The Economist

The world's least successful president

Putin threatens Belarus

Pakistan: impoverished by its army

How the mighty dollar falls

DANIJARY 12TH-18TH 2019



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The world this week

Politics this week

Politics this week

Print edition | The world this week Jan 12th 2019

America's federal government remained shut down, as Democrats refused to fund Donald Trump's wall on the Mexican border (which he had previously said Mexico would pay for). In his first televised speech from the Oval Office, the president said that migrants trying to cross the **border** illegally represented a "humanitarian and security crisis". Democrats offered to reopen the government by funding everything bar the Department of Homeland Security. Mr Trump walked out of a meeting with them. See article .

John Bolton, Mr Trump's national security adviser, assured allies that American troops would not be leaving **Syria** quickly, all but contradicting what Mr Trump had said a few days earlier. Mr Bolton said that, before any withdrawal, Islamic State had to be fully defeated and Turkey had to promise not to attack Syrian Kurds. Turkey's president, Recep Tayyip Erdogan, rejected that idea, saying that his plans for an offensive against the Kurdish force, which Turkey regards as a terrorist group, were almost complete. See article .

Family values

A Saudi teenager who had barricaded herself into a hotel room in Bangkok and live-tweeted her ordeal was declared a legitimate refugee by the UN. Rahaf Mohammed al-Qunun said she wanted asylum in Australia. She fears that her family will kill her if she is returned to **Saudi Arabia**, because she has renounced Islam. She also fears being forced into an unwanted marriage.

The Saudi government struck a blow for feminism, decreeing that women whose husbands **divorce** them must be informed of this fact. Courts will notify them by text message.

Félix Tshisekedi, an opposition candidate, was unexpectedly declared the winner of a presidential election in the **Democratic Republic of Congo**. Pre-election polls had put another opposition leader, Martin Fayulu, far ahead. Furious voters speculated about a possible stitch-up. Mr Fayulu had vowed to investigate corruption within the outgoing regime of President Joseph Kabila. See <u>article</u>.

Protests spread across **Sudan**. What began as an isolated rally against high bread prices has become a broad movement against the dictatorship of Omar al-Bashir, who has run the country since 1989 and is accused of genocide in Darfur. At least 40 people have been killed in the protests. See <u>article</u>.

The constitutional court in **Madagascar** confirmed the election of Andry Rajoelina as president after his opponent complained of electoral fraud. Mr Rajoelina took 55% of the vote in last month's run-off against Marc Rayalomanana.

Only doing its job

Guatemala's government ordered the shutdown of the International Commission against Impunity in Guatemala (CICIG) and the expulsion of its foreign workers within 24 hours. The foreign minister accused the UN-backed body of exceeding its authority and politicising its work. But the constitutional court suspended the order, setting the stage for a confrontation. CICIG has been investigating corruption, including allegations against the family of the president, Jimmy Morales.

Only days before Nicolás Maduro was to be sworn in for a second term as president of **Venezuela**, a justice of the country's supreme court fled the country. Christian Zerpa called Mr Maduro's regime a "dictatorship" and said the court had become "an appendage of the executive branch". This was an about-turn for Mr Zerpa, who in 2016 wrote the court's opinion justifying the usurpation of the legislature's powers by the government. See article.

Brazil's new populist government sent the national guard to the state of Ceará to curb an outbreak of violence. Criminals have staged attacks, including fire-bombings, on banks, buses and petrol stations.

A taste for travel

North Korea's dictator, Kim Jong Un, paid a visit to Beijing where he met the Chinese president, Xi Jinping. It was his fourth to **China** in ten months. This latest trip has fuelled speculation that he may be preparing for another summit with Donald Trump.

Officials allowed a handful of foreign reporters to visit three of the camps in the far western region of **Xinjiang** where human-rights groups say hundreds of thousands of Muslims, mostly ethnic Uighurs, have been detained and pressed to be less pious. The journalists heard residents singing "If you're happy and you know it, clap your hands" in English. Xinjiang's governor said the facilities had been "extremely effective" in reducing extremism.

China's anti-graft agency is investigating offences allegedly committed by a former vice-mayor of **Beijing**, Chen Gang. Mr Chen was responsible for urban planning in the build-up to the city's Olympic games in 2008.

Ethnic Rakhine militants attacked police posts in **Myanmar's** Rakhine state, exacerbating tensions in the region in which pogroms by the army and Rakhines against Rohingyas, a Muslim minority, led to an exodus of 800,000 Rohingya refugees in

2017.

The king of **Malaysia**, Sultan Muhammad V of Kelantan, abdicated abruptly for undisclosed reasons. The hereditary monarchs who rule over nine of Malaysia's 13 states will meet soon to pick one of their number to serve a five-year term as king. See article.

Jolovan Wham, a **Singaporean** activist, was found guilty of organising a public assembly without a permit. He had convened a seminar on civil disobedience.

By any means necessary

In **Britain** a cross-party amendment to the government's finance bill designed to reduce the chances of crashing out of the EU without a deal passed by 303 to 296 votes, the first defeat on a budget measure since 1978. Although the measure cannot stop a no-deal Brexit, it would prevent the government from varying taxes if there were no deal by March 29th. And in a constitutionally suspect move, the speaker of the House of Commons, John Bercow, permitted an amendment requiring the government to outline a Plan B within three days if, as expected, it loses a crucial vote on its Brexit deal on January 15th. See article.

Germany identified the alleged **hacker** of the personal details of 1,000 politicians, journalists and celebrities: not Russia, but a 20-year-old who lives with his parents. See article.

Ukraine's Orthodox church broke away from the patriarchate of Moscow. This was seen as a blow to Vladimir Putin, who prizes Russian primacy over its neighbours in matters spiritual as well as temporal. See article.

Business this week

Print edition | The world this week Jan 10th 2019

Carlos Ghosn appeared in public for the first time since being taken into custody in mid-November amid claims of wrongdoing, which led to his dismissal as Nissan's chairman. Mr Ghosn appeared at a court in Tokyo where he denied all the allegations, which include a "breach of trust" at Nissan and understating his pay to the authorities. He described the claims as "meritless". The court nevertheless recommended that he remain in custody. See article.

Ford announced a root-and-branch restructuring of its operations in Europe, a loss-making region for the carmaker. Thousands of jobs are expected to go. **Jaguar Land Rover** prepared its workers for huge job losses in Britain.

What a drag

Samsung said that it expects its operating profit for the last three months of 2018 to be significantly lower than expected, its first decline in quarterly profit in two years. The South Korean electronics giant blamed weaker demand in China, a factor that lay behind Apple's recent warning about decreased revenues.

The **unemployment rate** in the euro area dipped to 7.9% in November, the lowest it has been since October 2008. The youth unemployment rate stood at 16.9%, but remained much higher in Greece, Italy and Spain.

American employers added 312,000 jobs to the payrolls in December, exceeding forecasts and capping a year in which the most **jobs** were created since 2015, thanks in part to tax cuts. As the labour market tightens, wages are rising as employers vie for workers. Average hourly earnings were up by 3.2% year on year.

The good news on jobs sent stockmarkets soaring following a month of turbulence. Investors were also buoyed by assurances from **Jerome Powell**, the chairman of the Federal Reserve, that the central bank would take a "flexible" approach both to interest-rate rises and winding down the assets it accrued through quantitative easing, a softening of the remarks he made after the Fed's recent meeting.

Negotiators from America and China wrapped up their first round of talks since a truce was called in the two countries' **trade dispute**. The mood at the talks was said to be positive, with China making more concessions to deal with American complaints. Both sides are working towards beating a deadline of March 1st, after which America threatens to raise its tariffs significantly if the issues aren't resolved.

Bristol-Myers Squibb agreed to buy **Celgene**, a specialist in drugs that tackle cancer. The takeover, worth around \$90bn, is one of the biggest ever in the pharmaceuticals industry. See <u>article</u>.

The announcement that **Jeff Bezos** and his wife are to divorce raised questions about his stake in Amazon. Mr Bezos married MacKenzie in 1993, a year before he founded the e-commerce company. He holds a 16.3% stake in Amazon, but if Mrs Bezos gets half of that she could carry considerable clout. The two next-biggest shareholders each have stakes of around 5%.

Amazon became the world's most valuable publicly listed company when its market capitalisation at the close of trading ended up above Microsoft's. Microsoft had only just regained the crown from Apple, which has seen its share price tumble over worries about its growth prospects. Amazon is now worth around \$800bn, much less than the \$1trn valuation it hit (along with Apple) in the middle of last year.

SoftBank was reported to have slashed the amount it was thinking of investing in **WeWork**, which provides shared-office space in 96 cities around the world, from \$16bn to \$2bn. The Japanese tech conglomerate is said to have been nervous about making such a large commitment, which would have been the largest ever in a tech startup, amid a slump in technology stocks. WeWork, meanwhile, rebranded itself as the We Company.

A combustible mix

The share price of **Pacific Gas & Electric**, California's biggest energy provider, plunged amid speculation that it might declare bankruptcy. The company is being investigated in relation to the outbreak of wildfires in 2017-18, the deadliest in the state's history. PG&E will have to fork out billions of dollars in damages if its power lines are found to have contributed to the infernos, even if it observed strict safety rules. See article.

Jim Yong Kim decided to step down as president of the **World Bank**, three years before the end of his second term. Following the convention that America gets to select the head of the World Bank (and Europeans get to choose the leader of the IMF), Mr Kim was nominated for the job by Barack Obama. Mr Kim's appointment was the first to be challenged by candidates from developing countries. Such opposition may intensify with Donald Trump in the White House. See article.

KAL's cartoon

Print edition | The world this week Jan 10th 2019

Leaders

Chinese science

Red moon rising

Red moon rising

How China could dominate science

Should the world worry?

Print edition | Leaders Jan 12th 2019

A HUNDRED YEARS ago a wave of student protests broke over China's great cities. Desperate to reverse a century of decline, the leaders of the May Fourth Movement wanted to jettison Confucianism and import the dynamism of the West. The creation of a modern China would come about, they argued, by recruiting "Mr Science" and "Mr Democracy".

Today the country that the May Fourth students helped shape is more than ever consumed by the pursuit of national greatness. China's landing of a spacecraft on the far side of the Moon on January 3rd, a first for any country, was a mark of its soaring ambition. But today's leaders reject the idea that Mr Science belongs in the company of Mr Democracy. On the contrary, President Xi Jinping is counting on being able to harness leading-edge research even as the Communist Party tightens its stranglehold on politics. Amid the growing rivalry between China and America, many in the West fear that he will succeed.

There is no doubting Mr Xi's determination. Modern science depends on money, institutions and oodles of brainpower. Partly because its government can marshal all three, China is hurtling up the rankings of scientific achievement, as our investigations show (see article). It has spent many billions of dollars on machines to detect dark matter and neutrinos, and on institutes galore that delve into everything from genomics and quantum communications to renewable energy and advanced materials. An analysis of 17.2m papers in 2013-18, by Nikkei, a Japanese publisher, and Elsevier, a scientific publisher, found that more came from China than from any other country in 23 of the 30 busiest fields, such as sodium-ion batteries and neuronactivation analysis. The quality of American research has remained higher, but China has been catching up, accounting for 11% of the most influential papers in 2014-16.

Such is the pressure on Chinese scientists to make breakthroughs that some put ends before means. Last year He Jiankui, an academic from Shenzhen, edited the genomes of embryos without proper regard for their post-partum welfare—or that of any children they might go on to have. Chinese artificial-intelligence (AI) researchers are thought to train their algorithms on data harvested from Chinese citizens with little oversight. In 2007 China tested a space-weapon on one of its weather satellites, littering orbits with lethal space debris. Intellectual-property theft is rampant.

The looming prospect of a dominant, rule-breaking, high-tech China alarms Western politicians, and not just because of the new weaponry it will develop. Authoritarian governments have a history of using science to oppress their own people. China already deploys AI techniques like facial recognition to monitor its population in real time. The outside world might find a China dabbling in genetic enhancement, autonomous AIs or geoengineering extremely frightening.

These fears are justified. A scientific superpower wrapped up in a one-party dictatorship is indeed intimidating. But the effects of China's growing scientific clout do not all point one way.

For a start, Chinese science is about much more than weapons and oppression. From better batteries and new treatments for disease to fundamental discoveries about, say, dark matter, the world has much to gain from China's efforts.

Moreover, it is unclear whether Mr Xi is right. If Chinese research really is to lead the field, then science may end up changing China in ways he is not expecting.

Mr Xi talks of science and technology as a national project. However, in most scientific research, chauvinism is a handicap. Expertise, good ideas and creativity do not respect national frontiers. Research takes place in teams, which may involve dozens of scientists. Published papers get you only so far: conferences and face-to-face encounters are essential to grasp the subtleties of what everyone else is up to. There is competition, to be sure; military and commercial research must remain secret. But pure science thrives on collaboration and exchange.

This gives Chinese scientists an incentive to observe international rules—because that is what will win its researchers access to the best conferences, laboratories and journals, and because unethical science diminishes China's soft power. Mr He's geneediting may well be remembered not just for his ethical breach, but also for the furious condemnation he received from his Chinese colleagues and the threat of punishment from the authorities. The satellite destruction in 2007 caused outrage in China. It has not been repeated.

The tantalising question is how this bears on Mr Democracy. Nothing says the best scientists have to believe in political freedom. And yet critical thinking, scepticism, empiricism and frequent contact with foreign colleagues threaten authoritarians, who survive by controlling what people say and think. Soviet Russia sought to resolve that contradiction by giving its scientists privileges, but isolating many of them in closed cities.

China will not be able to corral its rapidly growing scientific elite in that way. Although many researchers will be satisfied with just their academic freedom, only a small number need seek broader self-expression to cause problems for the Communist Party. Think of Andrei Sakharov, who developed the Russian hydrogen bomb, and later became a chief Soviet dissident; or Fang Lizhi, an astrophysicist who inspired the students leading the Tiananmen Square protests in 1989. When the official version of reality was tired and stilted, both stood out as seekers of the truth. That gave them immense moral authority.

Some in the West may feel threatened by China's advances in science, and therefore aim to keep its researchers at arm's length. That would be wise for weapons science and commercial research, where elaborate mechanisms to preserve secrecy already exist and could be strengthened. But to extend an arm's-length approach to ordinary research would be self-defeating. Collaboration is the best way of ensuring that Chinese science is responsible and transparent. It might even foster the next Fang.

Hard as it is to imagine, Mr Xi could end up facing a much tougher choice: to be content with lagging behind, or to give his scientists the freedom they need and risk the consequences. In that sense, he is running the biggest experiment of all.

This article appeared in the Leaders section of the print edition under the headline "Red moon rising"

Trump's cards

How the shutdown in Washington ends

America is heading for an almighty fight over presidential authority

Print edition | Leaders | Jan 10th 2019

They have become almost routine. This is the third since Donald Trump became president and by far the most damaging. The others were resolved quickly; this is already the second-longest on record. It is not happening because America is in turmoil: the country is not at war, unemployment is as low as it has ever been. It is happening because that is what the president wants

What is playing out in Washington is the denouement of a political fight (see <u>article</u>). Mr Trump was elected on a promise to build a wall on the southern border, though Mexico was supposed to pay for it. The new Democratic majority in the House is reluctant to give the president a victory on his best-known policy. The Senate majority leader, who might be able to end the stand-off, is AWOL.

House Democrats have reason on their side. Even knowledgeable immigration hawks think spending \$5.7bn on a wall would be a waste of money. The number of people crossing the southern border illegally is at a 45-year low. Vastly more people fly into the country legally and then overstay their visas. If illegal immigration is the problem, Mr Trump should be focusing on that.

Yet it is also true that \$5.7bn is peanuts in budgetary terms. The federal government spends that amount every 12 hours. And, despite what Nancy Pelosi, the House Speaker, says, there is nothing inherently "immoral" about a wall. Quite a lot of wall and fencing was built on the southern border long before Mr Trump became president, and with Democratic support.

If this were just a fight about policy, it is clear what a deal would look like. Congress would pass a bill giving citizenship to those who arrived in the country illegally as children, amounting to about 700,000 people, and fund the wall in exchange. The president gets something he wants; Democrats get something they want; America gets back its government.

But the fight is really about Mr Trump's authority. The president was offered just such a trade a year ago by Senate Democrats. He turned it down, saying he wanted cuts to legal immigration, too. Had he accepted it, the wall would by now be under construction, but Mr Trump is not the master dealmaker he claims to be. In December he said he would be "proud to shut down the government for border security". Having picked a fight, he must win it or see his power diminished for the rest of his term.

If politics blocks the obvious deal, Congress could pass a bill funding the entire government or, along the lines of a Democratic idea, all of it barring Homeland Security, and then override the president's veto. But that would take a two-thirds majority in both houses, and so will not happen soon.

Hence things may get worse before the shutdown ends. Nearly 1m federal employees are working without pay or have been sent home. At some point their absence will make itself felt. Federal spending on food for the poor could also run dry, which will hit programmes that pay for school lunches and milk for infants. The IRS may be unable to pay tax refunds on time. National parks and monuments will remain unstaffed, harming businesses that depend on tourism. Eventually, the pressure on Republicans in the Senate to bypass the president and cut a deal could prove irresistible.

There is another possibility. The president could cut out Congress and award himself emergency powers, allowing him to spend money on the wall as "military construction", even as he reopens the government. That would set off a legal dispute over the limits of his authority. Sadly, the prospect of such a raw exercise of presidential power—to say nothing of a good old fight over the law—could appeal to all Mr Trump's worst instincts. And yet to declare an emergency where one doesn't exist, legal or not, would open another chapter in Washington's degradation of good government.

This article appeared in the Leaders section of the print edition under the headline "How America's shutdown ends"

Still having cake

Labour's Brexit cop-out betrays its members

Corbyn promised to empower party members. He is sidestepping them

Print edition | Leaders | Jan 10th 2019

A STHE DEADLINE for Britain's departure from the European Union approaches, with an exit deal still elusive, MPs are haring off in every direction. Parliament has descended into guerrilla warfare, as backbenchers attempt to wrestle the initiative from the executive (see article). Meanwhile the government organised a pretend traffic-jam of 89 lorries on the road to Dover, as part of preparations for a "no deal" exit. All it showed was that Britain is hopelessly unprepared for what happens next.

Amid the chaos, on January 10th the leader of the opposition, Jeremy Corbyn, stepped forward to propose a way out of the mess. Yet his speech, delivered as we went to press, merely doubled down on his policy of calculated equivocation. Labour will vote against the government's draft Brexit deal on January 15th, but has no plausible explanation of how it would get a better one, nor a convincing strategy to break the impasse in Parliament if the deal is defeated. Its abdication of responsibility makes Labour complicit in the crisis that is about to engulf Britain. And it exposes the hollowness of Mr Corbyn's promise that, as leader, he would hand power back to the party's members, whose growing calls for a second referendum he continues to ignore.

Labour's Brexit policy amounts to cake followed by more cake. Though the party sensibly rejects the option of leaving with no deal, it insists that the withdrawal terms should provide the "exact same benefits" as membership of the single market while also allowing Britain to manage migration—something the EU would never agree to. In its refusal to acknowledge Brexit's basic trade-offs, Labour is at a stage in the argument that even the most deluded Tory Brexiteers left behind months ago.

Its tactics in Parliament are thoroughly obscure. If the government's deal is voted down, Labour will try to force a general election. But that is not in the party's gift: success depends on the support of Tory and Democratic Unionist MPs, who do not want Mr Corbyn anywhere near Downing Street. The other way to break the stalemate would be another referendum. But Labour says only that such a vote should be one "option on the table". Mr Corbyn, a convinced Eurosceptic who campaigned only half-heartedly to remain in 2016, has confused matters further by appearing to accept that any referendum should have an option to remain, but also saying that "we can't stop" Brexit.

There is a certain political logic in this lack of clarity. Four out of ten Labour voters and six out of ten Labour constituencies backed Brexit. Many voters see a second referendum as a plot to thwart the will of the people. It may even be in Labour's interests to let the Tories drive Britain over the no-deal cliff. Mr Corbyn, whose main achievement during three decades in Parliament was grabbing a selfie with Hugo Chávez, would not win an election under normal circumstances. The shock doctrine of no deal might just make Britain susceptible to his disaster socialism.

Yet Labour's equivocation is at odds with the strongly pro-EU views of the half-million party members who elected him. Eight out of ten of them voted to remain in 2016. Now seven out of ten want a second referendum. A party "policy forum" this week heard calls from constituency associations around the country for Labour to back a second vote. Even most members of Momentum, a hard-left activist group set up to support Mr Corbyn, want the party to endorse a referendum.

Hearing without listening

Although all party leaders sometimes have to ignore their members, for Mr Corbyn to go over the heads of the rank and file in this instance reeks of hypocrisy. When members re-elected him leader in 2016, Mr Corbyn said that Labour's growing membership "has to be reflected much more in decision-making". Yet, over Brexit, Labour members who swallowed his promise of "people-powered politics" have been had. Party managers have done their best to keep controversial Brexit motions off the agenda at Labour's conferences, in feats of stage management worthy of Tony Blair, a predecessor he derides.

More important Mr Corbyn's refusal to listen is letting down the country at large. Britain's democracy relies on an opposition to provide an alternative. For Labour to show that it is the "government in waiting" that it claims, it would have to put forward a better Brexit plan than the Tories. This is a dismally low bar. But the opposition has so far failed to clear it.

This article appeared in the Leaders section of the print edition under the headline "Still having its cake"

Peak smartphone? Good

The maturing of the smartphone industry is cause for celebration

It's bad news for Apple shareholders, but good news for humanity

Print edition | Leaders Jan 12th 2019

WHEN APPLE cut its revenue estimate for the last quarter of 2018 because of unexpectedly slow sales of iPhones, markets convulsed. The company's share price, which had been sliding for months, fell by a further 10% on January 3rd, the day after the news came out. Apple's suppliers' shares were also hit. This week Samsung, the world's largest maker of smartphones by volume, which also sells components to other smartphone-makers, said its sales were weaker than expected for the quarter, too.

Analysts reckon that the number of smartphones sold in 2018 will be slightly lower than in 2017, the industry's first ever annual decline. All this is terrible news for investors who had banked on continued growth (see article). But step back and look at the bigger picture. That smartphone sales have peaked, and seem to be levelling off at around 1.4bn units a year, is good news for humanity.

People have voted with their wallets to make the smartphone the most successful consumer product in history: nearly 4bn of the 5.5bn adults on the planet now have one. And no wonder. They connect billions of people to the internet's plethora of information and services. Phones make markets more efficient, compensate for poor infrastructure in developing countries and boost growth. Yes, they can be used for wasting time and spreading disinformation. But the good far outweighs the bad. They might be the most effective tool of development in existence.

The slowdown does not reflect disenchantment; quite the contrary. It is the result of market saturation. After a decade of rapid adoption, there is much less scope to sell handsets to first-time buyers as so few of them are left. That hits Apple the hardest because, despite a relatively small market share (13% of smartphone users), it captures almost all of the industry's profits. But Apple's pain is humanity's gain. The fact that the benefits of these magical devices are now so widely distributed is something to be celebrated.

What about the people who still lack a smartphone? Sales of 1.4bn units a year implies 2.8bn users who replace their handsets every two years, or 4.2bn who replace them every three years. The reality is somewhere in between, and replacement cycles are lengthening as new models offer only marginal improvements. Many phones are used for longer than three years, often refurbished or as hand-me-downs. So even with flat sales, the longer gaps between upgrades mean that overall penetration is still rising. People who already have phones benefit, too. For all but the most obsessive gadget fans, the slowing treadmill of upgrades comes as a welcome relief.

Does that mean innovation is slowing? No. The latest phones contain amazingly clever technology, such as 3D face-scanners and cameras assisted by artificial intelligence. But as with mature technologies such as cars or washing machines, extra bells and whistles no longer make a deep impression.

More important is that smartphones support extra innovation in other areas. Deploying apps and services on an immature platform whose prospects are uncertain is risky; on a mature one it is not. Smartphones thus provide a foundation for today's innovations, like mobile payments and video streaming, and for future ones, such as controlling "smart" home appliances or hailing robotaxis.

As computers become smaller, still more personal and closer to people's bodies, many techies reckon that wearable devices, from smart watches to augmented-reality headsets, will be the next big thing. Even so, finding another product with the scope of the smartphone is a tall order. The smartphone retains its promise as the device that will make computing and communications universal. The recent slowing of smartphone sales is bad news for the industry, obviously. But for the rest of humanity it is a welcome sign that a transformative technology has become almost universal.

This article appeared in the Leaders section of the print edition under the headline "Bad news for Apple. Good news for humanity"

Praetorian penury

Pakistan's army is to blame for the poverty of the country's 208m citizens

It has fostered the paranoia and extremism that hold the country back

Print edition | Leaders Jan 12th 2019

THAS FOR so long been a country of such unmet potential that the scale of Pakistan's dereliction towards its people is easily forgotten. Yet on every measure of progress, Pakistanis fare atrociously. More than 20m children are deprived of school. Less than 30% of women are employed. Exports have grown at a fifth of the rate in Bangladesh and India over the past 20 years. And now the ambitions of the new government under Imran Khan, who at least acknowledges his country's problems (see Briefing), are thwarted by a balance-of-payments crisis. If Mr Khan gets an IMF bail-out, it will be Pakistan's 22nd. The persistence of poverty and maladministration, and the instability they foster, is a disaster for the world's sixth-most-populous country. Thanks to its nuclear weapons and plentiful religious zealots, it poses a danger for the world, too.

Many, including Mr Khan, blame venal politicians for Pakistan's problems. Others argue that Pakistan sits in a uniquely hostile part of the world, between war-torn Afghanistan and implacable India. Both these woes are used to justify the power of the armed forces. Yet the army's pre-eminence is precisely what lies at the heart of Pakistan's troubles. The army lords it over civilian politicians. Last year it helped cast out the previous prime minister, Nawaz Sharif, and engineer Mr Khan's rise (as it once did Mr Sharif's).

Since the founding of Pakistan in 1947, the army has not just defended state ideology but defined it, in two destructive ways. The country exists to safeguard Islam, not a tolerant, prosperous citizenry. And the army, believing the country to be surrounded by enemies, promotes a doctrine of persecution and paranoia.

The effects are dire. Religiosity has bred an extremism that at times has looked like tearing Pakistan apart. The state backed those who took up arms in the name of Islam. Although they initially waged war on Pakistan's perceived enemies, before long they began to wreak havoc at home. Some 60,000 Pakistanis have died at the hands of militants, most of whom come under the Tehreek-e-Taliban Pakistan (TTP). The army at last moved against them following an appalling school massacre in 2014. Yet even today it shelters violent groups it finds useful. Some leaders of the Afghan Taliban reside in Quetta. The presumed instigator of a series of attacks in Mumbai in 2008, which killed 174, remains a free man.

Melding religion and state has other costs, including the harsh suppression of local identities—hence long-running insurgencies in Baloch and Pushtun areas. Religious minorities, such as the Ahmadis, are cruelly persecuted. As for the paranoia, the army is no more the state's glorious guardian than India is the implacable foe. Of the four wars between the two countries, all of which Pakistan lost, India launched only one, in 1971—to put an end to the genocide Pakistan was unleashing in what became Bangladesh. Even if politicking before a coming general election obscures it, development interests India more than picking fights.

The paranoid doctrine helps the armed forces commandeer resources. More money goes to them than on development. Worse, it has bred a habit of geopolitical blackmail: help us financially or we might add to your perils in a very dangerous part of the world. This is at the root of Pakistan's addiction to aid, despite its prickly nationalism. The latest iteration of this is China's \$60bn investment in roads, railways, power plants and ports, known as the China-Pakistan Economic Corridor (CPEC). The fantasy that, without other transformations, prosperity can be brought in from outside is underscored by CPEC's transport links. Without an opening to India, they will never fulfil their potential. But the army blocks any rapprochement.

Mr Khan's government can do much to improve things. It should increase its tax take by clamping down on evasion, give independence to the monetary authority and unify the official and black-market exchange rates. Above all, it should seek to boost competitiveness and integrate Pakistan's economy with the world's. All that can raise growth.

Yet the challenge is so much greater. By mid-century, Pakistan's population will have increased by half. Only sizzling rates of economic growth can guarantee Pakistanis a decent life, and that demands profound change in how the economy works, people are taught and welfare is conceived. Failing so many, in contrast, really will be felt beyond the country's borders.

Transformation depends on Pakistan doing away with the state's twin props of religion and paranoia—and with them the army's power. Mr Khan is not obviously the catalyst for radical change. But he must recognise the problem. He has made a start by standing up to demagogues baying for the death of Asia Bibi, a Christian labourer falsely accused of blasphemy.

However, wholesale reform is beyond the reach of any one individual, including the prime minister. Many politicians, businesspeople, intellectuals, journalists and even whisky-swilling generals would far rather a more secular Pakistan. They should speak out. Yes, for some there are risks, not least to their lives or liberty. But for most—especially if they act together—the elites have nothing to lose but their hypocrisy.

This article appeared in the Leaders section of the print edition under the headline "Praetorian penury"

Letters

On animal rights, genocide, working, Foucault, Brexit, Santa Claus

Letters to the editor

On animal rights, genocide, working, Foucault, Brexit, Santa Claus

Letters

Letters to the editor

Print edition | Letters Jan 12th 2019

Letters are welcome and should be addressed to the Editor at letters@economist.com

Nonsense on stilts?

The speciousness of animal rights is obvious when one considers what animals do to each other in nature ("Do they have rights?", December 22nd). When a cheetah kills a gazelle, are rights being violated? Is a crime being committed? Is the gazelle's family entitled to damages? Jurists who find these questions perplexing are more likely to find clarity in basic moral philosophy than in case law. Especially helpful is Immanuel Kant's grounding of duties and rights in our acceptance of a universal moral law, our capacity to recognise the rights of others and temper our behaviour accordingly. This trait is uniquely human.

The fact that animals can feel pain or show glimmers of human-like cognition or behaviour does not confer rights. Laws protecting animals are perfectly justifiable, not because they have rights, but because we value their welfare and are repulsed by acts of cruelty against them. Upholding such laws does not require the cascade of nonsense that would ensue from pretending that animals have moral or legal standing.

Thinkers of a certain bent will find it irresistible to attack the species barrier by deconstructing human behaviour into purely biological or evolutionary factors. At the rawest levels of description, they may have a point. Still, the fact that "animal law" seems to focus exclusively on how people treat them, rather than how animals treat themselves, is a tacit acknowledgment of a moral distinction.

HENRY STEPHENSON

O'Fallon, Illinois

I was excited to see your article on the advancement of animal rights. Your newspaper has frequently called for a bolder and more radical modern liberalism, and this is an obvious issue in need of an update. Although animal welfare in general remains complicated (and I for one have no desire to give rights to clams), species such as great apes, dolphins and whales have demonstrated conscious awareness and emotional experience beyond reasonable doubt. Their basic right to life, without cruelty or extreme confinement, should be a no-brainer for all liberals seeking to advance happiness and freedom. I would love to see *The Economist* adopt this radical, but entirely reasonable, position.

IUSTIN GILES

Charlotte, North Carolina

Child killers

I read with great interest, and indeed sadness, your piece on genocide prevention ("Never again, again and again", <u>December 8th</u>). In your brief account of the Rwandan genocide, you referred specifically to Hutu officers organising adult Hutus to slaughter their Tutsi neighbours. Although most of those who committed genocidal acts in Rwanda were indeed adults, there were nonetheless some children, including the very young, who were involved as perpetrators.

The participation of children in acts of atrocity carries with it certain implications, particularly when it comes to how countries deal with such violent crimes. Regrettably, Rwanda is not the exception. To provide just one recent example, video propaganda from Islamic State over the past couple of years has shown children as executioners in Syria. International efforts to prevent and respond to such tragic events must not neglect children's involvement.

DR JASTINE BARRETT

Harpenden, Hertfordshire

God blessed the seventh day

Regarding the prospect of a four-day work week, an understanding of the past is indeed in order, but it is too simple to say that "organised labour has led the charge for reduced working hours" (Free exchange, <u>December 22nd</u>). Christian clergy and lay leaders on both sides of the Atlantic collaborated with labour to push for shorter hours in the 19th century. Rabbi Bernard Drachman of the Jewish Sabbath Alliance campaigned for a five-day week in America as early as 1910. In earlier times, Puritans passed legislation to ensure workers had time for recreation. And laws dating to 958 in England and 1203 in Scotland restricted labour on Saturday afternoons in order to prepare for the Sabbath.

Those who wish to secure a four-day work week should note that the weekend as we know it has been brought about not only by organised labour, but also by organised religion.

KARL JOHNSON Ithaca, New York

Illustrator's Fouc-aulp

The illustrated calendar in *The World in 2019* depicts the wrong Foucault. Léon Foucault, known for his pendulum and celebrating his 200th birthday in September 2019, died with a full head of hair and favoured three-piece suits over turtlenecks. Pictured in his stead, with trademark bald pate and spectacles, is Michel Foucault, a French philosopher and literary theorist. Acolytes of Foucauldian-discourse analysis will toast to the centennial of his birth in 2026.

PETER KALAL New York

A missed opportunity

EU member countries than non-members ("Brussels pouts", <u>December 22nd</u>). Sadly, this was not David Cameron's experience before the referendum in 2016. Back then, the EU should have offered an emergency brake on free movement. But it is not too late. Indeed, given the events in Europe over the past two years, an EU-wide emergency brake of some form would probably be welcomed throughout the EU. Now we know so much more about Brexit, that concession would certainly clinch a vote for Remain in a re-run. Come on Angela!

ANDREW ROBSON

Chailey, East Sussex

I asked my daughter, who studies classics, to give me a Greek word for a political system where the incompetent, the irresponsible, the corrupt and the con artists emerge in political parties and manage to win elections. The term she gave me was "kakistocracy". I prefer Bagehot's more pedestrian and less cacophonic term: "chumocracy" (December 22nd).

CLAUDIO COLTRO

Milan

Perhaps "chumpocracy" would be more apt.

ANDREW JOHNSTON

Radley, Oxfordshire

Ho, ho, ho!

As a former consultant, I enjoyed Bartleby's report on Santa Claus's organisation at the North Pole (<u>December 22nd</u>). However, his good journalistic instincts got in the way of consulting best practice. There was a distinct lack of incomprehensible jargon, and the recommendations were delivered in clearly written prose, instead of a baffling 45-slide PowerPoint deck.

Nevertheless I'll look forward this year to a progress report on how things are going with outsourcing the RDO (reindeer delivery operations), changes to the CECA (chimney-enabled customer access) process, and the NONVT (naughty-or-nice verification transformation) project. I am sure Bartleby's imaginary consultancy firm will be happy to help with these initiatives (for a juicy fee and Lapland Airways expenses, of course).

NATHANIEL KENT

London

Surely Bartleby's "Yule University" would be a member of the Holly League.

CHARLIE WILSON

Oxford

This article appeared in the Letters section of the print edition under the headline "Letters to the editor"

Briefing

Pakistan

Tales of self-harm

Tales of self-harm

Why Imran Khan is unlikely to make life much better for Pakistanis

The army sets the agenda

Print edition | Briefing Jan 12th 2019

HUNDREDS OF WORKERS and their families pressed through the iron gates of a factory that knocks out trainers in Rawalpindi towards the end of last year. In the alleyway behind it the factory-owner was dishing out biryani. It was the Prophet Muhammad's birthday. Children flocked around great steaming pots, as employees replaced those emptied with full ones. In all, the owner said, he would dole out a tonne of rice and 800kg of beef. The messaging was hardly subliminal: this boss is magnanimous, god-sent.

For workers across the country feasts such as this may be welcome. But many say they would prefer a pay rise. A squeeze on workers has been made worse by the effects of rising interest rates and a fall in the Pakistani rupee in the past year of nearly 30%. The economy, which a year ago was growing at 5.8% annually, has slowed sharply. The cost of food, electricity and clean water has shot up. Factory workers in Karachi, Pakistan's biggest city and industrial heartland, say that, earning only 22,000 rupees (\$160) a month, they can barely make ends meet. Life was always precarious. It has now grown more so.

Afaq Hussain has worked in the same backstreet shoe workshop hammering on soles for 32 years. Last year the cobbler and his wife were struck down with dengue fever. In municipalities with tolerable administration, the disease is largely avoidable—a question of draining the pools of stagnant water in which the mosquitoes that spread the disease may breed. Karachi does not have such administration. Mr Hussain had to fork out 3,000 rupees for treatment. "People are scared all the time," he says. "If they are sick, they think: who will pay?"

Rarely the bosses. Few employers provide more than the stingiest health care. By their own admission, they see malingerers everywhere. Unions are weak, when they exist at all. Good jobs even for skilled labourers are hard to find. One Karachi textile boss, who employs more than 500 people, puts it bluntly. "They get a job and they don't like to make trouble," he says. "After all, where else are they going to get work?"

In this context, the bosses' virtue-signalling on the Prophet's birthday is cheap. Yet spare a thought for businesses, too. They make money only in the face of steep odds, or with help from friends in high places. In Karachi a cotton-mill-owner employing 250 workers, a big rice exporter, the owner of a shoe factory and the head of a family-run chain of small chemist shops (drugstores) all said that rising costs of electricity and water were extreme headaches. The drugstore boss complains that, with no electricity from the grid for up to 16 hours a day, the use of diesel generators doubles his energy bills. The millowner says higher prices for power and water have added 2 rupees a metre to the cost of producing his cloth, wiping out his thin margins. The businessmen complain that they are losing out to competitors not just in China but in Bangladesh, India and Sri Lanka. The shoe-factory boss has just laid off half of his 70 workers.

Hard business

The damning fact is that, even when economic growth ran at a better clip for five years and a handful of new power stations at last ameliorated the country's chronic energy shortages, the real value of exports failed to grow. Today few businessmen are confident that exports can pick up even following the currency's devaluation.

Asking what the government is doing to help elicits hollow laughs. In parched Karachi, there is anger that the government cannot even keep water flowing. With water mains often sucked dry by politically connected mafias, employers and consumers are forced to pay through the nose for water from tankers driven by those same gangs. As for bureaucracy and government corruption, it seems to be getting worse. Port officials frequently demand bribes from the drugstore boss for importing beauty products. The rice exporter lists 14 separate agencies that insist on receiving bribes, ranging from civil defence to health and safety.

Imran to the crease

It is against this backdrop that Imran Khan and the party he founded, Pakistan Tehreek-e-Insaf (PTI), came to power after elections in July. The 66-year-old former playboy and cricketing superstar, who was once married to a British-Jewish socialite, has had something of a remake as a devout upholder of Islam. That has drawn rural conservatives to a movement that found its early support among urban and often secular middle classes. It sits oddly with those familiar with Mr Khan's hedonistic proclivities, or his well-dressed crowd of hangers-on—people who, as one political observer who knows them puts it, "either want to fuck him or fuck like him."

Yet there is little doubting Mr Khan's personal honesty, or the pride he evinces in the two cancer hospitals he has founded, the first in 1994. His own living has long been presumed to be underwritten by benefactors. Though hardly all homespun frugality, Mr Khan is not deep-pocketed like members of Pakistan's usual political clans. Nor does he represent a self-perpetuating dynasty, as they do. This is part of his appeal. For years he has railed against nepotism and political corruption. He won national office at last thanks to his anti-graft message finding a wide audience among disenchanted Pakistanis.

That and help, behind the scenes, from the army's top brass. The army has always played an outsized role in public life. One of its critics, Husain Haqqani, a former Pakistani ambassador to America now at the Hudson Institute in Washington, DC, writes in his recent book, "Reimagining Pakistan", that not only does the army set itself up as the protector of the national interest, it also "defines national interest autonomously of elected civilians" and it does not "countenance any interpretation of national interest other than the one it institutionally advances."

Key tenets of the state ideology the army has fostered are an Islamist religiosity; a doctrine of insecurity, tipping into paranoia, resting upon divining enemies ceaselessly at work to undermine Pakistan (none more so than nefarious India); and the army's own praetorian role in the Pakistani state. The country's nuclear doctrine—Pakistan has possessed nuclear weapons since 1998—flows from, and winds through, all three tenets. So does a long propensity, striking in a state with such a prickly nationalism, to play up its geopolitical importance in return for foreign aid.

Mr Khan, for all that he paints himself as a populist outsider, has become a vocal upholder of these tenets, and in return the army backed his rise. First the generals went after the prime minister since 2013, Nawaz Sharif, and his Pakistan Muslim League-Nawaz (PML-N). They deemed him insufficiently biddable and last year encouraged what was in effect a judicial coup. The generals then strong-armed the press and television to back Mr Khan, while shutting off that oxygen for Mr Sharif.

Nearer the election the generals helped pliant politicians with large local followings switch sides and bring their "vote banks" with them. On election night they helped rig PTI victories in a dozen or more crucial seats. The cowed media may mention none of this. Some analysts even think it an acceptable evil: at last a civilian government that does not rile the army can roll up its sleeves and get economic stuff done.

That is certainly Mr Khan's intention. He campaigned on a promise of what he calls "Islamic welfare". There is little specificity to the phrase. But it is an appeal to Pakistan's downtrodden and a welcome recognition of the price of poverty and social injustice among several tens of millions of Pakistanis at the bottom of the pile. By the UN's measure of human development, Pakistan ranks the lowest in South Asia. Pakistan accounts for one in every 13 of the world's unschooled, and most of them are girls. Some 21m Pakistanis have no access to clean water.

"Social protection" is a phrase on the lips of many of the new government's members. In the planning ministry the parliamentary secretary, Kanwal Shauzab, is a social scientist who did her fieldwork in caste- and class-based discrimination against women in the southern part of Punjab province, Pakistan's most populous. She and Western-educated female advisers eagerly lay out what they intend to accomplish in terms of human-development goals—reducing poverty, improving education, providing sanitation and clean water. The challenges are immense, and begin with a palpable lack of zeal in the ministry's adjacent, somnolent offices.

The buckle on the belt and road

Yet Mr Khan's aspirations have careened into Pakistan's immediate challenge: a full-blown balance-of-payments crisis. The country has an addiction to these, especially after budget-busting elections. But this crisis has a particular feature, the influence of China. The previous government under Mr Sharif came to office just as President Xi Jinping was laying out his grand plan to use China's surplus dollars and excess capacity to create a web of globe-girdling infrastructure, now known as the Belt and Road Initiative (BRI). The China-Pakistan Economic Corridor (CPEC) is easily the biggest part of the initiative.

China has strategic as well as economic reasons to want to connect its landlocked hinterlands to the Indian Ocean. Hugely ambitious plans were drawn up for power plants, roads, industrial zones and the development of Gwadar, until recently a fleapit on the Arabian Sea, into a modern port. Over \$60bn in Chinese investment and loans was promised. As the projects got under way, the tide of money pumped up domestic demand, inflated a property bubble, pushed up the value of the currency and led to an unsustainable surge in imports. The current-account deficit was 1% of GDP in 2015. By 2018 it had widened to over 5% of GDP. Foreign-exchange reserves have fallen sharply, previously brisk economic growth has slowed leaving Pakistan's to continue trailing behind its neighbours (see chart). Inflation and interest rates are rising, too.

Mr Khan at first declared that he was damned if he was going cap-in-hand to the IMF, turning to Pakistan's all-weather friends, Saudi Arabia and China, instead. Saudi's rulers opened the chequebook only after an international furore over the murder of Jamal Khashoggi made them eager to improve their image. They have promised \$6bn in loans and deferred payments for oil. The United Arab Emirates is offering something similar. As for China, on Mr Khan's first trip as prime minister to Beijing in November, he had none of the firm promises of financial aid that he had hoped for. And China dashed hopes for a renegotiation of CPEC deals—which are, after all, commercial arrangements with state-owned enterprises, not with the state.

So Mr Khan has no choice but to turn to the IMF to bail out Pakistan, as it has done a dozen times since 1988. Pakistan hopes for up to \$12bn. In return the IMF is asking for action such as raising energy prices, clamping down on tax evasion and revamping the export sector. The government has not won a deal as swiftly as its members had predicted. Negotiators hope for an agreement early this year.

Pakistan can probably dig itself out of its immediate hole, helped in part by recent falls in the oil price—it is an energy importer. The new finance minister, Asad Umar, a former businessman, says that money from Saudi Arabia and China solves his cash-flow problems for the coming year. An IMF deal would buy another couple of years beyond that for a sweeping reform programme. Mr Umar claims it is less about the final sums disbursed than about securing a new "strategic" direction that would make this bail-out Pakistan's "last IMF programme".

Mr Umar gives the impression of trying to fix a vast number of things at once. But three areas are a priority, he says. The state raises a pitiful sum from taxes: only 10.5% of GDP. Meanwhile, a thriving black market in foreign exchange helps the siphoning of ill-gotten wealth abroad. So clamping down on tax evasion is a must. Much hope is placed on technology coming to the rescue. Mr Umar claims early success in using data trawls to spot tax dodgers, identifying them by spending patterns, for instance.

The second area is helping Pakistan's beleaguered exporters. But the task is huge: in the past four decades Pakistani exports have grown only one-fifth as fast as India's or Bangladesh's. Third, Mr Umar promises to overhaul the state sector, taking state-owned enterprises from the purview of ministers and bureaucrats, for whom they represent tempting targets for plunder and misrule, and into a professionally run holding company.

Mr Umar's aims are commendable. Yet one topic in need of urgent debate remains out of bounds: CPEC itself. As Atif Mian, an economist at Princeton University, argues, sustaining high imports, financed by external borrowing, is magical thinking. Success cannot be bought from outside without concentrating on domestic productivity growth and exports. CPEC causes the currency to become overvalued and Pakistan to become less competitive globally. It is, Mr Mian says, Pakistan's version of "Dutch disease".

And the damage is significant even before posing the question of servicing dollar-denominated Chinese debt. To date, CPEC has helped increase Pakistan's external debt by half, to \$97bn (32% of GDP), while debt-service costs outstrip the budget for development. There are legitimate questions too about the nature of the deals signed with China. No doubt Pakistan needs Chinese coal-fired power plants. But the electricity tariffs Chinese investors are guaranteed for years look exceptionally high when solar power in sunny Pakistan offers a cheaper long-run alternative.

As for the loans China has made in return for Chinese-built roads and the like, the interest rates Pakistan is charged are usually competitive and no one else would lend Pakistan the money. But without open tenders for contracts, the concern, as Mr Mian puts it, is that Chinese companies charge \$100 for equipment but install poorer kit that is worth, say, \$80, a trick that sharply raises the cost of capital.

There are hints that the establishment is having second thoughts about CPEC. It might explain why the army, behind the scenes—and now perhaps Mr Khan himself—are working hard to mend fences with America. Yet openly criticising CPEC was taboo under the previous government and remains so. Mr Mian describes a "blanket ban" on any objective assessment. Misgivings about CPEC are almost entirely absent in the press. In private Pakistani journalists explain why. To question CPEC is to conspire against the national interest—which the army holds the monopoly of defining. The sanction for media outfits that cross the army is closure.

Sensitivity over CPEC is understandable for another reason. China is Pakistan's closest diplomatic and military friend. China helped it become a nuclear state and acts as a counterweight to India, the old foe, as well as America, with which Pakistan has troubled relations. Both sides insist that the "Sino-Pak" relationship is, in the words of an old phrase, "higher than the Himalayas, deeper than the ocean, stronger than steel and sweeter than honey". But any questions about it would be embarrassing. The generals, with fingers in many pies, are surely keen to hide how handsomely they are making out from CPEC.

The CPEC taboo undermines the Panglossian argument that, now a civilian government is at last aligned with the armed forces in Pakistan, much can be accomplished. As Mr Haqqani points out, an obsession with national security makes it hard to propose economic solutions to economic problems.

Restraint of trade

The economic boom to make that investment worthwhile can transpire only with vibrant trade ties with Pakistan's neighbours, India above all. Yet obstructing such ties is the country's national-security priority, in the generals' eyes. There are other ways in which the case is undermined. For all Mr Khan's integrity, the PTI and its allies have plenty of sleazy politicians and businessmen on the make.

A more subtle undermining concerns the case of Mr Mian, the economist from Princeton. On coming to office, Mr Khan appointed him to his economic advisory council. But then Islamist parties which the army had once fostered insisted on his dismissal on the grounds that he is an Ahmadi. The Ahmadis are a sect who revere both the Prophet Muhammad and a 19th-century messiah. They are often persecuted. Indeed, the constitution stipulates that they are not really Muslims (which they say that they are), and mandates discrimination against them. Mr Khan gave in to pressure and sought the resignation of Mr Mian, a world-class economist who only wants to improve the lot of ordinary Pakistanis. Thus, once again, does Pakistan commit self-harm.

This article appeared in the Briefing section of the print edition under the headline "Tales of self-harm"

United States

Governing America

This town, shut down

This town, shut down

Before 1980 the federal government did not shut down

Jimmy Carter's attorney-general changed how America is governed

Print edition | United States Jan 10th 2019

PUBLIC-RELATIONS professionals know that the best time to release bad news is late on Friday afternoons. Hacks and their editors have one foot out of the door; nobody wants to put their weekend plans on hold to start a new story. America has recently discovered that a similar rule holds true for government shutdowns: if it happens just before Christmas, when federal workers are already on holiday and nobody is paying much attention to the news, then the waste and pain will not seep into the headlines for a couple of weeks.

Now that quiet period has passed. Rubbish is piling up in national parks; farmers cannot get their loans processed; food-stamp programmes are running out of funds; tax refunds may be delayed; and hundreds of thousands of federal workers remain either stuck at home or forced to work without pay. To reopen the government President Donald Trump demands \$5.7bn for his border wall. Nancy Pelosi, who presides over the most polarised House of Representatives in recent memory, does not want to give it to him.

If this shutdown, the third in the past year, stretches into next week it will become the longest in American history. How did the world's most powerful government become so dysfunctional? The roots of this shutdown lie in two places: an attorney-general's memo written in 1980, and Mr Trump's 2016 campaign.

Before 1980, federal agencies often operated during funding gaps (meaning before Congress had appropriated the required money). They tried to stay lean, to avoid going too far into the red, but reasoned that Congress did not intend to close them; it merely had not yet got around to formally providing their funding.

In 1980, however, Benjamin Civiletti, then the attorney-general, opined that the only way that agencies could avoid violating the Antideficiency Act—which forbids the government from spending money that has not been appropriated—is to cease operating until Congress funds them (the Act's authority stems from a constitutional prohibition against the government spending public money unless the people, via their representatives, have authorised it to do so). The only exceptions concerned "the safety of human life or the protection of property", which exempts active-duty military, who are still working and getting paid, and federal airport-security workers, who are working but not getting paid.

Mr Civiletti's determination made funding gaps less frequent. They were no longer technical and ignorable glitches; they became, in effect, temporary closure orders, which made them costly and embarrassing. But it also turned government funding into a hostage-taking mechanism. In late 1995, the Republican-controlled House, led by Newt Gingrich, produced a spending bill with deep cuts to social-welfare programmes that were anathema to then-president Bill Clinton. Mr Clinton refused to sign it, and the government shut down—first for six days, and then for 21. The shutdown ended when Congress and the White House hammered out a budget deal with modest spending cuts and tax hikes. In effect, Republicans caved.

Although Mr Gingrich received most of the blame for the shutdown (and Mr Clinton was easily re-elected), it arguably pushed the president's agenda rightward. Still, the opprobrium resulting from the government ceasing to function for nearly a month was sufficient for Mr Gingrich never to try it again.

Another generation of Republican insurgents tried in 2013, when they insisted, as a condition of passing a budget, that the Affordable Care Act, Barack Obama's signature achievement, be delayed or defunded. That shutdown, which lasted 16 days, also ended with Republicans surrendering without getting what they demanded. But neither did they pay a political cost; the next year they took control of the Senate.

Like these two previous shutdowns, this one is Republican-led. Unlike the past two, however, it stems from the president trying to impose his will on Congress, rather than the inverse. Absent Mr Trump's insistence on \$5.7bn for his wall, a spending bill could easily pass both houses of Congress. "This is not a hard shutdown," says Michael Steel, who was a spokesman for John Boehner, the House speaker during the 2013 shutdown. "Put any number of bipartisan senators in a room with a cocktail napkin and they could figure this out."

Instead of senators huddled around a cocktail napkin, America was treated to Mr Trump and Democratic congressional leaders making their cases on prime-time TV. Mr Trump called the border "a pipeline for vast quantities of illegal drugs", though most come through ports of entry and a wall would not stop them. The number of migrants apprehended at the border rose late last year, but from record lows. Overall numbers are far below where they were a decade ago. If there is a crisis, it is in America's creepingly slow-moving asylum system. Yet that is a far less compelling argument than Mr Trump's assertion that foreigners are sneaking across the border to behead American citizens, and that the only way to stop them is to build a big wall.

Chuck Schumer, the Democratic leader in the senate, reiterated his party's offer: continue negotiating over border security and pass bills to reopen the other shuttered parts of the government.

Most Senate Republicans would happily accept this deal. Some who are up for re-election in two years, such as Cory Gardner of Colorado and Susan Collins of Maine, have begun pushing for a resolution without a wall. Even John Cornyn of Texas, the majority whip until recently, backed the sort of hybrid solution—physical barriers, along with technology, drones and more personnel—that Democrats could support. But far more Republican senators face re-election in solidly Republican states next year, and they fear a primary challenge from the right more than losing to a Democrat. Hence Mitch McConnell, the Senate majority leader, vowed not to bring forward a bill that the president does not support, despite having called shutdowns "a failed policy" in 2014, when he also urged the then-Democratic Senate to set "national priorities [rather than] simply waiting on the White House to do it."

For his part, Mr Trump feels he holds a winning hand. Immigration hawkishness helped propel him to victory in 2016 and remains crucial to satisfying his base. Though a recent Reuters poll showed that most Americans blame him for the shutdown (perhaps because he accepted blame in a televised interview), earlier polling data suggest that may fade by 2020. During the two previous extended shutdowns, approval ratings for the incumbent presidents both fell, but they rebounded relatively quickly. Yet that pattern may not hold if this shutdown lasts months.

Members of both parties fear that Mr Trump will reach not for Mr Schumer's solution but a more drastic one: invoking emergency powers to circumvent Congress and build a wall using previously authorised military funds. That would set a precedent that terrifies conservative senators: what is to stop a future Democratic president from doing the same thing to deal with climate change or guns?

It would also precipitate a genuine constitutional crisis and a fierce court battle. Perversely, that could suit Mr Trump well. He may not get his wall, but he would get to keep fighting for it, and he would still have useful enemies—judges, Democrats—to blame for it having not been built yet.

This article appeared in the United States section of the print edition under the headline "This town, shut down"

Shopping for a splenectomy

Hospital prices are now public

That is unlikely to push them down

Print edition | United States | Jan 12th 2019

FROM THE day it became law, the Affordable Care Act, better known as Obamacare, has been a party *piñata* for the Republicans. They keep bashing it from all sides, trying to tear it apart. But one of its provisions was embraced and even bolstered by the Trump administration: as of January 1st hospitals are obliged to post online the standard charges for all of their services.

The idea is, in theory, laudable. Patients, who are otherwise mostly blind as to what their care will cost until the bill arrives, would shop around for lower prices. The biggest winners at first would be the roughly 10% of Americans who do not have health insurance and the 43% covered by cheap plans that require them to pay substantial amounts towards medical bills before their insurance kicks in (known as high-deductible plans). As patients flock to competitors who charge less, hospitals would cut prices to win them back—bringing America's exorbitant prices closer to those in other rich countries (see chart).

In reality, none of this is likely to happen. The price lists that are being published are of little practical use for patients. Each private insurer negotiates discounted rates with each hospital, in contracts that usually neither side is allowed to make public. An analysis of payments for uncomplicated births in California in 2011, for example, found that discounted prices paid by insurers were, on average, 37% of hospitals' list prices.

Uninsured patients, who are most likely to pay the list prices, face a headscratcher: working out which of the thousands of items on the price lists, with descriptions like "ECHO TEE GUID TCAT ICAR/VESSEL STRUCTURAL INTVN", might apply for their treatment. Even if they manage to nail down the big-ticket items, they will still be missing a major portion of the final bill, because the rates charged by physicians, radiologists and other specialists are not included in hospitals' lists. To dispel confusion hospitals are posting, alongside their price lists, disclaimers and videos explaining that they are useless.

The predicament of patients trying to get an idea of what something like a big operation might cost them is laid bare by a study conducted in 2016, in which researchers called 120 hospitals posing as a grand-daughter looking for information on the cash price of hip replacement for her grandmother. Only eight of the hospitals were able to provide a full price, inclusive of physician charges; 53 were unable to provide any estimate.

Nearby hospitals often have widely different list prices, even for things as standard as an X-ray or an aspirin tablet. Might some hospitals lower prices when they see what their competitors are charging? That, too, seems unlikely. Most states already require hospitals to publish some of their prices. When prices become public, they may go up, not down, says Renee Hsia of the University of California in San Francisco. Antitrust textbooks teach that transparency can push up prices because firms know that discounting might trigger an immediate price war rather than boost their market share.

America's health care market poses particular challenges. Hospitals set prices using various multipliers and formulas that are often outdated and not linked to costs or quality—a process that the late Uwe Reinhardt, an economist at Princeton University, once described as "chaos behind a veil of secrecy". Studies of people in high-deductible plans show that when they have access to prices they reduce their use of services but do not pay less for them. Patients usually go for tests to wherever their doctors refer them.

The fallacy of pinning hopes on policies such as the new price-transparency rule is that patients in America are viewed as consumers who can easily shop around, rather than people who are unwell and under duress, says Dr Hsia. But knowing in advance how much their care will cost would be a step forward.

This article appeared in the United States section of the print edition under the headline "Shopping for a Caesarean"

Mischief and policing

Swatting could become a federal crime

False reports leading to SWAT team deployments have doubled since 2011

Print edition | United States Jan 12th 2019

A NYONE TEMPTED to cry wolf might ponder the fate of Tyler Barriss. On January 30th a federal judge will sentence the Californian to at least 20 years in prison for dozens of hoax 911 emergency calls, including one which resulted in the police in Wichita, Kansas fatally shooting an innocent and unarmed young father. But while Mr Barriss's mischief-making is over, at least for a spell, police SWAT (special weapons and tactics) teams, which make use of military hardware and techniques, can expect plenty more "swatting" calls, as bogus reports of violence have become known. Due to the lack of a uniform reporting category, no nationwide tally exists. But Kevin Kolbye, a former FBI swatting expert who is now assistant police chief of Arlington, Texas, reckons annual swatting incidents have climbed from roughly 400 in 2011 to more than 1,000 today.

Part of this increase can be chalked up to smartphone apps and online services that mask a caller's location and identity, diminishing the risk of the swatter being caught. Another factor is the popularity of streaming videogame play to an online audience. A swatter who targets a rival gamer during a streaming session can watch the victim's reaction as his room is stormed by cops in tactical gear, weapons drawn. The voyeuristic frisson thus obtained seems to have outclassed the thrill of generating a news report of a SWAT raid on a celebrity's home, an approach that was more common in years past. (Stars subjected to a swatting include Justin Bieber, Russell Brand, Tom Cruise, Miley Cyrus, Clint Eastwood and Paris Hilton.)

Most swatters, then, are seeking kicks or the settling of a score. Some, however, are pursuing profit. Drug dealers sometimes swat rivals, hoping their unexpected brush with the law will end up reducing competition, says Robert Pusins, who until recently worked for the sheriff's office in Broward County, Florida.

The risk of violence seems to rise in the swatting of victims who have not committed a crime. In the confusion of a raid, a law-abiding citizen is more likely to reckon that his home must be under attack by thugs. Thus unnerved, he is more likely to brandish and use a weapon, which may draw police fire, Mr Kolbye says. During the response to a fake bomb threat in 2015, the police chief of Sentinel, Oklahoma was shot four times by a resident who, investigators said, was not charged because he believed the intrusion was criminal. (A ballistic vest saved the officer's life.)

Of late, swatters seem to have become better at making their 911 calls appear to come from near the supposed scene of the crime, says Carrie Braun, spokeswoman for the sheriff's office in Orange County, California. But even fishy reports of violence must be treated as real—"we will always respond," she says. All this hits taxpayers hard. The bill for a SWAT raid complete with bomb squad and paramedics can run into six figures, according to the Michigan Association of Police.

More than a few swatters end up bragging online, an unwise move. To make prosecuting them easier, Congresswoman Katherine Clark, a Massachusetts Democrat, is pushing a bill in Congress that would make swatting a federal crime. In 2016, not long after she had introduced the initial version of the legislation, police with rifles appeared outside her house near Boston. A caller had said that a shooter was inside her home.

This article appeared in the United States section of the print edition under the headline "Swatting up"

Sister sledging

What group of people is most hostile to #MeToo?

Republican women over the age of 65

Print edition | United States Jan 12th 2019

No GROUP HAS swung against #MeToo more than older women who voted for Donald Trump. They have gone from barely worrying about false accusations of sexual assault, with only 8% agreeing in November 2017 that these were worse than unreported assaults, to 42% saying so, according to two polls conducted for *The Economist* by YouGov, a pollster. They are now the most likely group to agree that a man who harassed a woman 20 years ago should keep his job, and that a woman who complains about harassment causes more problems than she solves.

Two things stand out. First, even though Americans on average, and Republicans in particular, have become more negative about #MeToo over the past year, the change among this particular group is spectacular (chart). Second, a generational gap now yawns between Republican women who are over 65 and those under 30, the cohort least hostile to #MeToo within the Republican Party.

One obvious difference between the two groups is that many of the over-65s have grown-up sons. In 2018 some of them fell off their pedestals as hundreds of men were publicly named and shamed over sexual misconduct allegations. Many more feared that "some lady" from the past could, with one accusation, destroy them and their family. This lady became personified in Christine Blasey Ford, when in September 2018 she accused Brett Kavanaugh of sexual assault, threatening to derail his nomination to the Supreme Court. All this helped fuel a backlash against #MeToo, and not just among men. Many Twitter threads on #HimToo, the hashtag about false accusations, were posted by worried mothers.

"We saw the split among Republican women widen around the Kavanaugh hearings. A lot of the rhetoric illustrated the generational gap," remembers Jennifer Pierotti Lim, from Republican Women for Progress, a campaign group. "There's a feeling amongst that generation that a little light sexual assault is no big deal. For women of our generation that's hard to understand."

Carrie Lukas of the Independent Women's Forum, a conservative advocacy group, recognises what the movement has done in encouraging people to speak out against prominent men who "people have known were problems", but wonders whether it has gone too far. "I don't think the mantra 'believe all women' is sufficient," she says. "Men need to be able to make mistakes, and have conversations with women and not be walking on eggshells."

Yet the biggest split on #MeToo, as with any question pollsters ask about gender is not between genders or generations but between political affiliations, says Juliana Horowitz from the Pew Research Centre. Democrats have barely changed their views on #MeToo over the past year, even as Republicans have grown more sceptical. No split separates the generation of Nancy Pelosi and Elizabeth Warren from younger female Democrats. In fact boomer Clinton-voting women have increased their support for #MeToo over the past year.

The partisan gender gap has already widened. In 2016 Hillary Clinton won 54% of women voters; in the 2018 mid-terms 59% of women voted for Democrats. Republicans appear unconcerned: a recent poll found that 71% of likely primary voters expressed no concern that only 13 of the party's 200 House members are women (the lowest number in 25 years) and 60% said nothing had to be done to recruit more female candidates.

One explanation of this partisan gap is that it reflects a difference of opinion over what true feminism is. Some conservative women resist what they see as special treatment for women as vaguely patronising. There is another explanation, too. Ms Pierotti Lim of Republican Women for Progress remembers campaigning in Wisconsin and Michigan in 2016 and being astonished by the number of older women who were afraid to even talk to her and who let their (Republican-voting) husbands fill in their ballots.

This article appeared in the United States section of the print edition under the headline "Sister sledging"

On the make by the lake

Chicago's political system is set up to produce corruption

A powerful city councillor was wiretapped and followed around by the FBI for a year

Print edition | United States | Jan 12th 2019

HE WEARS A fedora hat, pinstriped suit and a scowl. In his breast pocket he folds a handkerchief, colourful and silky. For the past half century, since 1969, Edward Burke has run his fief, the 14th ward, a gritty district in south Chicago, as an old-school political boss. No other councillor—alderman, say Chicagoans—has amassed such clout. Since 1983, save a couple of years, he chaired the city's powerful finance committee. A canny, financially literate figure, he also oversaw a compensation scheme for public workers, doling out \$100m a year with little oversight.

Mr Burke was a fixture even as mayors came and went. The ex-cop played piano, wrote local histories and profited hand-somely by running a legal office that helped corporate clients appeal against their city tax bills (Donald Trump, for a time, was a client). He was a noted figure, lauded for adopting a child from a deprived neighbourhood. Yet if you asked about Chicago's machine—the system of patronage jobs, political donations by businesses seeking permits, corporate tax deals cut over lunches in clubs—his was the first name that sprang to everyone's lips.

Now, most likely, Mr Burke is done. The FBI lodged a 37-page criminal complaint against him on January 2nd. He denies all wrongdoing. But for much of 2017 the feds bugged his phone, recording about 40 calls a day. They also trailed him. That exceptionally long period suggests they showed a judge strong cause for suspicion. Agents raided his office late last year. They accuse him of attempted extortion, saying he withheld a permit for a restaurant owner to renovate, while demanding a pay-off. He could face 20 years in prison.

He is the biggest fish caught in recent city history. The FBI alleges that he pressed the restaurant chain—reportedly Burger King—to hire his private office to handle all its tax affairs in Illinois. The firm resisted, but it did agree to serve up a whopper of a \$10,000 political donation. One executive spoke of "reading between the lines", grasping that he needed to pay to avoid trouble from powerful Mr Burke. The cash reportedly went to Toni Preckwinkle, the front-runner (until now) in the mayoral race, to be held next month. She says the campaign rejected it, so did nothing wrong. And she is returning a big pot of money Mr Burke raised separately for her.

For years Chicago's political elite lauded Mr Burke and took his donations, despite his dubious past. He co-led a racist campaign to stymie reforms by the city's first black mayor, Harold Washington, in the 1980s. Previous federal investigations into "ghosts" who padded city payrolls had nabbed people close to Mr Burke.

Now he is alone. Rahm Emanuel, the mayor, has stripped him of his committee post and promises an audit of his work. Ms Preckwinkle, who runs the Democratic Party in Cook County, has booted him from a party post. Other aldermen declare themselves shocked, shocked. "We are not all crooks," said one, plaintively, this week.

Burke's little platoon

Politics in Illinois encourages conflicts of interest that would be criminal elsewhere. "The real crime is what is legal," goes a common Chicago refrain. Mr Burke could work as a public official, setting policies for companies, while also touting for business with the same clients to submit appeals against the city. A predecessor on the finance committee did the same. Michael Madigan, speaker of the statehouse, has long done something similar.

Criminality among the city's 50 aldermen is also astonishingly common. Dick Simpson of the University of Illinois, in Chicago, estimates that there have been 200 councillors since 1969, when Mr Burke first got elected. Of them, 33 have been imprisoned for bribery, extortion, fraud or more. One notorious catch, Edward "Fast Eddie" Vrdolyak, is an ex-boss of the Democratic Party in Chicago. Recently other officials, including an ex-boss of Chicago's schools who pocketed \$2m in kickbacks, have been imprisoned.

"We are the most corrupt metropolitan region in America," says Mr Simpson. Studs Terkel, a shrewd author, once declared Chicago is really the "most theatrically corrupt" city in America. Nothing is done by halves. The Justice Department says it recorded 1,642 federal public corruption convictions in Illinois's northern judicial district between 1976 and 2013, more than in any other district nationally. Austin Berg, co-author of a newly published book on Chicago politics, says the autocratic power of the mayor and aldermen is the core problem. A city commission called the system an "anachronism" already in 1954.

Will anything change after Mr Burke's fall? A survey in 2016 found over 90% of Chicago business leaders saw cronyism in the city government. Small firms, especially, consider that a drag. Mr Emanuel promises a clean-up in his final weeks. One mayoral candidate, Bill Daley (himself from a notorious clan of Chicago mayors) said this week that he wants most of the alderman posts scrapped.

Chicago could adopt practices of better run places. Annual "menu money", in which each alderman gets roughly \$1m to dispense in his ward, should end. The city needs a smaller city council; more transparency; a powerful inspector general; a charter and a set of ethics to ban politicians from enriching themselves with side businesses. City departments should take over

zoning powers from aldermen. Gerrymandering of city districts should end. Will any of this come soon? Not likely. Chicagoans brag theirs is the "city of big shoulders". It is also a city of back-handers.

This article appeared in the United States section of the print edition under the headline "On the make by the lake"

John Kasich: conservative orphan

Lexington

John Kasich: conservative orphan

Ohio's departing governor is a credit to his party and Donald Trump's biggest critic

Print edition | United States | Jan 12th 2019

You Got 20 minutes," growled John Kasich. The governor of Ohio had just chaired his last cabinet meeting and was impatient to leave the office which he has occupied for the past eight years and will vacate permanently this week. Several hours later, after an extended discussion of his state, America, why he lost in 2016 to Donald Trump, the damage done by his presidency, politics on the right, golf, faith and Mr Kasich's electric car ("It's like driving a space rocket!"), Lexington bade him farewell at a party for his security detail on the other side of Columbus. He had reached it via the governor's office, car, house and garage, with pauses to chat with Mr Kasich's wife and teenage twin daughters ("C'mere girls, I brought you a Brit...") along the way.

The governor, who is Mr Trump's biggest Republican critic, does not stand on ceremony. He kicks up a conversational firestorm, racing from topic to topic, showing the same fervent interest in a controversial dam project as in his home suburb's connection to the Underground Railroad and the future of the West. Unlike many politicians, he is also able to surprise. Bullish and irascible, he is most interested in his own views, trusts his gut where the evidence fails him, and sweeps counter-arguments aside: ignore the polls, evangelical Christians are not the solid Trump constituency many say, he insists, "and I happen to know this". Yet he periodically backs up, as if suddenly irritated by his own certainty. "Forget that—what do you think?" "Do you think any of us really knows what we're doing?"

A more original politician than he appeared to be in 2016, when his upbeat Reaganite message found few takers, Mr Kasich's governing record reveals the same mix of intensity, single-mindedness and sporadic eccentricity. Inheriting a state in economic crisis, including an \$8bn budget shortfall, he slashed spending, privatised services and accepted protest as proof of concept. Doing the right thing, no matter the political cost, is one of his mantras. That usually means the conservative thing. Fairly solidly pro-life and pro-gun, Mr Kasich is not the squishy centrist he is sometimes portrayed as—except when he is. When it comes to helping the poor, incarcerated and addicted, he has long argued that the end justifies the means. His decision to expand Medicaid despite opposition from Republicans illustrated that. Since the election, he has also been thumbing it to Republican orthodoxy more often.

He signed off on modest gun and abortion controls and campaigned on health care alongside his Democratic counterpart from Colorado, John Hickenlooper. Ideological fixity on the right, he says, mainly reflects a lack of new ideas. "That's where my party fell short. Maybe there is something in the conservative DNA that makes it easier to be against something than for it." He believes Mr Trump's success was based on filling the void. It follows that he considers Republicans to be open to a course correction now. "People are going to get serious about what they want to see in the country," he says. "So do I think someone like me could stand up and change the whole debate? I do." Mr Kasich has suggested he will run against Mr Trump in 2020, ideally as a Republican, or else as an independent, if there is enough money and other encouragement available to suggest he can win.

As things stand, there won't be. His rather self-serving explanation of why he lost in 2016 is a clue to that. Mr Kasich says he was drowned out by the media's obsession with Mr Trump. But journalists gave him more time than most Republicans. Even after his mainstream rivals were eliminated, he raised little money, and only won his own state. As Mr Kasich acknowledges, a resentful Republican primary audience was not in the mood for his talk of bipartisan problem-solving. But it also spurned his ideas. It turned out many Republicans had long preferred Mr Trump's talk of border walls and protectionism to Mr Kasich's support for immigration and trade. The surveys he disdains suggest they still do. Kasich voters tended to be Republicans hostile to Mr Trump, and are those most likely to have quit the party since his election. Mr Kasich is still popular in Ohio, but more with Democrats than Republicans. After his previous break from politics—following an 18-year spell in Congress—he worked for Fox News and Lehman Brothers. He is about as likely to return to one as the other. His party has left him.

His record in Ohio, which had 89 cents in its rainy day fund in 2011 and now has \$2.69bn, points to the cost of that. It is no coincidence that the most successful Republican governors tend to be moderates, or that they are generally found in states, such as Massachusetts, Maryland and Texas, where Republicans need independent or Democratic voters to win statewide. As the Republican Party becomes increasingly inhospitable to such figures nationally, it is not obvious how it can retain them at the state level. Either it will have to reverse course from Trumpian nationalism, which may take longer—perhaps including a couple of crushing presidential election defeats—than Mr Kasich predicts. Or else the Democrats may seize the opportunity they have been given to expand their coalition. It is not hard to imagine Mr Kasich in the same party as Mr Hickenlooper. "He thinks about things pretty much the same way I do," Mr Kasich says.

A moderate by any other name

A third possibility is that Democrats continue marching to the left—creating an opportunity for a third-party candidate to surge through the middle. It seems unlikely; Democratic extremism is often exaggerated and independent candidates face big

financial and other barriers. Mr Kasich seems nonetheless most intrigued by this prospect, and in the event of a presidential face-off between, say, Mr Trump and Senator Bernie Sanders, it would be wrong to rule it out. But he might in that case consider a word of advice. He is an innovator who in 2016 came across as rather a stick-in-the-mud. To assemble a new centrist coalition, Mr Kasich should unleash the political cross-dressing maverick that he is.

The Americas

Nicolás Maduro

Six more years?

Failure in Venezuela

Nicolás Maduro digs in for another six-year term

Will he stay in office until the end of it?

Print edition | The Americas | Jan 12th 2019

UNDER VENEZUELA'S constitution, presidents are supposed to be sworn in before the national assembly, the country's legislature. But the ceremony that will begin Nicolás Maduro's second six-year term, planned for January 10th, is to take place at the supreme court. That is because the opposition-controlled assembly regards Mr Maduro's election last May as a farce and his second term as illegitimate. The nominally independent court, by contrast, remains an obedient servant of the regime. The change of venue is a characteristic manoeuvre by Mr Maduro, who is keeping power by increasingly dictatorial means.

That is his one talent. After a catastrophic first term, Mr Maduro is arguably the world's least successful president (see charts). But the seeds of disaster were planted by his predecessor, Hugo Chávez, who died in 2013. An eloquent populist, Chávez thought that the best way to help the poor was to ramp up government spending while throttling markets. He seized private businesses, imposed price controls, borrowed lavishly and sacked competent managers at PDVSA, the state-owned oil firm that is Venezuela's main source of hard currency, for not supporting him politically.

Chávez was lucky. Oil prices were high during most of his 14 years in office. That kept goods on the shelves and budget deficits under control. When he died, the economy was headed for a steep decline, but that was not yet apparent. Mr Maduro cast himself as the "son" of Chávez, who still inspired devotion among poor Venezuelans and gullible leftists abroad. He won a disputed presidential election against Henrique Capriles, a centre-left state governor. In 2014 oil prices began to slide.

Mr Maduro doggedly adhered to *chavismo* even as conditions turned against it. To continue paying Venezuela's international creditors he slashed imports, leading to shortages and hunger. He printed money to finance massive budget deficits. Both measures stoked inflation, which was probably more than one million per cent last year. He kept the official exchange rate of the bolívar artificially high, ostensibly to make essential imports affordable. In fact, the regime denied honest importers access to cheap dollars, giving them instead to loyalists, some of whom became billionaires. The black-market (ie, true) value of the bolívar collapsed. GDP has dropped by nearly half since Mr Maduro took office.

He responded to the crisis either with half-measures, such as inadequate devaluations of the official bolívar, or policies that made things worse, such as new price controls. As reserves of foreign exchange plummeted, in 2017 he partially defaulted on bonds issued by PDVSA and the government. The government has avoided full default only by mortgaging oil, gas and gold fields, mainly to Chinese and Russian state-controlled firms.

Last August Mr Maduro removed five zeros from the currency and relaunched it as the "sovereign bolívar". But without any action by the government to rein in deficits or alleviate shortages, it has lost 95% of its value against the dollar. Banks are already refusing to accept two-bolívar notes, the lowest denomination, although they are brand new.

Even if oil prices bounce back, Venezuela is unlikely to benefit much. That is because the government has looted PDVSA. Under Chávez, in addition to paying for popular social programmes it provided petrol to Venezuelans nearly free and oil to friendly governments, such as Cuba's, on easy terms. Investment and exploration suffered. PDVSA's decline sped up under Mr Maduro, who has appointed as its president a major-general with no experience in the oil industry. Scavengers, including employees made desperate by the collapse in their incomes, have begun to pilfer machinery. Now in partial default on its bonds, Venezuela produces less oil than it did in the 1950s. Output per citizen is where it was in the 1920s.

The consequence is misery. Electricity and water supplies are faltering because of corruption, underinvestment and absenteeism by workers who cannot live on their salaries. Violence has soared and health care has all but collapsed. A tenth of the population, 3m people, have emigrated, largely to neighbouring countries such as Colombia. At least 2.5m have left since 2014. (A minority apply for asylum.)

Depending on what happens to oil income and remittances, 5m more could leave, according to a study by the Brookings Institution, a think-tank in Washington. "My daughter is just 15 and she's already hinting she wants to go," says Carlos Valbuena, an office worker in Caracas. "What do I tell her?" he wonders.

The answer hinges on how long Mr Maduro will remain in power. That, in turn, depends on how long the regime can remain united under pressure from its foes and from the stresses it has placed on itself. On January 4th the Lima group, which includes the biggest Latin American countries and Canada, said it would stop recognising Mr Maduro as president in his second term and urged him to cede power to the national assembly. That gesture was weakened by the refusal of Mexico, under its new left-wing president, Andrés Manuel López Obrador, to sign the statement.

Peru has now joined the United States and the European Union in barring members of the regime from visiting and conducting financial transactions. Other members of the Lima group may follow. More painful are American sanctions that stop firms from dealing in newly issued debt. That is making it difficult for Venezuela to reach agreements with creditors.

The Lima group's endorsement of the national assembly is a fillip to the divided and ineffectual opposition. The alliance is in good-enough shape that on January 5th it carried out a redistribution of top jobs in the legislature under a pact reached after the parliamentary election in 2015, Venezuela's last fair election. Juan Guaidó, a founder of Voluntad Popular (Popular Will), one of the most confrontational opposition parties, became the assembly's president. The party's leader, Leopoldo López, is under house arrest and its national co-ordinator, Freddy Guevara, has taken refuge in the Chilean embassy since 2017.

In his acceptance speech, Mr Guaidó damned Mr Maduro's presidency as illegitimate and called on the army to help "restore the constitutional order". Mr Guaidó will be "the head of the struggle for change in Venezuela", predicts Luis Vicente León, a pollster and political analyst in Caracas.

But the main threat to Mr Maduro comes from "inside *chavismo*", says Mr León. Until now, loot from oil production, smuggling and drug-trafficking, which the government tolerates, has held the regime together. A network of Cuban spies alerts Mr Maduro to plots against him. But cash is becoming scarce and plots may be proliferating. In August some people apparently tried to kill Mr Maduro with explosive-laden drones as he addressed a gathering of national guardsmen. The government has tortured dozens of soldiers accused of plotting against it, according to Human Rights Watch, an NGO.

Defections from *chavismo* may pose a bigger danger. Subject to sanctions, some members of the regime may fear being trapped in Venezuela when power shifts suddenly. They may be tempted to strike a deal with the opposition, probably mediated by an outside group, leading to some sort of transitional government. Mr León says that tension between those prepared to negotiate and those who refuse could lead to the government's "implosion".

The regime has already suffered several high-profile defections, especially by members of the judiciary. The latest came on January 6th, when Christian Zerpa, a judge on the supreme court, appeared in Miami to denounce Mr Maduro. His rule "has no other name than a dictatorship", declared the once-loyal justice. That is an embarrassment, but not a serious threat. It is from his friends, rather than from his servants on the supreme court, that Mr Maduro has most to fear.

This article appeared in the The Americas section of the print edition under the headline "Six more years?"

Guarding guaras

Protecting Honduras's national bird

In cocaine country, smugglers are also going after scarlet macaws

Print edition | The Americas Jan 12th 2019

THE MOSQUITO COAST of eastern Honduras is not notably infested with mosquitoes, but swarms with cocaine traffickers. They use the sparsely populated region as a trans-shipment point for drugs headed for the United States. (The area gets its name from the Miskito people, descendants of a mix of shipwrecked slaves, English seafarers and indigenous people.)

The region holds another treasure coveted by rich foreigners. To spot it, just look up. Splodges of red, blue and gold amidst the trees in Mabita, a Miskito hamlet four hours' drive from the coast, are *guaras*—large, loud parrots known to English-speakers as scarlet macaws. The ancient Mayans thought they flew between Earth and the heavens and honoured them with statues. They are Honduras's national bird.

Once common across Central America, they are extinct in El Salvador and rare elsewhere in the region. The 500 or so on the Mosquito Coast are the last big population, says Marlene Arias of the Forest Conservation Institute, a Honduran government agency. They are under threat.

Poachers, many from nearby Jamaica, climb the pine trees where the *guaras* nest and pinch the chicks before they learn to fly. Fanciers in China, Australia and the Middle East buy them online for up to \$6,000. In 2014 not one newborn *guara* reached adulthood in its native habitat.

Four years earlier, LoraKim Joyner of One Earth Conservation, an American parrot-conservation group, had enlisted the residents of Mabita, which consists of a score of wooden huts, to patrol the forest. At first little happened. That changed in 2015 when the group started paying villagers 200 lempiras (\$8) a day. They began camping in the forest to chase poachers away. Last year 103 nests were left undisturbed in the area, says Ms Joyner. About 150 baby *guaras* survived.

Once scarcely seen, now they are everywhere, says Anaide Pántin López, a resident of Mabita who manages the patrollers. This has disadvantages. The birds devour the wild mangoes and guavas that the villagers once enjoyed, says Ms Pántin, cradling a piglet on her porch. "In fruit season, the humans don't taste anything," she grumbles.

But there are compensations. The money from patrolling has seeded a cash economy in Mabita. The inhabitants have used it to build a small stone church. Five other villages in the area have joined the scheme, which is financed by the United States Fish and Wildlife Service. And the folk of the Mosquito Coast seem to get as much pleasure from watching *guaras* as those who pay to have them stolen from their habitat. "It is so beautiful to see them flying in the morning," says Ms Pántin López.

This article appeared in the The Americas section of the print edition under the headline "Guarding guaras"

Bello

The contradictions of Brazil's foreign policy

The new foreign minister is putting the country's soft power at risk

Print edition | The Americas | Jan 12th 2019

IN BRAZIL PAST glory is more frequently associated with diplomacy than with military feats," notes Rubens Ricupero, a former minister, in his monumental history of his country's dealings with the world. This legacy is above all the achievement of the Baron of Rio Branco, the foreign minister from 1902 to 1912, who through peaceful negotiation settled the country's borders with all ten of its neighbours (in some cases expanding its territory).

The values Rio Branco espoused—peace, moderation, trust in international law, non-intervention and what would now be called the pursuit of soft power—became integral to Brazil's idea of itself, Mr Ricupero argues. And Itamaraty, as the foreign ministry is known (from the palace in Rio de Janeiro it formerly occupied), came to be seen as the Rolls-Royce of Brazilian government, its prestige based on meritocracy and knowledge.

So the appointment of Ernesto Araújo as foreign minister in the new government of Jair Bolsonaro has come as a shock to the Brazilian intelligentsia. Mr Araújo is a career diplomat, but a fairly junior one. Aged 51, he only recently achieved ambassadorial rank. His mission, he said, is "to liberate Brazilian foreign policy" and Itamaraty "through truth". But this truth "cannot be taught by analytical deduction", he added. Rather, it is religious in nature. "God is back and the nation is back," he has written.

Mr Araújo's foreign policy will confront what he denounces as "globalism", a sneering term for openness to the world. Diplomats should read the *New York Times* less and Brazilian authors more, he said.

Mr Bolsonaro wants to pull Brazil out of the Paris climate accord. His government has aligned itself with populist-nationalists in other countries—above all Donald Trump, but also the leaders of Italy, Hungary and Poland. Mr Bolsonaro has seemed to entertain the idea of inviting the United States to set up a military base. Like Mr Trump, he has declared himself a foe of China. He visited Taiwan during last year's election campaign.

Certainly, Itamaraty has sometimes combined sophistication with do-nothing complacency. And in their critique of foreign policy under governments led by the Workers' Party (PT) from 2003 to 2016, Mr Bolsonaro's people have a point. The PT abandoned some of Rio Branco's values. Its priority of "south-south" links was often a veil for anti-Americanism. It failed to stand up for democracy in Latin America, preferring to ally itself with left-wing dictatorships in Venezuela and Cuba.

But Mr Araújo risks making the same mistake—of basing policy on ephemeral ideological affinity, rather than on underlying national interest. His assault on "globalism" also exposes a contradiction at the heart of Mr Bolsonaro's project. The new president's powerful economy minister, Paulo Guedes, promises liberal reforms, including privatisation and opening Brazil to trade and competition. The best way to do that is not to ally itself slavishly with the protectionist-in-chief in the White House. Mr Bolsonaro's stance on climate change has already dented the chances of the European Union concluding a long-delayed trade agreement with Mercosur (to which Brazil belongs).

Mr Bolsonaro heads a ramshackle alliance of populist-nationalists (notably two of his sons), religious zealots, business lobbies and the security forces. Mr Araújo owes his job to the first two groups. The armed forces—represented by seven retired generals in the cabinet—espouse a different kind of nationalism, grounded in hard-headed geopolitics. They are interested in co-operation with the United States against organised crime, but will resist automatic alignment with Mr Trump. Then there is Mr Guedes, who has seized control of trade policy from Itamaraty. The economic team has no interest in quarrelling either with China, a big investor with which Brazil has a trade surplus, or with Arab countries (by moving Brazil's embassy in Israel to Jerusalem, as Mr Bolsonaro has promised).

Faced with these more organised rivals, some think Mr Araújo may not last long. Yet even if he does not, he has made his mark. For the first time since the early 1970s during the cold war, Brazilians have been offered an extreme right-wing foreign policy, notes Matias Spektor, an international-relations specialist at Fundação Getulio Vargas, a university. Even if modulated, bits of it are likely to be applied by Mr Bolsonaro. It is a long way from Rio Branco, and is unlikely to do much for Brazil's soft power.

This article appeared in the The Americas section of the print edition under the headline "Open or closed?"

Ageing in Japan Home help

Home help

Japan tries to keep the elderly out of hospital

A greying society searches for ways to curb health-care costs

Print edition | Asia | Jan 12th 2019

In A SUNNY room in a small apartment in the Tokyo satellite town of Kunitachi lies Yasuyuki Ibaraki, eyes closed and breathing laboured. Yukio Miyazaki, his doctor, who visits fortnightly from a local clinic, suspects that he does not have much time left: he has brain damage from a cerebral infarction, a tumour in his digestive system and is unable to swallow or talk. Reiko, his wife, feeds him through a tube to his stomach and clears phlegm from his throat. "He is from a close-knit family and is a quiet man, so I think it is better for him to be here rather than in a hospital," she says, over green tea and grapes.

Life expectancy in Japan is the highest in the world, at 84. This is good news for its people, but means that an ever-higher share of the population is elderly. Fully 28% of Japanese are older than 65, compared with 15% of Americans and 21% of Germans. More old people, in turn, means higher health-care costs. Last year the government budgeted ¥15trn (\$138bn, or 15% of its total expenditure) for health care and nursing, excluding the charges it levies for the public health-insurance scheme. With public debt at 250% of GDP, and debt service consuming a further 24% of spending, the government is looking desperately for ways to cut costs. It reckons caring for people at home is one of its best options.

All Japanese pay a monthly premium to the public insurance scheme, either through their employer or the local municipality. In return they are entitled to treatment and drugs from public and private doctors and hospitals, although they must also pay a portion of the cost of treatment (a co-payment, in American parlance), subject to a cap. In 2000 Japan introduced an additional public insurance scheme for long-term care for those over 65, into which people must pay from the age of 40. It works the same way. The premiums and co-payments cover around 60% of the cost of the services provided; the government pays for the rest. And it is the old who cost the most. The government reckons that the average annual cost of health care for someone over 75 is ¥942,000, compared with just ¥221,000 for everyone else.

By the standards of ageing nations, Japan has managed to curb medical costs fairly well, says Naoki Ikegami of St Luke's International University in Tokyo. The government sets fees for services to keep costs down (although that encourages providers to perform unnecessary procedures to make more money: Japan has more CT scanners relative to its population than any other country). It has also promoted the use of generic drugs, which are cheaper.

Life-giving, budget-busting

Nonetheless, the country has crept up to sixth place in the OECD's ranking of the share of GDP spent on health care, behind France and America, but ahead of Italy and South Korea—two other ageing countries (see chart). It is not just that the number of old people is increasing; spending per person is rising, too, as people live longer with diseases like Alzheimer's and diabetes.

Japan has promoted home care for many years, but it is pushing it harder now. The policy is especially beneficial given that the average hospital stay in Japan is three times longer than in the Netherlands, for instance. The health ministry reckons that 1m people will receive care at home in 2025—one-and-a-half times the current total. The number of special nursing units exclusively for home visits has risen from 7,473 in 2014 to 10,418 in 2018.

Last year a government panel suggested raising the amount doctors are paid for home visits and making consultations conducted via video-conferencing services eligible, too. It also proposed new rules to encourage care at home. Hospitals should be obliged to talk to social services when they discharge a patient, for example.

Some municipalities are already offering good care in the community. Onomichi, a small provincial city that is even older than the country as a whole, is one. Its medical facilities have 15-minute "care conferences" with doctors, nurses, family members and even dentists, to discuss how they will go about looking after people. "It used to be hard for hospitals to tell a patient to return home as there was no system for that; that has changed," says Hisashi Katayama, a doctor.

Community care for specific diseases is improving, too. Take dementia, which currently affects 5m Japanese (4% of the population), and will afflict 6-7% by 2030. Rather than provide only institutional care and medicine, some towns, such as Matsudo, north-east of Tokyo, have set up cafés to offer advice and companionship to patients and their carers. Day centres that give respite to families tending to elderly relatives are common. Much more could be done: only 13% of Japanese die at home, although most say they want to.

But more widespread home care will not be enough to make Japan's health care affordable. The government of Shinzo Abe wants to revamp the social-security system, which it reckons will help reduce health-care costs. Raising the retirement age, for example, will keep people active, healthier and paying tax for longer. The government also wants to try to reduce the incidence

of diseases that affect older people, but have their origins in behaviour at a younger age. "We have tended to focus on the old, but we need to look at the younger to prevent disease," says Kazumi Nishikawa of the economy ministry. He is particularly focused on giving people more information on what causes diabetes, which is on the rise in Japan, or exercises that can stem the progression of dementia.

People are likely to have to pay more for health care, too. Co-payments for many of those over 75 are only 10%, compared with 30% for everyone else. The government should start by doubling that to 20%, says Shigefumi Kawamoto, managing director of Kenporen, the national federation of health-insurance societies. "Some elderly people don't have resources, but many do," he avers. The government could exclude some items from coverage, he says, such as over-the-counter drugs.

Meanwhile, back in Kunitachi, Dr Miyazaki talks to Reiko about her husband's condition. She is worried that her husband is getting worse, she says, and is anxious between visits. The doctor promises to come weekly from now on.

This article appeared in the Asia section of the print edition under the headline "Home help"

Monarchical merry-go-round

Malaysia's sultans must pick a new king

The previous one abdicated after marrying a Russian beauty queen

Print edition | Asia Jan 12th 2019

THE ANNOUNCEMENT was unexpected and unexplained. On January 6th Sultan Muhammad V, Malaysia's king, stepped down from the throne. It was the first time a Malaysian king had abdicated. He had only reigned for two years.

The king presides over one of the world's most peculiar monarchies, established at independence in 1957. Malaysia is a federation made up of 13 states. The titular head of the government in nine of them is a sultan (democratically appointed chief ministers actually run the show). The nine sultans choose one of their own to serve a five-year term as king whenever the job becomes vacant. In practice, the nine states take it in turns. The king's job is largely ceremonial, although he can delay legislation and refuse a prime minister's request to dissolve parliament.

No reason was given for the abdication, but many suspect the king's love life had raised too many eyebrows. In 2008, when still crown prince of Kelantan, the most conservative and devoutly Islamic state in the country, he had divorced his wife, a Muslim princess from neighbouring Thailand. In 2016 he became the first king to ascend to the throne unmarried. Then, in November, he took a two-month leave of absence following medical treatment. During that period the 49-year-old snuck off to Russia and married Oksana Voevodina, a 25-year-old former Miss Moscow.

The wedding poses an "existential question" for the monarchy, says Francis Hutchinson of ISEAS-Yusof Ishak Institute, a think-tank in Singapore. Sultans are supposed to be defenders of the culture and religion of the country's ethnic-Malay majority. Older and rural Malays in particular hold sultans in high esteem and see them as a cultural anchor. One view holds that in a state without a sultan, society becomes nihilistic. Modern royals are thus expected to behave with a certain decorum—although many of their forebears married glamorous young foreigners. At any rate, King Muhammad's conduct must have jarred with some. The other sultans are thought to have issued an ultimatum, forcing him to quit.

The election of a new monarch, scheduled for January 24th, may cause a further hiccup. The next in line under the system of rotation is the sultan of Pahang, who served as king once before, 40 years ago. He is elderly and in ill health, however. His family is reported to be contemplating getting him to abdicate, to allow his son to become sultan and then king in short order. Typical: you wait 60 years for an abdication, and then two come along at once.

This article appeared in the Asia section of the print edition under the headline "Monarchical merry-go-round"

Quotas for all

Almost all Indians will soon qualify for affirmative action in India

All but the richest will have access to job reservations

Print edition | Asia Jan 12th 2019

A FFIRMATIVE ACTION, as Americans confusingly call it, has been a defining feature of modern India. The constitution allows the government to make "special provision for the advancement of any socially and educationally backward classes of citizens". Since it came into force in 1950, "reservations" (quotas) have often been demanded and doled out. By setting aside government jobs and places at universities for members of communities that had been oppressed for hundreds if not thousands of years, the thinking ran, the country would soon rid itself of the iniquities of caste, and with it the need for reservations.

Instead, Indians have been mired in a zero-sum competition for official favour ever since. The first beneficiaries were "scheduled castes and tribes", in particular untouchables (now known as Dalits)—those at the bottom of the social order. Inevitably, the considerably less disadvantaged "other backward classes" (OBCs) soon began to clamour for quotas of their own. Political parties sprang up to demand new or bigger reservations for different castes. It was only in 1992 that the Supreme Court appeared to put a stop to the scramble by ruling that no more than 50% of jobs or university spaces could be reserved under caste-based quotas. But on January 7th, with general elections due in just three months, the ruling Bharatiya Janata Party (BJP) came up with a new way to expand reservations: to set aside a further 10% of jobs and university places for relatively impoverished Indians, of whatever caste or religion. A motion to change the constitution to that end cleared both houses of parliament in just two days, a record, with almost no dissent.

The scheme's details remain hazy, but reports suggest that any family earning less than 800,000 rupees (\$11,375) a year would be eligible. That is a generous sum in a country where the average income per person was \$1,976 in 2017. Indeed, 800,000 rupees is the level of income that defines the "creamy layer"—families wealthy enough that the courts have barred them from any sort of reservation, whatever their caste or tribe. All but the richest, in other words, will now be eligible for a reservation.

The BJP used to oppose excessive reservations, since it derived much of its support from higher castes who felt that their opportunities were being diminished by their lower-caste neighbours, some of whom were no needier than they were. In 2006 much of India erupted into protests against reservations. More recently, instead of calling for the abolition or reduction of reservations, relatively prosperous castes have agitated for inclusion in the quotas. The BJP's new policy looks like a sop to such important "vote banks" as the Patidars of Gujarat or the Rajputs of Rajasthan, who are too well-to-do, by and large, to be considered backward, but poor enough to resent that.

These groups are also numerous enough to be central to the efforts of Narendra Modi, the prime minister, to win a second term. And they are agitated about lack of opportunity. The Centre for Monitoring the Indian Economy, a think-tank in Mumbai, reckons that the number of people in work fell during the past fiscal year, even as the working-age population swelled.

To be fair, the BJP is not alone in its bribery. The state of Tamil Nadu reserves fully 69% of university places and government jobs for disadvantaged castes—an apparent breach of the Supreme Court's ruling that has been the subject of long litigation. Other states have created reservations for women, the disabled, religious minorities, former soldiers and so on. Congress, the main opposition party, proposed something similar to the new scheme years ago. The leader of another opposition party says that now that the 50% ceiling has been breached, the reservation devoted to OBCs, for whom his party claims to speak, should be doubled to 54%, in proportion with their share of the population.

The irony is that quotas will not help much. In November the national railways received 19m applications for 63,000 lowly posts. That meant plenty of disappointment to be shared among every caste.

This article appeared in the Asia section of the print edition under the headline "Quotas for all"

Immigrants in the outback

Unlikely new residents are reviving Australian country towns

Big cities want fewer new arrivals. Small ones want more

Print edition | Asia Jan 12th 2019

FIRST CAME THE Burmese, then the Afghans and the Africans. Since 2016, 400-odd Yazidis have washed up in Wagga Wagga, a regional centre south-west of Sydney. Its primary school has had to hire interpreters to communicate with families (fully a fifth of its students are refugees). The local college teems with parents learning English and new trades. Doctors have had to brush up on illnesses rarely found in the area. Few locals seem fussed about the changes. And to those fresh out of war zones, "Wagga" is an idyll. "My children are safe," says Ismail Darwesh, a Yazidi who fled Islamic State's attempt to wipe out his people, a religious minority in Iraq and Syria. "Everything you want you can get here."

The refugees have been sent to Wagga Wagga under a scheme which brings beneficiaries from foreign camps to rural Australia (most settle in urban areas). The hope is that they can offset the population decline that threatens many outback settlements with extinction, as birth rates fall and youngsters head for cities. Wagga Wagga's Multicultural Council says the population is only growing thanks to the new arrivals. Immigrants are helping to stem shrinkage in another 150 localities.

The scheme helps big cities, too, by easing the pressure on roads, schools and hospitals there. Thousands of Iraqis and Syrians descended on Sydney's western suburbs after extra visas were dished out to them in 2016 and 2017. Many have struggled to find work, and conservatives grumble about ghettoisation. A recent report from the Centre for Policy Development, a thinktank, found that just 17% of "humanitarian entrants" have jobs after 18 months in Australia. Yet remote towns are crying out for people to fill vacancies on farms, in abattoirs and to look after the elderly. The cost of living is lower than in Sydney or Melbourne and, for farmers like Mr Darwesh, a quiet life is appealing anyway.

To stay afloat, some outback towns have taken to recruiting migrants for themselves. A piggery in Pyramid Hill, in northern Victoria, started sponsoring workers from the Philippines a decade ago. They now make up a fifth of its 500-odd population, keeping not just the business afloat, but also the local school. Another town in the same state, Nhill, lured 160 Burmese refugees from Melbourne with jobs at a food company, adding perhaps A\$40m (\$28m) to its economy. A group of residents in Walla Walla, a dot in New South Wales, is now scouting for refugees from Sydney. "We have jobs, we have housing and we have education," says Andrew Kotzur, who runs the local steelworks. "We just need more people to sustain them."

Asylum-seekers and farm labourers make up a tiny portion of the immigrants pouring into Australia. The conservative coalition government is keen to rusticate others, too. Scott Morrison, the prime minister, has suggested that some of Australia's 500,000 foreign students could be sent to regional universities. The population minister, Alan Tudge, added that visa restrictions and incentives could be used to push skilled migrants out of Melbourne and Sydney. Almost all the best-qualified arrivals settle in those two cities, but luring them out will not be easy. It is partly owing to migration that Sydney and Melbourne are thriving. Foreign accountants and IT geeks choose them for well-paid work and swanky suburbs. Rob them of both, and far fewer would come to Oz at all.

This article appeared in the Asia section of the print edition under the headline "Immigrants in the outback"

Banyan

Even as Taiwan perfects its democracy, China is sabotaging it

Voters decide on everything except the thing that really matters

Print edition | Asia Jan 12th 2019

OWER TO THE people" read the words newly emblazoned across the floor of the grandest old building in Taipei. The slogan is part of an exhibit about the history of the structure, which was built to house the offices of the colonial governor sent from Japan. It later served as the seat of administrators dispatched from Beijing and then of the dictators who ruled Taiwan after its split from China in 1949. For the past 22 years, however, it has hosted Taiwan's democratically elected presidents. The ground floor is open to the public every weekday morning—no booking required.

Such openness is one of the many ways in which power does indeed rest with the people in Taiwan. On a recent visit Banyan faced tighter security getting into his hotel than into the offices of members of parliament. He was also slightly befuddled to be told by Audrey Tang, the minister in charge of digital outreach, that she practised a policy of "radical transparency" and that transcripts of all her meetings, including any interviews, are published online ten working days after the event (she leaves the room when the cabinet starts talking about national security).

Then there is the law on referendums, which was amended in 2017 to make it easier to get them on the ballot. Even though there are competitive elections, a free and diverse press and an ingrained culture of mass protest about everything from nuclear power to public pensions, the ruling Democratic Progressive Party (DPP) decided that it was not easy enough for ordinary people to make their voices heard. Now any question for which activists can muster the signatures of 1.5% of the electorate earns a spot on the ballot. At nationwide local elections in November, nine made the cut. The government must act on the results, provided the turnout is high enough—which it was.

By any standard, let alone that of most countries in the region, democracy in Taiwan is thriving. Yet, by the admission of Tsai Ing-wen, the president, it faces a potentially fatal threat: "China's attempts to use the openness and freedom of our democratic system to interfere in Taiwan's internal politics and social development". Her government, which did very badly in the elections, accused China of meddling in them by spreading disinformation, steering money to the opposition and inducing Taiwanese media to provide slanted coverage. China's president, Xi Jinping, seemed implicitly to acknowledge such a campaign earlier this month when he gleefully declared that China had won "a great victory in frustrating the Taiwan independence movement"—an apparent reference to the electoral defeat of Ms Tsai's DPP, which would like to abandon the idea that Taiwan and China will eventually be unified and instead officially declare Taiwan a separate country.

Ms Tang talks excitedly about countering Chinese disinformation by getting the government to respond faster to online falsehoods. She wants official denials to appear within four hours. Ms Tsai says she has instructed the security services to prepare countermeasures. That is all well and good, but it is really another way of saying that the government does not know what it can do. Big Taiwanese firms have invested heavily in China. It is the easiest thing in the world for the Chinese government to signal to them that, if they want their investments to prosper, they should donate money to certain politicians back home, or even purchase a media outlet that propagates views considered distasteful by the Chinese leadership, to institute friendlier coverage.

There are plenty of ways for China to influence humbler voters, too. It cut off the flow of package tourists to signal its disapproval after Ms Tsai was elected in 2016, hurting small businesses. Analysts expect a flood of tourists to Kaohsiung, the third-biggest city and a DPP stronghold, after it unexpectedly chose a mayor from the opposition Kuomintang, which advocates warmer relations with China. And since a tenth of working-age Taiwanese live in China, and 29% of exports go there, voters are reluctant to antagonise their looming neighbour.

There is a horrible irony in the fact that Taiwan has succeeded in instituting a model democracy in which all big decisions are up to voters except the one that seems most important: whether Taiwan should be a country at all. Indeed, the referendum law makes that explicit, by allowing votes on any subject except cross-strait relations. Taiwan may have transferred power to its people, in short, but China has already begun to yank it away from them.

This article appeared in the Asia section of the print edition under the headline "Free and uneasy"

China

The economy

Oh, for an assembly-line job

Oh, for an assembly-line job

Worries about unemployment mount as China's economy slows

The services sector will cushion the blow, but not provide much security

Print edition | China Jan 12th 2019

THE FACTORY town known as iPhone city used to pulse with life as workers got off their shifts. These days the complex that churns out roughly half of all Apple smartphones is quieter. A staff dormitory just beyond its gates is empty, its entrance sealed with barbed wire. A barbecue restaurant, a noodle shop and, fittingly, a mobile-phone outlet have all closed. At a karaoke bar where workers would croon into the wee hours on rest days, the owner was recently seen packing up his speakers.

The giant complex on the edge of the central city of Zhengzhou is run by Foxconn, Apple's Taiwanese manufacturing partner. It remains one of the world's busiest factories. But it is well off its peak, when as many as 350,000 people kept production humming around the clock. Workers say they are down to eight hours a day, five days a week. That means they are not doing the overtime that accounts for much of their pay. "It feels like they're forcing us to quit," says a six-year veteran.

Cao Yingying, a woman at a nearby recruitment centre, says they stopped hiring for Foxconn in late October because of Apple's disappointing sales. They still have other electronics factories as clients, but they are all suffering. "Washing machines, fridges, vacuum cleaners. Everyone now has these, and they last longer," she says. "So factories have fewer orders."

A slowing economy is putting pressure on jobs in China (though Apple's woes may involve other factors, too—see <u>article</u>). The official unemployment rate is stable at around 5%, but as always this figure is a poor guide. Surveys in the manufacturing and service sectors show that companies have been cutting staff since at least September. Wage growth is tepid compared with the sizzling norm of a few years ago. In November profits at industrial firms fell for the first time in nearly three years.

When China's leaders met in December to map out economic policy for 2019, they said their priority would be to stabilise employment. They are anxious about social stability in a year studded with sensitive anniversaries. Among them will be the 30th of the Tiananmen protests, which involved economic grievances as well as political ones. Suppression of labour unrest has become even harsher in recent months. In one case, police detained more than 30 students and activists who had tried to help workers organise a union at a firm in the southern city of Shenzhen.

Worries about jobs are, so far, focused on the export sector. Trade matters less to Chinese growth than it once did, but it still, directly and indirectly, supports as many as 180m jobs, nearly one-quarter of formal employment, the government estimates. The trade spat with America has plunged firms into uncertainty. Exporters cut their demand for new hires in the third quarter by 53% compared with a year earlier, say researchers at Renmin University in Beijing. In December export orders fell at their sharpest rate in more than three years.

A second area of concern is the high-tech sector. As investors turn cautious, jobs are coming under threat. The starkest example is Ofo, a bike-sharing company previously feted as an innovator. Today it is battling to survive. Search engines, online travel agencies and e-commerce websites have all reportedly trimmed staff. This could be bad news for this year's record number of university graduates (students in Zhengzhou are pictured at a job fair last year). Wang Xing, head of Meituan Dianping, a company known for its food-delivery app, captured the gloom last month with this line on his micro-blog: "2019 might be the worst year of the past decade, but it might also be the best year of the coming decade."

Industries undergoing cyclical slumps are a final area of concern. With the stockmarket down 30% in the past year, financial firms, especially brokerages, have cut staff. A property slowdown has led several big developers to freeze hiring.

How would China cope with a big rise in unemployment? In 2008 when the global financial crisis struck, millions of migrants left coastal factories and returned to the countryside. They did not have to wait long for prospects to improve. Half a year later the government revved up growth with a massive stimulus programme.

A similar exodus is less likely this time. The economy is profoundly different, in ways that should cushion workers from the slowdown. Services, from restaurants to couriers, now account for more of the economy than manufacturers, and they are more labour-intensive. But service jobs are even less secure than those in factories. Workers in China's vast gig economy—driving cars for hire, delivering food or trucking packages between cities—rarely get overtime pay or unemployment insurance, says Geoffrey Crothall of China Labour Bulletin, an NGO. Older people struggle. On a street in Zhengzhou, a man in his late 40s glumly surveys a board plastered with job ads. "They want young lads for the courier jobs. Faster on their bikes, faster on their smartphones," he says.

China's economic situation differs from the financial tsunami of 2008 in another crucial way. This time the troubles have built up gradually, giving the government time to ready its defences. It has already started to help beleaguered companies.

In December the State Council announced that firms which refrain from firing staff can get 50% refunds on unemployment-insurance payments. Officials have hinted that they will offer subsidies for those buying home appliances, a boost for manufacturers. And after initially taking a hard line in its trade dispute with America, China has softened somewhat. That helped pave the way to talks between the two countries this week in Beijing that augur well for a deal, however fragile.

The government is also boosting its own recruitment. At a labour centre in northern Zhengzhou, once used for hiring Foxconn workers, the biggest ad is for jobs in Hami, a city in Xinjiang, the north-western region where officials have incarcerated vast numbers of ethnic-Uighur Muslims for "re-education". Hami is looking for auxiliary police. "Join us to realise your dreams", says the poster, with a picture of officers brandishing machine guns. Applicants, who must be between 18 and 35, are promised monthly salaries of at least 6,100 yuan (\$890), roughly the wages at Foxconn when the going was good.

This article appeared in the China section of the print edition under the headline "Oh, for an assembly-line job"

Testing times

Reported cases of HIV in China are rising rapidly

That is mainly because getting tested is so much easier, and less intimidating

Print edition | China Jan 12th 2019

WANG XIAOSHUAI, a gay man in the central city of Hefei, used to believe that only people who injected drugs could contract HIV. But then a man he had sex with revealed that he had tested HIV-positive. Mr Wang visited a local NGO and took a pinprick test to determine whether he, too, was infected. Happily, he was not. But the experience was terrifying. "It never occurred to me that someone around me could actually get HIV," he says.

Many others are less fortunate. In November China's Centre for Disease Control said that 850,000 people were known to be HIV-positive, 12% more than a year earlier and almost three times the number in 2010. An official study found that new cases of HIV among students aged between 15 and 24 rose by more than one-third every year in 2011-15, mostly as a result of gay sex.

The virus may not be spreading as fast as these figures suggest. The rapid increase is largely the result of better detection. Over the past decade the number of health facilities offering HIV tests has quadrupled. In 2016 China launched a five-year plan to combat HIV and AIDS. It increased funding to NGOs providing free self-testing kits to high-risk groups, such as gay men and sex workers. It also gave NGOS money to provide HIV-positive people with free medicine. In 2015 nearly 70% of those diagnosed with HIV were receiving antiretroviral drugs. In 2017 just over 80% were.

Most people in China are infected through heterosexual activity. Sex between men has also become a big contributor, resulting in about one-quarter of transmissions (see chart). The proportion of sexually active gay men infected with HIV is now much higher than that of female sex workers. Social media have made it easier for gay men to find casual partners. The country has the world's largest gay social-networking app, Blued. On January 6th the service said it was suspending registrations for one week after a Chinese magazine reported that boys under 18 had contracted HIV through encounters facilitated by the app (Blued says it will step up enforcement of measures to prevent minors from joining).

But social media can also spread awareness of HIV. Blued has added a red ribbon icon to its platform, clicking on which offers information about HIV services. NGOs also use WeChat, a messaging app, to urge people, gay and straight, to get tested. Such tactics may be helping: 200m tests were performed in 2017, up 38% from 2015.

Encouraging people to come forward is still difficult, however. The government reckons that 400,000 people may have the virus but not know it, ie, less than 70% of cases appear to have been detected. UNAIDS believes that less than half of gay men carrying HIV in China are aware of it. Discrimination may be deterring some from being screened. A survey of 2,000 people with HIV found that 12% had been refused medical treatment and 15% had been denied work, presumably because of prejudice.

Officials' efforts to make free testing available outside the public health system suggest they are aware of the problem. Those tested at state hospitals typically have to pay 60-100 yuan (\$9-15). Zheng Huang, who manages an HIV-related NGO in Shanghai, says gay people like to use its testing services not only because they are free, but because most of the staff are gay.

HIV prevalence is low in China compared with the West. The proportion of people believed to have the virus is only 0.09%. In Britain it is 0.15% and in America 0.34%. But the leading role of sex as a mode of transmission is common both to China and the West. Preventing infection rates from climbing in China will require shattering taboos and teaching young people about how to have safe sex.

This article appeared in the China section of the print edition under the headline "Testing times"

Chaguan

Why young Chinese are sporting 1,800-year-old fashions

Thoughts on the craze for ethnic robes

Print edition | China Jan 12th 2019

Like TEENAGERS the world over, Chen Bolin, a Chinese university student, feels a need to belong. Unlike many of his peers, Mr Chen has found a spiritual home: China of the Wei and Jin dynasties, about 1,800 years ago. So deep is this bond that on special occasions he wears flowing, wide-sleeved robes inspired by third-century dress. One moment of connection stood out, when he wore robes to a museum in Shaoxing, the eastern city where he studies. There he found a sculpture depicting sages from the Wei and Jin era. His own clothes were "exactly like theirs", he recalls happily. He saluted the statues and told them: "Dear ancestors, I've heard so much about you. It is my good fortune to see you today."

The teenager developed his passion at high school in Pingliang, perched in the hills of Gansu, an inland province. Though a rather small, sleepy spot, Pingliang is home to a Han culture association. Such clubs are spreading fast. They celebrate the Han ethnic group to which more than nine out of ten people in China belong.

Enthusiasts claim that a million Chinese, mostly youngsters, regularly wear *Hanfu*, or robes inspired by traditional Han dress. The unplanned emergence of any social movement in China presents Communist bosses with a choice: scramble to the front of the parade and claim to lead it, or ban it. For now, the parade continues. State media hail *Hanfu* as a welcome complement to calls from President Xi Jinping to revive traditional culture and values. In April 2018 the Central Committee of the Communist Youth League, a recruitment channel for party members, declared a first "Traditional Chinese Garment Day". The league urged young Chinese to don ancient finery to demonstrate "cultural confidence" to the world. There was a caveat, however. The league's commemorative day honours what it calls *Huafu*, or "Chinese dress". That encompasses not only Han traditions but those of China's 55 official ethnic minorities, from such places as Tibet, Inner Mongolia or the restive Muslim region of Xinjiang. The league's caution reflects wariness about overt Han chauvinism, which threatens official narratives about a unified, multi-ethnic China.

In truth, clumsy Communist propaganda extolling national unity arguably helped create a hunger for Han traditions. At big party events, ethnic-minority delegates typically attend in brightly coloured folk costumes trimmed with silks, furs or jangling silver jewellery, even as Han delegates appear in Western suits and ties. This both patronises minorities and renders the Han an invisible nationality—representatives of a sort of generic modernity.

As Mr Chen shares his story, the slight, bespectacled teenager is wearing robes of lilac and white, embroidered with blue clouds, an outfit he says is Jin-dynasty day-wear. All around are thousands of fellow enthusiasts attending a *Hanfu* cultural festival held annually in Xitang, a quaint, canal-side town near Shanghai.

Hanfu wearers vary in their devotion to historical accuracy. Mr Chen has brought along a classmate whose look combines a black-and-white military uniform, 21st-century sneakers and an air of faint embarrassment. "I think this is Han dynasty," the classmate mumbles, when asked. The colours are more Ming, says Mr Chen, gently correcting his friend's dates by about 1,100 years.

Enthusiasm counts for more than precision. On this sunny festival weekend a local Starbucks boasts baristas in toga-like robes, a warrior in chain-mail queuing for coffee, and outside, a Taoist priest in a tunic and cloak outfit he calls "a bit of messed-up fusion". Luling Manman, an author invited to the festival as an expert on ancient etiquette, defines *Hanfu* as "all forms of clothes we Han people have worn over the course of 5,000 years". Others take a narrower view, describing a tradition cut cruelly short when the last ethnic-Han dynasty, the Ming, was overthrown in 1644. In European terms, that is like wrangling over a school of fashion that supposedly began in Neolithic times and flowered in the Middle Ages, and may or may not have ended during the English civil war.

Since the *Hanfu* movement emerged in the early 2000s, some members have framed it as a way to restore Han customs suppressed by ethnic Manchu warriors who conquered China from the north and ruled as emperors of the Qing dynasty from 1644 until 1911. Han nationalists scorn such "Chinese" traditions as tightfitting *qipao* dresses or high-collared jackets precisely because they are derived from Manchu, Qing-era fashions.

The visible Hans

At the Xitang festival, it should be said, brooding nationalists are outnumbered by youngsters having uncool, goofy fun. Blushing students giggle their way through a lesson in ancient dancing. Earnest, robe-wearing young men take photographs of each other playing the flute or practising archery. Children take part in a fashion show, swishing perilously along a catwalk in too-long finery.

The festival organiser is Vincent Fang Wenshan, a Taiwanese lyricist behind some of the most famous Mandarin pop songs of recent times. A dapper 49-year-old in black embroidered robes, Mr Fang urges younger enthusiasts to eschew Han chauvinism and to be open to modernised *Hanfu*. He sighs that some purists will not tolerate any dress not found in ancient wall paintings, and draws a wistful comparison with Japan, where traditional customs and modern culture co-exist easily. Wearing a kimono

on a Japanese bus causes no astonishment, notes Mr Fang, lamenting that a gap of several centuries separates Han traditional culture from the modern world. He would like to see *Hanfu* fans bridge that gap.

Historians might quibble with some of Mr Fang's details. Plenty of Han traditions actually survived under the Qing. The country's sharpest break with tradition came during the first decades of Communist rule, when leftist zealotry made it safest to wear blue and green Mao suits. But that is to take the *Hanfu* movement too literally, perhaps. Look past the invented costumes and the dodgy history, and something simpler and more poignant appears: a whole country yearning to know where it belongs.

This article appeared in the China section of the print edition under the headline "Something old, something new"

Middle East and Africa

Sudan

"We are all Darfur"

"We are all Darfur"

Sudan's genocidal regime is under siege

Protests that started as bread riots now threaten the president

Print edition | Middle East and Africa | Jan 12th 2019

A HUNDRED OR more were brought in every hour. Soon the police station in northern Khartoum, Sudan's capital, was so full that detainees were flowing onto the lawn. Atif, an activist picked up around noon on December 31st, says he saw at least 1,000 arrested that day. Many were beaten; others had their hair shaved off. Lawyers and doctors were singled out for insults.

Atif is one of tens of thousands of Sudanese who have taken to the streets in recent weeks. What began as a riot over the price of bread in the eastern city of Atbara on December 19th has billowed across the country. By some estimates, at least 40 people have been killed by security forces during nearly 400 protests. The government says it has detained at least 800 people (the real figure is surely far higher). Yet this has done little to muffle what is now a nationwide uprising against the rule of Omar al-Bashir and his 30-year-old kleptocracy.

The seeds of the current crisis were sown in late 2017, when the government announced plans to end wheat subsidies. The aim was to plug a budget deficit forecast to hit almost 5% of GDP this year. When the price of bread doubled a year ago, triggering protests, the government tried to reverse course and reintroduced some of the subsidy. But the economy—already struggling following the secession of South Sudan, which took away 75% of Sudan's oil reserves, in 2011—has nosedived. It shrank by about 2.3% in 2018. Unable to pay its bills, the government has printed money. Inflation, at around 70%, is now the second highest in the world after Venezuela.

Ordinary Sudanese face shortages of bread, fuel and basic medicine. "You stand in line at the bank waiting for cash that will barely buy you anything," says Abuzar Osman, a 28-year-old photographer who was arrested last month. "We now spend our lives standing in queues."

Calls for regime change are widespread. District offices of Mr Bashir's National Congress Party (NCP) have been burned. On January 6th protesters marched on the presidential palace to deliver a petition for Mr Bashir to resign. The president, who came to power in a coup in 1989 and later won some dodgy elections, plans to stand for another term in 2020. At least eight parties have withdrawn from the ruling coalition.

Can he last? Mr Bashir is no stranger to unrest. His regime has fought rebels and committed genocide against civilians in the south and in the Darfur region. It has survived many protests before. Yet the latest ones seem to have rattled the regime. Mr Bashir has promised to stop cutting subsidies and to increase state spending by 39%, partly on higher salaries for public employees. He has called the protesters "traitors, sell-outs, agents and saboteurs". The government has accused rebels from Darfur of conspiring with Israel to destabilise the country. Since late December more than 50 Darfuri students have been rounded up and detained in unknown locations.

His tactic of blaming Darfuri rebels has had little success. Protesters from the regime's traditional strongholds in Khartoum and the north have chanted "We are all Darfur" while marching. And even though the police have shot and arrested people, the demonstrations have shown little sign of abating. If anything they seem to be getting better organised. The protest movement is now largely led by the Sudanese Professionals Association, a coalition of trade unions including those representing doctors, lawyers and journalists.

Some have likened the protests to Sudan's previous uprisings against military dictatorships, in 1964 and 1985. Then, too, middle-class folks helped turn isolated riots into a broad movement for political change. Both of Mr Bashir's predecessors stepped aside once it was clear the army was backing the protesters. But Mr Bashir may prove harder to dislodge. "The army has been his for 29 years," notes Alex de Waal of Tufts University. He has a knack for playing factions against each other. Senior officers may also fear prosecution for war crimes in Darfur should Mr Bashir go. And he has a formidable spy agency which, for now, remains loyal.

Even so, he is running out of options. In recent years Sudan has moved away from Iran, an old ally, and grown closer to Saudi Arabia and the United Arab Emirates. Their financial largesse helped to mask Sudan's economic malaise. But neither appears inclined to bail out the regime, perhaps because Mr Bashir is an unfaithful ally. (He has made overtures to their regional rivals, Turkey and Qatar.) Broke and alone, Mr Bashir faces protesters who keep returning to the streets, despite tear gas and bullets. "The people's rage is infinite," says Brahim Snoopy, a film-maker. "We don't know what will happen next."

This article appeared in the Middle East and Africa section of the print edition under the headline ""We are all Darfur"

The Kinshasa surprise

Congo declares Félix Tshisekedi president. Voters suspect a stitch-up

The less popular of two opposition candidates is said to have won an election

Print edition | Middle East and Africa | Jan 10th 2019

66 CONGO IS FREE at last," wailed an old woman, tears streaming down her cheeks. "We have waited years for this moment!" Two young girls behind her gyrated their hips and sang, "Bye-oh Kabila," again and again.

In the early hours of January 10th, days after the result was scheduled to be released, the Democratic Republic of Congo heard that it had a new president—Félix Tshisekedi, the son of a charismatic opposition leader who died two years ago. Moments after the news was announced, Mr Tshisekedi walked out of his office and prayed in front of a photograph of his father. His shrieking supporters jostled around him. He is popular in the capital, Kinshasa.

The declaration marks the end of the ruling party's long stay in power and means that President Joseph Kabila and his preferred successor must admit defeat. Mr Kabila, who had refused to step down when his term expired in 2016, has ruled Congo badly for nearly 18 years. The vast country has never seen a transition of power via the ballot box. All its former leaders either fled or were killed. The fact that the election went ahead at all—and that an opposition candidate was declared the winner—is astonishing.

But many voters think they have been cheated nonetheless. Mr Tshisekedi was not the man tipped to win. A respected Catholic NGO that had deployed 40,000 observers to monitor the election on December 30th said on January 3rd that its tallies showed a clear winner. Although it did not publicly name him, it told Western diplomats that Martin Fayulu, a former oil executive, had won. He also came top, by a wide margin, in a pre-election opinion poll.

The electoral commission's count was rather different. It said that Mr Tshisekedi had won with 7.05m votes. Mr Fayulu was behind him on 6.37m. The unpopular ruling-party candidate, Emmanuel Ramazani Shadary, received just 4.36m. "These results have nothing to do with the truth at the ballot box," Mr Fayulu said in an interview with Radio France International. "It's a real electoral coup, it's incomprehensible."

Critics say that Mr Kabila was desperate to keep Mr Fayulu away from the throne because he was backed by two of the president's biggest adversaries (Moïse Katumbi, a businessman, and Jean-Pierre Bemba, a former warlord, who were both barred from standing). Mr Fayulu appeared to represent real change. He had campaigned on a promise to reduce corruption and enforce the rule of law—an obvious threat to those who have looted this giant, mineral-rich country for decades.

Mr Tshisekedi, by contrast, is thought less likely to shake things up, or to ask awkward questions about Mr Kabila's business empire and the dazzling wealth of his cronies. "The Kabila camp was never afraid of Félix," says Kris Berwouts, the author of "Congo's violent peace". "They consider him a weak personality." Mr Tshisekedi, for his part, said, "I pay tribute to President Joseph Kabila and today we should no longer see him as an adversary, but rather, a partner in democratic change."

The election result will surely be contested. France has queried it. However, the declaration of an opposition candidate as winner may give regional bodies such as the African Union enough of an excuse to call it free and fair. Congo badly needs a change. But this was not what most voters had in mind.

This article appeared in the Middle East and Africa section of the print edition under the headline "The Kinshasa surprise"

Till death do us part

A failed coup in Gabon highlights the staying power of Africa's ageing leaders

Coups are growing rarer on the continent, and the average age of its presidents is rising

Print edition | Middle East and Africa Jan 10th 2019

It was all over within hours. At 4.30am on January 7th a small group of junior army officers seized the national radio station in Gabon, an oil-rich country in central Africa, and declared a coup. They said they were motivated by the "pitiful sight" of Ali Bongo Ondimba, Gabon's 59-year-old president, delivering a televised address from Morocco, where he has been convalescing since November after suffering a stroke. The attempt to unseat him was short-lived: by midday, most of the coup-plotters had been rounded up and the government was back in control.

The drama in Gabon is a throwback to more turbulent times. Coups have become rarer across Africa—a sign that basic democratic norms are more widespread than they were. But checks and balances on presidential power are often still weak, so many African leaders have been able to cling to office far longer than is possible in more competitive polities. Five have died in office since 2010—all of natural causes. Seven of the current crop have been in power for over two decades. Mr Bongo, whose previous jobs include minister of defence and funk singer, has been in power for only ten years, but his family has run Gabon since 1967; he inherited the top job when his father died.

Mr Bongo is not the only African president who rules from his sickbed. Muhammadu Buhari, Nigeria's septuagenarian president, spent much of 2017 abroad recovering from an undisclosed illness. Last month he was forced to deny that he had died and been replaced by a body double. He is standing for re-election in February. Algerians often speculate about the health of Abdelaziz Bouteflika, their 81-year-old autocrat. He is rarely seen in public, but may run for a fifth term this year.

In the past such frail leaders would have made easy pickings for a young upstart plotting a coup. But the most recent successful coup in Africa, in which the Zimbabwean army deposed 93-year-old Robert Mugabe in 2017, marks the exception rather than the rule. From 1980 to 2000 there were 38 successful coups in Africa. Since then there have only been 15. This is partly because presidents have grown more adept at coup-proofing their regimes. Many place relatives in key roles, keep the army weak and play factions off against each other.

The spread of democracy in Africa has also helped stave off putsches. The African Union (AU) has adopted a policy of "zero tolerance" towards coups, though it sometimes turns a blind eye if given a semi-plausible excuse to do so. In Zimbabwe, for example, the generals detaining Mr Mugabe insisted that they were protecting rather than overthrowing him. The AU did not point out that this was an obvious fib. Mr Mugabe was not popular.

In other cases, though, the AU's policy has undoubtedly deterred some coups, and helped to foil others. In Burkina Faso, for instance, it played a big role in forcing soldiers to hand power back to civilians after they deposed the president in 2015.

The decline in coups is a good thing. But political competition for the top spot is still constrained. Most African countries have presidential term limits. But since 2000 ten countries' leaders have simply changed their constitutions to stay in power. Omar al-Bashir, Sudan's ruler since 1989, recently said he would follow suit, even as his government tear-gassed protesters.

As a result, the average age of Africa's presidents has risen steadily, from 52 in 1980 to 66 today. This is not just because autocrats are living longer. In noisy democracies, too, political parties are often dominated by older figures who are reluctant to leave the limelight. Mr Buhari's main challenger in elections next month is also over 70, and has run for president four times before. Tunisia democratically replaced a 69-year-old president with an 88-year-old in 2014. The continent's greying leaders are in no hurry to leave, a sentiment expressed funkily by Mr Bongo in his 1977 song "I wanna stay with you".

This article appeared in the Middle East and Africa section of the print edition under the headline "Till death do us part"

Crude deals over oil

America is trying to get more out of its relationship with Iraq

Donald Trump wanted to seize Iraq's oil. He has settled for government contracts

Print edition | Middle East and Africa | Jan 12th 2019

PRESIDENT DONALD TRUMP thinks America is being ripped off. "We have spent \$7trn—trillion with a T—\$7trn in the Middle East," he told a crowd last year, exaggerating slightly. "You know what we have for it? Nothing. Nothing." To right this perceived wrong, Mr Trump has long favoured seizing Iraq's oil. But after he hinted at the idea with the Iraqi prime minister (who demurred), his aides admonished him. "We can't do this and you shouldn't talk about it," said H.R. McMaster, the national security adviser at the time, according to reports. Still, Mr Trump may be getting what he wants from Iraq in other ways.

When America reimposed sanctions on Iran last year it gave some countries extra time to stop buying Iranian oil before they would lose access to the American market. Most were given 90-day exemptions. In November Iraq, which shares a long border with Iran, was given half that time to cut off electricity and gas imports. As it negotiated for extensions, American companies made a push for Iraqi contracts. In December, Rick Perry, the energy secretary, led America's largest trade delegation to Iraq in over a decade. "It was a quid pro quo," says an oilman. "You give us priority and we'll give you an exemption."

The strategy seems to be working. General Electric, an American company, has muscled in on a big contract to upgrade Iraq's decrepit electricity grid, which had been earmarked for Siemens, a German firm. American companies have also signed deals to supply Iraq with grains and poultry, important Iranian exports. Chevron and Exxon, American oil giants, have avoided the inconvenience of a bidding process by negotiating directly with Iraq's oil ministry for large concessions. A previous Iraqi government put off a decision on Exxon's bid to help boost Iraq's oil export capacity and build a desalination plant. Now it is said to be a priority.

Iraq is more stable, secure and rich than it has been since America's invasion in 2003. Having helped to roll back the jihadists of Islamic State (IS), Mr Trump thinks America is owed something for the country's success. Beyond that he is not terribly engaged with Iraq. When he flew there in December, Mr Trump wished his troops happy Christmas, boasted about giving them a pay rise, then left—without seeing Iraq's leaders. A meeting with Adel Abdul-Mahdi, the new Iraqi prime minister, fell through after Mr Trump insisted that he come to America's base in the desert west of Baghdad.

Mr Trump's withdrawal from Syria has some Iraqis thinking that they could be next to see American troops go. On January 9th Mike Pompeo, America's secretary of state, tried to reassure them. In a meeting with Mr Abdul-Mahdi (at the prime minister's office) he discussed continuing America's co-operation with the Iraqi security forces. He also emphasised "Iraq's energy independence", according to a statement. Officials in Iraq interpret such talk as an effort to get it to stop buying gas from Iran—and to start hiring American companies to develop Iraq's gasfields.

If America's intention is to prise Iraq away from Iran, it will have a difficult time. The neighbours get along, for the most part, and trade a lot. Iraq depends on Iran for food and power. When Iran cut electricity to Iraq last summer, for want of payment, southern Iraq over-heated and protests brought down the government. American firms would not be able to replace the supply from Iran in the short term. Iranian forces are also helping to keep Iraq secure from IS, which is resurfacing in some areas.

Bickering between Iraq's big political blocs—the Iran-leaning Fatah and antiIranian Saairoun—reflects tussling between America and Iran over the composition of Mr Abdul-Mahdi's cabinet. The positions of defence, interior and justice minister remain vacant. A return to instability would imperil America's contracts. But Mr Trump is happy enough for now. In December he gave Iraq 90 more days to comply with America's sanctions.

This article appeared in the Middle East and Africa section of the print edition under the headline "Crude deals over oil"

Agricultural technology

How silicon makes Israel's desert bloom

Dry summers and hostile neighbours have pushed Israel to innovate

Print edition | Middle East and Africa | Jan 12th 2019

PINK BOLLWORMS are the scourge of cotton farmers. The insect is less than an inch long, but it has a voracious appetite for the plant's seeds. As a child living on Kibbutz Ginosar, in Israel's north, Ofir Schlam would wake up at dawn to inspect leaves for the pest. "They were really hard to find," he recalls.

Spotting the enemy has become much easier. Four years ago, Mr Schlam co-founded Taranis, a company that uses high-resolution imagery from drones, planes and satellites to diagnose problems in the field—among them bollworms, diseases, dryness and nutrient deficiencies. Investors are joining the effort: in November, Taranis raised \$20m.

Faced with unfriendly neighbours and an arid climate, Israel has had to innovate to survive. Taranis is the poster child of its stunning rise in agritech. Over 500 companies operate in the field, nearly twice as many as in the better-known cyber-security sector. A third of them did not exist five years ago. Israeli agritech firms attracted \$171m in equity investment in 2017, according to Start-Up Nation Central, a non-profit organisation, considerably more than those in bigger farming countries, such as Australia and Brazil.

Other countries have bet big on agritech, but Israel is ahead of all but America, say investors. Large countries with big appetites are taking notice. When Wang Qishan, China's vice-president, visited Israel in October, he toured agritech exhibits. "Agricultural parks" using Israeli technology have mushroomed across China. Indian and African officials have also made recent trips to Israel seeking inspiration.

Because it trades little with its neighbours, Israel long relied on the kibbutzim and other collective farms to grow food for its rising population. That heritage is providing rich pickings today: 54% of Israel's agritech ventures are managed by someone who grew up in a kibbutz. Conditions forced them to be creative. The southern part of the country often receives less rainfall in a year than England gets in a day. That led to an early breakthrough in water management. In the 1950s Simcha Blass and his son, Yeshayahu, greatly reduced water use by applying it directly to the roots of plants. They helped form Netafim, the world's leading maker of drip-irrigation systems, worth nearly \$1.9bn.

Newer companies are exploiting technological advances in areas such as plant biology and artificial intelligence. Startups founded in Israel last year include Sufresca, which is developing edible coatings that extend the shelf life of fruits and vegetables; Beewise, which uses artificial intelligence to automate beehive maintenance; and Armenta, which is working on new therapies to treat sick dairy cows. Other firms are targeting trendy sectors like pharmaceutical crops and alternative proteins.

The new firms benefit from an oversupply of produce worldwide, which has led to lower margins for farmers and greater demand for tools that increase productivity and boost profits. After an unprecedented round of mergers in 2016, farming giants have been looking to cut costs. Shareholders are also looking for new ways of doing things (six out of the ten biggest food companies have replaced their CEOs in the past three years). Many firms see external innovation as faster and cheaper than in-house research and development (R&D).

Israel's overall civilian R&D spending, measured as a share of GDP, is more than that of any European country. Agritech gets a chunk of this cash. The government supports universities and labs; it has also invested in venture-capital funds and directly in startups. The country is good at turning ideas into profits. The Israel Institute of Technology (known as Technion) earns over half as much licensing patents as MIT in America, despite spending much less on research. Next year, for the first time, the government plans to sponsor pilot projects that connect startups with farmers, so that technology can be tried and tested locally before being introduced to international markets.

The state also helps in other ways. Military service is mandatory in Israel, where bright young conscripts spend years developing equipment or software that does well in unpredictable environments. Such skills have direct applications in agritech. Nadav Liebermann, the chief technology officer of CropX, a company that uses wireless sensors to measure soil moisture, served in a unit that created hardware for special forces, including devices placed underground in enemy territory to gather intelligence. His software chief, who learned to code in the army, ran a team of 50 developers at the age of 23. Two branches are particularly good at churning out tech entrepreneurs: Unit 8200, the army's signals-intelligence arm, and Unit 9900, which specialises in gleaning intelligence from geospatial imagery.

Small is not always beautiful

The next challenge for Israel's agritech firms will be scaling up. Limited farmland means they must look for partners abroad early on. So does the need to understand distant export markets with a different climate, like Brazil or the American Midwest. Founders of startups are often quick to sell up, rather than building their ventures into big global companies. Many reinvest their riches in new startups and buyers often continue to use Israel as their base for R&D. The danger is that, without bigger home-grown firms, many less-skilled Israelis—including kibbutzniks—will be cut off from the booming tech industry.

This article appeared in the Middle East and Africa section of the	print edition under the headline	"Silicon makes the desert bloom"
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Europe

Belarus

He had a friend in Minsk

He had a friend in Minsk

Belarus's leader upsets Vladimir Putin by cosying up to the West

Russia is hinting at a political takeover **Print edition | Europe** Jan 12th 2019

A GIANT STATUE of Lenin still stands before the forbidding House of Government in Minsk, built by Stalin in 1934 and occupied by the Gestapo a few years later. But behind this totalitarian façade now sits a government that is trying to work out how to reform Belarus's economy while following a political trajectory set a quarter-century ago by the country's authoritarian leader, Alexander Lukashenko. Now he must also fend off Russia's looming threats to its independence. This is not an easy circle to square. But Mr Lukashenko is no ordinary politician.

Learning from Lenin

A former collective-farm boss, Mr Lukashenko was swept to power in a landslide in 1994, three years after the collapse of the Soviet Union. He has ruled Belarus ever since, making him Europe's longest-serving president. Unlike his peers in other European former Soviet republics, who rejected the old system as they asserted independence, he cherished the Soviet legacy. Belarus still marks the Great October Revolution of 1917 with a public holiday. And Mr Lukashenko's adherence to socialism goes well beyond symbols.

Unlike his neighbours, Mr Lukashenko never embraced free markets and democracy, or privatised Belarus's state factories. Instead, he guarantees full employment, at the cost of stifling productivity. Belarus has no oligarchs, relatively little everyday corruption and some of the lowest rates of inequality and of people who live on less than \$5 a day in the former Soviet empire. Again borrowing from Lenin's lexicon, Mr Lukashenko consolidated power by coercion, jailing rivals and journalists, disbanding protests and earning Western sanctions and a reputation as "Europe's last dictator". Still, he has retained broad domestic support by keeping up adequate living standards, a sense of social justice and decent public infrastructure.

Mr Lukashenko's authoritarian model, though, has relied on Russian subsidies. Keen to bind in an ally, Moscow has kept natural-gas prices low and supplied cut-price crude oil, which Belarus has been able to refine and sell at market prices. In exchange, Mr Lukashenko swore loyalty to Russia, and entered into military and economic alliances with it. Yet a "Union State of Russia and Belarus", nominally formed in 1999, exists mainly on paper. In reality, Mr Lukashenko has skilfully played Moscow against the West, cashing in on his country's geopolitical position.

This ambivalence has irked Russia but has bought Belarus time to allow a real private sector to emerge. It now accounts for half of jobs and has created a middle class that values hard work and education. Minsk's vibrant IT industry now employs some 40,000 staff developing apps and games such as Viber and World of Tanks.

As Balazs Jarabik of the Carnegie Endowment for International Peace, a think-tank, observes, the social contract is changing. A recent poll shows that Belarusians above all want their government to create the conditions that would let them make money. Mr Lukashenko has tried to do this, appointing a former banker to run the government and promising to promote a digital economy. Alexander Turchin, the deputy prime minister, says the government is planning to rein in the security services and soften laws against economic crimes. Although Belarus still has the death penalty and harasses the opposition, Mr Lukashenko has become more tolerant of civil society, even allowing a measure of public criticism and debate.

He is surely not a reborn liberal. His softening results largely from fear of Moscow. Russia's war against neighbouring Ukraine in 2014 made Belarus feel vulnerable. Mr Lukashenko refused to recognise Russia's annexation of Crimea and retains good relations with Ukraine. He has clamped down on Russian propaganda, giving suspended jail sentences to three Russian-paid bloggers who stirred anti-Belarusian sentiment, for instance by messaging that "the study of the Belarusian language can spoil children's brains." He has also set about mending fences with America, which withdrew its ambassador from Minsk in 2008 in protest against political repression. Last year Mr Putin ominously sent a former security-service commando as ambassador.

Having lost Ukraine, Russia now wants to integrate Belarus more deeply, citing those dormant agreements of the 1990s. More to the point, Mr Putin reckons Belarus could help him retain power after his current and supposedly final presidential term ends in 2024. A full-blown union of Belarus and Russia, created with or without Mr Lukashenko's agreement, could let Mr Putin dodge term limits in Russia by becoming the first president of a new entity, Russia-and-Belarus.

In December Mr Putin twice met Mr Lukashenko, and dispatched his prime minister, Dmitry Medvedev, to Belarus. Telling reporters that "Russia is ready to go further in building a Union State", Mr Medvedev suggested that Russia could take over the Belarus customs, central bank and courts.

Russia has many cards to play if it wants to get tough. It is winding down its oil subsidy, which accounts for nearly 4% of Belarus's GDP, implicitly linking it to integration. Deprived of cheap money, Belarus's state firms, laden with bad debts, would struggle to stay afloat. As a hedge against Russia, Mr Lukashenko has turned to China, luring its investors and lenders. Minsk now boasts a vast Chinese industrial park. Yet an overt Chinese presence might provoke resentment in Russian-speaking Belarus. Russia is also Belarus's largest single market. Blocking exports, something Moscow tried a decade ago, could fuel discontent ahead of Belarus's presidential election in 2020.

For his part, Mr Lukashenko has sounded defiant. He has ruled out the idea of a Russian military base in Belarus, and has hosted American generals and diplomats. On December 14th he told Russian journalists: "If someone wants to break [Belarus] into regions and force us to become a subject of Russia, that will never happen." He cannot afford a formal rift with Russia, but he is calculating that Mr Putin's hand will be restrained by Russians' growing weariness of military adventures and by Mr Lukashenko's popularity among them. "I made a joke that we are sick and tired of each other," Mr Lukashenko said in Moscow just before Christmas. In the same bantering spirit, he brought Mr Putin a Christmas gift: fours sacks of potatoes and a slab of lard. Mr Putin did not respond, but is unlikely to feel satiated.

This article appeared in the Europe section of the print edition under the headline "He had a friend in Minsk"

Putin and the patriarchs

Russia's conflict with Ukraine has caused the Orthodox church to split

Ukrainians have lost their land, but not their souls

Print edition | Europe Jan 12th 2019

WITH SNOW falling on the green domes of Kiev's Saint Sophia cathedral, Ukraine's president, Petro Poroshenko, strode triumphantly towards its ancient doors on January 7th to mark an Orthodox Christmas like no other. Beside him stood Metropolitan Epifaniy, the newly minted head of the Orthodox Church of Ukraine. They carried a document, called a *tomos*, granting the new Ukrainian church independence from the Moscow patriarchate, the result of a year of intensive negotiations between political leaders and clerics in Kiev and Istanbul, home to Patriarch Bartholomew I, the "first among equals" in the eastern Christian world.

Until this week, the only internationally recognised Orthodox church in Ukraine had been a body whose ultimate master is Patriarch Kirill of Moscow. After Russia annexed Crimea and stoked a war in Ukraine's east in 2014, that struck many Ukrainians as untenable. "We have cut the last chain that connected us to Moscow and its fantasies about Ukraine as the canonical territory of the Russian Orthodox Church," said Mr Poroshenko. The bid for ecclesiastical independence, which is as much about Ukraine's desire to break from Moscow's political orbit as it is about theological authority, has enraged both Kirill and Russia's earthly ruler, Vladimir Putin, who has said that the church schism could "turn into a heavy dispute, if not bloodshed".

The warning reflects the significance of the church split for the Russian president. Mr Putin has devoted enormous effort to re-establishing Russia's influence, whether political, commercial or spiritual, over the lands that used to be part of the Soviet Union. This schism is a move in the opposite direction. More than 12,000 parishes still lie under the Moscow-aligned Ukrainian Orthodox Church; now the new body, the Orthodox Church of Ukraine, which already controls about 7,000 parishes, will try to woo those communities into its fold. Another point of contention is control over valuable church property and over historic sites such as the Kiev-Pechersk Lavra, a famed cave monastery. Archbishop Kliment, a cleric of the Moscow-aligned patriarchate, frets about threats against the branch's churches. Some Moscow-aligned priests have been called in for questioning by the Ukrainian security services.

Nonetheless, Mr Putin may be hard-pressed to find popular support for fresh intervention in Ukraine on religious grounds. The spiritual stand-off has failed to arouse much passion among ordinary Russian citizens. Some 60% say they are not bothered by the Ukrainian split; even among self-identified believers, just 43% say they are concerned. At Christmas celebrations in the medieval Russian town of Vladimir, believers refused to let church politics in Istanbul or Kiev spoil the festival. "Let those who did this worry about it," said Eduard, a middle-aged factory worker, as he approached the Assumption Cathedral. "We're having a holiday."

Mr Poroshenko hopes the move will inspire greater zeal among Ukrainian voters. With presidential elections looming in March, he has made church independence a central pillar of his campaign. Some of those who came to the service on January 7th say their views of the president have improved thanks to the autocephaly. But it has yet to shift the polls so far; the president is still trailing.

This article appeared in the Europe section of the print edition under the headline "A tale of two patriarchs"

Poleaxed

Poland wants a fort with Donald Trump's name on it

Critics say it could weaken NATO, or lead to Russian troops in Belarus

Print edition | Europe Jan 12th 2019

POLES LIKE being reminded of the time they came to America's defence. Meeting his counterpart in November, James Mattis, America's now-departed defence secretary, waxed lyrical about General Tadeusz Kosciuszko, who built a string of vital forts during America's revolutionary war. Poland's government hopes America will return the favour with some fort-building of its own.

Having been repeatedly carved up by bigger powers, Poland is keen to cement alliances. It rushed to join NATO in 1999, and in 2016 welcomed the headquarters of NATO's "enhanced forward presence" scheme, which stationed 4,600 combat-ready troops in eastern Europe. Yet neither this, nor the several thousand American soldiers who rotate through Poland annually, nor the NATO missile defence system America is building on the country's Baltic Sea coast have settled Polish nerves.

Documents leaked last May showed Poland had asked America to deploy an armoured division (roughly 15,000 troops) permanently on its soil, to which Poland would contribute up to \$2bn. The proposal was sprinkled with references to 1776 and quotes from President Donald Trump's speech in Warsaw in July 2017. It noted that Poland is one of the few allies that meet NATO's target of spending 2% of GDP on defence. It alluded to Poland's contributions to American wars in Iraq and Afghanistan, and to America's 70% favourability rating among Poles. Maps of potential locations even showed the schools that the hypothetical Americans' offspring might attend. In September Andrzej Duda, Poland's president, tried to close the deal: the base could be called "Fort Trump".

Though this struck many Poles as toe-curlingly crass, the proposal kicked off a serious debate. Supporters, including some American generals, argue that a permanent deployment would be preferable to the current rotational arrangement, because commanders would get to know their surroundings. Sceptics replied that America does not have tanks to spare and that moving existing units eastward from Germany would make them a juicy target for Russian rocket artillery.

Critics also warn that Russia could respond by building up forces in Kaliningrad, its European exclave to Poland's north, or in Belarus. Alexander Lukashenko, Belarus' autocratic president, has beaten back Russian demands for a base for years, but American tanks next door could force his hand. That, in turn, would create a headache for Ukraine, which might have to shift forces to defend its border with Belarus. A bilateral deal, cut over NATO's head, might compound growing unease over America's commitment to multilateral alliances. The Baltic states "would inevitably feel marginalised", a recent Estonian study cautioned.

Another worry is that an American base might deepen the wedge between Poland and the EU. In 2009 Poland helped launch talks on the EU's Permanent Structured Cooperation (PESCO), a framework for European defence co-operation. But in 2017 it was the last to sign the agreement, underlining its tilt towards America. In 2016 the government cancelled an order for 50 Airbus helicopters, offending France. Instead it is pumping much of its growing defence budget into an American Patriot air defence system worth \$4.8bn. The EU also frets that an American base would convey approval for Poland's illiberal nationalist government, hampering the bloc's efforts to stop it from weakening the judiciary and undermining the rule of law.

Congress has told the Pentagon to report on the feasibility of a base by March 1st. A huge garrison looks less likely than a slimmer deployment, perhaps to existing sites. American officials fear the proposed new sites lack space for tank manoeuvres. In December Mr Duda suggested that Mr Mattis's departure would make it "easier to talk", as he had been sceptical of the idea. But the Pentagon is in disarray, with the new leadership unlikely to rank eastern Europe high on its agenda.

This article appeared in the Europe section of the print edition under the headline "Fort Trump"

Maiden lanes

The push to name more European streets after women

Nearly all roads are named after men. Campaigners want to change that

Print edition | Europe Jan 12th 2019

SOME CITIES are symbolised by their monuments, such as the Eiffel Tower, the Colosseum and the Brandenburg Gate. But streets can do the job, too. Many are named after national heroes—nearly all of them male.

Dozens of streets in Hungary are named after Petofi Sandor, the national poet. A visitor to any Italian city is likely to tread on Via Dante, Mazzini, Garibaldi or Verdi. Women remain conspicuously absent, apart from a certain Middle Easterner famed for her virginity. Even so, tens of lesser-known gents come ahead of Jesus's mother. In Paris, 31% of streets are named after men, just 2.6% after women.

The invisibility of women in Europe's street names is mainly a historical hangover. This summer, residents of Brussels had the chance to name 28 new streets. None are named after individual men—the new *Place des Grands Hommes* instead gives them collective recognition. Two streets will be named after women: a doctor, Isala van Diest, and a film director, Chantal Akerman. But the achievements of these ladies appears on a par with local fondness for delicacies like *kriek* (cherry beer) and *speculoos* (gingerbread biscuits), which will also give their name to new streets. The ingenious naming of *Ceci n'est pas une rue* ("This is not a street") will pay homage to the Belgian surrealist artist René Magritte—a deserving choice, but some may rue the missed opportunity to highlight other worthy women.

Meanwhile, vigilante sign-stickers from Paris to Tbilisi are taking matters into their own hands. A Parisian group has unofficially renamed the Pont au Change after the entertainer and resistance fighter Josephine Baker; and the Boulevard du Palais after the 18th-century philosopher Emilie du Châtelet. Beyoncé Boulevard appeared in place of Rokin Boulevard in Amsterdam in August. Some local governments have joined the cause. La-Ville-aux-Dames, a town in France, has aptly named most of its roads after women. Brussels and a town in Burgundy have officially paid respect to Jo Cox, a British MP who was murdered in 2016 by a pro-Brexit conspiracy theorist. More such recognition would surely improve cities' street cred.

This article appeared in the Europe section of the print edition under the headline "Maiden lanes"

More égalité than you might think

How France redistributes more from rich to poor than Sweden

But protesters still denounce the "president of the rich"

Print edition | Europe Jan 12th 2019

When Emmanuel Macron launches his promised "great national debate" on January 15th, he hopes to show a willingness to listen to the popular rage behind the *gilets jaunes* (yellow jacket) protesters who have been occupying roundabouts and motorway toll booths in anger initially at fuel tax rises, but now with a much longer list of grievances. The French president has asked for ideas on four topics, which he wants to be discussed online and in town halls until mid-March: the environment, democracy, public services and taxes. It was the claim of unfair taxation—and a feeling among protesters that the money raised did them no good—that first mobilised the *gilets jaunes*. "But what do you do with all that dough?" asked one early *gilet jaune* in a clip that went viral.

France has a long-standing preference for taxes and spending. Its tax take as well as its level of public spending, which accounts for 57% of GDP, are higher than in any other European Union country. Much goes on subsidising public services, whether riding in high-speed trains or studying at university, that cost users more elsewhere. As Mr Macron pointed out in his new year's address, France has excellent infrastructure, (mostly) free education and first-rate health care that comes at little direct cost to patients. Such services are often taken for granted. If the French want lower taxes, some of that spending will have to give, too.

The *gilets jaunes*, however, argue that they are unfairly squeezed by taxes to pay for all this while the rich are let off. Their tax revolt began against a rise in green taxes on diesel and petrol. But the backdrop was Mr Macron's decision in 2017 to abolish the country's wealth tax, in line with a manifesto promise. Although the president introduced a (more modest) mansion tax in its place, the tag "president of the rich" has stuck. No longer subject to the wealth tax on top of income tax, the richest 1% have indeed seen the single biggest increase in disposable income under Mr Macron, according to the Institut des Politiques Publiques.

Still, unlike in America, the richest 1% in France collectively earn less before taxes than the poorest 50%. At least until the most recent change, the gap has remained fairly stable since 1995 in France, whereas it has risen sharply in America. And the broader redistribution picture is considerably more balanced. Thanks to high taxes and benefits, France stands out among big European economies as the country that does the most to reduce income inequality, says James Browne, an economist at the OECD (see chart). Sweden does end up with a slightly more equal overall income distribution, but the French system reduces the gap by more. A recent study by INSEE, the national statistics body, shows that the gross income of the top 10% of people is 22 times that of the bottom 10%. Yet that gap is reduced to just six times by taxes and transfers. "Let's stop pretending that France is a country where solidarity doesn't exist," said Mr Macron in his address.

So why do the *gilets jaunes* feel so squeezed? The answer is not stagnating average wages. Real household income in France grew by 8% from 2007 to 2017, despite the financial crisis, more than in many other European countries, as Jean Pisani-Ferry, an economist at Sciences Po (and a former adviser to Mr Macron), points out. He identifies a breakdown in social mobility, and thus in faith that the system can improve lives for the next generation, as part of the explanation. Another, according to research by the World Inequality Lab, linked to Thomas Piketty, a French economist, is that the bottom 50% are disproportionately touched by non-progressive social-security charges and indirect taxes, such as those on fuel. Include these, and the French redistribution system still works, but rather less well.

Such matters will form part of Mr Macron's consultation. Town halls have already opened "books of grievances". The government has ruled out certain demands—including a return of the wealth tax—as well as subjects that fall outside the designated topics. In one early online forum, a common demand has been the abolition of gay marriage. Mr Macron's promise of a debate, along with €10bn to boost pay packets, may have calmed some of the protesters. But he now needs to persuade people that the consultation is not just a gimmick, while not jeopardising his reform programme.

This article appeared in the Europe section of the print edition under the headline "More égalité than you might think"

Germany finds "G0d"

A young hacker spooks the German establishment

The government is belatedly beefing up its prevention measures

Print edition | Europe Jan 12th 2019

In the END, God turned out to be a 20-year-old amateur hacker living with his parents in a small western German town. Throughout December God, or "God", to use his Twitter handle, had leaked the phone numbers, addresses and, in some cases, private photos and credit-card details of nearly 1,000 German politicians, celebrities and journalists. For weeks no one noticed. But panic set in once the news emerged on January 3rd. Was this an expert group of cyber-anarchists hell-bent on destroying the system? Was it the handiwork of Vladimir Putin?

In fact the culprit, arrested in the town of Homberg (Ohm) on January 6th, turned out to be a determined "script kiddie" (slang for a hacker who uses code written by others), apparently acting alone. He seems to have obtained the data by guessing passwords, cracking address books and so on. Asked to explain his motivation, he told police that he was "annoyed" by politicians (apart from those of the far-right Alternative for Germany, whom he spared).

Germany is still a laggard in cyber-security, says Matthias Schulze at the German Institute for International and Security Policy (SWP), a think-tank. So it must often turn abroad for help. A more serious attack, probably steered from Moscow, on the Bundestag's servers in 2015 was cleared up with British help; this time German officials reportedly turned to American experts. Yet it has been catching up. Germany's cyber-security strategy has been revised, funds are flowing, agencies are to be beefed up and the army is building up cyber-offensive capabilities. A planned cyber-security bill will now be brought forward to the first half of 2019.

Some politicians have urged a more muscular response to the December attacks. Yet the true lessons are more mundane. First, even relatively unskilled amateurs working alone can cause serious disruption. There was little of consequence in the leaked material but, in the wrong hands, phone numbers and addresses can be used for mischief. Second, the multitude of agencies working on cyber-security creates vulnerabilities and confused lines of responsibility. And third, Germans need to get better at minding their yards. Many victims used passwords like "123456" or "iloveyou"; classic examples of poor cyber-hygiene. Cleanliness, after all, is next to Godliness.

This article appeared in the Europe section of the print edition under the headline "Germany finds G0d"

Charlemagne

The notion of an east-west split in the EU is simplistic and defeatist

The picture is much more nuanced **Print edition | Europe** Jan 12th 2019

BUDAPEST IN JANUARY ill-suits political action. A freezing wind rushes off the Hungarian plain and whips the grand 19th-century boulevards. The streets glisten with ice and slushy snow. Yet march the people did once more on January 5th. They bore Hungarian and European flags, party-political banners and the insignia of charities, trade unions and NGOs. "Orban out!" they chanted. "It's the biggest protest yet," enthused Andras Lederer, a veteran of successive demonstrations.

No political dinner party in Brussels, Paris or Berlin is complete without the observation that the shroud of illiberalism is settling on central Europe. Viktor Orban, the Hungarian prime minister, has mastered the country's mass media, courts and universities, and is now trying to force overtime on workers under legislation dubbed the "slave law". In Poland the populist-nationalist Law and Justice (PiS) government has stacked courts and state-run companies with cronies. Corruption scandals, democratic backsliding and assaults on the press stalk other eastern members of the EU, including Romania, which took over its rotating presidency on January 1st.

Such news stirs up old prejudices about the eastern EU states. Since the Emperor Charlemagne's time, the continent's political fulcrum has resided in the old Frankish empire and its great cities: Aachen, Paris, Strasbourg, Frankfurt, Brussels, Milan and more. This Europe has often looked down on the Poles, the Hungarians and the Czechs, let alone the Ukrainians or Estonians, for their supposed exoticism and backwardness. Timothy Garton Ash, a historian, calls this tradition "intra-European orientalism". Jean-Jacques Rousseau, a philosopher, characterised ordinary Poles as noble savages. Heinrich Heine, a poet, romanticised and belittled the peoples to Germany's east. After the fall of the Berlin Wall the talk was of their "catching up" with the west. Today that tradition lives on in coverage of illiberalism in the region and in suggestions that Europe's future involves a permanent and exclusive integrationist vanguard, and a more sceptical outer layer.

Reviving this tradition is wrongheaded on three counts. First, it is a wild generalisation. The abuses of the Hungarian and Polish governments are real. But they are neither a single phenomenon—Poland has a more dynamic opposition and a more ideological leadership—nor representative of the whole region. Liberal pluralism remains in better fettle in the Czech Republic. The Baltic states have exemplary civic and e-citizenship traditions (witness Latvia's successful experiments with e-petitions). Meanwhile Marine Le Pen's 34% vote at the last French election, the governing Freedom Party's assaults on Austria's institutions and Denmark's decision to expel asylum seekers to an island once reserved for contagious animals all give the lie to western Europe's supposed immunity to conspiracist populism. Italy, a founding member of the EU where measles cases are soaring thanks to anti-immunisation hysteria and whose populist government met with that of Poland on January 7th to discuss a new European nationalist alliance, further disproves that lazy myth.

The east-west dichotomy also obscures dissenting voices in central Europe. Every Saturday in Paris, "yellow jacket" protesters march for a manifesto that includes abolishing gay marriage, stopping immigration and quitting the EU. On weekends in Warsaw, Prague, Bratislava and Budapest, people march for independent courts, free media and, often, rapprochement with Brussels. Zsofia Nagy, a Hungarian sociologist, describes the anger she felt at the Orban government's implausible reaction to the Sargentini Report, an EU-backed analysis of its anti-democratic record. "It was full of lies," she fumes. The young mother took matters into her own hands, forgoing sleep for a week to dismantle the government's defence line-by-line. Her text was circulated widely on independent online media.

Asked about the supposed east-west divide, Rafael Trzaskowski, Warsaw's new mayor, replies: "bullshit". Elected in an antigovernment surge at municipal elections in October, he recalls: "I fought a pro-openness campaign and people embraced it." One Polish opposition analyst reckons PiS's core vote is only about 30% of the electorate, to which it has added swing voters with a welfare bonanza paid for by the last government's economic boom. New polling by IPSOS on the government's dispute with the EU over its rule-of-law infringements suggests that over half of Poles (and one in five PiS voters) back Brussels over Warsaw.

Don't patronise them

Democratic institutions in post-communist states have, it is true, shallower roots than counterparts that grew up on the other side of the Iron Curtain. And the EU is right to take on Hungary and Poland for their abuses. But it is defeatist to believe that the better parts of those countries' natures are doomed. This attitude, though, is expressed in the obsession with restarting the Franco-German motor, an inadequate engine for the expanded EU, rather than trying to bind in countries like Poland. It is also apparent in the indulgence of the European People's Party (EPP), the mainstream centre-right family that includes Angela Merkel's Christian Democrats, for Mr Orban and his Fidesz party. When figures like Manfred Weber, the EPP's candidate for the European Commission presidency, coddle the Hungarian autocrat, they are implicitly acting as if Hungary's embattled liberal tendencies do not exist.

Europe's leaders, east and west, face a choice. They can treat the continent as one: the product of a rough history of geographically differentiated leaps forward and lurches backward in which no nation has a monopoly on progress; one in which

each is expected to apply the same standards and each is accorded the same status. Or they can accept the dichotomy of east and west and aspire, at best, to build wobbly bridges between the two. The former path offers the better way forward. The latter points to collapse.

This article appeared in the Europe section of the print edition under the headline "A Carolingian folly"

Britain

The opposition

Labour's Brexit balancing act

A Brexit balancing act

How long can Labour's Eurosceptic leader keep Europhile members happy?

Jeremy Corbyn is under growing pressure to back a second referendum

Print edition | Britain Jan 10th 2019

T-SHIRTS SAY a lot about Jeremy Corbyn's Labour Party. During his campaign for the leadership in 2015, young supporters wore shirts featuring the ageing socialist Photoshopped to look like Che Guevara. Another popular design emblazoned Mr Corbyn's name on the logo of Run-DMC, a New York hip-hop group—an unlikely choice for a 69-year-old manhole-cover enthusiast. Now, at Labour rallies his fans sport a T-shirt with an equally surprising message: "Love Corbyn, Hate Brexit".

Mr Corbyn is a lifelong Eurosceptic who voted for Britain to leave the European Community in 1975, opposed its main treaty revisions and campaigned only grudgingly for Britain to remain in 2016. By contrast, Labour's half-a-million members, who have strongly backed Mr Corbyn in two leadership elections, are full-throated in their desire for Britain to stay in the EU. Some 72% of Labour members want a second referendum, an idea that Mr Corbyn and his allies are reluctant to endorse. Yet in spite of this, 65% of Labour members still say they back their leader.

So far Mr Corbyn has stuck to a line that just about satisfies them. In a speech delivered as we went to press on January 10th he restated Labour's plan. The party will vote against the government's Brexit deal on January 15th. If the deal is defeated, as expected, Labour will call for an election. If this fails, as also looks likely, it will consider options including but not limited to a second referendum.

This carefully confected fudge provides something for everyone. Eurosceptics, who include a large minority of Labour voters and the boss of the Unite union, Labour's biggest donor, can insist that booting the Tories out is the priority. Remainers, who include most members as well as some unions disturbed by the prospect of Brexit-induced job losses, can hang on to the hope of a second referendum. Nearly half of members say Labour has the right policy on Brexit, with just over a quarter opposed, according to polling sponsored by the Economic and Social Research Council's Party Members Project.

Mr Corbyn's critics argue that his policy is a cynical ploy to avoid committing the party to any firm course of action before Brexit day on March 29th. Some suspect that he does not much care whether Britain stays or goes, and that he only wants to make sure that Labour does not get the blame in the process. His supporters insist that he is simply waiting for the right moment to show his hand.

Labour strategists see a second referendum as a fire escape that should be used only if the building is close to collapse. They see three risks in using it any earlier. The first is democratic: asking people to vote again could undermine faith in politics and boost the far right, inflaming the culture war that Brexit has kicked off. The second is political: a second referendum would hurt Labour, particularly in the Midlands and the north, where its base has been hollowed out. Marching into a new referendum as the party of Remain could provoke desertion by Leave voters. The third objection is personal. Some view the "People's Vote" referendum campaign as a bid to undermine Mr Corbyn. It is led by ex-Labour and Liberal Democrat staffers who have derided Mr Corbyn in the past. "They have escalated a tactic into a principle," huffs one senior Labour apparatchik.

Labour MPs are divided. Seventy-two of the 257 have publicly backed a second vote, according to LabourList, a news site. Others would like to have such a vote, but not yet. They worry that rushing into a snap referendum may backfire, resulting in a victory for the government's deal—or, worse, for no deal at all, if such an option were on the ballot. Their priority is to avoid crashing out on those terms. Others think that Britain's best bet is to leave with a deal and then, in time, apply to rejoin.

But pressure on Mr Corbyn to shuffle towards backing a referendum is growing. People's Vote insists that the electoral arithmetic makes sense for Labour. "If Labour believe that they will lose millions of votes—by maintaining [the current] position that their voters do not want—it will shift," says one who works there. Six out of ten Labour voters backed Remain in 2016. Polling commissioned by People's Vote suggests an exodus of Labour support if the party is seen to back Brexit too heartily. Yet this thesis has already failed a real-world test. In the general election of 2017, Remainers flocked to Labour despite its commitment to carry out Brexit, on the basis that Labour's approach looked a bit softer than the hardline Tory version.

Other sources of pressure may be more effective. An increasing number on the left, including many of Mr Corbyn's ideological allies, are lobbying the Labour leader to reconsider. Manuel Cortes, the firebrand head of the TSSA transport workers' union, has called for Brexit to be stopped, in the language of the left ("Brexit? *No pasarán!*" he wrote last year). Radical economists such as Ann Pettifor, who is close to the shadow chancellor, John McDonnell, are pressing for a vote, arguing that Brexit is a right-wing movement to roll back regulation and workers' rights. Another Europe is Possible, a left-wing campaign group, is making the case that a Labour government could help to steer the EU in a more social-democratic direction, if Britain stays in.

Members may also become impatient. Mr Corbyn was elected leader in 2015, and again in 2016, with their support, partly on a pledge to involve the rank and file more closely in policymaking, as part of a "democratisation" of the party. If Labour is seen to ignore the wishes of its members on a fundamental issue, the backlash could be ugly. "Hell hath no fury like a party member scorned," says Tim Bale of Queen Mary University of London, who points out that Tony Blair was idolised by members before they turned strongly against him.

The result is a glorious irony. Some of those on the Eurosceptic left, who have long called for Labour to empower its party members, are now doing their best to sidestep them. At the same time centrist Remainer types, who during the Blair years were happy for the awkwardly radical membership to be overlooked, are calling for the grassroots to be heard. "It is through the looking glass," says one Labour MP. "Inside is outside, black is white." A design for the next T-shirt, perhaps.

This article appeared in the Britain section of the print edition under the headline "Labour's Brexit balancing act"

Britain and the EU

Can a no-deal Brexit be stopped?

Parliament is against a no-deal exit, but cannot easily prevent it

Print edition | Britain | Jan 10th 2019

EVEN AS THE House of Commons began five days of debate on Theresa May's Brexit deal this week, MPs were focusing on the vote due on January 15th. Everyone (except perhaps the prime minister herself) expects it to be lost. But nobody agrees on what happens next. Mrs May has simply warned MPs that they will be entering "uncharted territory".

This is not for lack of alternative plans. They range from a Canadian-style free-trade deal, through a Norway-like option, to a second referendum. But at present there seems to be no majority in Parliament for any of these. And there is another inconvenient truth. According to both British law and Article 50 of the European Union treaty, Brexit will happen on March 29th, deal or no deal. Hence the government's ramping up of no-deal planning, which has included such comically inept events as the award of a contract for ferry services to a firm that has no ships.

The real purpose of such exercises is not to prepare for a no-deal Brexit, for which it is now far too late. It is to intimidate wavering Tory MPs into backing Mrs May's deal. So far this does not seem to be working, partly because hardline Brexiteers, like most Tory party members, favour what they like to call a "managed" no deal. Yet as became clear in voting on the finance bill this week, a majority of MPs, including dozens of Tories, are vehemently against a no-deal Brexit.

Despite this, such an outcome is surprisingly hard to stop. It is now, in effect, the default option. As Cathy Haddon of the Institute for Government, a think-tank, puts it, "Parliament can vote for any number of motions, resolutions and amendments to bills, but none of these on their own is enough to stop no deal." Only three things, she says, can do that: passing an agreed Brexit deal; seeking an extension of Article 50, which needs the unanimous approval of 27 other EU governments, some of which will be reluctant; or revoking the original Article 50 letter, which can be done unilaterally up to March 29th but would be hugely embarrassing for Mrs May.

A cross-party group of MPs is now trying out a variety of ways to force the government to take a no-deal Brexit off the table. As it has done many times recently, the government can ignore votes in Parliament, even if they have some political force. But on January 8th Yvette Cooper, a Labour MP, successfully pushed through an amendment to the finance bill to make it unlawful for the government to vary taxes following a no-deal Brexit without explicit parliamentary approval. This may well presage further rounds of guerrilla warfare by MPs.

There are plenty of potential targets. At least nine Brexit-related bills need to be passed before March 29th, including on such matters as trade, immigration and agriculture. Any of these could be amended to make a no-deal Brexit harder. Some MPs have also suggested that they might vote to cut ministerial salaries. Several Tory backbenchers and even some ministers have threatened to resign their party whip to fight against no deal. In extremis they could join Labour in voting the government out of office and triggering a general election. But, as Ms Haddon points out, even this would not on its own prevent a no-deal Brexit.

None of this is to say that a no-deal Brexit is inevitable if Mrs May's deal is voted down next week. In the end, it would be a choice by the government of the day to allow no deal, as the default option, to proceed on March 29th. And most MPs, like most businesses and voters, do not believe that an orderly and pragmatic person like Mrs May would willingly indulge in such an act of self-harm. Would she?

This article appeared in the Britain section of the print edition under the headline "Can no deal be stopped?"

No hospital for old men

The NHS falls out of love with the market

Competition is being rolled back in favour of co-operation, in a plan to cope with an ageing society

Print edition | Britain Jan 12th 2019

EVERY WEDNESDAY morning a motley group of health and social-care professionals, ranging from a geriatrician to a district nurse to a social worker, get together for a virtual ward meeting in Alderney hospital. The goal is to get to the bottom of the problems facing the ward's patients, who, were it not for the new system, would be in an actual, physical ward, but are instead being treated at home. Does the 85-year-old with a urinary-tract infection just need some antibiotics? Or does he also need someone to come round to fix his heating and check on his wife with dementia? Angie Terry, a community matron, jokes that at times the detective-style hunt for causes becomes like the American crime drama, CSI—only here the goal is to keep people out of a state institution.

Alderney, in Dorset, provides a glimpse of what officials hope the National Health Service will look like in ten years' time. On January 7th Theresa May and Simon Stevens, the head of NHS England, set out a plan for the next decade. This followed Mrs May's promise last summer that the health service would receive £20.5bn (\$26bn) more per year by 2023-24—a welcome rise but still less than economists think the service needs to get back to pre-austerity standards. Having already been promised the cash, NHS England was told to work out how to spend it.

Its plans include headline-grabbing measures like expanding child mental-health provision, doing more consultations by video-link and catching more cancers early. But the priority is dealing with an ageing society. The aim is to save money by preventing illness and keeping people out of hospital. To do this, spending will focus on primary and community services, creating new multidisciplinary teams of doctors and social services. Success, the plan suggests, will come only if the NHS is radically reshaped.

Change of prescription

The idea at the heart of the plan is to roll back competition in favour of co-operation. Since the early 1990s the parts of the NHS that pay for services (typically GPs, or family doctors) have been separated from those that provide them (hospitals, for example), in the hope that an "internal market" will drive up standards. Reforms by the Tory-Lib Dem coalition in 2012 sought to expand this system. But experiments in recent years have seen the NHS move in the opposite direction. As Nigel Edwards of the Nuffield Trust, a think-tank, notes, the long-term plan represents a new stage in the "political falling out of love with the use of market-based mechanisms".

By 2021 England will be divided into what are known as integrated care systems (ICSs). Already introduced in 14 parts of the country, which range in size from 530,000 to 2.7m people, these bring together payers and providers to collectively plan services and manage resources. In time they will be given more control over spending and held to account for the overall health of their population. The hope is that this will encourage collaboration between different parts of the NHS, and between the NHS and local government.

What this means in practice varies according to an area's needs. "A lot of it is about putting people in the same room and letting them work it out for themselves," explains Tim Goodson, head of Dorset's ICS. In Poole a new team has begun work not just on keeping people out of hospital, but on getting them out once they are in. Having got to know many repeat visitors, they offer advice to accident and emergency wards on whether admission is really necessary. After a person has been in hospital for a few days the team begins to assess whether hospitalisation is in the patient's interest. Often it is not.

Bringing about this re-organisation of the health service without any new legislation can be tricky. Local NHS officials have had to fight against existing payment mechanisms and legal frameworks to make the ICSs work. Mr Stevens thus hopes Parliament will pass legislation to change the rules to fit the system he is already introducing. Indeed, the NHS's long-term plan ends, ever so humbly, with a "provisional list of potential legislative changes for Parliament's consideration" that would, among other things, loosen current procurement rules.

Even with those legal changes, success is far from guaranteed. There is evidence that integrating services can cut costs and improve outcomes. Some worry, however, that ICSs may turn into local monopolies, responding to the central diktats rather than the needs of local populations. NHS officials argue, in effect, that the efficiencies enabled by integration should outweigh those lost by reduced competition, and that competition will be strengthened in areas where it shows most success, like in patients choosing where to have elective surgery. But Andrew Haldenby of Reform, a think-tank, says that progress in most existing ICSs has been slow. Change is rarely brought about by "bureaucratic exhortation", he notes.

The reforms face strong headwinds. One is staff shortages. The NHS has 100,000 vacancies. As Richard Murray of the King's Fund, another think-tank, points out, having more money is no good if there are no staff to spend it on. Another is the mess in social care. Age Concern, a charity, estimates that 1.4m people do not get the care they need, and the health service often has to deal with the consequences. The NHS is the largest employer in Europe and an enormously complex organisation. Reform is difficult at the best of times. And these are hardly the best of times.

This article appeared in the Britain section of the print edition under the headline "No hospital for old men"			

Charm defensive

Shinzo Abe visits Britain to firm up security ties

Anglo-Japanese links strengthen as Britain seeks to cement friendships beyond Europe

Print edition | Britain Jan 10th 2019

TWICKENHAM STADIUM in south-west London, home to the sport of rugby union, is not usually a hub of diplomatic activity. But as we went to press on January 10th Theresa May was due to host her Japanese counterpart, Shinzo Abe, for a security briefing at the stadium. Britain's security minister, its top police officer and its cyber-security chief were to advise Mr Abe on how to prepare for this year's Rugby World Cup and next year's Olympic and Paralympic games, which Japan will host.

Mr Abe was probably too tactful to raise the issue of drones, which tormented Gatwick airport in December and briefly halted flights at Heathrow on January 8th. But he will have been grateful for the tips on batting away terrorist and cyber attacks. The event reflects a deepening Anglo-Japanese partnership on security and defence, with Japan eager to pull Britain into an increasingly turbulent Asia and Britain keen to firm up its international friendships after Brexit.

Mr Abe came bearing gifts. He was expected to offer Mrs May political succour by backing her beleaguered Brexit deal, mindful of the more than 1,000 Japanese companies in Britain that stand to lose out if no deal is agreed. He lifted a ban on British beef and lamb that had been in place since the spread in Britain of BSE, or mad-cow disease, over 20 years ago. That should reap £120m (\$153m) for British farmers over five years. The two countries are also working more closely together on what Mrs May calls "grand challenges": artificial intelligence, ageing societies and clean growth.

But it is military co-operation that has truly blossomed. Britain and Japan both project themselves as outward-looking island nations committed to a rules-based international system. Mrs May endorsed Japan's concept of a "free and open Indo-Pacific", a term that alludes to concerns over China's troublesome behaviour in the region. Since 2015 Britain has hailed Japan as its closest security partner in Asia, sent Typhoon fighter jets to carry out exercises with Japan's air force and become the first country other than America to drill with Japan's army. *HMS Montrose*, a frigate, will shortly head to Japan, becoming the fourth Royal Navy vessel to do so in under a year. These warships have co-operated with Japan's in increasingly sensitive techniques, including anti-submarine warfare and amphibious landings.

In December Japan upped its order of F-35 fighter jets; it is now due to operate more than Britain, which on the day of Mr Abe's arrival announced that it had nine of the aircraft ready to deploy. Having a principal warplane in common will make it easier to swap data and tactics. Joint work on a new air-to-air missile is also moving ahead. And conversations are beginning over collaboration on navigation satellites and a next-generation fighter aircraft, both areas where Britain has peeled away from European partners and is keen to demonstrate that it has other suitors. There is also much for British and Japanese spy chiefs to discuss. British officials have been sounding the alarm over the involvement of the Chinese firm Huawei in 5G mobile networks; Japan barred Huawei from official contracts in December.

These strengthening ties could one day turn into a formal military alliance, says one British official. Another observes that the defence relationship has not been this close since the Anglo-Japanese alliance of 1902. That pact ended 80 years of splendid isolation for Britain. Mrs May must hope that Mr Abe might at least ease her own.

Correction (January 10th 2019): HMS Montrose is a frigate, not a destroyer as we originally suggested.

This article appeared in the Britain section of the print edition under the headline "Charm defensive"

Undying loyalty

Charities try new tactics to be remembered in wills

Animal charities will look after your pet after you die; some will even write your will for you

Print edition | Britain | Jan 12th 2019

10 ONE SAYS bequest anymore," flinches a manager at a big charity. "Gifts in will" is the favoured phrase these days, "to get away from that old-fashioned testament feel." Whatever the terminology, donations by the dead are on the rise. In the past three decades legacy incomes have more than doubled in real terms. They now fund six in ten of Britain's lifeboats, two in three of its guide dogs and half its rescued cats. As the stakes rise, charities are bidding harder for the final gift.

Rising house prices are the main reason for the growing value of bequests. But leaving money to charity has also become more common. In 1997 4.6% of wills left a donation; by 2016 6.2% did. A few big donors may have helped to popularise deathbed philanthropy. Albert Gubay, the frugal founder of Kwik Save supermarkets, gave away £700m (\$895m) in his will in 2016. Donating has also become more tax efficient. In 2012 the government introduced a tax break to make "giving 10% of your legacy to charity the new norm". Solicitors have since advertised charitable bequests as a way to reduce inheritance tax.

Yet charities themselves have been among the most active in prising money out of people via their wills. In 2000 they launched Remember a Charity, a group of 200 organisations which tries to persuade people to leave a legacy. "It is a very popular market and there is a lot of competition," says Stephanie Moss, legacies manager at the Charities Aid Foundation, which advises charities and donors. Cats Protection offers to care for a pet free of charge after the owner's death, triggering the idea of leaving behind some pocket money for Tiddles. Some charities even offer free will-writing services, in the hope that they might get a mention.

Smaller charities are best at playing the legacies game. Indeed, they seem to be taking business away from bigger organisations: bequests make up a quarter of the income of Britain's ten largest charities, whereas in 2006 they made up a third. Animal charities are particularly popular. The four charities most likely to be remembered by supporters in their will are Cats Protection, Battersea Dogs & Cats Home, the Dogs Trust and the Royal Society for the Prevention of Cruelty to Animals, according to Fastmap, a market research agency. The Devon Donkey Sanctuary received £23.3m in legacy income in 2017, more than the Royal British Legion and Save the Children.

This is not without problems. Bequests to animals often irk the human relatives of the deceased. According to the tax office, the number of hearings related to wills has increased by a third since 2012. Several cases involve children trying to prise donations out of charities' hands—or, in some cases, paws.

This article appeared in the Britain section of the print edition under the headline "Undying loyalty"

Good cop, mad cop

Mike Barton runs England's best police force. What sets him apart?

The chief constable burps and swears his way through meetings. But he keeps winning awards

Print edition | Britain Jan 12th 2019

If YOU ASK his cops, they tell you Mike Barton is forthright, daring and a little domineering. Mostly, though, they think "The Chief" is crazy. The bulky, bald Lancastrian whom one admirer likens to Colonel Kurtz, the Marlon Brando character in "Apocalypse Now", rules Durham Constabulary in idiosyncratic style. He burps and swears—a lot—in meetings. Once, he set his annual plan to music. After someone poured a bucket of water over his head during a charity challenge outside the force's headquarters a few years back, he jumped into its pond in uniform. "He's a nutter," one officer says. "But he's our nutter."

Between 2010 and 2016, only four of the 42 police forces in England and Wales suffered greater funding cuts than Durham. Mr Barton now has 1,140 officers, down by 25% since the peak in 2010. Yet the police watchdog has graded Durham "outstanding", the highest of four ratings, at effectiveness and efficiency for the past three years. It was the only force to get that thumbs-up in 2018 (though forces are not perfectly comparable because of their different sizes and concentrations of poverty). Its crime-detection rates are the highest in the country and academics lavish Mr Barton, who has been chief constable since 2012, with gongs.

The 61-year-old says cuts forced him to reshape the force and chop unmotivated cops. "Austerity has been the best thing that's happened to Durham Constabulary in its 179-year history," he says. Amid chatter that he will soon retire, *The Economist* spent two days with Mr Barton and his bobbies to understand his approach.

Three paradoxes explain him. First, he is a liberal who is tough on "villains". Soon after he was appointed, he wrote a column calling for drugs to be legalised. "Outright prohibition just hands revenue streams to villains," he wrote. The health service could supply addicts, he suggests. Liberals who applaud this stance are less thrilled that the force does not delete body-camera footage of offenders who are stopped and searched. Instead, it keeps it on a database so cops can study their mannerisms. He sends handwritten birthday cards to intimidate organised criminals on his patch. "That's not soft," he has said. "That's not liberal."

The approach is not as contradictory as it first appears. Police can best deter people from committing crime by making them afraid of being caught, explains Mr Barton, but they need to be "soft" enough to persuade those who have already offended to change their future behaviour.

The second paradox is that he is a tech innovator in the body of an old-school cop. Staff type up his handwritten replies to emails, but he boasts that his is the only force to design its own software from scratch. He hired some 20 developers from local universities to work with police who ensure the system fits their needs. "Who's your best burglary cop? Get him to design that bit." If a problem emerges, it can be fixed in-house. The force worked with criminologists at Cambridge University to design probably the world's first AI-based software to predict whether a suspect will cause further harm and thus whether or not they should be bailed.

Third, he is a hands-off boss who often micromanages things. He subscribes to what he calls the bungee-jump theory of management: plunge down into minutiae then spring back up to strategy. He picks up litter to set an example and is, says one of his staff, a "bugger for punctuation". (He keeps the "Oxford English Dictionary" on his desk, as well as books on problem-solving policing.) Last month he arrested a shoplifter he saw hiding booze down her top when he was shopping in a supermarket. Mostly, he lets his staff get on with it. He trains frontline cops in problem-solving before encouraging them to innovate.

Most forces cut community-support officers when their budgets were slashed but Mr Barton kept most of his, believing they would be best at implementing grassroots ideas. On his own initiative, one such officer persuaded others to do all their paperwork in a patrol car outside a drug dealer's house. The criminal soon moved.

In Peterlee, a former pit town named after a miner, another neighbourhood cop raised funds to open a garden. Prisoners grow the seeds, kids plant them and they donate the produce to a food bank. This costs police nothing but time. When it was vandalised the officer in charge, Michelle Burr, took the vandals out of school to pick up litter and showed them a picture of disabled children using the garden. "They put their heads down and said they were really sorry," she says. A couple of weeks later, one of them gave her a bird box he made at school for the garden. She organised for him to help rebuild the leisure centre a day a week, for which he will receive a qualification in construction.

Policing has changed a lot since Mr Barton gave up the family farm to go on the beat, like his aunt, in 1980. New recruits would be foolish to emulate his mannerisms. At times, he is unprofessional to a degree that would not be tolerated in a younger or less able man. He swears all the time, asks (male) cops about their sex lives and wrestles with a "super-fiendish" sudoku while on a call with the Home Office.

But they could learn from his love of all human interactions, whether with villains or the cleaners (whom he greets by name). Earlier this week he phoned a constable who had broken his wrist during an arrest. "You tosser, 'ow did that happen?" he asked, before reminding the officer, "You know I think a lot of you." And they might study how lightly he wears a deep intellectual curiosity. "He plays his Columbo quite well," one cop says. "But he's a flipping genius."

This article appeared in the Britain section of the print edition under the headline "Good cop, mad cop"	

Bagehot

John Bercow, speaker of the asylum

The speaker of the House of Commons will be at the centre of the political storm for weeks to come

Print edition | Britain Jan 10th 2019

 $\mathbf{I}^{\text{N BRITAIN THE line}}$ that divides ceremony and substance is seldom clear. Sometimes ceremonial figures have no real power. Sometimes they have lots of it. And sometimes they can shift quickly from the first column to the second.

The speaker of the House of Commons is a case in point. The British speaker is a very different figure from the one in the House of Representatives. Whereas the American speaker is the head of the majority party in Congress, the British speaker, an MP chosen by their peers, is supposed to be above politics. They sit on an elevated chair under an elaborate wooden canopy, with three clerks in front of them and a padded footstool, and devote much of their time to ceremony. Yet the speaker is far from being just a tourist attraction. Even in normal times they wield a great deal of subtle power. In abnormal times they can become the centre of a political storm, as happened this week.

John Bercow, who currently occupies the chair, provoked the fury of Brexiteers by accepting an amendment tabled by Dominic Grieve, a Tory backbencher, that demands that the government outline a Plan B within three days if, as expected, its Brexit plan is defeated on January 15th. Brexiteers argued that Mr Bercow erred by accepting a backbench amendment to a government business motion. They accused him of being a biased referee (who has been spotted with a "Bollocks to Brexit" sticker on his car—though he says it is his wife's). They claimed that he is prejudiced against the Tories in general, and against this government in particular.

What are we to make of this storm? There is little doubt that Mr Bercow's personal views are pro-Remain. He started life on the nationalist right of the Tory party. But he moved towards Labour, particularly after meeting his Labour-supporting wife, Sally. There is no doubt that he has feet of clay. He has been accused of bullying, and of presiding over a culture of it. Despite the claims he not only clung on to his job but also continued to sit on a committee that adjudicates over questions of behaviour in the Commons.

But there are also important things to be said in his favour. The biggest is that he has been a doughty champion of the rights of Parliament against the government. For 30 years the balance of power has shifted from the legislature to the executive. Mr Bercow has done everything he can to stand up for Parliament as an institution, as well as for small parties and individual MPs. It is easy to be annoyed by his style—he sometimes acts like a circus barker and uses unnecessarily rotund language ("chuntering from a sedentary position" is one of his favourites). But he has always been a champion of MPs having their say.

Second, he is no patsy. Mr Bercow pushed back against accusations of pro-Remain bias by pointing out that he has made time for MPs with all sorts of political positions. He was backed by Sir Christopher Chope, a maverick Tory, who noted that Mr Bercow once accepted an amendment that, by a circuitous route, prepared the way for the referendum in 2016. His greatest bias is not against Labour or the Conservatives but against party grandees. Before becoming speaker he infuriated David Cameron by ridiculing his Eton education and membership of the all-male White's club. He has enjoyed holding Theresa May and her ministers accountable to the House. Mr Bercow's enthusiasm for taking on the powers-that-be goes back to his childhood. As the undersized, Jewish son of a downwardly mobile small businessman turned taxi driver, he was picked on. But he took on the bullies in the playground and mocked them in class as they stumbled over their lessons.

This week's row saw the powers-that-be getting their own back. Andrea Leadsom, the leader of the House, made a point of asking Mr Bercow to publish the advice from his clerk on whether to allow the Grieve amendment, given that Mr Bercow had made so much fuss about forcing the government to publish its advice on various Brexit matters. Many Conservatives also tried to get their revenge for Mr Bercow's presumed willingness to betray his original party in order to get support from Labour.

The last point in Mr Bercow's defence is that his job is an extraordinarily difficult one. Britain is seeing what happens when powerful emotions collide with a convoluted and ambiguous parliamentary tradition. The speaker is not simply in the business of reading a rulebook. He must make subtle choices between lots of different rulebooks that have been produced over the centuries. Mr Bercow repeatedly pointed out that, if his critics didn't like the amendment he had chosen, they were free to vote against it—and must have taken some comfort from the fact that it eventually passed by 308 votes to 297.

No sign of order

It is likely that this procedural row will be the first of many. As British politics is consumed by chaos and acrimony, the speaker will have to make many more difficult decisions. In normal circumstances the speaker has to decide on the balance of power between the government and the Commons, and deal with four fairly cohesive parties. But all this is breaking down. The government is losing control of events. And the parties are beginning to fragment. On January 7th Remainers on both the Labour and the Conservative side marched through the lobby to vote against the government to try to stop it from taking Britain out of the EU without a deal. The speaker will have to make far more complicated and delicate decisions than he has ever made before.

This gives Mr Bercow great powers: to select this or that MP to speak, to choose this or that amendment, or even to cast a tie-breaking vote. But it also brings risks. If the speaker leans too far in one direction, he risks damaging not just himself but the House of Commons. The most powerful argument in favour of Brexit is that it was an attempt to bring back control to Parliament. It will be a disaster if, in the process of bringing back control, Brexit also does irreparable damage to that same institution.

This article appeared in the Britain section of the print edition under the headline "In charge of the asylum"

International

The new missionaries

Soul-savers from the south

Camel, meet needle

Missionaries from the global south try to save the godless West

Preachers from poor countries are targeting the rich world

Print edition | International Jan 12th 2019

EVERY TWO weeks Ali Nnaemeka, a Roman Catholic priest (pictured), travels between Sept-Îles in Quebec, Canada, and a remote mining town, Schefferville, 355 miles (570km) to the north. The trip, usually by train, takes at least a day, sometimes longer. It requires cutting through a mountainous river valley and travelling past flat lakeland, frozen for much of the year. It is a bleak, monotonous journey. But it is worth the trouble. Mr Nnaemeka, who spends most of his time as a parish priest for two indigenous First Nation communities, is on a mission from God.

Christian missionaries have always travelled to remote spots to spread the word. In previous centuries those places tended to be in Africa and Asia; many were colonies of Western powers. The missionaries tended to be European or American. These days the flow has partly reversed. Poor countries are far more devout than rich ones. As the piety gap grows, missionaries from the global south feel called to save the rich world from perdition. Mr Nnaemeka, a Nigerian, is just one example.

In 2015 around 400,000 missionaries were out saving souls, according to the World Christian Database, compiled at the Gordon-Conwell Theological Seminary in Massachusetts (the latest data available). Counting missionaries is an imperfect science, says Todd Johnson, who helps run the database. For example, most of those included are serving for at least two years. That ignores the many Christians (mostly American) who travel overseas for as little as ten days as "short-term missionaries". Meanwhile the number of undercover missionaries who work in "house churches" in places where the faithful are persecuted, such as China and North Korea, can only be guessed at.

Yet even with these patchy data it is clear that the growth in missionaries is coming from non-Western countries. The largest single exporter of soul-savers is still the United States (with 121,000 missionaries, around half of whom are Mormons). But the number of American missionaries is falling, as is the number of Europeans. By contrast, the number of missionaries from Asia, Latin America and other poorer continents is steadily increasing. In 2015 there were 27,400 African missionaries, an increase of 32% on 2010, and 30,000 Korean ones, an increase of 50% over the same period. The countries which received the most missionaries were the United States, Brazil and Russia.

Increasingly, the most devout Christians are to be found in Africa and the Americas, so it is perhaps of little surprise that more and more proselytisers come from those places. In 1910 two-thirds of Christians worldwide were in Europe and over a quarter in the Americas. Just 1.4% were in sub-Saharan Africa. A century later 37% of Christians were in the Americas and 24% were in sub-Saharan Africa, says the Pew Research Centre, a think-tank.

The Church of Jesus Christ of Latter-Day Saints (better known as the Mormon church) was founded in America in 1830, but now has more members abroad, largely in Brazil and Mexico, than at home. This is true of other denominations, too. And the trend is expected to continue. By 2060 the world's largest number of Christians will be in sub-Saharan Africa, Pew predicts (see chart).

Don't mess with a missionary man

Aside from his place of birth, Mr Nnaemeka is in many ways a traditional missionary. He is part of the Missionary Oblates of Mary Immaculate, a Catholic congregation founded in 1816 with the aim of converting others. He underwent ten years of training in Cameroon and Italy. As with Western missionaries of old, he has lived among the locals (in this case, the two First Nation communities) for some time: almost four years. He says he will stay "as long as I'm needed". Many of the people he works with are descendants of those who were converted by Jesuit missionaries in the 17th century. Some have switched to Evangelical Christianity; others have lapsed altogether. Mr Nnaemeka's job, which involves running church services, baptisms and pastoral care, is to reinvigorate their faith.

By contrast, many of today's missionaries will serve for no more than a few years. Some are independent proselytisers who get little or no training and have only the support of their home church and a crowd-funding website. Mr Johnson estimates that there could be 40,000 so-called independent missionaries, all of whom are uncounted in his research.

Saving the rich is difficult, as Jesus once observed, but not impossible. Eduardo Rios, a 20-year-old Ecuadorean whose uncle is a Roman Catholic bishop, converted to Mormonism after meeting missionaries on holiday in Bolivia. He has been preaching on the cold, secular streets of Britain for 18 months. The natives look down on him, he says, because English is not his first language. Nonetheless, he claims to have converted at least a dozen people.

Missionary duties have always been broader than just converting heathens. Mother Teresa, probably the most famous missionary of the 20th century, ran medical services for the poor, diseased and orphaned of Kolkata (in her day Calcutta). Education has also always been important. Robert Mugabe, Zimbabwe's former dictator, was born in a Jesuit mission station, taken to Mass every day and taught by Catholic priests. (It was a Jesuit, Father Fidelis Mukonori, who arguably helped persuade Mr Mugabe to step down in 2017.)

The new missionaries are especially likely to emphasise learning from the people they work with, rather than just pressing them to convert. Mormon missionaries in Britain—who come from dozens of countries, including Ecuador, Colombia and Madagascar—now also devote time to volunteering in soup kitchens, says David Checketts, who heads the London mission of that church.

Many missionaries work close to home. Stephen Msele, a priest from Tanzania, trained in Ireland and Kenya but has now been based in Uganda, next door to his home country, for two decades. He says that more African missionaries are joining him in evangelising their own continent. It is a struggle. "There is still a lot of corruption, even more than Europe, in spite of the fact we say we are all Christians," he sighs. He works on a peace-building initiative and spends his time at a centre that offers English classes to refugees from Ethiopia and Eritrea.

Local-born missionaries may find it easier to connect. Certainly, they are less likely to make the mistakes that some Western evangelists have made in Africa. In 2016 a video of a group of American missionary women, dancing in traditional Ugandan dresses while popping deworming pills, caused uproar online. Many locals saw their antics as patronising. In the video, which has now been taken offline, they sang about "bringing missions back" to the tune of Justin Timberlake's "SexyBack". Last year the Ugandan police arrested an American missionary who was accused of assaulting a hotel employee; he is now on bail and pleads not guilty.

He's got God on his side

Some preachers from Africa find the godlessness of the West an invigorating challenge. But many also become dispirited by it. This is particularly marked in Europe, the least pious continent (see map). "Missionary work is not easy," says Andrianirira Rakotondravao, a 22-year-old Mormon missionary from Madagascar, who recently spent two years in Britain. One time he stopped a man on the street and tried to strike up a conversation about Jesus. The man yelled back at him: "What would be your response if I tried to convert you to atheism?" When Mr Msele spent time in Ireland he was depressed at how people were not very "brotherly and sisterly" in that nominally Catholic country. The experience sorely tested his faith.

Faced with Western irreligiosity, some missionaries have tried to soften their notions of what makes a good Christian. Mr Nnaemeka admits that in the "traditional way of seeing things...you must be at church every day". Most of his compatriots would agree: 89% of Nigerians go to a religious service of some sort every week, compared with about 10% of Germans, according to Pew. Mr Nnaemeka has a looser view of what makes someone devout. "I think church should be something that one should be free to go to when you feel like going," he says.

Often, it is tricky for missionaries from poor countries to get visas to the West. Sceptical officials sometimes suspect them of seeking a better life in this world for themselves, rather than eternal life for others. Mr Nnaemeka's organisation is big enough to smooth his way. African priests from little-known churches find it much harder, especially since the backlash against immigration has grown stronger in Europe and the United States. Yet even as the West seems increasingly unwelcoming, the new missionaries will keep coming. The early evangelists braved stormy seas and the risk of being thrown to the lions. Their modern heirs will not be deterred by a few rude atheists or long waits for visas.

This article appeared in the International section of the print edition under the headline "Soul-savers from the south"

Business

Peak smartphone

Cracks in the glass

Cracks in the glass

Apple succumbs to the smartphone malaise

A decade-long boom is ending as consumers hang on to devices for longer

Print edition | Business Jan 12th 2019

L AST SUMMER the market value of Apple passed \$1trn, a first for any publicly traded Western company. It did not stay there for long. In November it passed the \$1trn mark again, travelling in the other direction. Last week Tim Cook, the smartphone maker's boss, cut revenue forecasts for the first time in over a decade. Apple's shares plunged a further 10% on the news, dragging the world's jittery stockmarkets down with them.

Mr Cook blamed the firm's woes on an economic slowdown in China, which accounts for about 18% of Apple's sales. Analysts talked gloomily about a slowing global economy, and pondered whether the trade war between America and China might be starting to affect buying habits.

But there are also simpler forces at work. Smartphones revolutionised everything from shopping and dating to politics and computing itself. They are some of the most popular products ever put on sale. But after a decade-long boom, devices once seen as miraculous have become ubiquitous and even slightly boring.

Global smartphone sales fell in each of the past four quarters (see chart), the first full-year decline. Industry watchers think 2019 will be anaemic, with either more falls or very modest growth. Apple's new forecasts show it is feeling the same chill that is affecting the rest of the industry.

A common diagnosis among those who watch the tech business is that what is happening is what occurs, in the end, with almost any technology. "With a car, a TV, a phone or anything, the first model you sell, in retrospect, is not very good," says Pierre Ferragu at New Street Research, a firm of analysts. "So the value you bring with the second generation is enormous, and that drives rapid replacement." But as engineers and firms learn what works, the process runs quickly into diminishing returns.

Sales of personal computers, the smartphone's predecessors as mass-market computing devices, peaked in 2011, once PCs had become good enough for most of the things consumers wanted them for. Something similar is happening with phones, with replacement cycles lengthening. CCS Insight, another firm of analysts, reckons that the length of time for which consumers hang on to their phones in Western Europe has risen from 26 months in 2010 to 39 months today.

Only the most devoted Apple followers these days are ready to camp overnight to get their hands on the latest and greatest model. New features attract polite interest at best, and sometimes jokes (Nokia's plans for a five-camera phone, for example, have drawn wry comparisons with razor-makers' penchant for adding ever more blades to their products). And consumers have plenty of other high-tech gizmos competing for their cash, from home-assistant systems such as Amazon's Echo to the battery-powered skateboards and home-automation devices on show at electronics trade fairs (see next story).

For Apple's shareholders, comparisons with personal computing will make uncomfortable reading. As with the smartphone, it was a market that Apple helped pioneer. But its strategy of selling high-priced, aspirational gear eventually saw it relegated to the status of also-ran, sustained by a fan base of hipsters and creative types while ceding almost the entire market to cheaper, more flexible machines built to IBM's PC standard and running Microsoft's Windows operating system. These days, ruthless competition comes from high-quality smartphones made by Chinese firms such as Huawei or Xiaomi which sell for a fraction of the price of Apple's products, and which run some version of Android, an operating system developed by Google.

Apple's prices were bound to limit its reach, particularly outside the rich world. But smartphones are much more personal and intimate devices than desktop computers ever were, says Tim Hatt of GSMA Intelligence, the research arm of a trade association, and its customers are strikingly loyal. For the moment, therefore, Apple has chosen to double down on its strategy, releasing increasingly expensive phones in the hope that squeezing customers can make up for lower volumes. To a degree, at least, that seems to be working. Early indications are that the iPhone XS Max, which starts at \$1,099 and is Apple's most expensive phone, is selling better than the plain old XS, which is \$100 cheaper.

Even for Apple's well-heeled customers, though, such a strategy can only go so far. The firm is heavily reliant on hardware sales. iPhone sales made up 59% of its \$63bn revenue in the third quarter of 2018, but that understates its dependence. Its growing services division accounted for another 16% of revenue, and Mr Cook wants it to double in size by 2020 compared with 2016. For now much of it consists of things like extended warranties or revenues from the app store, which are linked to iPhone use. Apple is trying hard to diversify further. It may launch a TV-streaming service later in the year. On January 6th Samsung, Apple's arch-rival in the smartphone business, said that iTunes, Apple's online film and music shop, would be coming to its televisions.

At the same time, it is exploring new kinds of hardware. It has its own entry in the home-assistant market, though this has failed to trouble Amazon or Google, the market leaders. There are no official sales figures for the Apple Watch, but Ben Stanton, an analyst at Canalys, reckons the product is "very profitable" and that it dominates the market for smart watches. It has let the firm dip its toes into the health-care market, offering users the ability to keep track of their heart rhythms. Apple has also signed deals with American health-insurance firms, though the highly regulated medical-device market is very different from the consumer-tech space it is used to. The dream, says Mr Hatt, would be to come up with a new mass-market computing platform, in the hope that the firm could repeat the success of the iPhone.

While Apple is busy raising its prices, though, the opposite is happening in the Android world, which accounts for more than 85% of global smartphone users. Users wanting an Android phone can choose from many suppliers in every segment of the market, from sub-\$100 budget models to \$1,000 "flagships". That has always made for fierce competition between hand-set manufacturers. Falling sales have made that competition tougher still. The results have been vicious price wars, heavy discounting and a rapid fall in the price of even the most capable devices.

This has been further fuelled, as in so many other industries, by the rise of Chinese manufacturers, which in 2018 accounted for more than half of all smartphone sales worldwide. Samsung, a South Korean firm, is still the world's biggest smartphone maker. But its sales have been dropping sharply. The charge is being led by Huawei, whose sales rose by 33% between the third quarters of 2017 and 2018, and which has nudged Apple into third place. Nipping at Huawei's heels are a host of other Chinese firms less familiar to Western consumers, such as Xiaomi, Oppo and Vivo, all with big ambitions. Xiaomi, for instance, has several phone factories in India, where it has overtaken Samsung in market share.

The generation game

The steady commoditisation of good-quality smartphone hardware is making life hard for smaller players such as LG, Sony or Nokia, which lack the scale of Samsung or the low-cost base of the Chinese newcomers. Some of those smaller players, reckons Marina Koytcheva at CCS Insight, may choose to abandon the market entirely.

The big question is how long the slump will last. Optimists (and phonemakers) argue that a new wave of innovation could rejuvenate demand. Samsung, for instance, is due to launch a foldable phone later this year, which can function as a smartphone or a tablet depending on whether it is open or closed. Phones compatible with ultra-fast fifth-generation ("5G") phone networks are expected later in 2019.

Yet such advances feel evolutionary rather than revolutionary. Folding phones are considerably thicker than the svelte "slablets" to which consumers have become accustomed. There is as yet no obvious "killer app" for 5G devices, and early phones are likely to be expensive and have lower battery life, blunting their appeal.

Even if those features fail to juice the market, there is still room for penetration to rise. GSMA Intelligence reckons that the next seven years will see more than a billion new internet users, mostly in poor countries and mostly using cheap Android phones, the parts for which cost as little as \$50. Users are more dependent on their phones than ever (which makes Apple's emphasis on services look like a wise bet). And there is plenty of room to make money in an industry that still ships 355m phones every three months. Just, perhaps, less than there was.

This article appeared in the Business section of the print edition under the headline "Cracks in the glass"

Keynote speaker

Voice-enabled gadgets star at the Consumer Electronics Show

Nothing measured up to the smartphone

Print edition | Business Jan 12th 2019

THE Consumer Electronics Show (CES) is a bit like Disneyland for techies. Over 150,000 people from over 100 countries are expected to descend on Las Vegas for this year's jamboree, which opened on January 8th, to examine the very latest kit from more than 4,000 firms. This time the show even features an amusement-park ride, run by Google, in which rapt visitors are ferried around in trolley cars through rooms full of talking animatronic characters and singing macarons.

The search giant wanted to show off the services offered by Assistant, its voice-controlled software powered by artificial intelligence (AI) that it embeds in its products. Riders followed along with Dad as he ran errands in preparation for Grandma's birthday, encountering various obstacles along the way: bad traffic, foul weather, a baker speaking only French—each time, Assistant found clever solutions, including real-time language interpretation, a feature unveiled this week at CES.

"Speech is invading everything," says Jeff Loucks of Deloitte, a consultancy, surveying the thousands of devices displayed at CES that respond to "Hey, Google" or "Alexa" (the name of Amazon's rival voice-enabled offering). Voice-enabled gadgets have improved thanks to the increasing ability of software to decipher speech. And the imminent arrival of 5G communications networks, another theme of the event, is accelerating the spread of voice-activated smart devices, ranging from home-hub systems such as Mui's minimalist wooden slab meant to resemble furniture—which can control a home's heating and lights, and show the weather—to health-care aids.

Several firms unveiled voice-directed offerings for cars. One even touted technology that allows a person to modify a room's scent through voice command (if you sound sleepy it might waft the smell of coffee). Mr Loucks reckons that helping couch potatoes control content on home entertainment systems will be a killer app for voice technology.

The consumer-electronics giants' bets on speech cannot hide two adverse developments, however. First, they have not come up with a breakthrough on the scale of the smartphone, sales of which are peaking. Second, in the race to create the next platform, privacy could become a casualty. Voice technologies rely on sensors that are always listening to speech, which gets hoovered up by the AI powering them in order to personalise offerings. As these devices invade the most intimate bits of people's lives (a voice-controlled lavatory from Kohler, an American firm, created a stir this week), consumers will worry about what data are being collected. Privacy-minded Apple fuelled concerns by hoisting a banner on the side of a Las Vegas hotel with a provocation: "What happens on your iPhone, stays on your iPhone."

This article appeared in the Business section of the print edition under the headline "Keynote speaker"

Bartleby

Companies will perform better if employees are not cowed into silence

Keeping schtum can lead to poor business decisions or be dangerous

Print edition | Business Jan 12th 2019

 $\mathbf{I}^{\text{N "DAD'S ARMY"}}$, a British sitcom about a home-defence force, Sergeant Wilson would often query his commander's various orders with the languid phrase "Do you think that's wise, sir?" His scepticism, although it was often ignored, was usually justified.

Many employees must be tempted to echo Sgt. Wilson on a daily basis when they see their bosses headed down the wrong track. But caution, for fear of appearing insubordinate or foolish and thus possibly at risk of losing their jobs, often leads workers to keep silent.

A culture of silence can be dangerous, argues a new book, "The Fearless Organisation"*, by Amy Edmondson, a professor at Harvard Business School. Some of her examples are from the airline industry. One was its deadliest accident: a crash between Boeing 747s in the Canary Islands in 1977 when a co-pilot felt unable to query his captain's decision to take off based on a misunderstanding of instructions from air-traffic control. Another case was that of the Columbia space shuttle in 2003; an engineer who may have diagnosed damage to the shuttle's wing before the flight felt unable to speak as he was "too low down" at NASA.

The stakes may be lower than life or death in most organisations, but companies also suffer when people keep schtum, Ms Edmondson believes. The mis-selling scandal in 2016 at Wells Fargo, an American bank, for example, related to its culture. The lender encouraged staff to persuade clients to buy additional products and for a while achieved levels of "cross-selling" that were twice the industry average rate.

Pressure on employees was intense. At some branches, staff were not allowed to leave until they met their daily target. Bonuses were based on sales figures and people who failed to meet the targets were fired. This was not a place where workers were likely to question the wisdom of the strategy. It is hardly surprising that employees resorted to subterfuge such as opening fake accounts to meet their goals.

Similar problems emerged at Volkswagen, which was caught up in a scandal over diesel emissions from 2015. The engines of its diesel models did not meet American emissions standards and engineers devised a system to fool the regulators. Ms Edmondson says the company's culture had been one based on intimidation and fear; Ferdinand Piëch, its longtime boss, boasted of telling engineers they had six weeks to improve the bodywork fitting on pain of dismissal. In the circumstances, engineers were understandably unwilling to mention the bad news on emissions standards and instead worked around the problem.

In a corporate culture based on fear and intimidation, it may appear that targets are being achieved in the short term. But in the long run the effect is likely to be counterproductive. Studies show that fear inhibits learning. And when confronted with a problem, scared workers find ways of covering it up or getting around it with inefficient practices.

The answer is to create an atmosphere of "psychological safety" whereby workers can speak their minds. In a sense, this is the equivalent of Toyota's "lean manufacturing" process, which allows any worker who spots a problem to stop the production line.

This does not mean that workers, or their ideas, are immune from criticism, or that they should complain incessantly. The book describes how the success of the second "Toy Story" film was due to a rigorous editing process, in which the early script was revamped. Pixar, the production firm, created what it called a "Braintrust" to give feedback to film directors. The rules were that feedback should be constructive and about the idea, not the person, and that filmmakers should not be defensive in response.

And psychological safety is not about whistleblowing. Indeed, if an employee feels the need to act as a whistleblower by speaking to external authorities, that suggests managers have not created an environment within the firm where criticism can be aired

Nor is such a culture only about safety or avoiding mistakes. As mundane tasks are automated, and workers rely on computers for data analysis, the added value of humans will stem from their creativity. But as Ms Edmondson's book amply demonstrates, it is hard to be either constructive or creative if you are not confident about speaking out.

* Subtitled "Creating Psychological Safety in the Workplace for Learning, Innovation and Growth". Published by Wiley.

This article appeared in the Business section of the print edition under the headline "Permission to speak"

Feeling the heat

California's biggest utility is in deep trouble

PG&E's role in starting wildfires could mean a break-up or even bankruptcy

Print edition | Business Jan 10th 2019

Editor's note (January 14th 2019): Today PG&E announced that it was preparing to file for bankruptcy protection. This piece, on the firm's role in starting wildfires in California, was published on January 10th.

CALIFORNIA'S largest utility is accustomed to disaster. In 2001 PG&E declared bankruptcy after the state mismanaged deregulation of the electricity market. In 2010 one of PG&E'S gas pipelines exploded. Its travails are even the stuff of Hollywood. "Erin Brockovich", starring Julia Roberts, told the story of how the company let toxic wastewater run into groundwater supplies and had to settle a class-action lawsuit in 1996 for hundreds of millions of dollars. Nevertheless, PG&E'Scurrent turmoil marks the start of something new.

On January 7th the firm's share price plunged by more than 20% on reports that it might declare bankruptcy. PG&Efaces billions of dollars of liabilities over its possible role in starting the wildfires that have ravaged California. Damages, legal fees and other costs from fires over the past two years may reach \$29bn, estimates Goldman Sachs, a bank. That sum, which far exceeds the company's \$17bn in operating revenue in 2017, would be hard enough for PG&E to bear if it were an aberration. In fact, wildfire costs look set to become the norm.

The firm's predicament is the result of several factors, some beyond its control and some self-inflicted. Hotter, dryer conditions and lax building standards have made California vulnerable to ravenous blazes. A utility's operations would have to be near-perfect to keep power cables and other equipment from inadvertently sparking a fire, argues Michael Wara, an expert on energy and environmental policy at Stanford University. "What climate change does is make the consequences of small errors much greater," he says, "greater to the point where they threaten the financial viability of the utility."

PG&E'S record includes alleged errors that are large: last month California's utility regulator charged it with falsifying safety data for its pipelines for five years, from 2012 to 2017. But the company's deadliest problems seem to have stemmed from its basic electricity equipment. Last year the state's fire investigators reported that PG&E'S poles and power lines were responsible for sparking deadly blazes in northern California in 2017—in most instances, trees fell on power lines. They are still investigating whether PG&E caused the two most deadly fires in California's history: one in Sonoma and Napa counties in 2017 and the other which killed 86 people in November.

Under California law the company must cover insurance claims and damages if its equipment contributed to the outbreak of a wildfire, even if it is found to have obeyed all safety rules. If PG&E operated recklessly, it could face other charges, too. These include not just criminal negligence but manslaughter and murder, according to California's attorney-general.

PG&E also faces the spectre of being unable to find insurance or borrow money. Bankruptcy is one option but not necessarily the most likely. In December California's utility regulator said it would explore "a broad range of alternatives to current management and operational structures", including replacing the board and breaking up the firm. In the meantime PG&E may seek to take advantage of a new law, passed by California last year to help it deal with mounting costs. PG&E, after regulators' approval, may issue new bonds to pay for some wildfire costs; such securities would be backed by customers' monthly payments, and would result in higher rates.

Regardless of whether PG&E issues those bonds, electricity charges seem certain to rise. In December PG&E asked regulators to authorise an increase of 12% next year. That would help cover its insurance expenses and the cost of changes to its electricity system to reduce the risk of fire. It would not cover legal costs.

This article appeared in the Business section of the print edition under the headline "Money to burn"

Wheels of justice

Carlos Ghosn gets a chance to plead his innocence

But the giant of the car industry may remain in prison for months

Print edition | Business Jan 12th 2019

Editor's note (January 11th 2019): Today Carlos Ghosn faced two further charges— aggravated breach of trust and underreporting his income after 2015. This piece, on the car boss's incarceration in Japan, was published on January 10th.

SEVEN WEEKS in a Japanese prison have taken a toll on Carlos Ghosn. A diet based on rice and vegetables has left the former chairman of Nissan's cheeks thinner. His black hair is flecked with grey. But the physical effects have not made him less feisty. He used a court appearance on January 8th, the first time he has been seen in public since his arrest, to fight back against accusations of financial misconduct.

Mr Ghosn's troubles began in November when he was detained by prosecutors at Tokyo's Haneda airport. Nissan's boss, Hiroto Saikawa, then revealed that an internal investigation had uncovered evidence that Mr Ghosn had underreported his pay between 2010 and 2015 and failed to declare the use of properties owned by Nissan. A day before his 23rd day in detention, the limit in Japan, he was rearrested and kept in jail while allegations of underreporting pay for a later time period were investigated. Meanwhile relations between members of the Renault-Nissan-Mitsubishi alliance, which he built into the world's biggest carmaker, are in the deep freeze.

During his court appearance Mr Ghosn was permitted to address the allegations. These centre on his reporting of his pay and a new accusation of a "breach of trust" whereby he is accused of shifting potential trading losses from personal foreign-exchange derivatives contracts to Nissan during the financial crisis of 2008-09.

Insisting on his "genuine love...for Nissan", he proclaimed his innocence, saying he had never sought undisclosed pay and that the board had approved his activities in the case of the derivatives contracts. In 2008-09 banks had demanded large amounts of collateral for foreign-exchange contracts to hedge Mr Ghosn's yen salary, and since he could not provide this, Nissan temporarily paid the collateral—and suffered no loss on the contracts, he said. Mr Ghosn also defended his high pay, noting that during his time as boss he had turned down attractive offers to run four big carmakers, including from Bill Ford, and from Steve Rattner when he was Barack Obama's "car tsar" running General Motors.

Yet the judge did not grant bail, on the grounds that Mr Ghosn might flee or conceal evidence. On January 11th, when his latest spell in jail expires, he can ask for bail again. But if, as is likely, he is charged with breach of trust, he will probably face more time in prison awaiting trial.

His incarceration has focused the world's attention on Japan's flawed justice system. The length of detention, re-arrests and an emphasis on long, stressful interrogations without lawyers present puts pressure on defendants to make confessions, on which the judicial process is heavily dependent. For his part, Mr Ghosn has refused to confess. His supporters claim that he has been set up to prevent his imminent pursuit of a full merger between Nissan and Renault in which the French firm would have had the upper hand.

The legal hiatus is mirrored in the alliance. Relations, often tense, are now icy. Nissan has extended its internal probe and a management shake-up that has seen Jose Muñoz, its chief performance officer and a Ghosn ally, taking leave of absence. While Nissan and Mitsubishi have removed Mr Ghosn as chairman, Renault has kept him as its chairman and CEO, appointing an interim boss. Mutual suspicions thus leave uncertain the future of an alliance in which Renault owns a controlling 43.4% of Nissan, while Nissan has a non-voting 15% stake in Renault. Mr Ghosn had wanted to make it "irreversible" through a full merger. That now looks impossible. And using Nissan's cash to buy Renault shares, to rebalance the alliance in favour of Nissan, would be seen as deeply hostile in France, even after the legal dust settles.

This article appeared in the Business section of the print edition under the headline "Wheels of justice"

Island shopping

Indonesia binges on e-commerce

Local champions are battling Chinese-backed firms across the archipelago

Print edition | Business Jan 12th 2019

PITY THE Indonesian courier. Delivering a package on the archipelago can be a daunting task. The country's 13,466 islands stretch across almost 3,000km and to reach a distant atoll might mean waiting weeks for a boat. Many people in remote areas lack a formal address; their roads are nameless and their houses often without number. Those with addresses sometimes rely on local landmarks—"the house by the big tree", for example. Even in big cities many streets have the same name.

Yet e-commerce startups and their investors are willing to tackle logistical headaches to become established in a promising market. Since 2015, when estimates began, the value of goods sold online has roughly doubled each year, to \$8-12bn presently. Only about 15% of Indonesia's population of 265m are believed to shop online but that should rise along with incomes and internet use. A report jointly written by Google and Temasek, Singapore's sovereign wealth fund, has forecast that the market will be worth \$53bn by 2025.

Competition among firms is already fierce. In the absence of Amazon, which has not ventured into Indonesia, two local companies, Tokopedia and Bukalapak, are thriving, and Chinese-backed regional companies have moved in. One is Shopee, a Singapore-based firm and subsidiary of Sea, a publicly-traded technology company that counts Tencent, China's internet giant, as a big shareholder. Another is Lazada, another Singapore-based e-commerce firm, owned by Alibaba. Both count Indonesia as their biggest market.

Tokopedia, Shopee and Bukalapak earn most of their revenues from selling advertising space on their platforms to online vendors, and from flogging extra services, such as data analytics. Bukalapak also charges commissions to some bigger brands. Only Bukalapak discusses its profits in Indonesia (it is in the red).

Each firm has distinct advantages. Tokopedia boasts reach. Partnerships with local logistics firms let it deliver to 93% of Indonesia's 7,000 or so districts. It also has substantial financial resources. In December it secured \$1.1bn in a funding round led by SoftBank, a Japanese internet and telecoms firm, and by Alibaba. Its value is reportedly \$7bn. And Tokopedia is growing faster than the market; sales on its platform quadrupled between 2017 and 2018.

Tokopedia and Bukalapak possess most local knowledge. The value of this, many point out, is demonstrated by the foray of Uber, a ride-hailing firm, into South-East Asia which ended last year when it sold its business to Grab, a startup based in Singapore. Local entrepreneurs have "lived the problems they are trying to solve", notes an investor in Bukalapak.

Useful information can be gleaned, for example, from Bukalapak's vast network of offline intermediaries. It has 400,000 "agents" around the country. Typically they run small, pre-existing neighbourhood shops in rural or suburban areas and act as a gateway to online shopping. At agents' stores a customer can place online orders, pay for goods and collect them, and the agent takes a cut of sales.

Lazada is betting heavily on running its own logistics empire. Its warehouse on Jakarta's outskirts is one of the country's biggest. About 1,000 employees help dispatch and restock thousands of goods, from groceries to laptops. Lazada has nine other similar centres across Indonesia and plans to build more. With warehouses pre-stocked with the goods its vendors sell, it offers lower delivery costs and faster speed. Its network reaches 80% of the country, says Ashwath Ramesh, head of its logistics division.

Indonesians who shop online are as accustomed to doing so through their smartphones as are Chinese e-commerce consumers, and Shopee is investing in mobile. Its app lets customers chat online with buyers, a feature that Taobao, a Chinese e-commerce platform, launched. Around 60% of Shopee's sales happen after such an interaction. In addition, it allows buyers to follow their preferred sellers, tapping into the social e-commerce market, in which people sell goods on platforms such as Twitter and Facebook.

The battle among these firms is now for market share. Shoppers outside the big cities will be increasingly important—in 2017 such buyers accounted for 30% of the value of online sales, according to McKinsey, a consultancy, but by 2022 they will account for roughly half. For many, trust is still a worry as online fraud is particularly prevalent in Indonesia. Lazada therefore uses a cash-on-delivery model. Shopee's chat feature also helps alleviate the problem; so too do Bukalapak's agents. Tokopedia has opened three centres in small cities where customers can learn about e-commerce and vendors can take business classes. Wooing Indonesia's online shoppers takes many forms.

This article appeared in the Business section of the print edition under the headline "Island shopping"

Schumpeter

For industry, climate policy is a delicate balancing act

A report from the edge of Mordor

Print edition | Business Jan 12th 2019

OES ANYONE here speak English and want to talk to a journalist" yells Ulrich Kindermann, as he wheels his bicycle through the 12,000-year-old Hambach Forest in north-west Germany. He appears to be shouting up to the treetops. Strangely, they answer back. "Maybe", comes a cry from Maximilian in his tree house 20 metres up an oak tree. He rappels down, looking, with his curly hair and bright eyes, for all the world like Frodo Baggins. Another member of the fellowship squats by a stove at the foot of a tree. "It's a strange picture. From up there, you can see life all around you," she says, pointing at the tree house. "On the other side is Mordor."

What she calls Mordor is, in fact, the biggest brown-coal, or lignite, mine run by RWE, Germany's largest power generator and the biggest direct producer of carbon-dioxide emissions in Europe. Lignite is a cheap source of electricity, but one of the dirtiest of fuels. Germany is the world's biggest lignite burner, making an embarrassment of its attempts to lead the world in clean energy. The hobbits aim to stop the Hambach mine digging farther into the forest. A court recently supported their efforts.

RWE would dispute the comparison with Middle-earth. It says that lignite and its other forms of power generation offer customers secure, round-the-clock electricity, and support lots of jobs. But gazing down from a spot overlooking the mine that RWE calls "terra nova", your columnist was appalled; it has left a gash in the earth almost as big as skyscraper-filled Manhattan. Nonetheless, it gave an opportunity to reflect on how well Europe's heaviest polluters are attempting to help mitigate global warming. They are not cutting emissions nearly fast enough. Yet it is not all bad news.

This year two climate-related shake-ups are going ahead that in the past would have outraged Europe's big emitters—utilities, steel producers, paper and chemical firms. First is a reform to the European Union's Emissions Trading System (ETS), a cap-and-trade system once ridiculed for the low price of its carbon allowances. The second is the phasing out of coal owing to a growing conviction in north-western Europe—including Britain, Belgium and France—that it should become history. Within a few weeks, a commission in Germany is expected to announce plans for a gradual phase-out of coal. Both measures are likely to raise power prices in Europe because, absent a meaningful carbon price, coal has been dirt cheap. Yet industrial firms, massive energy consumers, seem to be viewing the changes with resignation, not revolt.

Start with the ETS. It works by setting a steadily falling cap on emissions and providing tradable allowances up to that limit. But it has been plagued by a huge surplus of permits, exacerbated by the 2008-09 financial crisis, making prices so low as to be meaningless. Reforms introduced this month (that remove almost a quarter of the oversupply each year until 2024) made carbon one of Europe's hottest markets in 2018. The price of permits tripled from €8 (\$9.60) per tonne to €25, as hedge funds piled in.

Carbon prices could go up as dramatically as when the Arab embargo drove up the price of oil in 1973, reckons Per Lekander of Lansdowne Partners, an asset manager in London. That may be wishful thinking (carbon prices have tumbled this year), but even if prices stay where they are, the impact on heavy emitters will be severe. These firms say that compensation schemes are insufficient. Still they insist the ETS is the most market-friendly way of curbing emissions, and is better than ad hoc regulation.

A second sign of acceptance is that although representatives of steel and other firms reckon a German coal phase-out would push up power prices, they are not battling for the black stuff. Their big concern is "carbon leakage"—the risk that, for instance, steel produced in countries with less stringent climate rules, such as China, gain a competitive advantage. This is a legitimate worry. Policymakers should work harder to establish a global carbon price. Yet heavy emitters elsewhere should not sleep soundly. When it comes to the climate, where Europe leads, others follow.

Fighting global warming requires a much faster shift towards clean energy by all. However, European firms have come a long way in modernising their views on emissions, partly influenced by the ETS. The first to be hit hard by the new reality have been the region's utilities. A flood of renewables, especially after the acceleration of Germany's *energiewende* (energy transition) in 2011, clobbered power prices and caused utilities such as Germany's E.ON and RWE to suffer years of losses. Some have since dumped their old fossil-fuel assets and embraced wind and solar, enabling them to benefit from higher carbon prices.

Europe's oil-and-gas companies are also changing their attitude, led by firms such as Royal Dutch Shell. What was once "greenwashing" now appears to be ways to explore "optionality"; ie, investing in zero-carbon technologies to gain experience in how to move away from oil. Increasingly, their investors are encouraging the switch, to hedge the risk that they are pouring money into soon-to-be-redundant oil wells. Steel, cement and other heavy industries are also collaborating on technologies such as hydrogen to reduce their carbon footprints (though Eurofer, Europe's steel chamber, says that with high carbon prices they will struggle to find the investment to scale these up).

Lord of the smoke rings

Still, climate policy remains a delicate dance for big industrial and energy companies. Consider RWE. This year it hopes to complete a deal with E.ON that will give it a big new renewables portfolio. Yet it also faces the wrath of environmentalists for digging in over lignite. To some its actions feel like crass hypocrisy. But for investors, it could be clever gamesmanship, ensuring it gets the biggest possible payout if the German government decides to expropriate its coal mines. The Dark Lord Sauron would be smiling, even if the hobbits of Hambach Forest are not.

This article appeared in the Business section of the print edition under the headline "On the edge of Mordor"

Finance and economics

Emerging markets

The bears' clause

The bears' clause

For emerging markets, a more fearful Fed is a less frightful one

When America's stockmarket sneezes, Chinese policymakers catch a break

Print edition | Finance and economics Jan 12th 2019

SPARE A THOUGHT for emerging markets. When America's economy falters, they often share the pain, because America is an indispensable market for their goods. But when America's economy prospers, they can also suffer, because the Federal Reserve will raise interest rates, lessening demand for emerging-market assets.

This catch-22 was vividly illustrated in 2018. America's economy expanded robustly. But this boost to global demand was overshadowed by the Fed's response to it: four rate increases that wreaked havoc on overvalued currencies and overstretched economies in the emerging world. An index of emerging-market equities compiled by MSCI fell by almost 17% over the year.

Emerging markets were therefore relieved by reassurances offered by Jerome Powell, the Fed's chairman, on January 4th. He emphasised that American inflation remained "muted", that the Fed will be "patient", and that it will listen "sensitively" to financial markets, which have turned skittish of late. He reminded his audience of how "nimbly" the Fed bent to the markets in 2016. It entered that year expecting to raise rates four times, but ended up waiting until December to raise them even once. A notable side-effect was that emerging-market shares ended that year 9% higher than they had begun it.

Can emerging markets look for a similar recovery in 2019? One reason to hope for the best is that the worst has already happened. The currencies that looked most overpriced a year ago have already plummeted. The widest trade gaps have narrowed. A year ago Turkey's lira was well above fair value (which has been estimated as 5.5 to the dollar by the Institute of International Finance, or IIF, a bankers' think tank). It fell far below that level in August and is now back in line with it. Depressed imports and more competitive exports mean Turkey has run a current-account surplus three months in a row.

Also encouraging are signs of progress in talks on trade between America and China. In a tweet on January 8th, President Donald Trump said they were "going very well". The volatility in America's stockmarket may have alerted the White House to the risks of further raising or expanding tariffs on China's goods. When America's stockmarket sneezes, Chinese policymakers catch a break.

But threats still abound. One lies in overreacting to Mr Powell's comments. For months the financial markets have been expecting the Fed to take a pause between rate increases. Now that Mr Powell seems open to the idea, the markets have jumped to the conclusion that he will stop hiking altogether, points out Robin Brooks of the IIF. Futures markets have priced in an 86% chance that the federal funds rate will end the year no higher than it is today, according to the Chicago Mercantile Exchange.

A second danger lies in the other clause of that emerging-market catch-22. When the Fed turns hawkish, it hurts emerging markets. But when, as now, the Fed turns doveish, it is usually because growth is faltering—which also hurts emerging markets. The Institute of Supply Management's monthly index of American manufacturing, which is based on surveys of purchasing managers, fell by 5.2 points in December. Two similar purchasing managers' indices (PMIs) in China fell below the level of 50 that supposedly separates expansion from contraction. That has raised fears of a global economic stagnation as synchronised as the expansion of 2017.

For the moment, those fears seem overblown. The PMI for the emerging world as a whole, published by J.P. Morgan and IHS Markit, suggests that manufacturing is still expanding, albeit more slowly than it was in early 2018 (see chart). And although an index below 50 is supposed to indicate a contraction, the threshold in practice seems lower. The emerging-market manufacturing PMI would have to fall below 48 before industrial production would be expected to shrink, year on year, according to Capital Economics.

Two-star growth

Keeping track of emerging-market growth is not easy. Many countries report quarterly GDP figures with a long lag and some do not report them at all. More timely indicators, such as PMIs, have shortcomings. Many are of recent vintage, which makes them hard to evaluate as proxies for growth. Arend Kapteyn and Pierre Lafourcade of UBS, a bank, have tried to fill in the gaps using some of the statistical techniques that also helped win the 2009 Netflix prize, an award the company offered to anyone who could help it to predict viewers' tastes in films based only on the star ratings those viewers had given to films in the past.

The UBS model suggests that the blockbuster growth of late 2017 and early 2018 has indeed flopped in more recent months. Emerging markets probably grew at an annual rate of less than 4% in the last quarter of 2018, compared with a pace of 5.7% in the first half of the year. The level of growth is as low as in late 2015, according to the model, and the drop in growth is comparable to the downswing in 2012.

The two economists attribute the slowdown largely to trade, but not necessarily to the trade war. Exports and other "external" contributors to growth turned sour as early as March 2018, before America imposed punitive tariffs on China for encroaching on its intellectual property. Having grown so robustly in 2017, trade was always going to plateau. "If that's all that's going on...then we should start to bottom out soon," they write.

But that consoling thought assumes, of course, that the trade war does not flare up again. Whatever economic grievances America bears against China, a re-escalation would damage the chances of global growth stabilising at a respectable level. As Yossarian, the protagonist of "Catch-22", points out, "it doesn't make a damned bit of difference who wins the war to someone who's dead."

This article appeared in the Finance and economics section of the print edition under the headline "The bears' clause"

Buttonwood

The fate of the dollar will shape financial markets in 2019

After rising by 7% against a basket of currencies in 2018, where is it headed next?

Print edition | Finance and economics | Jan 10th 2019

O VER THE holidays those who like their Christmas films free of seasonal cheer may have fixed on "The Lion in Winter", with Peter O'Toole as Henry II and Katharine Hepburn as Eleanor, his estranged wife. Henry decides that none of his sons by Eleanor is a suitable heir and condemns them to death. Locked in a cellar as his father approaches, Richard resolves not to cower. "As if the way one falls down mattered," mocks one of his brothers. "When the fall is all that is," replies Richard, "it matters".

Back at work, investors might usefully apply this aphorism to the fate of the dollar. In a volatile period for financial markets, it rose by 7% against a broad basket of currencies in 2018 and by 4% against a narrower group of rich-country currencies (see chart). One of the more robust principles of foreign-exchange trading is that what goes up must eventually come down. The dollar is over-valued on benchmarks, such as *The Economist's* Big Mac Index (see Graphic Detail). It is due a fall. When that is all that is left, the manner of its falling will matter a great deal.

The bear case for the dollar is based on an expectation that GDP growth in America will slow markedly. Last year, it was boosted by tax cuts. That stimulus will fade. Interest-rate increases by the Federal Reserve will bite harder. A lower oil price is a factor. It hurts investment in America's shale regions, but is a boon for oil-importing countries in Asia and Europe. America's stockmarket is relatively dear. Its tech darlings no longer seem invulnerable. In short, an exceptional period for America's economy is coming to an end. The dollar ought to lose ground, too.

But not just yet. In November Mansoor Mohi-uddin of NatWest Markets set out three pre-conditions for a decisive turn in the dollar: a "pause" by the Fed, a deal to end America's trade dispute with China and signs of a pickup in the euro-zone economy. The first is now less of a hurdle. The Fed's boss, Jerome Powell, hinted on January 4th that it might postpone further interest-rate increases. Talks on trade with China have resumed. But the economic data from Europe remain weak. Interest rates in America may not rise much further, if at all, but they are nevertheless higher than in Japan or the euro zone. Owning the dollar is still rewarding.

How might that change? Broadly, there are two scenarios. In the first, trade-war clouds begin to disperse. Tax cuts and looser monetary policy in China start to stimulate private-sector spending. That stirs other Asian economies, which in turn bucks up activity in the euro zone, which relies heavily on emerging-market demand. Bond yields rise in the expectation that interest rates will go up in Europe. They fall in America, as traders start to price in rate cuts. The dollar drifts down against the euro. A softish Brexit boosts the pound. Capital is pushed into emerging markets, in search of better returns. Stockmarkets rally, especially outside America. Everyone breathes a sigh of relief. It feels like 2017 again.

In the second scenario, the gap between GDP growth in America and elsewhere also narrows. But in this case, it does so solely because of a slowdown in America, rather than better news elsewhere. The trade dispute escalates. The continued uncertainty means China's tax cuts are saved, and not spent. Further weakness in China causes other emerging markets to falter. The soft spot in the euro-zone economy turns out to be not temporary, but a reflection of weak export demand. Risk assets sell off across the board. The dollar falls sharply against the yen and the Swiss franc, habitual boltholes for the panicky. The euro stays weak. A shortage of safe-harbour currencies leads to a rising price for gold.

How closely reality conforms to one or other of these scenarios depends a lot on what happens in China. A trade deal with America would boost emerging-market currencies against the dollar, as would an effective fiscal stimulus. The path the dollar takes against rich-country currencies depends on the slowdown in America, says Kit Juckes of Société Générale, a French bank. If it is sudden, the dollar falls against the yen. If it is gradual, it falls against the euro.

How the dollar falls will be shaped by events and in turn will shape them. Investors who are wary of selling out of risk assets are advised by strategists at J.P. Morgan to take out some insurance by buying the yen, Swiss franc and gold—the assets that are likely to go up should things get rough. If a fall is all that is left, it matters that you have something to cushion it.

This article appeared in the Finance and economics section of the print edition under the headline "How the mighty fall"

Study thyself

How economics is trying to fix its gender problem

An annual convocation hears evidence of sexism within the profession

Print edition | Finance and economics | Jan 12th 2019

FEMALE ECONOMISTS are rare. So every year, after the meeting of the American Economic Association (AEA), a group flock together. On January 6th, before the junior women seeking mentoring arrived, their seniors were asked to keep the tone positive, and to save discussion of their worst experiences of sexism for later, in the bar. What followed included inspiration (when submitting papers, aim high) and tips on how to get published, get tenure and work out who is likely to help your career.

The scheme is just one of a growing number aimed at raising the share of women among academic economists. Others were on display at the AEA conference, including some that drew on economists' own intellectual toolkit. Donna Ginther of the University of Kansas, for example, presented results showing that participation in the mentoring workshop extends a woman's network of collaborators, and that she thus publishes more. Another study cited at the conference, by Leah Boustan and Andrew Langan of Princeton University, finds that departments with more female PhD students tend to have a greater awareness of gender bias and less of the aggressive questioning in seminars for which economics is notorious.

Kasey Buckles of the University of Notre Dame (and one of the mentors) recently reviewed the evidence on what increases the share of women in an economics department. She highlighted a randomised control trial at the University of Wisconsin-Madison which found that workshops on gender bias for faculty responsible for hiring raised the share of women among new hires by 18 percentage points.

Other researchers are studying the obstacles to women's promotion. Earlier work by Heather Sarsons of the University of Toronto showed that women get less credit in tenure decisions for papers written with men than men do. And Heather Antecol of Claremont McKenna College, Kelly Bedard of the University of California, Santa Barbara and Jenna Stearns of the University of California, Davis, have shown that giving parents extra time before they must prove themselves worthy of promotion disadvantages women, as fathers tend to use the time to get more research done while mothers use it for child care.

At the AEA meeting Erin Hengel of the University of Liverpool presented results showing that papers by women in the most highly regarded journals were cited more often than those with a man among the authors. That, she concluded, suggests that women's research is held to a higher standard when editorial boards decide what to publish. Also presented was a study by Lorenzo Ductor of Middlesex University, Sanjeev Goyal of the University of Cambridge and Anja Prummer of Queen Mary University London that found that women have smaller and more clustered networks of co-authors, which the authors think may reflect women's aversion to risk in a relatively hostile environment. A third piece of research, by Anusha Chari of the University of North Carolina and Paul Goldsmith-Pinkham of Yale University, found that women's under-representation at the National Bureau of Economic Research's summer institute, an important economics conference, could be explained by their lower submission rates.

The AEA itself is trying to gather evidence on the profession's problems. It is running a "climate survey", asking members questions such as whether they have felt demeaned or experienced harassment. The results are due in April. But even if they are damning, some worry that senior male economists will dismiss evidence of widespread discontent, perhaps by pointing to the potential for bias if aggrieved women are more likely than others to respond. By January 4th the response rate was just 16%.

And if sceptics can be won round, the AEA must then decide what to do. A newish code of conduct states that economists have a "professional obligation to conduct civil and respectful discourse in all forums", and that it aims to create a "professional environment with equal opportunity and fair treatment for all economists". But it mandates no penalties for breaches.

Recent revelations have raised the question of whether it should. The AEA faced calls to remove Roland Fryer of Harvard University from its executive committee after the *New York Times* reported on allegations against him of sexual harassment. Another case in which a pre-tenure woman accused a senior economist from a different institution of groping her raised the question of whether the AEA should be able to strip someone of membership. But the AEA has no bylaws allowing them to unelect or expel a member, and doing so could expose them to litigation.

Hopefully, none of the women in the mentoring session will face anything so serious. Martha Bailey of the University of Michigan, who convened the workshop, felt a warm glow as the young women told her that they felt valued, a couple of them for the first time since they had become professional economists. Many at the AEA conference shared the feeling that the status quo was unacceptable. But there was hope, too—that more male economists would become aware of imperfections in the labour market closest to home. As Rohini Pande of Harvard University put it, "this cannot just be the work of women."

This article appeared in the Finance and economics section of the print edition under the headline "Study thyself"

Jim jumps

The World Bank's president resigns abruptly

Jim Yong Kim departs for a position at a private-equity fund

Print edition | Finance and economics | Jan 12th 2019

B ARACK OBAMA'S nomination of Jim Yong Kim as president of the World Bank was unexpected in Washington, DC, where the trained physician was little known. His imminent departure also comes as a surprise. Mr Kim said on January 7th that he would step down next month, three years before his second term ends, to take up a position at Global Infrastructure Partners (GIP), a private-equity firm in New York.

In fact Mr Kim probably decided to leave months ago. He would have felt he had secured his legacy after a triumph last year, when he persuaded shareholders to agree to a paid-in capital increase of \$13bn, expanding the bank's lending capacity from \$60bn to \$100bn by 2030. Once he had begun talking to his next employer, he could not stay long without creating a potential conflict of interest—GIP also invests in infrastructure in poor countries. He will not be missed by everyone. A reorganisation he oversaw was loathed by staffers, and he fired several senior staff members, some of whom had only recently been given new roles. Relations improved only in 2016, when his management responsibilities were passed on to Kristalina Georgieva, a former European Union commissioner, who took the newly created role of chief executive. She will act as interim president until Mr Kim's replacement is chosen.

Like Mr Kim, the new chief will be caught between America, the bank's largest shareholder, and China, its third-biggest one. Though Mr Kim's support for China's "Belt and Road" infrastructure initiative drew criticism from officials at America's Treasury department, America's suspicion of China worked to his advantage when he was negotiating the capital increase. The bank agreed to charge higher interest rates on loans to upper-middle-income countries such as China, and to prioritise lending to poorer ones, in return for more money. Some Treasury officials think lending to China is at the expense of needier recipients, though others see little harm in it, since it brings both profits and a modicum of influence.

An understanding between America and Europe has meant that the bank's boss is always American, while a European leads the IMF. And although it dislikes multilateral institutions, the Trump administration will probably insist this pattern continues, regarding the job as a restraint on China's ambitions. Dina Powell, a banker at Goldman Sachs who advised Mr Trump on national security, is rumoured to be in the running. She is thought to have helped gain White House approval for the bank's capital increase.

Scott Morris of the Centre for Global Development, a think-tank in Washington, DC, points out that 2012, when Mr Kim won, was the first time candidates from poorer countries were in the running, and America's relations with the rest of the world have soured since. An American nominee who is hawkish on China and opposes the bank's green-finance projects, or is seen as a political stooge, would set off a row. Ms Powell would have the advantage of being a globalist. In any case, developing countries would need to unite behind one candidate to have any chance of overturning convention. That would be a bigger surprise for bank-watchers than any yet.

This article appeared in the Finance and economics section of the print edition under the headline "Jim jumps"

Open plan

The slow-burning effects of Europe's new data rules

PSD2 and Open Banking, a year on

Print edition | Finance and economics Jan 12th 2019

FEW EXPECTED an overnight sensation. Still, January 13th 2018 was supposed to mark a big step towards exposing the European Union's banking systems to digital competition. The EU's revised payment services directive (PSD2) came into effect; so did a British variant, Open Banking, the fruit of an investigation by the national competition watchdog. A year on, there is little sign of a stampede to switch banks. Yet progress is quietly being made.

In essence, the new rules seek to ensure that digital technology sharpens competition, by loosening banks' grip on customers' financial data, but without compromising security. They allow third parties, whether tech firms or other banks, to gather information from several accounts—with customers' permission—in one place, so that people can manage their finances better. They also make it easier for third-party firms to pay online merchants directly from customers' accounts.

Open Banking is obligatory only for Britain's nine biggest banks, although others have signed up. Not all of these were ready at the start. "For the past 200 years banks have focused on keeping customer data and not letting anyone else get at it," says Emmet Rennick of Oliver Wyman, a consulting firm. "In the past year or two they've been told, 'That's not the game'. But they have improved their act. Some are rolling out their own aggregation apps. The average response time of banks' APIs—the software which gives access to the permitted data—to queries from third parties was halved between July and November.

Even so, Jaidev Janardana, chief executive of Zopa, a British online lender, says that the biggest improvement would be a slicker connection between Zopa's smartphone app and those of would-be borrowers' banks. (Applicants used to have to send PDFs of bank statements to confirm their incomes; now Zopa can look through banks' APIs.) Only half the applicants who reach this stage complete it: at banks with the clunkiest apps, a mere 15-20% do.

How banks' APIs will function elsewhere in Europe is also a thorny question. Until that is answered, "important parts of the political and regulatory landscape will remain unclear," says Daniel Kjellen of Tink, a Swedish account aggregator. Last year the European Banking Authority, a regulator, drew up technical standards, due to come into force in September. Banks are supposed to have APIs in place well before then, so that third parties can test them and regulators approve them.

Financial-technology firms worry, for example, that banks will redirect customers to their own apps to authorise the use of data. This could make the process cumbersome and put people off new services. Another concern is that standards may proliferate, raising third parties' costs and doing little to unify Europe's banking markets. The Berlin Group, which involves dozens of banks and financial firms, has published a common framework. Some regulators are also promoting national standards.

An open question is how much appetite Europeans have for more open banking. People are notoriously loth to abandon their banks. Yet there are signs of latent demand: Yolt, an aggregator owned by ING, a Dutch bank, already boasts more than 500,000 British users; online banks are making a splash. In 2019 banks and upstarts alike may get closer to an answer.

This article appeared in the Finance and economics section of the print edition under the headline "Open plan"

Crashing the party

Wall Street firms take aim at America's stock-exchange oligopoly

Their new platform promises low costs and transparency

Print edition | Finance and economics Jan 12th 2019

ON JANUARY 7TH nine of America's largest brokers and banks said they planned to launch a new equities exchange, dubbed the Members Exchange (MEMX). Though it has yet to gain approval from the Securities and Exchange Commission (SEC), the share prices of Intercontinental Exchange (ICE), Nasdaq and CBOE, the parent groups of America's largest exchanges, fell by 2-3%. But MEMX is merely their latest reason to fret.

For more than a century stock exchanges were utilities: not-for-profit, self-regulated and owned by their broker members. Starting in the 1990s most became companies, often listed on their own exchanges. The New York Stock Exchange (NYSE) became publicly traded in 2006. Around the same time the SEC created the National Market System—rules designed to foster competition. Chief among these was Rule 611, the "order-protection rule", which requires brokers to route trades to the exchange that displays the best price.

Together with advances in technology, the reforms enticed new entrants and created what looks like a fragmented market. America now has 13 equity exchanges and 44 off-exchange centres such as dark pools (platforms run by banks and others that match large orders privately). NYSE's share of equity trading has shrunk from 72% to 24% in a decade; off-exchange venues account for 36%. Meanwhile listing and transaction fees have dried up as fast-growing companies delay before tapping public markets or go private.

But incumbents have bounced back: revenues and earnings at Nasdaq and ICE (which owns NYSE) have jumped since 2014. This is partly because of diversification, says Kyle Voigt of KBW, a bank. Both have bought European peers; they now make more money from trading and clearing derivatives than equities. But it is also because the market is less competitive than it seems. ICE, Nasdaq and CBOE have swallowed up all but one equity exchange and now account for 95% of public trades.

This re-consolidation has its origins in the reforms of 2005, which left exchanges with significant regulatory power. Eager to offer brokers some protection, the SEC capped transaction fees. But platforms have become remarkably canny at squeezing their customers in other ways. Three of their methods stand out.

First, the three exchange families have continued to run their various exchanges separately, even though some are very small. Two of NYSE's five have less than a 1% market share; Nasdaq's smallest pair do not reach 3% between them. Yet complying with Rule 611 means brokers have little choice but to track prices on every platform. "Most large institutions will tell you they won't trade with brokers who aren't members of all 13 exchanges," says Rich Steiner of RBC Capital Markets, a bank. Brokers must pay connection fees (among a growing range of charges) for every one.

Secondly, as well as the (slow and shaky) public feed of their data demanded by regulations, they also offer a higher-quality, dearer private one. They charge more for higher-speed connections, even enabling customers to rent computers within the exchange, allowing them to shave milliseconds off their execution time.

And finally, exchanges typically offer rebates to brokers based on their order volume. Such sweeteners amounted to nearly \$700m at Nasdaq in 2017. They then charge fees for accessing quotes and make a profit by pocketing the difference. More important, two market participants reckon, operators use rebates to try to lure quotes to specific exchanges, so as to keep more of the total market pie in the family. Ordinary investors complain that all this informational asymmetry and artificial complexity favours high-frequency traders.

MEMX is not the first attempt to shake up the market: IEX, an independent equity exchange that launched in 2016, vowed to be the first venue "built for fairness". It offers no rebates and seeks to repulse high-speed traders by routing incoming orders over a "speed bump"—a coil of fibre-optic cable that slows access to the market by 350 microseconds. IEX now trades more in value daily than the London Stock Exchange, says Brad Katsuyama, its co-founder. But its market share in America is below 3%.

Still, its arrival—and investors' growing irritation—may have prodded the regulator into action. "It is time to put 'exchange' back in the Securities and Exchange Commission," said Robert Jackson, one of its commissioners, in September. The SEC has since rejected requests to raise fees by NYSE and Nasdaq, and hosted a heated discussion with market participants about the cost of data. It has also said it will examine whether rebates make the market less efficient. Customers are once again pitted against exchanges. "It's round two," says John Ramsay of IEX.

The launch of MEMX could be the start of round three. It harks back to the times when exchanges were member-owned, promising to offer low-cost data and connectivity. But MEMX will also pursue profits, says Jamil Nazarali of Citadel Securities, a founding member. That will require scale. Its founders, which rank among America's biggest sellers of securities, may seek to attract liquidity by bringing their order books onto the exchange—though that could lead customers to worry about potential conflicts of interest.

It is too soon to declare victory to the new contenders. Direct Edge and BATS, two low-cost challengers created by industry heavyweights a decade ago, merged in 2014 and sold out to CBOE in 2017 after rapidly gaining market share. And the latest bout

of competition may be slow to start. With America's government partially shuttered, the SEC's approval procedures are on hold. Gridlock on Capitol Hill could delay the opening bell.

This article appeared in the Finance and economics section of the print edition under the headline "Crashing the party"

Free exchange

The outlook is dim for Americans without college degrees

 $A\ major\ economic\ conference\ hears\ new\ evidence\ on\ the\ rough\ end\ of\ the\ labour\ market$

Print edition | Finance and economics Jan 10th 2019

A MERICA'S AGEING economic boom can still produce pleasant surprises. Companies added an astonishing 312,000 new jobs in December, the Bureau of Labour Statistics reported on January 4th, and raised pay at the fastest clip in years. For the third of working-age Americans without any college education, such spells of rapid income growth have been exceedingly rare, not only since the financial crisis but in the past half-century. But however long this expansion lasts, their economic prospects still look grim.

The misfortunes of the left-behind were a recurring topic at this year's meeting, in Atlanta, of the American Economic Association, one of the biggest annual convocations of economists. David Autor of the Massachusetts Institute of Technology offered the most pointed characterisation, drawing on forthcoming research co-written with Juliette Fournier, also of MIT. The earnings of workers without a college education have scarcely risen in 50 years, after adjusting for inflation; for men they have fallen. This stagnation coincided with tectonic changes in American employment. The share of jobs that require either a lot of training, or very little, has grown since 1970. Much of the production and office work that requires moderate training, which once employed vast numbers of workers without college degrees, has disappeared, either shipped abroad or offloaded on robots and computers. The resulting hardship has been implicated in a rise in mortality in parts of America and the turn toward angry nationalism that helped put Donald Trump in the White House.

Working out what to do about those left behind by economic progress is becoming an obsession of policy wonks. Mr Autor and Ms Fournier provide important new context. In the 1950s, they show, there was almost no relationship between how densely populated a place was and the share of its residents with college degrees. That has changed utterly: the share of the working-age population with a college degree is now 20 percentage points higher in urban places than it is in rural ones. In 1970 that gap was just five percentage points. Several decades ago mid-skilled work was clustered in big cities, while low-skilled work was most prevalent in the countryside. No longer; those mid-skilled jobs that remain are more likely to be found in rural areas than in urban ones.

As the geographical pattern of work has shifted, so has that of wages. Economists have long acknowledged the existence of an urban wage premium: workers in more densely populated places earn more, in part because of the productivity benefits of crowding together that nurture urban growth in the first place. This pay premium used to hold across the range of skills. In 1970 workers without any college education could expect to get a boost to their earnings when they moved to a big city, just as better-educated workers did (see chart). Since then the urban wage advantage for well-educated workers has become more pronounced, even as that for less-educated workers has all but disappeared.

Economists seeking to explain why poorer Americans are not moving to find better opportunities should take note, Mr Autor mused in his lecture. Explanations for falling mobility in America generally focus on obstacles to migration—expensive urban housing, location-specific occupational licences, varying government benefits and so on. These no doubt matter, but may not be the whole story. Often, people may be staying where their economic prospects are best.

That is clearest among the well-off. In the past half-century young adults tended to move from less populous to more populous places, often to attend university. Once they became middle-aged they tended to move to suburban or rural locations. That has become far less likely. Falling mobility seems to reflect, in part, the fact that people who move to big cities tend to stay there, kept by higher wages, better amenities and crime rates in cities that are lower than they used to be.

But for workers without a college education, moving to big cities in the first place may provide no benefit. Building more affordable housing in those cities would allow them to accommodate more people. But the collapse of the urban wage premium for less-educated workers means that the extra housing would mostly attract additional college graduates.

The last mile

For now, technological progress is reinforcing these trends. When a sufficient number of people asked by Census officials to name their career respond with a previously untracked occupation (such as programmer or barista), the officials introduce a new occupational category. Analysing recent additions, Mr Autor and Anna Salomons, of Utrecht University, reckon that new types of jobs fall into three broad categories: frontier work, closely associated with new technologies; wealth work, catering to the needs of well-to-do professionals; and "last-mile jobs", which Mr Autor characterises as those left over when most of a task has been automated. That includes delivery services, picking packages in Amazon warehouses and scouring social-media posts for offensive content.

Most jobs in the first two of these categories are located in cities, open mainly to holders of college degrees and decently paid (frontier work is particularly lucrative). Only the last-mile jobs are occupied disproportionately by workers without a college education. They are better than nothing, but only just. Both wages and the quality of such jobs are typically low, which is just as well, since they are unlikely to avoid the creeping tide of automation for very long.

Perhaps the past will not prove a prologue. Some futurists, including Daniel Susskind of the University of Oxford, suggest that artificial intelligence may eventually displace highly trained professionals, just as earlier innovations squeezed out others. That might not help left-behind workers but would reduce both inequality (though by levelling down, not up) and the cost of crucial services. Meanwhile, as Mr Autor said, there is no land of opportunity for workers without a college education. That is a dismal state of affairs, and one the thousands of economists in Atlanta are just starting to confront.

Correction (January 10th 2019): This article previously stated that David Autor produced the research on last-mile jobs with Juliette Fournier. In fact, he produced it with Anna Salomons. We regret the error.

This article appeared in the Finance and economics section of the print edition under the headline "Down towns"

Science and technology

Chinese science

The great experiment

The great experiment

Can China become a scientific superpower?

The hypothesis that scientific greatness requires freedom of thought is about to be tested

Print edition | Science and technology | Jan 12th 2019

To LAND ON the Moon, as China's *Chang'e -4* spacecraft did on January 3rd, is not quite the pinnacle of achievement it once was. Both the Indian government and a well-backed Israeli team of enthusiasts will attempt landings there this year; in 2020 various American companies intend to light out for the lunar provinces, too. But all these non-Chinese efforts will land on the Moon's Earth-facing near side, and thus within the solicitous sight of Earthbound controllers—just as all previous lunar landings, whether American, Soviet or, since 2013, Chinese, have been.

Chang'e-4's landing site in Von Kármán crater, though, is on the far side of the Moon, where the spacecraft can no more easily be reached by radio than it can be seen through a telescope. Landing there and getting data back afterwards is possible only with the help of a cunningly pre-positioned relay satellite. Other countries have considered such missions, but none has ever mounted one. China has been carefully building up the capacity to go where they have not; now it has done so.

China is keen on such signals of pre-eminence, and willing to put in the work they require. It wants the world, and its own people, to know that it is a global power—that it boasts not just a titanic economy, but the geopolitical sway and military might to match, soft power of all sorts, a storied past and a glorious future. Science is a big part of this. It is seen in China, as elsewhere, as an ennobling pursuit and a necessary foundation for technological advance. China's leaders see such advances as crucial not just to their economy, but also to expanded military prowess and social progress. They want the sort of science that will help China project its power and respond to its people's particular problems. They want new clean-energy sources and freedom from resource constraints. And the country's ever greater scientific proficiency makes such ambitions look realisable. It is a long way from landing on the Moon to mining it. But it is not uncommon to hear speculation about such things. As one Weibo user put it after *Chang'e-4*'s landing, "China has made history! Half of the Moon will be ours."

The huge hopes China has for science have prompted huge expenditure. Chinese spending on R&D grew tenfold between 2000 and 2016 (see chart 1). This open chequebook has bought a lot of glitzy kit. Somewhere in the Haidian district of Beijing, which houses the Ministry of Science and Technology as well as Tsinghua and Peking Universities, it seems there is a civil servant quietly ticking things off a list of scientific status symbols. Human space flight? Tick. Vast genome-sequencing facilities? Tick. Fleet of research vessels? Tick. World's largest radio telescope? Tick. Climate researchers drilling cores deep into the Antarctic icecap? Tick. World's most powerful supercomputer? Tick (erased when America regained its lead, but watch this space). Underground neutrino and dark-matter detectors? Tick and tick. World's largest particle accelerator? The pencil is hovering.

The spree is tellingly reminiscent of the golden years of "big science" in post-war America. Between the International Geophysical Year of 1957 and the cancellation of the Superconducting Super Collider (SSC) in 1993, America's government unfailingly invested ever more of the resources of an ever more powerful economy into the things which the leaders of its scientific community most wanted. From the creation of quarks to the cloning of genes to the netting of Nobel prizes, American science came to dominate the world.

Over those 40 years America—and, to a lesser extent, Europe—were doing things that had never been done before. They opened up whole new fields of knowledge such as high-energy astrophysics and molecular biology. Benefiting from the biggest and best-educated native generations ever produced, they also welcomed in the brightest from around the world. And they did so in a culture dedicated to free inquiry, one keenly differentiated from the communist culture of the Soviet bloc.

Measured against that boom—one of the most impressive periods of scientific achievement in human history—China's new hardware, grand as it often is, falls a bit short. It has been catching up, not forging ahead. It has not been a beacon for scientists elsewhere. And far from benefiting from a culture of free inquiry, Chinese science takes place under the beady eye of a Communist Party and government which want the fruits of science but are not always comfortable about the untrammelled flow of information and the spirit of doubt and critical scepticism from which they normally grow.

America's science boom had a firm institutional and ideological foundation. It grew out of the great research universities that came into their own in the first half of the 20th century, and whose intellectual freedom had attracted extraordinary talents threatened by regimes elsewhere, including Albert Einstein, Enrico Fermi and indeed Theodore von Kármán, the Hungarian-born aeronautical engineer in whose honour *Chang'e-4*'s new home is named. China has imported ideas and approaches more than people and ideals. The resultant set-up has the ricketiness often seen in structures ordained from the top down rather than built from the bottom up.

Top-down ambition can mean running before you walk. Take FAST, the Five-hundred-metre Aperture Spherical Telescope, which opened in 2016. Built in a natural basin in Guizhou province, it is more than twice the size of the world's next-largest radio telescope, in America. But FAST does not have a director. Having leapt from nowhere to the top of the tree in terms of hardware, the country finds itself in the embarrassing position of having no radio-astronomer to hand who combines the scientific and administrative skills needed to run the thing. Nor, so far, has it been able to recruit a qualified foreigner willing to live in the telescope's remote location.

Self-defeating shortcuts, symbolic and otherwise, are not only the preserve of the government; Chinese scientists are prey to such temptations, too. China is not only recapitulating American science's cold-war national-prestige boom. It is doing so in the context of the subsequent high-technology era in which no American university feels complete without a symbiotic microbiome of venture capitalists pullulating across its skin. The economic benefits of research have increasingly come to be seen as a possible boon to the researcher, as well as to society at large.

For a particularly egregious example, consider the most notable Chinese scientific first of 2018. He Jiankui looked like the model of a modern Chinese scientist. He was educated at the University of Science and Technology of China (USTC) in Hefei. He went on to equally prestigious American universities, Rice and Stanford. He was brought back by the government's "Thousand Talents" programme to a new position at the Southern University of Science and Technology in Shenzhen. Once established there, he took unpaid leave to start an entrepreneurial project.

That project was editing the DNA of embryos that would then grow up into human beings. Its result was two baby girls. They do not, as yet, appear unhealthy. Nor, though, have they been provided with the questionable advantages Dr He says he was trying to provide through his tinkering—tinkering which was unsanctioned, illegal and which, since he went public, has seen opprobrium heaped upon him.

You can't clone success

The He affair could have taken place in many places, and it is hardly representative of the broad swathe of China's researchers; 122 of them signed an open letter denouncing his actions. At the same time it is not at all surprising that the He affair took place in China. It was a perversion of what Chinese scientists are trying to achieve as they seek to establish themselves and their country in the world of elite science. But it was also an illustration of it.

The staggering growth in the number of scientific papers by Chinese researchers needs to be seen in this context. In terms of pure numbers, China overtook America in 2016 (see chart 2). But the quality of some of these papers is very low. In April 2018 Han Xueying and Richard Appelbaum of the University of California, Santa Barbara, reported opinions gathered in a survey of 731 researchers at top-tier Chinese universities. As one from Fudan University put it: "People fabricate or plagiarise papers so that they can pass their annual performance evaluations."

The Chinese government is aware of the risks of a reputation for poor and even fraudulent research. It is one of the reasons that it is orchestrating the development of a scientific establishment. One of its pillars is a core group of elite universities known as the C9. Fudan is one of them, as are Tsinghua and Peking Universities and Dr He's alma mater, USTC. The other is the Chinese Academy of Sciences (CAS), an official agency that runs laboratories of its own, which will adhere to prevailing international standards. The government is clamping down on shoddy journals, especially those in which researchers pay to be published. Raising standards in this way will not just improve science; it will also attract the best scientists.

After Deng Xiaoping came to power in 1978 the top tier of Chinese students was encouraged to go abroad for their graduate studies. Many returned, as had been intended, filled with knowledge unavailable at home. Without them the current scientific boom would not have happened, however much the government had spent. But the best often chose to stay abroad. In 2008 the country started the Thousand Talents programme to draw these exiles back with promises of lucre and lab space.

In theory, the programme is open to any top-notch researcher working in an overseas laboratory, regardless of nationality. In practice, few non-Chinese have availed themselves of it. But many Chinese have. Such returners are known as *haigui*, the Chinese for "sea turtle", since they are thought of as having come back to their natal beach, as turtles do, to lay their eggs.

Talent that has not been abroad is not, however, neglected. A coeval programme, Changjiang Scholars, is aimed at identifying potential top-flight researchers who are languishing in thousands of provincial institutions. Once identified, they, too, are brought into the charmed circle.

Taikonauts back control

This is yielding results at all but the very highest levels. Chinese scientists working in China have as yet earned only one Nobel prize. Other than that work—the discovery of artemisinin, a novel antimalarial drug, by Tu Youyou—there has not yet been any Chinese scientific advance that a fair-minded person would be likely to think Nobel-worthy. No fundamental particle has been discovered there, nor any new class of astronomical object. Chinese scientists have not yet done anything to compare with, say, the development of CRISPR-Cas9 gene editing (America) or the creation of pluripotent stem cells (Japan) or the invention of DNA sequencing itself (Britain).

But a great deal of Chinese science is now very good indeed, particularly in relatively new fields with practical implications. The country has a very large and ever growing workforce (see chart 3) that is both enjoined and keen to tackle juicy topics. A study published by Elsevier, a scientific publisher, and Nikkei, a Japanese news business, on January 6th found that China published more high-impact research papers than America did in 23 out of 30 hot research fields with clear technological applications. Chinese science is a nimble giant, capable of piling in on any new field of promise with enormous, often centrally encouraged, force.

Developments in fields such as double-layer capacitors and biochar, two of those 23, may be important but are unlikely to be much noticed, either by Nobel committees, the public or foreigners who need impressing. For visible signals of its na-

tional prowess, China is following the well-trodden path of big science in America, Europe and Japan: building large physics experiments and putting things—especially people—into space.

The China National Space Administration has sent several "taikonauts" into orbit and provided them with some small space labs to hang around in while they are there. Its plans include, in the near term, a bigger space station, assembled in orbit from modules launched separately, and in the longer term crewed missions to the Moon enabled by a new booster more powerful than any of today's, the Long March 9.

The National Space Science Centre, part of CAS, is busy putting up scientific satellites; in April 2018 it announced six new ones that should be launched by 2020 or soon after. Most of China's launches, though, are not scientific; they are for communications, Earth observation—and military intelligence. China's space programme began in the bosom of the People's Liberation Army (PLA), and though it is no longer directly run by the armed forces, they are still keenly involved with the development of the country's orbital abilities. In 2007 China tested an anti-satellite weapon; its "Strategic Support Force" is thought to coordinate its military space-, electronic- and cyber-warfare capabilities. All China's taikonauts are PLA officers. Other physics facilities have obvious military applications, too, such as wind tunnels designed for research into forms of hypersonic flight that are really relevant only to the armed forces.

Beyond rocketry, China's most ambitious big-science plan is to build the largest particle accelerator ever. Since their development in the 1930s, circular particle accelerators have grown from the size of a room to the size of the Large Hadron Collider (LHC), which occupies a 27km loop of tunnel beneath the Franco-Swiss border at CERN, Europe's particle-physics laboratory. The bigger the accelerator, the more energy it can pump into its particles. The LHC packs its protons with more than a million times more energy than the original machines did in 1930s Berkeley.

Sharpening the gene shears

The Chinese plan foresees a loop of tunnel as much as 100km long. Even China will not be able to foot the bill for such a beast alone. In the 2000s the LHC cost CERN over SFr4bn (\$5bn); contributions to its experiments from other countries, including China and America, significantly increased the total. Making use of it has cost billions more. Nor would China be able to supply all the physicists needed to make use of such a facility. Like the LHC, the next accelerator will be a single lab for the world, wherever it is: these toys are one-per-planet affairs. But the Chinese seem more serious than anyone else about hosting and building the thing. Just as it meant something beyond the world of particle physics when America cancelled its proposed giant SSC and CERN's LHC became the biggest game in town, so it would mean something if China took CERN's crown.

Particle physics enjoys a particular prestige in part because of its early (and now dissolved) association with the development of nuclear weapons, in part because of the conceptual depths it plumbs, in part because of the sheer size and expense of its tools. But there are other parts of physics with more of the cutting edge about them. These include applications of the more abstruse aspects of quantum mechanics to computation and cryptography, an area where China is a world leader: it was the first country to send a quantum-encrypted message via a satellite. In computer science, too, it has few peers. Though it does not yet have a semiconductor industry that quite matches those elsewhere, it is world class in many applications, especially in artificial intelligence.

The same applies in trendy bits of biology. Dr He was not the first person to edit the DNA of a human embryo. That honour belongs to Huang Junjiu, a researcher at Sun Yat-sen University, in Guangzhou, whose research was blameless and above-board. Like Dr He, Dr Huang was making use of the capabilities of CRISPR-Cas9. Since 2012 this form of gene editing has become one of the hottest fields in biology, and China is very well represented in it (see chart 4); according to the study by Elsevier and Nikkei, it is publishing 22.6% of the world's most highly cited papers in gene editing, slightly more than half the amount that comes from America, and far more than from any other country.

Dr Huang wants to apply CRISPR-Cas9 to the treatment of beta thalassemia, a hereditary blood disease. To this end, in 2015 he successfully edited the DNA of several fertilised human eggs left over from IVF treatment. He had no intention of implanting the results in anybody's womb; he used embryos which, due to other abnormalities, were not able to develop. What he learned about gene editing in those experiments will, if all goes well, be used to edit stem-cells extracted from the bone marrow of people suffering from the disease, allowing them to make better red blood cells.

Stem-cell research is another hot topic to which China is adding its heft. Zuo Wei of Tongji University in Shanghai is trying to use stem cells to repair lungs damaged by emphysema, a big problem in China, where smoking is still common and the air often dense with smog. Last year he conducted a trial in which four patients had some lung tissue removed. The most healthy-looking stem cells in that tissue were isolated and encouraged to multiply, and the revved-up results then sprayed back into the lung. The procedure apparently repaired the lungs of two of the patients; the other two showed neither benefits nor harm. Dr Zuo has since organised a second trial of 100 patients. He is working on a similar approach to kidney disease, but so far only in mice.

Let 100,000 genomes bloom

Dr Zuo's work demonstrates another feature of Chinese bioscience: keeping its application clearly in mind. In the West there has been an increasing concern over the past couple of decades that basic biology led by independent academic researchers has drifted too far from potential medical application. In America, in particular, biomedical-research prowess and the health of the population are increasingly poorly correlated.

This concern has led to a new emphasis on building up "translational-medicine" research capacities to bridge the gap—an idea the Chinese are already integrating into their work. The government has opened a translational-medicine centre in Shanghai, where laboratory researchers, clinicians and patients will all be under the same roof and biotech companies encouraged to set up shop next door. Others may follow in Beijing, Chengdu and Xi'an.

Genetic research is a field where China has both made big investments and sees a big future. In the BGI, as what was once the Beijing Genomics Institute is now known, China has by some measures the largest genome-sequencing centre in the world. Once an arm of CAS, it declared independence as a "citizen-managed, non-profit research institution" and has now become a semi-commercial chimera, with one of its divisions listed as a company on the Shenzhen stock exchange.

The BGI's corporate arm is also taking an interest in beta thalassemia; it has developed a DNA blood test for it, one of an increasing range it is making available across China. The tests use DNA-sequencing machines the BGI developed with technology which it acquired when it bought Complete Genomics, an American firm, in 2013.

That battalion of machines has a lot of other work to do. Non-commercial bits of the BGI use them for pure research. The outfit is also home to the China National GeneBank, the intended repository for several hundred million samples taken from living creatures of all sorts, human and non-human. It already holds the genomes of 140,000 Chinese people, part of a wider desire by the government to be at the forefront of the field of precision medicine, in which diagnoses, and eventually treatments, are personalised with particular emphasis on understanding a patient's genetic make-up.

The BGI is one example of China's ability to bring big-science approaches to new areas of research. For another you should look inside a low building in Zhuanghe, Liaoning province, where the world's largest battery is taking shape. It is to have six times the storage capacity of the system supplied by Elon Musk, an American entrepreneur, to South Australia in 2017, which lashed together thousands of lithium-ion battery cells to make the world's then-largest battery. It can do so because it uses a completely different approach based on a flow of vanadium-salt solutions.

China's near-insatiable demand for energy has led to investments in wind and solar power that dwarf those in other parts of the world, and is now leading to research into better ways of handling the energy they produce. Vanadium-flow batteries are of interest because, unlike most batteries, in which a single electrolyte is built into the cell, a flow battery has two electrolytes and an open cell through which they pass. This means its storage capacity is governed solely by the size of the tanks that store the electrolytes. That makes it possible, in theory, to build batteries big enough to store energy on a scale useful to large grids. The theory has been developed by Zhang Huamin, a researcher at the Dalian Institute of Chemical Physics, a local arm of CAS. The factory in Zhuanghe, owned by Dalian Rongke Power, a local electricity company, is trying to turn theory into practice. If it works, it could revolutionise grid-scale electricity storage.

The Dalian Institute's researchers are also looking into perovskites, materials with applications both in batteries and in solar cells. Their aim—also being pursued elsewhere in China and abroad—is to apply perovskite solutions to everyday solar cells so that the resultant layers will absorb wavelengths of light that the normal cells cannot absorb. This could produce much more efficient solar panels for relatively little extra cost. To the extent that academic publications are a good measure of technologies quite close to the market, perovskites are an area where China has a substantial lead over America, with 41.4% of the highest impact publications, compared with 21.5% from America.

Taking things on trust

China's energy research also extends to areas that the rest of the world is avoiding. China is building 13 new nuclear reactors to add to its fleet of 45; it has 43 more planned. If they are all built China will become the world's biggest generator of nuclear electricity. Those reactors are of similar design to the plants already in operation around the world. But China is also exploring new reactor technologies—or rather, technologies abandoned elsewhere. These include reactors in which the core is filled not with fuel rods but with little ceramic pebbles—or, in the case of thorium reactors, with molten metal.

The lack of progress such reactors have enjoyed in the West reflects a lack of appetite for new sorts of nuclear power much more than a lack of scientific plausibility. If China's appetite is sharp and its researchers imaginative, progress may come swiftly. The development of mass-produced, compact, cheap and safe nuclear reactors would be a Chinese first that a world in the throes of climate change would have real cause to celelebrate—and start importing.

That possibility, though, brings to the fore a shadow over the future of Chinese science. Making novel nuclear reactors extremely safe requires critical thinking and obstinate truth-telling; so does convincing others that you have done so. A culture that provides the results the boss wants, or does not investigate inconvenient anomalies, or withholds data from nosy outsiders is not good enough.

Those requirements are very like the norms that are seen as basic to doing good science in the West. Testing hypotheses, finding the flaws in the work on which your teacher's reputation rests, questioning your own assumptions, following the data wherever they lead, sharing data openly with your rivals-sorry-colleagues: this is how science is meant to work, even if in real life the ideal can be a bit tarnished. In some labs and institutions in China things doubtless do work that way. But the authoritarian system in which they are embedded makes it hard for Chinese science to speak truth to power, or escape challenges to its integrity. This gnaws at the scientific body politic, and saps resources, both financial and moral.

In their survey of Chinese researchers Dr Han and Dr Appelbaum heard many complaints about excessive government interference. A respondent from Sun Yat-sen University told them "There is still not enough academic freedom in higher education. If the central government makes one statement, even if it is not fair, all of the universities have to follow suit."

In matters of promotion, job interviews and grant-giving, the question of who you know seems much more important in China than in the West (and even there, it is not negligible). For the past decade the National Natural Science Foundation of China (NNSFC), one of the country's main funding bodies, has been running a campaign against such misconduct. Wei Yang, until recently the NNSFC's boss, describes a situation in which, to stop interference from outside, the composition of interview panels is kept secret until the last minute. Panellists are not told in advance who candidates are, and both panellists and candidates have their mobile phones confiscated in order to avoid anyone being nobbled—which used to happen even while interviews were being conducted.

Some Chinese scientists fear that the corruptions and silences endemic in authoritarian states will hold them back from the breakthrough-making Nobel-winning heights. Others may doubt this. China has been playing in science's premier league for only a decade or so. Its investments are not at an end. China's R&D was 2.07% of GDP in 2015, up from 0.89% in 2000 (see chart 5). That is higher than the average for European states, but lower than France, Germany or America. It is much lower than in the Asian catch-up states that might be the most natural comparators, Japan and South Korea. A China spending as much of its GDP on research as South Korea does would have an R&D budget twice today's. With resources on that scale and a scientific workforce in the many millions, the hobbling effect of corrupt institutions might be overcome by brute force.

Others might argue that big breakthroughs are not the only measure of good science. Incremental work that solves practical problems is not to be sniffed at. Scientific research directed from the top down can serve national goals, and a one-party system may give particularly consistent support to such programmes. China's lunar programme has built up its capabilities steadily in a way no Western space-science programme has since Apollo, the achievements of which it may yet match.

This is the sort of methodical science that typically appeals to engineers oriented towards results—and from Jiang Zemin onwards all China's presidents, as well as almost all its other leading politicians, have had engineering degrees. Xi Jinping, today's president, studied chemical engineering at Tsinghua.

But the idea that you can get either truly reliable science or truly great science in a political system that depends on a culture of unappealable authority is, as yet, unproven. Perhaps you can. Perhaps you cannot. And perhaps, in trying to do so, you will discover new ways of thinking as well as fruitful knowledge.

This article appeared in the Science and technology section of the print edition under the headline "The great experiment"

Books and arts

Russia on film

Prophecies and revelations

Prophecies and revelations

The beginning and fraying of Vladimir Putin's reign

Two new documentaries capture what may prove to be turning points in Russia's history

Print edition | Books and arts Jan 12th 2019

 $\mathbf{I}^{\text{N ONE OF Russian literature's most memorable passages, Pimen, an elderly chronicler in "Boris Godunov", passes the task of recording history to a young monk:$

Write down, avoiding crafty sophistries,

All things that you shall witness in this life:

Both war and peace, the edicts of our Tsars,

The holy miracles of saintly men,

All prophecies and blessed revelations...

Pushkin wrote his drama about the "Time of Troubles" of the early 16th century in 1825, itself a turbulent moment in Russia. The succession of Nicholas I in that year was followed by the Decembrist uprising and then an age of repression. Every country experiences such pivots—at which epochs seem to begin and end, the current age retreats into history and the future seems to make itself present. In Russia as elsewhere, artists have often sensed such shifts before they are visible to the naked eye.

Two arresting new documentaries suggest Russia may be approaching another such inflection-point. "Putin's Witnesses", directed by Vitaly Mansky, captures the moment Vladimir Putin came to power; "Electing Russia" by Alexander Rastorguev examines the current phase of the Putin era. Both are imbued with a sense of history—and the lives of both directors have been twisted by it. Mr Mansky went into voluntary exile in Latvia after the annexation of Crimea. Rastorguev was murdered in murky circumstances last July while making a film about Russian mercenaries in the Central African Republic. Real art, he remarked shortly before his death, is made when artists "meet the energy of history—unclear, incomprehensible".

Papa, are you happy?

"Putin's Witnesses" begins on the eve of the new millennium, in Mr Mansky's home. History intrudes in the form of Boris Yeltsin's televised announcement that he is resigning his office and appointing Mr Putin as acting president. (Televisions make several appearances in the film, as both oracles and transmitters of falsehoods.) Mr Mansky's wife is unnerved both by the camera and by the news. "I feel like bursting into tears," she says like a latter-day Cassandra. "The 'firm hand' that people are so fond of has arrived."

Her husband is more than a common witness. At the time he was head of documentaries for Russian state television. The Yeltsin family would enlist him to present a soft, human image of Mr Putin as he campaigned for the presidency in the subsequent election (see above). Much of the resulting footage was broadcast soon afterwards; but, illuminated by later events and Mr Mansky's narration, even the familiar material acquires new resonance.

Mr Putin emerges as if from the wings, a supporting character cast in the role of president by the Yeltsins. "We will order you about a little, with your permission," Mr Mansky says as Mr Putin enters his new Kremlin office. "Look at me kindly—as kindly as you can," a photographer instructs him. It is hard to imagine such words being spoken to Mr Putin a few years later, or indeed being addressed to Yeltsin, a formidable figure even in his decline.

The outgoing president first appears in the film on the night of the election in March 2000. As a TV relays the result, Tatyana Dyachenko, his daughter, shakes him by the arm. "Papa, are you happy?" "It is my victory!" Yeltsin replies. "He would not have appointed a bad person," his wife, Naina, confides to Mr Mansky. "Right!" Yeltsin says. "I've looked at 20 people over four months and settled on this one."

But the triumph quickly turns to poignant bitterness. Prompted by Mr Mansky, Yeltsin reaches for a phone connected to the Kremlin and asks for "Vladimir Vladimirovich". But Mr Putin does not pick up. "They say he has gone out. They will find him and he will call back," Yeltsin tells his family. By the time the crew leaves, Mr Putin has not returned the call.

Worse, as Mr Mansky intones, "the ghost of the past [began] to appear again and again, trying to make up for what was lost in the present." That unquiet ghost finds voice in the old Soviet anthem, symbolically scrapped by Yeltsin but revived (with new lyrics) by Mr Putin. Mr Mansky is once again filming Yeltsin when the anthem is first broadcast. "Even the new lyrics don't help?" Mr Mansky asks. Yeltsin silently shakes his head and, almost inaudibly, says: "It's reddish!" In other words, too Soviet. He stares disconsolately ahead, as if glimpsing a future still hidden from his compatriots, even, perhaps, from Mr Putin.

On election night, meanwhile, the camera follows Ms Dyachenko into Mr Putin's headquarters. The TV is on again, but its sound is drowned by the celebrations. In his film, though, Mr Mansky mutes the festivities and turns up the volume on the television to hear the voice of Boris Nemtsov, a liberal politician and a former contender to succeed Yeltsin. "We voted with our hearts without knowing what would happen to us tomorrow," Nemtsov says. As today's viewers will know, in 2015 he was assassinated beneath the Kremlin wall.

Down with the tsar!

A few months after Mr Putin's accession, Mr Mansky returned to film him one more time. But as he walks with the president through a dark square inside the Kremlin—where the opening scenes of "Boris Godunov" are set—Mr Putin is pondering not how he plans to rule, but how he plans to leave. Riding in a motorcade through empty Moscow avenues, he confides that the succession of power, a central theme of Russian history, has preoccupied him. "I very much hope that one day I will manage to go back to a normal life and that I will have some private future," he says, remarks that seem otherworldly 18 years on. "I can't say that the life of a monarch inspires me."

"Electing Russia" opens with a tableau of what his rule has become. It is June 12th 2017, Russia's independence day, and the Kremlin end of Tverskaya, Moscow's main drag, is occupied by re-enactors dressed as medieval knights, tsars, Cossacks and second-world-war soldiers waltzing to 1940s tunes. At the other end of the street a large demonstration by modern-day Muscovites swells behind police barriers, then floods over them.

Rastorguev's camera is in the middle, filming from below, creating the impression of a sweeping human wave. Young protesters, some born in the year Mr Putin came to power and galvanised by his main challenger, Alexei Navalny, shout their slogans: "We are the power here!" and "Down with the tsar!" Riot policemen push back (see below). The officers and protesters are roughly the same age; the camera captures a close-up of a face behind a visor, sweating and anxious, and a face on the other side, creased with anger and resistance. Seconds later, the police begin pummelling the protesters with batons, randomly dragging activists from the crowd.

The sequence encapsulates Rastorguev's method. Whereas Mr Mansky's film focuses on Russia's rulers, ending with a panorama of ordinary folk—the objects of power, speechless as they are at the climax of "Boris Godunov"—in Rastorguev's work the rulers become a backdrop, while the people become the actors and drivers of history. Like a court portraitist, Mr Mansky preserves a certain distance from his subjects; by contrast, Rastorguev's camera seems integrated with them, as though the person behind it were invisible, shrinking the distance between action and viewer.

He honed this technique over decades. For "Clean Thursday" (2003), he filmed teenage conscripts in Chechnya as they washed, did laundry and read letters from girlfriends. In "Tender's Heat. Wild, Wild Beach" (2006), a Black Sea resort swarms with prostitutes, pimps, drunkards and thieves. The only innocent creature is a camel, brought to the beach by a hustler for tourists to photograph; it comes to a sticky end. Yet Rastorguev never condescends to his subjects and never judges them. Unflinchingly his camera cuts through the swearing and fleshy karaoke to their individual stories. In all his work he was preoccupied with existential questions of life and death, physical or spiritual.

As it happens, Mr Mansky served as producer on "Wild, Wild Beach". In his view, Rastorguev may have been "the most outstanding chronicler of this mad, somewhat meaningless and cruel Russian life at the beginning of the new century". His approach had more in common with Tolstoy than with Pushkin's romantic notion of history. He shared Tolstoy's vision of it not as the product of great figures but as the concatenation of ordinary people's wills. Politics interested him not as a manifestation of ideas but as a crucible of action.

When protests broke out in Moscow and St Petersburg in 2011, Rastorguev was in the thick of it, trying to convey the intoxicating atmosphere of freedom. The result—a film called "The Term"—upset some prominent protesters. They thought he had trivialised them, when he meant instead to honour their humanity. One figure stood out: Mr Navalny, already emerging as the leader of the anti-Putin movement. Yet his determination and political acumen repelled Rastorguev, who had an anarchist's suspicion of power. He found Mr Navalny opaque and impenetrable.

Faces in the crowd

The suspicion was mutual. Conscious of his public image (he is a gift to future sculptors), Mr Navalny barred Rastorguev from filming behind the scenes for "Electing Russia". This tension between artist and subject helps drive the film, Rastorguev's last, which covers the bogus presidential election of March 2018. It recognises Mr Navalny as a central figure in Russian politics; yet as in the director's other work, it is the everyday lives that are starkest. A young lesbian campaigns in Murmansk, in the Arctic, while fighting for her right to live as she wants. A schoolboy from a single-parent family in Vladivostok, in the far east, is punished for supporting Mr Navalny.

"Electing Russia" was commissioned for German television, but Rastorguev intended to make a domestic version that would give even more space to these faces in the crowd—witnesses to what may prove a turning-point in Russian history, or even shapers of that history. He was killed before he could finish it.

This article appeared in the Books and arts section of the print edition under the headline "Prophecies and revelations"

Tales of a suitcase

Who owns Kafka?

The long struggle over the contents of Max Brod's valise

Print edition | Books and arts | Jan 12th 2019

Kafka's Last Trial: The Case of a Literary Legacy. By Benjamin Balint. W.W. Norton; 288 pages; \$26.95. Picador; £14.99.

THE NEAREST that Franz Kafka (above) came to the Holy Land was the plan he hatched with his last lover, Dora Diamant, to open a restaurant in Tel Aviv. She would cook while he waited on tables. Alas, tuberculosis claimed the writer from Prague in June 1924, before Kafka's Place could open its doors. (Speciality? Surely, grilled scapegoat.) However, in 1939 Kafka's friend Max Brod fled Nazi-occupied Czechoslovakia for Palestine with a suitcase that held most of his idol's manuscripts. It contained the never-completed novels "The Trial", "The Castle" and "Amerika", along with diaries, notebooks and correspondence.

Decades later, the contents of that refugee's valise prompted a clutch of hotly contested lawsuits. They climbed the judicial ladder until, in 2016, they landed in Israel's Supreme Court. Benjamin Balint, a critic and translator, traces this saga in his absorbing book. Not only does Mr Balint ask, "Who owns Kafka?" He explores the meaning of a writer's legacy in an age that, like Kafka's disorienting stories, puts identity and belonging in doubt.

Kafka published little in his lifetime. His admirers will know that much of his fiction can be read only thanks to an act of betrayal. Before he died, the German-speaking Jewish author from a Czech city—an epitome of "marginality, dislocation and estrangement", as Mr Balint puts it—had instructed the devoted Brod to burn all his papers, "unread and to the last page". For Brod, disobedience constituted a higher loyalty. By 1939 his stewardship of Kafka's work had given his friend a fast-rising global renown. In Germany, it also incurred the vandalistic wrath of the Nazis.

After 1948, in newborn Israel, Brod failed to revive his own literary career. But he flourished as the keeper of Kafka's flame. His interventionist editing means that, as Mr Balint puts it, "the Kafka we know is a creation of Brod." A much-loved companion named Esther Hoffe, another immigrant from Prague, helped him in his labours. At his death in 1968 Brod bequeathed his belongings, including the precious Kafka papers, to Esther. At the same time, his ambiguous will also requested that his estate enter a "public archive" at her death.

Thus the confused stage was set for later legal quarrels. After a preliminary skirmish in 1974, they reached heights of properly Kafkaesque absurdity after Esther left the priceless stash to her daughter Eva, a retired El Al employee, in 2007. Now the National Library of Israel claimed Kafka as "a touchstone of modern Jewish cultural achievement" whose documents must rest on its shelves. Esther and Eva, though, had already dealt with the national archive of German literature in Marbach. The Germans had put in their own bid for Brod's treasure-trove. For their part, Mr Balint suggests, they wished to occupy the high ground of "European universalism against Israeli particularism".

Mr Balint elegantly intercuts courtroom scenes with episodes from Kafka's biography and cultural afterlife. He brings out every paradox of a judicial process that tried to tie down this most ambivalent of authors, the ultimate "disaffiliated pariah", to a fixed identity. Kafka may have flirted with Zionism, but (in 1914) he also wrote: "What have I in common with the Jews? I have hardly anything in common with myself."

Disputes over his Jewishness, or Germanness, became the grist for a slow-grinding legal mill. It sought clarity and certainty from a mind that, in literature and life, often "vacillated on the threshold of consummation". At length, the National Library prevailed. Eva Hoffe denounced the verdict as a violation. Mr Balint's scrupulous and sardonic prose makes you love Kafka, and dread the law. Lali Michaeli, an Israeli poet, deserves the last word. "From my perspective," she remarked of the writer's otherworldly talent, "Kafka's manuscripts should be sent to the moon."

This article appeared in the Books and arts section of the print edition under the headline "Tales of a suitcase"

Teeth and claws

A debut collection from the author of "Cat Person"

Kristen Roupenian's unsettling tales cement her reputation as a startling new voice

Print edition | Books and arts Jan 12th 2019

You Know You Want This By Kristen Roupenian. Gallery/Scout Press; 240 pages; \$24.99. Jonathan Cape; £12.99.

FOR A LITERARY sensation, the short story had an unassuming title. "Cat Person" portrayed the flirting and eventual date between Margot, a 20-year-old college student, and 34-year-old Robert (the supposed feline enthusiast of the title). Their relationship culminates in strange and unpleasant—but not violent or coercive—sex. The tale was published in the *New Yorker* in December 2017, just as the #MeToo movement began to encourage women to speak up about harassment, assault and abuses of power. It inspired a glut of opinion pieces, plus a satirical retelling from Robert's perspective, and may well be the most-read piece of fiction in the history of the magazine.

Little surprise, then, that there was a bidding war for Kristen Roupenian's first book, "You Know You Want This". The collection of stories (some of which, like "Cat Person", have been published before) circles around themes of desire, pain, obsession and transgression. "Inspired by a small but nasty encounter" of her own, the fable that made Ms Roupenian's name resonated with many female readers' experiences of 21st-century dating. Most of the tales in this volume are much darker and more disturbing. Many of them are shot through with moments of black comedy.

Ms Roupenian often peers behind the bedroom curtain: at the woman who wants to be punched and kicked by strangers during foreplay; at the couple who are titillated, then fixated, by the idea of their carnal embraces being overheard; at the man who can achieve tumescence only by pretending "that his dick was a knife, and the woman he was fucking was stabbing herself with it". Yet the women in these pages are not all victimised and manipulated. Many are aggressors in their own right.

In "Sardines", Tilly, a ten-year-old girl, makes a monstrous birthday wish borne of the bullying she had endured and abandonment by her father. Ellie, the protagonist of "Biter", longs to sink her teeth into a new colleague's "sweet and gamy flesh". When he kisses her against her will at the Christmas party, she rips a chunk of skin from his cheekbone. She changes jobs regularly, "because, as Ellie quickly learned, there was one in every office"—a creep who provides a chance for her own form of predation.

"You Know You Want This" at once enchants and horrifies. Ms Roupenian's occasional supernatural touches can be distracting, but at its best her writing recalls the gloomy feminist fairy-tales of Angela Carter. This collection cements her reputation as one of the most startling new voices in fiction.

This article appeared in the Books and arts section of the print edition under the headline "Teeth and claws"

The price of peace

A searing reflection on the Troubles and their aftermath

"Say Nothing" evokes the worlds of both the victims and their assailants

Print edition | Books and arts Jan 12th 2019

Say Nothing: A True Story of Murder and Memory in Northern Ireland. By Patrick Radden Keefe. *Doubleday; 464 pages;* \$28.95. *William Collins*; £20.

ON A WINTER evening in 1972, a mother of ten, still recovering from her husband's death, received a fateful visit to her high-rise flat in Belfast's war zone. At least eight people, most of them masked but a couple recognisable as neighbours, marched her away. She was told she was being taken to a charity home for her own safety; she asked, pathetically, if her children could join her. In fact she was executed as a supposed informer. Her body was found on a beach in 2003.

Among the many stories told in dark detail in Patrick Radden Keefe's new book on the Northern Irish conflict, the abduction of Jean McConville stands out. The 100-plus interviews he conducted included intense conversations with her offspring, who ended their childhoods in horrible institutions and now campaign for justice. Yet much of this masterly reportage empathetically evokes the militant republican world from which McConville's killers came. Above all, it traces the relationships that emerged among leading republicans as the slums of Belfast slid into a many-sided war that debased everyone—relationships that soured after bombs gave way to politics in the 1990s.

The discerning skill with which Mr Radden Keefe gets inside these characters' minds may unsettle some readers, but it is also his book's strength. He shows how people who in peacetime might just have been strong-willed or colourful types came to condone or perpetrate the unspeakable.

The most memorable figure in this gallery is Dolours Price. She and her sister Marian were jailed in 1973 for planting bombs in London that injured 200 people and killed one. They went on hunger strike and secured a transfer to a Northern Irish jail. In their youth, the book notes, the sisters were popular, attractive figures around Catholic Belfast, dubbed the Crazy Prices after a discount store. They were radicalised after a civil-rights march was roughed up by thugs in 1969.

Dolours fascinated many people, including Margaret Thatcher, who as prime minister studied the sisters' case closely. And it was Dolours who, as she disclosed before succumbing to an overdose in 2013, drove McConville to her death. The squad waiting in the Irish Republic to fire the shots balked, so the execution had to be done by another trio: Dolours herself, who said she deliberately missed, plus two others, only one of whom she named.

The case long troubled her, Dolours revealed. It was not that she opposed punishing people who abetted the security forces, or doubted that McConville was an informer. (Mr Radden Keefe, after hearing many views, is more sceptical.) In her youth she favoured dumping informers' bodies on the street, not making them vanish. But later she wondered whether McConville had to be killed at all: "What warrants death?" she mused in an interview with Ed Moloney, an Irish author, of which Mr Radden Keefe was shown a transcript. From that document, he makes his own deduction about who fired the fatal shot.

Still, there was one matter on which Dolours and some others of her passionately republican bent harboured no doubt: the peace settlement that left Northern Ireland's future to be settled democratically was a betrayal. As the book relates, another who felt that way was Brendan Hughes, perhaps the doughtiest bomber, arms-procurer and jail-breaker to emerge from republican Belfast in the 1970s. At one point, Hughes was close to Gerry Adams: the former a frontline fighter, the latter a cool strategist. But Hughes abhorred the peace Mr Adams helped broker in the 1990s.

People like Hughes and Dolours Price poured out their feelings in testimonials offered by veterans of the conflict that were stored at Boston College, with a promise they would remain sealed until their deaths. The Northern Irish police fought a legal battle to obtain some of those interviews, and it was on that basis that they arrested Mr Adams for several days in 2014. He was released without charge; he continues to deny that he was a member of the IRA or had anything to do with the abduction of McConville, which he condemns.

Armalite to ballot box

This book's most lasting achievement may lie not in its forensic analysis of the McConville saga but in the questions it raises about the Northern Irish settlement. As it chronicles, people were willing to endure and inflict terrible pain so long as a spirit of political maximalism prevailed: if Ireland could be united fast, the thinking went, all horrors could be redeemed. But Mr Adams saw that maximalism must stop; instead the republican interest lay in well-timed compromise. That was devastating for those who had suffered and killed.

Veterans like Hughes and Dolours Price were especially dismayed by the manoeuvres of Mr Adams who, as they saw it, had once endorsed their methods but now feigned absent-minded detachment. Yet Mr Adams's sheer versatility, as a ruthless advocate of war and a tough enforcer of peace, was indispensable to the settlement. The book quotes a British government report of 2015 which spells out this unpalatable trade-off frankly. Peace had held not because paramilitary groups had faded but because they, and those with influence over them, had survived—and could finally rein in the hotheads.

This article appeared in the Books and arts section of the print edition under the headline "The price of peace"

Economic and financial indicators

Economic data, commodities and markets

Economic data, commodities and markets

Print edition | Economic and financial indicators Jan 12th 2019

Graphic detail

Burgernomics

Pick of the menu

Pick of the menu

The Big Mac index shows currencies are very cheap against the dollar

That makes the greenback look unusually strong

Print edition | Graphic detail | Jan 12th 2019

THE BIG MAC, the flagship burger of the McDonald's fast-food chain, is a model of consistency. Composed of seven ingredients, the double-decker sandwich is produced in nearly identical fashion across more than 36,000 restaurants in over 100 countries. This consistency is the secret sauce in the Big Mac index, *The Economist*'s lighthearted guide to exchange rates. According to our latest batch of data, almost every currency is undervalued against the dollar. The result is that the greenback itself looks stronger, relative to fundamentals, than at any point in three decades.

The Big Mac index is based on the theory of purchasing-power parity (PPP), which states that currencies should adjust until the price of an identical basket of goods—or in this case, a Big Mac—costs the same everywhere. By this metric most exchange rates are well off the mark. In Russia, for example, a Big Mac costs 110 roubles (\$1.65), compared with \$5.58 in America. That suggests the rouble is undervalued by 70% against the greenback. In Switzerland McDonald's customers have to fork out SFr6.50 (\$6.62), which implies that the Swiss franc is overvalued by 19%.

According to the index most currencies are even more undervalued against the dollar than they were six months ago, when the greenback was already strong. In some places this has been driven by shifts in exchange rates. The dollar buys 35% more Argentinian pesos and 14% more Turkish liras than it did in July. In others changes in burger prices were mostly to blame. In Russia the local price of a Big Mac fell by 15%.

It is not unusual for emerging-market currencies to look weak in our index. But today the dollar towers over rich and poor alike. The pound, for example, looked reasonably priced five years ago. Today Americans visiting Britain will find that Big Macs are 27% cheaper than at home.

Such deviations from burger parity may persist in 2019. Exchange rates can depart from fundamentals owing to monetary policy or changes in investors' appetite for risk. In 2018 higher interest rates and tax cuts made American assets more attractive, boosting the greenback's value. That was bad news for emerging-market economies with dollar-denominated debts. Their currencies weakened as investors grew jittery. At the end of the year American yields began to fall as the global economy decelerated and investors anticipated a more doveish Federal Reserve. But the dollar has so far remained strong.

Although PPP is a poor predictor of exchange rates in the short-term, it stacks up better over long periods. An analysis of data going back to 1986 shows that currencies deemed undervalued by the Big Mac index tend to strengthen, on average, in the subsequent ten years (and vice versa). Something for investors to chew on.

Explore the Big Mac index with our interactive here.

This article appeared in the Graphic detail section of the print edition under the headline "Pick of the menu"

Obituary

Herb Kelleher

The high priest of ha ha

The high priest of ha ha

Obituary: Herb Kelleher died on January 3rd

Co-founder and, for 30 years, chairman of Southwest Airlines was 87

Print edition | Obituary | Jan 12th 2019

UNUSUALLY FOR a man who believed in cutting costs wherever possible, Herb Kelleher, the boss of Southwest Airlines, America's most successful carrier, liked being flexible with trade unions. In 1994, during discussions over an unprecedented ten-year agreement that would freeze pilots' wages for five years in return for stock options in the airline, he promised Gary Kerans, president of the pilots' association, that if the contract went through, he would freeze his own salary and bonus for five years as well. Chairman and pilots should get the same treatment. The deal was done.

Born in New Jersey, he studied English and philosophy at Wesleyan University and then law at New York University. It was his wife, Joan, whom he met on a blind date, who persuaded him to set up a law firm in Texas. Southwest Airlines was born, not on the back of a cocktail napkin, as he later liked to boast, but when one of his legal clients, Rollin King, owner of a small commuter airline, and his banker, John Parker, came to his office. Both men found travelling between Houston, Dallas and San Antonio inconvenient and expensive, and thought they could do it better.

American aviation in the 1970s was dominated by the hub-and-spoke approach, pioneered by Delta Air Lines in the belief that the most efficient way to fill planes was to fly through hub cities and hoover up passengers. What King and Parker were proposing was cheap, point-to-point travel using small, convenient airports near to fast-growing centres. The competition was not other airlines, they believed, but cars. After all, the distance between Houston and San Antonio was less than 200 miles, a three-hour journey by road. Pacific Southwest Airlines had made city-hopping efficient in California, so why would it not work in Texas? He put up \$10,000 of his own money and on November 27th 1967 he filed Southwest's application to fly between the three cities.

What he hadn't reckoned on was the airborne competition. Within a day, Braniff, Trans Texas (later Texas International) and Continental applied for a restraining order stopping Southwest from taking to the skies, arguing that Texas was perfectly well served by existing airlines. For the next four years, through the state district court in Austin, the state court of civil appeals, the Texas Supreme Court and the US Supreme Court, the big airlines pleaded for injunctions that would kill off the new business. As the airline's lawyer, and later its general counsel, he laid out its arguments and rebuttals. When, the night before one final hearing, an anxious chief executive suggested that a sheriff might show up at the last minute and stop Southwest's first plane from taking off, Mr Kelleher gave him strict instructions: "You roll right over the son of a bitch and leave our tyre tracks on his uniform if you have to."

The legal battles forged the Southwest culture. Mr Kelleher, who became chairman in 1978 and then also CEO in 1981, was deeply affected by the tactics his rivals had used to try to strangle Southwest at birth. It offended the sense instilled in him by his mother that you should treat all people equally, and with respect. And it challenged his beliefs about what America stood for. As he would later tell Kevin and Jackie Freiberg, two academics who studied Southwest and went on to write the bestselling "Nuts! Southwest Airlines' Crazy Recipe for Business and Personal Success": "It was an affront to my idealism. If you're going to let these guys get away with this, it's a radically different type of country from the one I wanted to believe in."

Southwest became his cause. When one airline ran an ad claiming that Southwest was a cheap carrier, he had himself filmed with a bag over his head, saying the airline was prepared to offer the same to any mortified passenger. When another started a price war and halved its Dallas-Houston fare to \$13, Southwest countered: pay full price and get a bottle of vodka or whisky in return. When a rival airline complained that Southwest pinched its slogan and began advertising itself as "Just Plane Smart", he suggested the two chairmen settle the matter over three rounds of arm-wrestling instead of using lawyers.

Kool cigarette and a glass of Wild Turkey bourbon at hand, he was always ready to tell stories about his airline. How it hired for attitude; skills, you could always teach. How all its flight attendants wore hotpants. How when it won its first triple crown for best on-time performance, fewest customer complaints and smallest number of mishandled bags, all its customer-service employees were allowed to give up their uniforms and dress casually for a year. He put his workers first, ahead of his customers. *Fortune* dubbed him the "high priest of ha ha".

That every-day's-a-holiday atmosphere would be called branding today, and was an important part of the Southwest story. But it hid some hard-headed business decisions. In the 1970s Southwest bought three brand-new 737-200s that Boeing had been unable to sell in the slump. The airline paid \$4m rather than the usual \$5m for the planes, and Boeing provided 90% of the finance. Southwest used no other aircraft, a boon for servicing and spare parts. It served no meals; just peanuts. And, to ensure the fastest turnaround, it offered no seat assignments. Planes don't make money when they are on the ground. And making

money in good times to ride out the lean years was what it was all about; Southwest has made an annual profit for 45 years on the trot.

Without Mr Kelleher, there would have been no Michael O'Leary and Ryanair or Stelios Haji-Ioannou rolling up his sleeves at EasyJet. And yet somewhere along the line something was lost. Cut-price air travel today is endured rather than enjoyed. It has become a hideous blend of zero-hours contracts and excuses to extort charges for everything from handbaggage that is deemed too big to failing to check in online. It is hard to imagine today's airline workers taking out a full-page newspaper advertisement praising their chairman. On Bosses' Day in 1994, Southwest's employees did just that, pitching in an hour's salary each to raise \$60,000. "Thanks Herb. For remembering every one of our names...For listening...For being a friend, not just a boss."

This article appeared in the Obituary section of the print edition under the headline "The high priest of ha ha"