place and communicate relevant points to shareholders. The board will need to be vigilant on other fronts, too, says David Larcker of Stanford Graduate School of Business. Executives going through a divorce often get distracted, which explains why a company spokesman insisted this week that "Jeff remains focused". Studies have also shown that a big reduction in wealth through divorce can lead a boss to make more aggressive corporate bets in the hope of clawing back riches. Some boards have even awarded CEOs extra pay to tamp down such behaviour.

Mr Bezos's best defence may not be legal manoeuvring, but continuing to do his job well. Amazon has outperformed the S&P 500 index by 33% over the last year, and by over 2,000% over the past decade. A recent survey by Stanford found him (and not Tesla's Elon Musk) to be "the most difficult CEO to replace". For now, the love affair between Mr Bezos and investors is still going strong.

The global car industry

The big freeze

Carmakers scramble to prepare for a chilly future as sales in China shrink

Detroit's motor show, which opened on January 14th, is taking place in the winter for the last time before the event moves to the summer months in 2020. Escaping an icy chill is also at the forefront of the minds of the carmakers gathered there. A rash of recent announcements about restructurings, a new alliance between Ford and Volkswagen (vw) and the likelihood of more to come are aimed at avoiding pain in an industry heading for a downturn and preparing for longer-term upheavals. The risk is that none of them proves to have been big or radical enough.

Cutting costs is a priority for many firms as car sales look likely to fall, and the need to invest in new technology becomes more urgent. Last week Ford unveiled the European end of a global effort to cut costs by $14bn a year, which may see 24,000 of its 200,000 workers laid off. Jaguar Land Rover (jlr), owned by Tata Group of India, also said that it will lay off 4,500 employees as part of a plan to save £2.5bn ($3.2bn). On January 15th Ford and Volkswagen gave details of a cost-sharing alliance that Jim Hackett, Ford's boss, calls the "next industry-transforming event". The next day poor preliminary results sent Ford's shares sliding, emphasising the plan's urgency.

All carmakers are worried that a global slowdown could turn into a rout as cyclical declines and a trade war bite at the same time. Their foremost concern is that years of bumper growth in the most profitable markets is coming to an end. Both America and Europe are still on a high in terms of sales (see chart) but China, a vital source of profits for most firms, is causing a severe headache. The world's largest car market shrank for the first time in over 20 years in 2018. Sales fell by 2.8% to 28.1m vehicles and slid by 13% in December, giving a taste of what may be in store this year.

Trade troubles and other problems could add to the cyclical pain. Donald Trump has foreign carmakers in his sights. To redress what he regards as an iniquitous trade deficit with Europe, he has threatened import tariffs on its cars. ubs, a bank, reckons that the worst case—tariffs of 25%—would see the American market shrink by 12% next year. Europe faces not only the disruption of Brexit but declining sales of diesel-powered vehicles.

Even if coping with these problems were not enough, carmakers also need to make big investments in electric cars, autonomous vehicles and "mobility" services, such as car-sharing and ride-hailing. Take-up of the latter could cause car sales to plummet. Bain & Co, a consulting firm, says that America's driving-age population is not growing (a trend mirrored in the rest of the world), while a generational switch to mobility services, such as robotaxis, will hit sales further. The firm reckons that the American market, currently 17m cars a year, could shrink to 10m by 2025.



Even before the latest round of announcements, carmakers had been downsizing and leaving loss-making countries or market segments. They have then been reassigning investments to where they make most difference. gm announced big lay-offs and factory closures last year and in 2017 sold Opel, its European arm, to France's psa, for example. The French firm, loss-making until Carlos Tavares took over in 2014, has stopped making less profitable models. Also in 2017, Fiat Chrysler Automobiles (fca's chairman, John Elkann, sits on the board of *The Economist*'s parent company) likewise stopped making saloon cars in America to concentrate on higher-margin suvs. Ford is said to be considering an exit from South America.

Cutting costs and boosting profits to shore up balance-sheets is one way of insuring against a turbulent future. Another is to share costs. The tie-up between Ford and vw is the most prominent recent example of the web of alliances that characterise the car industry. Some alliances are explicitly aimed at preparing for the future. In 2017, for example, Toyota teamed up with Mazda and Denso, a Japanese partsmaker, to develop evs.

Yet Ford and vw disappointed many investors who had hoped their alliance might be closer. There had been rumours of imminent collaboration on electric vehicles, autonomy and mobility services, but the two firms in fact said they would make only conventional vans and pick-ups together. They have firmly ruled out equity ties that could deepen their relationship.

Pressure for alliances or full mergers among firms is unlikely to go away. Consolidation may be the only way to bring the scale of cost savings that the industry needs in order to take on American tech giants, such as Google, that have transport in their sights. Both Sergio Marchionne, fca's boss until he died unexpectedly last year, and Carlos Ghosn, who built the Renault-Nissan-Mitsubishi alliance, the world's biggest carmaker (who is detained in a Japanese prison on charges of financial misconduct), have in the past called for more consolidation. Sanford C. Bernstein, an equity research firm, says that 2019, too, will be a year of "endless m&a rumours" as demand wobbles and costs soar.

Yet big alliances, not to mention cross-border transactions, are fiendishly hard to handle. Mr Ghosn's detention has put in serious doubt the future of the world's biggest tie-up. Indeed, many believe the charges against him have been trumped up by Nissan as a way to block his plans for a full merger. Mr Marchionne's death has robbed the industry of a big personality who wanted consolidation and who had proved that a big transatlantic deal could work.

Most car bosses who remain are not the sort of imposing characters who could initiate and see through a mega-merger. The only candidate is probably Mr Tavares, who has turned around both psa and Opel in quick time. But his hands are full completing that deal. As the cold bites, the industry may struggle to cope. ■



On thin ice

Schumpeter | Is Google an evil genius?

Big Tech does not control its users, however much it may want to



As a child, Shoshana Zuboff accompanied her grandfather as he walked through his factory, greeting workers. He was an inventor and had made his fortune creating a mechanism to release drinks from vending machines. It was a blissful time, both for her and for American business, she recalls. In the 1950s and 60s, "business had integrity. Those companies barely exist any more."

That sense of loss clearly lies behind Ms Zuboff's latest book, "The Age of Surveillance Capitalism". For the work of a professor emerita at Harvard Business School, it is written with unusual outrage. Its arch-villain is Google, a company as far removed from a blue-collar production line as can be imagined. It sweeps beyond business to society at large, where it warns of an "overthrow of the people's sovereignty" by the surveillance capitalists. Clearly the halcyon days of her youth, when America's big business was trusted, are long gone. Her zeal recalls that of another writer yearning for a lost past; Ida Tarbell, whose journalism helped end the monopoly of John Rockefeller, the oil baron who ruined her father. But as muckraking goes, Ms Zuboff lays it on too thick.

To be sure, this is a good time to draw attention to the dark forces at work on-screen. Surveillance capitalism, a phrase Ms Zuboff coined in 2014, is a good way of explaining the Faustian bargain at the heart of the digital economy: the services that users enjoy free of charge are costing them more than they think. It describes the compulsion Silicon Valley's data-gatherers have to mine ever larger portions of people's daily existence—how they shop, exercise or socialise—to turn into products that predict and shape their behaviour.

She argues that users are sleepwalking into this new world of "smart" devices and smart cities, created more for the benefit of those who hoover up their data than for them. In order to get the best use out of their robo-vacuum cleaner, or "sleep-tracking" mattresses, or internet-enabled rectal thermometers, they consent to surrendering their most intimate details, not realising these are put up for sale in "behavioural futures markets". Beyond the home, little do they know how their phone doubles as a tracking device, enabling firms to geotag them for advertisements. More Americans used apps that required location data in 2015 than those who listened to music or watched videos on their phones, she notes. Because all this is unprecedented, it is ill-defined in law and regulation. Actions against monopoly and privacy do not quite cut it.

In this drama Google makes for a compelling evil genius. It started life as a force for good. In 1998 its founders, Larry Page and Sergey Brin, wrote a landmark paper explicitly warning that advertising-led search engines would be biased against the true needs of consumers. But their idealism was coshed by the dotcom crash of 2000-01, which forced them to turn a profit. Like Tarbell combing through Standard Oil's court documents, Ms Zuboff picks apart Google's patent applications to find evidence of its switch to surveillance as the means for its power grab. It was transformed from a "youthful Dr Jekyll into a ruthless, muscular Mr Hyde, determined to hunt his prey anywhere, any time", she writes.

Several factors need to be taken into account, however, before reaching such a damning verdict on Google, Facebook or any of the tech companies in her sights. First, in her 691-page book she barely mentions the benefits of Google's products, such as search, maps and Gmail. No company has taken the age-old tools of discovery and communication—quests, voyages and messages—and made them more widely available. It may be true, as Apple's Tim Cook has said, that "if the service is 'free', you are not the customer but the product". But arguably, only religions do a better job of providing something for nothing. In a sign that people value "free" stuff despite the surveillance costs, a National Bureau of Economic Reseach paper has calculated that users of search engines would need to be paid over $1,000 a month to give up access to the service.

Second, if people become fed up with Google's tactics, they can always switch. DuckDuckGo, a smaller search engine, assures users that it does not track them. A competitive market for digital privacy is heating up. Amid all the potentially creepy internet-of-things devices at the recent Consumer Electronics Show in Las Vegas, Apple made privacy a marketing pitch with its ad: "What happens on your iPhone, stays on your iPhone." Ad blockers and subscription services, such as Netflix, are a reminder that advertising's stranglehold is not invincible. As Tim Wu says in his book "The Attention Merchants", popular revolt has often been triggered when advertising becomes too intrusive. There is eventually a political reaction, too. Witness the congressional grillings of Facebook when the Cambridge Analytica scandal surfaced. The political furore is one reason why its share price has slumped.

The end of history

But in a book that calls surveillance capitalism "a threat to human nature in the 21st century", perhaps the biggest shortcoming is taking the genius of Silicon Valley—evil or not—too seriously. One of Ms Zuboff's sharpest criticisms is of "inevitablism": the belief, from Karl Marx to the tech giants, that Utopia can be predicted with certainty—in tech's case, that "*everything* will be connected".

Others, too, find this unconvincing. In his book "Life After Google", George Gilder notes that, since Marx, intellectuals have often erred in thinking that their own eras were the final stage of human history, ie, that they had reached the peak of human achievement. The tech titans do too, he says, not least because this serves to endorse the significance of "their own companies, of their own special philosophies and chimeras—of themselves really". Ms Zuboff, while highlighting the phenomenon, falls into its trap. Shining a light on the way data can mess with people's heads is fine. But defining surveillance capitalism as a Big Brother autocracy that threatens human freedom? However dystopian, that has the whiff of inevitablism all over it. ■



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Chinese debt

So bad it's good

SHANGHAI

Where most see peril, a hardy few see profits

FOR MANY investors, debt in China is something to fear, a shadow over the world economy. But for a different breed, it looks more like a terrain of untapped profits. This dichotomy has been sharpened by a run of weak data in recent days. Worries about a sharp slowdown in China have rattled global markets. But for the opportunists, it is a time of plenty—a chance to snag assets from banks at a discount.

Both camps start from the same point. They see that debt in China has soared over the past decade and conclude that lending must be tamed. Yet there are clear economic downsides to doing so. Barely any progress has been made on reining in credit, but economic growth is already suffering. In the past few weeks business orders have declined, imports have fallen unexpectedly and weak price data have raised the spectre of deflation.

This, though, is where the small but hardy group of investors diverges from the mainstream gloom. To repair their balance-sheets, banks are under pressure to sell off failed loans, mostly channelling them through an array of state-owned "bad banks". Outside buyers can then buy these assets and, with some work, earn good returns on them. Though they have little chance of collecting repayment from the original borrowers, they take possession of the collateral—almost always property—at knock-down prices.

It is a niche market, but, as with any product, the crucial variables are supply and demand, both of which have shifted in buyers' favour. Chinese banks have long had plenty of lousy assets. They categorise more than 5% of their loans—nearly 5.6trn yuan ($830bn)—as either non-performing or "special mention", meaning they might soon run into trouble. But they are now restructuring them at a faster clip to make room for the next wave. Last year they wrote off 988bn yuan in non-performing loans, up more than a third from 2017, according to official data. "They are preparing for tougher times ahead," says Nicholas Zhu of Moody's, a credit-rating agency. On top of that, regulators are getting stricter. They, for instance, now require that banks classify loans that are overdue for more than 90 days as non-performing, as is normal in developed markets.



On the demand side, buyers were, as recently as 2017, rushing to scoop up bad loans. Inexperienced investors such as peer-to-peer firms, flush with cash, thought they could turn an easy profit. They had not grasped the complexity of dealing with bad loans. "They were pricing them as if they could collect 100% of the market value of the collateral, which never happens in real life," says Benjamin Fanger, founder of ShoreVest, a Guangzhou-based debt investor, and a rare veteran of China's bad-loan market.

Many of these local investors have now exited. A bear market in stocks has dampened enthusiasm. And regulators have once again played a critical role, placing more restrictions on funds that invest ordinary savers' cash. One measure of how fast the landscape has changed is the growing number of online bad-loan auctions ▸▸

that ended with no buyer. Though two-thirds of online auctions succeeded in 2017, just 41% did last year, according to Granite Peak Advisory, a consultancy based in New York (see chart on previous page).

At the same time a few big foreign firms have started dipping their toes in the water. Bain Capital, one of the world's largest investors in alternative assets, has bought three portfolios of bad loans in China over the past two years, worth $650m in principal. Kei Chua, a managing director at the firm, recalls balking at the market in the early 2000s. It was so chaotic that several people would claim ownership of the same building. Times have changed: China now has, among other things, a system for checking claims on property. "It's professional, it's predictable," he says. Given the amount of bad debt coming down the pipeline, at least the pipes themselves seem to be in reasonable shape. ■

Banking in America

As you were

Despite a rocky quarter in financial markets, the big beasts rumble on

America's banks ended 2018 as stockmarket pariahs. For a year or more after Donald Trump was elected president, their shares had been borne aloft by looser regulation, tax cuts and rising interest rates. But investors began to fret that those forces were fading, the long economic expansion would soon end and banks' profitability was therefore at its peak. In the last four months of last year some lenders' stocks dropped by 20%-plus, far more than the S&P 500's 13.6%. The result was "recession prices without a recession", according to Mike Mayo, an analyst at Wells Fargo.

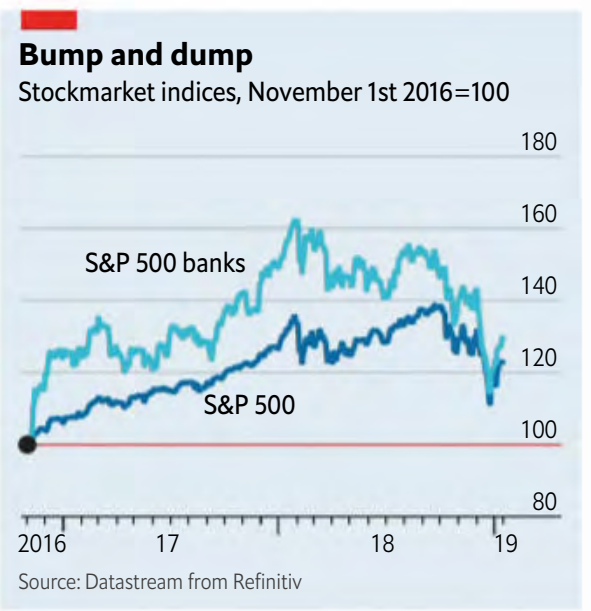
Now it seems things aren't quite so bad after all. Prices have perked up (see chart). The fourth-quarter earnings season, which started on January 14th, has brought reassurance, rather than renewed worry, at least for the very biggest. Of the leading banks that had published their numbers when *The Economist* went to press on January 17th, only Citigroup and Bank of New York Mellon recorded a return on equity below 10%. The industry probably enjoyed its best year since the crisis.

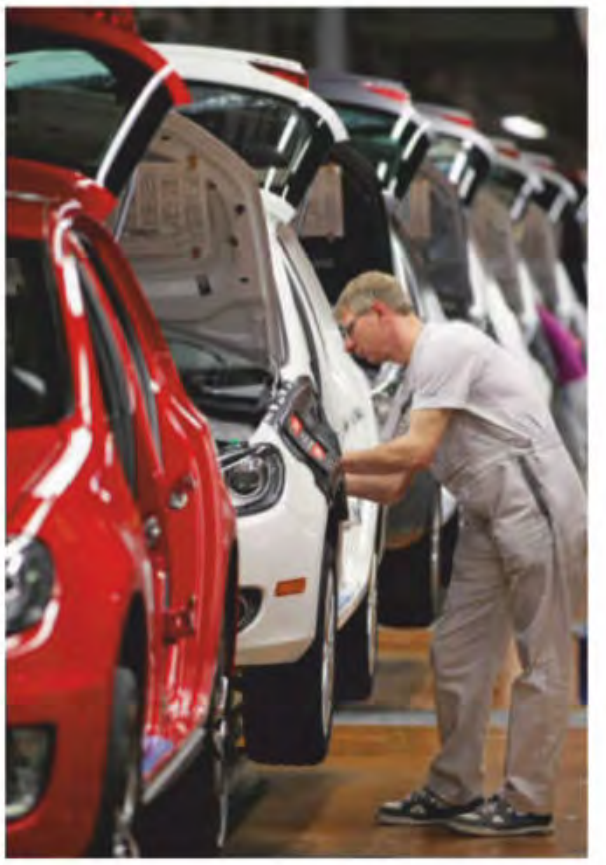
To be sure, not all the quarter's news was good. Mighty JPMorgan Chase, the country's biggest bank, for once fell short of analysts' profit forecasts. Investment bankers had mixed fortunes in tempestuous markets. Bond investors stayed away as credit spreads widened. Betsy Graseck of Morgan Stanley points out that high-yield spreads rose by the most since 2011, when Standard & Poor's, a rating agency, downgraded the American government. Fixed-income revenues slid—by 21%, year on year, at Citigroup. Underwriting stalled for most, as companies were wary of launching share and bond sales on choppy waters. Still, merger business stayed buoyant and the stockmarket's volatility helped equity trading: revenues rose by 17% at Goldman Sachs. (Morgan Stanley, Goldman's great rival, was due to report on January 17th.)

Away from Wall Street, there are few signs yet that profitability is faltering. Despite Mr Trump's blustering on trade, the shutdown of the federal government and the sheer longevity of the boom, employment and growth data remain healthy. Net interest margins have widened, although banks have had to pay more for deposits as customers have shifted cash out of accounts that don't pay interest into those that do. Commercial and industrial lending—which had hitherto grown steadily rather than spectacularly—even accelerated, to 10.3%, at an annual rate, in the fourth quarter. Guy Moszkowski of Autonomous Research adds, however, that companies may be tapping bank credit lines as capital markets tighten.

Some think 2019 could be even better than 2018. According to Mr Mayo, who expects another record year for earnings, improving efficiency is the "most unappreciated" factor. The biggest banks, he thinks, are starting to reap the benefits of scale and enormous investments in technology. In the fourth quarter Bank of America boasted a cost-to-income ratio at its retail bank of 45%, down from 60% in mid-2015.

That, plus the reinforcement of balance-sheets forced on banks since the crisis, should equip lenders for a downturn and increased credit losses when the weather finally turns. "We don't exactly know where we are in the cycle," Jamie Dimon, JPMorgan's boss, told analysts on January 15th. All he, or anyone else, knows is that there is one. And that banks are in much better nick than a decade ago. ■





The euro zone

Euroboom to eurogloom

So much for the recovery. The currency bloc is losing steam

Even as the European Central Bank (ECB) halts stimulus, it looks as if the economy needs revving up again. In December the bank said it would stop expanding its €2.6trn ($3trn) bond-buying scheme. But on the same day it trimmed its forecasts of economic growth and warned that "the balance of risks is moving to the downside". Its warnings have now materialised. Several measures of economic activity in the euro zone have disappointed in recent weeks. The much-touted "euroboom" that began in 2017 has run its course.

The slowdown was first thought to be temporary. At the start of 2018 sluggish growth in Germany, the bloc's largest economy, was blamed on one-off factors ranging from an outbreak of flu to labour disputes and the timing of national holidays. Weak third-quarter data was chalked up to bottlenecks in the car industry, which had to meet new emissions standards for diesel engines. In the fourth quarter the populist *gilets jaunes* protests in France dealt growth another temporary blow. The demonstrations are expected to have lowered output in the euro zone's second-largest economy by 0.1%.

But recent figures suggest the economic slowdown is broad-based. "There is more going on than the one-offs that have continually plagued the euro-zone economy," says Bert Colijn, an economist at ING, ▸▸

a bank. "It's not country- or sector-specific anymore. The weakness is widespread," says Felix Huefner of UBS, another bank. On January 4th IHS Markit, a data provider, said that in December its euro-zone purchasing managers' index (PMI)—a closely watched gauge of economic activity—fell to a four-year low. PMIs declined in the zone's four largest economies, Germany, France, Italy and Spain. Figures released on January 14th revealed that euro-zone industrial production fell by 3.3% year-on-year in November. That is its largest annual decline in six years.

Early signs suggest GDP too will disappoint. On January 15th Germany's statistics office released figures suggesting that the economy only narrowly avoided a recession last year: after contracting by 0.2% in the third quarter, it barely grew in the fourth. Italy seems likely to have gone into recession in the second half of 2018.

While many have pointed to weak external demand as the primary cause of recent growth woes, domestic demand has also fallen short. Andrew Kenningham of Capital Economics notes that consumption growth slowed significantly in 2018 even as unemployment fell, a worrying sign that "consumers have lost their nerve". Consumer confidence fell over the course of last year.

And there are lurking risks. Mr Colijn reckons the biggest threats to growth in 2019 include a slowdown in China, a disorderly no-deal Brexit, and an escalating trade war with America. Trade is slowing. The World Bank recently lowered its expectations of growth in global trade volumes for this year and the next by around half a per cent.

For now, a full-blown recession across

Buttonwood The Albert call

The view from a long-standing stockmarket bear



In uncertain times Albert Edwards is someone you can rely on. For more than two decades, latterly as global strategist at Société Générale, he has been a steadfast prophet of gloom. As he stood to address the 400 or so investors gathered at his annual conference (or "bear-fest") in London this week, he made a typically confident forecast. "We work at a French bank," he said. "So we'll be sure to get you away by five o'clock."

That was the only cheerful prediction of the day. His colleague Andrew Lapthorne and guest presenter Gerard Minack (formerly of Morgan Stanley and a kindred spirit) struck similar notes. The core message has not changed much, but neither has Mr Edwards' popularity. With unfailing regularity he is ranked number one in his category in surveys of global investors. He admits to getting it wrong a lot. But his talent for imagining the worst is valuable. If you have a vague anxiety, Albert will give it form. "When I'm right, it's very painful," he says.

Like a lot of non-conformist preachers, Mr Edwards started out in the lower clergy, or the finance profession's version of it—as a researcher at the Bank of England. He has scarcely had a good word since for the established church of central banking. In the early noughties, when a callow Buttonwood was a colleague, he charged Alan Greenspan, the Federal Reserve chairman, with near-criminal negligence for his easy-money policy. At a sales meeting, he likened Japan's policy of quantitative easing (QE) to necrophilia: if the economy is twitching, it does not mean it has come back to life. At this week's bear-fest he scoffed at the confidence central bankers have expressed in their ability to reverse QE.

When Mr Edwards first developed his "Ice Age" thesis in the 1990s, he stood out from the general cheerleading of stockbroker strategists. The template was Japan. Debt and disinflation would lead to rising bond prices (and falling yields). At the same time, there would be a "derating" of equities, so that prices would fall relative to earnings (and the earnings yield would rise). One part of this was right. The trend in bond yields has been down (see chart). But the derating of equities did not happen. This was because of "massive, massive QE", he explains.

Now that QE is being withdrawn, it is no surprise that markets are jumpy. Recessions of recent vintage began when a fairly modest tightening in monetary policy led to a blow-up in finance, he argues. High levels of corporate debt in America mean the next one will be deep. Mr Edwards is no more sanguine about other economies. The risks of a hard landing in China have not abated. And the euro is doomed to break up. Mr Edwards cites a survey that shows how younger Italians are far more hostile to the European Union than older ones. Italy's steep unit-wage costs militate against the jobs the young crave. Trapped in the euro, it cannot easily lower them.

Breaking the ice

United States, %



Source: Datastream from Refinitiv

When things get rough, what then? "Fat-cat QE" has led only to rising asset prices, reckons Mr Minack. Politicians will instead turn to "People's QE", a policy (favoured by Jeremy Corbyn, leader of the opposition Labour Party in Britain) of personal tax cuts paid for by printing money. Mr Edwards concurs—but of course he goes further. When recession bites, "Corbyn will be seen as a moderate!" The pressure on policymakers to do something will be hard to resist.

To protect themselves, investors should favour cash and gold. Mr Edwards thinks the yields on Treasuries will plummet to below zero in the next recession. So bonds will offer protection in the short term. But they will suffer a painful reckoning, if the authorities are eventually able to create inflation. Mr Lapthorne puts in a word for Japan as the best equity market to be in, comprising as it does cheapish, profitable firms that have run down their debts.

Mr Edwards is often dismissed as a perma-bear. It is true that he does not update his views very often. In this he resembles an old-school Marxist or a modern-day Eurosceptic. They all believe that in the end they will be proved right; the twists and turns in the meantime are of minor importance.

In at least one sense Mr Edwards is already vindicated. His pet themes of disinflation, the dangers of debt, the vices of central bankers and the perils of complacency are now also found in the PowerPoint packs of rival strategists. There were hints at the bear-fest of a post-Ice-Age era, in which bonds are to be avoided and inflation hedges are the thing to own. Until then, the message is the same as always. The world is ending. But at least you'll be home in time for tea.

the currency area this year seems unlikely. Economists expect the euro-zone economy to expand by 1.5% in 2019. But if such growth fails to materialise, the ECB will need to consider what tools to use to stimulate it. It could extend its forward guidance—for the moment it expects to keep interest rates at current levels "at least through the summer".

Another option would be to extend its targeted longer-term refinancing operations, which offer cheap funds to banks that lend to firms and households. As for the bond-buying programme, Mario Draghi, the ECB's president, acknowledged in December that at points it was "the only driver" of recovery in some parts of the euro zone. Disappointing data suggest the central bank might not hold the brakes down for long. ■

Money-market funds

Sub par

Europe pointlessly disrupts how funds cope with negative interest rates

JANUARY 21ST should have been a momentous day for the European Union's money markets. A package of reforms five years in the making, designed to make the bloc's safest funds even safer, was due to kick in. Blue-chip firms like BlackRock and Morgan Stanley, anxious to meet the deadline, planned to switch their funds to compliant structures a week early. Yet on January 11th regulators announced a surprise delay. Money-market managers, which together oversee €1.3trn ($1trn), now have until March to put their houses in order. The delay stems from a row between national regulators over whether managers should ditch the "share-cancellation mechanism" (SCM), a tool that helps them deal with negative interest rates.

Money-market funds invest in very short-term safe assets, like government bonds and top-notch corporate debt, to provide clients with a liquid alternative to cash. They play a key role for pension funds and large companies, which need to park their cash somewhere safe before paying pensions or wages at the end of the month. The aim is to maintain their capital at a stable value, often €1 per share. Any interest on portfolio assets is distributed to investors on the day via dividend payments, leaving the share price unchanged.

But the system does not work when interest rates are below zero, as they have been in the euro zone since 2014. Negative yields cannot be distributed. So in Ireland and Luxembourg, home to most European money-market funds, regulators allow funds to cancel shares to get around the problem. The assets of the cancelled shares are split among the remaining ones, ensuring that their value per share remains at par. The share price does not budge.

The European Commission dislikes SCMs. Although most experts disagree, it reckons "share destruction" can be used to mask a capital loss in the fund. After a long silence the European Securities and Markets Authority (ESMA), which co-ordinates regulation across the EU, eventually sided with the commission, confirming that SCMs would be stopped. It had initially hinted that national authorities could decide how to phase out SCMs, which led managers to expect a long transition period. But on Christmas Eve managers were told that no grace period would be allowed.

When managers fumed at the lack of notice, regulators delayed the reform. But the two-month reprieve does not help much. Managers are scrambling to restructure funds—without an obvious solution to the negative-yield headache. Most are likely to move to accumulative structures, where share prices fluctuate along with the yield. Some worry investors could move their money to bank deposits, depleting funds. That may lower demand for the safe short-term debt issued by banks and states.

The EU would have been better off placing the fate of SCMs in the hands of the bloc's legislative arm, which writes other rules on money-market funds, rather than leaving national regulators to squabble over it, says Barry O'Connor of Matheson, a law firm. The outcome is also a victory for France, which bans SCMs, and perhaps regards them as giving Ireland and Luxembourg a competitive edge. Brexit was the swing factor: the British regulator would probably have sided with the two smaller countries. But its vote did not count. ■



Andrea Orcel and Santander

Deal? No deal

A star's move to the Spanish giant flops

IN ONE LUDICROUSLY well-paid profession, January is a month for big-money moves. Stars grin for the cameras, are lauded by their new bosses and gush about their future teammates. Sometimes deals collapse at the last minute—occasionally, embarrassingly, in public. So much for football, where such pratfalls are merely part of the show. But not, surely, at Spanish banking's equivalent of Real Madrid?

On January 15th Santander, Spain's biggest bank (and the euro area's, by market capitalisation) declared that Andrea Orcel would not, after all, be its next chief executive. Until September Mr Orcel was head of the investment bank at Switzerland's UBS. He had been due to succeed José Antonio Álvarez in April, after "gardening leave".

Santander now says Mr Orcel is too expensive. Mr Álvarez, instead of becoming chairman of its domestic arm, will stay. Compensating Mr Orcel for deferred pay, in not-yet-vested shares and convertible bonds, from his seven years at UBS would cost more than the "considered estimate" it made when it appointed him. Reportedly €50m ($57m), the sum would be "unacceptable for a retail and commercial bank such as Santander"—not least politically, in a country that suffered severely in the financial crisis. "Even", said Ana Botín, Santander's executive chairman, for "one as talented as Andrea".

The bulk of Mr Orcel's pay was deferred, thanks to post-crisis regulation intended to tie bankers' fortunes to their banks' long-term health. Such rules force early leavers to forgo a lot of money. UBS took the view that it was up to Santander, having pinched Mr Orcel, to see him right—as the Swiss bank did when he quit Bank of America Merrill Lynch in 2011. Santander, though, had expected UBS to foot some of the bill. Among other things, it argued that it was not a direct rival. To no avail.

It is unclear how much Mr Orcel will now keep. He had made no secret of wanting to head a bank. He may not have made it at UBS, whose chief executive, Sergio Ermotti, is just three years his senior. Santander may have seemed an odd choice for an investment banker. But Mr Orcel knows it well. He used to advise Emilio Botín, Ms Botín's father, who ran the bank before her. He knows now that he won't run it too.



The Canada Pension Plan Investment Board

Moose in the market

TORONTO

A vast pension fund is gaining even more financial clout

TWICE A WEEK the Canada Pension Plan Investment Board (CPPIB), which manages pensions for 20m of Canada's citizens, holds meetings to approve or reject investments above C$500m ($375m). Agenda items are plentiful. Since 2017 the board has sanctioned investments in, among other things, toll roads in Mexico and Australia; rental housing in China; shale assets in Ohio; solar and wind assets in India and America; and big chunks of Endeavor, a Beverly Hills talent agency, and Ant Financial, a Chinese financial giant.

The Canada Pension Plan (CPP) is a state-run earnings-related pensions scheme, but its investment board is run as an independent entity. The fund's portfolio size has more than tripled over the past decade, and is going to become only more gigantic. At the end of last year its portfolio was C$454bn. Investment income, plus an expansion in the scope of the plan this month, which raises contributions in return for higher payouts, means assets may expand at a healthy rate for decades. The CPP receives contributions equivalent to 9.9% of most Canadians' pay (the province of Quebec has its own system), and that share is set to reach 11.9% by 2023. The fund is a particularly mammoth example of a type of state investor that is wielding increasing influence worldwide.

When the CPP was founded in 1965, it had a familiar defect: a mismatch between the benefits promised and the contributions required. By the mid-1990s money was running out. Russia, France and Argentina all faced protests when they tried to stabilise pension funds by squeezing payouts. America's national pension plan, Social Security, is expected to run out of money by 2034, and the public-sector pensions managed by many states, notably Illinois and New Jersey, face dire shortfalls.

The CPP, by contrast, was overhauled, with contributions raised and its assets separated from the public pot. The investment board was set up in 1997, with a mandate to focus on returns to the exclusion of public policy and a strict transparency requirement. An exemption from public-sector pay caps enables it to hire people from the private sector. Its chief executive, Mark Machin, left Goldman Sachs in 2012 to run the fund's operations in Asia, before he was promoted in 2016.

What was once a single office in Toronto is now a head office with branches in Hong Kong, London, Luxembourg, Mumbai, New York, São Paulo and Sydney. Five departments oversee 25 investment approaches. These include the usual public markets along with direct investments in property, natural resources and infrastructure as well as niche markets such as royalties tied to technology. Outside "partnerships"—with firms through which it invests—have risen from 62 to 254.

Wall Street denizens reckon that its involvement in private equity, which accounts for a fifth of its overall portfolio, places it in the same league as GIC, the entity that manages Singapore's foreign-exchange reserves. Both have the capability to assess even the most complex potential investments speedily and respond with large amounts of long-term capital. The CPPIB has 195 seats on the boards of 77 companies. It plans to allocate up to a third of its portfolio to emerging markets eventually. That would make it one of the most important sources of private capital to many of the world's fast-growing projects.

Its risk-management approach means evaluating securities according to factors including geography, debt and equity characteristics, climate risk and gender balance in employment. In pursuit of long-term returns, it is willing to ride out market volatility. In 2018 it expected to have a loss of at least 12.5% at least once a decade. Its actuaries put the annual return needed over the next 75 years to fulfil its obligations at 3.9% above inflation, which it has achieved so far. In order to assess its track record it uses a market benchmark comprised of 85% equity and 15% debt. On average its annual returns have beaten the benchmark over the past ten years, though only modestly.

Inevitably, new risks will emerge. Valuations based on unrealised private-equity positions could be flawed. By taking positions on so many boards the CPPIB is assuming managerial responsibilities for multiple companies; it increasingly resembles a sprawling conglomerate, with the associated organisational challenges. Added to this is the oddity that the entity with a powerful role in private firms itself has state links. Though it is formally separate from Canada's government, it may still be drawn into geopolitical disputes over, say, tariffs and sanctions. And its size, though beneficial in many respects, makes it harder to trade and manage.

Other similar entities have emerged as big players in recent years. A handful, such as the Ontario Teachers' Pension Plan, the Ontario Municipal Employees Retirement System and Quebec's Caisse de Dépôt et Placement, are also Canadian. Whereas Quebec's scheme, for instance, dabbles in local economic development, the CPPIB stands out for its professed independence. Its performance matters beyond Canada not just because of its holdings of global assets, but because many other countries, with their ageing populations and poorly funded pension schemes, might hope to draw lessons from it. ■

Free exchange | Debtor alive

Economists reconsider how much governments can borrow

In the last three months of 2018 America's federal government borrowed $317bn, or about 6% of quarterly GDP. The deficit was 1.5 percentage points higher than in the same quarter the year earlier, despite the fact that the unemployment rate fell below 4% in the intervening period. In cash terms America borrowed in a single quarter as much as it did in all of 2006, towards the peak of the previous economic cycle.

Such figures might once have sent the country's deficit scolds into conniptions. But scolds are in short supply, at least within the halls of Congress. Republicans were the architects of President Donald Trump's budget-busting tax plan. Some Democrats are less content than ever to tie their hands with the fiscal rules that Republicans routinely flout. Early this year progressive Democrats urged Nancy Pelosi, the speaker of the House of Representatives, to abandon "PAYGO" rules, which require that new spending be paid for with matching tax increases or offsetting spending cuts.

Even more surprising is the reaction among economists. Heterodox schools of thought have long questioned the view that government spending must be paid for by taxes. "Modern monetary theory", which synthesises such views, is proving increasingly popular among left-wing politicians. The charismatic new congresswoman from New York, Alexandria Ocasio-Cortez, is a fan.

Orthodox economists have traditionally been more cautious. "Government spending must be paid for now or later," wrote Robert Barro, of Harvard University, in a seminal paper published in 1989. "A cut in today's taxes must be matched by a corresponding increase in the present value of future taxes."

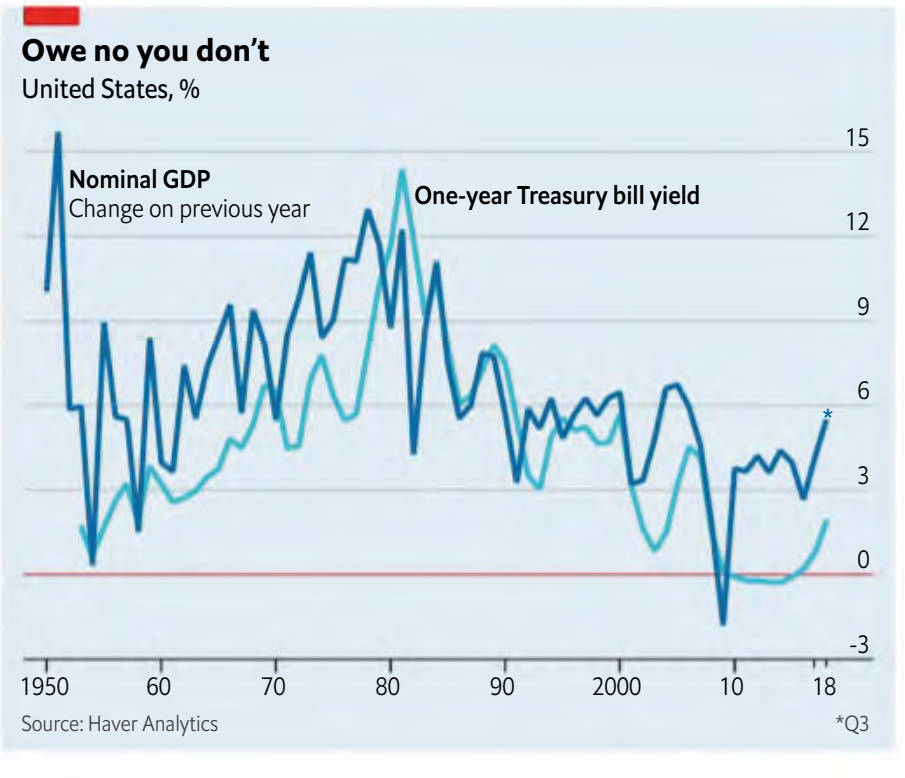
Interest-rate wobbles once sent shock waves across Washington. In 1993 James Carville, a Democratic political adviser, mused that if reincarnation existed he wanted to come back as the bond market. "You can intimidate everybody," he quipped. More recently Carmen Reinhart of Harvard University, Vincent Reinhart of Standish Mellon Asset Management and Kenneth Rogoff, a former chief economist of the IMF now at Harvard, have published research that argues that periods in which government debt rises above 90% of GDP are associated with sustained slowdowns in economic growth.

But government borrowing looks less scary than it used to, and some mainstream economists are reconsidering the profession's aversion to debt. They once feared "crowding out"—that government bonds would lure capital that would otherwise finance more productive private-sector projects. But real interest rates around the world have been falling for most of the past 40 years, suggesting that there are too few potential investments competing for available savings, rather than too many. Indeed, government borrowing could "crowd in" new private investment. Public spending on infrastructure might raise the returns to private investment, generating more of it.

That still leaves bills to be paid. Yet here, too, things are less clear cut than one might suppose. The experience of Japan, where gross debt as a share of GDP exceeds 230%, suggests that even very high levels of debt may not scare away creditors, at least in advanced economies that borrow in their own currencies. And in a recent lecture Olivier Blanchard, another former chief economist of the IMF, pointed out that when the pace of economic growth exceeds the rate of interest on a country's debt, managing indebtedness becomes substantially easier. In such cases debt incurred in the past shrinks steadily as a share of GDP without any new taxes needing to be levied. Debt might nonetheless rise if annual deficits are sufficiently large, as they are in America now. Even so, at prevailing interest and growth rates and with deficits continuing to run at 5% of GDP, it would take more than a century for America's ratio of gross debt to GDP to reach the current Japanese level.

Of course, interest rates could rise. But most commonly growth rates tend to exceed the rate of interest. Since 1870, Mr Blanchard noted in his lecture, the average nominal interest rate on one-year US government debt has been 4.6%, while the average annual growth rate of nominal GDP has been 5.3%. Growth rates have surpassed interest rates in every decade since 1950, except the 1980s. Nicholas Crafts of the University of Warwick wrote that the difference between growth and interest rates did more to reduce British debt loads in the 20th century than budget surpluses. Indeed, austerity-induced deflation in the 1920s frustrated attempts to pay down war debts.

In a pinch, governments have tools to manage unwieldy debt burdens. Ms Reinhart and Belen Sbrancia, of the IMF, noted that financial repression was a critical debt-reduction tool in the decades after the second world war. During this period inflation pushed real interest rates (ie, adjusted for inflation) into negative territory. This effectively imposed a tax on savers that, owing to restrictions on the movement of capital, could not easily be avoided. Repression is not costless; it limits the extent to which capital flows towards its most productive uses. But it is unlikely to be devastating for a mature modern economy.



Bonds away

Governments cannot borrow without limit. Whether or not creditors mind, a government can throw only so much cash at its citizens before their spending exhausts the economy's productive capacity and pushes up prices at an accelerating pace.

Yet for much of the past decade politicians have stimulated economies too little. Rich countries have spent far more time below their productive capacity than above it—at grave economic cost. An overdeveloped fear of public debt, nurtured by economists, is partly to blame. But experience suggests that governments face looser budget constraints than once thought, and enjoy more freedom to support struggling economies than previously believed. Economists, happily, are taking note. ■



Synthetic biology

New tricks

LA JOLLA, CALIFORNIA

Adding extra letters to the genetic code opens the possibility of making utterly novel proteins. One such, a cancer drug, is now in development

THE FUZZY specks growing on discs of jelly in Floyd Romesberg's lab at Scripps Research in La Jolla look much like any other culture of *E. coli*. But appearances deceive—for the DNA of these bacteria is written in an alphabet that has six chemical letters instead of the usual four.

Every other organism on Earth relies on a quartet of genetic bases: A (adenine), C (cytosine), T (thymine) and G (guanine). These fit together in pairs inside a double-stranded DNA molecule, A matching T and C, G. But in 2014 Dr Romesberg announced that he had synthesised a new, unnatural, base pair, dubbed X and Y, and slipped them into the genome of *E. coli* as well.

Kept supplied with sufficient quantities of X and Y, the new cells faithfully replicated the enhanced DNA—and, crucially, their descendants continued to do so, too. Since then, Dr Romesberg and his colleagues have been encouraging their new, "semi-synthetic" cells to use the expanded alphabet to make proteins that could not previously have existed, and which might have properties that are both novel and useful. Now they think they have found one. In collaboration with a spin-off firm called Synthorx, they hope to create a less toxic and more effective version of a cancer drug called interleukin-2.

Life. But not as we know it

In a normal cell, protein-making is a factory-like operation. DNA is first transcribed into RNA—also a string of bases, but a single, rather than a double strand. The RNA's bases are then read, in groups of three known as codons, by a molecular machine called a ribosome. Sixty-one of the 64 possible codons correspond to one of 20 versions of a type of molecule called an amino acid. The other three act as "stop" signals. When a ribosome reads a codon, it links it with another molecule that carries the appropriate amino acid. The resulting string of amino acids is a protein.

This arrangement has long been exploited to make natural proteins for use as drugs. The potential of semisynthetic cells is to do something similar, but with an unnatural protein as the result. That would permit a wider range of properties.

Others have tried to achieve this by repurposing superfluous "stop" codons to encode novel amino acids, and one firm, Ambrx, has succeeded in doing so industrially. But this approach can add a maximum of only two amino acids to the existing set. Dr Romesberg's process has already beaten that, with two published successes and another eight awaiting publication. His system could, in principle, provide 152 extra codons on top of the existing 64.

Dr Romesberg and Laura Shawver, Synthorx's boss, picked interleukin-2 in particular to work on because of the mismatch between its potential and its reality. Though it is useless at low doses—actually suppressing the immune response to tumours rather than enhancing it—at high doses it is extremely effective at promoting such an anti-tumour response. Unfortunately, a side-effect is that it damages the walls of blood vessels, causing plasma to leak out. When this happens in the lungs, the patient may drown. As Dr Shawver puts it, some people have been cured of their cancers thanks to interleukin-2, "but they have to live to tell the tale".

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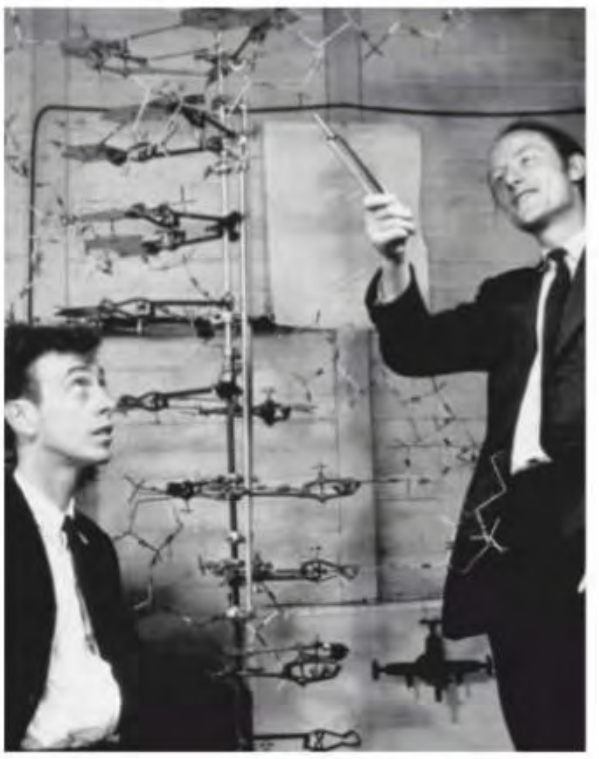
82 Developing vaccines faster

Interleukin-2 works by binding to, and stimulating the activity of, immune-system cells called lymphocytes. The receptor it attaches itself to on a lymphocyte's surface is made of three units: alpha, beta and gamma. Immune cells with all three form a strong bond to interleukin-2, and it is this which triggers the toxic effect. If interleukin-2 can be induced to bind only to the beta and gamma units, however, the toxicity goes away. And that, experiments have shown, can be done by attaching polyethylene glycol (PEG) molecules to it.

The trick is to make the PEGs stick. This is where the extended genetic alphabet comes in. Using it, Synthorx has created versions of interleukin-2 to which PEGs attach themselves spontaneously in just the right place to stop them linking to the alpha unit. Tested on mice, the modified molecule has exactly the desired anti-tumour effects. Synthorx plans to ask permission for human trials later this year.

Dr Shawver sees THOR-707, as the new interleukin is known, as just the beginning. Synthorx already has synthetic versions of several others in the pipeline. And the wider possibilities are endless. The beauty of Dr Romesberg's system is that it works without disrupting a cell's normal function, making it possible to hijack cells' factory-like properties to produce almost any "designer" protein. These might have properties not normally seen in organic molecules—semi-conductor proteins that can be woven into soft materials, perhaps.

Nor need those who worry about genetically modified organisms escaping from the lab fret about this particular system. Without a steady supply of X and Y, any escapee would not get far in the wild. ■



With Francis Crick, in happier days

James Watson

Genetic disorder

A pioneering biologist is reprimanded for unscientific, offensive views

JAMES WATSON, Nobel laureate and co-discoverer with Francis Crick of the structure of DNA, has never deemed it necessary to hold in what he thinks, no matter how controversial. It would be acceptable to abort a fetus, he has said, if it carried genes that might mean the resulting adult was gay. He has suggested there is a link between sunlight and libido, once telling a lecture hall that this explains why there are "Latin lovers" but only "English patients". Women in laboratories made it more fun for the men, he said, but they are probably less effective than the men.

These dubious statements have not prevented Dr Watson, who delights in being a free thinker and *agent provocateur*, from holding the position among the world's scientific elite that he and Crick acquired when they published their historic discovery in 1953, when he was just 25. Now, at the age of 90, he may, at last, have lost it.

In a documentary aired recently on the Public Broadcasting Service (PBS) in the United States, "American Masters: Decoding Watson", Dr Watson re-stated his view that black people are less intelligent than white, because of their genetics. Scientists everywhere condemned his comments. Cold Spring Harbor Laboratory on Long Island, New York, to which he has been affiliated for more than 60 years, immediately stripped him of his remaining links, including his honorary title of Chancellor Emeritus. Dr Watson's comments, they said, were "reprehensible, unsupported by science...the laboratory condemns the misuse of science to justify prejudice."

The defenestration has been a long time coming. Dr Watson had already been forced to leave active duty at Cold Spring Harbor after he told a British newspaper in 2007 that he was "inherently gloomy about the prospect of Africa [because] all our social policies are based on the fact that their intelligence is the same as ours, whereas all the testing says, not really." Although he wished everyone were equal, he said, "people who have to deal with black employees find this not true." Though Dr Watson apologised for his comments at the time, his reputation suffered a big shock.

In the recent PBS film Dr Watson was asked if his views on links between race and intelligence had changed since 2007. "No, not at all," he said, in an apparent reversal of his earlier apology. "I would like for them to have changed, that there be new knowledge that says that your nurture is much more important than nature. But I haven't seen any knowledge. And there's a difference on the average between blacks and whites on IQ tests. I would say the difference is, it's genetic." He adds that he takes no pleasure in "the difference between blacks and whites" and wishes it didn't exist.

Dr Watson's views about race and intelligence seem to stem from his keen interest in "The Bell Curve", a book published in 1994 by Charles Murray and Richard Herrnstein, that, among other things, argued African-Americans were less intelligent than white Americans and genetic differences between ethnicities played a role in the difference. Modern genetic research has largely discredited these ideas.

Biologists know that there is a substantial genetic component to intelligence. Depending on the precise measure of intelligence being studied and the statistical model being used, it can range anywhere from 20-60%. And observational research from the 1980s, cited by the authors of "The Bell Curve", showed that, if you ask people to self-identify on the basis of ethnicity and then measure their mental performance in some way, for example IQ or the number of years in education, you will find differences in the mean attainment levels between different groups.

Genetics, however, cannot be the main reason for any observed differences, says Ewan Birney, director of the European Bioinformatics Institute, in Cambridge, because self-identification of ethnicity does not easily map onto genetic ancestry. "African-Americans have a substantial amount of European genetic ancestry—you should in fact call them 'African-European-Americans'," observes Dr Birney.

Dr Watson has easy access to these scientific insights, which are emerging thick and fast in a field of research that he helped invent. But if he knows about these latest ideas, he has not acted on them.

"Jim Watson," says Dr Birney, "is one of these scientists who has used his gut to think a lot, often with remarkable success, but this is a case where his gut is plain, flat wrong. He has had many people tell him that he is wrong and he has decided not to listen to that. And he has decided not to engage with people who know more than him in this area."

It's elementary

Dr Watson himself was unable to respond to his critics this week. According to family members who spoke with the *New York Times*, he has been in hospital following a car accident in October last year.

Like any other group of people, scientists can be complicated, controversial and do not have to be loved by all. Even so, Dr Watson's lifelong desire to provoke might write a bitter epitaph to an otherwise-great scientific career. ■

Curbing indoor pollution

Clean air act

A genetically modified house-plant can purify the atmosphere in buildings

THE AIR in modern homes and offices is pretty clean, but not as clean as it might be. Often, it contains small amounts of volatile, toxic, organic compounds such as benzene, formaldehyde, butadiene, carbon tetrachloride, naphthalene and chloroform. Chronic exposure to these is a bad thing, so clearing them out of the air people breathe is widely accepted as worthwhile. Finding an effective way to do so has proved difficult. But Stuart Strand, Long Zhang and Ryan Routsong, of the University of Washington, in Seattle, think they have succeeded. As they report in *Environmental Science and Technology*, their method involves splicing a gene from a rabbit into a popular indoor plant nicknamed Devil's vine—a type of ivy that is so called because it is famously difficult to kill.

The idea of employing plants, both unmodified and transgenic, to de-pollute the atmosphere inside buildings has been around for decades—but has met with only qualified success. One experiment involving unmodified spider plants, for example, showed that they are indeed capable of scrubbing formaldehyde from the air. The drawback is that to make much of a difference in a space as large as a house would require turning most of the rooms into spider-plant forests. Tobacco plants fitted with a bacterial gene for a formaldehyde-destroying enzyme were three times more effective at formaldehyde scrubbing than those without it. The trouble in their case was that tobacco plants flower indoors, and their pollen can thus spread genetically engineered material (about which some people are paranoid) to unexpected places. Dr Strand, Dr Zhang and Mr Routsong thus sought something suitably transgenic, but that does not flower indoors.

The plant they settled on was Devil's vine, precisely because of its robustness. The gene they picked was for cytochrome P450 2E1, a mammalian enzyme that oxidises a wide range of volatile organic compounds, including benzene, chloroform, trichloroethylene and carbon tetrachloride. With the help of a bacterium, they were able to ferry the rabbit version of the gene into the plant's chromosomes, and thus to engineer a type of Devil's vine capable of producing cytochrome P450 2E1.

To test the effectiveness of their idea, the researchers put their modified ivy to work inside chambers filled with air containing high levels of either benzene or chloroform. The plants performed well, reducing benzene levels from 2,000 milligrams per cubic metre to 250 over the course of eight days, and chloroform levels from 800 to near zero over the course of 11. Unmodified versions of Devil's vine, tested for comparison, reduced benzene only from 2,000 to 1,400 milligrams per cubic metres over the same eight-day period, and had no statistically significant effect on chloroform levels at all. Genetically modified Devil's vine may thus prove the answer to the question of how to clean up household air—though perhaps it might be marketed under a slightly different name. ■



A Faustian air filter?

Global health

The X factor

Vaccine researchers are preparing for the unexpected

LAST YEAR the World Health Organisation published a plan to accelerate research into pathogens that could cause public-health emergencies. One priority was the bafflingly named "Disease X". The X stands for unexpected, and represents concern that the next big epidemic might be caused by something currently unknown.

Preparing for such an eventuality is challenging, but not impossible. That, at least, is the view of the Coalition for Epidemic Preparedness Innovations (CEPI), a charity in Oslo, Norway. Over the past few years CEPI has spent more than $250m trying to accelerate progress in vaccines for Lassa fever, MERS and Nipah virus. Work on Rift Valley fever and Chikungunya should start soon.

Dealing with Disease X, however, requires a novel approach, so CEPI is sponsoring attempts to find quicker ways of making vaccines in general. At the moment, says Melanie Saville, the organisation's director of vaccine development, it takes two or three years from the isolation of a previously unknown virus to the clinical availability of a vaccine against it. The coalition is therefore dividing almost $20m between two groups who are working on ways to speed up the process.

The first hails from Imperial College, London. Its members are trying to develop a reliable way of making "self-amplifying" RNA vaccines. Conventional vaccination involves injecting into a recipient's body either pieces of protein from a virus's outer surface or whole viruses that have been weakened in some way. That lets the immune system learn what the virus looks like. However, a similar effect can be achieved by injecting, in the form of RNA, a molecule similar to DNA, genes that encode the relevant protein. The body's own cellular machinery can then create the target protein from these instructions. The vaccine is termed self-amplifying because, along with code for the protein, further code is injected that will amplify the amount of RNA.

The second new approach CEPI is sponsoring is called a "molecular clamp". This is being developed at the University of Queensland, in Australia. It is a way of synthesising viral-surface proteins with particularly high fidelity. Typically, these proteins are unstable and tend to change shape easily. If the immune system learns the wrong shape, it will not generate the necessary immunity. The Queensland process clamps viral proteins as they are synthesised, using a special molecular scaffold. That means they do not go wonky.

Success by either group promises to reduce the interval between identifying a virus and running the first clinical trial to a mere 16 weeks. Moreover, because both approaches synthesise the vaccines chemically rather than involving live viruses in the process, a vaccine that did emerge from one of them could then be manufactured rapidly. All this may then eliminate the fear, surprise and ruthless efficiency of unexpected viruses. ■

The Richard Casement internship

We invite applications for the 2019 Richard Casement internship. We are looking for a would-be journalist to spend three months of the summer working at the newspaper in London, writing about science and technology. Applicants should write a letter introducing themselves and an article of about 600 words that they think suitable for publication in the Science and Technology section. They should be prepared to come for an interview in London or New York. A stipend of £2,000 a month will be paid to the successful candidate. Applications must reach us by February 8th. These should be sent to: casement2019@economist.com

Demographic change

People power

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It is not quite destiny, but demography is too powerful for politicians to control

ONE CLUE to the character of a government comes from listening to what political leaders say about the national birth rate. Authoritarians such as Recep Tayyip Erdogan and Vladimir Putin tend to complain about it, and urge women to have more (or, occasionally, fewer) babies. Outright dictators like Josef Stalin and Nicolae Ceausescu believed they could actually alter it. Grumbling resignation, or silence, is a mark of liberal democracy.

In truth, governments can do little to change people's minds about how many children to have. Even China's one-child policy, introduced in 1979, probably only accelerated a drop in the birth rate that would have happened anyway. Two new books portray demographic change as an inexorable force that, rather than bending to leaders' whims, steamrolls politicians and can change the course of history. They also suggest that what one of them calls "the great fairground ride of world population change" is running out of steam.

The Human Tide: How Population Shaped the Modern World. By Paul Morland. *PublicAffairs; 352 pages; $28. John Murray; £25*

Empty Planet: The Shock of Global Population Decline. By Darrell Bricker and John Ibbitson. *Crown; 304 pages; $26. Robinson; £20*



Many people have heard of Thomas Malthus, the 18th-century English cleric who predicted that human populations would grow faster than food production, leading to calamity. The American demographer Warren Thompson is less famous. But Thompson's theory of demographic transition, which he outlined in 1929, has held up much better than Malthus's prognostications. To begin with, Thompson observed, a country has a high birth rate and a high death rate. As farming and health care improve, mortality falls. The birth rate stays high for a while, then it begins to drop, too. Countries that have gone through this demographic transition have lower birth rates and lower death rates than they began with—and many more people.

During the journey, countries acquire and then shed particular strengths and frailties, owing to the changing size and shape of the population. A country in the second stage, with a high birth rate and a low death rate, is young and fast-growing. When the birth rate falls, too, the country enters a wonderful spell. With fewer children relative to the adult population, but still not many retirees to look after, it becomes a nation of able-bodied workers. Then it grows old.

Paul Morland's "The Human Tide" is mostly about how this process has played out in Europe and Asia. Britain went first, to its great advantage. In the late 16th century England had 4m inhabitants—half as many as Spain, which helps explain why the prospect of a Spanish invasion was so terrifying. England's population doubled by the early 19th century, then went bonkers. By 1901 England not only had 30m inhabitants; it had also disgorged many people across North America, Australasia and Africa. The country dominated partly through sheer weight of numbers.

The populations of Germany, Japan and Russia exploded a few decades later, causing others to worry (with some justification) that they too would try to grab more territory. Their swelling, young populations gave them clout at a time when war was largely a matter of flinging bodies at the enemy. The late 19th and early 20th centuries were an era of pro-natalism, and of fear that other countries were reproducing faster than one's own. As a British newspaper put it in 1903: "The full nursery spells national and race dominance."

That was never quite right, and seems even less true in the modern world of cruise missiles, international trade and soft power. But Mr Morland argues that demography continues to shape events. The Middle East, he writes, is unstable partly because it has so many young people. Japan no longer seems destined to be "number one", as a book published in 1979 had it, because it has so few. Demography can heighten paranoia and resentment within countries, when one national or ethnic group appears to reproduce faster than another. The former Yugoslavia, where Serbs moved to a low birth rate before Bosnian Muslims or Kosovan Albanians, is "an exemplary case of the destabilising impact of uneven demographic transition".

In the final stage of that transition, the birth rate falls below the death rate. That leads to population decline unless countries accept lots of immigrants. In "Empty Planet", Darrell Bricker and John Ibbitson maintain that this is the fate of the entire world. As countries grow richer and more urban, and as more girls go to school, children cease to be economic assets. People begin to have babies not because they need them, or because village elders bully them into parenthood, but because they enjoy bringing them up. That desire can be satisfied with just one or two.

Mr Bricker and Mr Ibbitson regard a sub-replacement fertility rate (in which every woman has fewer than 2.1 children on average) as Europe's "natural state". They call the post-war baby boom a blip. Their book argues that even baby-rich sub-Saharan Africa will gravitate towards the one- or two-child norm faster than the sedate expectations of UN demographers. This may be right. The demographic transition seems to be accelerating: Asia and Latin America went through it more quickly than Europe. To mangle a phrase of Francis Fukuyama's, the world could be heading for the end of demography and (eventually) the last man.

If so, it will reduce pressure on Earth's resources. But perhaps the cheers should be muted. Shrinking populations are hard to manage: towns must be replanned and pensions trimmed. And many people in the rich world do not actually desire one or two children. Fully 41% of Americans think the ideal number is three or more. Most families fall short because relationships prove too fragile, houses too expensive, bosses too inflexible and conception too difficult. Behind that supposedly "natural" rate lies much disappointment.

As more and more countries go through the demographic transition, something else is becoming clear. The challenges and pitfalls of population change can be handled more or less adeptly. A bulge of young adults may have been a curse in the Arab world, but it was a blessing in China. Countries can adapt to an ageing population—by welcoming more immigrants and making it easier for mothers to do paid work—or they can stick their collective heads in the sand. Demography is a mighty force. It is not quite destiny. ■



The big chill-out

The world of work

Nothing to lose but their laptops

The tech industry has ruined office life, according to one veteran

Lab Rats: Why Modern Work Makes People Miserable. By Dan Lyons. *Hachette Books; 272 pages; $28. Atlantic Books; £16.99*

NEWTON'S THIRD law is that every action has an equal and opposite reaction. The titans of technology have amassed great wealth but, like investment bankers before them, they have discovered that this does not bring them popularity. The past few years have witnessed a "techlash" on a wide range of issues, including the way technology invades citizens' privacy.

Dan Lyons, a journalist who spent time working in the industry, has written an entertaining, if scattergun, attack on one aspect of technology's influence—the effect it has had on everybody's working lives. He argues that the industry has reduced real wages, made workers feel dehumanised and less secure, and exposed them to constant, stress-inducing change. Tellingly, the proportion of Americans who are happy with their jobs dropped from 61% in 1987 to 51% in 2016.

A particular target for his ire is the start-up technology company. With their sweet-dispensers and ping-pong tables, they may give the appearance of friendliness. But in the author's experience, such firms are associated with very high staff turnover, especially in sales and marketing. They tend to be marked by a brutal management style; Mr Lyons was told not only that he was failing, but that his fellow workers didn't like him. "Most startups," he writes, "are terribly managed, half-assed outfits run by buffoons and bozos and frat boys." Worse still, they offer little job security because of the way they operate. "All they have is a not-very-innovative business model; they sell dollar bills for 75 cents and take credit for how fast they're growing."

Some tech pioneers promote a new compact with workers which holds that companies owe them neither loyalty nor job security. Workers should expect to move on as frequently as singletons at a speed-dating evening. Patty McCord, director of human resources at Netflix, was astonished when a woman burst into tears when she was fired. She wrote a book saying that employees should no longer expect their company to help them with career development or acquiring new skills. The chapter about sacking workers had the title "People Very Rarely Sue".

Tech companies cover up their hard edges with a wide range of dubious management techniques. At the start of the book, Mr Lyons attends a Lego Serious Play session where he is asked to build a duck out of bricks. Lego-building is embraced by those who believe in "agile" work, one of the most popular management fads, whereby staff are organised into ad hoc teams to complete a specific task. All this approach produces, the author argues, is another set of meetings for employees to attend. Another fad is for open-plan offices where workers lose all privacy. The main advantage accrues to the management, since the design saves money by cramming workers into a smaller space. (When Apple engineers found out that they were going to be housed in an open-plan set up, they rebelled and were given a separate site.)

In the last section of the book, Mr Lyons cites examples from the alternative school of management that is built around treating people well, and thanking them for their efforts. Nurturing a reputation as a good place to work helps recruit better employees. Instead of obsessing about unicorns (startup companies worth more than $1bn), the author thinks the world should look for "zebras", which can turn a profit and improve society at the same time. Many modern workers will agree. ■

Nigerian fiction

Fair is fowl

An Orchestra of Minorities. By Chigozie Obioma. *Little Brown; 464 pages; $28 and £14.99*

THE CHANCES that Chigozie Obioma's second novel would match, let alone surpass, "The Fishermen", were slim. Mr Obioma's debut, a tale of four brothers who play truant and go fishing—and the trouble that ensues—was a hit in 2015. A stage adaptation that transferred from the Edinburgh Fringe to London last year was a sell-out. Happily, his follow-up, "An Orchestra of Minorities", is a triumph: a wholly unsentimental epic that unspools smoothly over nearly a decade, it is set with equal success across two continents, employing myth and spirituality to create a vibrant new world.

Chinonso is a poor chicken farmer in Umuahia, in south-eastern Nigeria. His parents are dead and he has been all but abandoned by his only sibling. One evening, having been to market to buy more birds, Chinonso sees a car stopped on one of the city's bridges. The doors are open and the headlights on. Just beyond the vehicle, a young woman is climbing over the rails, set on leaping into the water. Chinonso stops his van and runs towards her: "No, no, don't. Please don't! Don't do that." He grabs two of his newly acquired fowls and flings them over the railing instead. "This is what will happen if somebody fall inside there. The person will die, and no one can see them again."

A few weeks later Ndali, the woman he saves, seeks him out. She sees that he cares deeply for his poultry and is happy with his simple life, which makes him an unusual Nigerian man. As their relationship deepens into love, she remains circumspect about her own background: she was born overseas, has travelled widely, studies pharmacy and lives in a walled compound in a family that has eight cars. When Chinonso becomes determined that they should marry, Ndali must introduce him to her parents and brother.

There follows one of the great set-pieces of Nigerian fiction: the ritual humiliation of the humble, uneducated suitor. To try to win over Ndali's family, Chinonso allows himself to be persuaded by a former school-friend that if he were only to get a degree abroad, all his problems would be solved. The friend tells him that he can enroll him in just such a course, in northern Cyprus. All Chinonso has to do is to sell his chicken farm and pay him €6,500 ($7,400) to cover school fees, accommodation and what the friend calls "maintainanse".

Mr Obioma's narrator is an Igbo *chi*, a 700-year-old spirit who lives within and loves Chinonso, his "host", but who cannot always direct him to do what is best. The story is told in hindsight, after Chinonso's pursuit of Ndali has played out to its tragic end. The *chi*, and all the other spirits the reader encounters along the way—the evil *agwus*, the sobbing *akaliogolis*, "rejected by earth and heaven", the *ndiichies* and the *ajoonmuo*, with its "three heads and torso of a vile beast"—imbue the novel with the richness of Igbo belief, transforming a tale of love and foolishness into a profound study of human frailty and the power of evil over the imagination. In an era of copycats, "An Orchestra of Minorities" is an unusual and brilliantly original book. ■



A venerable enfant terrible

The big cheese

Sérotonine. By Michel Houellebecq. *Flammarion; 352 pages; €22*

EVERY FEW years, Michel Houellebecq takes his scalpel to France. It usually hurts, often shocks, and always causes a commotion. His previous novel, "Submission", set against the backdrop of the election of a Muslim president and the country's slide towards Islamism, tapped into deep French fears. It also happened to be published in 2015, on the day of the *Charlie Hebdo* terrorist attacks in Paris. Now Mr Houellebecq's latest work, "Sérotonine", is being hailed in France as visionary, because it seems to anticipate the current street protests against President Emmanuel Macron led by activists wearing *gilets jaunes* (yellow jackets).

In France there is nothing quite like the arrival of a new Houellebecq novel. Still, at 62, the literary scene's *enfant terrible*, he declines to give interviews to French papers or to appear on talk shows. Each novel is nonetheless a media event. His raddled face graces magazine covers; *Le Monde* writes of the "Houellebecq effect". Since its publication on January 4th, 800,000 copies of the new book have been sold in the French-speaking world.

The fascination with Mr Houellebecq is partly to do with the dishevelled chain-smoking figure himself, who embodies a decadent *ennui* that the French admire, yet who repels them at the same time. With a taste for provocation and loathing of political correctness, he once called Islam "the stupidest religion". He describes Donald Trump as "one of the best American presidents I've ever seen". Behind the nihilism lurks a sharp self-promotion machine. Mr Houellebecq, says Mr Houellebecq, is simply "the best" writer, anywhere, alive today.

But his uncanny ability to divine shifts in French society is also part of his appeal. In "Sérotonine", Mr Houellebecq's seventh novel, Florent-Claude Labrouste, an agronomist employed to write trade reports, finds his first name "ridiculous" and his life a source of disappointment and regret. Ultimately diagnosed as "dying of sorrow", and pumped up with Captorix, a new-generation anti-depressant that encourages the production of serotonin but also suppresses libido, he decides to "disappear".

Labrouste returns to Normandy, where he once worked promoting Camembert and other regional cheeses. There he stumbles across the distress of local farmers, among them an old college contemporary, ▸▸

Aymeric. The novel's central, and fatal, drama takes place on a junction of the A13 motorway, where French riot police confront a blockade of armed farmers and blazing agricultural vehicles, all filmed by a 24-hour news channel. The parallel with the *gilets jaunes* is inexact, not least because Mr Houellebecq's modest group of rural protesters are farmers, not employees, and their grievance is with the European Union's policy on milk quotas, not Mr Macron. The sense of provincial neglect, disarray and violence nonetheless feels eerily familiar, as does the uneasy reaction of politicians who agree on the need "to understand the distress and the anger".

Those hoping to pursue the parallel further, however, should know that the first two-thirds of the novel are devoted to Mr Houellebecq's other fixations: sex, male angst, solitude, consumerism, globalisation, urban planning, and more sex. Although there are touching moments, the women who pass through Labrouste's life, like those who feature in Mr Houellebecq's previous work, are bleakly two-dimensional, more often than not there to serve the narrator's (dwindling) sexual needs. One is described as "pre-feminist". Mr Houellebecq might be called "pre-#MeToo".

That said, the novelist's wit, and his skill at shifting from the quotidian to the existential, are intact. Labrouste detests Paris, "a city infested with eco-responsible bourgeois", but ends up in a hotel room there, consoled by daytime television and hummus. His life's possessions are the files on his Macbook: "my past weighed 1,100 grams". Overhyped he may be, but Mr Houellebecq has once again managed to put his finger on modern French (and Western) society's wounds, and it hurts. ■

Johnson Keeping it in the family



For expat parents, passing on their native languages can be a struggle

"You understand grandmother when she talks to you, don't you, darling?" The girl nods. Johnson met her—and her Danish mother and English father—at the airport, en route to Denmark. The parents were eager to discuss their experience of bringing up their daughter bilingually in London. It isn't easy: the husband does not speak Danish, so the child hears the language only from her mother, who has come to accept that she will reply in English.

This can be painful. Not sharing your first language with loved ones is hard. Not passing it on to your own child can be especially tough. Many expat and immigrant parents feel a sense of failure; they wring their hands and share stories on parenting forums and social media, hoping to find the secret to nurturing bilingual children successfully.

Children are linguistic sponges, but this doesn't mean that cursory exposure is enough. They must hear a language quite a bit to understand it—and use it often to be able to speak it comfortably. This is mental work, and a child who doesn't have a motive to speak a language—either a need or a strong desire—will often avoid it. Children's brains are already busy enough.

So languages often wither and die when parents move abroad. Consider America. The foreign-born share of the population is 13.7%, and has never been lower than 4.7% (in 1970). And yet foreign-language speakers don't accumulate: today just 25% of the population speaks another language. That's because, typically, the first generation born in America is bilingual, and the second is monolingual—in English, the children often struggling to speak easily with their immigrant grandparents.

In the past, governments discouraged immigrant families from keeping their languages. Teddy Roosevelt worried that America would become a "polyglot boarding-house". These days, officials tend to be less interventionist; some even see a valuable resource in immigrants' language abilities. Yet many factors conspire to ensure that children still lose their parents' languages, or never learn them.

A big one is institutional pressure. A child's time spent with a second language is time not spent on their first. So teachers often discourage parents from speaking their languages to their children. (This is especially true if the second language lacks prestige.) Parents often reluctantly comply, worried about their offspring's education. This is a shame; children really can master two languages or even more. Research does indeed suggest their vocabulary in each language may be somewhat smaller for a while. But other studies hint at cognitive advantages among bilinguals. They may be more adept at complex tasks, better at maintaining attention, and (at the other end of life) suffer the onset of dementia later.



Even without those side-effects, though, a bilingual child's connection to relatives and another culture is a good thing in itself. How to bring it about? When both parents share the heritage language, the strategy is often to speak that at home, and the national language outside. But when they have different languages, perhaps the most common approach is "one parent, one language". François Grosjean, a linguist at the University of Neuchâtel in Switzerland, emphasises necessity. He recommends reserving occasions on which the only language that may be spoken is the one that needs support.

Sabine Little, a German linguist at the University of Sheffield, puts the emphasis elsewhere. Making the heritage language yet another task imposed by parents can lead to rejection, she argues. She recommends letting the child forge their own emotional connection to the language. Her son gave up on German for several years before returning to it. She let him determine when they would speak it together. (He decided on the pair's trips in her car to after-school activities, during which his father, who doesn't speak German, would not be excluded.) They joke about his Anglo-German mash-ups and incorporate them into their lexicon. Like many youngsters, his time on YouTube is restricted—but he is allowed more if he watches in German. Ms Little suggests learning through apps and entertainment made for native speakers; the educational type smack of homework, she thinks.

Languages are an intimate part of identity; it is wrenching to try and fail to pass them on to a child. Success may be a question of remembering that they are not just another thing to be drilled into a young mind, but a matter of the heart.

Economic data

	Gross domestic product, % change on year ago: latest		quarter*	2018†	Consumer prices, % change on year ago: latest		2018†	Unemployment rate, %		Current-account balance, % of GDP, 2018†	Budget balance, % of GDP, 2018†	Interest rates, 10-yr gov't bonds: latest,%		change on year ago, bp	Currency units: per $ Jan 15th	% change on year ago
United States	3.0	Q3	3.4	2.9	1.9	Dec	2.6	3.9	Dec	-2.5	-3.8	2.7		17.0	-	
China	6.5	Q3	6.6	6.6	1.9	Dec	2.0	3.8	Q4§	0.2	-3.5	2.9	§§	-95.0	6.75	-4.6
Japan	nil	Q3	-2.5	1.0	0.9	Nov	1.0	2.5	Nov	4.3	-3.8	nil		-4.0	109	1.8
Britain	1.5	Q3	2.5	1.3	2.1	Dec	2.3	4.1	Sep††	-3.9	-1.3	1.3		-7.0	0.78	-7.7
Canada	2.1	Q3	2.0	2.1	1.7	Nov	2.3	5.6	Dec	-2.6	-2.1	2.0		-17.0	1.32	-6.1
Euro area	1.6	Q3	0.6	1.9	1.6	Dec	1.7	7.9	Nov	3.5	-0.7	0.2		-33.0	0.87	-6.9
Austria	2.2	Q3	-1.9	2.6	2.2	Nov	2.1	4.7	Nov	2.1	-0.3	0.5		-20.0	0.87	-6.9
Belgium	1.6	Q3	1.2	1.4	2.3	Dec	2.3	5.6	Nov	0.5	-1.0	0.8		3.0	0.87	-6.9
France	1.4	Q3	1.3	1.6	1.6	Dec	2.1	8.9	Nov	-0.8	-2.6	0.6		-22.0	0.87	-6.9
Germany	1.2	Q3	-0.8	1.4	1.7	Dec	1.9	3.3	Nov‡	7.6	1.4	0.2		-33.0	0.87	-6.9
Greece	2.4	Q3	4.3	2.1	0.6	Dec	0.8	18.6	Oct	-1.3	-0.1	4.2		48.0	0.87	-6.9
Italy	0.7	Q3	-0.5	0.9	1.1	Dec	1.3	10.5	Nov	2.6	-2.1	2.8		80.0	0.87	-6.9
Netherlands	2.4	Q3	0.6	2.5	2.0	Dec	1.6	4.4	Nov	10.3	1.7	0.3		-30.0	0.87	-6.9
Spain	2.5	Q3	2.2	2.5	1.2	Dec	1.7	14.7	Nov	1.0	-2.7	1.4		-9.0	0.87	-6.9
Czech Republic	2.4	Q3	2.4	2.8	2.0	Dec	2.2	1.9	Nov‡	0.8	1.1	1.8		10.0	22.4	-6.9
Denmark	2.4	Q3	2.9	1.0	0.8	Dec	0.8	3.9	Nov	6.2	-0.4	0.2		-42.0	6.53	-7.0
Norway	1.1	Q3	2.3	1.7	3.5	Dec	2.7	4.0	Oct‡‡	8.0	7.0	1.8		7.0	8.52	-7.4
Poland	5.7	Q3	7.0	5.1	1.1	Dec	1.7	5.9	Dec§	-0.4	-0.9	2.8		-50.0	3.75	-9.3
Russia	1.5	Q3	na	1.7	4.3	Dec	2.9	4.8	Nov§	5.6	1.6	8.4		85.0	66.9	-15.8
Sweden	1.7	Q3	-0.9	2.3	2.0	Dec	2.0	5.5	Nov§	2.2	0.9	0.4		-43.0	8.95	-10.4
Switzerland	2.4	Q3	-0.9	2.6	0.7	Dec	1.0	2.4	Dec	9.6	0.9	-0.1		-15.0	0.99	-3.0
Turkey	1.6	Q3	na	3.1	20.3	Dec	16.8	11.6	Oct§	-4.6	-1.9	16.1		407	5.44	-30.3
Australia	2.8	Q3	1.0	3.0	1.9	Q3	2.0	5.1	Nov	-2.4	-0.6	2.3		-51.0	1.39	-10.1
Hong Kong	2.9	Q3	0.3	3.4	2.6	Nov	2.4	2.8	Nov‡‡	2.3	2.0	2.0		7.0	7.84	-0.3
India	7.1	Q3	3.3	7.4	2.2	Dec	4.0	7.4	Dec	-2.8	-3.6	7.6		nil	71.0	-10.6
Indonesia	5.2	Q3	na	5.2	3.1	Dec	3.2	5.3	Q3§	-2.8	-2.6	8.0		198	14,093	-5.4
Malaysia	4.4	Q3	na	4.7	0.2	Nov	0.8	3.3	Nov§	2.3	-3.7	4.1		21.0	4.11	-3.6
Pakistan	5.4	2018**	na	5.4	6.2	Dec	5.2	5.8	2018	-5.7	-5.4	13.3	†††	479	139	-20.4
Philippines	6.1	Q3	5.7	6.2	5.1	Dec	5.3	5.1	Q4§	-2.4	-2.9	6.5		60.0	52.1	-3.3
Singapore	2.2	Q4	1.6	3.2	0.3	Nov	0.5	2.1	Q3	19.1	-0.5	2.2		12.0	1.35	-2.2
South Korea	2.0	Q3	2.3	2.5	1.3	Dec	1.6	3.4	Dec§	4.7	0.7	2.0		-66.0	1,121	-5.2
Taiwan	2.3	Q3	1.5	2.6	nil	Dec	1.4	3.7	Nov	12.9	-0.7	0.9		-20.0	30.8	-4.3
Thailand	3.3	Q3	-0.1	4.1	0.4	Dec	1.2	1.0	Nov§	6.8	-3.0	2.2		-1.0	31.9	nil
Argentina	-3.5	Q3	-2.7	-2.2	47.1	Dec	34.2	9.0	Q3§	-4.7	-5.6	11.3		562	37.1	-49.6
Brazil	1.3	Q3	3.1	1.2	3.7	Dec	3.7	11.6	Nov§	-0.8	-7.1	7.5		-119	3.71	-13.8
Chile	2.8	Q3	1.1	4.0	2.6	Dec	2.4	6.8	Nov§‡‡	-2.2	-2.0	4.2		-33.0	672	-10.4
Colombia	2.6	Q3	0.9	2.6	3.2	Dec	3.2	8.8	Nov§	-3.2	-2.4	6.7		25.0	3,132	-9.3
Mexico	2.5	Q3	3.4	2.2	4.8	Dec	4.9	3.3	Nov	-1.6	-2.5	8.7		112	19.0	-1.3
Peru	2.3	Q3	-8.3	3.7	2.2	Dec	1.3	5.7	Nov§	-2.2	-2.4	5.6		64.0	3.34	-3.9
Egypt	5.4	Q2	na	5.3	11.9	Dec	16.7	10.0	Q3§	-1.1	-9.5	na		nil	17.9	-1.0
Israel	2.9	Q3	2.3	3.4	0.8	Dec	0.8	4.1	Nov	1.7	-3.1	2.1		53.0	3.67	-7.4
Saudi Arabia	-0.9	2017	na	1.5	2.8	Nov	2.6	6.0	Q2	8.0	-2.8	na		nil	3.75	nil
South Africa	1.1	Q3	2.2	0.8	5.2	Nov	4.7	27.5	Q3§	-3.1	-3.9	8.8		31.0	13.8	-10.4

Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	Index Jan 16th	% change on: one week	Dec 29th 2017
United States S&P 500	2,616.1	1.2	-2.2
United States NAScomp	7,034.7	1.1	1.9
China Shanghai Comp	2,570.4	1.0	-22.3
China Shenzhen Comp	1,321.5	1.1	-30.4
Japan Nikkei 225	20,442.8	0.1	-10.2
Japan Topix	1,537.8	0.2	-15.4
Britain FTSE 100	6,862.7	-0.6	-10.7
Canada S&P TSX	15,111.3	2.1	-6.8
Euro area EURO STOXX 50	3,077.2	0.2	-12.2
France CAC 40	4,810.7	-0.1	-9.4
Germany DAX*	10,931.2	0.3	-15.4
Italy FTSE/MIB	19,477.8	1.6	-10.9
Netherlands AEX	499.9	0.7	-8.2
Spain IBEX 35	8,912.7	1.0	-11.3
Poland WIG	59,983.4	1.1	-5.9
Russia RTS, $ terms	1,153.0	1.5	-0.1
Switzerland SMI	8,873.8	2.1	-5.4
Turkey BIST	95,411.4	4.7	-17.3
Australia All Ord.	5,893.7	0.9	-4.4
Hong Kong Hang Seng	26,902.1	1.7	-10.1
India BSE	36,321.3	0.3	6.6
Indonesia IDX	6,413.4	2.2	0.9
Malaysia KLSE	1,673.1	0.3	-6.9

	index Jan 16th	% change on: one week	Dec 29th 2017
Pakistan KSE	39,271.9	0.9	-3.0
Singapore STI	3,229.1	2.2	-5.1
South Korea KOSPI	2,106.1	2.0	-14.6
Taiwan TWI	9,763.8	0.3	-8.3
Thailand SET	1,577.4	-0.8	-10.1
Argentina MERV	34,048.0	0.8	13.2
Brazil BVSP	94,393.1	0.8	23.5
Mexico IPC	43,819.5	0.4	-11.2
Egypt EGX 30	13,510.3	1.1	-10.0
Israel TA-125	1,368.7	0.1	0.3
Saudi Arabia Tadawul	8,406.5	3.2	16.3
South Africa JSE AS	53,786.7	1.1	-9.6
World, dev'd MSCI	1,966.5	0.8	-6.5
Emerging markets MSCI	1,009.4	1.5	-12.9

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 29th 2017
Investment grade	187	137
High-yield	509	404

Sources: Datastream from Refinitiv; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

***The Economist* commodity-price index**

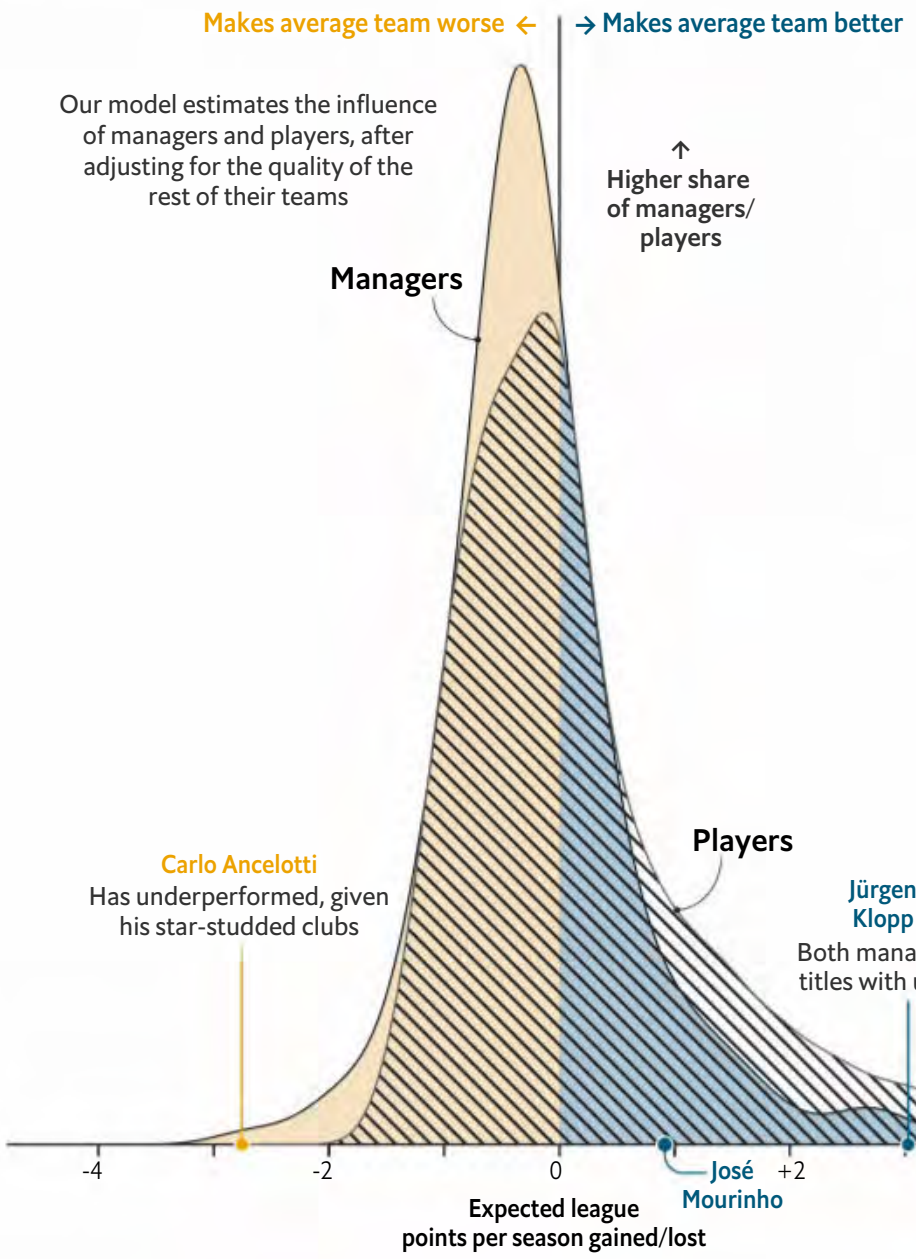
2005=100	Jan 8th	Jan 15th*	% change on month	year
Dollar Index				
All Items	137.4	137.9	0.5	-8.0
Food	147.3	148.3	2.8	-0.1
Industrials				
All	127.2	127.0	-2.2	-16.0
Non-food agriculturals	120.2	121.0	-0.6	-14.6
Metals	130.2	129.6	-2.8	-16.5
Sterling Index				
All items	196.3	195.8	-1.4	-1.0
Euro Index				
All items	149.4	150.0	-0.7	-1.5
Gold				
$ per oz	1,284.5	1,289.4	4.1	-3.4
West Texas Intermediate				
$ per barrel	49.8	52.1	1.8	-18.2

Sources: CME Group; Cotlook; Darmenn & Curl; Datastream from Refinitiv; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.

For more countries and additional data, visit **Economist.com/indicators**

Star football managers don't improve teams as much as star players do

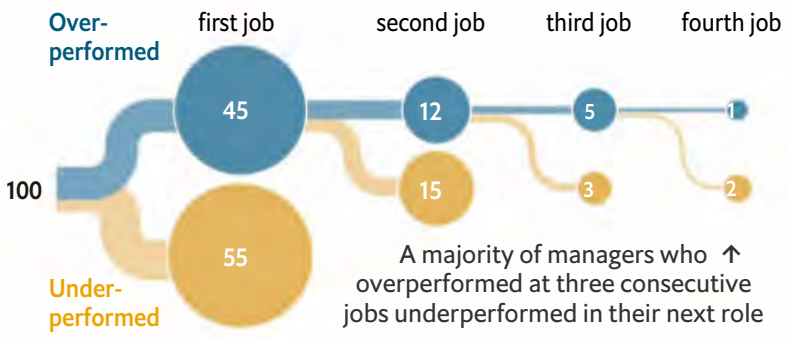
Distribution of managers and players* from "big five" leagues†, 2004-18



Managerial overperformance is hard to sustain

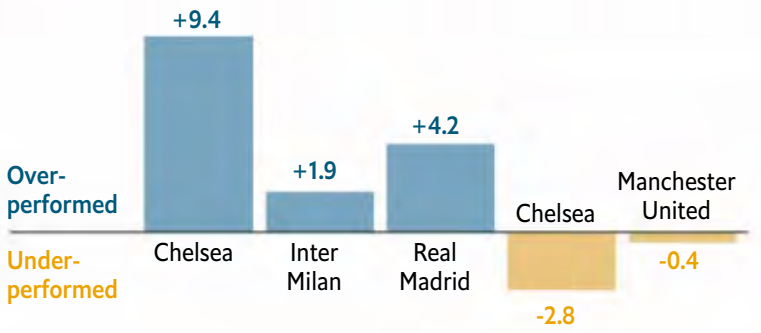
Over/underperformance in consecutive jobs

For every 100 managers‡, after adjusting for players' skill



José Mourinho's managerial performance

Teams' league points per season above/below expected



Sources: Electronic Arts; Transfermarkt *Each team's best 13 players †England, France, Germany, Italy and Spain ‡Tenures of at least 15 games

Managers in football

Not so special

For all the attention lavished on managers, their impact is modest

"I THINK I am a special one," José Mourinho boasted in 2004. One of football's most lauded managers, he won six domestic titles in his first 11 seasons in top leagues. But his powers have deserted him of late. He was sacked by Chelsea in 2015, and by Manchester United last month.

Fans lay most of the credit or blame for their team's results on the manager. So do executives: nearly half of clubs in top leagues changed coach in 2018. Yet this faith appears misplaced. After analysing 15 years of league data, we found that an overachieving manager's odds of sustaining that success in a new job are barely better than a coin flip. The likely cause of the "decline" of once-feted bosses like Mr Mourinho is not that they lost their touch, but that their early wins owed more to players and luck than to their own wizardry.

A manager's impact is hard to gauge. How should credit be split between the boss and his charges? To separate their effects, we needed a measure of players' skill. We found it in an unlikely place: video games. Electronic Arts' "FIFA" series rates 18,000 players each year, based on their statistics and subjective reports from 9,000 fans. These scores yield reliable match forecasts. Using only pre-season FIFA ratings, we could predict the final table with an average error of eight league points.

By comparing actual results with these projections, we could see which clubs did better than their players' ratings implied. Teams do over-perform for reasons other than their managers. But if coaching matters, the best bosses should continue to exceed expectations when they switch clubs.

Managers do carry over some impact. However, the effect is small. For a manager switching jobs after one year, we expect his new team to reap just 8% of his prior outperformance. Even after a decade of coaching, this figure is still only 45%, implying that the primary causes of a manager's previous successes were beyond his control.

A few bosses have beaten expectations for long enough to deserve proper credit. Despite lacking the star power of La Liga's titans, Diego Simeone led Atlético Madrid to a Spanish title. And Jürgen Klopp turned mid-table Borussia Dortmund into two-time German champions.

Conversely, Carlo Ancelotti has squandered resources. Although he has led the team with the best players in its league in eight of his past 12 seasons, he has won only three titles in that time. A top-league player who fared so poorly would have lost his job. But the market for coaches is inefficient. Mr Ancelotti keeps getting hired—perhaps because employers over-weight his three Champions League trophies, which required a much smaller number of wins.

Even the best tacticians cannot compete with those who contribute with their feet. Mr Simeone would improve an average club by four points, similar to the 50th-best player in the world. But greats like Lionel Messi can add twice as much or more. ■



The last Britisher

Major Geoffrey Langlands, teacher of British ways to Pakistan, died on January 2nd, aged 101

AS A MAN of simple habits, Geoffrey Langlands liked to start his days in a time-honoured way. The reassuring tones of the BBC news at 5am. A hearty bowl of Quaker Oats. Two eggs, lightly done in a poacher from Selfridges. A cup or two of Lipton's tea. A brief glance at the paper and then, in dark suit and tie or well-pressed navy blazer, a brisk stroll to the main school building. There he would be greeted by beaming pupils chorusing "Good morning, Sir!"—to which he would reply, in a voice crisped by King's College, Taunton and six years of officer training, "Good morning!"

The scene might be any public school in Britain; but appearances were deceptive. Breakfast was prepared by a servant. The paper was usually some days old. That walk to school wound down a rocky track high in the Hindu Kush, overlooking a staggering green view of the Chitral Valley; the cricket pitch was often above the clouds. In his office the electric light shone dim and intermittent, and there was no heating, even in winter snows. The school uniform was grey trousers and white shirts for the boys, but the girls wore white hijabs. In short, the major was a long way from Croydon, where his teaching career had started.

This particular school, renamed Langlands School and College in 2006 in his honour, was the third English-language school in which he had taught British values, as well as mathematics, in Pakistan over six decades. The end of the war had found him training officers in the sub-continent, under orders not to leave his post; so he stayed, shifting to Pakistan after Partition in 1947 to help build the new country's army and, from 1953, to educate its future leaders. At Aitchison College in Lahore, "the Eton of Pakistan", as he liked to call it, he taught the often idle sons of the rich, some of whom became prime minister. (He vividly recalled Imran Khan, the present one, as a star cricketer even at 13, but an inattentive boy.) From 1979 he was headmaster of Razmek Cadet College, a school inside an ancient fort in lawless Waziristan. And then to Chitral, remotest of all, the last outpost of British India in a region known only for poverty. Yet under him the local public school grew from 80 to 900 pupils, many winning scholarships to the best universities. For even if Pakistan was getting worse and worse, he meant to make his own little bits of it better and better.

He did so by instilling in the young the virtues of hard work, fair play and, above all, discipline. At Aitchison, during the Indo-Pakistan war of 1971, he was exasperated when the college cooks could not be drilled into a decent Home Guard, but took refuge under the banyan trees when Indian planes roared over. And he was shocked, in Waziristan, by the warlords' indiscipline. In 1988 one of them kidnapped him—but then laid on rather a good dinner in his village, took a group photograph and even handed him a gun, inviting him to target practice. An utter shambles. Partition itself had been dreadfully handled, of course. It could have been done so much better. The Pakistani government, despite his efforts, seemed in chronic chaos, and ministers often advised him to leave.

That, of course, he ignored. He had a job to do. His work, besides drumming in algebra and calculus, was making pupils stand in line, backs straight, for assembly, stressing punctuality, inculcating ideas of duty and service, ensuring fair treatment for rich and poor, boys and girls (whom he expected, like the boys, to go to university). And testing them. At Aitchison he took teenage pupils, including young Khan, on 250-mile treks through the mountains, where they often found their bony teacher, in school cap, owlish glasses and Aertex shirt, effortlessly overtaking them.

Discipline was also the core of his private life, especially at Chitral. A tot of whisky only on Saturday evenings. Baked beans on toast for supper, and travel down the steep zigzagging roads in an open lorry like everyone else. A shabby book-filled bungalow to live in, on pay of £50 a week. With the magical peaks all round him, he did not want more. He never had, finding his own happiness wherever he ended up. Until his army days, which started when he signed up, instantly, in 1939, he was a solitary boy. At 12 he had been orphaned. He set his own rules then and a motto, "Be good, do good", to live by. As a master he was firm but kind, and did not often raise his voice to parade-ground volume. He hectored only when approaching leaders for money for his schools, baldly telling Benazir Bhutto, Pervez Musharraf or Nawaz Sharif: "Now, what I want from you is a million rupees." Mr Musharraf gave him 50m, about $14,000: the basis of an endowment for Chitral that might have worked better if so many ragged pupils had not been let off the fees.

His chosen ground

In advanced old age he let himself down once, trying to use his influential former pupils, including the provincial chief minister and the Pakistani interior minister, to frustrate the plans of his successor at Chitral. He relented quickly. But it was hard to leave a place where he had managed everything, including setting out the chairs at cricket matches, and hard to accept a woman from Chelsea as head, when he had hoped a seasoned British army officer would take over. Battle-hardened Britishness was, as he saw it, the great quality he brought to all his schools. Prolonging it after the end of the Raj was, however, tricky.

It was also a Britishness that had become detached, in many ways, from Britain. He acknowledged that and, after all, he was detached himself. He never went back, even to see John, his twin brother, in Blackpool. Obviously he no longer knew the place, and almost no one there knew him. To Britain he had done his duty in the war; to Pakistan he had made a contribution, to the best of his abilities, which he wished to see through. So this country, with all its tumult and frustrations, was his home and chosen burial ground. And in far away Chitral he could still insist, even to himself, on doing things the British way. Reading last year's *Spectators* in the evenings, by a fitfully fading bulb; or taking a constitutional, with properly shined shoes and walking cane, among the towering Himalayan rocks. ■