The Economist

The Fed makes its move

Congo: fighting Ebola in a war zone

Foodoo economics—meals on wheels

Big armchairs and Chinese diplomacy

AUGUST 3RD–9TH 2019

Deathwatch for the Amazon

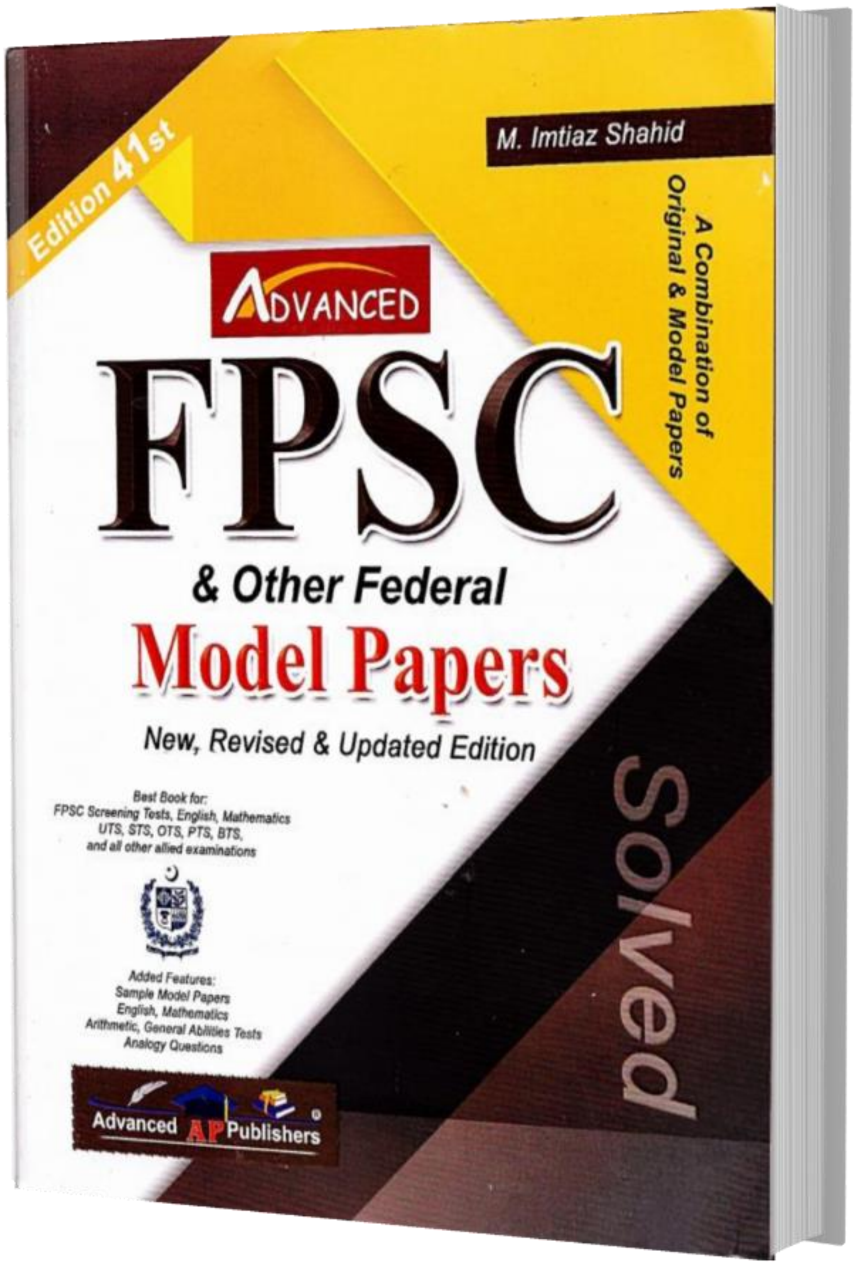
The threat of runaway deforestation

FPSC

Model Papers

41st Edition 2019

Imtiaz Shahid Advanced Publishers




IS THERE A STORM BREWING IN YOUR CLOUD?
Powered by AI, Darktrace detects and fights back against emerging cyber-threats across your digital infrastructure, including AWS, Microsoft Azure, Office 365, and others.
Learn more at darktrace.com
DARKTRACE
World-Leading Cyber AI

Contents

On the cover

Brazil has the power to save Earth's greatest rainforest—or destroy it: leader, *page 7*. The Amazon is approaching the point of its irreversible destruction: briefing, *page 14*

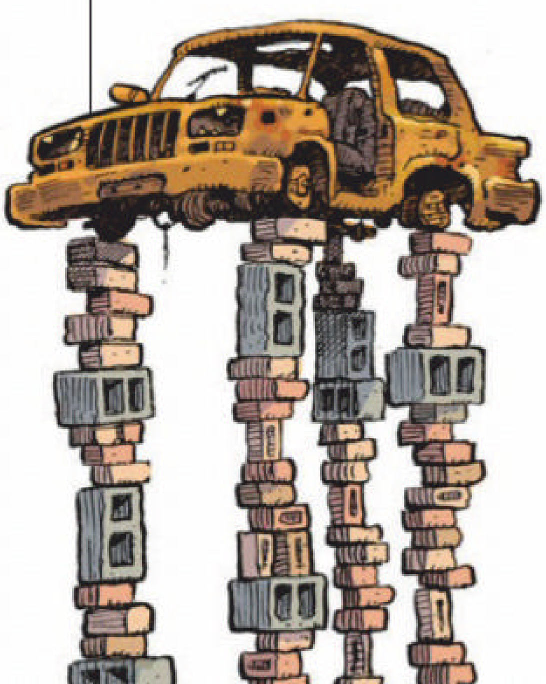
• **The Fed makes its move** America's central bank cuts rates for the first time in over a decade, *page 57*. Lower rates may help emerging markets more than anyone: leader, *page 8*. Emerging-market dreams of rich-world incomes meet reality: Free exchange, *page 62*

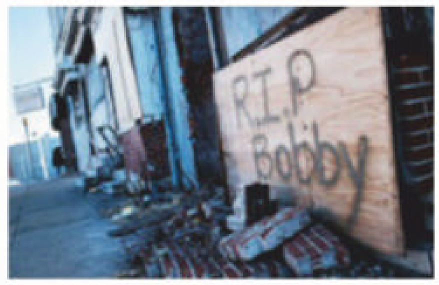
• **Congo: fighting Ebola in a war zone** Disease is not the only enemy in Congo: leader, *page 10*. How do you reform a country where gunmen torch clinics? *Page 35*

• **Foodoo economics—meals on wheels** Delivering food is anything but a tasty business: Schumpeter, *page 56*

• **Big armchairs and Chinese diplomacy** Why is China so fond of meetings in over-stuffed furniture? Chaguan, *page 34*

Charlemagne Europe is edging towards the post-car city, *page 46*





Contents continues overleaf

The Economist

Volume 432 Number 9154

Published since September 1843
to take part in *"a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."*

Editorial offices in London and also:
Amsterdam, Beijing, Berlin, Brussels, Cairo, Chicago, Johannesburg, Madrid, Mexico City, Moscow, Mumbai, New Delhi, New York, Paris, San Francisco, São Paulo, Seoul, Shanghai, Singapore, Tokyo, Washington DC

The world this week Politics

Russia's main opposition leader, Alexei Navalny, was taken from prison to hospital to be treated for what the authorities called an allergic reaction but supporters said may have been poisoning. He was later returned to prison, where he is in custody for organising an illegal protest, according to the Kremlin. More than 1,000 people were arrested at a demonstration in Moscow demanding that independent candidates be allowed to stand in a citywide election. More protests are planned.

Boris Johnson spent a busy first week as Britain's prime minister. He created a new office to administer lifelong support for veterans of the armed forces; pledged resources for several projects; and promised to open the spending taps for public services. This included a pledge to put 20,000 more police officers on the streets within three years (replacing the officers cut since the Conservatives took power in 2010).

Next for Mr Johnson was a whistle-stop "Union" tour with visits to Scotland, Wales and Northern Ireland. Brexit loomed in the background. In **Northern Ireland** Mr Johnson declared that the border "backstop", which would keep Britain in an EU customs union, is dead. The government committed an extra £2.1bn ($2.6bn) to plan for a no-deal exit.

He's got a friend

Donald Trump announced that Dan Coats would step down as the **director of national intelligence**. Like most of America's security chiefs, Mr Coats has had a peppery relationship with the president over their differing assessment of the threats facing America. Mr Trump's choice to replace him is John Ratcliffe, a supportive Republican congressman who was little known until recently, when, at a congressional hearing, he assailed Robert Mueller's investigation into Russian influence.

The latest **Democratic debates** shed more heat than light on what policies the party will fight the next election on. Joe Biden, the front-runner, was targeted by his colleagues in a bad-tempered clash in which the candidates squabbled over who was the most progressive.

If at first you don't succeed

Diplomats from **Iran** and five world powers met to try to salvage a deal, signed in 2015, that eased economic sanctions on Iran in exchange for restrictions on its nuclear programme. An Iranian official said his country will continue to reduce its commitments under the deal until the other signatories secure Iran's interests. America withdrew from the pact last year.

America imposed **sanctions** on Iran's foreign minister, Muhammad Javad Zarif, freezing his assets in America. Mr Zarif "implements the reckless agenda of Iran's supreme leader", said Steven Mnuchin, America's treasury secretary.

According to reports, American officials revealed that the son of **Osama bin Laden**, Hamza, who was being groomed to take over al-Qaeda, had died. America played a role in the operation that killed him, though it was unclear when or where it was carried out.

Princess Haya bint al-Hussein, the estranged wife of the ruler of **Dubai**, Sheikh Mohammed bin Rashid al-Maktoum, asked England's High Court for wardship of their two children, as well as a forced-marriage protection order. Princess Haya, thought to be hiding in London, is Sheikh Mohammed's sixth wife. Two of his daughters have also tried to run away.

A music festival in **Lebanon** cancelled an appearance by Mashrou' Leila, a popular rock band whose lead singer is openly gay. The organisers had come under pressure from Christian groups and conservative politicians, setting off a debate about freedom of expression. The move was intended "to prevent bloodshed", said the organisers.

Jihadists allied to Islamic State claimed to have killed or injured 40 soldiers in two attacks in the north-east of **Nigeria**. In other raids on funerals and villages 65 civilians were killed. Meanwhile, the government banned a Shia Muslim group that had protested against the arrest of its leader in 2015 and against the security forces killing its members.

Not exactly a haven

Guatemala signed a safe-third-country agreement with America, under which asylum-seekers passing through the Central American country would have to apply for asylum there rather than in the United States. Guatemala's president, Jimmy Morales, agreed to the arrangement after Donald Trump threatened to impose tariffs if he did not. Courts in both countries are expected to challenge it.

At least 57 people died in a prison riot in the **Brazilian** state of Pará. Most of the inmates were killed by asphyxiation caused by a fire, but 16 were decapitated.

Peru's president, Martín Vizcarra, proposed holding a general election a year early, in April 2020. This would be a way of ending his deadlock with congress over measures to fight corruption. But congress has little incentive to approve early elections, since its members cannot run for re-election immediately. The plan would also need to be approved in a referendum.

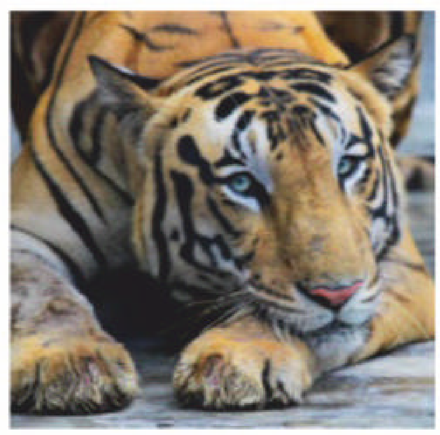
A warning

Authorities in China expressed support for Carrie Lam, **Hong Kong's** embattled chief executive, and called for order to be restored in the territory. Police charged 44 people who were arrested at one of the many ongoing protests with rioting, prompting further protests outside police stations.

The deputy head of the government of **Xinjiang**, a region in western China, said that more than 90% of the Uighur Muslims detained in camps by the authorities had been sent home. Human-rights groups expressed scepticism. They say more than 1m Uighurs have been interned in an effort to weaken indigenous culture.

North Korea fired several projectiles into the sea in the direction of Japan on two separate occasions. America and South Korea said they were a new type of short-range missile. North Korea suspended tests of long-range missiles early last year, and last month agreed to restart disarmament talks with America.

India's parliament approved a law banning Muslim men from divorcing their wives simply by saying the word *talaq* three times. Few Muslim countries permit this, and the Supreme Court had declared it unconstitutional. But the opposition held up the measure for a year, arguing that punishing men who divorced their wives in this way by sending them to prison was too harsh.



The government of India said that the country's **tiger population** had risen by a third since 2014, to almost 3,000.

The Federal Reserve cut its benchmark **interest rate** for the first time since the financial crisis, by a quarter of a percentage point to a range of between 2% and 2.25%. After nearly four years of tightening, Jerome Powell, the central bank's chairman, said the Fed was loosening monetary policy amid uncertainties about trade and the world economy as well as lower inflation expectations. A few days before the Fed's meeting, figures showed that the **American economy** grew at an annualised rate of 2.1% in the second quarter, well below the first quarter's 3.1%.

The **euro zone's** economy grew at an annualised rate of just 0.8% in the second quarter. Inflation, meanwhile, fell again in July, to 1.1%, short of the European Central Bank's 2% target. At a meeting of the ECB on July 25th, Mario Draghi, its outgoing president, signalled that he was "determined to act" to address the euro zone's persistently low inflation. Many investors are expecting a new round of interest-rate cuts in September.

Computer world

The **London Stock Exchange** reached an agreement to buy **Refinitiv**, a provider of financial data, for $27bn. Refinitiv is jointly owned by Blackstone and Thomson Reuters, who will both obtain a stake in the LSE as part of the deal. By acquiring Refinitiv, the stock exchange and clearing-house group will greatly expand its market-information operations, pitting it on many trading floors against Bloomberg, another data provider.

In a deal that creates a behemoth in the market for everyday drugs, **Pfizer** agreed to merge its off-patent medicines business with **Mylan**, a generics drugmaker. The transaction will place Pfizer's previously bestselling drugs such as Viagra, which came up against stiff competition from generic versions when its patent expired, in a new company alongside Mylan's products.

Michael O'Leary, the boss of **Ryanair**, Europe's biggest low-cost airline, said that around 900 jobs might be shed, including 500 pilots, in part because the grounding of Boeing's 737 MAX aircraft has caused Ryanair to cut flights.

In Washington the Senate Foreign Relations Committee approved sanctions on firms involved with **Nord Stream 2**, Russia's gas pipeline to Germany (Congress must approve the bill). Observers think the pipeline is an attempt by Vladimir Putin to increase European reliance on Russian energy.

America's Justice Department approved the merger of **T-Mobile** and **Sprint**, but only after the mobile-telecoms companies agreed to sell a range of assets to Dish, a satellite-TV company, that will bolster its wireless services and expand competition in the market. T-Mobile and Sprint still face a lawsuit trying to block the deal brought by several states, led by California and New York, before they can seal their transaction.

Huawei, a Chinese telecoms-equipment maker, reported a 23% increase in revenue in the first half of the year and said its 5G business was thriving, despite being blacklisted by America. The company did acknowledge, however, that America's prohibition on its hardware was affecting smartphone sales outside China.

SoftBank announced the creation of a second **Vision Fund** through which it and outside investors will back technology startups. The new fund hopes to raise $108bn.

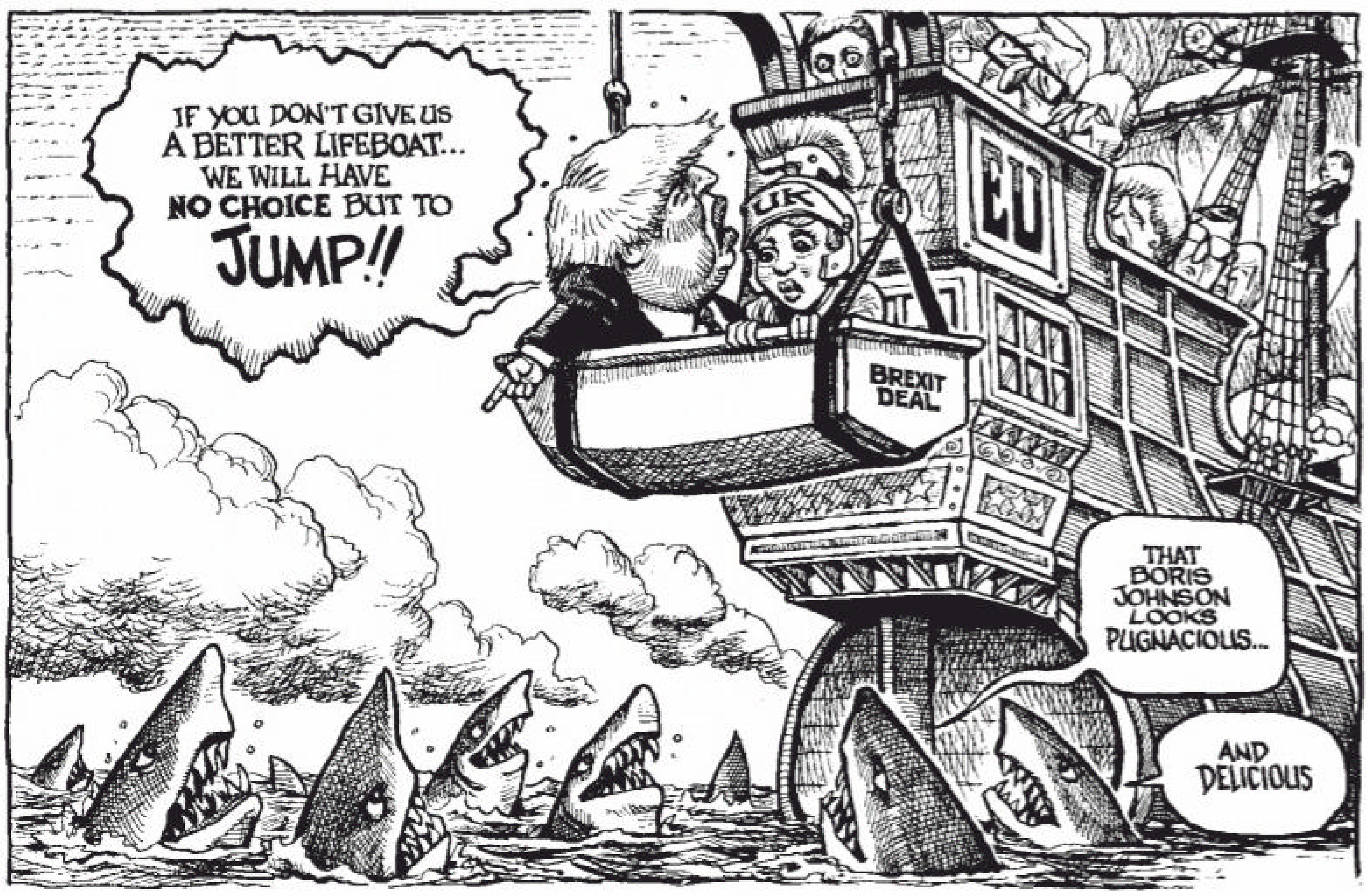
After 20 years of legal to and fro, the European Court of Justice ruled that a two-second sample from Kraftwerk's "Metall auf Metall" that was used in another song represented a reproduction of the original work and required a licence. The decision could have a profound effect on the **music industry**, especially hip-hop. The court also decided, however, that a music sample that had been "modified" did not amount to a reproduction.

InterContinental Hotels, which counts the Crowne Plaza and Holiday Inn brands among its assets, became the first global hotel business to stop supplying **miniature toiletries** in its rooms in order to cut down on plastic. It will instead provide shampoo and the like in larger receptacles across its more than 5,600 properties.

The model

Procter & Gamble recorded a big net quarterly loss after writing down the value of its **Gillette** shaving products business by $8bn. This was in part because of a "lower shaving frequency" in developed markets, as the fashion for beards grows ever more popular among younger men.

The rivalry in the food-delivery market heated up with **Takeaway.com's** $10bn proposed takeover of **Just Eat**. Takeaway operates mostly in Germany and eastern Europe, and Just Eat in Britain and western Europe; a merger would make them more competitive against Uber Eats and Deliveroo. Food-delivery drivers are also taking a bigger bite of the market; a survey this week found that more than a quarter of them in America had nibbled on customers' orders.



Deathwatch

Brazil has the power to save Earth's greatest rainforest—or destroy it

Although its cradle is the sparsely wooded savannah, humankind has long looked to forests for food, fuel, timber and sublime inspiration. Still a livelihood for 1.5bn people, forests maintain local and regional ecosystems and, for the other 6.2bn, provide a—fragile and creaking—buffer against climate change. Now droughts, wildfires and other human-induced changes are compounding the damage from chainsaws. In the tropics, which contain half of the world's forest biomass, tree-cover loss has accelerated by two-thirds since 2015; if it were a country, the shrinkage would make the tropical rainforest the world's third-biggest carbon-dioxide emitter, after China and America.

Nowhere are the stakes higher than in the Amazon basin—and not just because it contains 40% of Earth's rainforests and harbours 10-15% of the world's terrestrial species. South America's natural wonder may be perilously close to the tipping-point beyond which its gradual transformation into something closer to steppe cannot be stopped or reversed, even if people lay down their axes. Brazil's president, Jair Bolsonaro, is hastening the process—in the name, he claims, of development. The ecological collapse his policies may precipitate would be felt most acutely within his country's borders, which encircle 80% of the basin—but would go far beyond them, too. It must be averted.

Humans have been chipping away at the Amazon rainforest since they settled there well over ten millennia ago. Since the 1970s they have done so on an industrial scale. In the past 50 years Brazil has relinquished 17% of the forest's original extent, more than the area of France, to road- and dam-building, logging, mining, soyabean farming and cattle ranching. After a seven-year government effort to slow the destruction, it picked up in 2013 because of weakened enforcement and an amnesty for past deforestation. Recession and political crisis further pared back the government's ability to enforce the rules. Now Mr Bolsonaro has gleefully taken a buzz saw to them. Although congress and the courts have blocked some of his efforts to strip parts of the Amazon of their protected status, he has made it clear that rule-breakers have nothing to fear, despite the fact that he was elected to restore law and order. Because 70-80% of logging in the Amazon is illegal, the destruction has soared to record levels. Since he took office in January, trees have been disappearing at a rate of over two Manhattans a week.

The Amazon is unusual in that it recycles much of its own water. As the forest shrivels, less recycling takes place. At a certain threshold, that causes more of the forest to wither so that, over a matter of decades, the process feeds on itself. Climate change is bringing the threshold closer every year as the forest heats up. Mr Bolsonaro is pushing it towards the edge. Pessimists fear that the cycle of runaway degradation may kick in when another 3-8% of the forest vanishes—which, under Mr Bolsonaro, could happen soon. There are hints the pessimists may be correct (see Briefing). In the past 15 years the Amazon has suffered three severe droughts. Fires are on the rise.

Brazil's president dismisses such findings, as he does science more broadly. He accuses outsiders of hypocrisy—did rich countries not fell their own forests?—and, sometimes, of using environmental dogma as a pretext to keep Brazil poor. "The Amazon is ours," the president thundered recently. What happens in the Brazilian Amazon, he thinks, is Brazil's business.

Except it isn't. A "dieback" would directly hurt the seven other countries with which Brazil shares the river basin. It would reduce the moisture channelled along the Andes as far south as Buenos Aires. If Brazil were damming a real river, not choking off an aerial one, downstream nations could consider it an act of war. As the vast Amazonian store of carbon burned and rotted, the world could heat up by as much as 0.1°C by 2100—not a lot, you may think, but the preferred target of the Paris climate agreement allows further warming of only 0.5°C or so.

Mr Bolsonaro's other arguments are also flawed. Yes, the rich world has razed its forests. Brazil should not copy its mistakes, but learn from them instead as, say, France has, by reforesting while it still can. Paranoia about Western scheming is just that. The knowledge economy values the genetic information sequestered in the forest more highly than land or dead trees. Even if it did not, deforestation is not a necessary price of development. Brazil's output of soyabeans and beef rose between 2004 and 2012, when forest-clearing slowed by 80%. In fact, aside from the Amazon itself, Brazilian agriculture may be deforestation's biggest victim. The drought of 2015 caused maize farmers in the central Brazilian state of Mato Grosso to lose a third of their harvest.

For all these reasons, the world ought to make clear to Mr Bolsonaro that it will not tolerate his vandalism. Food companies, pressed by consumers, should spurn soyabeans and beef produced on illegally logged Amazonian land, as they did in the mid-2000s. Brazil's trading partners should make deals contingent on its good behaviour. The agreement reached in June by the EU and Mercosur, a South American trading bloc of which Brazil is the biggest member, already includes provisions to protect the rainforest. It is overwhelmingly in the parties' interest to enforce them. So too for China, which is anxious about global warming and needs Brazilian agriculture to feed its livestock. Rich signatories of the Paris agreement, who pledged to pay developing ones to plant carbon-consuming trees, ought to do so. Deforestation accounts for 8% of global greenhouse-gas emissions but attracts only 3% of the aid earmarked for combating climate change.

The wood and the trees

If there is a green shoot in Mr Bolsonaro's scorched-earth tactics towards the rainforest, it is that they have made the Amazon's plight harder to ignore—and not just for outsiders. Brazil's agriculture minister urged Mr Bolsonaro to stay in the Paris agreement. Unchecked deforestation could end up hurting Brazilian farmers if it leads to foreign boycotts of Brazilian farm goods. Ordinary Brazilians should press their president to reverse course. They have been blessed with a unique planetary patrimony, whose value is intrinsic and life-sustaining as much as it is commercial. Letting it perish would be a needless catastrophe. ■

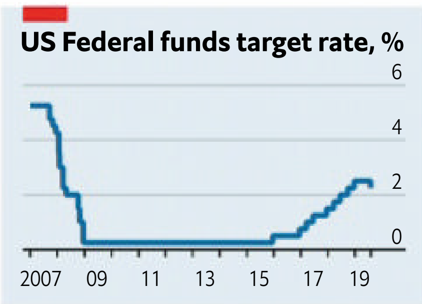
The Federal Reserve and emerging markets

An opportunity

The Fed has cut interest rates. That may help emerging markets more than anyone

AMERICA'S ECONOMY is caught in two stalemates. The first involves its central bank. On July 31 the Federal Reserve cut interest rates by a quarter of a percentage point, the first reduction since 2008. The Fed is determined not to let the economy succumb to a recession. But nor will the economy warm up enough to let the Fed raise rates to normal levels. The other stalemate is with China. Talks this week in Shanghai confirmed that the trade war is unlikely either to end soon or escalate soon.

All the signals point to continuing sluggish expansion in America which, after 121 months, is already the longest on record (see Finance section). Less well appreciated is that such tepid conditions have a potential silver lining for the billions of people living in financially exposed emerging economies. An American slump would hurt them, but so might a boom if it led the Fed to raise rates, sucking capital out of the developing world. The Fed's 0.25-percentage-point cut gives emerging economies welcome breathing space to ease their own interest rates and get back on a path to higher growth.



They need a break. Emerging markets have had a difficult few years. In July the IMF cut its growth forecast for developing countries to 4.1%, the slowest rate of expansion since 2009. India is losing steam. Turkey and Argentina have suffered currency crises. Investors have also had a rough ride. Since the start of 2013 America's S&P 500 index of leading firms has more than doubled. Emerging-market equities have dropped by almost 2%.

It was not meant to be this way. In the early 2000s Brazil, Russia, India and China, the so-called BRICS, grew at miraculous rates. It was easy to think poorer economies would naturally catch up with rich ones, because imitation is easier than innovation, especially when innovative firms build plants in imitative countries. Many also believed that emerging economies had become resilient, with well-run central banks, higher dollar reserves and more flexible currencies.

Sadly the pace of convergence between poor countries and rich has slowed and its scope has narrowed (see Free exchange). It appears those barnstorming growth rates relied heavily on China's transformation into the workshop of the world, a feat that will not be repeated. Meanwhile there have been several bouts of market jitters: the taper tantrum in 2013, the commodity-price collapse in 2014, China's devaluation in 2015, the Fed's interest-rate rises in 2018, financial carnage in Turkey and Argentina, and the uncertainties of the trade war this year.

That is where monetary policy comes in. In America the central bank can ease policy to offset threats to growth. But many emerging economies felt unable to cut interest rates last year, because the Fed was doing the opposite. Tighter American monetary policy tends to spoil investors' appetite for risky emerging-market assets. To stabilise their currencies, policymakers in many places found themselves tightening into a slowdown. Indonesia's central bank, for example, raised rates by 1.75 percentage points in 2018, even though inflation remained below 3.5%. Central banks in Russia and India also turned hawkish, and Brazil had to stop its easing cycle.

The Fed's doveish turn has changed that. Emerging economies now feel able to ease, too. South Korea has just lowered its benchmark rate for the first time in three years. Brazil cut rates to record lows this week. South Africa and Indonesia have loosened. Mexico is expected to ease soon. Easier money will help revive growth. But to sustain it much more is required. Emerging economies must use benign times to prepare for bad ones by, for instance, reducing short-term, foreign-currency debt. And to exploit catch-up growth, they must make themselves hospitable to global manufacturing, emulating China rather than riding on its coat-tails. The euphoria of the BRICS era may never return. But the Fed's cut creates a moment of opportunity. Emerging markets should use it. ■

Baltimore

Saving Charm City

Democrats need to take responsibility for Baltimore's problems

DONALD TRUMP likes to grab the news with a barrage of tweets. Just weeks after insulting four Democratic congresswomen, all from minority backgrounds, the president has found another target. On July 27th it was Elijah Cummings, a black Democratic congressman from Maryland's seventh district, home to much of the city of Baltimore, who attracted the president's wrath. Mr Cummings, who as chairman of the House Oversight Committee has been investigating Mr Trump, comes from "the worst run and most dangerous" district in America, the president jeered. Much of the city, he said, is a "disgusting, rat and rodent infested mess", in which "no human being would want to live".

Mr Trump's invective smacks of bigotry: congressmen from poor white districts do not receive insults in the same vein. And Baltimoreans are naturally seething at the contempt that their president seems to have for them.

Yet while the president is hitting out at his foes and cranking up the politics of outrage, Baltimore's problems are all too real. It is one of America's great cities: Johns Hopkins University, the Victorian splendour of Fell's Point, and an important port are assets most American mayors would dream of. But it is also deeply troubled. Since the spring of 2015, when Freddie Gray, a 25-year-old black man, died in police custody, sparking rioting that set ▸▸

parts of the city alight, Baltimore has struggled to hold itself together (see United States section).

In 2019 the number of murders is likely to surpass 300 for the fifth year in a row, in a city of 602,000 people. Baltimore has more homicides than New York, which has 14 times more people. Last year heroin and fentanyl killed nearly three times as many people as murderers did; the overdose rate is the worst of any big American city. No wonder the population fell last year, by 1.2%.

The causes of these problems are long-term and structural. Deindustrialisation, baleful planning and white flight all hit hard from the 1960s onwards. But the recent deterioration was not inevitable, even after the riot. And though Mr Cummings does not deserve Mr Trump's barbs, the Democratic Party to which he belongs, and which has controlled the city of Baltimore since 1967, must take its share of responsibility. It has long struggled to get a grip on the city's problems. In May the city's mayor, Catherine Pugh, resigned after being investigated over a corruption scandal involving the purchase of thousands of copies of a children's book she had written. She is the second mayor to have resigned over graft allegations in a decade. Baltimore has had five police commissioners in as many years.

The city has many problems, from its dilapidated schools to urban deprivation and decrepit infrastructure. The most urgent, though, is the violence: people will not stay where they do not feel safe. And that is the result of appalling policing.

Some on the left talk about cops as though they were an occupying force who need to be defeated. In fact Baltimore is far from overpoliced. Since 2002 the number of police officers has been cut by a quarter. Just over 2,500 cops cannot hope to solve over 300 murders a year. More money is needed. It should probably come from the state of Maryland, which is run by Larry Hogan, a Republican, and a Democratic legislature. Suburban voters may bristle at giving money to their poorly run neighbour, but they cannot pretend that they owe nothing to the city.

The quid pro quo for this funding must be reform. On the right, people such as Mr Trump act as though police can stop crime only if they are allowed to rough up suspects. That is why his government has stopped issuing consent decrees (an Obama-era policy where the federal government monitors police departments accused of brutality; Baltimore has had one since 2017). But thuggery makes police departments less effective. When people do not trust cops, they will not volunteer information about crimes. And until victims are confident of justice, they will resort instead to revenge.

Baltimore has repeatedly failed to clean up its police. It has had cops clearing street corners rather than investigating murders. Corruption and brutality have gone unpunished. Projects such as Operation Ceasefire, which stopped tit-for-tat killings in other cities, have been tried only half-heartedly.

Unless Baltimore can get crime under control, it will continue to lose businesses and better-heeled residents and the taxes they pay. The risk is that one of America's great metropolises enters a death spiral, as Detroit had by the 1990s. If that happens, Mr Trump's tweets will be the least of its problems. ■

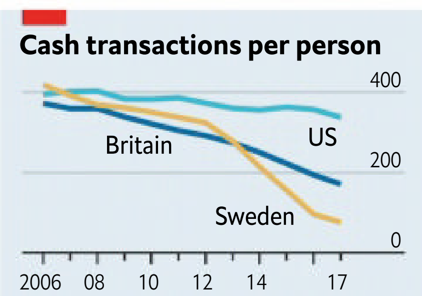
Digital payments

The dash from cash

Rich countries are racing to dematerialise payments. They need to do more to prepare for the side-effects

For the past 3,000 years, when people thought of money they thought of cash. From buying food to settling bar tabs, day-to-day dealings involved creased paper or clinking bits of metal. Over the past decade, however, digital payments have taken off—tapping your plastic on a terminal or swiping a smartphone has become normal. Now this revolution is about to turn cash into an endangered species in some rich economies. That will make the economy more efficient—but it also poses new problems that could hold the transition hostage.

Countries are eliminating cash at varying speeds (see Graphic detail). But the direction of travel is clear, and in some cases the journey is nearly complete. In Sweden the number of retail cash transactions per person has fallen by 80% in the past ten years. Cash accounts for just 6% of purchases by value in Norway. Britain is probably four or six years behind the Nordic countries. America is perhaps a decade behind. Outside the rich world, cash is still king. But even there its dominance is being eroded. In China digital payments rose from 4% of all payments in 2012 to 34% in 2017.



Cash is dying out because of two forces. One is demand—younger consumers want payment systems that plug seamlessly into their digital lives. But equally important is that suppliers such as banks and tech firms (in developed markets) and telecoms companies (in emerging ones) are developing fast, easy-to-use payment technologies from which they can pull data and pocket fees. There is a high cost to running the infrastructure behind the cash economy—ATMs, vans carrying notes, tellers who accept coins. Most financial firms are keen to abandon it, or deter old-fashioned customers with hefty fees.

In the main the prospect of a cashless economy is excellent news. Cash is inefficient. In rich countries, minting, sorting, storing and distributing it is estimated to cost about 0.5% of GDP. But that does not begin to capture the gains. When payments dematerialise, people and shops are less vulnerable to theft. Governments can keep closer tabs on fraud or tax evasion. Digitalisation vastly expands the playground of small businesses and sole traders by enabling them to sell beyond their borders. It also creates a credit history, helping consumers borrow.

Yet set against these benefits are a bundle of worries. Electronic payment systems may be vulnerable to technical failures, power blackouts and cyber-attacks—this week Capital One, an American bank, became the latest firm to be hacked. In a cashless economy the poor, the elderly and country folk may be left behind. And eradicating cash, an anonymous payment method, for a digital system could let governments snoop on people's shopping habits and private titans exploit their personal data.

These problems have three remedies. First, governments ▸▸

need to ensure that central banks' monopoly over coins and notes is not replaced by private monopolies over digital money. Rather than letting a few credit-card firms have a stranglehold on the electronic pipes for digital payments, as America may yet allow, governments must ensure the payments plumbing is open to a range of digital firms which can build services on top of it. They should urge banks to offer cheap, instant, bank-to-bank digital transfers between deposit accounts, as in Sweden and the Netherlands. Competition should keep prices low so that the poor can afford most services, and it should also mean that if one firm stumbles others can step in, making the system resilient.

Second, governments should maintain banks' obligation to keep customer information private, so that the plumbing remains anonymous. Digital firms that use this plumbing to offer services should be free to monetise transaction data, through, for example, advertising, so long as their business model is made explicit to users. Some customers will favour free services that track their purchases; others will want to pay to be left alone.

Last, the phase-out of cash should be gradual. For a period of ten years, banks should be obliged to accept and distribute cash in populated areas. This will buy governments time to help the poor open bank accounts, educate the elderly and beef up internet access in rural areas. The rush towards digital money is the result of spontaneous demand and innovation. To pocket all the rewards, governments need to prepare for the day when crumpled bank notes change hands for the last time. ■

The Democratic Republic of Congo

If it bleeds, pay heed

Ebola is not the only enemy in Congo

When Congolese blood is spilled by machete-wielding militiamen, outsiders barely notice. Was the death toll from the Democratic Republic of Congo's civil war 800,000 or 5m? No one kept an accurate tally. By contrast, when blood spills out of Congolese Ebola victims, the world pays attention. The World Health Organisation says that 1,707 people have so far died in Congo's current Ebola outbreak. On July 17th it declared it a global health emergency.

It is obvious why an infectious and often fatal virus concerns everyone. Unchecked, it might spread into neighbouring Uganda, Rwanda, South Sudan and beyond. More cases have been reported in the bustling border city of Goma. The world is right to take this epidemic seriously, and to pour resources into fighting it. However, it should also spare a thought for the other kind of bloodshed in Congo—not least because it makes tackling Ebola much harder. Men with guns have taken to burning down Ebola clinics and killing health workers (see Middle East and Africa section). Local bigwigs are thought to be behind some of the attacks, perhaps to drive away the NGOs that made it too hard to embezzle aid dollars. In the two Congolese provinces worst-hit by Ebola, dozens of armed groups, some with foreign backing, are fighting the state, looting minerals and preying on civilians.

This is not just a local problem, so it matters how outsiders deal with Congo's new government. The good news is that, after 18 years of larcenous tyranny under Joseph Kabila, Congo has a different president. The bad news is that Félix Tshisekedi did not really win the election that was held in December. Rather, he won the vote count, after a rumoured backroom deal with Mr Kabila. It is now unclear who is in charge. Mr Kabila controls the national assembly and the army. Mr Tshisekedi has executive powers that may grow with time. So far, he seems considerably less awful than his predecessor. He has released political prisoners, allowed free speech and is eager to win budget support from the IMF. Several outside powers, such as America and the World Bank, think he represents a chance of change for the better. Others are working with him because they have no choice: Ebola will not wait until Congo is a democracy.

The most urgent task is to identify those who have been infected, treat them and vaccinate the people with whom they have come in contact. A big push now will cost less, and save more lives, than a weaker effort that lets the epidemic grow. Neighbouring countries should resist the temptation to ban travellers from Congo—many would simply sneak across borders, making it harder to monitor infections. Fighting Ebola will require some actual fighting, too. The UN peacekeeping force in Congo, which normally sticks to defending civilians, is helping the Congolese army push rebel groups that threaten aid workers out of the Ebola zone. It is right to do so. And the $1bn a year that donors spend on blue helmets in Congo is a bargain compared with other conflicts. It should not be reduced.

In the long run, Congo needs better, cleaner government. If Mr Tshisekedi is sincere about reform, there are several things he could start doing now. His predecessor hardly built anything—Congo has whole cities without grid power. Mr Tshisekedi should work with private investors to build roads and generate electricity, without which Congo cannot properly exploit its mineral wealth, let alone move beyond it. More important, he should end the impunity that has let warlords kill and politicians steal. Some of the fatter fish should be put behind bars. To curb the smaller fry, the government should simplify the impossible tangle of rules and inspections that lets corrupt officials bully businesses into paying bribes to be left alone. Until it is easier to do business in Congo, the country will stay poor and unstable.

Most donors do not want to reward a stolen election. But no one wants to see the collapse of a state seven times the size of Germany at the heart of Africa, either. It is too early to say whether Mr Tshisekedi's regime will be as corrupt as its predecessors, but it might not be. Mr Kabila's baleful influence may wane. Despots who seek to remain in charge by bequeathing their office to a puppet sometimes succeed (think of Vladimir Putin). But sometimes they fail, as in Angola, where the appalling dos Santos clan has been swept aside. Donors should offer Congo lots of technical help. And if the new regime proves serious about cleaning up its act—a big if—they should back it with cash, too. ■


Fiduciary: It's the word independent advisors live by.
Independent Registered Investment Advisors are held to the highest standard of care. As fiduciaries, they are required to act in the best interests of their clients at all times. That's why we support independent financial advisors. And why we think it's worth your time to learn more.
FindYourIndependentAdvisor.com
Deb K. | Independent financial advisor since 1996

Insuring for a healthy life

Your article on innovation in insurance ("Run for cover", July 20th) did not touch on a fundamental transformation that is taking place across the life-, health- and motor-insurance markets, namely incentivising customers to be healthier and to make better choices. This acknowledges that the nature and treatment of risk has shifted, from pre-existing risk to risk driven by behavioural factors. Some 60% of mortality and 80% of the global disease burden are a function of just four lifestyle choices—lack of exercise, poor nutrition, smoking and alcohol abuse—which lead to major non-communicable diseases.

This new approach to risk allows companies to share the gains resulting from healthier choices with their customers, by funding valuable incentives and lowering premiums, creating a shared-value loop. It has also created a more profound role for insurers: not only providing protection against adverse events, but helping make society healthier.

ADRIAN GORE
Group chief executive
Discovery Vitality
Johannesburg

Insurance companies are indeed clueless about the most recent advances in climate and weather modelling, even though the risks they cover are "becoming more severe and unpredictable." But because insurers usually offer short-term contracts this problem is of only minor importance to their business at this point. It does pose more complex challenges for governments, property owners and lenders, who are in it for the long-term.

You also lauded the innovation of "parametric insurance", where polices pay out when clearly defined parameters, such as rainfall threshold, are reached. But the evidence suggests that when insurers tried to sell these parametric products (initially for crops in low-income countries), the take-up was very low, even when premiums were subsidised. Still too often, parametric insurance is akin to a lottery ticket, as basis risk—the lack of correspondence between the parametric trigger and experienced damage—is high. Risk modelling needs to improve before many of these products should be sold.

ILAN NOY
Chair in the economics of disasters
Victoria University of Wellington
Wellington, New Zealand

A giant in computing

Alan Turing did not build Colossus, an electronic digital computer that made a big contribution to breaking the German Lorenz cipher in the second world war ("Due credit", July 20th). That acclaim should go to Tommy Flowers. He got no public recognition at the time and has had precious little since. Flowers was born to a working-class family in Poplar, a poor part of east London. He was educated through an apprenticeship and by taking night classes at the University of London. He deserves to be remembered for his achievement.

DONALD NEAL
Hamilton, New Zealand

Colombia's cocaine problem

"Blow up" (July 6th) reported on Colombia's expanded coca cultivation and the government's poor options for dealing with it. This illustrates only too clearly the curse that the UN drug conventions and their enforcement by America in its war on drugs have cast upon the country. There is a case that Colombia's guerrilla movements would have made peace in the early 1990s had it not been for the cocaine revenues that gave the FARC ample means to carry on. Now, ironically, a surge in coca cultivation, that is in part a perverse result of that peace process, is fuelling a recrudescence of violence in the coca-growing areas that the FARC abandoned.

Other countries should give Colombia time to reduce production and support its efforts in tracing assets and disrupting flows of cash, cocaine and precursor chemicals, which can be just as effective as crop eradication. In Bogotá there are concerns that American impatience might lead the administration to decertify Colombia for its slow progress. This was tried in the mid-1990s. It succeeded in getting Colombia to reintroduce extradition but also contributed to a dramatic increase in coca cultivation and paramilitary violence. There could not be a worse time for a repetition of that, with the peace process at such a delicate stage. And Colombia is America's key ally in dealing with the Venezuelan crisis.

SIR KEITH MORRIS
British Ambassador to Colombia, 1990-94
London

Planning for the future

Scenarios should radically challenge conventional thinking, rather than just sound crazy, as the leader accompanying The World If suggests ("Navigating the rapids", July 6th). At the Oxford Scenarios Programme, we argue that the value of scenarios lies in the actions taken as a consequence of thinking through a small set of alternative possible futures, which cannot be dismissed as crazy, and instead have sufficient connection with reality to pose credible challenges to current thinking. What may appear crazy to one member of a team is reasonable to another. What matters is making sense of the apparent strangeness or incompatibility of contrasting and different perspectives to help leaders navigate turbulence.

Good scenarios are thus honed for a specific user, use, and purpose. Rigorous theory and method guide the use of these scenarios and help executives go beyond responding to things haphazardly.

RAFAEL RAMIREZ
CHO KHONG
TRUDI LANG
CYNTHIA SELIN
Faculty
Oxford Scenarios Programme

Thanks for the annual summer brain exercises in The World If. Reading about future forecasting reminds me of Isaac Asimov's early novel, "Foundation", in which a mathematician discovers the future. A lesson can be derived from this book: the mathematician refuses to share his findings because by doing so it would modify, and potentially annihilate, his predictions.

In other words, by sharing a handful of speculative scenarios, you may have changed the course of history.

CHRISTOPHE CAUVY
Oxford

The future is not always conveniently packaged. Around 1990 Bell Laboratories conducted a survey among its most insightful prognosticators regarding the most significant communications technologies that would lead us into the millennium. ISDN made the list; the internet did not. As Yogi Berra (may have) said, it's tough to make predictions, especially about the future.

HANS MATTES
Petaluma, California

The at-odds couple

The parents of the students who refused to take Trump supporters as roommates should be asking for their tuition back ("Strange bedfellows", July 20th). The core skill of an educated person is to be able to listen to an opposing view, engage with it, find common ground if possible, learn from it and respect it. By rejecting Trump supporters, these students mimic his behaviour by gleefully rejecting anyone who disagrees with them.

My second thought after reading the article, is where can I find an apartment for $625 a month?

PEGGY TROUPIN
New York

Letters are welcome and should be addressed to the Editor at
The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
Email: letters@economist.com
More letters are available at:
Economist.com/letters

Unique Access to Confidential Opportunities

InterExec is the global leader in enabling Top Executives to access $200k to $2m+ unadvertised vacancies worldwide.

We act discreetly through a 15,000 strong international network.

InterExec
UNIQUE NETWORK ♦ OUTSTANDING TALENT

london@interexec.net www.interexec.net +44 (0)20 7256 5085

United Nations Development Programme

Human Development Report Office

UNDP
Empowered lives. Resilient nations.

Chief Statistician

Type of contract: Fixed-term - International - Level P6
Duration of Contract: One year (renewable)
Closing date: 11 August 2019 (Mid-night, New York, USA)

The Human Development Report Office (HDRO) produces the annual global Human Development Report (HDR), an editorially independent, analytical and policy-oriented publication anchored in the human development paradigm. It is arguably one of the United Nations' most important publications. The Human Development Index – which ranks countries development according to their human development, rather than their economic output, is at the heart of each human development report. The index influences international policy debates, decision-making and monitoring and is a leading "Beyond GDP" indicator. It is cited thousands of time each by policy makers, the media and academia.

As Chief Statistician you will oversee the production of the human development indices. You will also lead the HDI's first significant overhaul since its inception, helping to ensure that 2020 human development measurement better captures today's key challenges, and – crucially - that our measures influence change for the good of the planet.

As Chief Statistician you will have responsibility for the production and quality of the statistical content of the report. You will lead and manage a small team of professional statisticians. Working under the guidance of the Director, HDRO, and in close collaboration with the rest of the office, the Chief Statistician manages the production of the human development indices and indicator tables, develops effective statistical outreach strategies and engages with statistical offices worldwide, representing both UNDP and HDRO in the international statistical community.

The duties of the Chief Statistician include:

- Leading the design and producing the human development indices
- Reviewing the robustness and reliability of indices and indicators and proposing innovation
- Play a key role in outreach initiatives and strategies to promote human development statistics
- Represent UNDP and HDRO as a technical expert in the international statistical community
- Provide leadership around the use of new (big) data sources and emerging data science

Education: Advanced university degree (preferably Ph.D.) in statistics, economics, demography or quantitative social sciences with strong training in applied quantitative analysis.

Experience: Minimum of 15 years of post-graduate progressively responsible professional work experience that combines research, practical application and management in the domain of statistics, econometrics, or quantitative social sciences. Work experience in international organizations related to development. Proven publishing record. Experience in innovative statistical analysis. Experience in construction and analysis of human development measurements and other social, economic and environmental development composite indices and indicators. Proven experience in coordinating with international organizations and national governments. Documented leadership experience in a politically sensitive environment. Experience in effectively supervising staff and ensuring excellent quality.

Application: The vacancy closes on 11 August 2019. Further information and detailed terms of reference can be found at: **https://tinyurl.com/y452hst4**

PRESIDENT & VICE-CHANCELLOR

Lead Canada's most research-intensive and impactful university

McMaster University, Canada's most research-intensive university and consistently ranked as one of the world's top 100, is recruiting its next President & Vice-Chancellor. As President you'll lead, refine and deliver on a bold vision as McMaster forges a Brighter World.

McMaster's researchers, faculty, students and staff translate research into real-world applications and results. Ranked second in the world for impact, McMaster is committed to advancing human and societal health and well-being, improving people's lives through education, research and outreach.

Our scientists, doctors, professors, engineers, business leaders and experts work with each other and with nearly 2,000 global partners across disciplines and continents asking the right questions, finding the answers and turning those answers into solutions to real problems.

This is an exciting opportunity for a respected leader and scholar who is deeply committed to collegiality, collaboration, transparency and to advancing the principles of equity, diversity and inclusion.

If you have a genuine appreciation for the transformative societal impact driven by a research-focused student-centred institution, this is your time to join the McMaster community.

Visit
secretariat.mcmaster.ca

Contact
Nick Chambers,
Jessa Chupik or
Michael Naufal
at Boyden Canada
jchupik@boyden.ca

McMaster University

BRIGHTER WORLD

On the brink

NOVA XAVANTINA AND SANTARÉM

The world's largest rainforest is approaching the point of its irreversible destruction

THE AMAZON basin, most of which sits within the borders of Brazil, contains 40% of the world's tropical forests and accounts for 10-15% of the biodiversity of Earth's continents. Since the 1970s nearly 800,000km² of Brazil's original 4m km² (1.5m square miles) of Amazon forest has been lost to logging, farming, mining, roads, dams and other forms of development—an area equivalent to that of Turkey, and bigger than that of Texas. Over the same period, the average temperature in the basin has risen by about 0.6°C. This century, the region has suffered a series of severe droughts.

Both the reduction in tree coverage and the change in climate were endangering the forest's future well before Brazil's general elections of October 2018. But after that the forest faced another threat: Jair Bolsonaro, the new president, and arguably the most environmentally dangerous head of state in the world.

From 2004 to 2012 the rate of deforestation in the Brazilian Amazon slowed. The government's environmental protection agency, Ibama, was strengthened. Other countries, and global NGOs, nagged and encouraged; in 2008 an international Amazon Fund was created to help pay for protection. Not a moment too soon, said rainforest scientists. They had begun to suspect that, if tree loss passed a certain threshold, the deforestation would start to feed on itself. Beyond this tipping-point, forest cover would keep shrinking whatever humans might try to do to stop it. Eventually much of the basin would be drier savannah, known as *cerrado*. As well as spelling extinction for tens of thousands of species, that devastation would change weather patterns over much of South America and release into the atmosphere tens of billions of tonnes of carbon, worsening global warming.

This hopeful period of slower deforestation was not to last. Even before Mr Bolsonaro, deforestation began to tick up (see chart 1, on next page). In 2012, under then-president Dilma Rousseff, Brazil's congress passed a new forest code that gave amnesty to those who had taken part in illegal deforestation before 2008. In 2017 Michel Temer, the next president, signed a law that streamlined the privatisation of occupied public lands, which spurred land grabs in the Amazon. During the deep recession of 2014-16 the environment ministry's budget was slashed. Between August 2017 and July 2018 Brazil lost 7,900km² of Amazon forest—nearly a billion trees—the highest rate of deforestation for a decade.

Heaven's high canopy

According to preliminary satellite data, since Mr Bolsonaro took office in January, the Amazon has lost roughly 4,300km² of forest, which means this year's total will surely outstrip last year's. This is not a fluke. The president appears to want the country to return to the time of Brazil's military dictatorship, when big infrastructure projects prompted widespread destruction in the name of development.

A few of Mr Bolsonaro's plans have been curbed. Pressure from Tereza Cristina, the agriculture minister, and the farm lobby led him to withdraw his threat to leave the Paris climate agreement and from abolishing the environment ministry—mostly because deals with disapproving European firms would be at risk. A bill introduced by Flávio Bolsonaro, the president's eldest son and a senator in his own right, to eliminate a requirement for farmers to preserve some natural vegetation on land they clear has not yet passed. The supreme court blocked a decree to transfer powers over the demarcation of indigenous reserves from the justice ministry to Ms Cristina's—which would have "put the fox in charge of the chicken coop," argues Randolfe Rodrigues, an opposition senator.

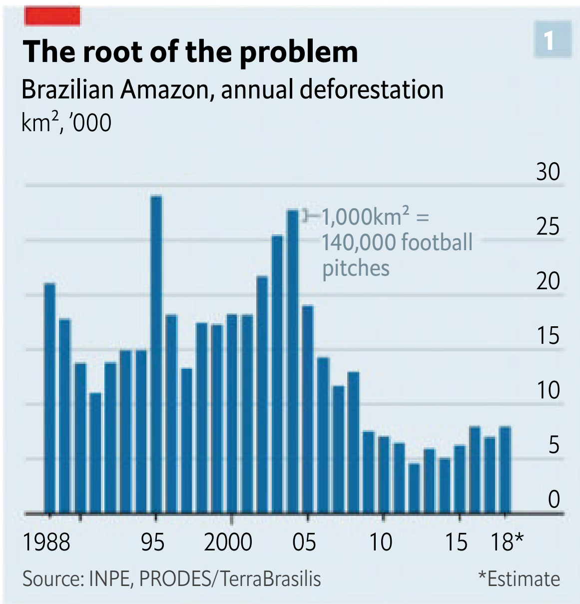
But even without the biggest changes, Mr Bolsonaro's government can still encourage, directly or indirectly, a large amount of deforestation, by not enforcing the laws that prohibit it. On February 28th the environment minister, Ricardo Salles, fired 21 of Ibama's 27 state heads, following the president's orders to "clean out" the agency. Most have yet to be replaced, including all but one in the Amazon states. The environment ministry has started to flag up in advance where and when anti-logging operations will take place. Between January and May, Ibama imposed the lowest number of fines for illegal deforestation in a decade.

Mr Salles says that "the role of the state is to protect landowners' property rights". He wants to use donations from Norway and Germany to the 3.6bn reais ($950m) Amazon Fund to compensate landowners for land that had been turned into conservation areas, even though most of it was occupied illegally.

Deforesters appear emboldened. According to the Indigenist Missionary Council, a Catholic group, the number of illegal invasions in indigenous areas has jumped. On July 24th miners with guns invaded a village in the northern state of Amapá, killed one of its leaders and expelled the residents. Satellite data show a drastic rise in the year-on-year deforestation rate starting in May, the beginning of the dry season. In July, more than 1,800km² was cleared, three times more than last year.

These statistics tell only part of the story. The Amazon matters to the global climate because it is a sink of carbon, mitigating warming. If the rainforest were to die back, the large amount of greenhouse gases this would release would speed up that process. But the climate matters to the Amazon, too. It is sensitive to changes in temperature and rainfall, as well as to atmospheric carbon-dioxide levels.

The Amazon is unique among tropical rainforests in that it produces a lot of its own rainfall. As moisture travels from the Atlantic to Peru, the Amazon's trees recycle some of it; around half the forest's rain is reused this way. Rainwater is pulled up from the roots to the canopy, where it is released back to the atmosphere to fall as rain



The root of the problem
Brazilian Amazon, annual deforestation
km², '000
Source: INPE, PRODES/TerraBrasilis *Estimate

again. Not only does this provide moisture to the region, the evaporation off the leaves also has a local cooling effect.

This is what has led to worries about tipping-points. In an influential paper in 2007 Gilvan Sampaio and Carlos Nobre of Brazil's National Institute for Space Research forecast that, were 40% of the forest to perish, the loss of water-recycling capacity would mean very little of the rest would have enough rainfall to survive.

Trees rudely hollowed

Alongside the threat from deforestation, the forest's capacity to water itself can be weakened by rising temperatures. Beatriz Marimon and Ben Hur Marimon, at the University of Mato Grosso in Nova Xavantina, have kept tabs for decades on dozens of plots in the *transição*, the margin between the wet Amazon and the drier *cerrado*. Today, Mr Marimon says, they are seeing "two warmings in one". On top of global warming are changes that result from deforestation, which removes the air-conditioning effect provided by water evaporating from the trees' leaves.

A study by Divino Silvério and colleagues at the Amazon Environmental Research Institute, published in 2015, found that converting forest to pasture increased land temperatures by 4.3°C; if pasture was then turned over to arable crops, things warmed a little more. The *transição* is already hotter and drier than most of the rainforest. Clearing more of its patchwork of forest, farms and savannah makes the remaining woodland even hotter.

Ms Marimon has also observed that temperatures above 40°C dry out trees, making them more likely to fall in strong winds. The fragmentation brought about by farming creates isolated patches of forest. If they lose access to seed banks in the soil and water sources, such disconnected fragments are less able to recover.

How plants respond to carbon-dioxide levels probably exacerbates matters. The more carbon dioxide in the air, the less air plants need to process in order to photosynthesise. The less air they take in, the less water vapour they let out. As a consequence, the plants both do less to cool their immediate environment (because less water evaporates) and also make the atmosphere less moist. This has been shown to be happening in other watersheds, though there is not yet conclusive evidence from the Amazon.

Clearances also lead to local drying. Satellite data show that air which passes over primary rainforest produces twice as much rain a few days later than that which passes over farmland. In 2012 scientists at the University of Leeds predicted that continued deforestation would cause rainfall in the Amazon to drop by 12% in the wet season and by 21% in the dry season by 2050.

*Tree cover measured in 2016/17
Source: INPE, PRODES/TerraBrasilis

The forest's dry season started to lengthen in the 1970s; the rains which used to come in October now come in November. This might have been an effect of deforestation; there is some evidence that water returned to the atmosphere by trees is particularly important in getting the rainy season going. The most dramatic effect of drying seen by scientists, though, is not a shorter wet season. It is the disproportionate impact of the years in which rainfall is particularly low.

This century has already seen three unusually harsh droughts, in 2005, 2010 and 2015. That of 2015 corresponds to an El Niño event—a see-saw effect in Earth's climate whereby a shift in the flow of energy between the atmosphere and the ocean in the central Pacific produces a predictable pattern of climate anomalies all through the tropics and beyond (see chart 2). The correlation between El Niño events and droughts in the Amazon, most notably in the south-eastern part, predates human activities. But those activities may, at a global level, increase the frequency and intensity of El Niño events. At the local level they worsen the damage that droughts do.

The El Niño drought in 2015 was particularly severe. In Nova Xavantina more than a third of the trees in some of the Marimons' study plots died in its aftermath. The region around the city of Santarém, farther north and deep in the Amazon, saw flames as tall as buildings tear through the forest, enveloping the canopy in thick black smoke that stretched for miles and turned the sunlight red. For months after the fires died down, the forest floor smouldered. Hundred-year-old trees dried out and died.

Nearly four years later, the forest is still recovering. At one part of the Tapajós National Forest reserve, where 580km² (11% of the total area) burned, saplings have shot up among the ashes of their giant forebears, but it will be years before they form a canopy. A second round of fires in 2017 burned nearly a quarter of another reserve, where 75 communities of river-dwellers make their living fishing and hunting.

Fires are not new to the Amazon, but recently they seem to have been more frequent and intense. This kicks off a vicious cycle. Dead trees open gaps in the canopy, allowing more light and wind to reach the forest floor, which becomes hotter, drier and more prone to burn again. This year is expected to be a mild El Niño year, which means higher temperatures and less rain for the area around Santarém. Fires could rage again. If that happens, says Joice Ferreira, a biologist at the Brazilian Agricultural Research Corporation, the debris left over from the previous fires will serve as fuel for the flames. "After that," she says, "there won't be many trees left."

Over the past 50 years 17% of the rainforest has been lost, some way from the 40% tipping-point proposed in 2007. But last year Mr Nobre and Thomas Lovejoy of George Mason University, after taking account of climate change and fire as well as deforestation, revised the estimate of the threshold to 20-25%. That is uncomfortably close to today's figure. Mr Nobre says the recent droughts and floods could be the "first flickers" of permanent change. Carlos Rittl of the Brazilian Climate Observatory, a consortium of research outfits, expects Mr Bolsonaro's tenure to see deforestation pass 20%. If Mr Lovejoy and Mr Nobre are right, that could be disastrous—once the tipping-point is transgressed, much of the rest of the forest could follow in just a matter of decades.

To shade the barren wild

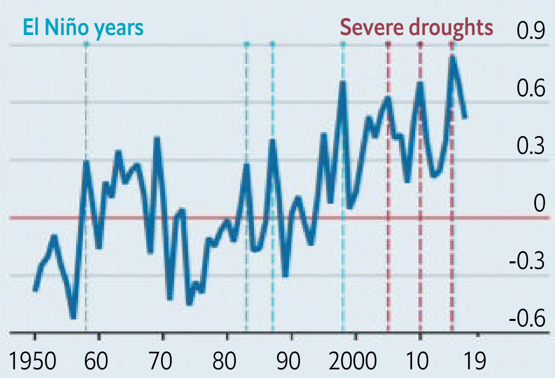
Even now, the service that the Amazon provides the rest of the world as a sink for carbon dioxide appears to be declining. Simon Lewis of University College London, and colleagues, analysed observations of 321 plots across the Amazon basin. They found that in primary forests plants absorb, on average, a third less carbon dioxide than they did in the 1990s, owing to increasing tree mortality. In a paper published in 2011 Mr Lewis argued that carbon lost to the atmosphere through tree death and fire in the droughts of 2005 and 2010 might offset as much as a decade's worth of carbon-dioxide absorption by the forest.

Not everyone is so gloomy. Forests that are diverse, like the Amazon, are likely to have drought-resistant species that can fill the niche left by drought-prone ones without a loss of biomass, points out Kirsten Thonicke of the Potsdam Institute for Climate Impact Research, a German think-tank. Secondary forests store significant amounts of carbon, though far less than primary ones. One study found that as a secondary forest grows, it recovers 1.2% carbon storage per year, so a 20-year-old secondary forest would store roughly 25% of the carbon stored by a primary forest. There are ways to mitigate the biomass loss from logging and ranching, by being careful about which trees to cut and reforesting afterwards. In Paris Brazil pledged not just to halt illegal deforestation by 2030 but also to reforest 120,000km².

A new abnormal 2

Amazon, average surface-air temperature*

Deviation from 1961-90 average, °C



Sources: "Changes in climate and land use over the Amazon region: current and future variability and trends", by J.A. Marengo et al. 2018; INCT for Climate Change Phase 2 *HadCRUT4 data

Such attempts at mitigation look increasingly unlikely. In June Mr Bolsonaro published a decree which indefinitely extends the 2019 deadline for farmers to begin replanting illegally deforested land. This not only reduces the chances of reforestation. It reinforces the message: the government will turn a blind eye to more. Similarly, if his son's bill were to pass it would legalise the deforestation of some 1.5m km². Clearing that would emit nearly 65bn tonnes of carbon dioxide—equivalent to Brazil's emissions over the past 27 years.

In July President Bolsonaro called deforestation data "lies" and said he wanted to review them before they were released to the public. Hamilton Mourão, the vice-president, says that other countries' professed concern for the Amazon masks "covetousness" for precious minerals in the region. Mr Salles, the environment minister, likes to point out that many rich countries cut down their own forests but have not fulfilled promises to pay Brazil not to do the same. "You can't give Brazil the onus of being the world's lungs without any benefits," he argues.

The trees stood bare

Mr Salles is right that the countries responsible for the bulk of emissions should compensate Brazil for its role in absorbing them. In return Brazil must protect, rather than destroy, the rainforest. In June a trade deal between the EU and Mercosur—Brazil, Argentina, Paraguay and Uruguay—was announced at the G20 summit, which includes a commitment to implement the Paris climate agreement. It has yet to be approved; it is also unclear how much it will sway the president to curb his infrastructure plans, or indeed his rhetoric.

Concerns about what Brazil's climate policies might do to the country's reputation could spur local resistance to Mr Bolsonaro's anti-environmental turn. Fears for the climate itself may yet do more. "We have no doubt that the forest has a direct effect on the rain cycle," says Artemizia Moita, the sustainability director of a farming group that has 530km² of soyabean and cattle farms. "If we keep deforesting," she asks, "how will we keep producing?" Unlike other farmers she admits she is worried about climate change.

For many, any shift in attitudes will already come too late. Magdalena is an elderly woman who has spent her life as a river-dweller in one of the rainforest's reserves. She used to hunt deer and armadillo to make her living. Now she treks 13km to buy beef from a local village. "All the game is gone," she laments. ■

Baltimore

City on the brink

BALTIMORE

Four years after the death of Freddie Gray, Charm City cannot catch a break

At seven in the morning on July 15th, David Caldwell, a 52-year-old phlebotomist, was shot and killed in the methadone clinic on Maryland Avenue where he worked. A little more than halfway through the year, he was the 181st person killed in the city of Baltimore—and the 161st killed by a gun. It was a grisly scene. The suspected shooter, a 49-year-old man demanding methadone, was shot dead in the standoff with police. One officer was also shot, though he is expected to survive.

Based on historic patterns, Baltimore is on track to have 358 murders by the end of the year. It could exceed the tally in New York—a city with 14 times as many people. The number has passed 300 every year since 2015. That spring Freddie Gray, a 25-year-old black man, died in police custody, and the city exploded in protest. Rioting and looting tore up the city's poorest neighbourhoods; Victorian row houses were lit by the glow of flames.

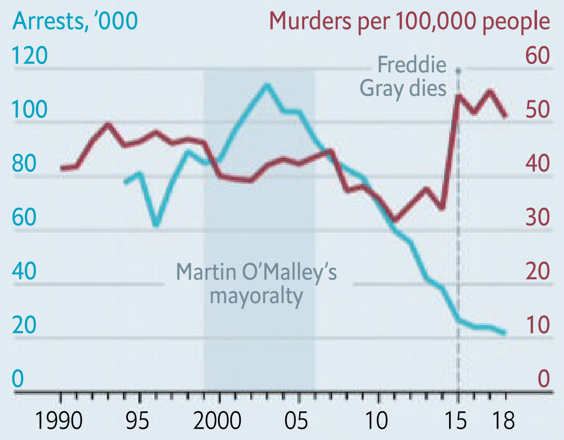
It does not appear to have recovered since. "Unfortunately all the cameras have gone, but the socioeconomic plight of the community has remained," says Nick Mosby, a Maryland state delegate who was the city councilman for Sandtown-Winchester, the west Baltimore neighbourhood where Freddie Gray lived. It is 96% black; median household income is merely $25,000 and a third of the buildings are vacant or abandoned. It is a place where people buy their groceries in liquor stores protected by bulletproof glass. "Whether it's west Baltimore or north Philadelphia, urban blight looks like urban blight and it's as American as apple pie," says Mr Mosby.

What beset Baltimore? Left-leaning activists explain the city's slump by pointing to the legacy of historic segregation—the city pioneered the use of restrictive covenants to prevent blacks from moving to good neighbourhoods—and generations of concentrated poverty, racist policing, crumbling infrastructure and failing schools. All this is true. But none has worsened enough recently to explain the dramatic rise in crime since Gray's death. "When I think of April 2015, I think about the straw that broke the camel's back," says Brandon Scott, the 35-year-old president of the city council. Something else must have happened.

The most prominent candidate-theories focus on the police. The Baltimore Police Department (BPD) had to change after the unrest—its relationship with the community was in a shambles. Marilyn Mosby, the state's attorney for Baltimore (who is also married to Mr Mosby, the delegate), charged the six officers involved with Gray's death—but none was convicted. A scathing report from the Department of Justice (DOJ) extensively documented a pattern of racial discrimination and exces- ▸▸

Fewer stops, more shot

Baltimore



Sources: Baltimore Police Department; FBI

sive force. In 2017 the department entered a consent decree with a federal court requiring it to reform.

Some members of the Baltimore police, both former and current, claim that the falling out with city leaders left them feeling without support. So they pulled back, they say—less often getting out of their cars to attempt forceful, proactive enforcement. "The idea of clearing the corner was central to Baltimore," says Peter Moskos, a former patrol officer in the city who is now a professor of criminology. "But cops said, 'OK, if you don't want us to clear the corners, we won't'." The data bear this out. In the year before Gray's death, police were making 3,000 arrests a month. Since then, arrests have dropped 36%.

But another explanation contends that the more important shock to behaviour after the unrest was not among the police but among Baltimore's residents. Events like Gray's death shake community trust—meaning that co-operation with police investigations and even reporting of criminal offences drops.

In the aftermath of a highly publicised incident in Milwaukee in 2004, when an unarmed biracial man was severely beaten by off-duty white cops, three sociologists found that residents in black neighbourhoods were much less likely to call to report crimes for up to a year afterwards. This coincided with a significant spike in homicides. In Baltimore, there are good reasons to distrust the police. Last year federal prosecutors convicted members of an elite police squad, the Gun Trace Task Force, of widespread corruption. Instead of taking illegal guns off the streets, the unit planted evidence on innocent civilians and robbed drug-dealers and then resold the goods.

In this account of things, a frequent target of ire is Martin O'Malley, who was mayor of the city from 1999 to 2007 before becoming governor of Maryland, for his policy of aggressive policing to deter violent crime. Mr O'Malley, who still lives in the city, defends his record. He notes that crime declined while he was in office, and that the damning DOJ report only examined conduct after 2010.

Mr O'Malley gives two reasons why the city is "having to take the same real estate twice". First, "Baltimore stopped policing the police. Stopped supervising, stopped following up on citizen complaints of discourtesy, excessive force and other things," he says. Second, the number of cops fell from a high of 3,278 in 2002 to 2,514 today. "One of the most violent cities in America decided to cut its police force by about 25%, and there wasn't even a whimper of objection from the city council or any of the editorial powers in town," he says.

The riots "exposed that sort of soft underbelly in the police department", says Jason Johnson, a former deputy commissioner for the BPD from 2016 to 2018. "The homicide department has barely enough detectives to solve homicides. It was a kind of awakening to the criminal underground in Baltimore." Shootings and homicides increased, but there was no increase in the number of detectives, nor any improvements to antiquated technology or dilapidated training headquarters.

Catch a killer

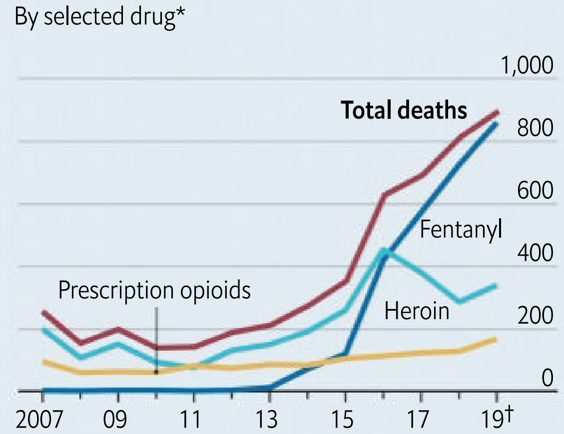
In 2018 only 43% of homicide cases were cleared. "When cases start to pile on top of one another, you have more acts of violence that people are inclined to avenge," says Daniel Webster, a professor at Johns Hopkins University who led a homicide review for the city. Mr Webster argues that although most people want more cops on the beat, the real need is more resources for serious investigations.

Compounding the problem in Baltimore was a nationwide surge in demand for illicit opioids. For decades, Baltimore has had a serious heroin problem concentrated among poor black people. Today Baltimore has morphed into a drug destination. Officers and residents describe middle-class teenagers and housewives driving in from the suburbs to score drugs. Mr Scott, the city council president, says he finds it ironic that after decades of ignoring heroin epidemics in predominately black cities such as Baltimore, the rest of America is now suffering.

Shooting up

Baltimore, number of opioid deaths

By selected drug*



Sources: Baltimore City Health Department; Maryland Department of Health

*Deaths involving multiple opioids counted in each category
†First six months at an annual rate

Nobody really knows how many drug users there are in Baltimore. The most reliable data come from the city morgue. In 2007, opioid overdoses claimed the lives of 256 Baltimoreans—four-fifths from heroin. By 2018, that number had more than tripled to 814 deaths as fentanyl, an extremely potent synthetic opioid, supplanted heroin. Baltimore has the highest opioid fatality rate of any city in the country, twice that of West Virginia, which is the worst-affected state.

"Business is booming from the drug dealers' perspective," says Mr Johnson, the former deputy police commissioner. "And in black-market business, competition usually means violence." Violent crime in Baltimore, as in every city, involves a small network of people and a clutch of city blocks. Much of it revolves around the drug trade, and avenging past deeds, whether slights or slaughters. Of those murdered in 2018, 84% had previous arrest records—as did 86% of the suspects.

The problems of crime and addiction are difficult, but they should not be insurmountable. Sadly, Baltimore has endured so much turbulence at its highest echelons of power in recent years that new plans have scarcely had time to be drafted. Since Gray's death, there have been five police commissioners—some fell foul of the mayor while others fell foul of the law. In May the mayor herself, Catherine Pugh, was forced to resign from office after a scandal involving bulk purchases of her insipid children's book by companies who did business with the city. She is the second mayor to have to resign in a decade.

The next mayor will face huge challenges. "We are a city that doesn't have a transit system, we don't have fast broadband, we have an ageing water system," says Seema Iyer of the University of Baltimore. Vacant buildings depress property values, provide places for criminals to hide and scare off prospective businesses. The city's schools are decrepit. Having stabilised at the time of Freddie Gray's death, Baltimore's population is now falling again.

It is tempting for lawmakers in Annapolis, the state capital, and nearby Washington, to blame the city for its troubles. Corruption and poor policing are certainly unforced errors. People of all political stripes have high hopes for Michael Harrison, the freshly appointed police commissioner from New Orleans, though he will need longer than the now-customary one-year term to change much. Still, many of the forces buffeting Baltimore and its poorest residents are outside its control: history weighs heavily. To dig itself out of its rut, the city will need help. ■

American intelligence

Shame the devil

WASHINGTON, DC

Donald Trump may install a loyalist as America's top intelligence official

FOR DECADES America's top intelligence official, responsible for assessing and co-ordinating information from the country's multiple intelligence agencies, was the Director of Central Intelligence, who also headed the CIA. Many had qualms about this arrangement. Running an agency as large and complex as the CIA was a formidable job in its own right; combining it with cross-government information assessment and being the president's chief intelligence analyst was somewhere between unwieldy and impossible.

Those misgivings grew after the September 11th attacks, and the 9/11 Commission recommended creating a Director of National Intelligence (DNI) to head an office focused solely on intelligence co-ordination and reducing bureaucratic barriers to sharing intelligence.

The job is something of a poisoned chalice. It combines tremendous responsibility with scant authority. America has 16 different intelligence agencies (not including the DNI's office); the DNI cannot order them to do anything. Except for the CIA, the heads of those agencies all report to other bosses—the defence agencies to the defence secretary, the FBI chief to the attorney-general, and so forth. The DNI's task is to give the president honest intelligence assessments, even if they are not what he wants to hear.

Dan Coats did that. He defended the assessment that Russia interfered in the 2016 election, even as Donald Trump publicly accepted Vladimir Putin's denial. He testified that Islamic State, which Mr Trump claims to have defeated, remains capable of causing harm in Syria. For such sins, his relationship with Mr Trump suffered; he will step down on August 15th.

Mr Trump intends to replace him with John Ratcliffe, a conservative congressman from Texas, who has, in the words of Mike Morell, a former deputy CIA director, "the least national security experience and the most partisan political experience of any previous DNI". He was mayor of a small town in Texas for eight years, served briefly as interim US attorney for the Eastern District of Texas (the district's lead federal prosecutor), and is in his third term in the House of Representatives and first on the Intelligence Committee.

By contrast, Mr Coats spent 24 years in Congress, was ambassador to Germany and nearly became George W. Bush's defence secretary. His predecessor, James Clapper, ran two intelligence agencies and oversaw four as undersecretary of defence for intelligence. The first DNI, John Negroponte, spent 37 years in the foreign service before serving as America's first post-Saddam ambassador to Iraq.

But what Mr Ratcliffe lacks in experience he makes up for in devotion to Mr Trump. Mr Ratcliffe falsely accused Robert Mueller, during his congressional testimony, of having exceeded his brief as special counsel. He propounded the conspiracy theory that "there may have been a secret society" of federal agents working against Mr Trump. The *New York Times* uncovered embellishments to his biography, including one claim that he "arrested 300 illegal aliens in a single day" (prosecutors do not have powers of arrest), and another that he "convicted individuals funnelling money to Hamas" (he did not).

Mr Ratcliffe's nomination is not assured. Earlier this year Mr Trump tried to nominate two unqualified partisans, Stephen Moore and Herman Cain, to the Federal Reserve's board of governors; both withdrew their names because they lacked enough congressional support. At least a few Republican senators may similarly quail at handing a difficult, non-partisan job to a lightly qualified politician.

Yet just the floating of Mr Ratcliffe's name highlights the contempt that Mr Trump has for America's intelligence services. He says Mr Ratcliffe's job would be to "rein...in" the intelligence services that have "run amok", by which he seems to mean that they offered views that displease him. That is worrying; some of America's greatest foreign-policy debacles have stemmed from politicised intelligence. ■

Nick Clifford

Lessons from stone

MOUNT RUSHMORE

The last driller of Mount Rushmore

IT WAS THE dust that he hated most. Clouds in the high, thin, South Dakotan air, that choked him as he dangled in a harness on the mountainside. The men wielded jackhammers, drilling holes so sticks of dynamite could be pressed into the rock. Then, as they retreated on a president's head—for a lunch of meatloaf sandwiches, if lucky—fuses fizzed and granite blasted off below. Few bothered with masks, except when the boss, Gutzon Borglum, came on site. One man snipped a hole in his to let him smoke as he drilled. In any case the damned particles got "into your eyes, ears, hair, nose and worst of all your throat."

Looks on my works

From 1938 to 1940 Nick Clifford was on Mount Rushmore, first as dogsbody and wood-chopper, then as labourer and winchman. Signed up before he was a man, he suspected they sought out his baseball skills. The chief's son loved the game and his weekend team needed a pitcher. In the week he enjoyed winching best. For that you perched on one or other president's skull, taking in a grand view of the Black Hills, and moved others' harnesses into place. Hourly pay was good for the tail end of the Depression: 50 cents, rising to a heady $1.25 for a skilled sculptor. Work stopped in winter. No one got overtime.

Some 400 men were on site at some point or other from 1927 to 1941. They blasted 450,000 tons of granite, so the sculptors could reveal the four presidents within. Remarkably no one was killed, despite explosions twice daily, dropped tools, accidents with winches and one terrifying time when the "bucket"—a contraption that hoisted men and gear to the mountain top—hurtled, unrestrained, back to earth. A few died fairly soon afterwards. The wife of one worker suspected silicosis, perhaps worsened by heavy smoking habits.

Mr Clifford didn't light up. At 98, the last surviving worker remains relatively hale and won't retire. Three days each week he attends to visitors at the monument's gift shop. Always in blue denim shirt and pale baseball cap, he poses for photographs, although Carolyn, his wife, confides he hates cameras. "I couldn't be better," he says, but he declines even handshakes from children or much conversation. The inquisitive are told all their questions have already been answered in his book, on sale for $12. It includes a baseball card.

Most wonder about prosaic matters. Was it hard toil? (Yes.) Was he scared, sway- ▸▸

ing in the wind by Lincoln's beard or Teddy Roosevelt's chin? (No, but he was young and less thoughtful.) Did it get unbearably cold? (Never enough to need long underwear.) To those curious about his place in history, he says little. Would he liken himself to those who laboured at Stonehenge, the pyramids or China's Great Wall? He hasn't considered it.

A ranger addresses one topic he neglects. Mount Rushmore arguably produces the greatest returns of any public project, he tells a small crowd. The grand scheme finished under-budget and earlier than many expected. It cost less than $1m (in 1940s money) and even posted back a $388 surplus to the federal government. The site now draws 2.3m tourists yearly, quite a boon in a rural spot. Visitors may come for centuries yet. After the dust settled, Mr Clifford and his fellow workers left a towering legacy. ■

Puerto Rico

What now?

SAN JUAN

The political crisis continues in America's biggest territory

TEÓFILO TORRES sits on a coffin, leaning against a Puerto Rican flag. He is dressed as Pateco, the gravedigger. According to folk history, Pateco buried the dead from Hurricane San Ciriaco, which ravaged the island in 1899. "I already buried Ricky Rosselló," he says. "This is the coffin for Wanda."

"Ricky", or Ricardo Rosselló, the island's governor, announced his resignation on July 24th. Wanda Vázquez, the justice secretary, was theoretically next in line, though she says she does not want the job. Then on July 31st Mr Rosselló nominated Pedro Pierluisi, who lost to him in the 2016 primaries, to replace him. As *The Economist* went to press on August 1st, Mr Pierluisi nomination process was just starting and seemed sure to be contested in the legislature. It was unclear who will actually sit in the governor's mansion next. Mr Rosselló's resignation, which came after weeks of protests sparked by the leaking of text messages in which he mocked his constituents, has pushed America's biggest territory into a succession crisis.

Removing Mr Rosselló was cathartic, but Puerto Rico has deeper problems. It has suffered from years of economic mismanagement, a bloated public sector and high levels of poverty. The island has long failed to capitalise on its many assets, from its natural beauty to the artistic creativity of its people, which was on display in the placards, costumes and music of the protests. Hurricane Maria, which hit in 2017, made things worse, sparking mass emigration to the United States mainland. The government debt, which exceeds $120bn, including pension liabilities, is suffocating. The Washington-appointed Oversight Board has completed two deals to restructure some of the debt this year.

Mr Rosselló's departure has focused attention on one of Puerto Rico's most significant problems. Fuelled by two-party machine politics, corruption has been endemic for generations. Politicians on both sides offer sweetheart deals to their friends in business, which in turn generates the money needed to get elected. "The political system basically created an institutional infrastructure that promotes behaviour which will lead to corruption sooner or later," explains José Villamil, an economist.

On July 10th the FBI arrested six individuals, including two members of the administration, for directing $15.5m to favoured businessmen. Douglas Leff, head of the San Juan division of the FBI, told Radio Isla: "It's going to be a very busy summer for us." A week later the Centre of Investigative Journalism (CPI, from its Spanish initials), which originally published the leaked messages that led to the governor's downfall, reported that three of his associates, Elías Sánchez, Carlos Bermúdez and Edwin Miranda, had benefited in various ways from their friendship with Mr Rosselló. All three deny wrongdoing.

If Mr Pierluisi's appointment is blocked, finding a better replacement for Mr Rosselló could be hard. Few prominent politicians are free from accusations of corruption. It is not just Ms Vázquez who does not want the job of being governor. Several others have ruled themselves out until Puerto Rico holds elections in 2020. Taking the job is "political suicide", says Carla Minet, the chief editor of the CPI.

Whoever becomes governor, they will need to work to dismantle the system of patronage that has built up over years. Apart from the practice of favouring allies with government contracts, politicians have a habit of replacing officials across the government machinery with their own cronies every time there is a transfer of power. That means a loss of expertise each time.

The new governor will not find things easy. Reform is not always popular, especially in the public sector, which is a sore point for many Puerto Ricans. The protests that helped pushed out Mr Rosselló could easily restart. Traditionally Puerto Rico's people have split between those who support statehood and those who are happy to see it remain a commonwealth, under American jurisdiction but with no vote in Congress. But anger with the government has unified both sides.

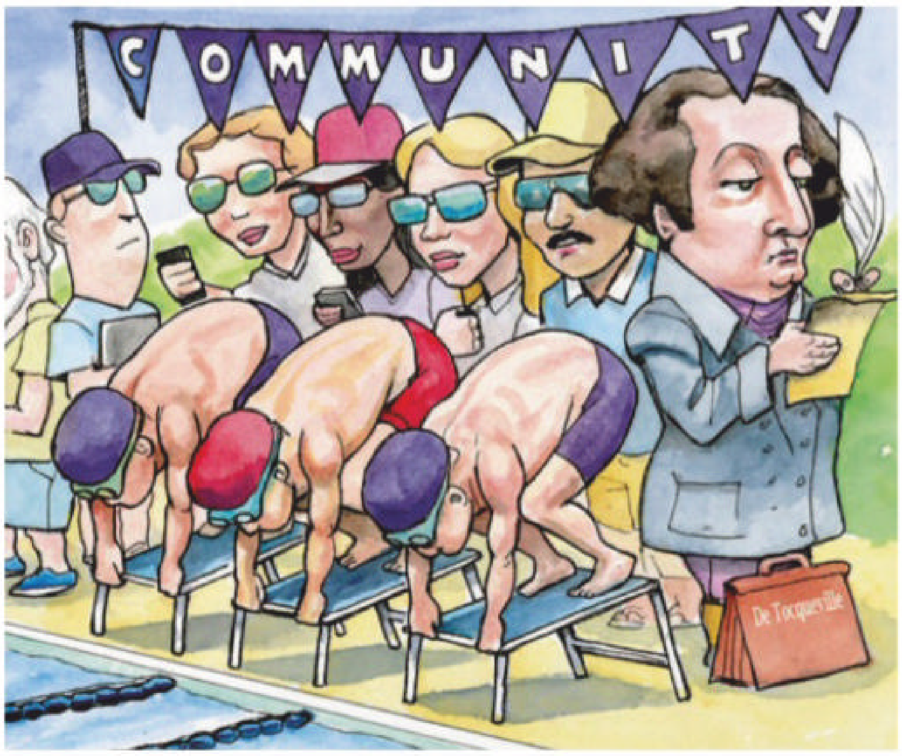
For now, the mood on the island is elation. "People are not sleeping any more", says Gerardo Alvarado León, a reporter for *El Nuevo Día*, a newspaper, fresh from his first solid night's sleep in weeks. But when the buzz fades, Puerto Ricans will need to find other ways to keep up the pressure. Ending graft will require deep civic engagement. The creativity shown in the protests will go far. After years of tolerating corruption, Puerto Ricans have decided they will no longer put up with it. They need a leadership which agrees. ■

A new sort of politics


NTT
Revolutionizing
the fan experience
of the Tour de France
50 Km
dimension data
It's been a privilege to partner with the Tour de France - first as Dimension Data, and now as NTT. In July this year, we combined the capabilities of 28 remarkable companies to create a new NTT.
We're excited about the journey ahead as we continue to innovate and reshape how fans experience the Tour de France.
Visit global.ntt/tdf to see how we're using technology to transform the world of professional sports.
Follow live data reporting on @LeTourData.

Lexington | The mighty Dolphins

Lessons in national well-being from a well-run neighbourhood swim team



The Dolphins contested their final meet of the summer last weekend. It was an away contest—so held at the neighbourhood pool of a different Maryland suburb from Lexington's own. Yet it was much the same as the dozen meets, home and away, his local swim team had competed in since mid-June. There was an early start, with swimmers aged 6-18 required for warm-up laps by 8am. Swim parents—mostly both parents of each Dolphins swimmer—meanwhile gathered in knee-length shorts and polo shirts to commiserate one another on the early morning scramble.

Then there was the national anthem—typically sung by a child (because how many adults can manage "and the rockets' red glare..."?) but this time played by a teenage swimmer on her cello. Several hundred parents and children turned solemnly towards the national flag, hanging limp by the pool, with hands and goggles on hearts. Then, to a burst of pop music and cheesy wisecracks from the announcer, starters, timers and stroke-and-turn judges took their places, and the first row of swimmers took their marks.

Of the many benefits America has bestowed on your (British) columnist, few beat the Dolphins. The neighbourhood swim team is one of his family's main shared activities. (The feeling of amused satisfaction as the boys' hands reach for their hearts during the anthem never fades.) It also affords them superb competition—powered by its local teams, swimming is huge in Maryland; its swimmers won more golds at the 2016 Olympics than Australia. The Dolphins and their home pool on the edge of Washington, DC, are also a source of friendships. Part-funded by a portion of the local property taxes, they are the heart of a community that is surprisingly close-knit given how busy and itinerant its residents are. This makes the Dolphins an example of Tocquevillean America: a nation of strong communities founded on voluntary service. Well-heeled suburbs are where it still thrives.

That might seem unlikely. American wonks have fretted about declining civic participation since the publication of Robert Putnam's groundbreaking study, "Bowling Alone", two decades ago. The main explanations included growing work pressure—mainly because of women's entry into the workforce—and the decline of social institutions such as mainline protestant churches. And as those factors have proved unremitting, so the decline has continued. Figures released by the Bureau of Labour Statistics suggest a quarter of Americans volunteer for community or charitable endeavours, a proportion that is high by rich-world standards; but America's lowest level for two decades. Most troublingly, the decline is steepest in small towns and rural areas whose communities were once ironclad. Yet the overall volume of voluntary service has held up, in part because well-educated suburbanites such as your columnist's neighbours are doing more of it.

The effort behind the Dolphins illustrates this. The team's director, Jeff Mascott, estimates that almost all the parents of around 100 swimmers contribute somehow (and he knows who does not). Around 30 have a formal role; a similar number volunteer informally, as timers or by providing meals. The uncommon property-tax arrangement is a huge advantage. Yet the biggest investment in the team is parental time.

This setup gives rise to a few heroes. When not running the Dolphins—and until recently the local road race, a soccer team and various things at church—Mr Mascott manages a company and four children (his wife is merely a law professor who helps with IT for the Dolphins and sits on the board of the local school foundation). Otherwise, for most of the parents involved volunteering for the Dolphins is not at all altruistic because the benefits are so large. The company of broadly like-minded people is amusing (and could constitute useful networking). As well as being great fun, the team is likewise a lesson for the children in building social capital. For working parents, its daily training sessions are a solution to the long school-holiday.

The fact that less well-educated Americans have struggled to replace their dwindling Methodist churches and labour unions with neo-Tocquevillean projects like the Dolphins underlines how inadequate income is as a measure of inequality. Social capital is a huge contributor to well-being that more and more Americans are missing out on. This will weigh on their children's prospects, too. Lacking experience of social institutions, they are less likely to participate in them. It is a sobering comparison with the lucky Dolphins—made worse by the fact that such community activities, though not obviously a cause of inequality, are much less of a solution to it than the earlier social institutions. The churches and unions were far more powerful—and also inclusive and evangelising (though non-whites were often excluded). The swim team is only open to people able to afford the local property prices.

A lucky stroke; a poor turn

In other words, American civil society is not so much declining as bifurcating; just as work and educational opportunity is. Privilege and disadvantage are becoming entrenched. That suggests it will be hard to rebuild social capital where it is fading fastest. Its demise is part of a broader story of stagnant wages, poor schools and shaky confidence—which, in turn, will take more than a renewal in local organising to arrest. Yet that is still an important goal. And the vibrant social institutions of privileged Americans should at least be easier to spread around than their other advantages, because they draw on such well-established traditions.

More than money, they require local leadership and enthusiasm, qualities as old as America. And, as the country's still-high rates of volunteering show, they remain characteristic of it. For a newcomer to the Tocquevillean tradition, that is the most striking thing about a local effort like the Dolphins. It represents a culture that simply does not exist anything like so vigorously in most other countries. It is America, for richer or poorer, at its best. ■

Honduras

The humbling of Hernández

TEGUCIGALPA

The strongman of the northern triangle is losing his strength

LIKE MOST citizens of Central America's northern-triangle countries, Hondurans have reasons to flee. Gangs terrorise them. Jobs pay poorly. Many of the half-million Hondurans in the United States urge relatives to come. Since October, Mexican and American border agents have detained a 30th of Honduras's population. On July 26th Guatemala and the United States signed a safe-third-country agreement, the main aim of which is to oblige Hondurans who wish to seek asylum in the United States to do so in Guatemala first. That is unlikely to stop the exodus.

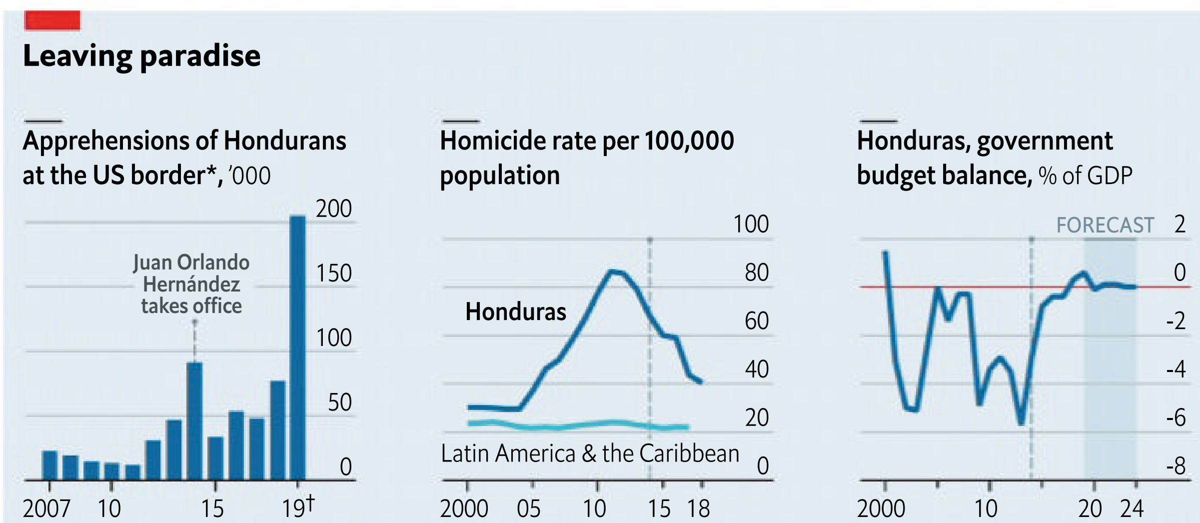
Honduras at least has strong leadership, or so it once seemed. Guatemala's ineffectual president, Jimmy Morales, a former comedian, will soon hand power to the winner of an election to be held on August 11th. El Salvador's new president, Nayib Bukele, is energetic but has little support in congress. Juan Orlando Hernández, Honduras's president since 2014, was thought to be the region's political genius, endowed with a preternatural talent for keeping and wielding power.

He lived up to that reputation in his first term. Honduras had the world's highest murder rate when he took office, though it was falling. He lowered it further and curbed cocaine-trafficking with new taxes to pay for more security spending (see chart). He purged corrupt police officers and extradited criminals to the United States. He lengthened the school year and cut the budget deficit. He dealt smartly with crises. A scandal in 2015 prompted demonstrations against his presidency. He quietened them by inviting the Organisation of American States to set up an anti-corruption body, called MACCIH.

Mr Hernández's Machiavellian masterpiece was to position himself to run for re-election, which was disallowed by the constitution until 2015, and then to win in 2017. But his victory followed a contest marred by breakdowns in ballot counting, suspicions of fraud and the deaths of protesters. That is when his problems began.

A Gallup poll in May found that 86% of Hondurans believe that the country is on the wrong track, up from 60% in 2017. Mr Hernández's net approval rating dropped from +31 to -17. The left-wing opposition, which lost the election in 2017, remains convinced that it was stolen. More worrying for the president, his own centre-right National Party (PN) is turning against him. In past elections it has defeated a divided opposition by staying united, says Raúl Pineda Alvarado, a former PN congressman. Now the PN itself is split.

Many PN politicians think Mr Hernán- ▸▸



Sources: US Customs and Border Protection; Igarapé Institute; IMF
*Fiscal years ending Sept 30th †October-June

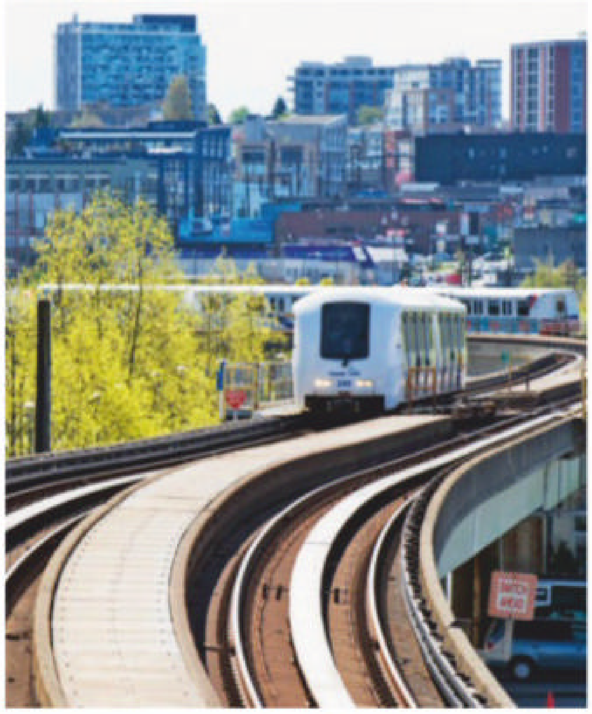
dez is betraying them. MACCIH is locking up its members, including the wife of Mr Hernández's predecessor, Porfírio Lobo. Business people, once friendly to Mr Hernández, grumble about slowing growth, corruption and rising taxes. Middle-class Hondurans pay twice for basic services, through taxes and again by spending money on health and security because the state's provision is so bad, says Pedro Barquera, the head of the chamber of commerce in the state of Cortés. The attorney-general has accused the army top brass, who are among Mr Hernández's staunchest allies, of refusing to co-operate with his investigation into the shooting of protesters after the election. That has enraged the generals, who expected the president to protect them as they have protected him.

Grief may have weakened the president. His sister, Hilda, died in a helicopter crash in 2017. She had managed the government's communications and was one of the few advisers to whom Mr Hernández listened. His brother, Tony, was arrested in the United States last year on drug-trafficking and weapons charges. He has pleaded not guilty. His trial, which begins in October, could embarrass the president.

Mr Hernández's writ no longer runs. In April congress passed reforms to end the practice of paying phantom teachers and health-care workers and to prevent union bosses and politicians from giving jobs to their cronies. The law provoked protests, starting at universities and spreading. People close to Mr Hernández say that PN bigwigs paid for some of the protests. Congress unanimously repealed the law.

These setbacks have fed speculation that Mr Hernández may not finish his term, which ends in 2022. On June 19th, as protesters prepared to commemorate the ten-year anniversary of Honduras's last military coup, history nearly repeated itself. The military police refused to carry out "repression" and stayed in their barracks. Lorry drivers, angry about a rise in fuel prices, blocked roads around Tegucigalpa, the capital. Rumours circulated that generals and business people were joining purged police officers to topple the government.

If Mr Hernández does hang on, he can still do some good. Most important is to ensure that the next election, in which he has promised not to run, is a clean one. It "has to be transparent, with no doubt about the process", says Roció Izabel Tábora, the finance minister. That will require a new law to overhaul the electoral system that is more ambitious than one being considered. And another test will come before MACCIH's mandate expires in January. Mr Hernández will face pressure from his party to expel it or weaken its mandate. Hondurans hope he will not. What they want from him in his final years in office is less Machiavelli, and more morality. ■



Uber in British Columbia

Stop and go

VANCOUVER

A hold-out province gives ride-hailing a cautious go-ahead

IF YOU LOOK Chinese and speak Mandarin you can summon a ride in Vancouver by using an app, as long as it's Chinese. The drivers normally call to confirm the order, says Daniel Merkin, who lives in the Canadian city. "Sometimes they'll hang up on me when they realise I don't speak Mandarin," he says. But he keeps trying, because popular ride-hailing services, such as Uber and Lyft, are not available. Vancouver is the only big North American city where they do not operate. The Chinese service is not legal, but it is tolerated.

Mr Merkin hopes that his options will soon expand. In July the province of British Columbia, which licenses drivers, said it would allow the big ride-hailing services in. They could start operations by late September. But British Columbia has made their entry difficult by requiring drivers to hold commercial licences. That may deter part-timers who provide much of the services' workforce. Lyft does not operate in places that require such licences.

The regulators have reason to proceed cautiously. In many cities where ride-hailing has taken off, congestion has worsened and use of public transport has dropped. In San Francisco, congestion, as measured by extra time required to complete a journey, increased by 60% from 2010 to 2016, according to Greg Erhardt, a professor at the University of Kentucky. More than half of the rise was caused by the growth of ride-hailing. Population and employment growth accounted for the rest. Ride-hailing led to a 12% drop in ridership on public transport in the city. San Francisco's experience is a "cautionary tale for Vancouver", says Joe Castiglione, who analyses data for its transport authority.

Even without Uber and Lyft, Vancouver is one of North America's most traffic-jammed cities, in part because its downtown is small. Ride-hailing might worsen congestion. Its absence has made Vancouver one of the few North American cities where public transport is attracting more passengers. The number of journeys started on TransLink, the city's public-transport system, rose by 7.1% to 437m in 2018, making it "another record-breaking year" for the network of buses and trains. From 2016 to 2018 the number rose by 18.4%. British Columbia's higher petrol prices and growth in employment and population explain some of that rise. Not allowing Uber and Lyft helped, says Andrew Curran, TransLink's head of policy. (It has also boosted car-sharing services, which let people book vehicles they drive themselves. Vancouver has 3,000 cars that can be hired for such services, double the number in San Francisco, which has more people.)

Vancouver was among the first cities Uber tried to enter, in 2012, and "the first city that Uber ever left", in the same year, says Michael van Hemmen, who leads the company's operations in western Canada. Forbidding rules, such as classifying it as a limousine service, which for some reason must charge a minimum of C$75 ($57) per trip, killed its business. British Columbia is now inviting it back to Vancouver (and other cities in the province) in hopes of complementing its public-transport system rather than undermining it. It will not be classified as a limousine service.

Mr Curran says ride-hailing could increase use of public transport by ferrying people from their houses to a bus or train stop. It could also improve transport for people with disabilities. Currently, TransLink hires taxis to give door-to-door rides to some disabled people. The requirement for drivers to have commercial licences will contain the services' growth and protect taxi-drivers, ride-hailing's fiercest foes, or so the province hopes.

But the commercial-licence requirement could have the opposite effect. Analysts think it will reduce the number of drivers available to pick up passengers in distant suburbs. Instead, they will cluster in the centre. Some of Uber's future competitors say they are not worried. The commercial-licence rule will discourage most drivers, believes Chris Iuvancigh of Sharenow, which runs Car2go, one of Vancouver's four car-sharing services. A driver who offers rides in his Mercedes SUV to people who hire him via WeChat, a Chinese app, thinks they will stay loyal. If ride-hailing does come to Vancouver, he predicts, it will just slow their journeys down. ■

Peru

Martín's manoeuvre

LIMA

The president wants to end the current congress, and his presidency

MARTÍN VIZCARRA, Peru's mild-mannered president, knows how to spring a surprise. As he wound up his 94-minute Independence Day speech to congress on July 28th, he called on lawmakers to end their terms, and his, a year early by voting to hold a general election next April. Peru's 32m citizens are crying out for "a new beginning", the president declared. They should decide the country's destiny "even if this means that all of us have to go".

Mr Vizcarra's gambit is a sign of frustration. He became president 16 months ago, when his predecessor, Pedro Pablo Kuczynski, was forced out of office over allegations that he had helped secure public contracts for Odebrecht, a Brazilian construction firm that has bribed officials and politicians across Latin America. Mr Vizcarra has spent most of that time trying to reform a political and judicial system so rotten that all living former presidents are under house arrest, in jail or trying to avoid that fate. Congress, whose largest party is the opposition Popular Force (FP), has tried to stop him.

It has not succeeded entirely. Last year congress reluctantly passed four reforms of politics and the judiciary. Three of those were enacted after a referendum in December. They included barring sitting congressmen from being re-elected. In April this year Mr Vizcarra submitted another 12 political reforms. When congress resisted he selected six that he deems vital. His priority is to empower a committee chosen by the supreme court to decide whether a lawmaker charged with a crime would lose immunity from prosecution. Now, congress itself makes that decision. It has so far refused to enact Mr Vizcarra's proposal and has modified other reform ideas. For example, it has delayed by ten years until 2031 the date for requiring parties to field equal numbers of male and female candidates.

Until now, Mr Vizcarra has tried to deal with congressional intransigence by submitting his government to votes of confidence. These operate under peculiar rules in Peru. A first government defeat in a presidential term leads to the dissolution of the cabinet and the appointment by the president of a new one. That happened in September 2017, when Mr Kuczynski was still president (and Mr Vizcarra was vice-president). A second would trigger not only the cabinet's downfall but congressional elections, while leaving the president in office.

Mr Vizcarra used the leverage this gives him in September last year. Congress voted its confidence in his government, then enacted the first set of reforms he sought. He tried the same tactic in June this year, with less effect. Congress backed the government but thwarted some reforms. Hence Mr Vizcarra's call for new general elections.

What will happen now is uncertain. Opposition lawmakers want to get rid of the president without leaving office themselves. Tamar Arimborgo, an FP congresswoman, called him a "dictator" for advocating early elections. His foes could try to impeach him. The vice-president, Mercedes Aráoz, would then take his place.

But the constitution makes it hard to take out the president in a surgical strike. If Mr Vizcarra resigns, and induces Ms Aráoz to follow, the president of congress would be obliged to call general elections. Mr Vizcarra could call for a third vote of confidence. This would put congress in a quandary. An endorsement of the government would clear the way for the early vote that Mr Vizcarra wants. A no-confidence vote would allow him to call for a new legislative election. In either case, the 130 lawmakers would be out.

One way or another, Mr Vizcarra and the current congress may well be gone next year. Government ministers argue that the country cannot afford another two years of gridlock. The economy is adrift. GDP expanded by 1.5% in the first five months of 2019, compared with 4.9% in the same period a year ago, according to the central bank. Mr Vizcarra is right to say that Peru needs a functioning government.

But it is not clear that fresh elections will provide one. More than 20 political parties are registered to put up presidential and congressional candidates. Many have been tarnished by the Odebrecht scandal. FP and APRA, another leading opposition party, have no credible presidential candidates. FP's founder and leader, Keiko Fujimori, has been in detention since October awaiting trial for accepting illegal contributions from Odebrecht in 2011, when she ran the first of two losing presidential campaigns. APRA's long-time leader, Alan García, a former president, committed suicide in April this year as he faced arrest for taking bribes from the Brazilian firm.

Mr Vizcarra does not have a party or a political heir. When Ipsos, a pollster, asked Peruvians recently for their views on 16 politicians, just one had an approval rating of higher than 10%. That was George Forsyth, a former football goalkeeper who since January has been mayor of La Victoria, a district of Lima, Peru's capital. A third of Peruvians support no politician. Mr Vizcarra's proposed election, if it happens, would be a leap into the unknown.

He knows that the way out of Peru's impasse is better political parties and leaders. Unfortunately, it is being barred by the very system he wants to change. ■

Art that moves

On their way into or out of the Simón Bolívar International Airport in Caracas passengers often pause to photograph themselves and each other before murals so vivid they seem to breathe. They are the work of Carlos Cruz-Diez, a Venezuelan artist who died on July 27th. Mr Cruz-Diez, who spent most of his career in Paris, helped invent "kinetic art", which appears to move. His work gives Venezuelans, who are enduring dictatorship and economic collapse, something to celebrate.

Politics in Singapore

Hazy

SINGAPORE

Even Singapore's ruling party struggles to plan for everything

THE ROAR of a fighter jet cuts through the gentle hubbub of a business lunch. Intrigued diners turn to the window, trying to spot it beyond Singapore's gleaming skyscrapers. Fly-bys are part of rigorous preparations for the 54th anniversary of Singapore's independence on August 9th. Nothing is left to chance. The forethought reflects the Singaporean government's broader approach.

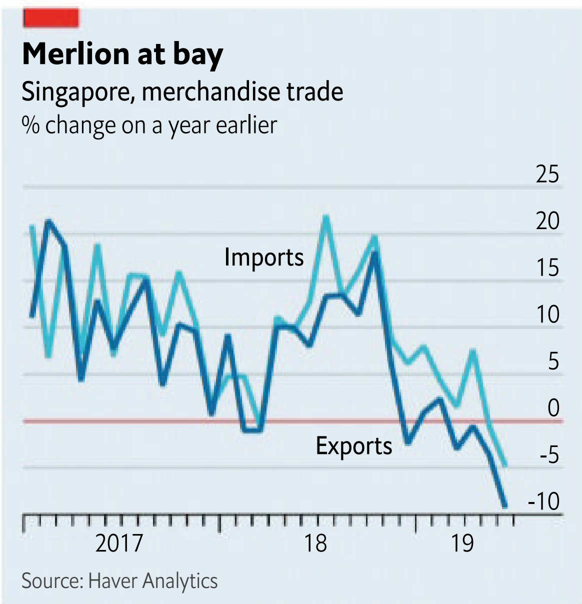
Elections, for example, also run seamlessly. Singapore's next one need not be held until early 2021, but it is likely to take place sooner. It is also probable that the People's Action Party (PAP), in power since 1959 (when Singapore was still a British colony), will triumph once again. But thereafter confident predictions diminish. Knowing the true state of the government's popularity is difficult, since the local press is largely state-owned and timid.

Recent elections offer a mixed view. In 2011 the PAP achieved its worst result since 1965, winning 60% of the popular vote but still retaining 93% of seats in parliament. Four years later it did far better, winning almost 70% of the vote. But 2015 was also the 50th anniversary of Singaporean independence and the year in which its chief architect, Lee Kuan Yew, died. The next election will show whether the surge in the PAP's support was a patriotic anomaly.

Two sets of challenges could undermine the PAP's careful planning for polling day. The first touches on the longevity of the party itself. Last year in neighbouring Malaysia (of which Singapore was briefly a part), the ruling United Malays National Organisation was unexpectedly defeated in an election, putting an end to its six decades of uninterrupted sway. Malaysians summoned up the courage to rock the boat—something Singaporeans are frequently advised against by their government—without causing it to capsize. That leaves the PAP vying with the Communist Party of Vietnam for the title of South-East Asia's ruling party of longest standing. It is an awkward juxtaposition.

The prime minister, Lee Hsien Loong, who is the son of Lee Kuan Yew, has been in his post for almost 15 years. (That is less than half the time that his father held the job.) He is expected to lead the party through the next election and then step down before his 70th birthday in 2022. His anointed successor, Heng Swee Keat, a competent if uninspiring technocrat, was promoted to the position of deputy prime minister in May.

The succession has been less smooth than usual. The prime minister's own brother became a loud critic of the government after a very public family spat over Lee Kuan Yew's house two years ago. "Today's PAP is no longer the PAP of my father," he declared in recent days. "It has lost its way." A new political party—the Progress Singapore Party—is led by another former insider unhappy with the way the country is being run. Tan Cheng Bock was a member of parliament for the PAP for 26 years. "I worry because I see the foundations of ▸▸



good governance eroding," Dr Tan declared on July 26th.

The second potential impediment to another easy electoral triumph for the PAP is the economy. According to official estimates, Singapore managed year-on-year growth of just 0.1% in the second quarter. It is the most meagre expansion for a decade and follows a disappointing first quarter, too. (Last year the economy grew by about 3%.) The country's electronics industry has been hit badly by the global downturn in demand for gadgets. As of June, the value of electronics exports had fallen by more than 30% compared with a year earlier.

The trade war between America and China is making matters worse. Singapore is a trading entrepot, with a big and busy port. But China, Singapore's biggest trading partner, is also suffering from a slowdown, with growth at its lowest level in decades. No wonder Singapore's imports and exports are contracting (see chart).

The timing of the election may turn on when (or whether) the economy picks up. The government has plenty of scope to stimulate it, by spending more on infrastructure and its ageing population. The budget is in surplus, albeit only narrowly. Moreover, the government remains a big shareholder in many of Singapore's largest firms, which gives it a say in their investments and hiring. The PAP has a record of excellent economic management. Mr Heng, for example, burnished his reputation by running the Monetary Authority of Singapore, the central bank, during the financial crisis of 2007-08.

Singapore's transformation from a resource-poor island into a wealthy city-state is proof of the strength of the PAP's planning. But the wealthier countries become, the slower they tend to grow. The big question is whether Singaporeans accept that the PAP cannot preside over breakneck growth forever. Government handouts may soften the blow. If Mr Lee announces generous ones at the National Day Rally later this month, consider it the start of another meticulous election campaign. ■

Aboriginal rights in Australia

Waiting to be heard

SYDNEY

The government wants to amend the constitution, but is not sure how

THE OUTBACK town of Dubbo in May unveiled one of Australia's few public statues of an Aboriginal (pictured). William Ferguson, a pioneering campaigner for Aboriginal rights, founded an organisation in the town in 1937 to fight government interference in Aboriginals' lives. The following year, as Australia marked the 150th anniversary of British settlement, Mr Ferguson and other Aboriginals held a "Day of Mourning" in Sydney. "Surely the time has come at last for us to do something for ourselves," he told that gathering, "and make ourselves heard." Aboriginal activists are still campaigning, this time for a "voice to parliament", a body to advise governments on policies that affect indigenous people. However the government, a coalition of two right-wing parties, won't hear of it.

More than 3% of Australia's 25m people are Aboriginals. Their forebears lived in Australia for perhaps 60,000 years before the British arrived in 1788. Unlike New Zealand's, Australia's colonisers never signed any treaties with the original inhabitants. Instead, they first openly persecuted them and then abused them in the name of civilising them. Today, Aboriginals tend to die younger than other Australians and spend more time in prison before they do, among other blights. Successive governments' efforts to improve their circumstances have disappointed, in part, Aboriginal leaders contend, because Aboriginals do not have enough say in the design of such policies.

In July Ken Wyatt, the minister for indigenous Australians, announced that the government would, by the end of its three-year term in 2022, hold a referendum on giving "constitutional recognition" to Aboriginals. (The constitution used to mention Aboriginals as being under the jurisdiction of state governments and not to be counted in the census, but since a revision in 1967 does not mention them at all.) Aboriginal leaders want the new amendment to be more than symbolic. Two years ago activists held a "National Constitutional Convention" at Uluru (Ayers Rock) in central Australia to discuss what it should entail. They called for "power over our destiny" and for a "First Nations Voice enshrined in the constitution".

Labor, the main opposition party, supports the idea of an advisory body with a constitutional underpinning, to protect it from what Linda Burney, its shadow minister for indigenous affairs, calls the "whim of any government". She recalls how a previous right-wing government simply abolished a commission charged with protecting Aboriginal interests 14 years ago. The government, however, has dismissed the "voice", as a third chamber of parliament. Conservative commentators say creating such a body would flout racial equality by giving special rights to Aboriginals.

Murray Gleeson, a former chief justice, has assailed such arguments. "What is proposed is a voice to parliament, not a voice in parliament." To him, such an idea "hardly seems revolutionary". On the contrary, he says, it would be an "appropriate form of recognition". What the government considers appropriate is less clear. Mr Wyatt has promised to work with Ms Burney to craft a proposal. Both are Aboriginals—a breakthrough in itself. The debate about the voice, Ms Burney says, will be "the story of this term of government". ■

Surely the time has come

Japanese with disabilities

Chairbound but seated

TOKYO

Voters send two politicians in wheelchairs to parliament

WHEN YASUHIKO FUNAGO was diagnosed in 2000 with amyotrophic lateral sclerosis (ALS), better known as Lou Gehrig's disease, a degenerative illness with no cure, he went through a period of complete despair. In late July, nearly two decades later, crowds cheered as he became the first ALS patient to be elected to Japan's parliament, the Diet. "I am full of emotions that this moment has arrived," Mr Funago said in a speech read out by his helper. "I may appear weak, but I have more guts than others as it has been a matter of life and death for me."

Mr Funago, a member of the opposition group Reiwa Shinsengumi, is one of two wheelchair-bound lawmakers to win seats in the upper house in elections on July 21st, along with Eiko Kimura, who is paralysed from the neck down. Disabled people are 7.4% of Japan's population, but Mr Funago and Ms Kimura will be the only two of the Diet's 713 members in wheelchairs. Only a handful of disabled people have ever won seats. (The 535 members of America's current Congress, by contrast, include at least four people who have lost arms, legs or an eye, among other disabilities.)

"Japanese politics is still centred around able-bodied men," says Jun Ishikawa, head of a government commission on disabilities. Political parties do not field many disabled candidates. The authorities tend to hide people with disabilities away in institutions, secluded from the rest of society. Students with special needs usually attend special schools. "Japan has focused more on creating segregated institutions than integrating the disabled into local communities," says Mr Ishikawa. This has bred stigma and isolation.

The government has been slow to admit the problem. It took seven years to ratify the UN Convention on the Rights of Persons with Disabilities, making it the 140th country to do so. It did not agree until this year to pay compensation to thousands of people with disabilities who were forcibly sterilised under a eugenics law that was only repealed in 1996. Last year several government agencies were found to have falsified the number of disabled people they employ, in some cases for decades, to meet official targets, instead of just hiring more. Prejudice against the disabled has also turned violent. Nineteen people at a care facility in Sagamihara, south of Tokyo, were fatally stabbed in 2016 by a man who "wanted disabled people to disappear".

With the election of Mr Funago and Ms Kimura, many are hopeful for change. "It's definitely a step up from before," says Mr Koji Oyama of the Japan ALS Association. The two new lawmakers have vowed to push for more inclusive education and better health care for the disabled. At the very least, they are changing the Diet, where alterations under way will improve wheelchair access and rules are being amended to allow carers into closed meetings. ■

Public health in Indonesia

No smoking without a fire

JAKARTA

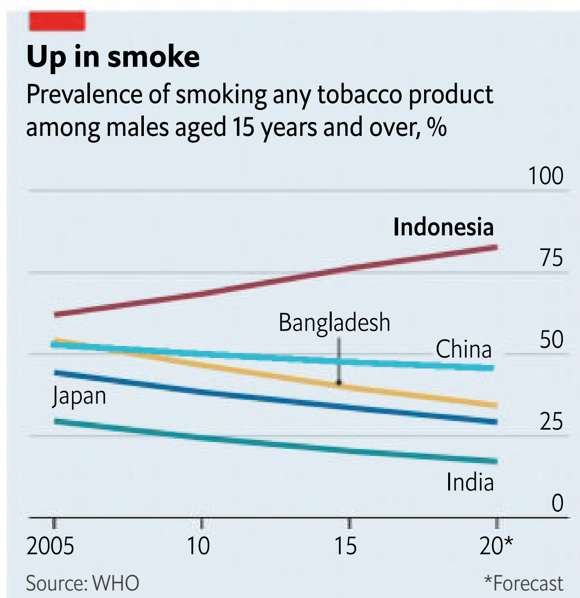
The government seeks to curb e-cigarettes, but not the normal sort

SOUNDING MORE like an anguished health worker than a profit-seeking businessman, James Monsees delivers his pitch to a crowded ballroom in Jakarta. The e-cigarettes made by his company, Juul Labs, can save smokers from an early death, he insists. Pointing to government-backed studies from Britain and elsewhere, Mr Monsees argues that e-cigarettes, which heat a liquid laced with nicotine into a vapour that can be inhaled without actually burning anything, are far less harmful than normal cigarettes. "We can have one of the largest positive public-health impacts in history," he enthuses.

Indonesia could certainly do with a boost to public health. Around 75m of its 189m adults smoke, according to the World Bank, a higher number than in any other country bar China and India. Smoking rates among men (76%) are the second-highest in the world after Timor-Leste, which itself used to be part of Indonesia. What is more, they are rising, unlike in most Asian countries (see chart). Euromonitor, a research firm, reckons Indonesians spend a hefty $25bn or so a year on cigarettes, including *kretek*, local favourites which contain cloves as well as tobacco and are especially unhealthy.

Needless to say, Indonesia's tobacco companies do not share Mr Monsees's dream of a smoke-free Indonesia. The big ones—Sampoerna (owned by Philip Morris), Gudang Garam, Djarum and Bentoel (owned by British American Tobacco)—form a weighty lobby. The industry pays a big chunk of the country's taxes and employs around 6m people.

That may help explain the authorities' ▸▸



apparent reluctance to stub out smoking, even though the World Health Organisation says smoking-related diseases claim around 225,000 lives across the archipelago each year. Indonesia is one of fewer than ten countries to refuse to sign the WHO's convention on regulating tobacco. Around 21% of 13-15-year-old boys smoke and there are no penalties for selling tobacco to minors. Cigarettes are cheap (a pack of 20 costs around $2). Tobacco firms promote their wares in slick television advertisements showing manly pursuits. They sponsor sports tournaments and other events where scantily clad marketing girls hand out free samples. Smokers are allowed to light up in many public spaces.

Despite the widely accepted benefits of switching to e-cigarettes, the government sought to ban the first ones to arrive in the country on health grounds. The trade minister, Enggartiasto Lukita, memorably told people using e-cigarettes to smoke conventional cigarettes instead to preserve jobs for tobacco-growers. In the end the government backed away from a complete ban, but it has imposed onerous restrictions. Distributors have to secure lots of government approvals, a big hurdle for the small firms that dominate the market. Worse, last year the government slapped a 57% excise tax on e-cigarettes and liquids. That leaves Juul and other e-cigarette-makers chasing a relatively small number of rich smokers. The total market for e-cigarettes remains trifling in comparison with sales of the normal sort, at about $200m a year, according to Euromonitor. In fact, none of the big tobacco firms bothers to sell e-cigarettes in Indonesia, even though Sampoerna's American parent offers "heated tobacco" products in other markets. ■

Banyan Cha-cha check

Rodrigo Duterte's ambition to amend the constitution appears to be evaporating

For all his foul tongue, his habit of comparing himself to Hitler and Idi Amin and his loud encouragement of death squads that so far have killed over 20,000 supposed drug dealers, Rodrigo Duterte campaigned on a big idea when he ran for the presidency of the Philippines in 2016. He promised a new constitution that would reshape the country, turning it into a federation rather than, as it is today, a unitary state ruled from Manila by politicians and bureaucrats who, many Filipinos believe, wield far too much power.

As recently as last year Mr Duterte still seemed to be gunning for "cha-cha" (charter change). He had formed a committee to draft a new constitution. The committee had sent its draft, which envisaged a federation of 18 regions, to Congress. In his state-of-the-nation address a year ago, the president expressed confidence that Filipinos wanted a new constitution. He promised it would strengthen democratic institutions and spread prosperity more fairly.

Mr Duterte had a narrower objective, too: to resolve once and for all Muslim separatism on the island of Mindanao, over whose biggest city he presided for decades as mayor. Eleven years ago the Supreme Court nixed a deal which gave an expansive form of autonomy to some Muslim parts of Mindanao on the ground that the arrangements in effect created a state within a state and thus contravened the constitution.

Yet in this year's address, on July 22nd, just a couple of months after elections secured Mr Duterte a strong majority of loyalists in the Senate for the first time, not a peep about a new constitution. Why?

One reason is lack of time. Mr Duterte is already halfway through the single term to which the constitution limits him. He is ill and tired. Some doubt that he will serve his full six years. And when the draft went to Congress, the federation idea hit a big practical obstacle: Congress could not agree on the best procedure for reforming the constitution.

In theory, with the Senate now firmly in Mr Duterte's camp, obtaining an agreement should be easier. Yet there are other snags. If Congress declares itself a constituent assembly, it is not limited to considering the draft suggested by Mr Duterte's committee: it can do what it likes with the constitution. The House of Representatives, for instance, has eagerly voted to strike out provisions in the existing constitution which impose term limits on elected officials and seek—largely unsuccessfully—to curb the establishment of political dynasties.

There is thus a reluctance among some politicians and many voters to let Congress even begin tinkering with the constitution. Besides, it is far from clear what the criteria should be when drawing the boundaries of new states. In such a far-flung archipelago, language often defines regions more than any other factor. But should language regions be preserved whole or divided? There is no consensus. Meanwhile, despite "imperial" Manila's supposed dominance, many parts of the Philippines are still, in effect, independent fiefs run by big landowners, powerful local clans, governors or mayors backed by private armies, garrison commanders, police chiefs, criminal gangs, communist rebels or jihadists. Many who live in such places would presumably welcome more of the central government's writ.

As for Mr Duterte's most pressing concern, autonomy for mainly Muslim parts of Mindanao, circumstances have changed. A more comprehensive peace agreement with the main insurgent group in 2014 is being implemented without any objection from the Supreme Court, which is ever less inclined to challenge the president.

In the end, the main kibosh to federalism has come from the technocrats running the economy for Mr Duterte. They are struggling to build the infrastructure needed to prevent the economy hitting the buffers. To fund it, the government must borrow. Yet neither the central government nor the new federated states would be a good credit risk until the division of revenues is settled.

Mr Duterte appears not to have slammed the door entirely on constitutional tinkering. The same economic managers who are wary of federalism are in favour of removing constitutional limits on foreign ownership of local companies, as are many investors. But that is both a relatively modest reform and hardly a crowd-pleasing one—not the sort of idea, in other words, to which Mr Duterte pays attention.

Skilled but jobless

Idle hands

BEIJING

The growing ranks of unemployed graduates are worrying the authorities

THRONGS OF YOUNG people roam around the makeshift booths in an exhibition hall in northern Beijing. They are at a job fair organised by the municipal government, aimed at unemployed college graduates. Like most jobseekers in attendance, Su Jian has brought along a stack of cvs to hand out to prospective employers. But Mr Su (not his real name), who graduated in June from a second-tier university in the capital, is unimpressed by what he sees.

The most popular booth at the fair belongs to China Railway, a state-owned behemoth. The firm's recruiter says it pays new graduates around 4,000 yuan ($580) a month. That is less than half the average salary in Beijing and not even double the city's minimum wage. Mr Su nonetheless submits his cv. "What can you do? There are too many of us," he laments.

Chinese universities produced a record 8.3m graduates this summer. That is more than the entire population of Hong Kong, and up from 5.7m a decade ago. Tougher visa policies in much of the West mean that China will also receive nearly half a million returning graduates from foreign institutions this year. It is not a propitious time to enter the job market. China's economy, buffeted by the trade war with America, is growing at its slowest pace in nearly 30 years. This year fully two-thirds of all workers joining the labour force will be university graduates, up from around half just three years ago. Mr Su wonders whether the number of graduates has outstripped the labour market's ability to absorb them.

As recently as the early 1990s the government simply assigned graduates to jobs. It no longer dictates people's lives so crudely, but it is clearly worried about what will happen if they do not find work. On July 12th five state agencies warned local governments that boosting employment "has become more onerous". They linked the "employment of graduates" with "overall social stability". Such warnings have been made annually since 2011, but this year, unusually, the public-security ministry attached its name to the notice.

Last month the government announced measures aimed at getting more graduates into work. Small firms that hire unemployed graduates can apply for a tax rebate. The national system of household registration, *hukou*, which restricts where people can receive subsidised public services, will be kinder to new graduates. The new rules instruct all provincial capitals (but not megacities such as Beijing and Shanghai) to make it easier for graduates to apply for local *hukou*, boosting labour mobility.

Graduates who want to start their own businesses may be eligible for a state loan with little or no collateral, the ministry of human resources says. Those who cannot get hired and lack entrepreneurial drive are invited to visit one of its many local branches for "one-on-one assistance". Local governments are also trying to help. One city in Guangxi province announced on July 26th that helping graduates find jobs had become "the utmost priority".

There are no official statistics on the employment status of fresh graduates, but MyCos, a consultancy on education in Beijing, found that the proportion of them who had found full-time jobs within six months of graduation had fallen from 77.6% in 2014 to 73.6% in 2018. The average monthly salary for new graduates fell from a peak of 4,800 yuan in 2015 to 4,000 yuan in 2017, according to Zhaopin, China's biggest job-recruitment platform.

The trade war with America seems to ▸▸

have tempered hiring, especially in export industries. A crackdown on shadow banks (lenders that do not take state-guaranteed deposits), which have been enthusiastic recruiters of new graduates, has forced mass layoffs. Growing international suspicion of Chinese tech firms may slow their expansion plans, too. Civil-service recruitment, meanwhile, was cut to 14,500 this year, the lowest intake in a decade.

A recent graduate from Peking University recounts how she was laid off by a financial-services firm earlier this year. She is looking for a job at an internet firm. Prospective employers, she says, have extended the probation period from two or three months to six. "During the probation period employers are legally entitled to pay only 80% of the normal salary," she explains. "More and more companies are exploiting this power."

With a degree from China's most prestigious university, she is at least confident she will soon secure a good job. Graduates from lesser-known institutions face a much harder time. Several recruiters at the job fair in northern Beijing admit to chucking CVs from "no-name schools" straight into the bin. Part of the problem, says Joshua Mok, a professor at Lingnan University in Hong Kong, is that the "average quality" of graduates may have deteriorated in recent years. The number of universities has increased from just over 1,000 in 2000 to around 2,700 today. Employers, unfamiliar with so many new names, often dismiss the obscure ones as degree mills. They are not always wrong.

In 2009 a sociologist coined the term *yizu*, or "ant tribe" to refer to struggling graduates from the provinces who swarm to megacities. An estimated 100,000 so-called "ants" lived in Beijing in 2010. But the term is no longer widely used, says a graduate from the southern province of Yunnan who lives in Beijing. Rising rents, combined with a crackdown on the illegal subdivision of flats, have driven most provincial graduates away. She, too, may move home soon: salaries may be lower in Yunnan, but so is the cost of living.

Many graduates have unrealistic expectations, says Yao Yuqun of Renmin University: "Everybody wants to be a manager right away." There are plenty of jobs to go around, he says. A report in May by the China Institute for Employment Research, a think-tank, found that there were 1.4 entry-level vacancies (excluding unskilled work) for each graduating student. Many jobs are in second- and third-tier cities. Graduates, it seems, are too snooty to take them. One calls this the "BAT or bust" mentality, referring to Baidu, Alibaba and Tencent, three sought-after online giants. The government counsels humility. Anyone blessed with a job offer, it said recently, should "promptly sign the contract". ■

Reclaiming Hong Kong

Protest, but no movement

HONG KONG

The central government urges the territory's authorities to take charge

FOLLOWING EIGHT weeks of protests and mounting violence, the news that the authorities in Beijing planned to hold a rare press conference had many in Hong Kong holding their breath. The result was a (welcome) anti-climax. There were no threats to send in the army, as some had feared. A speech by the spokesperson from the Hong Kong and Macau Affairs Office made no mention of that until, when asked by a journalist whether troops could be deployed on the streets he simply pointed to the relevant sections of Hong Kong-related laws. While condemning the violence of recent protests he took care not to criticise the local government and heaped praise on the work of the Hong Kong police.

Communist Party newspapers are a better place to look for evidence of the party's growing frustration. The *People's Daily* ordered the police to have no "psychological worries" about being much tougher. Activists are already being punished. After a weekend of violent confrontations between young pro-democracy protesters and police using tear-gas and rubber bullets, 44 people arrested during the clashes were told they would be charged with rioting. They face up to ten years in prison.

The forceful stance of the police has not quelled the demonstrations. Indeed, many gathered outside police stations to protest against the severity of the charges. The administration of Carrie Lam, Hong Kong's chief executive, is paralysed, those at the very top of it privately admit. Extraordinarily, Mrs Lam herself has not made any public statements for over a week. Although the Communist Party has reiterated its support, her days are surely numbered, even if it cannot accept her immediate resignation without a huge loss of face.

When protests beget protests

As for the police, some complain privately about poor leadership. Many officers are livid at being put on the front line to sort out what they say is a political crisis. But as the provocations of black-shirted protesters mounted, it was clear that by the weekend plenty of officers were itching for revenge. After applications to march over the weekend in the central business district and Yuen Long—a suburb where pro-China thugs had beaten up innocent travellers a week earlier—were rejected, activists went ahead anyway. The police showed little restraint. Amnesty International, a human-rights watchdog, says it has seen "repeated instances where police officers were the aggressors".

After a wave of arrests, protesters may be more cautious—although at least seven marches are planned for August 5th alone. Meanwhile, there is not much the police can do should tactics switch to a campaign of low-level civil disobedience—strikes, sit-ins and so on. Civil servants, firemen, bus drivers and many more have backed one of the protesters' chief demands: an independent inquiry into the crisis.

The obvious and perhaps only way to resolve the crisis would be for China to keep its promise to let the people of Hong Kong choose their own leaders. Dream on. The radicalisation of the protests is, in part, a consequence of China's strategy of persecuting more moderate opposition leaders trying to work within the system.

For now, China is out to define its enemies in Hong Kong and delegitimise them. In the propaganda, Hong Kong's quest for genuine self-rule is being portrayed as on a par with "splittists" elsewhere on China's fringes, in Tibet or Xinjiang. It is in this nationalist context that students from the mainland have recently clashed with ones from Hong Kong on campuses in America, Australia, Canada and New Zealand.

Back in Hong Kong, China can always resort to the ultimate sanction: deploying the local garrison of the People's Liberation Army (PLA). That prospect was highlighted by Mrs Lam's predecessor as chief executive, Leung Chun-ying, long close to the Communist Party. In a letter to the *Financial Times* last month he insisted that the PLA's presence in Hong Kong is "not meant to be token, ceremonial or symbolic" but rather to help maintain public order. Yet deploying the PLA to crush largely peaceful protests would only deepen the government's illegitimacy in locals' eyes, while attracting enormous international opprobrium. That it is even being discussed is a sign of how bad things have become. ■

I'VE TRIED EVERYTHING TO STOP MY CHILD FROM USING DRUGS

I'M AT MY WIT'S END

WE CAN HELP.

TEXT 55753

TO CHAT WITH A SPECIALIST.

Partnership™
for Drug-Free Kids
Where families find answers

If you find yourself in a situation you never thought you'd be in, we're here to help. No matter what you and your family are going through, we can help you take on your child's drug or alcohol problem.

Connect with a Parent Specialist for free.
Call 1-855-DRUGFREE or Text 55753

Chaguan | Armchair warriors

Why China is so fond of useless meetings in over-stuffed chairs

Revealingly often, when foreigners meet Chinese leaders the encounter is a pain in the neck. The cause is not mysterious. For reasons that may involve both high culture and low political calculation, important visitors to China are typically invited to sink into one of a pair of side-by-side armchairs, at one end of a formal reception room. There the guest must sit, head twisted through 90 degrees, to see and hear a host whose opening remarks may stretch to an hour.

Foreign bigwigs planning to consult aides in such a meeting room are further out of luck. Their entourage will be trapped in their own armchairs, placed in a horseshoe pattern or marching down one long wall of the room, opposite a matching row of Chinese officials. In a recent episode of the US-China Dialogue Podcast, an oral history project at Georgetown University, Wendy Cutler, who as an American official played a leading role in negotiating China's entry to the World Trade Organisation, recalls how her Chinese counterparts used exhaustion and embarrassment to manipulate visitors. For one thing, they have a habit of beginning meetings with envoys at 10pm. Then there is the hazard of reception rooms that make it daunting to stand up from an armchair, cross yards of empty carpet and hand a boss a note about a detail of policy or tactics. Visitors have to be very sure that their message for the boss is worth the interruption, because the room makes it "very awkward", Ms Cutler recalls.

Such recollections lead Chaguan to what may seem an odd hunch. This is a moment of low trust in China's relations with the world, when many Western governments and businesses are losing hope that China's leaders will open their markets to foreigners on equal terms. This is also a moment of impatience, when Chinese practices that have long frustrated outsiders, such as state subsidies for national champions, or the use of security laws and politicised regulations to bully trade secrets out of foreign firms, feel insupportable now that China is so large. To emerge safely from these perilous times China and America, in particular, will have to learn to co-exist as competitors, trade partners and ideological rivals, at one and the same time. One way to guess whether such a rebalancing is possible is to watch the chairs.

Whenever Chinese, American or other foreign delegations meet, if the two sides are sitting at a long table that allows for substantive, clause-by-clause negotiations, flickers of optimism may be justified. If, instead, meeting rooms feature antimacassars on overstuffed armchairs, little tables bearing teacups and large paintings of mist-shrouded mountains, gloom may be in order.

It says something sobering about present-day China that sales of the armchairs used in horseshoe-shaped meeting rooms have risen steadily over the past 20 years. Surprisingly often, the armchairs used for such meetings are made by a single company, Tiantan (or Temple of Heaven) Furniture, founded in 1956 and owned by Beijing's city government. Business is good, says the firm.

The company traces the chairs' history back to imperial audiences granted during the Song Dynasty, almost a thousand years ago, when floor-mats and stools gave way to chairs. Running at up to $800 each, Tiantan's bestseller is known within the company as the "Jiang-style Armchair", because it was commissioned in the early 2000s by aides to the party leader and president of the day, Jiang Zemin. Patriotism has helped expand the market for all sorts of traditional Chinese furniture, says Wang Shengli, a manager at Tiantan. In contrast: "In the 1980s, Western styles were more popular." Beyond that, there is the specific appeal of owning chairs fit for a vice-minister or provincial party secretary. Tiantan sells a lot to the government, but also to private businesses, hotels and wealthy individuals moved to imitate the look of Communist officials, in what Mr Wang calls a "follow-the-leaders" effect.

It takes 20 days to assemble a Jiang-style armchair from Chinese walnut, fine cloth or leather (red is the most popular colour) and lots of foam padding, especially in the small of the back, so that occupants can sit up straight for hours. "The chair is quite firm, as is fitting for a leader," explains Mr Wang on a factory tour, over the noise of whirring tools. Tiantan armchairs are found in the Great Hall of the People and the central leadership compound of Zhongnanhai in Beijing, and even aboard leaders' aeroplanes.

Naturally, if China does agree to businesslike meetings, America has homework to do, too. From 2004 to 2013 David Dollar represented first the World Bank and then the United States Treasury in Beijing. At too many meetings he watched American political appointees, flanked by young aides straight out of graduate school, as they tried to negotiate with the help of written records of talks involving previous administrations. Meanwhile, in the chair of honour on the Chinese side, Mr Dollar says, the chief negotiator quite possibly "used to be at the bottom of the table 20 years ago, and then they sent him off to be vice-mayor of Guiyang or whatever, and he works his way up." As a result, Chinese officials could and did cite oral agreements that they believed they had heard American officials make years earlier. In contrast, laments Mr Dollar, "The US has no institutional memory."

Striving for a meeting of minds

Just now America presents China with a particular puzzle. President Donald Trump revels in pomp, protocol and monarchical chats with fellow leaders, which should play into China's hands. At his first meeting with President Xi Jinping he happily shared a brocade sofa at Mar-a-Lago, his Florida estate, and declared his Chinese guest a great friend. But Mr Trump also feels unbound by agreements, oral or otherwise, made by previous governments, a blow to China and its elephantine capacity for remembering ancient half-promises. With globalisation in the balance, it is time China stopped using the dismal horseshoe to stall reforms. But America, too, must make better use of its seat at trade's top table. ■

The Democratic Republic of Congo

An epidemic of violence

BUTEMBO

How do you reform a country where gunmen torch Ebola clinics?

What Dr Grace Hangi overheard, as she hid from the gunmen burning down the Ebola clinic where she worked, was revealing. The assailants accused the staff of "enriching" themselves. Dr Hangi escaped. But when she returned to what was left of the clinic, many patients had fled, taking the virus back to their villages.

What happened that day in February in Butembo, a city in the north-eastern part of the Democratic Republic of Congo, is horribly common. Clinics and health workers fighting Ebola in Congo have been attacked roughly 200 times this year. To outsiders, such violence makes no sense. The clinics not only treat the sick, they also curb the spread of a virus that causes fever, bleeding and death. The current outbreak in Congo is the second-worst ever, anywhere. Some 2,700 cases have been recorded, and 1,700 people have died of it. On July 17th the World Health Organisation declared it a global emergency, citing fears that it might surge into neighbouring Uganda, Rwanda and lawless South Sudan. Donor-funded clinics and vaccines are the world's best defence against Ebola. Alas, many Congolese do not see it that way.

After years of kleptocracy and civil war, they expect only abuse from their government. Having been pillaged by nine foreign armies, they distrust outsiders. So when aid workers arrived in Butembo, many locals did not see them as saviours. Rather, they saw strangers in fancy four-wheel-drive cars. They assumed that these people were getting rich dishonestly, because that is what the powerful do.

The UN peacekeepers guarding the health workers rolled around town in intimidating armoured cars. Congolese security forces sometimes rounded up the sick at gunpoint and forced them into health centres, from which some never emerged alive. The official (and true) explanation of those deaths—that they had succumbed to Ebola—was widely doubted. About 40% of locals do not believe Ebola exists, says Justus Nseo, the co-ordinator of the Ebola response in Butembo. Some local politicians help spread this dangerous myth.

Health workers often do not even know who is attacking them. Dozens of militia groups operate in North Kivu, the province that includes Butembo. Some attacks may be spontaneous. Others may be orchestrated by local politicians, to drive out NGOs that strive too diligently to prevent the embezzlement of donor funds. Violence often stymies the relief effort. "Not a day passes without trouble," says Dr Nseo.

Yet there is hope. The clinics in Butembo have been rebuilt. Suspected Ebola victims are isolated in cubes, surrounded by clear plastic sheets so that relatives can see and talk to them without risk of infection. Hand-and-foot-washing stations have sprung up all around eastern Congo to stop the spread of the virus.

Kavo Donse, a nurse who caught Ebola from a patient, was treated in one of the newly rebuilt clinics. Her excruciating fever, headaches and bloody diarrhoea have gone. She is back at work, saving lives. She smiles ruefully at the fact that so many of her neighbours still think the virus mythical. As for the thugs who burned down the clinic? "May God forgive them," she says.

Reforming Congo is like fighting a deadly virus in a chaotic war zone—only ▸▸

→ Also in this section

trickier. The new president, Félix Tshisekedi, has vowed to make the country less poor, corrupt, violent, ill-educated, roadless and dimly lit. To do so, he must grapple with grasping warlords, crooked civil servants, an unprincipled political class and a restive population.

That would be hard enough for a president with a popular mandate. Mr Tshisekedi has none. His predecessor, Joseph Kabila, had to bow out because he was two years beyond his term limit. Martin Fayulu, a businessman, won an election in December with 60% of the vote, according to independent estimates. Mr Kabila's chosen successor, Emmanuel Shadary, did so badly that officials could not pretend he had won. Instead, Mr Kabila struck a deal with his least threatening opponent, Mr Tshisekedi, who was then declared the winner.

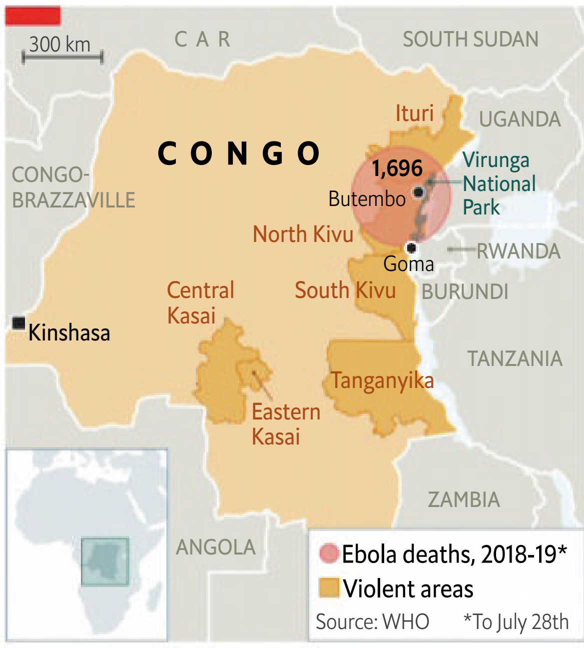
No one believes the result, but most Congolese appear to have sighed and accepted it. Many were pleasantly surprised that Mr Kabila, a despot who had ruled for 18 years, was no longer president. No Congolese ruler had ever been peacefully replaced at the ballot box. Also, people are weary of instability. Estimates of the death toll from the last full-blown civil war, between 1998 and 2003, range from 800,000 to 5m, mostly from war-induced disease and hunger. Such uncertainty about numbers is common in Congo. No one systematically counts the living or the dead.

The terms of Mr Tshisekedi's alleged deal with Mr Kabila are unknown. What is clear is that the two men are tussling for power. Mr Kabila's coalition controls two-thirds of the seats in the national assembly, and could impeach Mr Tshisekedi. Mr Tshisekedi could dissolve the assembly and demand another election. For six months, no government was formed, as the two camps squabbled over who would get which ministries. A compromise was reportedly struck on July 26th. The division of the spoils is not yet public. One analyst says that Mr Kabila has 70% of the power to Mr Tshisekedi's 30%. But that could change.

Mr Tshisekedi is less tyrannical than Mr Kabila. He has released 700 political prisoners and unmuzzled the media. "I no longer fear being arrested," says Georges Kapiamba, a human-rights campaigner. Mr Tshisekedi says he wants to "dismantle the dictatorial system that was in place". Yet he has banned several public protests.

He travels furiously, seeking to mend Congo's dire relations with donors and neighbours. The IMF is considering whether to offer loans. The World Bank is eager to give the new regime a chance. America supports Mr Tshisekedi, guessing that he cannot be worse than Mr Kabila. Mr Fayulu says this "is a big mistake".

Mr Tshisekedi has suspended some officials for financial mismanagement. But Mr Kabila and his cronies appear untouchable, for now. Mr Tshisekedi named a new management team for Gécamines, the atrociously run state mining giant. The minister of industry, loyal to Mr Kabila, refused to approve the appointment. In effect, the ex-president overruled the new one. Observers are unimpressed. "He needs to crush corruption. Right now. Put people in prison," says a businessman. "I think when he says [he will fight corruption], he means it. But he doesn't have the tools," says a human-rights agitator.



Mr Tshisekedi has vowed to spend money on roads, schools, health care, electricity, ports and infrastructure. A project to build flyovers in Kinshasa, the capital, has already begun (and is temporarily making congestion much worse). This is not much, but it compares favourably with Mr Kabila's record. Unusually for a dictator, he built very little—not even to put his name on it.

For Congo to revive, it needs a measure of peace and a government that tangibly improves people's lives. Better roads would help, in a country four times the size of France with few good ones. So would electricity—some cities of 1m people, such as Butembo, have no grid. All these things would be easier if Mr Tshisekedi could curb corruption: the ingrained habit whereby anyone with access to public money steals it, and anyone with even a little power makes life miserable for ordinary folk in the hope of being bribed to back off.

Security is improving, says Leila Zerrougui, the head of MONUSCO, the 16,000-strong UN peacekeeping mission in Congo. Rebel forces no longer control big towns. "The rebel groups still exist. But they are in hiding," says an observer.

Still, things are bad. Some 3m Congolese have been driven from their homes. Six out of 26 provinces are smouldering. The conflagrations in North Kivu, South Kivu and Ituri all involve foreign powers. Militias backed by Rwanda and Uganda energetically loot Congo's minerals. Fighting in Eastern and Central Kasai has eased since 2017, but Tanganyika is still hot. Dozens of armed groups hide in the bush, preying on civilians.

Thanks to Ebola, outsiders are anxious to see Congo pacified. The UN has gone beyond its usual role of protecting civilians, and is using its air power to help the Congolese army drive the ADF, a rebel group with jihadist links, out of Ebola zones. Mr Tshisekedi has suggested inviting the Ugandan army into Congo to fight the ADF, which also threatens Uganda. This would not be popular, warns Ms Zerrougui.

The Congolese army would be more effective if its soldiers were paid properly, on time and after they retire. "You can't expect people to die for the nation when they know that their body won't be collected and their family will starve in the streets," says a foreign bigwig. The army is far too big, not least because it keeps absorbing ex-rebels. Thousands have "surrendered", joined up and carried on pillaging in a government uniform.

It would be better, many observers reckon, if rebels who lay down their arms could be nudged into civilian jobs, or helped to become farmers. Given how little most "earn" by looting, this is possible. But government schemes to retrain ex-combatants have not always been well run. Some have been given kit to become electricians and sent to villages with no electricity.

I know why the jailbird rings

Lasting peace is unlikely so long as killers face no punishment. The UN has sponsored attempts to prosecute war criminals, but the process is uncertain. Justice exists "to re-establish order" and "to end impunity", says Colonel Hippolyte Ndaka, a prosecutor in Goma. His target, Ntabo Ntaberi Cheka, a former warlord, sits in a cell nearby. Guarding him are Congolese soldiers, some of them visibly drunk or reeking of marijuana. Mr Cheka is accused of recruiting child soldiers and letting his men carry out mass rapes. Some accused women of hiding smuggled gold in their vaginas, as a pretext to strip and violate them.

Surly and defiant in a tracksuit and flip-flops, Mr Cheka denies it all. He led a militia to defend the local population against foreign invaders, and not, as some allege, to seize local gold and tin mines. Where, he asks, are the witnesses to prove his guilt? Where, indeed? A handful of brave souls have offered to testify; faces covered, voices scrambled. Most of his alleged victims, however, are too scared. The man in the cell next to Mr Cheka's openly toys with a mobile phone. It would be easy for the caged warlord to talk to his troops, hundreds of whom still lurk in the bush.

For all the gloom and mayhem, most of Congo is not at war. A businessman in Kinshasa says that the fighting 2,000km away does not affect him at all. "You have plenty of rebels in Ituri and the Kivus," he says. "It sucks. I hate it. But for them to reach my company headquarters would take years."

The budget is balanced. (Who will lend money to Congo?) Inflation is a modest 11%—far below its peak of 24,000% in 1994. But growth is feeble. GDP expanded by 5.8% in 2018, of which 4.4 percentage points came from mining. With population growth around 3% "most people got poorer," says Philippe Egoumé of the IMF.

A bruising business environment

Over dinner in a posh restaurant, four businessmen swap tales of woe. Every one of them has been arrested or assaulted. One was held in the back of a car and thumped until his two meaty assailants were tired of thumping. All complain of high taxes and constant "inspections". One says that officials try to extort money from his firm "about once a day". "There are 300 different taxes and they can choose which one to audit. A tax inspector who uncovers tax fraud gets to keep 25% of the fine, so they bribe your staff to do bad things."

Micro-entrepreneurs have it even tougher. At the "petite barrière" in Goma, a border crossing with Rwanda used by small traders, the road on the Rwandan side is well-paved and smooth. As soon as it enters Congo, it is a cratered moonscape. Push-carts loaded with sacks of grain bump and jostle through the hubbub. Police grab a trader by the neck, force him to open his backpack and accuse him of smuggling matches. Another trader reminds an official of a previous arrangement to dodge import taxes and is told to shut up because a journalist is present.

Diodata Ruyumba, a trader, is walking into Congo with a bowl of salt fish, peanuts and onions on her head. Business is bad, she says. The Congolese franc doesn't buy as much as it used to in Rwanda. "If we had peace we could grow enough in Congo," she says; "The soil is richer. We have lots of land. But it's too unsafe to farm it." She fled her village after her grandfather was murdered and her brother shot and hospitalised. She has no idea who the killers were.

When the state is absent or useless, others step in. Often they are malign: for example, the militias who charge locals "taxes" for "protection". Sometimes they are benign: several big private firms in Congo build their own roads, which others can also use. An intriguing example of the interplay between such good and bad actors can be seen in the Virunga National Park, 8,000 square kilometres of forest, lake and savannah sandwiched between three live volcanoes and the Mountains of the Moon.

Legally, the park is reserved for wildlife, including endangered mountain gorillas. No one is allowed to farm its rich volcanic soil, chop down trees or hunt game. But this is Congo. The 4m people who live within a day's walk of Virunga often plant crops, burn wood for charcoal and poach hippos for their meat. And the many militia groups who hide in the park offer them "protection": ie, they take a cut of everything produced illegally in the park. They also scare off tourists.

The risk to tourists is modest—well-armed rangers, perhaps the best-trained forces in Congo, accompany them everywhere. A complex surveillance system ensures that visitors are not sent into areas where bullets are flying. But more than 170 park staff have been killed since 1996. And two British trekkers were kidnapped last year (they were released unharmed). Emmanuel de Merode, the Belgian aristocrat who runs the park, closed it to tourists for eight months while he beefed up security. The park is now open again, but the number of visitors is a paltry fraction of what it could attract. Congo is far bigger and arguably more beautiful than Kenya, yet Kenya earns 250 times as many tourist dollars.

To keep functioning, Virunga must generate more cash and local support. That means taking on tasks normally reserved for a state. Since no one can rely on the police, the rangers protect locals from the militias, escorting convoys of vehicles through the park. The number of reported attacks on civilians there has fallen from 144 in 2015 to eight last year. The park also has checkpoints where travellers wash their hands and are tested for the high temperature that may mean they have Ebola.

Technically, the park is an arm of the state and Mr de Merode is a government employee. But it is partly funded by a UK-based charity, and Mr de Merode has forged public-private partnerships to foster industry. The Virunga Alliance, a partnership with local people and businesses, is building roads and hydroelectric plants. It powers thousands of homes, and allows a local factory to turn vegetable oil into soap. A field has been cleared to build a chocolate factory. Mr de Merode says that every new megawatt (13 megawatts are generated jointly by the two plants already installed) creates between 800 and 1,000 jobs. Some of these go to ex-militiamen, but no more than about 10%—the park does not want young men to see taking up arms as a shortcut to a salary. The Virunga Alliance even offers legal and financial advice to small businesses. "It's much cheaper since we got electricity from Virunga," says Bonny Katembo, a barber who previously used a generator. "We can keep the lights on longer, charge the styling tools and have more customers each day." It also lets him power a very loud radio.

There are snags, of course. Rival power producers are often hostile. Ephrem Balole, the CEO of Virunga Energies, was jailed for three days this year for no good reason. Mr de Merode says the park could be financially self-sustaining by the end of 2022. Until then it needs donor funds, which could be a problem. As a British charity, the Virunga Foundation receives EU funds, but after Brexit it may not be eligible for them.

Congo's mineral wealth is often exaggerated. Annual mineral exports are barely a quarter of a dollar per head, so even if they double, which is possible, Congo will still be poor. For the country's 85m-100m people to prosper, they will need to produce other things. Industrialisation would require an adult literacy rate of 70-80% and an electricity supply of 300 kilowatts per person, argues Charles Robertson of Renaissance Capital. Congo's literacy rate is already high enough, but its power supply is only a third of the necessary level. It could reach it by 2030 if big proposed dam projects are completed. Industrialisation could push the economic growth rate to 7-10% a year, Mr Robertson predicts. Yves Kabongo, an investor in Kinshasa, is more cautious. Industrialisation will take "a generation, to be optimistic", he says. ■

What do you mean, first do no harm?

Meeting Expectations

China's first-half economic growth remains stable amid headwinds

By Li Xiaoyang

As it released data on China's economic performance in the first half (H1) of 2019 on July 15, the National Bureau of Statistics (NBS) suggested that a solid foundation has been laid for the country to achieve its annual growth targets as the economy maintained steady, resilient development.

The GDP in H1 grew 6.3 percent year on year to about 45.09 trillion yuan ($6.55 trillion), meeting the annual target range of 6-6.5 percent set by policymakers. In the second quarter (Q2), it rose 6.2 percent year on year, slowing from 6.4 percent in the first quarter (Q1).

Instead of resorting to massive stimulus packages, the country has promoted reform and innovation, improved the domestic business environment and cut taxes and fees to boost the economy, NBS spokesperson Mao Shengyong told a press conference on July 15.

Wang Jun, a senior economist at the China Center for International Economic Exchanges, attributed the slowdown in GDP increase to China's efforts to shift to higher-quality growth through economic restructuring. Despite the moderate growth, China had stable performances in employment and residents' income and saw rebounds in indicators such as social financing, he said at the Guoshi Forum in Beijing on July 15. Hosted by China News Service, the event focused on China's economic growth.

Driving forces

Consumption, export and investment—known as the troika of China's growth drivers—maintained steady growth in H1, with consumption continuing to play a key role by contributing 60.1 percent of overall growth.

Total retail sales of consumer goods, a gauge of consumption, exceeded 19.5 trillion yuan ($2.8 trillion) in H1, up 8.4 percent from a year earlier. Notably, retail sales rose 9.8 percent year on year in June, up from 8.6 percent in May.

Despite external uncertainties, half-year exports and imports of goods with major trading partners increased, with exports climbing 6.1 percent year on year to 8 trillion yuan ($1.2 trillion) and imports increasing 1.4 percent to 6.7 trillion yuan ($974 billion).

Members of the Association of Southeast Asian Nations, European Union states and countries participating in the Belt and Road Initiative contributed the most to the growth of China's foreign trade, Bai Ming, Deputy Director of the International Market Research Institute, said at the Guoshi Forum.

China's trade with Belt and Road participants totaled 4.24 trillion yuan ($617.5 billion) in H1, increasing 9.7 percent year on year, according to the General Administration of Customs of China (GACC).

On July 10, the State Council, China's cabinet, decided to launch an array of new policies to expand foreign trade with the focus on improving fiscal and tax policies. The reforms will further lower the overall import tariff level, refine export tax rebate policies and speed up the tax rebate process.

Notably, investment in the January-June period saw differentiated performances. According to NBS data, investment in the primary industry went down 0.6 percent year on year, while that in secondary and tertiary industries climbed 2.9 percent and 7.4 percent, respectively.

Fixed assets investment climbed 5.8 percent in H1, down from 6.3 percent in Q1, while real estate investment increased 10.9 percent year on year in H1, slower than the 11.2-percent increase in the first five months. Private investment in H1 gained only a 5.7-percent year-on-year increase.

"Since the decelerated GDP growth in Q2 can be partly attributed to the aforementioned decline, more efforts are needed to ratchet up total investment," Xu Hongcai, Deputy Director of the Economic Policy Commission, China Association of Policy Science, told *Beijing Review*.

As China shifts its focus to high-quality growth from high-speed development, a high growth rate no longer indicates economic resilience. According to Wang, the efforts to promote economic restructuring in H1 have seen remarkable payoffs.

Emerging industries of strategic importance and hi-tech manufacturing industries stood out in the H1 economic performance. The value added of strategic emerging industries secured an increase of 7.7 percent year on year, while the value added of hi-tech manufacturing industries rose 9 percent year on year, 1.7 and 3 percentage points higher than that of all major industrial enterprises, respectively.

Although car sales saw fluctuating growth in H1, rising NEV demand is still driving the auto industry as China pushes ahead to green development. According to NBS data, the output of NEVs and solar cells surged 34.6 percent and 20.1 percent, respectively, year on year.

The value added of information transmission, software and information technology services, leasing and business services, transportation, warehousing and postal services all saw remarkable expansion. Consumption of services represented 49.4 percent of final consumption growth in H1, up 0.6 percentage points from the previous year.

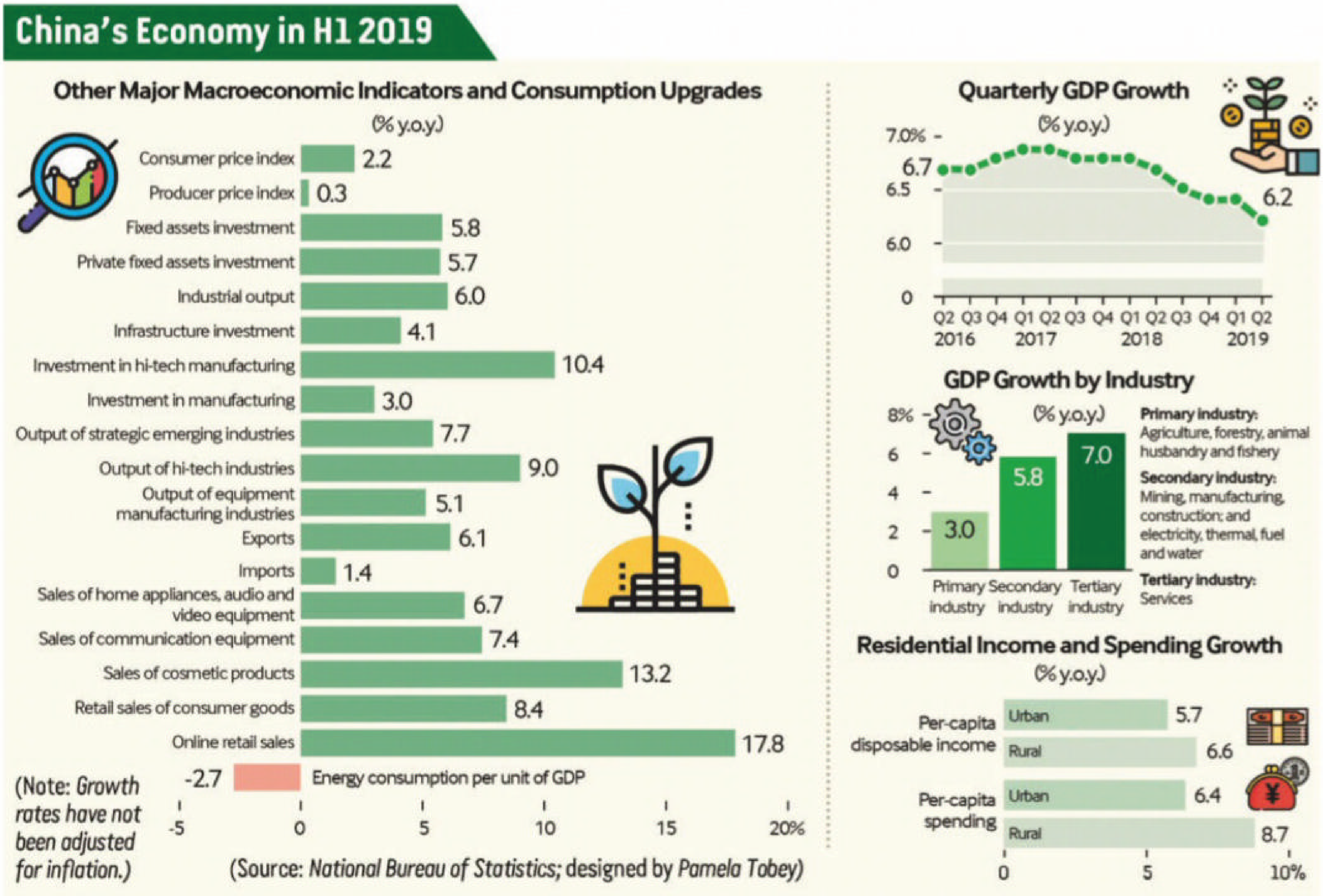
According to Lai Youwei, Deputy CEO of Meituan, China's largest on-demand online service provider, rising online consumption of services and newly emerging service demand, such as home-sharing and cosmetology, have injected strong impetus into the economy.

China's job market experienced stable development as another 7.37 million people in urban areas were employed, accounting for 67 percent of the annual target. The per-capita disposable income stood at 15,294 yuan ($2,227), up 8.8 percent year on year in nominal terms. The inflation-adjusted growth was 6.5 percent, NBS data showed.

Support and stimulus

To cope with downward pressure and boost the domestic market, China has implemented a string of fiscal and monetary policies as it seeks stronger market confidence and more tangible benefits for enterprises and individuals. According to the 2019 Report on the Work of the Government released in March, the tax burden and social insurance contributions of enterprises will be cut by nearly 2 trillion yuan ($291.12 billion) this year, in line with a proactive fiscal policy.

In the first five months of the year, newly introduced tax cuts and fee reductions saved businesses about 893 billion yuan ($129.8



billion), data from the State Taxation Administration showed.

In June, new policies were introduced to encourage local government special bond issuance to fund eligible major projects and bolster infrastructure growth.

According to Zhang Xuedan, a researcher with the Chinese Academy of Fiscal Sciences, the tax cuts and fee reductions have shown positive results in boosting the economy. To make the policy sustainable, he said the government needs to improve transfer payments to impoverished areas to ensure local fiscal revenue.

In addition, to provide financing support for the real economy, the People's Bank of China, the central bank, lowered the reserve requirement ratio (RRR) for small and medium-sized commercial banks in May, which is expected to release 280 billion yuan ($40.7 billion) of long-term liquidity. The freed fund will be used for providing more loans to private as well as micro and small companies, the bank said in a statement.

In the latest move to widen opening up, it unveiled new negative lists for foreign investment market access on June 30, further cutting off-limit items.

While boosting domestic market expectations, the move may also trigger risks, which calls for precautions, Tan Yaling, Dean of the China Foreign Investment Research Institute, told the Guoshi Forum. "The country needs to improve management of foreign investment and enhance the competitiveness of domestic market players," she said.

Future outlook

According to GACC, China had a 45-percent year-on-year growth in trade surplus at 5.5 trillion yuan ($799 billion) in the first five months.

The economy will still face great downward pressure while the trade surplus is likely to narrow in H2, Xu warned.

Although Wang has an upbeat view about the economic performance in the remaining months of the year, he stressed that China needs to further cut overcapacity, strengthen high-end manufacturing and translate technologies such as 5G into products to avoid bubbles in hi-tech industries.

According to Mao, the effects of the counter-cyclical adjustment policies such as tax and RRR cuts to boost the economy will become more prominent in H2.

"With ample economic policy tools at its disposal and the expanding domestic consumer market, China's economic growth will remain stable in H2," Mao said.

"Although China's GDP growth rate may decline to 6.1 percent in the fourth quarter, the figure for this year is expected to fall between 6.2 and 6.3 percent which still meets the annual target," Xu said, adding that encouraging private investment and boosting consumption will remain priority tasks.

Scan QR code to visit *Beijing Review*'s website
Comments to dingying@bjreview.com

Tyranny in Tanzania

Taken

JOHANNESBURG

Another critic of the president is silenced

JOHN MAGUFULI, Tanzania's president, is known as "the Bulldozer". When he took office in 2015 the nickname was seen as a compliment: at last the East African country of 57m people had a leader who would take on graft and get things done. In his first months in charge Mr Magufuli wasted no time in cracking down on corruption (at least among his enemies). But since then the only things being squashed in Tanzania are civil liberties.

One observer who knows this well is Erick Kabendera. A journalist, Mr Kabendera has written for the Economist Intelligence Unit, our sister company, and many other international outlets. He has documented Mr Magufuli's abuses of power, including a proposal last year that would make it illegal to contradict official statistics.

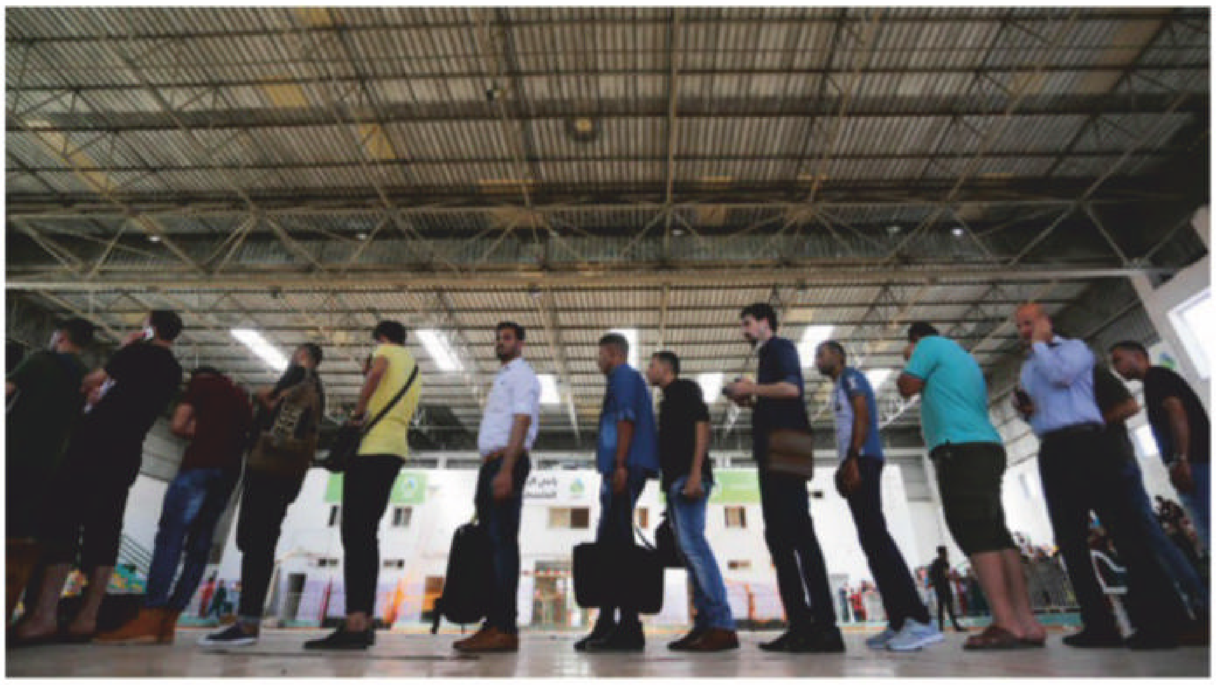
On July 29th Mr Kabendera was forcibly removed from his home on the outskirts of Dar es Salaam, the commercial capital, by plain-clothes policemen. His phone, and those of his wife and neighbours, were taken. The premise for the abduction is unclear and his whereabouts are unknown.

Mr Kabendera's arrest is not the first attack on journalists in Tanzania under Mr Magufuli. Azory Gwanda, a freelance, was abducted in 2017 and has not been seen since. At least four newspapers and two radio stations have been closed. Legislation enacted in 2016 made it harder to criticise those in power. (The East African Court of Justice says it violates press freedom.)

Other critics of the regime, including opposition MPs, are frequently arrested. One MP, Tundu Lussu, was shot in 2017 in an assassination attempt. Companies such as Acacia Mining have been shaken down for huge tax bills.

The repression is hurting Tanzania. Earlier this year the IMF warned that authoritarianism and arbitrary policies were crimping growth in what was once one of the continent's fastest-growing economies. Mr Magufuli, naturally, blocked the report's release.

But it is the human cost that is most apparent. Tanzania was until recently a relatively liberal country in a region dotted with tyrannies. Under Mr Magufuli that reputation is in tatters. It is a story that Mr Kabendera has told. He seems to be paying the price for that.



Gaza

An exodus in reverse

RAFAH

With the border open at last, young Palestinians are leaving Gaza in droves

YARUB IKHDEH and his friends had been waiting half their lives to get on a bus. The six young men had never left Gaza, which has been blockaded by Israel and Egypt since 2007. They grew up in a territory where half the population is jobless and at least 70% rely on aid to survive. "We're all recent graduates in business and IT," says Mr Ikhdeh. "And we're all unemployed."

Early on a recent morning the friends sat in a sun-baked car park in Rafah, on the border with Egypt. Each had crammed his life into a single suitcase. They would soon board a bus for Cairo, then a flight to Dubai in the United Arab Emirates (UAE). None had a job waiting in the UAE. Their tourist visas would be valid for only a month. But the mere prospect of work was enough to make them leave home.

Gazans wanting to leave the territory have two main exits. Only a few may use the crossing at Erez, on the border with Israel. The rest are limited to Rafah. Poor relations between Egypt and Hamas, the militant Islamist group that controls Gaza, meant that it was largely sealed for years. Egypt opened the crossing for just 36 days in 2017. But since last spring, when thousands of Gazans started to protest at the border with Israel to demand the removal of the blockade, Egypt has loosened its restrictions. Last year the Rafah crossing was open for 198 days.

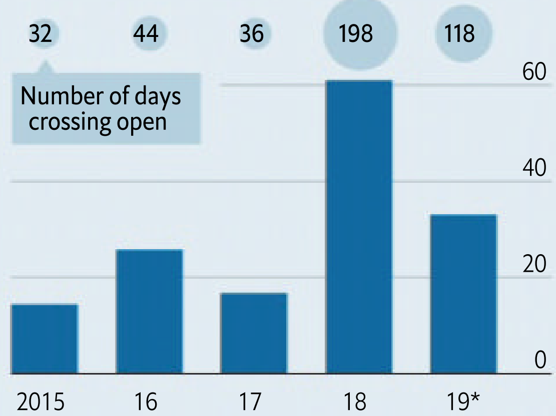
The change set off an exodus from Gaza, which has a population of 2m. Last year there were 60,900 crossings into Egypt, three-and-a-half times more than in 2017 (see chart). About 24,000 people seem not to have returned. There were another 33,000 crossings in the first half of this year. Some of those leaving, like Mr Ikhdeh, hope to find work in the Gulf. Others fly to Turkey and attempt the perilous journey across the Mediterranean to Europe.

Emigration has long carried a stigma among some Palestinians, a people who have fought for generations to stay on their land. Hamas does not release statistics on emigration, lest they highlight how bad life in Gaza has become during its rule. But those leaving seem to be mostly recent university graduates. Youth unemployment is thought to be about 70%. Earlier this year the education ministry advertised 300 new teaching positions. It received 43,000 applications. Those who do find work are often stuck in dead-end jobs. "I've been at the same company for eight years and I only ▸▸

Getting out more

Crossings of people from Gaza to Egypt

At Rafah border crossing, '000



Source: UNOCHA

*To June 30th

earn $250 a month," says Alaa Abu Aqleh, a business graduate also waiting to board a bus. That is half of what a low-wage job in Ramallah would pay, to say nothing of work in the Gulf.

Not surprisingly, doctors in Gaza say dozens of their colleagues have left in recent months. Apart from low pay, medical staff must cope with daily blackouts and routine shortages of everything from baby formula to cancer drugs. Worried about a shortage of doctors, Hamas has stopped issuing them with travel permits. A poll in December found that 48% of Gaza residents want to emigrate, compared with 22% in the West Bank. "Pessimism is spreading over every corner of this place," says Sameer Abu Mudallala, an economics professor at Al-Azhar University in Gaza.

Egypt still caps the number of daily travellers at around 300. A waiting list runs to more than 10,000 people. Young men in particular struggle to obtain permits because of security concerns on the Egyptian side. To jump the queue Gazans pay the *tanseeq*, or "co-ordination", a polite euphemism for a bribe. Brokers in Gaza collect it and distribute the money to officers in Egypt. (Hamas is also thought to take a cut, though it denies this.) Prices start at $1,000, almost triple the average monthly wage. Families sell land or gold to get their sons across. "It's ironic. The main issue, for a long time, was for Palestinians to return home. It was a dream," says Mr Abu Mudallala. "Now we're paying money to leave." ■

Tunisia

A fond farewell

CAIRO

For all his flaws, Beji Caid Essebsi helped preserve Tunisia's democracy

There are rarely heartfelt funerals for Arab presidents. Those who pass away while in office are laid to rest in stage-managed events, more spectacle than remembrance. Others live long enough to fall out of power, and out of favour with their successors. Muhammad Morsi, Egypt's sole democratic leader, ousted by the current president, was unceremoniously dumped into a grave in the early morning after his sudden death in June.

The greatest tribute to Beji Caid Essebsi is that he was an exception. The president of Tunisia, the only country to emerge from the Arab spring as a democracy, died on July 25th. Mr Essebsi, who was 92, steered Tunisia's nascent democracy through a rough patch. He also failed to fix many of its problems. But he left behind a country that held an orderly transfer of power and will elect a new democratic leader in September. For that, even his detractors were grateful. The expressions of sorrow after his death were genuine.

An old man, a mandarin of the *ancien régime*, Mr Essebsi was an odd fit for the presidency of a young and newly free country. After studying law in Paris he returned home to a long string of official posts under the dictators who ruled Tunisia for half a century: ambassador to France and Germany, foreign minister, speaker of parliament. The revolution of 2011 brought a brief stint as interim prime minister. That might have been the end of his career.

History went a different way. The first elected government after the revolt was led by Ennahda, a moderate Islamist party. In 2013, after two political assassinations sparked mass protests, it agreed to step down. Mr Essebsi returned to the scene as the head of Nidaa Tounes, a coalition of secular forces determined to unseat Ennahda. He won a presidential election in 2014 with 56% of the vote and his party gained a plurality in parliament.

Some Tunisians compared Mr Essebsi to Abdel-Fattah al-Sisi, the general who led the coup against Mr Morsi and his Muslim Brotherhood. Before the election they joked that the only difference between the men was "a dot", a reference to the similarity of their names in Arabic. The comparison was unfair. Though Mr Essebsi wanted a stronger presidency, he did not try to dismantle Tunisia's democracy. Unlike Mr Sisi, who crushed the Brotherhood, Mr Essebsi struck up a friendship with Ennahda's leader, Rachid Ghannouchi. Until last year Nidaa Tounes governed in concert with Ennahda. A few of Mr Essebsi's pet projects were laudable, notably an effort to grant women equal rights under inheritance laws, which was approved last year.

The economy was a constant struggle, though. An IMF-backed austerity programme outraged the public. As Mr Essebsi's support waned, his party splintered: about half of his MPs are now aligned with other groups. Over the past year he fell out with the prime minister, Youssef Chahed, who will lead his own secular faction in parliamentary elections in October.

The speaker of parliament, Muhammad Ennaceur, has taken over as interim president. A transition had been imminent anyway: Mr Essebsi did not plan to seek a second term, saying a younger person should hold the job. His death simply speeds up what looks to be an uncertain vote. Polls show established parties doing poorly. In June lawmakers approved amendments to the electoral law that block several popular would-be candidates, such as Nabil Karoui, a media magnate whose television channel is often critical of the government. Mr Karoui was subsequently charged with money-laundering, which would seem to scupper his chances.

Since the uprising, Tunisia's politics have often been reduced to a struggle between Islamists and secularists, or between entrenched labour unions and powerful businessmen linked to the old regime. The public is growing tired of these factions. Established parties are in chaos and voters are hungry for political outsiders. The next president, whoever it is, will be judged above all on his or her handling of a sluggish economy. Mr Essebsi was right: Tunisia needs a younger leader—one not caught up in the battles of the past. ■

Essebsi leaves the stage

Russian subversion

The enemy within

VILNIUS AND WASHINGTON, DC

The Baltic states are increasing efforts to identify people who might subvert democracy at the Kremlin's behest

THE TIP was sent by a city tech worker: a single person could, in one fell swoop, disable almost every traffic light in Vilnius, Lithuania's capital. It proved true, says Aurimas Navys, a former officer at Lithuania's State Security Department. Mr Navys, who had received the tip despite his recent retirement, made sure the vulnerability was fixed. Lithuania and the other Baltic states, Estonia and Latvia, all NATO members, are scrambling, he says, to identify such weaknesses and the individuals who might exploit them on behalf of Russia. Mr Navys reckons that the defensive efforts of the Baltic states have multiplied tenfold since 2014. That was when Russia seized Crimea and, in Ukraine's east, set off separatist fighting that continues today.

Russia pulled that off with help from supporters in Ukraine, many of whom had been discreetly cultivated by Russia's intelligence agencies and Spetsnaz special forces. Kremlin supporters in Ukraine's military bureaucracy in Kiev proved especially damaging, Mr Navys says. They deliberately stalled Ukraine's response to the seizure of its territory. (Among the Ukrainians arrested for aiding Russia in 2014 was Ukraine's army chief at the time, Volodymyr Zamana, though he was later freed.) Ukraine had failed to search hard enough for Russian assets in its midst, says Raimundas Karoblis, Lithuania's defence minister. "We now, after Ukraine, have learned the lessons," he says.

The Baltics are keen to avoid Ukraine's mistakes. Recent remarks by Russian officials and Kremlin mouthpieces have highlighted the danger. As their propaganda has it, parts of Lithuania were gifts from Moscow in Soviet times and therefore rightfully belong to Russia. Troublingly, that was Russia's rationale for annexing Crimea.

The Baltic states reckon that to thwart a destabilisation campaign that Russia could launch, perhaps to support an armed attack, they should determine who might be susceptible to the Kremlin's bidding. So the search is on for people involved in what officials call "Russian influence activities" as well as, more darkly, "sleeper cells" that could be activated from Moscow.

Consider the following hypothetical example, says Stephen Flanagan, a specialist on eastern Europe at America's National Security Council during Russia's offensive in Ukraine. A rumour spreads that an ethnic Russian girl in Estonia has been raped. A local pro-Kremlin motorcycle gang is told to wreak havoc. The Kremlin, which has asserted a right to protect ethnic Russians abroad, might then send in troops. At least two Russian security agencies operate in the Baltic states, says Mr Flanagan, who, before leaving government, studied the region's defences against Russia.

Most of the suspects identified by Lithuania's security agencies as part of this effort are classified as Kremlin "supporters". People in this category might do things like pass along the fabrications against Baltic democracies that crop up relentlessly online. In April, for example, a bogus report asserted that Mr Karoblis had been arrested for accepting a bribe to promote American interests at Lithuania's defence ministry. In one iteration, he was shown behind bars in a faked photograph. Lithuania has placed a smaller number of suspects in a different category: "potential doers". Offi- ▸▸

cials fear these people might take stronger action, perhaps rioting to discredit a democratic government.

Officials say they begin with tips, as well as hints of Kremlin sympathies. They might spot these in displays of military symbols or Vladimir Putin's image, as well as in tweets, tattoos and even hairstyles. Such things often mean little in and of themselves, but officials say tracking them is useful. For starters, tallying even the seemingly trivial—reports of pro-Kremlin rants by drunkards, say—can reveal an important emerging pattern, says Tomas Ceponis, an analyst at Lithuania's defence ministry. He is part of a team that records locations and other characteristics of pro-Kremlin or anti-NATO displays, graffiti and vandalism included.

Polls suggest that few Balts believe life would be better under Russian rule. As a Vilnius Uber driver describing past Russian domination puts it: "For us, Russia is an animal." The average wage in Russia is lower than "a pension for a babushka in Estonia", says Toomas Hendrik Ilves, Estonia's president from 2006 to 2016.

Russia, however, has ways to recruit foreign helpers who are not necessarily devoted believers. In eastern Ukraine, for example, the GRU (Russia's military intelligence agency) has offered heads of criminal gangs positions in a future Russian administration in exchange for help bringing it about. In Baltic countries the risk of arrest for Russia's operatives is greater. Russia, then, tends to recruit indirectly in the Baltic states, offering inducements via local NGOs and the Socialist People's Front, a Lithuanian leftist political party whose former leader was arrested last year on charges of spying for Russia.

A larger number of Balts, officials say, are recruited when they travel to Russia or its ally Belarus. Cigarettes and petrol are mostly cheaper there, so many people hop across the border, stock up, and sell the stuff once back home. Russian agents commonly approach Balts making these runs and offer money in exchange for help. Edvinas Kerza, Lithuania's vice-minister of defence, says his country therefore works hard to identify Lithuanians engaged in this hustle. Most troubling, he says, are those who have access to sensitive information thanks to a job in government.

Russia also recruits by blackmailing visitors who accept the advances of beautiful women, Mr Kerza says. Another approach involves creating a legal problem for a relative living in Russia or Belarus. The Balt is then told that the charges will be dropped in exchange for spying services. Mr Kerza says Lithuania checks to see if applicants for a government job have relatives in Russia. Arrests of suspected spies are common in the Baltic countries.

Some fret that the search for fifth columnists can be taken too far. Eitvydas Bajarunas, the Lithuanian foreign ministry's top official for hybrid threats, tells the story of men spotted in a wooded area near Vilnius. They were quickly rounded up by special forces but released soon after. They had been playing paintball. To process leads more effectively, a new intelligence centre is quietly being readied in Vilnius for operations to begin later this year. The Baltic Special Operations Forces Intelligence Fusion Cell, as it is called, is an initiative of Estonia, Latvia, Lithuania and Poland, with American help. They are being designed so that the analysts can be rapidly dispersed to work from vehicles, lest the headquarters be targeted in a conflict.

Were Russia to invade the Baltic states, local Kremlin supporters could no doubt hamper resistance. But Anders Fogh Rasmussen, a former boss of NATO, says Russia is more likely to step up efforts to stoke divisions and undermine trust in Baltic democracies with the help of its "useful idiots" there. On that, many Baltic officials are cautiously optimistic. Resistance to the Kremlin narrative of a decadent, fascist West is stronger in the Baltic region than in poorer eastern Ukraine. And even there, Russia is so unpopular that it has so far failed to secure control of a land corridor to Crimea. The Kremlin's propagandists do not always win. ■

Greece's new government

Let the good times roll

ATHENS

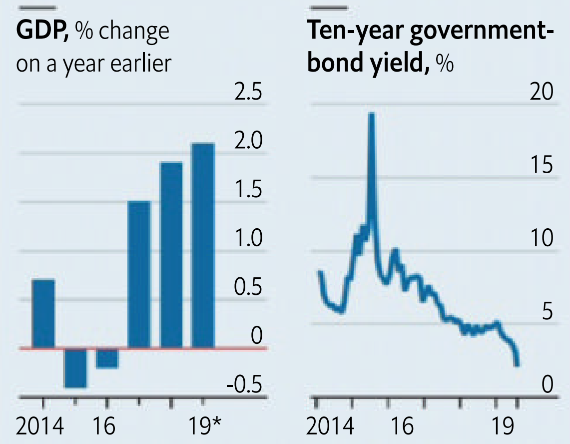
Greece's new government promises tax cuts and spending increases

OVER THE past decade Greece has been a tough place for politicians who like to be liked. The newly elected centre-right government is trying its best. In his first few weeks in office Kyriakos Mitsotakis, the prime minister, has announced tax breaks for ordinary Greeks and corporations. He has promised not to cut social benefits or fire any public-sector workers. Jobs are being created in areas that suffered deep cuts during the country's eight-year malaise. The health ministry is preparing to hire 2,400 hospital staff; another 1,500 police officers are being recruited.

Sadly, the good times are not guaranteed. The prime minister's policy choices could derail Greece's chances of hitting tough budget-surplus targets set by its creditors, the EU and the IMF. Economists fear that the relatively inexperienced Mr Mitsotakis—he held a fairly junior ministerial post from 2013 to 2015—may be overestimating his government's capacity to shake up the country's sleepy bureaucracy and push through reforms.

Slow but steady

Greece



Sources: Eurostat; European Commission; Datastream from Refinitiv

*Forecast

So far the markets have smiled on Mr Mitsotakis and his New Democracy. On July 16th Greece issued its first seven-year bond since 2010. A modest target of €2.5bn ($2.8bn) issued was hugely oversubscribed: offers exceeded €13bn, pushing down the yield on the new bond to 1.9%.

Winning over the EU and the IMF will be harder. Asked about the new Greek government at her annual summer press conference, Angela Merkel, the German chancellor, called the bond issue "very positive" but sounded a note of caution: "We will have to see how things evolve."

Mr Mitsotakis's eagerness to accelerate growth by cutting taxes as fast as possible is risky. In his first policy statement in parliament on July 21st, Mr Mitsotakis announced an immediate 22% cut in "*enfia*", an unpopular annual property tax, and a cut of four percentage points in corporate tax to 24%. Both measures will take effect in September, four months earlier than originally expected. The income-tax rate for the lowest bracket will fall from 22% to 9%; value-added tax will drop by two percentage points. Further cuts will follow in 2020, Mr Mitsotakis says.

He has also made it clear that he will not broaden the tax base, a long-awaited reform that Syriza reneged on last year. Miranda Xafa, a former IMF economist, points out that seven out of ten Greeks pay less than €100 a year in income tax. Getting more people to pay tax "would help pay for the tax-rate cuts and make burden-sharing fairer", she says.

The prime minister nonetheless promises that Greece will stick to a harsh budget target this year and next. This target has already been agreed with its creditors: a primary surplus (before debt-servicing costs) of 3.5% of GDP. The Syriza government of Alexis Tsipras, Mr Mitsotakis's predecessor, exceeded this target last year by raising taxes and cutting the public-investment budget. Creditors were impressed by ▸▸

Syriza's rigour, but growth was subdued. This year's forecast is around 2%, well below the 3.5-4% needed to make up for the recession quickly. Greek GDP is still about 25% below its pre-crisis peak.

The new government hopes that political stability (thanks to its majority in parliament) and business-friendly reforms (cutting red tape as well as taxes) will attract foreign investment. "Greece will be a totally new country for business," promises Adonis Georgiadis, the minister for development and investment. As a sign of seriousness, he is leading a push to make sure the long-stalled privatisation of Hellinikon, a prime site that used to be Athens's airport, gets under way this year.

The government will present a draft budget in September. Although Greece is no longer in an official rescue programme, the budget must be approved by the creditors under the terms of a post-bail-out "surveillance" agreement. He is betting on drastic cost-cutting at government ministries to offset immediate revenue reductions from tax cuts. Good luck with that. ■

Hohenzollerns in hot water

Jacobin fury

BERLIN

The backlash against the Kaiser's family's claims for property restitution

Prince Georg Friedrich of Prussia is getting a lesson on how not to get the public on his side. The great-great-grandson of the last Kaiser has been in talks for years with the federal government, as well as the state governments of Berlin and Brandenburg, about the return of possessions expropriated by the Russians at the end of the second world war. A letter from his lawyer to the authorities has now been leaked to the press, provoking a vehement backlash against Wilhelm II's Hohenzollern dynasty and its alleged support for the Nazis.

The document reveals that the prince wants compensation of at least €1.2m ($1.3m), the right to live rent-free at Cecilienhof (the palace where American, British and Russian leaders held the 1945 Potsdam conference that settled the post-war order), as well as paintings, sculptures, books, letters, photographs and medals from various Hohenzollern houses. The requested inventory includes Cranach paintings and the armchair in which Frederick the Great died.

The prince was perhaps naive in thinking the letter would remain confidential in Brandenburg, a state ruled by a coalition of Social Democrats and Die Linke, an ex-communist party, which is preparing for hotly contested state elections. The public reacted with Jacobin fury. "The aristocracy is not noble, but evil," fumed Tomas Fitzel of Rundfunk Berlin-Brandenburg, a local radio station. The aristocracy robbed and extorted for centuries, tweeted Kathrin Vogler, an MP for Die Linke, adding that aristocrats are lucky Germany is not France.

Like all families whose property was confiscated by the Russians and eastern Germany's communist regime, the Hohenzollerns cannot claim their houses back. Yet according to legislation passed in 1994, they are entitled to restitution of mobile property, as well as the payment of compensation. The only exceptions are families that actively supported the Nazi regime. This is the sticking-point.

If the case goes to the courts it will not be pretty. Prince Wilhelm, the son of the last Kaiser, has been called a mouthpiece for Nazi propaganda. His brother August Wilhelm was a fervent Nazi. All parties are still hoping for a settlement out of court. It is very much in the prince's interest to make it happen.

They took it all away

Wine in France

The rise of rosé

CRESTET

Even France is learning to drink pink

"There is more philosophy in a bottle of wine than in all the books in the world," said Louis Pasteur, a 19th-century French chemist. For the French, wine is not just a drink or source of alcohol: it is a mark of civilisation, a subject of scholarship, a way of life. So why in the land of fine wines is rosé, the industry's poor cousin, enjoying such a boom?

On the slopes of a forested hillside close to Mont Ventoux, the Domaine de la Verrière is one of the highest vineyards in Provence. Among the Chêne Bleu wines it produces, predominantly from hand-picked grenache and syrah, is a premium organic rosé. By July this year, for the first time, the estate had sold out of last year's vintage. "Our rosé sales are now constrained by supply," says Danielle Rolet, whose family owns the vineyard.

France is both the world's biggest producer and consumer of rosé wine, a pale pink blend that snobs have traditionally scorned. In the second half of 2018 supermarket sales of red in France fell by 5% on the same period the previous year, and white was flat. Yet rosé sales were up by 6%.

Why the French craze for rosé? One answer is the change in diets. In recent years even the French have begun to eat less steak and other red meat, which they traditionally accompany with red. As a simpler—and, the purists would say, blander—wine, rosé is seen as a lighter drink, particularly when chilled in summer. It is especially popular among the under-25s, the age group most likely to be vegetarian, according to the Organisation Internationale de la Vigne et du Vin.

A second, and perhaps more surprising, reason is the emergence of winemakers seeking to take rosé upmarket. A bottle of top-end Garrus rosé from the Château d'Esclans, a Provençal wine estate, for instance, sells at an improbable €100 ($110). Such wines, or so their producers hope, are helping to lend rosé the cachet it has lacked until now. "From the start, we wanted to make a more complex, structured, serious rosé," says Ms Rolet; "Now, almost unexpectedly, we find that it's through our rosé that people find us."

And then there is the celebrity image. Almost all the Côtes de Provence wines, made along France's Mediterranean fringe, are rosés. For millennials, the pale pink hue, backlit by sun, is considered highly "Instagrammable". "It's a fashion that has come up from Saint-Tropez," says a winemaker farther inland, dismissively. Brad Pitt and Angelina Jolie own the Château de Miraval in Provence, which produces a premium rosé. Other aspirational brands, such as Minuty, are popular—often by the magnum—on the yachts and in the beach clubs of the Riviera. Such bottles sell not so much a pale pink liquor as a glamorous lifestyle fantasy. The promise, as it were, of *la vie en rosé*—to which even the French, it seems, are not immune. ■

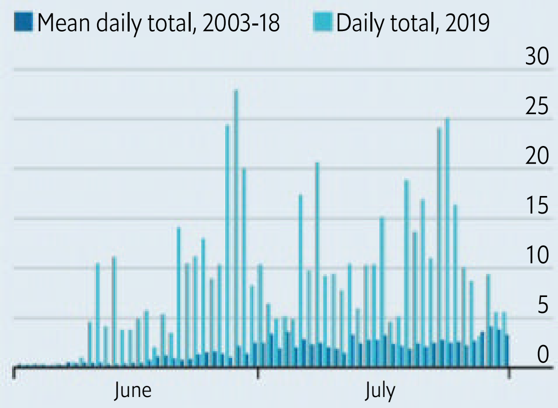
The Arctic

Ice and fire

Abnormally high rates of wildfire and peat fire in the Arctic are the latest symptom of climate change, and are likely to accelerate it

The great burning

Arctic Circle, fire radiative power, gigawatts



Source: European Centre for Medium-Range Weather Forecasts/Copernicus Atmosphere Monitoring Service

THE EASTERN SIBERIAN landscape does not normally resemble hell. In winter it is blanketed in snow; in summer, its forests are lush and its wetlands soggy. This year, however, the region is on fire, as are large parts of the Arctic Circle.

Nothing on this scale has been observed since high-resolution satellite records of fires in the globe's far north began in 2003 (see chart). A study in 2013 suggests that even the amount of burning seen in boreal regions in recent decades was outside the norm for the past 10,000 years. Researchers call this year's events "unprecedented". The data this summer are "insane", says Guillermo Rein, an expert in peat fires at Imperial College in London.

The fires began in June, spurred by an extremely hot and dry early summer. It was the hottest June on record, globally, according to America's National Oceanographic and Atmospheric Administration. Temperature increases owing to global warming are not evenly distributed, and the Arctic is warming twice as fast as the rest of the planet. In the regions that are burning, temperatures peaked at 8-10°C warmer than the average from 1981 to 2010. This has dried out the landscape, producing tinder for natural forest fires that were probably ignited by lightning.

So far, hundreds of above-ground fires have been recorded by satellites, covering hundreds of thousands of hectares in the Arctic and sub-Arctic, from Eastern Siberia to Alaska and Greenland. The European Copernicus Atmosphere Monitoring Service estimates that fires within the Arctic Circle have produced more than 100m tonnes of carbon dioxide, or roughly what Belgium emits in a year. That is a lot. But burnt vegetation can regrow within a decade, and in doing so reabsorbs much of the released carbon dioxide.

It is what is happening below ground that most worries ecologists and climate scientists. Many of the Siberian and Alaskan fires are burning carbon-dense peat soils, which would normally be waterlogged. Peat fires produce much more carbon dioxide and methane from the combustion of carbon that has been locked in the ground for hundreds or thousands of years. Burning soil therefore eliminates important carbon sinks that cannot be replaced on any useful timescale.

This in turn sets in motion positive feedback loops which are not accounted for in the climate projections of the Intergovernmental Panel on Climate Change. Climate researchers do cite the possibility that global warming will thaw Arctic permafrost, releasing large amounts of stored greenhouse gases. But if fires in the region become more common, that could have even bigger consequences. The emissions from this year's fires make it more likely that the conditions will be met for peat to ignite again in coming summers, producing ever more emissions, and so on. Under these conditions, "I am convinced that it will actually be wildfires that will release much faster and bigger amounts of carbon," rather than melting permafrost, says Mr Rein. The fires also produce a fine black soot known as black carbon which, if dropped on the Arctic sea ice by favourable winds, will darken its surface, making it more likely to absorb sunlight and melt. This decreases the reflectivity of the region as a whole (blue water absorbs more solar energy than white ice) and further increases Arctic warming.

The full scale of the Arctic fires' impact will not be known for months. The satellite data being used to estimate emissions from the wildfires cannot capture fires that are smouldering below the ground, which could double or triple the impact, according to Mr Rein.

Smog from the fires is blanketing much of Siberia, from Kazakhstan to the Bering Sea, with carbon monoxide and other nasties. On July 31st, after a petition to declare a state of emergency garnered more than 800,000 signatures, President Vladimir Putin ordered the army to help fight the fires. It is likely to be too little too late. Fighting fires that have grown to such colossal sizes in remote regions with few roads is difficult or impossible.

The task is even harder for large peat fires. In South-East Asia, peat fires are caused by local environmental change, including drainage and deforestation to make way for crops. "What is scary about the Arctic fires is that they are driven by climate change, and as such there's very little you can do," says Thomas Smith, who studies wildfires at the London School of Economics. "You can't raise the water table for an area the scale of northern Alaska or Siberia." Few natural peat fires this big have ever been successfully managed, and then only by pumping billions of gallons of water over land. The only way to deal with the spread of these fires is to slow the rate of global warming, by stepping up work on cutting greenhouse-gas emissions. Don't hold your breath. ■

A drop in the ocean

Charlemagne | Streets ahead

Europe is edging towards making post-car cities a reality

Hurtling along a "cycle highway" by the River Scheldt in Antwerp recently, Charlemagne only noticed the electric scooter when it was too late. Spinning tyre met stationary scooter, British journalist separated from Belgian bike and Anglo-Saxon words were uttered. How irritating and obnoxious these twiggy little devices can seem with their silly names ("Lime", "Poppy", "Zero") and their sudden invasion of the pavements of every large European city. Everywhere they seem to be in the way, abandoned precisely at those points where prams, pedestrians or speeding journalists need to pass.

And yet your columnist refuses to hold a grudge, because the rise of the electric scooter is part of a broader and welcome phenomenon: the gradual retreat of the car from the European city. Across the continent, apps and satellite-tracking have spawned bike- and scooter-rental schemes that allow city-dwellers to beat the traffic. Networks of cycle paths are growing and creeping outwards; that of Paris will by next year have grown by 50% in five years. Municipal governments are lowering speed limits, introducing car bans and car-free days, pedestrianising streets and replacing car parks with bike parks.

There are downsides. Electric scooters can be a nuisance. A campaign group called Apacauvi has sprung up in Paris to combat their "urban anarchy" and mayors, including Anne Hidalgo in the French capital, are starting to impose regulations on their use and storage. Some politicians have criticised heavy-handed municipal measures. Angela Merkel has called legislation expelling some diesel cars from German cities "disproportionate" and the new conservative mayor of Madrid wants to loosen a recent ban on polluting cars. For some it is a class issue, a case of urban eco-yuppies imposing their bike and scooter fads on suburbanites and country folk who rely on their cars. Others consider it technologically anachronistic. Electric and self-driving cars would be cleaner, quieter, more efficient users of road space. Why get in their way?

Antwerp is a good antidote to such objections. Like many European cities such as Cologne, Birmingham and Milan, it fell victim to post-war planners enamoured with car-centric American cities. Highways and overpasses were draped around and through it, old streets widened and squares turned into car parks. This gave Antwerp some of the worst congestion in western Europe. But in the past couple of decades the city has changed tack, built a dense network of cycle lanes, widened pavements, pedestrianised streets and squares and imposed traffic restrictions.

The result is impressive. It is possible to cycle or scoot from one side of Antwerp's city centre to the other without encountering a private car. Even in the suburbs bikes rule the road and are not subject to the one-way and no-turn rules binding drivers. Cafés spill out onto pavements. Trees and shrubs sprout from filled-in parking spaces on residential streets like Lamorinierestraat. The cycle highways—broad enough for bikes or scooters to overtake in either direction, governed by their own traffic lights and entirely separated from cars—run out into the suburbs, through the city's port district and along metro and tram lines. On the Mechelsesteenweg a woman teaches a girl of about six, equipped with bike and helmet, how to use the lights. Everywhere there are bike racks, rental bike stands and scooters.

The post-automotive jewel in Antwerp's crown is the Groen Kwartier, an entirely carless neighbourhood built around the site of a former hospital. In the streets of this inner-city district can be heard only the sounds of children playing and chatter across balconies. Far from being a preserve of privileged hipsters, it is home to a mix of people with white Belgian, Arab, west African and Orthodox Jewish backgrounds. Barcelona is attempting something like the Groen Kwartier by creating "superblocks", or clusters of city blocks around which traffic is allowed but within which it is highly restricted.

Even the electric scooters have their benefits. For all that they clutter up pavements, they take up vastly less road space overall than cars. In the quiet streets of central Antwerp the scooter craze feels like a fair price to pay. Moreover, the scooters and bike schemes in fact make carless cities less elitist. University towns and trendy central districts have long been bike-friendly. Today's shifts extend those trends to suburban areas and more typical citizens by making non-car travel accessible to those unable to buy one, offering cheap rental vehicles that can cover the "final mile" between bus or train stations and suburban homes or offices, providing cycle highways linking outlying places with city-centre networks and even, as in Germany, pioneering bike "autobahns" linking close-together towns. Electric scooters and bikes make such routes accessible to those not up to cycling, and boast seats, baskets or cargo boxes for those with shopping or children to transport. The old or infirm will doubtless want to keep their cars.

Two wheels good, four wheels bad

So ever fewer citizens in and around European cities need to put up with the cost and hassle of driving to go about their daily business. And ever more are enjoying the experience—once the preserve of a metropolitan elite—of calm streets, squares and parks. Madrid's bid to roll back car restrictions, the most notable exception to this trend, was tellingly reversed in July following protests.

All of which seems like a revolution in the European cityscape. But in many ways it is a reversion. Places like Antwerp existed for centuries before the car. Their centres are warrens built around foot traffic, that had to be trimmed, straightened and trained like rose bushes as car ownership grew. They are denser than American cities, even in their suburbs, and tend to lack the big open spaces needed for cars to move smoothly. In such cities cars never made much sense. But they found their way in and became part of the urban furniture. And now that is changing. ■

No-deal planning

Boris's game of chicken

Whether it's gameplay or reality, Britain's new government is determined to look serious about getting ready to leave the EU without a deal

THE RULES of chicken are simple: two parties hurtle towards each other at speed and the first to move out of the way—the chicken—loses. After posing with feathered friends at a poultry farm in Wales, Boris Johnson, the new prime minister, made it clear that he would not be the first to swerve.

Mr Johnson demands that the EU bin the Irish backstop (see next story) agreed on as part of the deal reached with Theresa May, his predecessor. The EU has repeatedly ruled this out. If they can't compromise, he squawked, "if they really can't do it, then clearly we have to get ready for a no-deal exit." The game may play itself out in many different ways (see overleaf) before October 31st, the date on which Mr Johnson is committed to leaving the EU.

Crucial to winning the game is to appear determined not to chicken out. Brexiteers say that the EU never really believed Mrs May's "no deal is better than a bad deal" line, which weakened Britain's negotiating hand. Mr Johnson has gone all-out to show that he means it.

Sajid Javid, the new chancellor, has pledged an extra £2bn ($2.5bn) for no-deal preparations, on top of the £4bn-odd that Philip Hammond, his predecessor, set aside. Some £100m will be spent on adverts warning the public and businesses to prepare for the worst. Michael Gove, who led the Vote Leave campaign with Mr Johnson in 2016, meets top officials daily to orchestrate "no-deal" preparations. Add the magic words "no deal" to any spending request and it will find its way to the chancellor's desk almost immediately, says an aide.

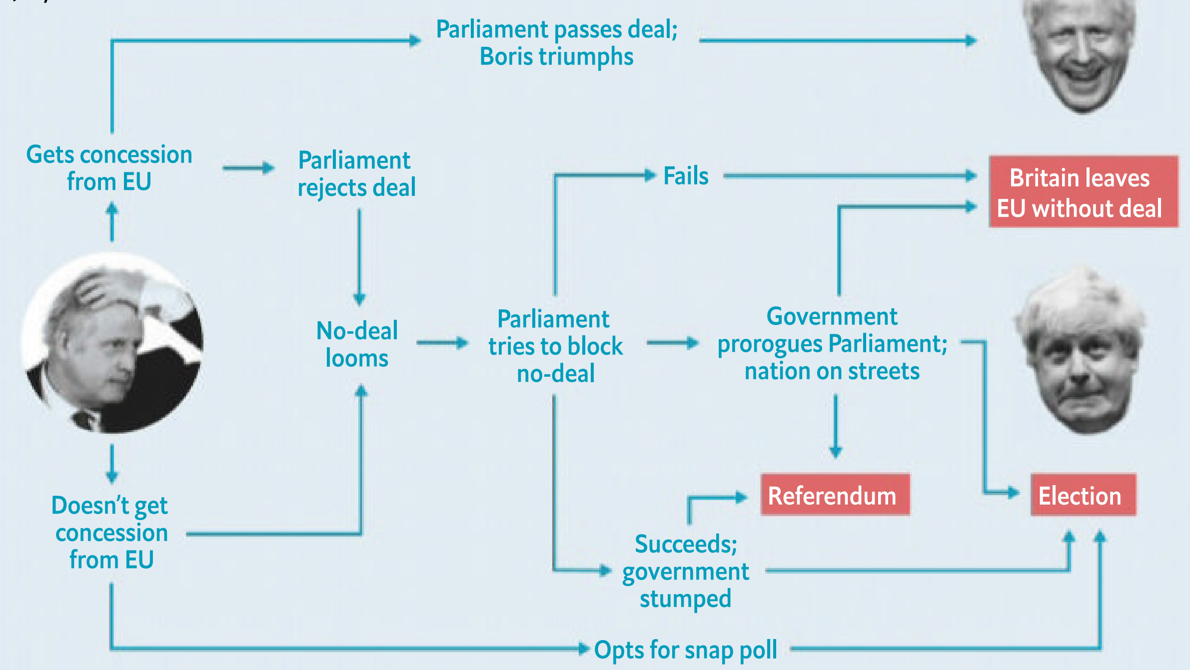
Yet when it comes to no-deal preparations, separating theatre from reality is tricky. Beneath the fresh bluster, in most departments preparations involve blowing the dust off old plans. Britain has been here before. In March and April, the last time a no-deal exit loomed, departments were running 24-hour response units. According to the Institute for Government (IFG), 16,000 civil servants were beavering away on Brexit plans.

Some progress has been made since. Earlier this month the Bank of England noted that "UK-based firms have made further preparations to be able to serve EU clients" in the event that Britain leaves without a deal. It does not expect lending to firms and households to seize up. An upgraded customs system, needed to handle the large number of customs declarations that will have to be made once tariffs are in place, was not ready for March or April, but will now be partly in place by October.

A lot more still needs to be done. By dint of its EU membership Britain has around 40 free-trade deals with non-EU countries. The government has said that it wants to reach bilateral agreements with these countries, so that the agreements roll over even if Britain leaves the EU without a deal. So far it has managed to roll over fewer than half. Britain has made even less progress on other international agreements to which it is party through its EU membership, including on nuclear research and competition.

Yet there is only so much the government can do. Most of the issues thrown up by a no-deal Brexit are inherently bilateral, requiring the EU to play nice, points out Anand Menon of UK in a Changing Europe, a think-tank. Britain may throw open the port at Dover, for instance, but it would be for naught if officials in Calais enforce checks. The Confederation of British Industry says that the EU's preparations lag behind Britain's. And while the government will determine the route Britain takes out of the EU, it is businesses that will feel ▸▸

Cripes! Almost all roads from here look scary
July 2019



Source: *The Economist*

the effects, and that must take action to mitigate them. But "businesses do not want to," says Sam Lowe, a researcher at the Centre for European Reform, another think-tank. "They want government to bear this cost."

Kicking business into action is harder than it looks. The first problem is Duke of York syndrome. Some firms put in place contingency measures the last time a no-deal exit loomed. Many felt that their money was wasted. "Marching them back up the hill again will be a challenge," said Martin McTague, from the Federation of Small Businesses, a lobby group, especially when Mr Johnson himself said during his campaign to become prime minister that no-deal has a "million to one" chance of happening. "The million-to-one line will resonate more than a technical notice or a billboard from government saying 'get ready'," says Joe Owen of the IFG.

Second, scaring business into action sits uneasily with Mr Johnson's pathological optimism. A description of the threat of no-deal alarming enough to get business to prepare energetically would frighten the horses; too rosy an account of the future and people will not prepare.

The markets, at least, are taking seriously the government's apparent determination to leave with or without a deal. In Mr Johnson's first week as prime minister the pound fell by 3% on a trade-weighted basis. It is nearing $1.20 against the dollar, its lowest level since the referendum.

The government hopes that talk of a big fiscal boost will counterbalance the gloom. It is said to be planning an autumn budget that would get the economy "going gangbusters" by exit day. Mr Johnson has floated various giveaways, including raising the thresholds at which people start to pay the higher rate of income tax and more money for the NHS and police. At the poultry farm he promised to compensate farmers who lose out from any no-deal disruption.

Yet Britain will not be able to spend its away out of no-deal chaos. In such an event, annual borrowing would anyway rise by some £30bn (1.4% of GDP) as the economy slowed, official estimates suggest. A government which promised lots of extra spending and tax cuts on top of that would test the confidence of investors. And a no-deal Brexit is likely to be primarily a shock to the supply side of the economy. Fiscal stimulus aimed at supporting demand would do nothing to help bottlenecks at Dover or firms that were no longer legally allowed to sell into the EU market. Not all types of chicken come cheap. ■

Northern Ireland

Vroom, vroom

If the game of chicken ends in a crash, Ireland is where it will happen

ONLY A FEW years ago London and Dublin were congratulating each other on forging a new golden age in Anglo-Irish relations. Brexit has put paid to that, as a phone call between Boris Johnson and Leo Varadkar, the Irish prime minister, on July 30th demonstrated.

That there was no communication between Mr Johnson and Mr Varadkar for a week after the former assumed power was itself a symptom of the deterioration in relations. When they did talk, neither budged. Mr Varadkar insisted that the Irish backstop—the default provision which would allow goods to move freely over Britain's only land border with the European Union after Brexit—must stay. The EU, he said, was united on the issue. Mr Johnson, in line with the views of the hard-Brexiters, insisted that it must go.

Very likely Mr Johnson, captured as he has been by hard-Brexiters, would have taken that line anyway. But his position is complicated by his government's reliance in Westminster on the votes of the Democratic Unionist Party, the hardline Northern Irish unionists who are allergic to anything that suggests the weakening of the United Kingdom and the strengthening of links between Northern Ireland and the Irish government. The DUP also insists that the backstop must go.

As though the Brexit impasse were not bad enough in itself, it is undermining the historic 1998 Good Friday Agreement. The deal is already fragile. The Belfast Assembly, which is at its heart, has been closed for more than two years because of arguments over a botched green-energy scheme, with the result that Northern Ireland does not have a government. Mr Johnson visited Belfast on July 30th for talks aimed at getting things back on track, without success.

But a British departure from the EU without a deal, which seems increasingly likely, will endanger the peace agreement further. In the absence of a Northern Irish government, the British government will probably reimpose direct rule on the province to avert or address any disruption that a no-deal Brexit may cause. "Without it", said a report from the Institute for Government published this week, "Northern Ireland will be left even more exposed to the economic shocks of a no-deal Brexit than it is currently."

Direct rule would take Northern Ireland right back to where it was two decades ago, before the Good Friday Agreement. That would further exacerbate relations between the British and Irish governments, and would infuriate nationalists in Northern Ireland, where anti-London sentiment is running high. This is partly because nationalists tend to be pro-EU, and partly because they regard the Johnson government, like that of his predecessor Theresa May, not as an impartial arbiter but as an ally of the DUP. There are fears that violence could resume.

Mr Johnson's priorities seem clear enough. While his first contact with the Irish prime minister was confined to that 15-minute phone call, he spent much of an evening in Belfast dining with leaders of the DUP. ■

Correction: In "Pastures old" in our issue of July 27th, we accidentally merged two regiments, referring to the "regimental goat of the Royal Welsh Guards". It belongs to the Royal Welsh, not to the Welsh Guards. Our apologies to both regiments, and the goat.

Bagehot | Long live the Tory revolution!

How the party of Burke became the party of Rousseau

The closest thing the Tory party has had to an in-house philosopher is Edmund Burke, and the closest thing it has to an intellectual bête noire is Burke's French contemporary, Jean-Jacques Rousseau. Burke, a liberal conservative, believed fervently that changing societies needed to be anchored by tradition and custom. Rousseau, the patron saint of revolutionaries from Robespierre to Pol Pot and prime enabler of "democratic dictatorship", was the sworn enemy of the established order.

Yet over the past few years the party of Burke has become the party of Rousseau. Boris Johnson's bloody cabinet reshuffle completed the purge. Burkeans such as Philip Hammond and Rory Stewart were out; revolutionaries such as Dominic Raab and Priti Patel now hold all the great offices of state. Dominic Cummings, appointed as Mr Johnson's senior adviser, told staff that the government was committed to delivering Brexit "by any means necessary"—a reference to a speech by Malcolm X on violence in the pursuit of justice. This is the British equivalent of the Chinese Communist Party embracing capitalism.

Rousseau developed the idea of the "general will": the opinion of the majority, which should prevail, irrespective of the interests of minorities. Burke believed that Parliament should interpret, modify and sometimes ignore the people's views. The job of an MP was not to channel popular opinion, but to use his judgment.

The Conservative Party is now the party of the general will. It not only made the fatal decision to call for a simple 50-50 referendum on Britain's membership of the European Union, but has repeatedly used the result to silence MPs who have called for a soft interpretation that would take into account the opinions of the 48% who voted to remain. Now that the general will has been revealed, goes the line which Rousseauan Tories have successfully peddled, those who question it must be crushed like so many French aristocrats.

Attitudes towards institutions are particularly telling. Burke saw them as the embodiment of collective wisdom and the bulwarks of civilisation, standing between decency and anarchy. Rousseau regarded them as fetters on the people's freedoms. Today's Tories are with Rousseau. Jacob Rees-Mogg has called the governor of the Bank of England, Mark Carney, "an enemy of Brexit". James Slack, author of a notorious *Daily Mail* cover story describing the judges who had ruled that Parliament would need to consent to Brexit as "Enemies of the People", is now in Downing Street. And the government has made it clear that it will "prorogue"—ie, suspend—Parliament rather than allow it to prevent Britain from leaving the EU without a deal.

Rousseau, an early Eurosceptic who railed against the rise of a pan-European ruling class, denounced intellectuals who claimed to know better than ordinary people as having "reason without wisdom". His ideal society was Sparta, with its austere military ethos and do-or-die defence of national sovereignty. Burke's views were far more nuanced. While supporting the established order, he believed that it needed to be able to adapt: "A state without the means of some change is without the means of conservation." Though he emphasised the importance of social roots, he recognised that urbanisation was progress. His guiding principle was "equipoise"—the need to balance reform with stability.

The modern Tory party's cultural attitudes have more in common with Rousseau's anti-metropolitan rage than with Burke's appeal to balance. Mr Johnson has attacked "the thousands of Davos men and women who have their jaws firmly clamped around the euro-teat". Michael Gove has pooh-poohed experts. The most hard-core Brexiteers call themselves the Spartans.

How to explain this extraordinary *volte face*? The obvious answer is the referendum of 2016: once you promise the people that their voice will be final it's impossible to go back, even if it means self-destruction—a possibility to which Mr Johnson gestured in his "do or die" commitment to leave the EU by October 31st. But why did the Conservatives choose to hold a referendum in the first place? And why did they choose to ignore the opinions of the 48% in crafting Brexit? The referendum was a symptom as much as a cause of the internal revolution: the Rousseauan palsy had already entered the party's central nervous system.

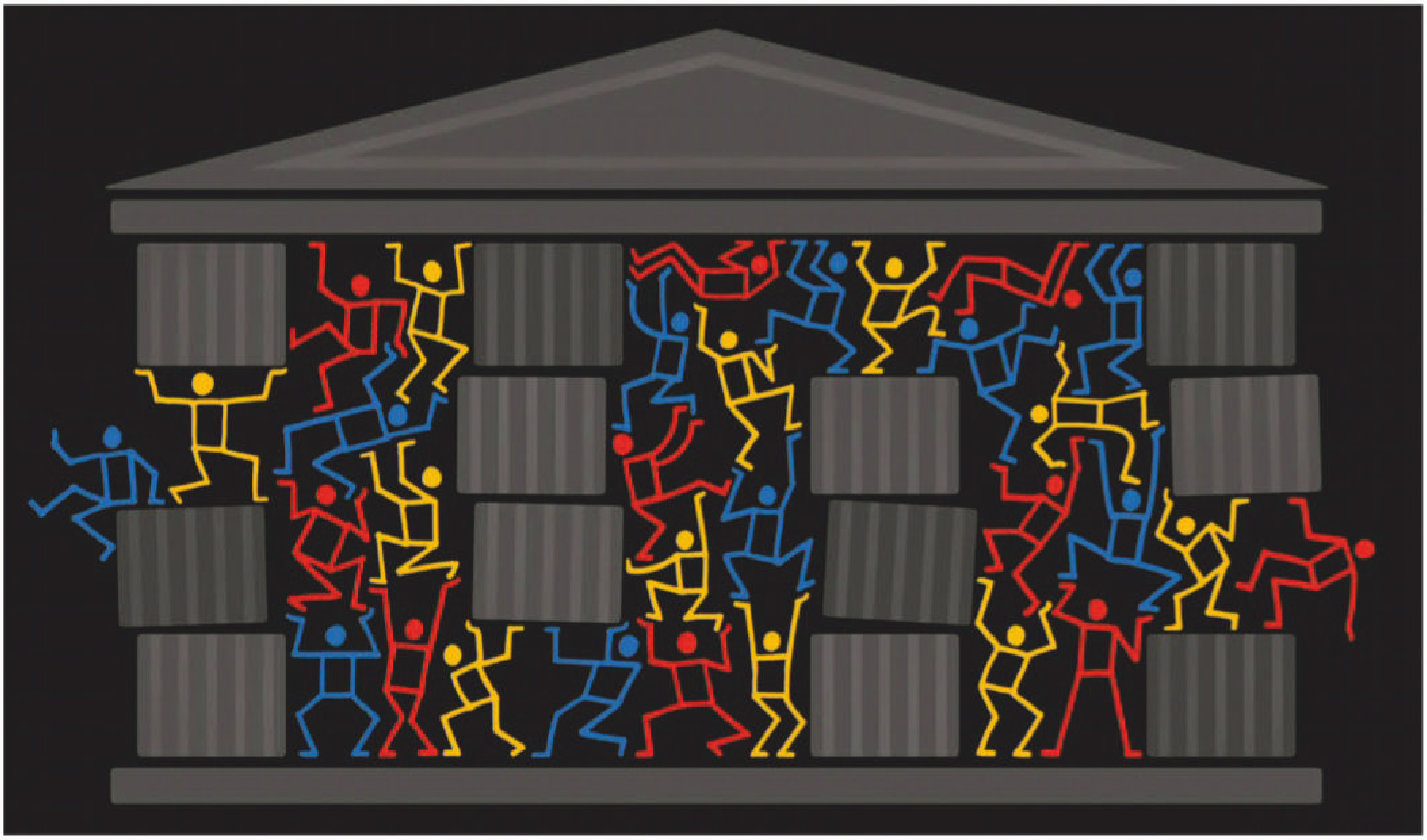
Social change may have played a role. In 1950 the Conservative Party had almost 3m members and a demanding social round of dinner dances, fetes and charity functions: not so much a Burkean "little platoon" as a "big platoon". With the decline of political parties as social institutions it has become a much more ideological outfit. Its 160,000 members are believers—above all, in Brexit.

Thatcherism is partly to blame. Margaret Thatcher, who committed the ultimate sin in the Burkean canon of pronouncing that there is "no such thing as society", injected a revolutionary strain of anti-establishment libertarianism into her party. Euroscepticism bears more responsibility: Tory defenders of British sovereignty are willing to burn down the village in order to save it.

Burke against the berks

The Tory revolution, like all Rousseau-inspired movements, is beginning to consume its own children: Steve Baker, one of the leading Spartans, rejected Mr Johnson's offer of a job in the Brexit department on the ground that it would leave him "powerless". But resistance from outside the party of the revolution is also needed.

Burke once wrote that "when bad men combine, the good must associate", and there are some signs of that. Soft Brexiters are plotting to block a hard Brexit in Parliament. Mr Stewart has drawn up long-term plans for reviving the party in the country. But Mr Johnson has put together one of the most extreme cabinets in modern history, and time is short. The good men and women need to get together not only with fellow Tories but also with people of goodwill from all parties, if the ship of state is not to hit the rocks. ■



Ungovernable democracies

Coalitions of chaos

Western politicians say their countries are ungovernable. What does that mean?

A SPECTRE IS haunting the rich world. It is the spectre of ungovernability. "Ungovernability in Italy is a great risk," averred its former prime minister, Matteo Renzi, in 2017. "It will be impossible to govern Spain until they face the political problem in Catalonia," predicted the spokeswoman of the Catalan regional government in February (just before that government was closed down). Emmanuel Macron, for whom to govern is to reform, warned that "France is not a reformable country", evoking the spirit of General de Gaulle who once asked how anyone could govern a nation with 246 kinds of cheese.

When you survey the political landscape of rich countries, you see an unusual amount of chaos and upheaval. Prague has seen the largest demonstrations since the overthrow of communism. More than a quarter of the current parliaments in Europe were elected in polls that were called early. In Britain the mother of parliaments has been at the gin bottle and opinion polls everywhere show increasing numbers of people losing patience with democratic niceties and hankering after a strongman.

But experiencing protests or having weak governments does not make a country ungovernable. Moreover, as Tolstoy might have written, each ungovernable country is ungovernable in its own way. The problems of Italy, Spain and Britain are all different. So what, if anything, does ungovernability mean when applied to democracies? And if it is a problem, is it worse now than in the recent past?

Ungovernability can be thought of in four ways. No Western country is ungovernable in every one. But there are a few features that exist in more than one country and a few countries that look ungovernable in more than one sense.

First, some countries cannot form a stable government either because (in first-past-the-post systems) the largest party does not command a majority in parliament, or because (in countries with coalitions) parties cannot organise a stable alliance on the basis of election results. Spain has had three elections since the end of 2015 and may have to call a fourth following its failure to negotiate a new coalition. In Britain an election in 2017 stripped the ruling Conservatives of their majority and their subsequent period in office has been tumultuous. In both countries, stable two-party systems have given way to wobbly four- or five-party ones. (And both, incidentally, have seen the collapse of large regional governments, in Catalonia and Northern Ireland.)

In the 28 European Union countries, eight of the most recent legislative elections were snap polls, called before the end of the normal parliamentary term. This is not a trivial share, though it does not suggest widespread chaos, either.

Joining up is hard to do

More common, countries with coalition governments have suffered unusually protracted negotiations. Sweden's lasted four months ending in January 2019; the country now has an ineffective minority government. Finland held an election in April and it took until the end of May to create a left-right coalition. These cases pale in comparison with the eight months that it took to produce a Czech government in 2018, to say nothing of the record 535 days that Belgium endured without a government in 2010-11. After its vote in 2018, Italy did manage to cobble together a coalition between populist right and populist left, though they cannot stand one another. These countries should probably be called precarious, rather than ungovernable. ▸▸

Next, ungovernability can mean that governments fail to pass basic laws on which the operations of the state depend. Spain's could not pass a budget this year, triggering the election in April. Italy did pass its budget for 2019, but by busting the financial limits imposed by the EU, though confrontation has so far been avoided.

Broken by Brexit

Britain has seen an unprecedented failure: a thrice-repeated defeat by huge margins in the House of Commons on the most important issue of the day, Brexit. Had this happened at any other time, the government would have resigned, precipitating an election. As it was, the defeats triggered a contest for leadership of the Conservative Party, resulting in a government which expects to crash out of the EU without an agreement, pitted against a parliament determined to prevent such a thing happening (see Britain section). This is an extraordinary turn of events in a system which is not supposed to permit divided government. If Britain is sliding towards ungovernability will depend on whether it does crash out and what happens at the expected early election. At the moment, with a one- or two-seat majority, the government is running on fumes.

But the home of failure to pass meaningful laws is the United States, where both Republicans and Democrats have given up on passing legislation until after the presidential election of 2020. This continues a long-standing failure. Appropriation (budget) bills routinely fail to be approved on time. Between 2016 and 2018, Republicans controlled both branches of government but failed in their main legislative goal, to repeal the Affordable Care Act ("Obamacare"), and did not try to win approval for a promised deal to improve America's crumbling infrastructure. America is not ungovernable in most senses of the term but its legislature and executive are locked into paralysis.

A third aspect of ungovernability is the systematic corruption of constitutional norms, making political processes haphazard or arbitrary. This does not always make countries ungovernable. Sometimes, as recently in Hungary, for example, it does the opposite, increasing state power at the expense of democratic checks and balances. But the undermining of norms can also hamper decision-making, as in Britain. There, cabinet responsibility and party discipline have broken down, ministers break the ministerial code of conduct and traditions of parliamentary procedure, such as holding a Queen's Speech to outline legislative proposals, are ignored.

America is not quite as bad. But President Donald Trump shut down the federal government twice in a year—compared with once in Barack Obama's eight years. The second Trump shutdown, in 2018-19, was the longest in history. Mr Trump has flouted Congress over a tax law and urged his administration to resist Congressional requests for information. The former British ambassador to Washington called his administration dysfunctional, unpredictable, faction-riven, diplomatically clumsy and inept. And that is the view of America's friends. America's political system is not designed to operate smoothly. But it is becoming dysfunctional in ways the framers never envisaged.

Western countries are not ungovernable in the sense of paralysed by riots or crises. They have not lost control of the streets. Nor are they Congo. But their governments are riven by disputes and are too weak to implement big reforms—to pensions, say, or social care. They are not impossible to govern in the sense of chaotic or anarchic but more than a few are ungovernable in the sense that their governments cannot do anything of importance.

Lastly, the past year has seen a return to the streets of mass demonstrations. In France, the *gilets jaunes* (yellow jackets), a populist grassroots movement, have blocked roads and staged some of the most violent demonstrations the country has seen since 1968. In Britain campaigners against Brexit claimed 1m people joined a demonstration in London in March 2019, which would make it one of Britain's largest-ever rallies. Prague has seen the largest demonstrations since the Velvet revolution of 1989. And there have been smaller anti-government rallies in Spain, Serbia, Hungary and Slovakia in 2018-19.

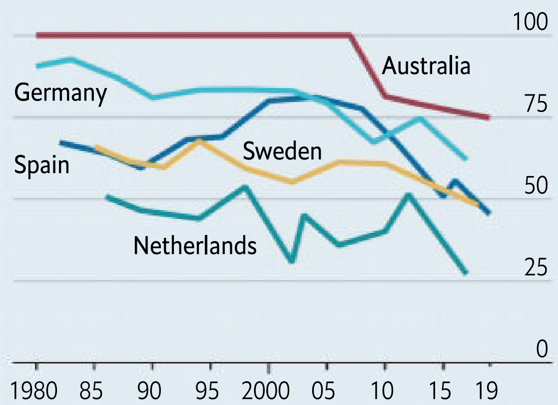
The nature of these demonstrations, however, is a reminder of what today's ungovernability is not. It is not mob rule. No one is burning down the presidential palace or executing the king. Protests in Western capitals have mostly been placid compared with the 1960s and 1970s. During riots after the assassination of Martin Luther King in 1968, machineguns were posted on the steps of the Capitol.

That point of comparison suggests an odd feature of contemporary politics: it turns the experience of the 1970s upside down. Then, inflation was rampant, unemployment high and strikes common. There were riots and assassinations and, in America, conscription into an unpopular war. Yet, with exceptions such as the Watergate scandal, the business of government continued to rumble along. Within a couple of years of the riots in 1968, Richard Nixon had set up the Environmental Protection Agency; de Gaulle won a legislative election just after the Paris *événements*. Paul Keating, later Australia's prime minister, said of his country's government in the 1980s that "the dogs may bark but the caravan moves on" (ie, the government kept going, critics notwithstanding). Now, matters seem to be reversed. Inflation is tamed, unemployment is low and wages are inching up. But governments are stalemated. Compared with the 1970s, societies are less disorderly but politics is more so.

Perhaps this will prove short-lived. Maybe politicians are just facing a temporary double-whammy of unpopularity. Voters are not giving them credit for economic recovery and are angry about the costs of austerity. If so, governments might one day reap electoral rewards and normal governance will resume.

Two bad?

Combined vote share of main two parties in general elections, %



Source: National statistics

The party's over

But longer-term trends seem against that, notably the secular decline of large political parties which has gone furthest in Europe (see chart). At their height, the two largest parties in Britain, Spain and Germany were winning 80-90% of the vote. Now, they are down to two-thirds or less.

In 1960, 15% of electorates in western Europe were affiliated with a party. Now the share is below 5%. Britain's two big parties were once the largest civic organisations in the country. Now their combined membership is less than that of the Royal Society for the Protection of Birds.

Membership of unions and churches has fallen, marginalising the institutions that buttressed the centre-left and centre-right, respectively. And, except in America, voters are more fickle. Alessandro Chiaramonte of the University of Florence and Vincenzo Emanuele of Luiss University in Rome found that 8% of European voters changed their votes between national elections in 1946-68; in 1969-91, 9% did so; in 1992-2015, 13% changed their minds.

Everywhere, parties are finding it harder to recruit and retain members and to mobilise voters. Parties are the organising forces of parliamentary democracy. They pick candidates, approve manifestos and get out the vote. Coalitions usually revolve around one large party. If parties continue to decline, political systems are likely to become at least more fluid, and at worst harder to govern. ■

Digital marketplaces

How to beat Bezos

LAGOS, MOSCOW, RIO DE JANEIRO AND SINGAPORE

A new generation of online retailers takes on the giants of e-commerce

DELIGHT OGUALU'S hair is straight, black and gloriously glossy. She made it herself. Mrs Ogualu and her husband run a business selling wigs, which are fashionable in Nigeria. At first buyers came to their small Lagos shop in person. Then they started selling their goods on Jumia, an e-commerce site, to customers across the country. Today about 60% of the Ogualus' sales are made online.

Around the emerging world, businesses like the Ogualus' are finding a route to market through the internet. Global e-commerce has been growing for more than a decade. But companies like Jumia are having a moment. Investors are piling in again, spying opportunities to lock in newly connected consumers.

Jumia floated on the New York Stock Exchange in April. MercadoLibre, Latin America's dominant marketplace from Argentina, which listed in New York 12 years ago, has seen its share price more than double since the start of 2019; PayPal has just invested $750m in the company. Shares in Sea, an online conglomerate which listed in New York in 2017, have tripled in value this year. In March it raised $1.5bn to fund the growth of its e-commerce arm, Shopee. Last year Walmart paid $16bn for control of Flipkart, an Indian firm. Money is pouring into Russian e-commerce, where a "sprint" is on for control of the $18bn market, says Fedor Virin of Data Insight, a research firm. Last year Alibaba, China's online titan, teamed up with Mail.ru, a Russian internet firm. Sberbank, a big Russian state-controlled lender, launched an e-commerce joint-venture with Yandex, another local company. Both are chasing Ozon, Russia's biggest generalist online retailer.

→ Also in this section

Such companies—call them baby Amazons—are following the path charted by America's e-commerce colossus. They have a way to go. After stripping out Amazon's mature north American business, some $277bn of goods changed hands on its platform last year, compared with perhaps $30bn for the biggest emerging-world firms (see table on next page). At around $65bn, their combined value is dwarfed by Amazon's $949bn (though its cloud-computing arm, AWS, may account for half of that). And their revenues, some $6bn all told, are a tenth of the American firm's.

But whereas Amazon's international e-commerce sales grew by a comparatively measly 12% year on year in the second quarter, the upstarts' sales are rising by high double digits or more, as the emerging world embraces the virtual one. MercadoLibre's swelled by 94% in its most recent quarter. Shopee's ballooned by 342%. Small wonder investors are giddy.

Although all these firms no doubt want to be like the American paragon when they grow up, they are going about it differently than it did. Where Amazon's growth piggybacked on the US Postal Service and credit-card networks, they had to build their own, or do without. This limited their early growth. With better infrastructure now in place, and potential customers flocking online, they eye a new era. "The opportunity in the next 20 years is much bigger than the last 20 years," enthuses Sean Summers, MercadoLibre's chief marketing officer. ▸▸

The companies share four characteristics. First, they were born adapted to tricky local markets. Walmart pulled out of Brazil in 2018, when it became clear that, partly as a function of Brazil's long-standing protectionism, the giant American retailer could not easily access global supply chains it relies on to offer low prices in other places. Red tape related to tax, shipping and payments proved too much hassle for foreign behemoths to bother with, says Mr Summers. In their absence, the local companies can thrive.

Build it and they will buy

Before that could happen, though, they often had to build their own infrastructure in places where payment and delivery systems are rudimentary or non-existent. This is the second shared feature. Many of Jumia's customers do not have an address, so delivery men phone ahead for directions. The company works with over 100 logistics providers and, in cities like Lagos, runs its own last-mile fleet of motorbikes and lorries. In Indonesia, a booming market of 265m people dispersed across 15,000 islands with few decent roads or, as in Nigeria, precise addresses, Shopee and its regional rivals, Tokopedia and Lazeda, enlist local shopkeepers who know the area to direct deliveries to the right recipients.

Jumia, Souq (an Emirati firm bought by Amazon in 2017) and MercadoLibre have all built their own sophisticated payment networks. MercadoLibre's has turned into a fully fledged money-management system, complete with payments to friends, investment options and small loans.

The third similarity is that the emerging e-merchants tend not to hold and sell merchandise themselves. Some 40% of Amazon's sales come from products it stocks rather than from third parties. In the case of MercadoLibre and Shopee that number is close to zero. The need to build and maintain payment and delivery systems leaves little energy—or resources—to run a shop. Regulators in developing countries have also been tougher on anticompetitive behaviour than their counterparts in America and Europe. India's competition authority recently ordered Flipkart to stop selling wares in its marketplace, where it could undercut third-party sellers.

The mini e-marts are different from Amazon in one last crucial way—they do not make much money at the moment. Many are burning through cash. Jumia lost €170m ($188m) last year and has lost a cumulative €862m since being founded in 2012. Shopee does not yet make a profit, though analysts expect that it will do so before 2023. Last year MercadoLibre made no money for the first time since it broke even in 2006. Mr Summers says the firm is now investing everything it can in growth.

Investors will need patience—and deep pockets. Eghosa Omoigui of Echovc Partners, a venture-capital fund in Lagos, is convinced that e-commerce will one day succeed in Africa. In the meantime, "you have to keep shoving coal into the engine." In Russia, Mr Virin predicts, the race will also come down to fuel. "The winner will be the one who doesn't run out of money."

For the time being, there appears to be no risk of that. Shopee's parent raised $884m when it listed in New York two years ago. Besides reinvesting profits, MercadoLibre raised $2bn in March, partly by offering shares on the secondary market, and in part by selling a stake to Paypal. Tokopedia picked up $1.1bn from SoftBank, a Japanese tech holding company, in December. Jumia has about €380m in cash, enough for about two years at the rate the firm is currently burning through it.

The companies are hoping that their markets will expand fast enough to generate profits before the capital taps run dry. There is room to grow. Fewer than 1% of retail sales in Jumia's markets currently take place online. By 2025 that figure may reach 10% in Africa's biggest economies, consultants at McKinsey reckon. The consumer class is growing fast, says Jeremy Hodara, one of Jumia's co-founders. "They come to us and say, 'Look, it's the Africa Cup of Nations [football tournament] and my country's qualified. I need my first TV.'"

Shopee's revenues are rising even as it spends less on marketing and promotions. Last year it had 50m active buyers, up from 21.7m the year before. In 2017 Google and Temasek, a Singaporean sovereign-wealth fund, predicted that the south-east Asian internet economy will be worth $200bn by 2025. Last year they revised their forecast up by a fifth, to $240bn. Marcel Motta of Euromonitor International expects e-commerce's share of total retail in Brazil to double to 10% by 2023. In Russia annual online sales of physical goods could reach €50bn by then, from €22bn in 2019.

The e-commerce hopefuls see a route to riches by closing the gap between online retail's penetration in their markets and that enjoyed by Amazon in America, which remains three times larger. The sale of goods is not their only path to profits. Some will sell themselves to the giants, as Souq and Flipkart have done. Others will continue on their own. MercadoLibre wants to be something close to a fully fledged digital bank. All show that, having built their own infrastructure, they can sell access to it. In this respect, at least, they may give their American role model a run for its money. ■

Minimarts

Selected e-commerce firms

2018 or latest

Company	Gross merchandise volume, $bn	Revenues $bn	Market cap/valuation July 31st 2019, $bn	Addressable market Population, bn	Regional e-commerce growth, 2019, %
Alibaba China	853	56.2	453	1.4	27.3
Amazon Europe/Asia	277	65.9*	939	3.4*	10-25*
MercadoLibre Latin America	12.5	1.4	31.3	0.6	21.3
Shopee (Sea) South-East Asia	10.3	1.0	9.3	0.6	25.0
Flipkart India	6.2	3.8	22.0	1.3	31.9
Jumia Africa	0.9	0.1	1.4	0.7	21.3
Ozon Russia	0.7	na	0.8	0.1	18.7

Sources: Company reports; press reports; Datastream from Refinitiv; IMF; eMarketer

*Excluding North America

Investing in technology

Double vision

SoftBank's transformation into an investment powerhouse continues

MASAYOSHI SON, the founder of SoftBank, a Japanese telecoms firm turned tech investor, will not have had many more momentous days than July 26th. First came the announcement of plans for a second Vision Fund, whose expected capital contributions of $108bn will make it the largest private technology fund ever, surpassing even the almost $100bn ploughed into its predecessor. Later came news that America's Department of Justice will not block the merger of T-Mobile and Sprint, the country's third- and fourth-largest mobile operators. SoftBank owns 84% of Sprint; it would still own 27% of the combined entity, but the deal nonetheless promises to spruce up its balance-sheet.

Start with news of the second fund. The first one has already upended the assumptions of early-stage investing. Its scale is unprecedented: the next-largest venture-capital vehicles marshal pots in the mere single-digit billions. Its speed has been striking; the Vision Fund has splurged $70bn in under three years on stakes in Uber, WeWork, Arm and others. Investors have done well enough thus far: Mr Son claimed returns of 29% as of March 2019.

That record now seems set to unlock another gargantuan pile of capital. Giants of the technology industry such as Microsoft, ▸▸

Apple and Foxconn will chip in, joining a string of Japanese financial institutions and Kazakhstan's sovereign-wealth fund. One notable absentee is the sovereign-wealth fund of Saudi Arabia, whose $45bn stake made it the largest investor in the first fund but became a huge source of controversy following the murder of Jamal Khashoggi, a dissident Saudi journalist.

SoftBank itself will be the biggest contributor: it promises to put in $38bn. That is where the Sprint deal comes in. The merger is unwelcome news for American consumers, notwithstanding requirements for the two firms to divest assets and share spectrum with Dish, a satellite-TV provider. It still faces antitrust challenges from state attorneys-general. But if the deal goes through, it would reduce the amount of debt on SoftBank's consolidated balance-sheet by around $40bn, potentially lower the discount that the stockmarket currently applies to the firm and sharpen its focus on tech investment.

Sceptics of the megafund model still have plenty of arguments. It is too early to judge the success of the first fund, which runs until 2029. Those who think that SoftBank has been inflating tech valuations will be closely watching WeWork, which many see as a property company masquerading as a tech firm. Its initial public offering is expected in September. The governance worries that surround the first fund are unlikely to be quelled by SoftBank's still-larger stake in the second. Even if one $100bn fund can be put to work, how many other tech startups are there able to absorb such huge investments? But simply by raising a second gargantuan pot of money, Mr Son has given the doubters a big black eye and himself a day to remember. ■

Bartleby Nice work

Employee happiness and business success are linked

OUR STAFF are our most important asset. Many managers have intoned this mantra over the years but plenty of employees have probably thought to themselves that, deep down, executives place a higher value on the machines on the factory floor or cash in the bank.

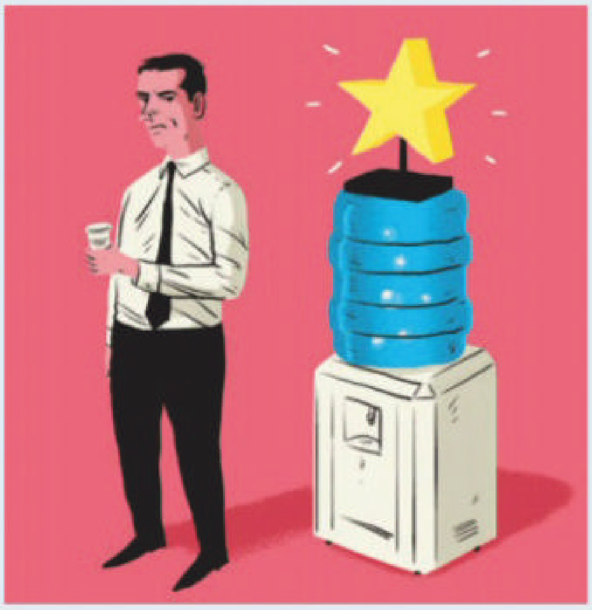
That impression can be reinforced when executives refer to the need to maximise "shareholder value". The implication is that keeping equity investors happy is a company's main priority. Employees fall into the lesser category of "stakeholders", along with component suppliers.

To many American businesspeople, the concept of "stakeholder capitalism" is often seen as a woolly European notion. The assumption is that firms that focus on stakeholders will struggle to survive in the Darwinian world of multinational business.

It is easy to be cynical about some of the language used by those who argue that employees should be treated better. One obvious example is a book called "Humane Capital" by Vlatka Hlupic, which includes a foreword by the Dalai Lama and is dedicated, portentously, "to humanity".

But there is a serious point hidden amid its grandiose statements. Too many companies operate a top-down "command and control" system, Ms Hlupic argues, when they would be better served by giving employees more freedom to make their own decisions.

However, hard-headed executives will be won round only by hard facts. A convincing case can be found in a recent paper* by Christian Krekel, George Ward and Jan-Emmanuel de Neve. The study, based on data compiled by Gallup, a polling organisation, covers nearly 1.9m employees across 230 separate organisations in 73 countries.



The authors studied four potential measures of corporate performance: customer loyalty, employee productivity, profitability and staff turnover. They found that employee satisfaction had a negative link with staff turnover and a substantial positive correlation with customer loyalty. It was correlated with higher productivity and, less strongly, with profitability.

Of course, correlation does not prove causality. It could be the case that working for a successful company makes employees more contented, rather than the other way round. However, the authors cite studies of changes within individual firms and organisations which seem to show that improvements in employee morale precede gains in productivity, rather than the reverse.

What might explain the link? One school of thought, known as human-relations theory, has long argued that higher employee well-being is associated with higher productivity, not least because happy workers are less prone to absenteeism or quitting. However, as the authors of the paper admit, there is precious little research on the best measures that managers can take to improve employee well-being, or indeed which are the most cost-effective.

Rather like the judge's famous dictum about obscenity, a well-run company may be hard to define but you can recognise it when you see it. Workers will be well informed about a company's plans and consulted about the roles they will play. Staff will feel able to raise problems with managers without fearing for their jobs. Bullying and sexual harassment will not be permitted. Employees may work hard, but they will be allowed sufficient time to recuperate, and enjoy time with their families. In short, staff will be treated as people, not as mere accounting units.

That may be a difficult approach for executives brought up on the philosophy of Frederick Winslow Taylor, an efficiency guru of the late 19th and early 20th century, who wrote of the danger that workers "tend to become more or less shiftless, extravagant and dissipated". Armed with a stopwatch, Taylor dragooned employees into increasing production in the iron and steel industries.

Most employees no longer cart heavy loads around all day, of course. Their tasks involve creativity and empathy when dealing with the public. In service industries, staff really are a company's most important asset. And that is why the best executives will realise that a contented workforce is a prerequisite for corporate success.

* Employee Wellbeing, Productivity and Firm Performance, Saïd Business School, WP 2019-04

Economist.com/blogs/bartleby

Pharmaceuticals

Generic script

NEW YORK

Pfizer's ill-received plan to create an off-patent-drug giant

GREATER THAN the sum of its parts. That, in a nutshell, is how Albert Bourla, the newish chief executive of Pfizer, described the merger of the giant drugmaker's stodgy but profitable off-patent division, Upjohn, and Mylan, a big but struggling generic-drug firm. The all-stock transaction, announced on July 29th, would create the world's largest generics firm by revenue, with an enterprise value of $50bn.

All bosses promise that spin-offs they mastermind create value for shareholders. And there are reasons to take Mr Bourla seriously, says David Risinger of Morgan Stanley, an investment bank. If the management is to be believed, the as-yet-unnamed company will have revenues of $19bn-20bn and gross operating margins of 40%. It has pledged to pay a dividend equal to roughly a quarter of free cashflow. The incoming boss, Michael Goettler, who runs Upjohn, plans to chip away at the combined company's $25bn in debt, by cutting $1bn in annual costs by 2023.

It should be able to expand quickly outside America's fiercely competitive generics market, where consolidation among wholesalers has allowed buyers to demand lower prices and faster regulatory approval of generic drugs has flooded the market with low-cost medicines. The shares of big generics firms exposed to America have performed miserably in recent years. The market share of the ten biggest declined from 53% to 44% between 2014 and 2018.

On the surface, the transaction also makes sense for Pfizer. The drugmaker has been shedding assets to refocus on high-growth areas. In December it spun off its consumer-health division, which was combined with that of GSK, a British rival. It previously got rid of its animal-health business. By sticking to lucrative areas like cancer treatments, Mr Bourla hopes to persuade investors that Pfizer shares deserve a higher price.

So far Wall Street seems unconvinced. Tim van Biesen of Bain, a consultancy, points out that it is unclear if Pfizer can come up with enough blockbusters to sustainably offset earnings from the divestment of peripheral but profitable businesses like Upjohn. Standard & Poor's, a credit-rating agency, downgraded Pfizer's debt on the news. Pfizer's share price fell by 6.4% on June 30th, the biggest one-day slide in a decade. Mylan's long-suffering stock edged up only slightly.

The merged company, for its part, inherits lawsuits about Mylan's alleged price fixing and its role in America's opioid crisis. Mylan denies all wrongdoing. Mylan's shareholders are still fuming over the firm's move in 2015 to the Netherlands, where it adopted an opaque corporate structure, and practices like offering to pay Robert Coury, its chairman, about $1m a year for not using a company plane.

Observers worry that Mr Goettler may be in over his head. They fear the firm will in fact be controlled by the controversial Mr Coury, who is to be its executive chairman, and Rajiv Malik, his long-serving lieutenant, who is embroiled in the price-fixing complaints. Pressed by analysts this week on corporate governance, Mr Coury was evasive. He vowed to return capital to shareholders "from day one". "I don't make shit up. You know that," he promised. Investors may need more reassurance. ■

Tragedy in India Inc

Death of an entrepreneur

MUMBAI

The founder of a beloved coffee chain commits suicide

"I HAVE FAILED" and "I gave up" were the six most wrenching words in a letter believed to be written by V.G. Siddhartha, an Indian entrepreneur whose body was fished out of the Netravati River on July 31st. The signed suicide note was released by his company, Coffee Day Enterprises. It described unrelenting pressure from investors and creditors, as well as harassment from tax authorities.

Café Coffee Day, the chain Mr Siddhartha founded in 1996, has 1,700 outlets in India—ten times the number of Starbucks shops in the country. They serve as a second home to many thanks to reasonable prices and comfortable, if worn, seats. Their ubiquity made Mr Siddhartha one of India's most recognisable bosses. He was liked and respected in business circles, having amassed a fortune of hundreds of millions of dollars.

Earlier this year he scored a coup by offloading a long-term holding in Mindtree, a technology company, to Larsen & Toubro, a conglomerate. Mindtree's founders felt betrayed by his willingness to sell out to an unwanted buyer. In hindsight, it appears he had little choice.

Mr Siddhartha in happier times

Coffee Day sat atop a pile of debt, much of which Mr Siddhartha personally guaranteed. Six months ago he took out a loan from a friend, to help repay lenders. "I could not take any more pressure from one of the private-equity partners forcing me to buy back shares," he wrote, without naming the partner. As pressure to return money to investors and creditors mounted, actions by tax authorities, which the letter describes as "unfair", barred him from selling shares in Mindtree and Coffee Day.

In a carefully worded statement responding to Mr Siddhartha's note, KKR, an American private-equity firm, said it had sold a 4.25% stake in the company (out of a holding of 10.3%) on the stock exchange last year and was "deeply saddened by the developments", adding that "We have not sold any shares before or after February 2018." Three other foreign vehicles held stakes in the firm.

Tax authorities for the state of Karnataka acknowledged they had blocked Mr Siddhartha's shares. They said this was in order to cover potential tax liabilities stemming from a concealed transaction which Mr Siddhartha was involved in and which was unearthed during an investigation into a prominent Karnataka political leader. This has led to speculation about whether ties of Mr Siddhartha's family to politicians may have played a role in his death. Coffee Day announced that it would launch its own investigation.

The impact of the tycoon's death will linger—and not only because of its mysterious circumstances and his high profile. The factors that apparently pushed him over the edge—dodgy political ties, tax investigations, high debts—are all too common in Indian business. What happened was tragic. Perhaps it should not have been a surprise.

Schumpeter | Foodoo economics

Meal delivery is anything but a tasty business

EVEN THOSE who recoil at eating supper out of a soggy box, fear being mowed down by curry-bearing cyclists or think the death of home cooking is a cultural abomination should admire Jitse Groen. The 41-year-old Dutchman, who cooked up the online food-delivery business by founding Takeaway.com in his university bedroom in 2000, is not your usual tech billionaire. He keeps a low profile, views venture capital with distaste, earns a relatively unflashy six-figure salary and sometimes hops on the firm's delivery bikes to help out. His main extravagance is a sharp Italian suit. So why did he, on July 29th, propose shelling out £8.2bn ($10.1bn) on shares for Just Eat, a large but struggling meals-on-wheels firm based in Britain?

The answer says a lot about the voodoo economics of the food-delivery industry. It is a hotly competitive business, attracting the world's biggest moneybags such as Amazon, Alibaba and SoftBank. Balancing the needs of diners, cooks and couriers is fiendishly complicated. Most startups lose platefuls of money. Yet they have received more than $30bn from spellbound venture capitalists in the past five years. And they are likely to get more.

Mr Groen is a reluctant apostle of black magic. He once said of his efforts to expand beyond the Netherlands, "It's horrible. We've spent 100 times more money in Germany than I thought I'd ever be able to spend." Takeaway's deal with Just Eat highlights the conviction that consolidation is the only way to make the sums add up.

The food-delivery business can be split into two camps: mostly profitable veterans and loss-making newcomers. The veterans, founded at the start of the century, are led by publicly traded Grubhub in America, and Just Eat and Takeaway in Europe. The trio are collectively worth $18bn or so. They account for the largest share of the market, offering customers online access to restaurants that already have their own delivery services, such as pizza joints, sushi bars and Chinese restaurants. Their relatively simple business model, in which they take a cut of the bill from the restaurants, has enabled Grubhub and Just Eat to turn a profit for years. Takeaway makes money in its home market of the Netherlands.

The newbies, born more recently, have turned a once-tidy business into a food fight. They include listed firms such as Meituan of China and Delivery Hero of Germany, Uber Eats (part of Uber), Ele.me (owned by China's Alibaba), and privately held DoorDash, based in San Francisco, and Deliveroo, from London. For most of them, delivery is their core business, so they share their cut of the bill with riders as well as restaurants. This substantially broadens the market to restaurants offering everything from steak to Hawaiian poké bowls. But margins suffer. Funded largely by venture capital, they have thrown subsidies at customers, forcing their veteran rivals onto the defensive. To catch up, the veterans are investing in advertising and delivery networks—at a big cost. This week Grubhub and Just Eat reported slumping earnings, and Takeaway mounting losses, as they spent heavily to fend off the upstarts.

The only mouthwatering aspect of the delivery business is its potential size. According to Bernstein, a brokerage, almost a third of the global restaurant industry is made up of home delivery, takeaway and drive-throughs, which could be worth $1trn by 2023. In 2018 delivery amounted to $161bn, leaving plenty of room for online firms to expand; the seven largest increased revenues by an average of 58%. Their businesses support the trend of 20- and 30-somethings to live alone or in shared accommodation, with less time and inclination to cook. In China, by far the biggest market for food delivery, one-third of people told a survey that they would be prepared to rent a flat without a kitchen because of the convenience of delivery. Delivery also fits neatly with the gig-economy zeitgeist, alongside ride-hailing firms such as Uber, Lyft and China's Didi.

Yet as with ride-hailing, it is by no means clear if anyone can make money by delivering meals. In fact, the economics may be even worse. Co-ordination is more complicated. Meal-delivery firms must handle dishes that take different amounts of time to cook, while restaurants cope with orders from in-house customers. Most important, bookings must be split three ways: between delivery firms, restaurants and riders, rather than just between the ride-hailing firms and their drivers. The restaurants in particular are restive, not least because food is already a low-margin business. The most popular brands like McDonald's and Starbucks wield the power to squeeze the delivery startups in exchange for access to millions of customers. Uber admits that Uber Eats may be forced to lower service fees for big restaurant chains.

Moreover, potential growth may be overstated. Subsidies make true demand hard to gauge. When delivery charges and service fees eventually rise, which they will have to if profits are to materialise, some customers may flee. In the meantime, cheap money lets firms undercut rivals but distorts incentives. The war of attrition could get even worse if giants like Amazon muscle in, as it has tried to do by buying a stake in Deliveroo (the deal is stalled at present because of antitrust concerns). Alibaba, Amazon's Chinese counterpart, uses Ele.me as a loss leader helping drive traffic to its profitable e-commerce sites.

Just Eat or be eaten

Delivery businesses have ways to cut their losses. One is to diversify further, by delivering groceries, flowers, booze, and even people (as Uber does), as well as meals. Another is to provide cheaper meals by centrally supplying ingredients to restaurants, or building "ghost kitchens" that prepare food only for delivery. In "winner takes most" markets, the best way to drive up volumes and share of the proceeds is through consolidation across countries and cities. Mr Groen's attempt to gobble up Just Eat marks the biggest foray so far. In the unappetising dog-eat-dog world of food delivery, it will still be a hard deal to digest. ■

Monetary policy

Turning point

WASHINGTON, DC

The Fed cuts rates for the first time in over a decade

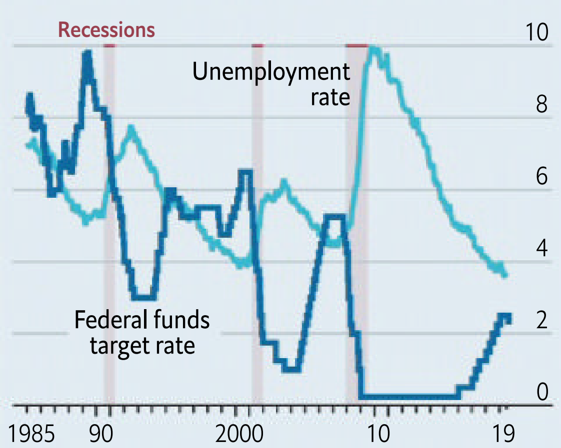
INTEREST RATES set by the Federal Reserve have been rising since 2015. The gradual approach, explained the Fed's chairman, Jerome Powell, last September, was intended to leave time to see how well the economy could absorb each raise. "So far the economy has performed very well, and very much in keeping with our expectations," he said back then.

Now America is being treated to what some are calling "Powell's pirouette". On July 31st Mr Powell announced America's first interest-rate cut in over a decade, of 0.25 percentage points (see chart). At the press conference after the announcement he blamed weak global growth, trade policy uncertainty and muted inflation. "We're trying to sustain the expansion," he said.

The move was widely expected, though not universally understood. By many measures America's economy still seems buoyant. After dipping a little, earlier in the year, consumer confidence is almost back to its post-recovery peak. Figures published on July 26th revealed that Americans are still spending enthusiastically. Some recent risks have subsided, notably those to do with the public finances. On July 22nd politicians agreed on a deal to raise America's debt limit, and to avoid steep spending cuts. According to Oxford Economics, a consultancy, had they failed, the squeeze could have knocked 0.4 percentage points off real GDP growth.

Comeback act

United States, %



Sources: Bureau of Labour Statistics; Federal Reserve

But businesses do not appear to share consumers' confidence. Non-residential investment shrank in the second quarter of the year. Residential investment has fallen for six consecutive quarters. According to the Federal Reserve Bank of New York, investors are pricing government debt at a level that has historically been associated with a one-in-three chance of a recession within 12 months.

President Donald Trump's trade war shows no signs of abating. The effects of the latest increase in tariffs, in mid-June, will take a few more months to become fully apparent in the data. On July 18th the IMF updated its World Economic Outlook, citing "subdued" global growth and a "precarious" projected pickup in 2020. Moreover, some of the economy's recent resilience may have been in the expectation of the cut to come. Financial conditions have become looser since January, when Fed officials first signalled that they would be pausing interest-rate increases. Mortgage rates have also fallen since then.

Finally, as Mr Powell emphasised on July 31st, inflation is uncomfortably weak. On a measure that excludes volatile food and energy prices, it sagged to 1.6% in June, well below the Fed's 2% target. That has paved the way for members of the Fed's rate-setting committee to adjust the path of interest rates downwards and to implement an "insurance cut"—a tactical reduction intended to keep the expansion alive. With interest rates so low, there is little ▸▸

room for an aggressive move. Rate-setters hope that a small and speedy cut will mean one will not be needed.

As Mr Powell finished speaking on July 31st, market prices reflected a 73% chance of a further cut of 0.25 percentage points this year. But he studiously avoided committing to anything more, saying that any further cuts would depend on both incoming data and "evolving risks to the outlook".

A further cut would not be universally welcome. Catherine Mann of Citigroup, a bank, is sceptical that the latest round of monetary easing will boost business confidence enough to rekindle investment. The Trump administration's trade policy, not the cost of capital, is holding businesses back, she thinks. She fears that the Fed may be causing asset prices and the broader economy to move apart, generating risks to financial stability.

Nonetheless investors could react badly if Mr Powell fails to meet their expectations, warns Neil Shearing of Capital Economics, a consultancy. A strengthening dollar, wobbling equity markets or tightening credit conditions could then bounce the Fed into a further burst of loosening.

America's monetary-policymakers also need to consider the actions of other countries' central banks, which have already started to ease. Julia Coronado of MacroPolicy Perspectives, a consultancy, points out that there are limits to how much the Fed can depart from the global trend before it starts causing problems in capital markets. Too much divergence and the dollar will strengthen, tightening supplies of dollar credit and further crimping global trade. Mr Powell has executed a fine pirouette. But he is going to need even more fancy footwork in the coming year. ■

Buttonwood Unalloyed blessings

In praise of the quaint rituals of the London Metal Exchange

Her client's huge order would cause prices to surge if the market got wind of it. She knew she needed to be crafty. "So I shouted as loud as I could, 'I'll sell at £795'." The price sank. "By now I was pointing at everyone who had bid, but because they thought I was a heavy seller they backed off, only taking 25 tonnes at a time." At the bell, the price fell to £780. That triggered automatic sell orders. At the next session she was able to buy back her stock—plus a few thousand tonnes for her client—on the cheap.

Every trader on the London Metal Exchange probably has a tale to tell of wrong-footed rivals. This story, told in "Ring of Truth", a memoir by Geraldine Bridgewater, the LME's first female trader, is from four decades ago. Little has changed. Traders still sit in a circle (the Ring) and yell orders for copper at each other, just as they have for more than a century. The LME is the only "open outcry" trading venue left in Europe. Its rituals seem as quaint as Morris dancing or the Trooping of the Colour.

Yet somehow the LME retains its relevance. It is now owned by Hong Kong Exchanges and Clearing (HKEX). Ms Bridgewater's big trade was for the People's Republic of China, a client she had shrewdly cultivated. China has since become the LME's biggest source of custom. There is a rival exchange in Shanghai; China dislikes being a taker of prices set beyond its borders. Still, the LME is where the liquidity flows to. Its staying power owes a lot to incumbency—but also to transparency.

Metals-trading in London can be traced back as far as 1571. Back then, it happened alongside other kinds of merchant-trading on the Royal Exchange. A metals-only exchange that traded mostly copper and tin was formalised in 1877, at the peak of British industry's global clout. In those days copper from Chile took three months to reach London. Merchants wanted to lock in the price of a shipment as it left port. That is how three-month futures became a standard. They are still the most traded LME contract today.

Other traditions are observed. Even on a brutally hot day in July everybody is dressed smartly, the men in jackets and ties. The noise rises a little as the bell signals the start of a new session. Metals are traded in short, timed bursts to enhance liquidity. Traders sit on the red quarter-circle banquettes of the Ring. Account executives (in Ms Bridgewater's day they were simply "clerks") stand behind them straining to hear. They relay each quote, assisted by hand signals, to colleagues standing, with telephones cradled to each ear, in the brokers' booths that make up an outer ring.

It looks chaotic. It certainly sounds it. But it is striking, given the noise, how calm the traders seem. It is essential for them to remain poker-faced. When they need to be heard, they lean forward. In between yells

a trader might glance up at the main board, down at his dealing card or at his watch to see exactly how much time is left (the clock on the dealer board does not count seconds). Unlike in the trading pits of Chicago, most sessions are limited to one sort of commodity. And traders sit in the same spot every day.

Is all this fuss and noise strictly necessary? Only perhaps a tenth of trades that are cleared through the LME are agreed on in the Ring. Most are done over the phone or on the LME's electronic trading platform. When HKEX acquired the LME in 2012, it must surely have thought it would soon be rid of the Ring. It is a costly pageant. Screen-based trading has lower overheads and is more profitable for the exchange. A lot of Ring trades are lending or borrowing between odd dates—from next Tuesday to Monday a fortnight hence, say. Only specialists want to make those kinds of bets.

Yet they are needed to underpin a system of daily contracts that extend out to the three-month contract. They are too complex to be carried out on-screen. Daily pricing matters to the miners, smelters and manufacturers who produce or consume the metals being traded. Long-term supply arrangements are based on LME prices. So the Ring survives. It is like a poker room—a loss-leader in a casino full of more profitable slot machines.

Some things have changed: daytime drinking is now banned. But the LME is still the place to find liquidity of the right sort. Trading could scarcely be more transparent (once you can speak the argot). Prices are trusted worldwide. Traders can feint, but must play fair. Tomorrow they will be face-to-face with the same people. You can't help wishing that all financial markets were like this.

LSE buys Refinitiv

Terminal value

The London Stock Exchange seeks to gobble up a global data giant

AROUND 2AM, as the London Stock Exchange Group (LSE) hammered out an agreement with Blackstone to buy Refinitiv, a data-provider, mice scurried out of the corners. Unfair tactics, quipped the Blackstone side. But the American private-equity firm still struck a superb deal. On July 27th the LSE said it would buy Refinitiv (including its debt) for $27bn in shares. Blackstone has doubled its money in ten months after buying 55% of the data firm in a consortium last year.

The prospect of a 321-year-old British champion shaking off the Brexit gloom to buy a big international firm caused much glee in London. On July 29th the LSE's shares closed up 15% on the day. Refinitiv's sales span most asset classes, with three-fifths coming from North America and Asia. "The London Stock Exchange is turning away from Europe and endorsing Global Britain," crowed one commentator.

Truth be told, the LSE might still have snapped up Refinitiv had the referendum of 2016 gone the other way. The rationale is clear. Several years ago it pivoted from listings towards selling financial-markets data and analytics, for which demand is voracious. And Refinitiv is the owner of Eikon data terminals, used by traders and fund managers, and Elektron, a data-feed business. Other stock exchanges have seen the same opportunity: in 2015, for example, ICE, the owner of the New York Stock Exchange, bought Interactive Data for $5.2bn.

Yet the LSE's purchase is bigger and therefore riskier. It is buying a complex conglomerate with earnings before interest, tax and depreciation of $1.6bn last year, against the LSE's $1.4bn. Refinitiv's headcount of 18,500 far exceeds the LSE's 4,600. According to Keefe, Bruyette & Woods (KBW), an investment bank, in 2018 Refinitiv would have contributed 70% of the combined firm's revenues and 55% of operating profit, based on pro forma numbers.

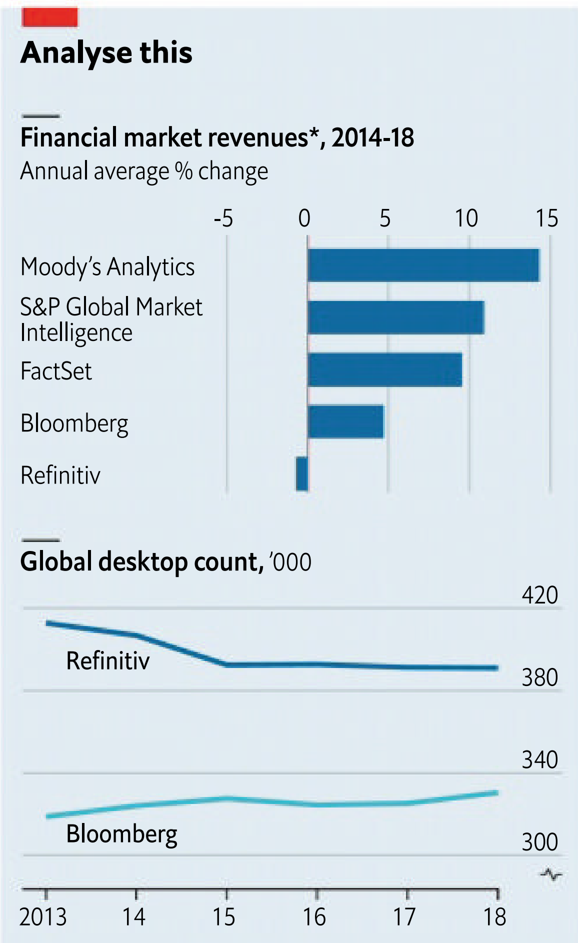
The deal will ensure that the LSE is "well positioned for future growth", said David Schwimmer, its boss since last August. It was broadly well received, but analysts will have questions about the price, the quality of the asset and what the LSE will do with it. Last year Blackstone and two partners bought the 55% of Refinitiv (as they renamed it) from Thomson Reuters at a value of $20bn. They paid mostly with debt. The $4bn of equity and preferred debt they put in is now worth around $8bn on paper. The LSE is assuming about $12bn of net debt, pushing its leverage much higher.

Blackstone gave Refinitiv a new brand and took out $350m a year of costs. It used its clout as a big fee-payer to investment banks to secure the flotation of Refinitiv's Tradeweb platform, which those banks part-owned, and twisted arms to help Eikon. "Complex carve-outs are one of the things Blackstone private equity does really well," says Martin Brand, the Blackstone executive who did the deals.

It also tried to revive growth at Refinitiv, which has been stagnant (see chart). In 2018, notes KBW, its revenues were 7% lower than in 2012, at $6.3bn. Although some divisions, including compliance and Elektron, are doing decently, the desktop business is shrinking. Traders complain that Eikon terminals are clunky compared with those of the market leader, Bloomberg.

So Mr Schwimmer's bold move will slow down what has been one of the world's fastest-growing stock-exchange group in recent years. Investors hope that as well as cutting more costs at its new acquisition, LSE can increase revenues by exchanging data between Refinitiv and its index and other business. If it keeps the desktop business it will need to say how it will fix it, says Kyle Voigt of KBW.

Competition authorities in both Europe and America are sure to look hard at the deal. European market watchdogs are already investigating the rising price of financial data, which is partly caused by industry consolidation. If they intervene, expect much breast-beating about a cruel continent blocking a bold British deal. ■



Source: Burton-Taylor International Consulting, a TP ICAP company

*Includes acquisitions and divestitures

Germany's unbalanced economy

Getting uneven

The corporate success of the *Mittelstand* comes at a cost: widening inequality

THE MITTELSTAND, exports and thrift—all are matters of German national pride. Thanks to them Germany has run the world's biggest current-account surplus since 2016, last year just shy of $300bn (7.3% of GDP). This sign that it saves more than it invests at home, and sells abroad more than it imports, has earned the ire of President Donald Trump, who would like thrifty Teutons to buy American.

The IMF has long wrung its hands at the savings glut. Last month, in its annual report on global imbalances, it repeated a warning that Germany's current-account surplus was "substantially" stronger than warranted by economic fundamentals. In a separate paper it presented evidence that the growing current-account surplus was accompanied by increasing inequality (see chart on next page). The link, it says, is high corporate profitability.

Around the turn of the millennium Germany's exports took off, as rapidly growing emerging economies started to buy its high-value-added manufacturing goods in bulk. That, together with stingier welfare benefits and government policies encouraging wage restraint, helped push up profits. But corporate success did nothing for poorer households because of a highly unequal distribution of wealth.

Germany is one of the most unequal of the 35 countries in the OECD. The top tenth of households own 60% of net wealth. The median household has net wealth of €61,000 ($68,000), slightly more than the median for Poland, but less than the median for Greece and more than a third below the median for the euro area. The comparison may be unduly harsh, since it excludes pension wealth, which is likely to be large in Germany. But it reflects the fact that poorer Germans are less likely to own houses or shares.

Germany's corporate wealth tends to be kept in the family. The country has relatively few listed firms: 60% of corporate assets belong to privately owned firms. Many are family-run. Even among the publicly listed ones two-thirds are family-controlled, and controlling shareholders hold larger stakes than in, say, Britain or Sweden. This leaves less equity for outsiders.

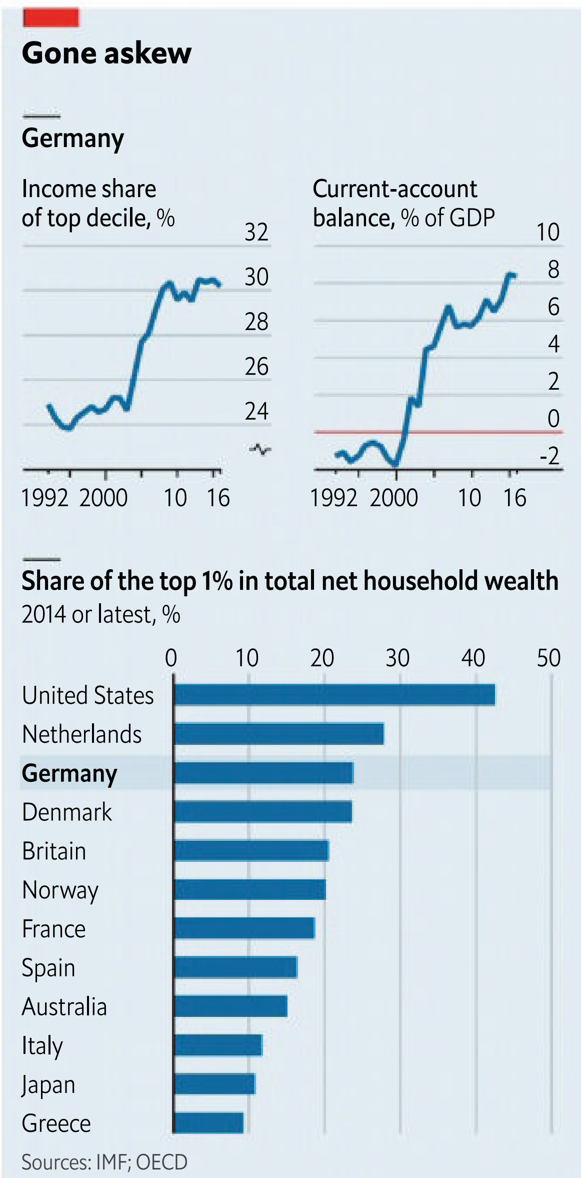
Higher profits, therefore, mean higher capital incomes for the already rich. The IMF reckons that the rise in profits, together with high wealth inequality, explains about half the rise in income inequality in ▸▸

Germany between 2000 and 2015. One sign that the less well-off claim a smaller slice of the economic pie is that household spending fell over that period as a share of GDP. The rich tend to spend a smaller share of their incomes than the poor. German tycoons are also thriftier than their peers elsewhere. Though Germany's authorities tend to blame an ageing society for its high savings rate, the true culprits appear to be the moguls of the *Mittelstand*.

Germany's tax system does little to counter these trends. Revenues from property taxes are relatively low and falling. Reforms in 2009 excluded business wealth from inheritance tax. As wealth accumulates, the share of income flowing to the rich rises, further widening inequality.

Government officials say that some of these trends are reversing. The labour market has tightened, allowing wages to rise and profits to fall. But the IMF reckons that in order for disposable household incomes to regain their 2005 share of GDP, wage growth would have to outstrip nominal GDP growth by 1.5 percentage points for the next decade—a tall order.

Policy could speed things along: tax relief for low-income households to reduce the concentration of income, and property and inheritance-tax reform to reduce the concentration of wealth. But that would mean recognising that a much-vaunted economic model is in need of repair. ■



Sources: IMF; OECD

Class-action lawsuits

The CAT and the (alleged) fiddle

Banks are in the frame for Britain's latest collective legal claim

THE LAUGHING stopped long ago. Between 2007 and 2013, in online chatrooms called "Three Way Banana Split", "Essex Express 'n the Jimmy" and other rib-ticklers, currency traders yapped about all sorts of things—including market tactics. The banter has cost their employers dear. Banks have been fined over $10bn for market-rigging by American and European regulators, including €1.1bn ($1.2bn) by the European Commission in May. An American class action cost 15 banks $2.3bn. But a lawyer's work is never done. On July 29th Scott+Scott, an American law firm, filed a collective-action case at the Competition Appeal Tribunal (CAT), an antitrust forum in London.

Cases like this are still a novelty in Britain, despite a theoretically helpful change in competition law in 2015. Collective claims may now be brought to the CAT on an "opt-out" basis, in which members of a specified class are included in the claim unless they choose not to be. If a monopolist rips off its customers, it may do lot of harm in total, but the damage to each may be small. Given the cost of going to court, many may not bother suing. But the easier a collective-action case is to bring, the likelier they are to gain redress.

The expense of bringing a case to the CAT—and the risk of defeat—are borne by a newish breed of firms specialising in financing litigation. If an action succeeds, claimants (if they are traced) get their awards in full. The financiers are paid out of undistributed damages.

Therium Capital Management, established in 2009, is backing the foreign-exchange case. British-domiciled companies, pension funds and other investors are included automatically, unless they opt out (foreign claimants must opt in). Cases are led by a representative who may or may not belong to the class. The forex suit is fronted by Michael O'Higgins, a former head of Britain's Pensions Regulator. Mr O'Higgins estimates the damages to be at least £1bn ($1.2bn).

Few collective cases have yet reached the CAT. One, against a maker of mobility scooters, was withdrawn in 2017. Two involve claims by hauliers against lorry manufacturers. In another, a consumer champion argues that railways are, in effect, charging commuters into London twice for the part of their journey that overlaps with Transport for London's network.

By far the biggest case is heading to Britain's highest court. The representative, Walter Merricks, an ex-head of the Financial Ombudsman Service, a dispute-settlement body, claims that between 1992 and 2008 some "interchange" fees set by Mastercard, though paid by merchants accepting its cards, harmed consumers because they were passed on in higher prices. (The European Commission banned the fees in December 2007.) Mr Merricks puts the damage at a whopping £14bn. In July 2017 the CAT ruled the claim ineligible, saying that the damage to consumers, in aggregate or individually, could not be accurately assessed. In April the Court of Appeal declared that the CAT had been too hasty. On July 24th the Supreme Court said it would hear an appeal by Mastercard against the Court of Appeal's judgment.

The busy Supreme Court will not hear the case before February and possibly not for a year. Because it concerns the criteria for the CAT even to consider damages, its verdict will be eagerly awaited by lawyers, litigation financiers and consumer watchdogs. Whatever the outcome of the foreign-exchange case, banks will face more bills. Several big investors are suing on both sides of the Atlantic, reckoning they will win more in conventional damages claims than from American class actions or their British imitators. ■

Portugal's labour force

Cold hard cash

LISBON

With workers in short supply, can a new scheme lure emigrants back?

FED UP WITH politics in America, Madonna left in 2017 and set up home in Lisbon. As Portugal's population shrinks its government might hope that others will follow the pop star. It already has a "golden visa" scheme—which gives investors the right of residence—and offers highly skilled migrants tax breaks. A new scheme, launched on July 22nd, tries to lure back emigrants, even if they are neither highly paid nor highly skilled.

The *Regressar* (Return) programme is aimed at former residents who have lived outside Portugal for at least three years and are considering moving back. Returners are promised 50% off their income tax bills for five years. Those who take up jobs in Portugal receive help with the costs of relocation, such as travel, moving possessions and re-registering professional qualifications, up to a maximum of around €6,500 ($7,200). Those searching for jobs while still abroad can sign on with the Portuguese employment office.

As the economy was struck first by the global financial crisis and then by a sovereign-debt crisis, unemployment soared, to 17% in 2013. But since then the rate has dropped below 7%, and companies now complain that both skilled and unskilled workers are in short supply. A shrinking population makes matters worse. Since 2010 it has fallen by 300,000, or 3%. More than half of the decline is caused by the number of deaths exceeding that of births. The rest is because more people left, discouraged by crisis, than arrived. Although this balance reversed in 2017, the inflow of migrants has not been big enough to offset the overall declining trend.

Most Portuguese leavers went to other parts of Europe, though Lusophone Angola and Mozambique were also in the top ten destinations. They are younger and more skilled than those who left in previous waves, says Miguel Cabrita, the secretary of state for employment. That double loss prompted the scheme to tempt them back.

Though many countries welcome new migrants with fiscal incentives, attempts to lure back leavers tend to be limited to those with large diasporas. China, Malaysia and Israel offer tax incentives for returners; Spain and Ireland offer help navigating bureaucracy and modest funding for those wanting to set up a business.

Portugal's scheme has already piqued some interest. Miguel Nuno Cardiga of BDO, a tax-advisory firm, says he has received a few inquiries from clients (including from a football player who is not eligible for the existing tax breaks). Mr Cabrita says 1,800 people from 72 countries have signed up to the job-search portal.

But the decision to move country depends on more than tax breaks. Average yearly earnings in Portugal were a paltry €12,000 in 2018, less than half the euro-area average. White-collar workers at multinationals might hesitate to move back to Portugal if there are no comparable jobs, says Mr Nuno Cardiga. That may be changing. Google and BMW have opened tech-support centres, in Lisbon and Porto. The more good jobs, the better: most migrants know that it's a material world. ■

Bankers and 2020

Pick your poison

NEW YORK

What Wall Street thinks of Warren

CONVERSATIONS WITH bankers about the Democratic primaries invariably turn to Elizabeth Warren, a senator for Massachusetts. That is not because they like her. Most would prefer to see the Democratic ticket headed by Joe Biden, who leads the polls, or Pete Buttigieg, a business-friendly mayor from Indiana. They know Ms Warren as the candidate who wants to break up big banks, bring in a wealth tax and make private-equity firms liable for the debt of companies they buy. After the crisis of 2008-09 she was instrumental in creating the Consumer Finance Protection Bureau, an agency to police shady practices at banks. "I took on Wall Street, and CEOs, and their lobbyists, and their lawyers," she boasted during the second Democratic debate on July 30th—"and I beat them."

Could be worse

But mutual contempt has bred familiarity. Perhaps surprisingly, bankers are fretting just as much about a candidate who is a racing certainty to make it onto the ballot: President Donald Trump.

Wall Street's finest think they have already got all they are ever going to get from Mr Trump. They hoped for two things from his election in 2016: a big corporate-tax cut and sweeping revisions to Dodd-Frank, the post-crisis regulatory bill. They got their tax cut. And though Dodd-Frank was tweaked only modestly, they think there may not be much more to be gained in a second term.

Those gains came with unexpected costs. "[Mr Trump] has been terrible for our business," says the boss of one of Wall Street's famous names. Investment-banking revenues were hit by a government shutdown in January, usually a busy time. The Securities and Exchange Commission, to which firms must submit documents for capital-raising, was barely functioning. Equity-underwriting revenues fell by 25% year-on-year on average in the first quarter of 2019 at the five largest investment banks.

Banks generally do well when the economy is growing, as it is now. But revenues are harmed by economic uncertainty, when companies fret about making the sorts of strategic decisions for which a banker's advice may be sought. Many of Mr Trump's policies hurt them in this respect, says another investment-bank boss, for example his interference with antitrust policy and trade antagonism with China.

With Ms Warren in the White House banks might face tougher regulation. That would be bad for business, but in ways that are easy to understand—and which would harm smaller banks more than the giants. And bankers reckon that Ms Warren's more radical instincts could well be stymied by political gridlock. "If Elizabeth Warren is president," says an executive at one private-equity firm, "my first question is: Did the Republicans keep the Senate?"

A second Trump term is harder to plan for. The trade war could have knock-on effects. And Mr Trump might replace Jerome Powell, the chairman of the Federal Reserve, a frequent target of his ire. Mr Trump's picks for the Fed's board have been unorthodox; a new chairman fitting that pattern could have a huge effect on bank regulation and the wider economy.

Faced with the prospect of either four more years of Mr Trump, or Ms Warren in the Oval Office constrained by a partly Republican Congress, a surprising number of bankers would opt for the latter. Still, many financiers are busy hosting fundraising dinners for Mr Buttigieg and Mr Biden, in the hope of putting a more palatable choice on the menu. ■

Free exchange | Close calls

Emerging-market dreams of rich-world incomes meet reality

For a rich economy, a growth rate beginning with a five would be cause for ecstasy. For India, it is a huge disappointment. Its most recent quarterly growth figure translates into an annualised rate of only 5.8%, the fourth consecutive quarterly slowdown. That is slower than China (a 6.2% annualised rate in the second quarter of 2019, down from 6.4% in the first) and substantially slower than India believes itself capable of. Recent data suggest the swoon has since deepened (and an analysis published in June by a former adviser to the Indian government also suggests that the China-like growth rates posted in the recent past may reflect dodgy statistics). India is hardly doomed; if it might reasonably have expected to do better, experience elsewhere shows it could very easily have done worse. But the slowdown is yet another sign that the emerging-market narratives to which the world has grown accustomed are in need of serious revision.

During most of the 20th century advanced economies outgrew poorer ones. But around the turn of the millennium a dramatic shift occurred. In terms of real GDP per person, adjusted for purchasing-power parity, just 24% of the countries now classified as emerging markets by the IMF grew faster than America did across the 1980s as a whole. In the decade starting in 2000, by contrast, 76% did so. Then the BRICs—Brazil, Russia, India and China—were in their pomp. Poverty rates tumbled across developing countries and the world economic order was rewritten.

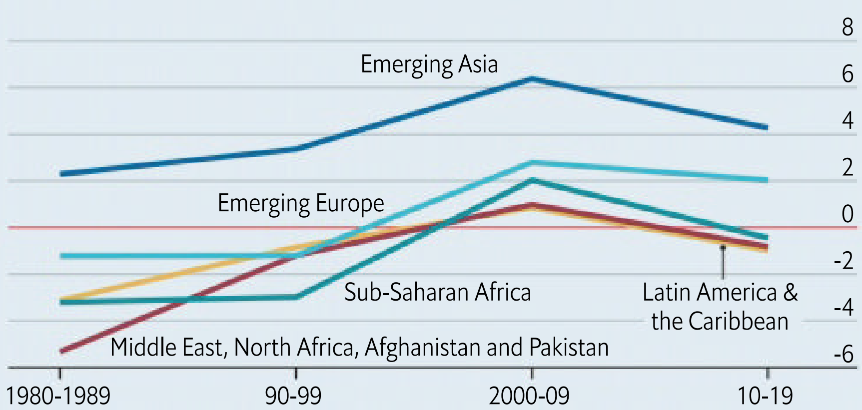
Convergence continues: over the past ten years about 60% of emerging economies have grown faster than America. But the geographic scope of catch-up growth is narrowing. Real output per person as a share of that in America has fallen since 2011 in the Middle East and north Africa, since 2013 in Latin America, and since 2014 in sub-Saharan Africa. Estimates suggest decline this year in the emerging economies of Europe, leaving Asia as a last outpost of convergence—admittedly a big and important one. A wobble in India thus represents more than a blow to Indian pride.

There are two competing explanations for the slowing of convergence. One is that the good times were never going to last. Development is hard, which is why so few poor countries became rich during the 20th century. But around 2000 an unlikely combination of tailwinds temporarily suspended this age-old truism. The emerging world found itself swept along by the most astonishing experience of economic development in history: four decades of near-double-digit annual growth in the world's most populous country. Simultaneously, the world enjoyed an unprecedented expansion in global trade, boosted by technological changes that enabled firms to forge supply chains across dozens of national borders. And governments in the emerging world learned from past crises how best to manage foreign capital. That meant they were well placed when investors sought out better returns than the paltry ones on offer across the rich world.

But China could perform its miraculous rise only once. Supply chains are as disaggregated as they are likely to get. And it was only a matter of time before rich economies perked up and the post-crisis period of extraordinarily easy monetary conditions came to an end. Convergence is ending, yes, but in this story there is little for countries like India to do as growth rates fall, other than wish they had made more of the moment while it lasted.

Catch as catch can

Selected regions, difference in growth rate* of GDP per person† compared with the United States, percentage points



Source: IMF *Ten-year averages †At purchasing-power parity

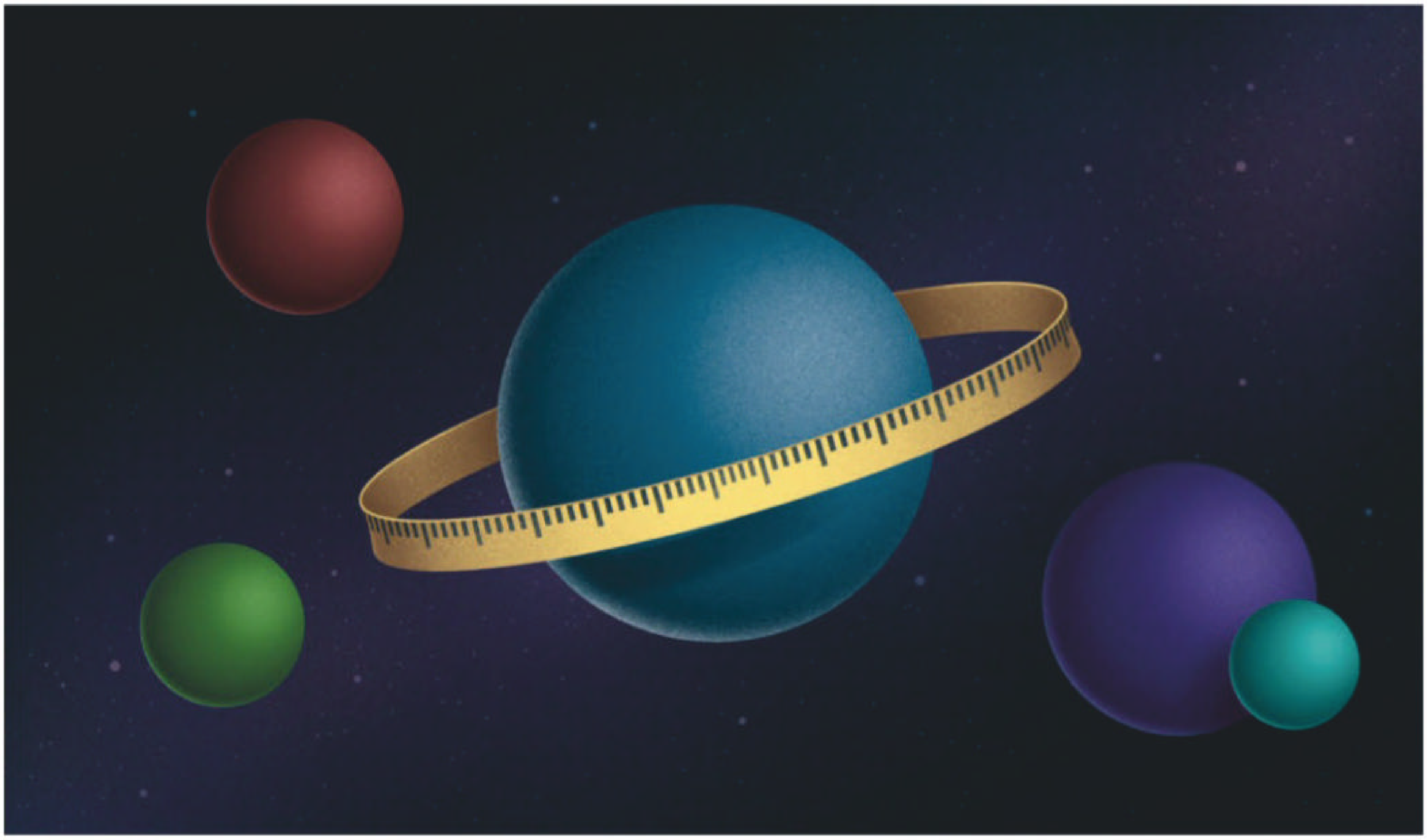
Not fade away

The second theory offers the possibility that emerging markets still have room to grow. Poor countries catch up with rich ones when productivity rates and the amount of capital per worker rise towards levels in the rich world. Increasing productivity is partly about moving workers from sectors where it is low to those where it is high (from subsistence farming to textile manufacturing, say), and partly about achieving steady growth in productivity within sectors. The second of these—sustained productivity growth—is the difference between a short-lived bout of catch-up that peters out and sustained progress towards high incomes.

During the growth spurt of the past two decades, many countries saw their stock of capital increase. Quite a few experienced periods of urbanisation and economic reform that helped pull workers into factory and office employment, at higher productivity levels. And in some economies the groundwork for sustained growth was also laid during the boom. The dense supply chains that grew up around China served as conduits for technological know-how, transmitting the elements of sustained innovation to underdeveloped economies. For India, exports of commercial services played something of the same role. India is the world's biggest exporter of information-technology services bar Ireland, where the figures are skewed by the tax-avoiding accounting antics of American tech firms.

If convergence is not dead, slowing rates of growth are nonetheless cause for concern. Governments may have become complacent, abandoning needed reforms and skimping on investments in productivity-enhancing things like education. India would like to overtake China, but its literacy rate, at about 70%, is lower than China managed 30 years ago. Worse, the decades-long march towards greater global openness may be ending. Amid rising economic belligerence, in particular from America, rich-world companies will naturally think twice before investing abroad. A serious breakdown in global trade, were it to occur, could harm emerging markets' prospects for a decade or more. Such delay would be made even more devastatingly costly by climate change, which poorer countries will find harder to manage than rich ones.

Still, there is hope. The obstacles that have sprung up in the way of development might yet be cleared. President Donald Trump could be gone in 18 months. Governments unsettled by visions of economic mortality could discover a renewed zeal for reform, investment and liberalisation. But whichever theory is right, emerging-market dominance has been exposed as anything but inevitable. To put the developing world's billions back on the path to rich-world incomes will take heroic efforts by governments, firms and workers around the world—and a hefty dose of luck. ■



Exoplanets

A measured approach

As astronomers probe faraway planets with ever greater sophistication, a new science is emerging

In the deluge of planets found beyond the solar system over the past decade, those of system TOI-270 might not seem special. There are three of them, orbiting a star 73 light-years away. This is neither the closest system known, nor does it contain the most Earthlike exoplanet. It has, though, sent a buzz through astronomy.

TOI-270 was discovered earlier this year by the Transiting Exoplanet Survey Satellite, TESS, an American instrument launched in 2018. (TOI stands for TESS object of interest.) Its innermost world is a super-Earth, a rocky planet a little bigger than Earth that scurries around its parent star once every three days. Farther out, at orbits of around six and 11 days, are a pair of larger objects known as mini-Neptunes. Having representatives of these two types of planet in a single system is a valuable find. It should help astronomers understand a bit better how different sorts of planet form.

The proximity of TOI-270 to Earth means that it is within range of instruments such as the Hubble Space Telescope, making detailed follow-up studies possible. These will improve estimates of the planets' sizes and better calculate their masses—information that will show what they are made of. TOI-270 is thus, in the words of Maximilian Günther, an astronomer at the Massachusetts Institute of Technology (MIT), an "exceptional laboratory" that will help answer some of the biggest questions in the rapidly growing science of exoplanetology. These include: why do planets form in the sizes they do? How does the solar system fit into a wider galactic context? And, is there life beyond Earth?

Whole new worlds

Dr Günther does, admittedly, have skin in the game. He is the lead author of the study that describes the new star system, published this week in *Nature Astronomy*. That publication was timed to coincide with a gathering, in Cambridge, Massachusetts, of astronomers, chemists, biologists, geologists and others to discuss the results of TESS's first year of operation.

TESS is a pathfinder. It discovers nearby planetary systems so that other instruments may study them. It locates its quarry by looking for characteristic dips in a target star's light caused by planets passing in front of that star. So far, it has found 24 planets the existence of which has been confirmed by other means, and a further 1,000 possibles that are waiting to be checked. It is expected to find thousands more, perhaps tens of thousands, over the course of its four-year mission.

As astronomers have catalogued planets found by TESS and other instruments, they have spotted both patterns and puzzles. There are, for instance, lots of super-Earths and lots of mini-Neptunes. But there is a gap between them. Few planets are known that have between one-and-a-half times and twice the diameter of Earth.

This so-called "Fulton gap"—named after Benjamin Fulton, a PhD student who noticed it in 2017—could have several explanations. Possibly, planets on either side of the gap are different sorts of object. Super-Earths might be born from dust and rocks, and be kept small by a lack of suitable material from which to grow, while mini-Neptunes, constructed of commoner materials such as ice, can grow much larger. Alternatively, all planets may form in the same way, as mini-Neptunes with rocky Earthlike cores surrounded by thick atmospheres of hydrogen and helium. Some, though, may subsequently have most of their atmospheres blown away by the radiation from their parent star, a process known as photoevaporation.

In the view of James Owen, an astrophysicist at Imperial College, London, TOI-270 presents a way to test the photoevaporation hypothesis. Comparing planets orbiting different stars is hard, because it is impossible to know how much high-energy radiation they have received in the past from their stellar parents. But all three objects in TOI-270 have had the same history in this regard, so Dr Owen has been able to remove that uncertainty and predict what the minimum masses for the outer planets should now be, if the photoevaporation hypothesis is indeed correct. If all TOI-270's planets started as mini-Neptunes, he says, the two outermost should now weigh at least 1.8 and 1.3 Earth masses respectively. Planned measurements should soon tell him if he is correct.

A fashion for flares

Most of the systems that TESS will catalogue are expected to be orbiting small, red stars known as M-dwarfs. Courtney Dressing, of the University of California, Berkeley, says that planets around these stars could be excellent places for life to develop because M-dwarfs are extremely long-lived and are stable once they reach maturity. They do, however, reach that maturity only after a stroppy adolescence involving intense bouts of activity, regular flares and the release of huge amounts of energy and charged particles.

All this radiation would be bad for any life that had already developed on a nearby planet, but might, paradoxically, encourage life to emerge in the first place. Some think that ultraviolet light falling on the early Earth provided the energy needed to make the complex organic molecules that were life's precursors. Mature M-dwarfs do not produce enough ultraviolet for this to happen. But adolescent ones might.

Back at MIT, Dr Günther has spotted hundreds of flares on M-dwarfs being scrutinised by TESS—some of which made the stars temporarily 30 times brighter than normal. These data, along with measurements from other observatories, provide details of flares' probable impacts on exoplanetary atmospheres and will allow Drs Günther and Dressing to test their theories.

TESS will also provide a catalogue of interesting targets, like TOI-270, for study by future missions. One of these, CHEOPS (Characterising Exoplanet Satellite), will be launched this autumn by the European Space Agency, ESA, with the aim of measuring the precise sizes of as many super-Earths and mini-Neptunes as possible. These data, combined with knowledge of objects' masses, will lead to a better understanding of what particular planets are made of. Gassy planets will have low densities. "Water worlds" will have rather higher ones. Higher still will be the densities of rocky worlds made principally of silicates. The highest of the lot will belong to those planets made mainly of iron.

After CHEOPS, ESA's next planet hunter will be PLATO, a bigger version of TESS—so big, indeed, that it will be sensitive enough to look for terrestrial bodies that, like Earth itself, orbit at longer periods around bright sun-like stars. Oliver Shorttle of Cambridge University reckons that, using PLATO and its successors, astronomers are likely, within three or four decades, to have found all the planets in the nearest portion of the galaxy to Earth. And this will allow the $64,000 question to be answered: how propitious are astronomical circumstances for the development of life?

With an extensive sample of this sort it should be possible to estimate how many Earthlike worlds exist in the galaxy, and what fraction of those are located at a distance from their parent star that might permit liquid water to form on their surfaces. Meanwhile, astronomers and geologists will be scrutinising those examples that have turned up within the range of the telescopes then available, in a bid to understand how their climates work, look for chemical signatures of life, and watch for weather and geological events such as volcanic eruptions. "If we find these alien Edens," says Dr Shorttle, "how could we not stop and stare?" ■

Archaeology

Tales of the dead

Mayan gods were equal-opportunity tyrants

THE SACRED CENOTE, a sink hole in the limestone of the Yucatán peninsula in Mexico, pictured above, looks beautiful. But it holds a dark secret. Between about 600 and 900AD the Mayan inhabitants of the nearby city of Chichén Itzá, believing it to be a gateway to the underworld, filled the pool with sacrificial riches to the gods: gold, jade, incense, pottery—and people. Those victims, judging by their bones, were often young (half being under 18), and, though more often male than female, were well representative of both sexes.

On the assumption that few of those sacrificed were volunteers, their origin has long been a matter of interest to archaeologists. Some suggest they would have come from afar, perhaps being war captives (as was usually the case with sacrificial victims of the later, Aztec civilisation) or tribute of some sort from conquered lands. Others hypothesise that they were plucked from the local population, perhaps being slaves sold for the purpose by their owners. To try to shed some light on the matter, Douglas Price of the University of Wisconsin, Madison, looked at 40 human teeth recovered from different people cast into the Sacred Cenote. He and his colleagues have just published their results in the *American* ▸▸

Journal of Physical Anthropology.

The researchers' interest was in the isotopic ratios, in the teeth under investigation, of two chemical elements: oxygen and strontium. Atomic nuclei are made of protons and neutrons, known collectively as nucleons. The number of protons defines the element to which an atom belongs, but the number of neutrons may vary, the variants being known as isotopes. Oxygen atoms, for example, have eight protons, but may have eight or ten neutrons, for a total of 16 or 18 nucleons. Similarly, strontium atoms have 38 protons but may have 48 or 49 neutrons, for totals of 86 and 87 respectively.

Isotopes of an element are chemically identical, but their different weights mean the physical properties of molecules containing them may differ. For instance, because ^{18}O is heavier than ^{16}O, water containing it tends to fall as rain sooner as storms move inland from the sea, so it accumulates preferentially in freshwater sources near coastlines. This means people dwelling near coastlines imbibe more ^{18}O in their water than do those living inland. Similarly, different rocks, because of the details of their formation, contain different mixtures of strontium isotopes, and these are reflected in the soil which forms from those rocks, and thus in the plants (including crops) which emerge from that soil.

The upshot is that as children grow, and their teeth grow in them, the enamel of those teeth is built from materials reflecting local isotopic ratios. These ratios are sufficiently well known for different parts of Mexico and its neighbours as to permit Dr Price to work out where the owners of the teeth grew up.

Unfortunately for those hoping for a clear-cut answer to the question of whether people cast into the Sacred Cenote were the spoils of distant wars or locals who had drawn the shortest of short straws, the answer to the question, "Where did they come from?" is, "Anywhere and everywhere". Dr Price and his team could discern no pattern whatsoever. Their analysis suggested that half of the 40 were locals, around a quarter had come from somewhat farther afield, and the remainder from places hundreds of kilometres away, in what are now western Honduras and Mexico's central highlands. Nor was there an association between birthplace and age. Children were neither more nor less likely than adults to have been locals.

A disappointment, then, for those who like their history neat and tidy. How the priests of Chichén Itzá came by victims remains a mystery. All that can be said for sure is that the gods inhabiting the Sacred Cenote were not choosy. Men, women, adults, children, strangers and locals. All seem to have been equally acceptable to sate their lust for blood. ■

Alternative energy sources

Grey-sky thinking

MONTREAL

Wringing power from the night air

SOLAR POWER is all very well, but it is available only during daylight hours. If something similarly environmentally friendly could be drawn on during the hours of darkness, that would be a great convenience. Colin Price, an atmospheric scientist at Tel Aviv University, in Israel, wonders if he might have stumbled across such a thing. As he told a meeting of the International Union of Geodesy and Geophysics, held in Montreal in July, it may be possible to extract electricity directly from damp air—specifically, from air of the sort of dampness (above 60% relative humidity) found after sundown, as the atmosphere cools and its ability to hold water vapour diminishes.

Dr Price's apparatus is a pair of concentric metal cylinders. The outer cylinder is earthed while the inner one is not, creating a capacitor. Passing suitably moist air through the inner cylinder causes that cylinder to accumulate electric charge, thus creating a potential difference between the cylinders which could be harnessed to drive a current through an external circuit.

In effect, and at an extremely small scale (so far, a maximum of just under a volt), Dr Price thinks he has tamed lightning—which is surprising, in a way, because no one truly knows how lightning works. As Dr Price himself observes, "Thunderstorms produce electricity...But if they didn't know it, theoreticians would never predict lightning to exist on Earth. They might predict clouds forming, but not a 10km-high spark, building in half an hour out of nothing."

One thing that is known about lightning, however, is that it requires water to be present in all three states of matter: solid, liquid and vapour. Dr Price suspects that in his experiment the surface of the inner cylinder is taking on the role played in a thunderhead by water's solid phase, ice. His comparison of different metals' effectiveness in that role—zinc is best, copper is useless—may help elucidate the details of the process, not only in his putative generator, but also in a natural thunderstorm.

His hypothesis is that things start when water droplets condense out of the humid air and onto the metal surface. Though water consists mostly of molecules of hydrogen and oxygen (H_2O), at any given time a few of those molecules will have broken up spontaneously into positively charged hydrogen ions (H^+) and negatively charged hydroxyl ions (OH^-). These two types of ion will then move through a droplet at different rates, depending on the nature of the surface to which the droplet is attached, separating the positive and negative charges within that droplet. This charge separation will, in turn, induce a charge on the surface of the cylinder, and thus a potential difference in the capacitor.

Having established the principle, the question Dr Price now faces is whether he can scale things up to a useful degree. This will involve tinkering with cylinders made from various combinations of metals and metal alloys, and also playing with the configurations of the cylinders with respect to one another. That there actually is, out there, a combination of substance and geometry which will yield useful amounts of electricity is, perhaps, a long shot. But, given the power of lightning itself, it certainly seems worth looking into. ■

One way of extracting power from the air

Architecture and design

Thinking outside the box

BURBACH

On the centenary of the Bauhaus, the kinks in the school's clean lines are visible

SINCE IT WAS built in 1924, the Landhaus Ilse, or Ilse country house, has been an incongruous presence on the edge of Burbach, a provincial town in wooded hills halfway between Frankfurt and Cologne. Not only does the yellow single-storey box, with its illuminated central shaft, stand in contrast to the region's traditional timber-framed and slate-clad homes. The house itself seems paradoxical. Its confident, modernist lines are complemented by a less austere chorus of sloping roof, small lattice windows, curvaceous chimney-tops and a weather vane.

Inside, the house—which has not been renovated since the 1920s—is a riot of colour. One room is pink, another blue; a third is criss-crossed by gold lines. The central family room gives, on one side, onto the parlour (painted red), which leads to a conservatory. In the cellar, a big kitchen includes a dumbwaiter that once sent meals up to the green dining room. Improbable as it seems, this contradictory place, which fell into disuse and might have been demolished, sheds light on the evolution and nuances of the Bauhaus school of architecture and design, which was founded a century ago, in 1919.

For most enthusiasts, the school's legacy is embodied in iconic designs such as Walter Gropius's Bauhaus building in Dessau (pictured), Marcel Breuer's tubular chairs or Wilhelm Wagenfeld's glass-domed table lamp. Although it closed in 1933, the Bauhaus posthumously became the high church of novelty, simplicity and functionalism, a reformation of an architectural past of stale ornament and tradition. White-cubed houses across the world are today liable to be tagged with the label "Bauhaus-style", as if that designation could mean only one thing.

Three major exhibitions are being held in Germany to mark the centenary, one in each of the school's successive home towns: Weimar, where it was established by Gropius; Dessau, which it moved to in 1925; and Berlin, where it was run by Mies van der Rohe in 1932-33 before closing under pressure from the Nazis. The last, put on by the Bauhaus Archive, a museum, will open in September, as will the one in Dessau (Weimar's is already up and running). The Ilse house will feature prominently in Berlin. It is likely to disconcert devotees of clean lines—and simple histories.

Willi Grobleben, the father of the woman who gave the house its name, moved to Burbach in 1924, says Katrin Mehlich, who runs the town's cultural office. The new technical director of a local quarry, Grobleben had the house built as a company guesthouse; he was given the property as a pay-off in 1927. His daughter, Ilse, lived there until she died in 2000. The house was bought and saved from oblivion by Erika Wirtz, a local entrepreneur. Not long afterwards she came across a familiar-looking floor-plan in a book about the Bauhaus. "That is my Ilse," Wirtz exclaimed.

Actually, the plan was for the white-cubed, flat-roofed Haus am Horn in Weimar—the Bauhaus's earliest foray into architecture, which had been the main exhibit in the school's first big show, in 1923. All the rooms in the Haus am Horn were—like those of the Ilse house—organised around a central, sky-lit family room. The layout was socially progressive (there was ▸▸

no provision for servants) and aesthetically controversial (the big windows were placed as the interiors demanded, making the exterior asymmetrical). The Haus am Horn was long thought to be unique.

For the show in Berlin, Anna Henckel-Donnersmarck, a video artist, has interviewed experts and Burbach locals about the curious history of the run-down Ilse house. Her video installation will explore how Grobleben came to mimic the Haus am Horn. Did he visit the Bauhaus exhibition in 1923? Was he among those who inquired about buying a plan? Did he see one in a magazine? Did he and Gropius, born in the same year, meet as students? "The similarities are so strong we can't really talk about a coincidence," Annemarie Jaeggi, the head of the Bauhaus Archive, told the video artist in the house's dining room. The floor plans are Exhibit A, she said.

From Bauhaus to her house

"Grobleben was a bit of a nut," confides Albert Schöllchen in the house's red parlour. "He certainly didn't fit in here." Albert and his older brother Jürgen moved in across the road in the 1950s. Albert says he always found the house "spooky" and gave it no thought. Jürgen says he often wondered: "How did it get here?" He regrets not having asked the Groblebens that question when he could.

"Part of the fascination about the Ilse house is that we don't know everything," says Christoph Ewers, the town's mayor. What seems clear is that, in Burbach, the newfangled Haus am Horn was turned into what the mayor calls "a representative, traditional upper-middle-class house". The town declared the building a landmark in 2001 and took it over in 2017 after Wirtz, the entrepreneur, died. Ms Jaeggi was the first bigwig from one of the latter-day Bauhaus institutions to pay a visit.

In Berlin, the Ilse house and the Haus am Horn will be explained side by side. Nina Wiedemeyer, the exhibition's curator, wants to tease out the complexities of the Bauhaus story beyond the clean-lined narrative that Gropius and others propagated. In the approved version, which dates to a show at the Museum of Modern Art in New York in 1938, the school was a fount of elegant yet accessible modernism. The Bauhaus proved as avant-garde in marketing itself as it was in art: Gropius gave dozens of speeches about it, and his successor as the school's director, Adolf Meyer, put on a state-of-the-art touring showcase.

Yet there were always kinks. The retrospective in Berlin will document the school's close links to other artistic movements, such as the anti-establishment provocations of Dadaism. It will expose the

bickering and glitches beneath the myth, noting, for instance, that one design now widely considered a Bauhaus classic, Maria Brandt's geometrical tea-infuser of 1924 (pictured*), never made it beyond the prototype stage. For its part, the Ilse house demonstrates that the Bauhaus could inspire mash-ups as well as doctrinal purity.

After all, short-lived as it was, the school involved 1,400 people. Like most human endeavours of that size, and most artistic trends, "it was not a monolith," Ms Wiedemeyer says. Her exhibition will include some of the Bauhaus's greatest hits; "but it will also say, 'Wait, there's more...'" ■

*Bauhaus Archive Berlin © VG Bild-Kunst Bonn 2019

The disinformation age

A world of lies

This is Not Propaganda. By Peter Pomerantsev. *PublicAffairs; 256 pages; $28. Faber & Faber; £14.99*

REREAD PETER POMERANTSEV'S first book today and you experience a sense of vertigo. Published in 2014, "Nothing is True and Everything is Possible" is a memoir of working in Russia's television industry in the 2000s. During his first meeting in Moscow in 2006, Mr Pomerantsev, then a producer-director, now a fellow at the London School of Economics, listens to one of the country's top TV presenters declare: "We all know there will be no real politics. But we still have to give our viewers the sense that something is happening." The question is, "Who's the enemy this week?" Politics should feel "like a movie!"

That book was acclaimed as a searing insight into the semiotics of Vladimir Putin's Russia. But in the era of Brexit, Donald Trump and Cambridge Analytica, of Rodrigo Duterte and Jair Bolsonaro, the ruses it depicts are eerily recognisable: the spurious storylines and made-up enemies, the redefinition of what constitutes a fact, the wholesale manipulation of the citizenry. Even the title (adapted from Hannah Arendt) seems as applicable to today's social-media-inflected Western world as to the Russia of a decade ago.

Now the author has updated his analysis for the current moment. In "This is Not Propaganda", Mr Pomerantsev asks: what if Russia "had been a pre-echo of what was to come"? In answering that question he ranges from identity politics to the disavowal of objectivity in much of the media; from the distressingly familiar online harassment of Filipino journalists to the "information war blitzkrieg" that accompanied the Russian invasion of Ukraine. This time his beat extends across Europe to China, the Americas and the Middle East, letting him draw helpful connections between dispersed but similar battles in "the war against reality".

"Nothing is True" was the account of an insider. Here, Mr Pomerantsev plays the more traditional role of a researcher and reporter. He meets information-age mountebanks and the idealists attempting to resist or expose them. He describes in detail how social media have been weaponised by the bad guys, though he neglects to tease out the influence of would-be good guys: optimistic tech types keen on making the world a better place. He shows how the digital tools used to mobilise peaceful revolutions have been co-opted by autocrats.

The personal experience on which Mr Pomerantsev draws for this book is partly vicarious, as he movingly weaves the story of his parents, Igor and Lina, into his narrative. As dissidents in Soviet Ukraine, they lived under claustrophobic censorship and the constant fear of arrest and interrogation; eventually they were exiled for possessing and circulating *samizdat*. They moved to London (via Austria and Germany), where Igor worked for the BBC's Russian service, revelling in the freedom to say and think what he wanted.

The contrast between the tight regulation of information by repressive regimes in the 20th century, and the free-for-all of today's media environment, gives the book its disconcerting force. Once authoritarian states concentrated on suppressing unwelcome news and opinions; now some also flood the zone with a million different takes. Once they pushed a monolithic ideology; now they shape-shift, so nobody knows what they stand for. In the past, propaganda often complemented military action; now fighting may be necessary only to provide images for propaganda.

"If you can't convince them, confuse them," is an old political motto. But the means for doing that so cheaply and widely are new. If politics in the television age had to feel like a movie, the trick now is to make it seem like an account of real life. ■

Killer insects

The itch of fate

The Mosquito. By Timothy Winegard. *Dutton Books; 496 pages; $28. Text Publishing; £12.99*

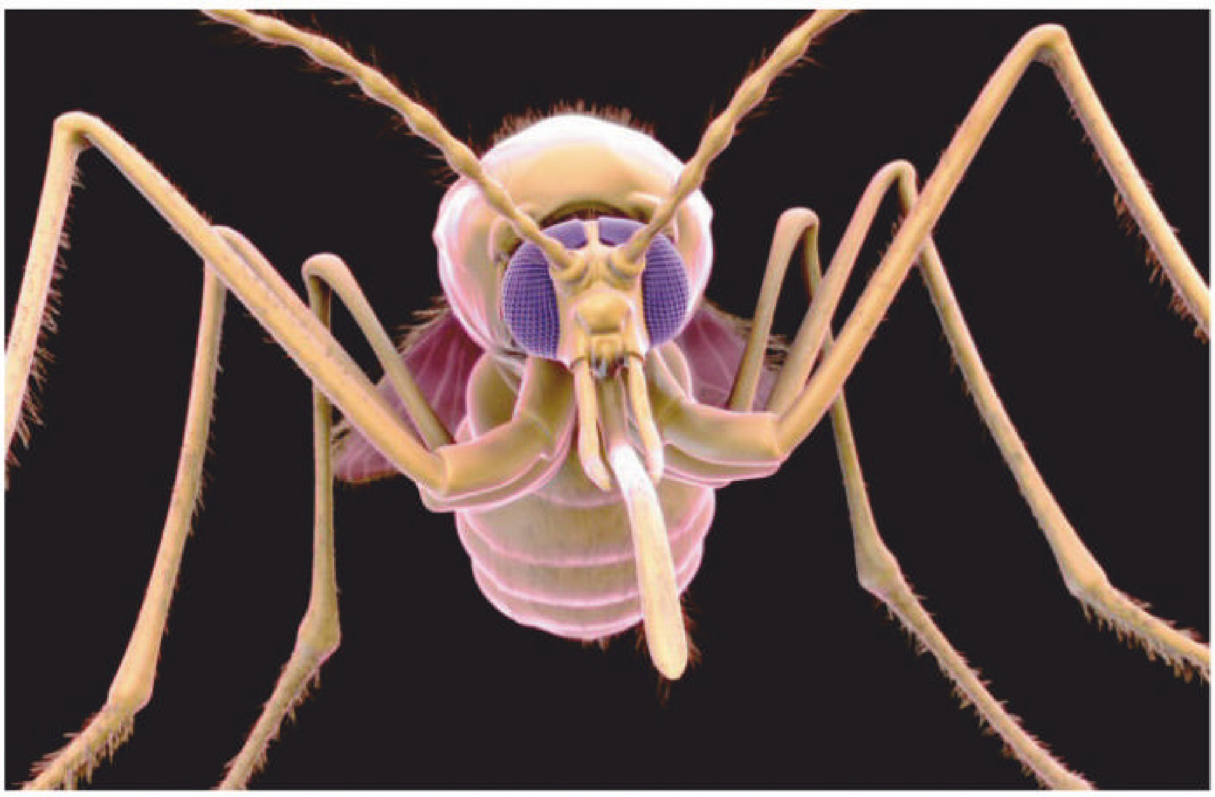
During the second world war, American troops in the Far East were said to have two foes. The first was Japanese. One propaganda poster depicted an enemy's sabre, slick with blood. The second adversary had no sword but was terrifying all the same. Malaria-carrying mosquitoes infected around 60% of Americans stationed in the Pacific at least once. Drugs such as Atabrine could help, but nasty side-effects meant that some GIs shunned their daily dose—with predictable consequences. "These Men Didn't Take Their Atabrine" warned a sign propped below a pair of human skulls in Papua New Guinea.

At least decent treatment was available. For most of human existence, says Timothy Winegard in his lively history of mosquitoes, "we did not stand a chance" against the insect and its diseases. That was partly because of ignorance. Earlier humans blamed malaria and its mosquito-borne cousins on "bad air" from swamps, even as the years passed and death kept whining at their ears. Malaria once killed over 20% of people in the Fens of eastern England. Yellow fever ravaged Memphis, Tennessee, deep into the 1800s. No wonder Mr Winegard calls the mosquito a "destroyer of worlds", which may have dispatched around half of all humans ever born.

But his book is more than a litany of victims. Mr Winegard convincingly argues that the insect has shaped human life as well as delivering death. Mosquitoes helped save the Romans from Hannibal and Europe from the Mongols. And if malaria has changed history, so has resistance to it. Europeans believed that the relative immunity enjoyed by some Africans made them ideal slaves in the New World. Later, the tables were turned. "They will fight well at first, but soon they will fall sick and die like flies," predicted Toussaint Louverture of the Frenchmen sent to end his slave revolution in Haiti. He was right. About 85% of the 65,000 soldiers deployed to the colony died of mosquito-borne illnesses, and Haiti won its independence.

These dashes across time and distance could become exhausting, but Mr Winegard is an engaging guide, especially when he combines analysis with anecdote. One highlight relays a bizarre plot by a Confederate zealot to infect Abraham Lincoln with yellow fever; another passage explains the ancient Egyptian habit of fighting malarial fevers by bathing in urine. (A few of the witticisms fall flat. Calling the 18th-century Caribbean a "dinner-party buffet" for mosquitoes seems glib, for example; anthropomorphising the pests as a "guerrilla force" is a metaphor too far.)

But much of Mr Winegard's narrative is thrilling—above all the concluding chapters in which he tackles the modern mosquito. Drugs and insecticides have helped slash malaria rates, but mosquitoes can quickly develop immunity themselves. In total, the insects still kill over 800,000 people every year. And though gene-editing might one day render them harmless, or even obliterate them altogether, mosquito-borne illnesses such as Zika have recently been spreading to new regions. The destroyer of worlds has not finished yet. ■



Enemy number one

Sporting fiction

Hoop dreams

The Falconer. By Dana Czapnik. *Atria Books; 288 pages; $25. Faber & Faber; £8.99*

When she is not holding a basketball, Lucy Adler is gangly, self-conscious and invisible; she is a "pizza bagel" (a Jewish-Italian "mutt-girl") with few friends. But on the court she is a "Warrior Goddess of Mannahatta", schooling geezers who mistake her for an easy mark. Lucy knows she must play it cool at first, as men get angry when a girl makes them look bad. But when she assumes her full powers, she is triumphant. She loves the sound of a ball going through a hoop: *Thwip*. Perfection, the chain-link net jangling "just quietly enough to sound like someone counting rosary beads".

Novels about female athletes are rare. "The Falconer", a debut from Dana Czapnik, a veteran sports journalist, is a corrective. The moments when Lucy, the book's narrator, is shooting hoops offer some of the liveliest sports writing in fiction. Yet the real joy of this coming-of-age story derives from inhabiting such a nuanced 17-year-old, who vividly captures the hubris and insecurity of youth.

For all her vulnerability, Lucy has the shrewdness of a native New Yorker who attends an elite private school, plays pick-up games on city courts and smokes pot on rooftops. This is the still-gritty early 1990s, and she roams the streets with the curiosity of a photographer. (The book is also a love-letter to the dynamism of New York, which sometimes seems like "an orchestra in a constant state of warming up".) Lucy wants to know how to avoid the traps of convention—"Is there anything more tragic than being boring?"—but is dismissive of advice, particularly from well-meaning adults. She loves the way her body is perfectly calibrated to basketball, but worries that the guy she likes will never care for her small breasts and frizzy hair. She envies the way boys unapologetically take up space, but she doesn't want to be a boy; just a girl who has more fun.

Lucy's precocity is occasionally implausible. Few teenagers—even terribly clever ones—are ever likely to compare a September night to "the burnt edge of a saxophone solo" in a Tennessee Williams play. The insightful dialogue often sounds like wishful thinking. But these are forgivable flaws. "The Falconer" is a winning tale about the often-painful alchemy of adolescence, which transforms the misadventures of youth into something like wisdom. ■

Economic & financial indicators

Economic data

	Gross domestic product % change on year ago latest	quarter*	2019†	Consumer prices % change on year ago latest	2019†	Unemployment rate %	Current-account balance % of GDP, 2019†	Budget balance % of GDP, 2019†	Interest rates 10-yr gov't bonds latest,%	change on year ago, bp	Currency units per $ Jul 31st	% change on year ago
United States	2.3 Q2	2.1	2.2	1.6 Jun	2.0	3.7 Jun	-2.4	-4.7	2.0	-96.0	-	
China	6.2 Q2	6.6	6.2	2.7 Jun	2.9	3.6 Q2§	0.2	-4.5	3.0 §§	-23.0	6.89	-0.9
Japan	0.9 Q1	2.2	1.0	0.7 Jun	1.1	2.3 Jun	3.8	-2.9	-0.2	-22.0	109	3.1
Britain	1.8 Q1	2.0	1.3	2.0 Jun	1.8	3.8 Apr††	-4.1	-1.6	0.8	-62.0	0.82	-7.3
Canada	1.3 Q1	0.4	1.6	2.0 Jun	2.0	5.5 Jun	-2.6	-0.9	1.5	-83.0	1.31	-0.8
Euro area	1.1 Q2	0.8	1.2	1.1 Jul	1.3	7.5 Jun	2.9	-1.1	-0.4	-89.0	0.90	-5.6
Austria	1.4 Q1	3.8	1.3	1.6 Jun	1.8	4.5 Jun	2.1	0.1	-0.2	-87.0	0.90	-5.6
Belgium	1.2 Q2	0.8	1.2	1.4 Jul	1.9	5.6 Jun	0.1	-1.0	-0.1	-85.0	0.90	-5.6
France	1.3 Q2	1.0	1.2	1.1 Jul	1.2	8.7 Jun	-0.9	-3.3	-0.1	-84.0	0.90	-5.6
Germany	0.7 Q1	1.7	0.8	1.7 Jul	1.6	3.1 Jun	6.5	0.7	-0.4	-89.0	0.90	-5.6
Greece	0.9 Q1	0.9	1.8	-0.3 Jun	1.0	17.6 Apr	-3.0	0.1	2.0	-192	0.90	-5.6
Italy	nil Q2	0.1	0.1	0.5 Jul	0.9	9.7 Jun	1.9	-2.5	1.5	-118	0.90	-5.6
Netherlands	1.7 Q1	1.9	1.6	2.7 Jun	2.6	4.2 Jun	10.1	0.7	-0.3	-84.0	0.90	-5.6
Spain	2.3 Q2	1.9	2.2	0.5 Jul	1.1	14.0 Jun	0.5	-2.2	0.3	-99.0	0.90	-5.6
Czech Republic	2.8 Q1	2.6	2.6	2.7 Jun	2.5	2.0 Jun‡	0.2	0.2	1.2	-98.0	23.1	-5.2
Denmark	2.4 Q1	0.5	1.9	0.6 Jun	1.1	3.8 Jun	6.8	1.0	-0.4	-79.0	6.71	-5.1
Norway	2.5 Q1	-0.3	1.6	1.9 Jun	2.6	3.4 May‡‡	7.7	6.4	1.4	-51.0	8.78	-7.2
Poland	4.7 Q1	6.1	4.0	2.9 Jul	2.0	5.3 Jun§	-0.7	-2.0	2.2	-101	3.85	-4.9
Russia	0.5 Q1	na	1.3	4.7 Jun	4.8	4.4 Jun§	7.2	2.1	7.4	-42.0	63.4	-1.6
Sweden	1.4 Q2	-0.3	1.7	1.8 Jun	1.9	7.6 Jun§	4.9	0.5	-0.3	-88.0	9.59	-8.3
Switzerland	1.7 Q1	2.3	1.6	0.6 Jun	0.5	2.3 Jun	9.6	0.5	-0.7	-69.0	0.99	nil
Turkey	-2.6 Q1	na	-1.7	15.7 Jun	16.1	13.0 Apr§	-0.7	-2.3	15.4	-321	5.56	-11.7
Australia	1.8 Q1	1.6	2.2	1.6 Q2	1.7	5.2 Jun	-1.4	0.1	1.2	-144	1.45	-6.9
Hong Kong	0.6 Q1	-1.2	1.7	3.2 Jun	2.6	2.8 Jun‡‡	4.0	0.4	1.6	-56.0	7.83	0.3
India	5.8 Q1	4.1	6.7	3.2 Jun	3.6	7.5 Jul	-1.8	-3.5	6.4	-140	68.8	-0.3
Indonesia	5.1 Q1	na	5.1	3.3 Jun	3.1	5.0 Q1§	-2.6	-1.9	7.4	-31.0	14,017	2.9
Malaysia	4.5 Q1	na	4.5	1.5 Jun	0.7	3.3 May§	2.6	-3.5	3.6	-48.0	4.13	-1.5
Pakistan	3.3 2019**	na	3.3	8.9 Jun	8.5	5.8 2018	-3.9	-7.1	14.0 †††	402	160	-22.4
Philippines	5.6 Q1	4.1	6.0	2.7 Jun	3.6	5.1 Q2§	-2.1	-2.3	4.7	-181	50.9	4.4
Singapore	0.1 Q2	-3.4	0.9	0.6 Jun	0.6	2.2 Q2	15.8	-0.6	1.9	-54.0	1.37	-0.7
South Korea	2.1 Q2	4.4	1.9	0.6 Jul	0.8	4.0 Jun§	4.2	0.9	1.4	-115	1,183	-5.5
Taiwan	2.4 Q2	4.7	1.7	0.9 Jun	0.5	3.7 Jun	13.0	-1.0	0.7	-18.0	31.1	-1.6
Thailand	2.8 Q1	4.1	3.3	0.9 Jun	1.2	0.9 Jun§	7.8	-2.9	1.6	-92.0	30.8	8.2
Argentina	-5.8 Q1	-0.9	-1.2	55.8 Jun‡	48.6	10.1 Q1§	-2.3	-3.4	11.3	562	43.8	-37.5
Brazil	0.5 Q1	-0.6	0.8	3.4 Jun	4.0	12.0 Jun§	-1.0	-5.8	5.5	-334	3.76	nil
Chile	1.6 Q1	-0.1	3.0	2.3 Jun	2.4	7.1 Jun§‡‡	-2.6	-1.3	2.9	-159	701	-8.7
Colombia	2.3 Q1	nil	3.1	3.4 Jun	3.4	9.4 Jun§	-4.2	-2.5	5.8	-103	3,293	-12.3
Mexico	-0.7 Q2	0.4	0.4	3.9 Jun	3.7	3.5 Jun	-1.6	-2.5	7.5	-26.0	19.0	-1.7
Peru	2.3 Q1	-2.0	3.4	2.3 Jun	2.2	6.3 Jun§	-1.9	-2.0	5.6	64.0	3.30	-0.9
Egypt	5.7 Q2	na	5.5	9.4 Jun	11.8	8.1 Q1§	-1.2	-7.2	na	nil	16.6	8.0
Israel	3.3 Q1	5.0	3.3	0.8 Jun	1.2	4.1 Jun	2.5	-4.0	1.2	-81.0	3.50	4.9
Saudi Arabia	2.4 2018	na	1.9	-1.4 Jun	-1.1	5.7 Q1	3.8	-5.6	na	nil	3.75	nil
South Africa	nil Q1	-3.2	1.0	4.5 Jun	4.8	29.0 Q2§	-3.7	-4.2	8.3	-26.0	14.2	-7.5

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

Markets

In local currency	Index Jul 31st	% change on: one week	Dec 31st 2018
United States S&P 500	2,980.4	-1.3	18.9
United States NAScomp	8,175.4	-1.8	23.2
China Shanghai Comp	2,932.5	0.3	17.6
China Shenzhen Comp	1,571.3	0.5	23.9
Japan Nikkei 225	21,521.5	-0.9	7.5
Japan Topix	1,565.1	-0.6	4.8
Britain FTSE 100	7,586.8	1.1	12.8
Canada S&P TSX	16,406.6	-1.2	14.5
Euro area EURO STOXX 50	3,466.8	-1.9	15.5
France CAC 40	5,518.9	-1.6	16.7
Germany DAX*	12,189.0	-2.7	15.4
Italy FTSE/MIB	21,398.2	-3.1	16.8
Netherlands AEX	572.1	-1.9	17.3
Spain IBEX 35	8,971.0	-3.8	5.0
Poland WIG	59,670.6	-1.8	3.4
Russia RTS, $ terms	1,360.0	1.5	27.6
Switzerland SMI	9,919.3	0.1	17.7
Turkey BIST	102,082.4	-1.3	11.8
Australia All Ord.	6,896.7	0.5	20.8
Hong Kong Hang Seng	27,777.8	-2.6	7.5
India BSE	37,481.1	-1.0	3.9
Indonesia IDX	6,390.5	0.1	3.2
Malaysia KLSE	1,634.9	-1.1	-3.3

	index Jul 31st	% change on: one week	Dec 31st 2018
Pakistan KSE	31,938.5	-1.4	-13.8
Singapore STI	3,300.8	-2.0	7.6
South Korea KOSPI	2,024.6	-2.8	-0.8
Taiwan TWI	10,823.8	-1.0	11.3
Thailand SET	1,712.0	-0.8	9.5
Argentina MERV	42,057.8	5.7	38.8
Brazil BVSP	101,812.1	-2.2	15.8
Mexico IPC	40,863.1	-0.7	-1.9
Egypt EGX 30	13,392.5	-1.7	2.7
Israel TA-125	1,513.5	0.9	13.5
Saudi Arabia Tadawul	8,732.6	-0.6	11.6
South Africa JSE AS	56,784.6	-1.6	7.7
World, dev'd MSCI	2,187.6	-1.4	16.1
Emerging markets MSCI	1,037.0	-1.7	7.4

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 31st 2018
Investment grade	157	190
High-yield	480	571

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

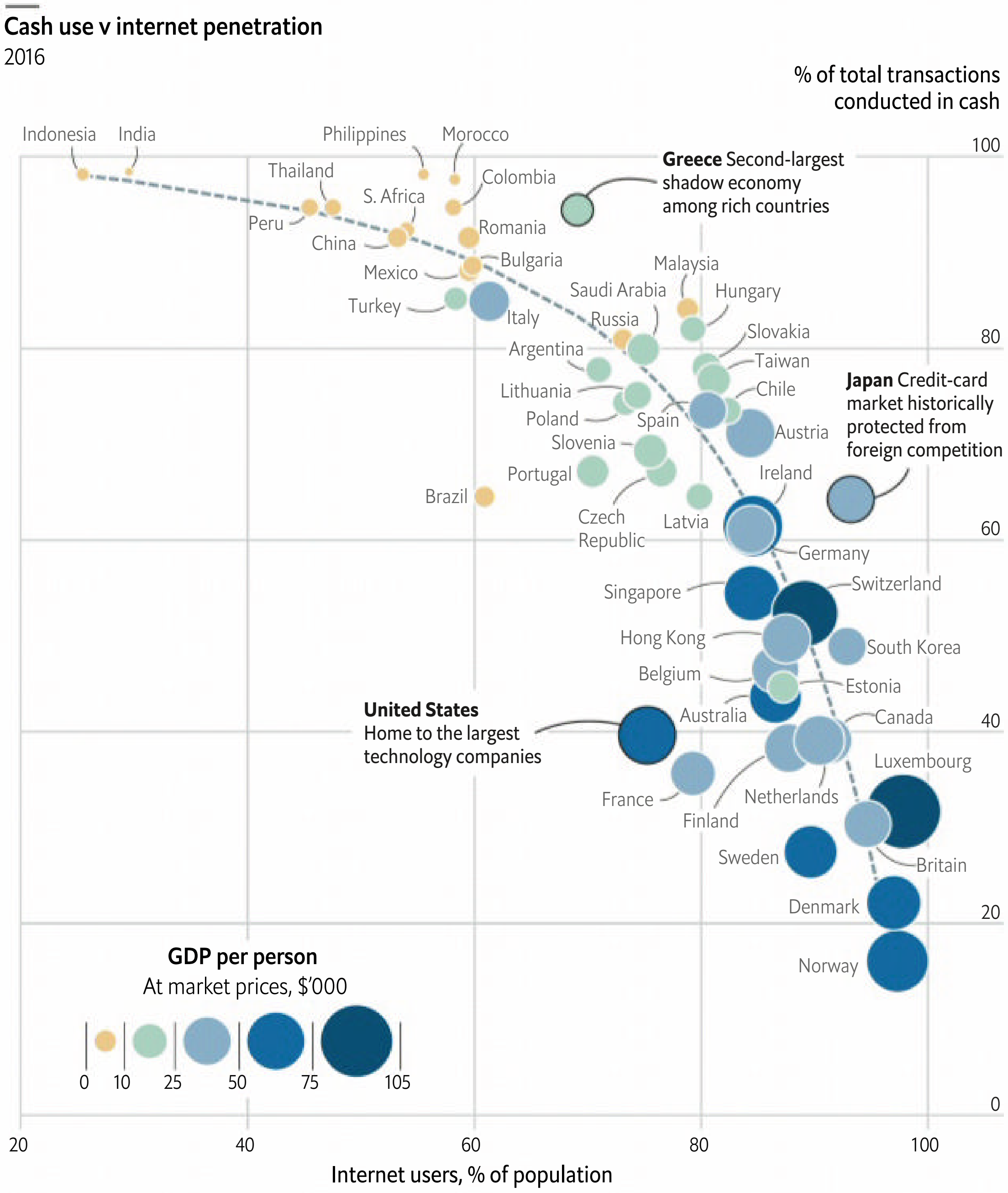
Commodities

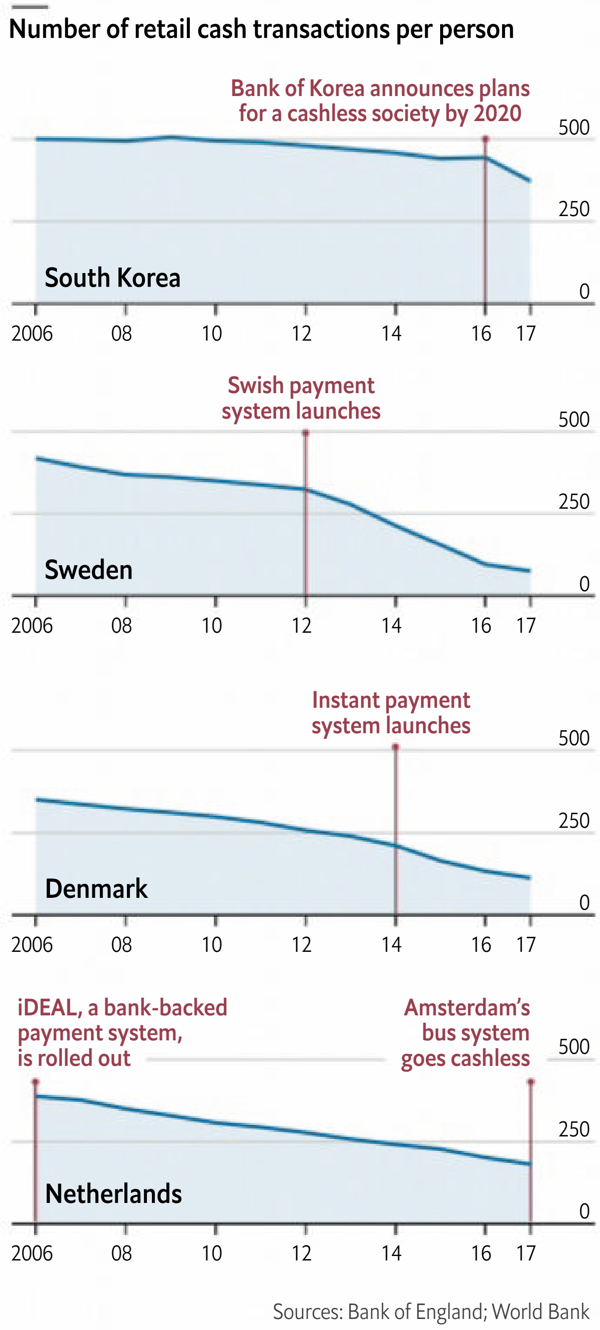
The Economist commodity-price index 2005=100	Jul 23rd	Jul 30th*	% change on month	year
Dollar Index				
All Items	136.2	128.7	-5.7	-10.8
Food	146.3	131.8	-10.5	-11.2
Industrials				
All	125.7	125.5	0.3	-10.4
Non-food agriculturals	113.7	114.1	-3.3	-16.9
Metals	130.9	130.4	1.7	-7.7
Sterling Index				
All items	199.1	192.6	-2.2	-3.7
Euro Index				
All items	151.9	143.7	-4.3	-6.3
Gold				
$ per oz	1,424.2	1,428.8	2.3	16.9
West Texas Intermediate				
$ per barrel	56.8	58.1	3.2	-15.6

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

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

More-digitised countries use less cash. Enthusiastic governments can speed things along





Sources: Bank of England; World Bank

Tossing the coin

Ditching cash requires high internet penetration and state support

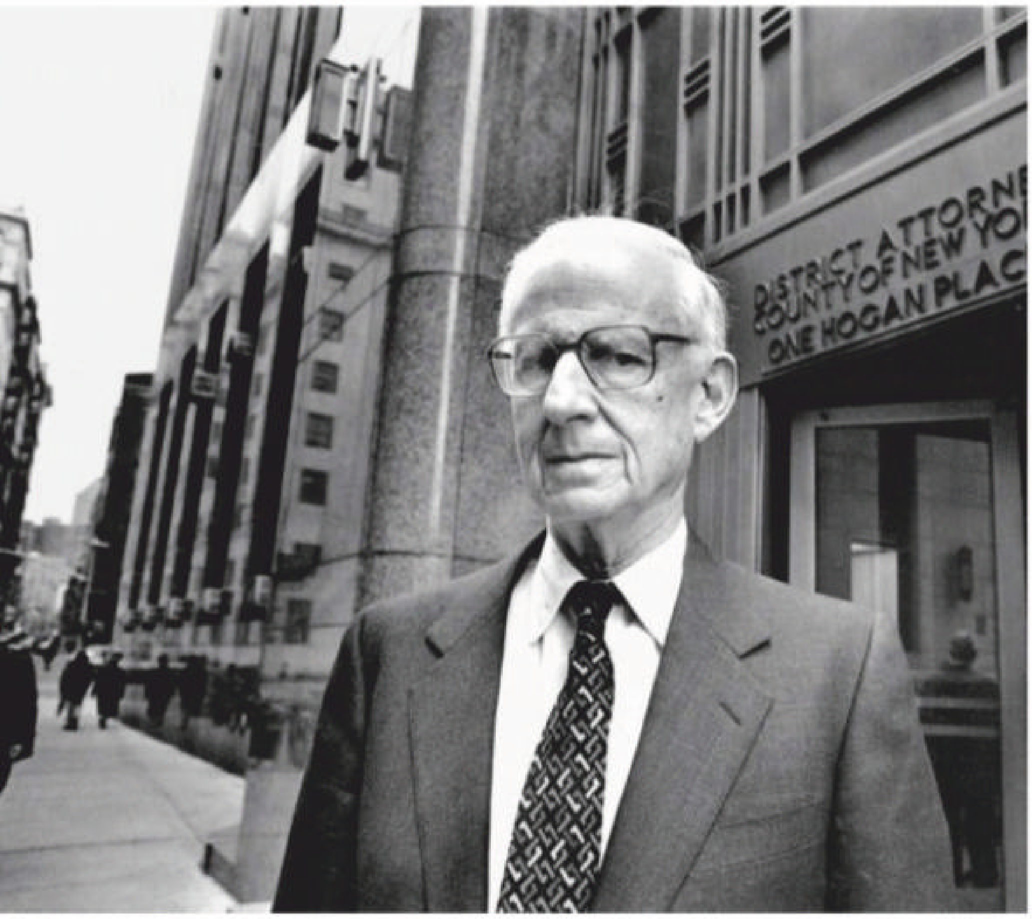
On July 27th, outside Brooklyn's hipper-than-thou Smorgasburg street-food market, a dozen hungry visitors stand idle amid the barbecue fumes. Rather than queuing for food, they are waiting at a cash machine. Yet inside the market, vendors are trying to wean their customers off cash. Gourmets who use Apple Pay, a mobile-payment service, receive hefty discounts on their purchases. "Apple pays us the difference," one trader explains.

Most transactions around the world are still conducted in cash. However, its share is falling rapidly, from 89% in 2013 to 77% today. Despite the attention paid to mobile banking in emerging markets, it is rich countries, with high financial inclusion and small informal economies, that have led the trend. Within the rich world, more-digitised societies tend to make fewer cash payments. In Nordic countries like Norway and Denmark, where 97% of people use the internet, around four out of five transactions were already cashless by 2016, according to a recent review chaired by Huw van Steenis of the Bank of England. In contrast, internet penetration in Italy is just 61%, and 85% of transactions there were still handled in cash in 2016.

Beyond this broad pattern, decisions by both individual firms and governments have large effects. At the company level, installing infrastructure for contactless payments bears fast fruit. AT Kearney, a consultancy, finds that in rich countries the number of transactions per card has risen by 20-30% within three years of contactless technology becoming widespread. Banks can accelerate the process by building fast, low-cost systems that enable direct transfers between accounts, such as iDEAL in the Netherlands or Swish in Sweden. America has ditched banknotes faster than its modest 75% internet-penetration rate would suggest because it is the domestic market of many large firms promoting digitisation, such as card networks (Visa, MasterCard), tech giants (Apple, Google) and payment apps (PayPal, Venmo).

Public policy also makes a difference. Some cities, such as London and Amsterdam, have banned on-board cash payments on public buses. Estonia—the birthplace of Skype, an internet-telephony app—has been a leader in digitising public services, such as filing taxes and voting. Its residents are comfortable using new technology and sharing data, and often snub cash. Japan, in contrast, uses more cash than its internet usage would indicate. Historically, it had a sleepy credit-card monopoly entrenched by regulation, which discouraged foreign firms from investing.

So far, cash has proved stubbornly difficult to stamp out completely. Even in Sweden, a front-runner, one in four transactions involves it. But a tipping-point may loom. Handling cash is expensive. Studies estimate its overall cost to society at 0.5% of GDP. As more payments become digital, this burden will fall on ever fewer stores, shoppers and banks. If cash-withdrawal fees rise to $10 a time, even technophobes and older shoppers may start paying for those truffle fries with their phones. ■



The long arm of the law

Robert Morgenthau, Manhattan's longest-serving district attorney, died on July 21st, aged 99

IF YOU ASKED Robert Morgenthau which of his prosecutions he was proudest of, you might expect him to give a half-smile, pause to knock out his cigar in the brown glass ashtray, and in his usual soft growl—a strange blend of modest, clipped patrician and Noo York—reply that it was his pursuit of the Bank of Credit and Commerce International. He trailed this shady outfit, laundromat of choice for narcos, terrorists and dictators, for years, before nailing it for fraud in 1991 and forcing it to close. All its assets were forfeit, and it lost $15bn. It was the biggest bank-fraud prosecution in world financial history, spanning 76 countries, and if you wondered what a DA from Manhattan was doing in it, his answer came with more than a half-smile: "The long arm of the law."

However, it was not the case he took most pride in. He was shyly proud of them all—3.5m prosecutions, he reckoned, over the 35 years he had presided over the DA building at the edge of Chinatown, from his desk with the famous five Rolodexes. He had gone after rapists, extortioners, drug-dealers, "Teflon John" Gotti, John Lennon's killer and the CEO of Tyco International, who had drained his company of $100m. These raps stood out in a docket crowded with the usual misdemeanours of a huge, close-packed city. But every crime mattered equally to him because it mattered equally to the victim, whether millionaire investor or some poor woman fretting that drugs were being sold on her street. Anyone joining his team of prosecutors knew that this was the Boss's bottom line.

And every malefactor needed to fear the interest of the DA's office. No one was too rich, middle-class or well connected to escape his hawkish eye. If he thought a case could be brought, he would bring it, no matter what the public or any power group thought. If a teenager could be prosecuted for breaking into a grocery store, you also had to prosecute those comfortable people who put their money offshore and paid no taxes.

Yet this was not the situation when he arrived in the job in 1975. The DA's office was a mess, as the whole city was, near-bankrupt, filthy and battered by violent crime. He immediately took on more prosecutors, streamlined their jobs so that each of them handled a case from start to finish, hired minorities and women, expanded the homicide department and brought in as many new evidence-testing techniques as scientists could invent. He added 34 more units, including identity theft, consumer affairs, "cold" cases, Asian gangs and firearms trafficking. By the time he left, having seen out 16 police commissioners, his team had swelled to nearly 500 prosecutors with a budget of $75m—and murders in Manhattan had dropped from 642, when he started, to 58. Thanks to "Morgy", as the tabloids liked to call him, the city felt safe, and New Yorkers rewarded him with landslides whenever his job came up.

He also brought in a rackets bureau, along with a crowd of accountants to track down financial crimes. In his previous job, as federal prosecutor for the Southern District of New York (where he indicted no fewer than 150 mobsters, including Anthony ("Tony Ducks") Corallo, whose very nickname boasted how slippery he was), he had set up a unit to investigate Wall Street. It was long overdue. As DA he spent a third of his budget in pursuit of money-launderers and stock manipulators, not forgetting those clean-looking tax lawyers and corporate accountants. His team had to act like vacuum cleaners, sucking up every least scrap of evidence, and like bully boys, threatening small fry with certain jail-time to persuade them to co-operate, which might land even bigger fish.

Some thought he was biased politically. He was a liberal Democrat, after all, a Kennedy appointee (as well as a Kennedy friend, from the days when he and Jack, two wealthy young scions of east-coast political dynasties, had raced sailing boats off Cape Cod). As such he twice ran briefly for governor of New York, but felt too awkward to shine on the stump. He supported gun control, never sought the death penalty and spent much of his time, pro bono, helping immigrants avoid deportation: good Democratic causes. But people's politics had no importance. Justice did.

His success rate was impressive. Three-quarters of his cases ended in convictions. Some were controversial, such as his prosecution of a player for the Giants on a gun rap, which brought him death threats from fans; or of Bernhard Goetz, who had shot at four young blacks who threatened him in the subway, for no more than gun-possession. Some people claimed he was indifferent to blacks, but it wouldn't fly: he not only hired plenty as prosecutors in the DA's office but, on war service in the navy, he had brought in four blacks as gunners on one of his ships and resolutely refused his captain's orders to demote them. Pressure always made him even more stubborn than he naturally was.

He liked to get convictions. Any DA did. Yet he didn't count them up like notches on a gun, because he cared about justice more. In 1990, for example, he secured the convictions of five teenagers, four black and one Latino, for the beating and rape of a young woman in Central Park. They went to prison, but 12 years later another man confessed to the crime. Immediately, as DA, he ordered a new investigation with DNA testing, which had not been available before. The testing came back 100%, so the ball game was over. His prosecution had failed, but justice had been done, and this exoneration pleased him just as much as his successes.

It all fell under the head of doing something useful with his life, part of a plea bargain he had made with the Almighty when, in 1944, his ship *USS Lansdale* had been sunk under him by German torpedoes. Once spared, he became a lawyer, then such a prosecutor that he inspired the DA hero of "Law and Order", a hit TV series. But he might have been a farmer, for his not-so-secret other life was on his grandfather's 270 acres of orchards upstate at East Fishkill. There he spent his summers as a boy, escaping the heat of the city, and there with the same purpose he worked later, in overalls, returning to Manhattan with eggs and hard cider to sell. The long arm of the law, which criminals dreaded, also reached to prune apple trees and pick a fruit or two. McIntosh were best. ■


VOA.ORG
IRAQ
VETERAN
SEAL WITH STAMP
You showed me
not everyone in this
world is against me.
Thank you!!!
THIS IS WHY WE DO WHAT WE DO.®
Volunteers of America®