The Economist

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NOVEMBER 17TH–23RD 2018

THE NEXT CAPITALIST REVOLUTION

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Politics this week

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After an "impassioned" five-hour meeting Theresa May, **Britain's** prime minister, said her cabinet had approved a provisional withdrawal deal from the European Union. After the meeting Mrs May said she believed the draft deal was "the best that could be negotiated". She now needs Parliament to back it, but may struggle to find enough votes to get it passed. Several of her ministers, including the Brexit secretary, resigned over the deal. Mrs May herself could yet be toppled. See article .

Paradise lost

Wildfires continued to rage in **California**. At least 50 people are confirmed to have died in the blazes, many from the devastated town of Paradise in the north of the state. More than 100 people are still missing. Around 300,000 Californians are thought to have fled their homes. President Donald Trump blamed poor forest management for the fires. See article .

Florida's Republican secretary of state ordered recounts for both its governor's race and its contested seat in the Senate. Preliminary results put Bill Nelson, the Democratic incumbent senator, around 12,000 votes behind Rick Scott, his Republican challenger. The margin of 0.15% was thin enough to trigger an automatic machine-count. Meanwhile a Democrat, Kyrsten Sinema, was declared the victor of a seat in **Arizona** by a margin of 1.7 percentage points. See article .

CNN, a broadcaster, sued to restore the White House accreditation of Jim Acosta, a reporter who tussles with Mr Trump at press conferences. Last week Mr Acosta asked too many follow-up questions for Mr Trump's liking (the president called him a "terrible person"). Other networks, including the Republican-leaning Fox News, also rallied in CNN'S support.

Darkness visible

The trial of Joaquín Guzmán, the alleged head of **Mexico's** Sinaloa drug gang, began in Brooklyn, New York. Mr Guzmán, also known as El Chapo, faces 17 charges related to drug trafficking, money laundering and violations of firearms laws. His lawyer contended that the real leader of the gang is Ismael Zambada, who remains free because he has bribed "the entire government of Mexico". El Chapo "controlled nothing" that Mr Zambada did, the lawyer claimed.

A judge in **Chile** convicted Juan Emilio Cheyre, a former chief of the army, of participating in the "caravan of death", which murdered leftists after a military coup led by Augusto Pinochet in 1973. Mr Cheyre, who led the army from 2002 to 2006, condemned its earlier human-rights abuses. He is the most senior official to be convicted of a crime under the military regime.

Macron Agonistes

Leaders from much of the world, including President Emmanuel Macron of France, America's Mr Trump, Vladimir Putin of Russia and Germany's chancellor, Angela Merkel, met in Paris on November 11th to commemorate the 100th anniversary of the armistice that ended the **first world war**. Mr Macron spoke of a historic choice between peace and disorder. Mr Trump boycotted a meeting of the Paris Peace Forum after the ceremony. See article .

Mrs Merkel followed Mr Macron in calling for the creation of a **"real, true European army"**. It is not clear what that would mean in practice.

A deadline set by the European Commission for **Italy** to revise its budget to deal with what are termed excessive deficits passed without Italy complying. A formal infringement procedure now looks likely. See article .

All hell broke loose

Avigdor Lieberman resigned as **Israel's** defence minister and called for an election to be held as soon as possible. Mr Lieberman clashed with Binyamin Netanyahu, the prime minister, over the government's pursuit of a truce with militants in Gaza. Violence erupted earlier, when a secret operation by Israeli special forces inside Gaza was exposed, leading to the death of seven Palestinian militants and an Israeli officer. Militants then fired more than 460 rockets at Israel, while Israeli aircraft hit 160 targets inside Gaza. See article .

Local forces backed by **Saudi Arabia** and the **United Arab Emirates** pushed into Hodeida, **Yemen's** main port city. More than 100 people died in the fighting. David Beasley, head of the World Food Programme, says the country is facing its "worst humanitarian disaster in 100 years".

President Recep Tayyip Erdogan of **Turkey** shared an audio recording of the killing of a Saudi dissident, Jamal Khashoggi, with five countries. Mr Khashoggi was killed in the Saudi Consulate in Istanbul last month. Saudi Arabia is seeking the death penalty for five people it has charged with his murder, but is shielding its crown prince from any blame.

The UN Security Council lifted sanctions on **Eritrea**, which were imposed in 2009 over the country's alleged support for armed groups in Somalia. Eritrea's rapprochement with Ethiopia earlier this year and improved relations with Djibouti have raised hopes for a more stable Horn of Africa.

Who overcomes

Sri Lanka's Supreme Court overturned the president's order to dissolve parliament, which, in turn, voted to reject the prime minister the president had only just appointed, Mahinda Rajapaksa. It is not clear who is now in charge. See article .

Voters in **Fiji** chose between parties led by two former coup leaders in a general election. They plumped for the incumbent FijiFirst party, led by Frank Bainimarama, who has presided over relative political and economic stability for the past four years. See article .

A court in the **Philippines** sentenced Imelda Marcos, a politician and widow of Ferdinand Marcos, the country's strongman of 20 years, up to 77 years in prison for corruption. She will remain free until she has exhausted her appeals. See article .

First disobedience

More than a dozen activists were arrested by police in several Chinese cities in an apparent effort by **China's Communist Party** to crush a left-wing labour-rights movement led by young people describing themselves as Marxists. Those detained belong to a group formed in support of workers trying to set up a union at a factory in the southern city of Shenzhen. About 40 others were arrested during the summer.

Business this week

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The **oil price** plunged on fears of slower global demand in 2019. The American oil price suffered its longest losing streak—12 straight days—since 1984. The price of the global benchmark, Brent crude, fell by 7% on November 13th to just below $65 a barrel. Prices stabilised the next day on reports that producers were planning to discuss cutting output. See article .

Emergency stop

Japan's economy contracted in the third quarter, with GDP falling at an annualised rate of 1.2%. The contraction had been widely expected after severe flooding hit the west of the country in July and an earthquake affected the north in September.

German GDP also fell in the third quarter, its first contraction since 2015. That was partly driven by new emissions-testing regulations, which slammed the brakes on car production during the summer. Exports also took a tumble, thanks to a souring global trade environment.

Apple's share price sank on concerns that demand for its smartphones may have peaked. Four of its suppliers lowered their revenue expectations. The company's share price has fallen by nearly 20% since early October. Led by falls in the technology and financial sectors, the **S&P 500** slid for the fifth consecutive day on November 14th.

Cecilia Malmström, the European Union's **trade** negotiator, met with Robert Lighthizer, America's trade representative, in Washington, DC. The talks were meant to push forward negotiations on a trade deal, but the two sides disagreed over its scope. America wants to include agricultural products; the EU prefers a deal limited to industrial goods. See article .

Amos Genish became the third chief executive of **tim**, the firm previously called Telecom Italia, to be booted out in three years. The company has performed poorly, with its share price falling by almost 30% this year. Mr Genish's departure may have been a result of a row between TIM's largest shareholders—Vivendi, a French media conglomerate, and Elliott, a hedge fund—over the direction of the company.

Binny Bansal, the chief executive and co-founder of **Flipkart**, an Indian e-commerce firm, resigned after an investigation into alleged misconduct revealed "lapses of judgment". Walmart, an American retail giant, bought a 77% stake in Flipkart in May.

Multiple choice

Amazon plumped for two new second headquarters. The e-commerce behemoth settled on Long Island City in Queens, New York and Arlington, Virginia as the locations for its offices, which will each hold 25,000 people. Its search began in September 2017 and prompted cities across America to offer financial incentives in the hope of luring jobs and investment.

SoftBank, a Japanese telecoms firm, committed $3bn to **WeWork**. The latest round of funding values the office-sharing firm at around $45bn. SoftBank had already pumped $4.4bn into the startup through the Vision Fund, an investment fund led by the telecom firm's chief executive, Masayoshi Son.

Tencent, a Chinese internet firm, reported an expectations-busting 30% increase in profits in the third quarter, compared with a year ago. Revenues rose by 24%, thanks to a jump in advertising earnings. Tencent's video-game business, its biggest source of income, has been hit by regulatory hurdles in China. Revenues from smartphone games rose by 7% in the third quarter, but those from computer games fell by 15%.

Alibaba, a Chinese e-commerce titan, reported a record-breaking "Singles' Day", its annual online-shopping festival. The event racked up $30.8bn in sales (measured by gross merchandise volume), compared with $25.3bn in 2017. But sales rose at the slowest pace in ten years.

Putting out the fire

Juul, an e-cigarette maker, said it would suspend the sale of most of its flavoured e-cigarette pods in shops and delete its social-media accounts. The firm has a market share of over 70% in America. Its announcement followed demands from the Food and Drug Administration that companies address the rise in youth vaping. Scott Gottlieb, the regulator's chief, hinted that he would soon unveil measures to curb e-cigarette use by teenagers. See article .

Italy's banks and some private investors agreed to underwrite up to €400m ($450m) of subordinated bonds issued by **Banca Carige**, a midsized Italian lender. The issuance will help the bank meet a deadline from the European Central Bank to boost its capital buffers by the end of the year. The bank, already limping because of shareholder infighting and an accounting scandal two years ago, had struggled to raise capital on the markets this year.

KAL's cartoon

Print edition | The world this week Nov 17th 2018

Britain and the European Union
Into the endgame

Britain and the European Union

Into the Brexit endgame

How Parliament should weigh up the Brexit deal

Print edition | Leaders Nov 15th 2018

AT LAST, BRITAIN'S game of three-dimensional chess with the European Union is entering its closing phase. On November 14th the two parties published a draft divorce agreement, 585 pages in length. Nearly two-and-a-half years after the British shocked their own government by voting to leave the EU, they are about to discover what Brexit really means.

The game is by no means over. The deal still has to be agreed by the EU and, harder still, by the British Parliament. Several ministers, including the Brexit secretary, resigned in protest; Theresa May could yet be toppled. MPs must grapple with multiple loyalties: to their constituents, their parties and their own beliefs, all of which are likely to have shifted since the referendum. Within weeks they will have to make the biggest decision facing Britain, and one of the biggest for Europe, in generations.

If the country has learned anything since 2016, it is to look before it leaps. Yet, in what well summed up the level of debate on Brexit, hardline Leavers and Remainers alike trashed the deal before they had read a word of it. This makes no sense. The terms of the divorce will take time for MPs and those they represent to digest—and they may well be amended by European leaders before Parliament has its vote. Nor is it clear what would happen in the event that the deal were voted down: more negotiating, a second referendum or crashing out without a deal? But as the crunch vote nears, MPs must consider how to approach this fateful question.

First, forget the past. The cheating that went on during the campaign, the premature triggering of Article 50 and the thin preparations are maddening. But they are questions for the inquiry that will surely one day dissect this national fiasco. The task before Parliament is to decide in a cool-headed way whether adopting the terms on offer is better for the country than rejecting them.

Those who backed Remain—a group that includes this newspaper, as well as most MPs—will find little in the deal to make them think they were wrong. Although it legally sets out only a temporary framework, its terms are clearly worse than the status quo (see article). Yet if they are to respect the referendum, MPs should also judge the deal against what voters were promised. The Leave campaign had no formal manifesto, and most of those behind it have since fled the government. But the animating idea was to "take back control". In some ways the deal does this, notably in immigration, where Britain would reclaim the right to limit migration from Europe. The price of this is being kicked out of the single market, which would hit the economy. MPs must decide whether the government is right that the public accepts this trade-off.

In other ways Britain will unequivocally forfeit control. It will stay aligned with many of the single market's current and future rules, to keep trade flowing and the Irish border open, something the EU has made a condition of any deal. Once outside the EU, Britain will have no say in setting these rules. European judges will still arbitrate on such matters, even though Britain will no longer be able to nominate them. This is not taking back control but giving it up. Meanwhile, as long as it remains in a customs union Britain will not even get the consolation prize of signing trade deals with other countries, something by which many Brexiteers have come to set enormous (and unwarranted) store.

The deal also has implications for the integrity of the United Kingdom. It would keep open the Irish border, but create a deeper regulatory divide between Northern Ireland and mainland Britain. The sad truth is that most English voters do not care much about Northern Ireland. But MPs, particularly those from what is formally called the Conservative and Unionist Party, should ask themselves whether it is right that an accidental by-product of Brexit should be a step towards Irish unification.

Hanging over this debate about the pros and cons of the deal is the question of what overturning it would do to the health of Britain's democracy. Parliament has the legal right to ignore the referendum. But after a record number of people voted (to "take back control", no less), it could be catastrophic for trust in mainstream parties if it were to do so.

In truth, the democratic argument is more complicated. The vote to leave was an expression not just of Euroscepticism but of a wider frustration. It exposed divisions by age, region and class that the old left-right party divide had covered up. Far from bridging those divides, the bitter arguments since the referendum have if anything caused the two sides to move even further apart. Overturning the vote would risk making them irreconcilable. But adopting a Brexit deal like the one on offer would be unlikely to heal those wounds. Indeed, to the extent that the referendum was a howl by the left-behind against rule by remote and uncaring elites, this form of Brexit could make those problems worse. Anger at unaccountable rulers would not be assuaged by a deal in which Britain followed orders from people it could not elect. And those keen just to get the whole thing over with might find that Brexit marked only the beginning of national argument about the relationship with the behemoth next door.

Nor is it clear that the democratic thing to do is to hold people to the result of a two-year-old, narrowly won referendum, when the consequence of the vote has turned out to be quite different from what many voters expected. Polls suggest that a small majority now prefers Remain to Leave; more might prefer Remain to a compromise like the deal on offer. Almost all MPs want to respect the will of the people. The question is whether the people's will found its perfect and enduring expression in 2016, or whether it might have changed.

There is no simple way out of this endgame. Whether the Brexit deal is accepted or rejected, it will scar Britain for years. And yet too many politicians are still grandstanding. Some Brexiteers still pretend there is a PlanB that would deliver a painless exit. Labour is mainly concerned with forcing a general election. That needs to change, and fast. This momentous decision must be made in the most reasoned way possible and with the maximum information available. Politicians of all stripes have spent the past two years talking about the national interest. In the coming weeks they must weigh up where they think it lies.

This article appeared in the Leaders section of the print edition under the headline "Into the endgame"

Competition

The next capitalist revolution

Market power lies behind many economic ills. Time to restore competition

Print edition | Leaders Nov 15th 2018

CAPITALISM HAS suffered a series of mighty blows to its reputation over the past decade. The sense of a system rigged to benefit the owners of capital at the expense of workers is profound. In 2016 a survey found that more than half of young Americans no longer support capitalism. This loss of faith is dangerous, but is also warranted. Today's capitalism does have a real problem, just not the one that protectionists and populists like to talk about. Life has become far too comfortable for some firms in the old economy, while, in the new economy, tech firms have rapidly built market power. A revolution is indeed needed—one that unleashes competition, forcing down abnormally high profits today and ensuring that innovation can thrive tomorrow.

Countries have acted to fuel competition before. At the start of the 20th century America broke up monopolies in railways and energy. After the second world war West Germany put the creation of competitive markets at the centre of its nation-building project. The establishment of the European single market, a project championed by Margaret Thatcher, prised open stale domestic markets to dynamic foreign firms. Ronald Reagan fostered competition across much of the American economy.

A similar transformation is needed today. Since 1997 market concentration has risen in two-thirds of American industries. A tenth of the economy is made up of industries in which four firms control more than two-thirds of the market. In a healthy economy you would expect profits to be competed down, but the free cashflow of companies is 76% above its 50-year average, relative to GDP. In Europe the trend is similar, if less extreme. The average market share of the biggest four firms in each industry has risen by three percentage points since 2000. On both continents, dominant firms have become harder to dislodge.

Incumbents scoff at the idea that they have it easy. However consolidated markets become domestically, they argue, globalisation keeps heating the furnace of competition. But in industries that are less exposed to trade, firms are making huge returns. We calculate the global pool of abnormal profits to be $660bn, more than two-thirds of which is made in America, one-third of that in technology firms (see Special report).

Not all these rents are obvious. Google and Facebook provide popular services at no cost to consumers. But through their grip on advertising, they subtly push up the costs of other firms. Several old-economy industries with high prices and fat profits lurk beneath the surface of commerce: credit cards, pharmaceutical distribution and credit-checking. When the public deals with oligopolists more directly, the problem is clearer. America's sheltered airlines charge more than European peers and deliver worse service. Cable-TV firms are notorious for high prices: the average pay-TV customer in America is estimated to spend 44% more today than in 2011. In some cases public ire opens the door to newcomers, such as Netflix. Too often, however, it does not. Stockmarkets value even consumer-friendly entrants such as Netflix and Amazon as if they too will become monopolies.

Rising market power helps solve several economic puzzles. Despite low interest rates, firms have reinvested a stingy share of their bumper profits. This could be because barriers to competition keep out even well-funded newcomers. Next, since the turn of the millennium, and particularly in America, labour's share of GDP has been falling. Monopolistic prices may have allowed powerful firms to eat away at the purchasing power of wages. The labour share has fallen fastest in industries with growing concentration. A third puzzle is that the number of new entrants has been falling and productivity growth has been weak. This may also be explained by a lack of competitive pressure to innovate.

Some argue that the solution to capital's excesses is to beef up labour. Elizabeth Warren, a possible American presidential candidate, wants to put more workers on boards. Britain's Labour Party promises compulsory employee share-ownership. And almost everyone on the left wants to reinvigorate the declining power of unions (see Briefing). There is a role for trade unions in a modern economy. But a return to 1960s-style capitalism, in which bloated oligopolies earn fat margins but dole cash out to workers under the threat of strikes is something to be avoided. Tolerating abnormal profits so long as they are distributed in a way that satisfies those with power is a recipe for cronyism. Favoured insiders might do well—witness the gap between coddled workers and neglected outsiders in Italy. But an economy composed of cosy incumbents will eventually see a collapse in innovation and hence a stagnation in living standards.

Far better to get rid of rents themselves. Market power should be attacked in three ways. First, data and intellectual-property regimes should be used to fuel innovation, not protect incumbents. That means liberating individual users of tech services to take their information elsewhere. It also entails requiring big platforms to license anonymised bulk data to rivals. Patents should be rarer, shorter and easier to challenge in court.

Second, governments should tear down barriers to entry, such as non-compete clauses, occupational licensing requirements and complex regulations written by industry lobbyists. More than 20% of American workers must hold licences in order to do their jobs, up from just 5% in 1950.

Third, antitrust laws must be made fit for the 21st century. There is nothing wrong with trustbusters' remit to promote consumer welfare. But regulators need to pay more attention to the overall competitive health of markets and to returns on capital. America's regulators should have more powers, as Britain's do, to investigate markets that are becoming dysfunctional. Big tech firms should find it much harder to neutralise potential long-term rivals, as Facebook did when it acquired Instagram in 2012 and WhatsApp in 2014.

These changes will not solve every ill. But if they drove profits in America to historically normal levels, and private-sector workers got the benefits, real wages would rise by 6%. Consumers would have greater choice. Productivity would rise. That might not halt the rise of populism. But a competition revolution would do much to restore the public's faith in capitalism.

Oh, the places you'll grow

The biggest tax cut you've never heard of

The problem with America's "opportunity zones"

Print edition | Leaders Nov 17th 2018

PLACES MATTER. The probability that a baby born in the bottom 20% of the income scale in Detroit will make it to the top 20% as an adult is half that of a similar child in San Francisco. One answer is to get people to move. Even a short distance can make a big difference. In America a child in a low-income family who moves from a neighbourhood with less social mobility than average, to one in the same county that has more mobility than average, can expect to earn $200,000 more over their lifetime.

The problem is that Americans are less inclined and able to move than in the past. So policymakers are, rightly, trying to improve the fortunes of left-behind places. That is the ostensible motivation behind the creation of "opportunity zones", a little-noticed bit of President Donald Trump's tax-cutting law in 2017. The scheme lures money into deprived places by dangling a big tax break on unrealised capital gains invested in them.

Plenty of countries, including America itself, offer goodies to investors with this goal in mind. The evidence on how effective they are is inconclusive, which makes the new scheme even more striking for its potential scale and generosity. The pot of unrealised gains held by American households and firms is thought to be as much as $6trn. An opportunity-zone investment held for more than a decade can avoid capital-gains tax altogether. The number of places that qualify is bigger than anything that has gone before: the Treasury has certified 8,761 zones, 12% of America's census tracts. Nearly 35m Americans are estimated to live within them. Whereas past schemes have imposed lots of conditions, the new one is deliberately undemanding (see article). Suck in as much capital as possible, the thinking runs, and stand back.

The first bit of that plan seems to be working. Banks, private-equity firms and property developers are scrambling to set up the funds through which capital is deployed. Sales of property-development sites within the zones are estimated to have jumped by 80% in the first nine months of this year. The real question is: how much will this help distressed communities?

Here, there are two reasons for concern. First, although opportunity zones had to meet income criteria in order to be designated as such, that does not mean they are the places most in need. An analysis by the Brookings Institution, a think-tank, has found that of the eligible census tracts, those selected were more likely to be already gentrifying than those that were passed over. Loopholes inevitably exist. Students may not be high earners, but that does not mean that neighbourhoods close to Stanford and Harvard deserved to be chosen as zones. It is easy to imagine capital flooding into projects and places that the market would have served anyway.

Second, the programme has nothing to say about the staples of long-term economic development: the state of local infrastructure, the connections between businesses and universities, the availability of skilled workers. Amazon has just handed out a very public lesson in the importance of such factors. Its choice of New York and the suburbs of Washington, DC, for two new offices shows how hard it is for aspiring places to compete with established ones (see Free exchange).

Boon, meet doggle

The idea of opportunity zones is not bad. The desire to streamline approvals processes for deploying capital is reasonable. And it is not too late for improvements: one obvious thing to do is to force better disclosure by opportunity funds, so that they have to report not just on total assets, but also on their location and type. The big test will be whether this scheme draws cash into left-behind regions. The danger is that it becomes a giant giveaway, benefiting only people and places that do not need help.

This article appeared in the Leaders section of the print edition under the headline "Oh, the places you'll grow"

Ageing in Japan

How Japan can cope with the 100-year-life society

Shinzo Abe must be bolder if a society of centenarians is to stay solvent

Print edition | Leaders Nov 17th 2018

MORE THAN half of Japanese babies can expect to live to 100. This prospect would have horrified Yukio Mishima, a writer who thought it so important to die young and handsome that he ritually disembowelled himself after staging a pantomime "coup" attempt in 1970. It horrifies today's pessimists, too. They worry that, as the country ages and its population shrinks, health bills will soar, the pension system will go bust, villages will empty and there will be too few youngsters to care for the elderly.

Yet for most people, not dying young is a blessing. Those extra years can be spent learning new skills, enjoying the company of loved ones or reading blood-spattered Mishima novels. Japan's prime minister, Shinzo Abe, says he wants his country to be a model of how to make ultra-long lives fulfilling—and affordable (see article). He talks of "designing the 100-year-life society". But to achieve that Mr Abe, in his last three years in office, will have to adopt reforms that are far bolder than he currently envisages.

The key is to have enough people working to support those who no longer can. There are three ways to achieve this: persuade current workers to labour longer, encourage more women to enter the workforce and let in more immigrants. Japan has made progress on all three. The share of over-65s in work is the highest in the G7; the share of women in the labour force has recently overtaken that in America; and the Diet (parliament) is debating a bill that would allow up to 345,000 foreign workers (called "trainees", not immigrants) to enter Japan by 2025. Companies are eagerly investing in robots to raise productivity. Mr Abe vows to reform the public pension system to encourage even later retirement.

All this is welcome, but it is not enough. If Japanese people are going to live to 100 they will have to retire much later than 70. Women are too often stuck in part-time or badly paid jobs. Nearly 70,000 immigrants a year may sound like a lot, but Japan's population is declining by almost 400,000 a year and there are a stunning 1.6 vacancies for every jobseeker.

Mr Abe should let more migrants in. Some fret that foreigners will make Japan less safe and harmonious, but there is no evidence of this. Others fear that they might become a burden, but with few exceptions the law lets them come only if they have jobs. Given Japan's low fertility, importing young workers is the only way to fill potholes and change sheets in nursing homes.

Mr Abe should also create more incentives for locals to work longer, with a formula that automatically adjusts the timing and generosity of public pensions to reflect rising life expectancy and contributions. This is politically difficult anywhere, but the alternative is an inevitable debt crunch.

Last, private firms should scrap the seniority system, whereby pay increases with years of service and staff are forced to quit at around 60. This survives because the people who could change it—senior managers at large companies—benefit from it. The government can help by banning mandatory retirement ages, which would force firms to change seniority-based pay. Companies would have to reward merit instead, which would be good for productivity and for women, who lose out on promotions when they have babies.

An ageing society need not be a decrepit one. As Mr Abe notes, today's elderly Japanese walk as fast as those ten years younger once did. But for Japan to stay solvent as it turns silver, he too must move faster than he has done thus far.

This article appeared in the Leaders section of the print edition under the headline "Coping with the 100-year-life society"

Click to download teacher

How technology can make up for bad, absent teachers in poor-country schools

Ed-tech can help address the problem of teachers who are ignorant, absent—or both

Print edition | Leaders Nov 17th 2018

"BOOKS WILL soon be obsolete in schools," Thomas Edison announced in 1913: they would, he believed, soon be replaced by silent films. Each new wave of information technology—radio, television, computers—has led to similar predictions. And each time, the old technologies of books, classrooms and teachers have proved startlingly resilient.

Like teachers, digital educational technology comes in many forms, from wonderful to appalling. But, used properly, it now deserves more prominence in schools—especially in poor countries where human teachers are often ignorant, absent or both.

Truant teachers

The UN's Millennium Development Goals included the ambition that by 2015 all the world's children would complete primary school. This has largely been achieved: nine out of ten children are now enrolled. Alas, the figure is not as impressive as it sounds. Even though most of the world's children go to school, an awful lot of them learn pretty much nothing there. According to a recent World Bank study of seven sub-Saharan African countries, half of nine-year-olds cannot read a simple word and three-quarters cannot read a simple sentence. The reason is terrible teaching. The same study found that only 7% of teachers had the minimum knowledge needed to teach reading and writing effectively. When classrooms were inspected to see whether a teacher was present, half the time the answer was no.

Paying teachers more, in the hope of recruiting better ones, is not the answer. In poor countries, teachers are well paid by local standards—annual salaries are four times GDP per person in India and five times in Kenya and Nigeria. (In OECD countries, teachers are paid between 75% and 150% of GDP per person.) Nor does raising or reducing pay seem to make much difference: neither a sharp cut in Pakistan in the late 1990s nor a sharp increase in Indonesia after 2005 had any impact on learning outcomes.

As for absenteeism, if expensive teachers do not turn up to class, governments would, surely, sack them? Easier said than done. Poor governments often lack the wherewithal to check on teachers in distant villages. And in many countries, teachers' unions are powerful and governments fear their wrath, so members' jobs are safe.

Several recent studies suggest ed-tech can help (see article). It seems to bring about bigger improvements in poor countries than in rich ones. In a study of a range of interventions in poor countries—including smaller class sizes, nutritional supplements, deworming and incentives for teachers and pupils—tech had the biggest effect.

Some of the scarce resources being spent on teachers could therefore be better spent on ed-tech. That does not mean dumping computers on schools in the hope that children will understand how to use them, a folly on which plenty of money has been wasted. Instead, it means providing schools with software that children can use with minimal help from an adult, that gets things right more often than the teachers do, that adjusts itself to the child's ability, that sends teachers prompts about what they are supposed to be teaching and that allows the authorities to check on whether the teacher is in the classroom.

Sceptics may wonder whether the poorest places have the necessary infrastructure. But Africa is electrifying apace—in Kenya, electricity coverage has gone up from 27% to 55% of households in three years. Where the grid is not available, solar chargers can work. Schools do not need internet access. Devices can be taken to where there is a connection to upload or download the necessary information. Cost does not have to be a huge problem either. Tusome ("let's read" in Kiswahili), one of the most successful schemes, costs around $4 per child per year in Kenya, where it is being rolled out across public primary schools. The biggest issue is the government's commitment: where it is enthusiastic, the chances of success are good.

Technology is no panacea. Good traditional teachers are not obsolete, and are never likely to be. And authorities need to hold teachers to account. But ed-tech can help greatly—by monitoring pupils and teachers alike, assisting the best teachers and, most important, making up for the failings of the worst.

This article appeared in the Leaders section of the print edition under the headline "Click to download teacher"

Letters
Letters to the editor

Letters

Letters to the editor

On Australia, shipping, aliens, Napoleon, metaphors

Print edition | Letters Nov 17th 2018

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

The great-barrier grief

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Your special report on Australia (October 27th) noted that the number of boat-people arrivals is tiny relative to Australia's total migrant intake. This is thanks to the government's stringent immigration policy, which involves the offshore processing of potential asylum-seekers. Otherwise, the numbers would be much larger. In the 12 months to June 2013, when Australia had the type of less-restrictive system that you want, more than 25,000 asylum-seekers arrived by boat, accounting for 10% of net migration that year.

The journey to Australia is perilous. Over that same 12 months, almost 350 asylum-seekers, including many children, died at sea trying to reach this country. The proportion of asylum-seekers who perished was even higher in previous years. As well as stopping the boats, Australia has also stopped the drownings.

Australia still admits a large number of asylum-seekers and ensures that they arrive in an orderly and safe manner. Critics of this policy, including *The Economist* it seems, propose a free-for-all that would oblige those seeking asylum to risk their lives on rickety boats.

DANIEL REES
Sydney

To describe Australia's migrant camps on Papua New Guinea and Nauru as "dismal" is an insufficient representation of what the UN Human Rights Committee has described as unlawful and a humanitarian emergency. You also said that Australia has been trying to make deals with other countries to take the refugees in. This is an overstatement, considering that an offer made by New Zealand in 2013 has yet to be taken up.

GABRIELLE BERAN
London

One of Australia's greatest challenges is that its housing is among the most expensive in the world. According to the Parliament of Australia, median house prices rose from 3.3 times the average disposable household income in 1981 to over 7 times in 2015. The reasons for this are up for debate, from a lack of supply, foreign investors, mass immigration, government tax policy which encourages speculation, and so on. But the result is clear. An increase in homelessness, younger generations and middle-class workers locked out of home ownership and one of the world's highest household-debt ratios because of large mortgages.

A further 25 years of prosperity will require the lucky country to be more than lucky and its political leaders to enact bold reforms.

DAVID REILING
Woy Woy, Australia

Australia's foreign policy matters most to the tiny island nations that make up the rest of Oceania. An Australian government minister remarked recently that "for the Pacific it's always about cash". In fact there is much that Pacific islanders desire from Australia besides aid, if only they would listen. Australia's tiny neighbours depend on it for such things as combating climate change—an existential threat to some Pacific countries—and freedom to travel. Australia requires advance visas from almost any visitor travelling from almost anywhere, which is a cruel nuisance for citizens of peaceful countries next door who need to pass through Australia simply in order to reach the rest of the world. By lowering this barrier, Australia could do other countries a great favour at negligible cost. That it declines to do so says a lot about its attitude to the wider world.

ANDREW GRAY
Pentecost Island, Vanuatu

Thank you for the positive report on Australia. When we travel overseas virtually the only news we get about Australia is if someone has been eaten by a crocodile or bitten by a snake.

GUY HALLOWES
Sydney

Shipping and climate change

I was disappointed by your interpretation of the latest developments in international shipping ("Spoiling shipping for a ha'p'orth of tar", October 27th). The International Maritime Organisation, an organisation that moves even more slowly than the famous Panamax ships of its members, should be commended for taking action to reduce air pollution. The fact that your article sought to present this as a defeat for action to tackle climate change suggests that next week you will be lamenting the lack of volcanic activity at Mount Vesuvius, because that, too, would reduce global warming.

We know that, in some instances, difficult choices need to be made about environmental priorities. Sometimes reducing one form of pollution results in increasing another form of pollution. However, in almost all cases, including shipping, these trade-offs are very much at the margin. It is wrong to suggest that shipping, or other industries, cannot take action that reduces the risks from climate change and tackle air, water and ground pollution. Such action may involve costs which is why, rightly, there is debate.

Nobody was counting on the "cooling effects" of shipping's sulphur emissions to slow global warming. It is a shame you think they were.

MATTHEW BELL
Director
Frontier Economics
London

Worlds apart

Your article on the Fermi Paradox, which explains why we haven't found aliens, did not account for the variable of time ("Where is everybody?", October 13th). Without time, any statistical projection is meaningless. Any technologically sophisticated alien civilisation casting a radio-telescope glance our way a mere 200 years ago would have seen nothing. It is not implausible to imagine that should the same civilisation look our way again 1,000 years hence, they will again see nothing. When we factor in time and distance to heroically optimistic assumptions about intelligent toolmaking life evolving elsewhere, we can calculate that the probability of two technological civilisations existing contemporaneously within a few hundred light-years of each other is, in effect, zero. So the Fermi Paradox can be better restated as, when is everybody?

ALLAN LEES
Novato, California

Little big man

I'd like to give short shrift to the common misconception that Napoleon's stature was modest ("All he surveyed", November 3rd). One source, based on his autopsy, recorded a height of 5 feet 2 inches. However, these were French feet and inches. In Britain he would have been 5 feet 7 inches, just above the average height for a man of his era. There are various other sources about his size, but few point to him being particularly short.

The reasons why we think of Napoleon as diminutive are his nickname (*le petit caporal*), the towering Imperial Guard that protected him, and a number of British caricatures that portrayed him as a childish toddler. This has been reinforced in popular culture through references to the Napoleon complex.

BEN THURIAUX-ALEMÁN
London

Was it good for you?

An anthropologist friend of mine, seeing metaphors as a language game (Johnson, November 3rd), used to refer to them as "metaphorplay".

PHILIP CERNY
York

Trade unions and technology
Workers of the world, log on!

Workers of the world, log on!

Technology may help to revive organised labour

Trade unions are harnessing the same force that caused their decline

Print edition | Briefing Nov 15th 2018

"IF THEY STALL, we will hit them where it hurts." Jörg Sprave is a jovial German with a winning smile but he leaves no doubt that he is serious. If Google, YouTube's owner, does not budge, he will call a strike. Mr Sprave runs "The Slingshot Channel", dedicated to rubber-powered weapons, which boasts over 2m subscribers. He is also the founder of the YouTubers Union, which counts over 16,000 members. He launched the organisation in March after YouTube stopped showing adverts alongside many of his and others' clips, following pressure from advertisers. It caused his income to drop from $6,500 to $1,500 a month. The group's main demand is to stop such "demonetisation".

It is easy to dismiss Mr Sprave as a crank. His channel walks a fine line between pranksterism and gun-nuttery. Membership of his union is simply a matter of signing up to a Facebook group and it is unlikely that other members would follow his call to take their content off YouTube if it failed to bend to his wishes. But the YouTubers Union does symbolise a new stage in the interplay between technological progress and union power. Unions have been in long-term decline across the rich world for decades—not least because of technological change. Now tech, from social media to artificial intelligence (AI), may help organised labour make a comeback.

Union gap

A revival of trade unionism would seem unlikely. Before the mid-19th century, almost no workers were unionised. Then industrialisation and urbanisation brought workers into closer proximity, providing both an opportunity to organise and a reason—to negotiate pay and conditions. America's union-membership rate hit 10% of employees by 1915 before peaking at 30% by about 1950. Sweden reached around 40% in 1930 as did Britain by the 1950s, when 10m workers belonged to a union. The rapid decline which set in took almost everyone by surprise. Across rich countries unionisation has fallen sharply (see chart 1). Only one in ten American employees is in a union today. The median membership rate in the OECD is about 18%, down from a peak of more than 50% in the early 1980s.

There are many explanations for the rise and fall of unions. Some theories stress the role of restrictive laws. The earliest legal judgments on unions in America followed English law in holding them to be criminal conspiracies, whose intent was to raise prices and to inhibit trade. The legal environment for unions gradually became friendlier until, towards the end of the 20th century, the law turned again. In the 1980s, following the lead of Margaret Thatcher in Britain and Ronald Reagan in America, governments sought to combat strikes, restrictive working practices and inflationary wage demands with laws that greatly restricted union powers.

But robust research that shows a strong link between legal changes and membership is scarce. A paper by William Brown of Cambridge University, and his colleagues, which looked at the period between 1979 and 1997, supported the notion that "British legislative change has not exerted a major influence on union membership." Indeed unions only started to flourish decades after they were decriminalised. And their power began to wither long before the stricter laws of the 1980s.

A flowering and fading of "class consciousness" is another explanation offered by historians for unionism's ups and downs, though this is hard to measure. A more convincing theory, for which there is some empirical support, is that the state has obviated the need for unions by doing their job for them. Most rich countries now have guaranteed minimum wages. In many places workers' rights have been enshrined in law and extended to include things such as parental leave and sick pay. What is left for unions to bargain over?

Yet the rise and fall of union membership has followed such a similar pattern in so many countries that a structural explanation, with technological change at its heart, is the most compelling of all. This interpretation also shows why a resuscitation of unionisation will be difficult.

Technology drove the ascent of industrial capitalism in the mid-19th century and changed patterns of employment. Under the "putting out" system of pre-industrial capitalism, workers were often sole traders who laboured at home. That made organising impractical. As a more formal system of employment in factories or mines became the norm, workers were lumped together, making it easier to organise. It also became more obvious to workers who was exploited and who was doing the exploiting.

Factors of production

Changing patterns of investment during the Industrial Revolution handed more power to organised labour, helping unions to grow. In the 19th century bosses began to spend vast sums on factories, mines and railways (see chart 2). As the amount of fixed capital grew, workers could exert greater power. Tim Mitchell argues in his book, “Carbon Democracy”, that coalminers could exploit new choke-points in an economy. Getting coal out of the ground required small groups of workers at the pit face who were not easy to replace. This gave them huge leverage because such was the dependence on coal throughout the economy, from power stations to railways, that a strike could soon bring a country to a grinding halt.

Over the past 30 years technological change has caused unions to fall away. The cost of collecting and processing information has fallen, making it easier to assess the output of individual workers. In America the share of jobs with some element of performance-related pay rose from 30% in the late 1970s to more than 40% in the 1990s. If pay corresponds to personal output, employees may feel that their energies are better directed towards working harder than to organising with others.

In the rich world capital-intensive industries such as manufacturing and mining, the base of unionisation, have shrunk. They have been replaced by the services sector, which is intrinsically less welcoming to unions. Rich economies now rely more on “intangibles”, such as software and patents. It is easier to move a call-centre to a different location, including to a new country, than a shipyard. Workers who are happy that their jobs exist at all are unlikely to bargain for more.

The decline of unions has revived arguments over the benefits they offer to workers and to the economy as a whole. The number of working days lost to strikes in the rich world has been dropping alongside declining union power. That boosts annual output. No longer is there much risk of runaway inflation as unions and employers battle over wage rises. Weaker unions can lower entry barriers to a labour market, making it easier for the young, women and ethnic minorities to find employment.

Left-leaning wonks counter that the decline of unions is responsible for the drop in the “labour share”—the proportion of GDP accruing to workers in the form of pay and benefits. The evidence is mixed. Research on the British economy from Andy Haldane, the chief economist of the Bank of England, finds that a rise of ten percentage points in the rate of unionisation raises wage growth by around 0.25 percentage points a year. But a paper for the Brookings Institution, a think-tank, that looks at American data finds a “statistically imprecise relation between cross-industry changes in unionisation rates and sectoral declines in payroll shares”.

Even if the advantages to workers are not clear cut, support for organised labour is rising again (see chart 3). And technology may again play a central role in helping a revival—particularly in America, where activists are trying inventive new ways to organise workers.

Use of social media is taking the place of the shopfloor meeting in what is called “connective action”. Facebook, Reddit and WhatsApp, as well as tools such as Hustle, a texting service, allow labour groups to do three things: collect information, co-ordinate workers and get the word on campaigns out to the wider world.

Start with information. Although they work independently, many Uber drivers are active in chat groups and other online forums. The ride-hailing firm often tests new features of its app on a small group of drivers—without telling them what is going on. Online communications are an attempt to overcome this “information disadvantage”, says Alex Rosenblat, author of “Uberland”, a new book about the firm.

Comparing notes is also widespread among users of global crowdsourcing platforms such as Mechanical Turk and Freelancer, where digital labour is traded. Of 658 online workers in sub-Saharan Africa and South-East Asia interviewed by Mark Graham and his colleagues at Oxford University, 58% said that they are in digital contact with other workers at least once a week, mostly on social media. They usually talk about how to build a career online and avoid scams, but also about prices for jobs and how to divvy them up.

The logic of connective action

As for the second objective, co-ordination, without digital tools teachers’ strikes in West Virginia and other American states earlier this year would not have been as successful as they were, explains Jane McAlevey, a longtime organiser and author of several books on unions in America. In West Virginia teachers set up a Facebook group that was open only to invited colleagues. Nearly 70% of the state’s 35,000 teachers joined. The group became the hub of discussions on what to demand and how to organise protests.

The West Virginia strike is a good example of the third objective: getting the word out. The Facebook group turned into a factory for hashtags and “memes”, memorable images or video clips that spread virally online. The same sort of thing happened when Starbucks, a chain of coffee shops, refused to let baristas show their tattoos. Management caved in after employees took pictures of their body art and uploaded them to social media.

However, services such as Facebook and WhatsApp are not designed for mass activism. That means they have limitations. They lack tools to move beyond discussion to more involved forms of organising. WhatsApp, which is used by many Uber drivers, limits the size of texting groups. They are also prone to misinformation and trolling. “On Facebook, if you ask about your rights when you are pregnant, only a few comments may be helpful,” says Andrea Dehlendorf of the Organisation United for Respect (OUR), which supports retail workers at Walmart and elsewhere.

As a result, activists have started to develop digital services specifically for labour groups. Coworker.org is an early instance. Founded in 2013, the website helps workers condense their demands in a petition and spread them on social media. Starbucks employees have launched several successful campaigns, and not only about tattoos. They pushed the firm to minimise “clopening”, for example—where the same person closes a store late in the evening and opens it at the crack of dawn the next day.

Reorganised labour

Coworker.org was long an isolated example. Recently similar services have flourished by mimicking the startup approach and "unbundling" the roles of official unions. These startups are parcelling the various functions of unions into a series of discrete digital alternatives. In this way a new breed of activists is changing the way that workers can organise.

Some startups aim to fulfil the role of informing workers and recruiting members. Two years ago OUR launched WorkIT, a smartphone app for Walmart workers. After signing up, users are presented with a simple chat interface where they can ask questions about the retail chain's complex workplace regulations. Volunteers, often Walmart employees themselves, answer.

Others concentrate on helping workers voice their opinions. Union bosses have often been criticised for not paying much heed to the rank-and-file's demands. Workership is a platform that attempts to bring structure to often freewheeling discussions online and to enable employees to pipe up without fear of repercussions (posts are anonymous). Collective-bargaining agreements, for instance, are broken down into small segments which members can discuss.

Then comes finding ways to make money to finance activities. The Independent Workers Union of Great Britain has resorted to crowdfunding its legal actions against Deliveroo, an online-delivery firm, which it accuses of having denied employment rights to its riders. TurkerView, an American website that collects and shows for free reviews of clients who post jobs on Mechanical Turk, is toying with the idea of a premium service that charges users who want fast automated access to its data.

Some of these projects are spreading. WorkIT, which licenses its system to other labour organisations, has six takers, including the Pilipino Workers Centre in Los Angeles and United Voice, an Australian union. Coworker.org has been used by employees from more than 50 companies. For Starbucks it has become a union of sorts. Over 42,000 people in 30 countries are connected via the service.

Yet, as any startup will confirm, launching a new service is much easier than expanding one. Most of the fledgling labour-tech projects rely on donations from philanthropists, socially minded investment funds and similar sources. It is not clear where the capital would come from to allow them to grow. In addition, these services lack the legal standing and political power of conventional unions, points out David Rolf of America's Service Employees International Union.

Labour startups may need the support of existing unions if they are to turn into a force to be reckoned with. The best outcome would be if grassroots groups and conventional unions teamed up, says Ayad Al-Ani of the Alexander von Humboldt Institute for Internet and Society. Unions could become service providers for self-organising groups, helping them with things such as legal advice and lobbying.

The digital world has been embraced by some unions. Worried about the rise of crowd-working, Germany's IG Metall, the country's largest union, now allows self-employed workers to join. In 2015 it also launched a site to compare conditions on different crowdworking platforms, called Fair Crowd Work.

Some unions have even set up innovation units. One is HK Lab, created a year ago by the National Union of Commercial and Clerical Employees, Denmark's biggest union. Experiments include a chatbot for member inquiries and a service centre for freelancers. America's National Domestic Workers Alliance operates Fair Care Labs, a service to improve the lot of nannies, carers and house cleaners. It will soon launch Alia, a portable-benefits service. Clients make voluntary payments of $5 per job, which allows cleaners to get some insurance coverage and paid time off.

Labour's lost

However promising such projects, they are unlikely to help labour regain its erstwhile bargaining power soon. But if the digital labour movement has proven anything so far, it is that information and data are ever more powerful. Coworker.org used online polls to confirm that Uber had again cut fares across the country, thus also reducing drivers' pay. Bad publicity is the digital equivalent of the picket line, says Michelle Miller, co-founder of Coworker.org.

Obtaining more and better data could give rise to what Fredrik Soderqvist of Unionen, a Swedish union, refers to as "predictive unionism". His organisation is building a system that could mine information it has about its members as well as data from other sources. The idea is to offer services such as telling workers when they should ask for a raise. Algorithms could also predict the likelihood of lay-offs, if say a new chief executive takes over, and hence the need to get members ready to act.

Perhaps the best example for the power of data so far is Mystro, an app for drivers for ride-hailing services such as Lyft and Uber. It allows them to switch easily between services, evaluates trip requests, rejects unprofitable ones and keeps track of all kinds of information that helps drivers make better decisions.

For now, unions still look weak. Membership continues to decline. But their history shows that the relative power of labour and capital is constantly in flux. Recent decades have been tough on labour, largely as a consequence of technological change. But technology may also be the thing that helps turn their fortunes around.

This article appeared in the Briefing section of the print edition under the headline "Workers of the world, log on!"

Wildfires in California
The new abnormal

Fire and fury

California's wildfires and the new abnormal

Understanding the deadliest fire in the state's history

Print edition | United States Nov 17th 2018

AS THE FLAMES moved toward Helltown, a former gold-mining settlement, the headlines wrote themselves. Part of northern California had become an inferno. A nearby town, Paradise, which a week before had 26,000 residents, was incinerated and reduced to ash. Nearly 50 people are confirmed dead and over 200 missing, making "Camp Fire" (named after the road where it began) the deadliest in the state's history. About 130,000 acres, an area nearly the size of Chicago, has already burned.

The scent of destruction spread even further. In San Francisco, 150 miles away, the smell of smoke has been so strong that many wear masks when they step outdoors. Meanwhile, in southern California's coastal mountains, two other fires have claimed lives and livelihoods. Six of the ten most destructive fires in California's history have occurred in the past decade. In that time the California Department of Forestry and Fire Protection (called Cal Fire) has spent over $3.8bn fighting fires in the state, more than it spent in the previous 30 years combined. Last year was the most destructive year on record, until this year. Why is the Golden State so flammable?

President Donald Trump offered his own answer, blaming California for "gross mismanagement of the forests" and threatening to withhold federal aid (he later authorised emergency funds to help victims). Yet the majority of forests in California are under federal control, and much of the area burning in Southern California consists not of forest but of grassland and shrubs.

There are three reasons why California has been besieged by flames. First, the climate is becoming warmer. This has led to snow melting earlier, drier landscapes and a longer season when fires are likely to ignite. In western states the average fire season is 84 days longer than it was in the 1970s. "This is not the new normal. This is the new abnormal," Jerry Brown, the state's governor, said recently.

A second reason is that more people live in combustible places. Since 1990 60% of new homes in California, Washington and Oregon have been built in spaces abutting nature, says Ray Rasker of Headwaters Economics, a research firm. These areas, which environmentalists call the "wildland-urban interface", are at higher risk of wildfire. Power lines can fall or make contact with trees; people can also cause the first spark. City and county governments, hungry for the tax revenue that comes from new developments, often wave through new buildings in areas that are fire-prone.

Although Californian state law requires people to manage flammable vegetation within 100 feet of their home in order to create a buffer, local officials often fail to enforce it and opt for relatively lax construction standards for new homes. "We know how to make our houses and buildings safer in an urban environment," says Mr Rasker. "Somehow if you live in the woods, these things don't apply."

A third reason for the more frequent and intense fires is that there is more fuel. Fires today burn twice as many acres and for twice as long as they did in the 1990s. Before western settlers arrived, fires used to happen often and naturally, which helped forests regenerate and also made less fuel available for future fires. For the past century fires have tended to be quickly suppressed. This has led to a build-up of dry brush, and makes the average wildfire much likelier to turn into a raging mega-fire. There have been efforts to make the forests safer, through thinning them and controlled burns. But they have been stymied by a lack of resources—which the forests service has tended to use up fighting wildfires—and complaints about smoke from planned burns.

Despite Mr Trump's rabble-rousing, forests are one area where the parties have come together and made progress. In March Congress passed a fix for the way the US Forest Service is funded, so that its budget is not restrained by the need to fight mega-fires, leaving more funds for prevention, maintenance and restoration. "The need is big, but the good news is that the pot is growing," says Lynn Scarlett of the Nature Conservancy, a non-profit group.

Putting out the blazes is the most immediate task for California, but not the last. Many survivors will want to rebuild their homes exactly where they were. "Politicians, in an attempt to be loving and compassionate, tend to reduce or eliminate building rules," says Chris Dicus, a fire expert who teaches at California Polytechnic State University. In the Oakland hills, near San Francisco, which witnessed a conflagration in 1991, houses have been rebuilt; but they are larger and closer together and streets more narrow, which will restrict the ability of firefighters to tackle fires when they next break out, says Char Miller, a professor at Pomona College.

Cities and counties should question whether to allow redevelopment and how to reduce risks. San Diego, which experienced a severe wildfire in 2003, has identified over 40,000 houses that are at high risk of fire and requires property owners to maintain a “defensible space” clearance around their home. If they don’t clear flammable brush themselves, the city will do it for them and add it to their tax bill. Local governments could also consider buying out property owners in especially flammable areas, much as some have done with those who own property on flood plains, says Mr Miller.

Californians will also want to ensure that utility companies are acting and investing responsibly. Investigations into what caused the Camp Fire are still going on, but some reports suggest it may have begun with sparks from lines owned by PG&E, an electricity company. In June Cal Fire determined that PG&E’s lines and equipment were culpable in sparking at least 12 fires last year, including the deadly blazes in wine country. The company is facing multiple individual and class-action lawsuits as a result.

This article appeared in the United States section of the print edition under the headline ”The new abnormal”

Source of discord

Water in California

The president wants to wade into an old, old fight

Print edition | United States Nov 17th 2018

THE FEDERAL government and the state of California seem to love suing each other, and have done so dozens of times in the past two years without causing anyone much damage. But President Donald Trump is now threatening to sue the state over control of water. This could harm a lot of people, because water is the source of the most contentious and enduring battles in America's largest state.

In October, Mr Trump ordered his administration to speed up (meaning, relax) environmental reviews of Californian water projects and to suspend or dilute rules that prevent water being siphoned-off for farmers. The timing of the memo was an election gimmick. It aimed to please Republican voters in farming districts on the eve of the mid-term elections. But this was not the first action of its kind.

In July the Bureau of Reclamation, the federal agency that oversees water management, threatened to sue California's water board, arguing that its plan to keep more water in the state's two largest rivers would unfairly reduce the amount diverted away for agricultural and urban use. The secretary of the interior then threatened to break off relations between the federal government and state water managers unless the state dropped its plan. At the same time, the bureau said it wanted to renegotiate a landmark agreement of 1986 which governs how much water federal and state agencies may pump out of the delta formed by the Sacramento and San Joaquin rivers. The California delta is the largest estuary on America's Pacific coast and the source of water for 25m people. All this seemed straight out of Mr Trump's playbook: bluster, threaten to rip up an old treaty and try to impose a new one.

This example might seem doomed to fail for legal reasons. Normally in federal matters, federal law outranks state law. But water is different. An act of 1902 (the Federal Reclamation Act) says that state law precedes federal law on disputes about water, even regarding dams and levees run by the federal government. A federal law concerning California, the Central Valley Improvement Act of 1992, reasserted the primacy of state law and was confirmed by the Supreme Court. Whatever Mr Trump's administration may think, the feds must abide by Californian law, not the other way around.

But in practice, says Rick Frank of the University of California (UC), Davis, "there is a lot of play in the system." The federal authorities can do a lot of harm if they stop talking to state managers. To understand why, you must go back to first principles.

Three-quarters of the state's water falls as rain and snow north of the California delta. Three-quarters of the water is consumed south of it. A vast network of dams, canals and pumps shifts water from north to south. The system is an integrated one, but when it was planned in the 1930s (during the Depression), the state could not afford to finance the whole project. The federal government stepped in and built (and still manages) many of the dams and pumps. Operationally, the two sides need to work together.

Over the years demands on the system have increased. There is not enough water to satisfy farmers, city dwellers, fishermen, environmentalists, and so on—and conflicts have to be resolved by two groups of managers, not one. To make matters worse, climate change and a six-year drought that ended in 2017 have increased the stress on the hydrology of the state, forcing a further squeeze on users and ever-tougher choices.

The next two years will be exceptionally important because, in addition to the usual conflicts, the state's water managers face big decisions in four areas. A breakdown in relations with the federal government, worries Leon Szeptycki, a water expert at Stanford University, could make agreement on each of these matters harder.

The first task is to replenish groundwater depleted by farmers during the drought of 2011-17. Normally, groundwater (in aquifers) accounts for about 30% of urban and agricultural water use. During the recent drought, however, the share rose to over 50%. Worse, according to the Public Policy Institute of California (PPIC), a think tank, groundwater reserves have been depleted more during each successive recent drought. A new law called the State Groundwater Management Act (SGMA) tries to deal with over-use by requiring water users to organise themselves into groups and asking each group to show how it will stop depleting groundwater in 20 years' time. The plans, which constitute one of the most ambitious water-conservation projects ever, must all be approved by 2022. They are vulnerable to disruption. Any breakdown in relations between the state and federal authorities could undermine SGMA if, for example, the two sides issued different instructions on how much water may be pumped out of the system.

Second, the state's water-control board is trying to increase the flow of water in the main rivers of the delta. Early in 2018 it reaffirmed that it wants to increase the amount in the San Joaquin river from its current level of 20% of its natural flow to 40%. The measure is long overdue. Some of the river fish, including the Delta smelt, are on the verge of extinction. Water-users are divided about the plan, with fishermen pitted against farmers, and both fearing for their livelihoods. The state governor, Jerry Brown, has set up a process for settling these disputes. As with the groundwater plan, the threatened rupture between state and federal authorities could wreck the settlement process.

Third, the state is trying to build two new tunnels in the Delta as a more reliable and, its proponents claim, less environmentally damaging way of pumping water out. The $15bn project, called Water Fix, has been in the works for decades and is probably nearer to getting the go-ahead now than at any time since 1980. But this too is vulnerable to a state-federal bust-up because the state may not be able to finance the project on its own. Adding to the uncertainty, the project's main supporter, Mr Brown, is retiring and it is not clear that the new governor, Gavin Newsom, will throw his weight behind the scheme.

Lastly, the third giant river feeding southern California, the Colorado, is in the middle of an unprecedented 19-year drought. Of its two reservoirs, Lake Powell is half full and Lake Mead barely a third full. In early October, the seven states (including California) that share its waters issued drafts of new agreements to stop water levels falling further and to forestall rationing. The Trump administration's threat to break off relations with California referred only to the management of water within the state, not to the Colorado. But once disputes start, they are not easy to contain.

Optimists argue that brinkmanship has always been part of California's water wars and no one has ever careened over the edge. And as Jay Lund of UC, Davis says, "water users all know they have to get along after Trump has gone."

The trouble is that they are also feeling more aggrieved than usual. Farmers are being encouraged by the administration to demand more water. Urban users have made large efficiency gains and think it is time for others to do the same. Fishermen fear that the fish, and their livelihoods, are on the verge of extinction. The PPIC's Brian Gray says "it's in everyone's interest to reach a settlement voluntarily, rather than through lawsuits or solutions imposed by the state or water boards." That is why the administration's threat to turn its back on the state is so dangerous. It would make voluntary deals harder to achieve.

This article appeared in the United States section of the print edition under the headline "Source of discord"

Lukewarm marks for Matthew

Assessing the president's choice to replace Jeff Sessions

Matthew Whitaker is unconventional, and not in a good way

Print edition | United States Nov 17th 2018

THE PRESIDENT has never accepted that America's attorney-general is supposed to be the nation's top law-enforcement officer, rather than his own personal lawyer and protector. Jeff Sessions, whatever his other faults, understood that well. As a result, he was unceremoniously booted out a day after the mid-term elections. To replace him on an acting basis, President Donald Trump picked Matthew Whitaker, who served as chief-of-staff to Mr Sessions. Critics from both parties have questioned the legality of his appointment and his fitness for the job.

At the heart of the first controversy lies an undeniable fact: Mr Whitaker has not been confirmed by the Senate in his current role. The Justice Department (DOJ) argued, in a memo issued on November 14th, that the Federal Vacancies Reform Act of 1998 allows the president to appoint someone not confirmed by the Senate to fill a cabinet post temporarily, which the Act defines as no longer than 210 days. The memo cites precedent dating back to 1792, and notes that both George W. Bush and Barack Obama designated people who had not been confirmed by the Senate to head agencies temporarily.

There are two principal counter-arguments. The first—advanced in the *New York Times* by Neal Katyal, a deputy solicitor-general under Mr Obama, and George Conway, a conservative lawyer whose wife, Kellyanne, spins for Mr Trump—is that the constitution's appointments clause dictates that all principal officers, meaning people who report to nobody but the president, must be confirmed by the Senate. Clarence Thomas, perhaps the Supreme Court's most conservative justice, endorsed that view in an opinion in 2017.

The state of Maryland endorsed a similar view in a lawsuit filed in federal court on November 13th. The state is seeking an injunction barring the DOJ from filing motions under Mr Whitaker's name in a separate suit the state has filed against the Trump administration. Maryland contends that his appointment violates not just the appointments clause, but also that custom and statute dictate that Rod Rosenstein, the deputy attorney-general, should be named attorney-general. A hearing is expected shortly.

His appointment's constitutionality aside, Mr Whitaker has unconventional views for an attorney-general. He believes that *Marbury v Madison*, a case from 1803 that established the Supreme Court's authority as constitutional arbiter and undergirds two centuries of jurisprudence, was wrongly decided (though, in a nifty bit of reasoning, he also condemned the court for upholding the Affordable Care Act). In 2014, while running for Iowa's Senate seat, he implied that only Christians should serve as judges.

Mr Whitaker's résumé is equally unconventional. Before he went to work for the administration, he sat on the board of a company which the government accused of scamming customers, and fined $26m. The company's founder reportedly enlisted Mr Whitaker, a former federal prosecutor, to dissuade customers who had asked for their money back.

This is a minor fault compared with the prospect of Mr Whitaker overseeing the investigation run by Robert Mueller, the special counsel, into Russian interference in the 2016 election. It is not just that Mr Whitaker has repeatedly derided the investigation; he has denied that Russia interfered at all. Yet even if Mr Whitaker were to defund or undermine Mr Mueller's team, New York's attorney-general could continue digging, as could the House, when it reconvenes with a Democratic majority in January (see Lexington).

Mr Sessions's original appointment set up a trade-off. The outgoing attorney-general held unreconstructed views on criminal justice but took the rule of law seriously. Mr Whitaker seems to offer that dilemma in reverse. He is more of a lackey than Mr Sessions was. And yet he is less likely to stand in the way of the criminal-justice reform that America badly needs, and which Mr Trump has endorsed.

This article appeared in the United States section of the print edition under the headline "Lukewarm marks for Matthew"

Bitter orange

Recounts in Florida

Déjà vu all over again in the Sunshine State

Print edition | United States Nov 17th 2018

FOR DEMOCRACY to work, the winners and losers must accept the result was fair. A quick, accurate count helps with that. America's mid-term elections took place more than a week ago but in several states the results are still not final. Florida is, once again, the worst offender. It took the state four days to carry out a preliminary tally. The results were close enough to prompt recounts, which could take weeks. In the meantime, it is springtime for conspiracy theories. The Republican candidate in the Senate race, Rick Scott, has alleged without evidence that there was "rampant fraud" in two of Florida's largest counties. The president joined in, saying "large numbers of new ballots showed up out of nowhere, and many ballots are missing or forged."

Though claims of fraud are unsubstantiated, the brouhaha over the election in Florida is real. Florida has form here. The presidential-election count of 2000 dragged on for more than a month as administrators, lawmakers, and the state's Supreme Court decided how to count and recount votes. In the Sunshine State's defence, there is no other big state where the winning margins are so slim. Yet more than 100m people voted in Brazil's recent presidential election and the results took less than a day to count.

As in most states, Florida's election management is decentralised. The state delegates election-administration powers to counties. Each of the state's 67 counties can design its own ballot paper. County officials are then responsible for counting votes within their jurisdiction.

Broward County, which leans Democratic, produced a ballot paper so confusing that lots of voters appear not to have noticed that there was a Senate election taking place in Florida. Broward County cast an abnormally low number of votes in the senate race, prompting speculation that roughly 25,000 "under votes"—where people cast votes for other races but did not vote in the Senate contest—would have tipped the race to the Democratic incumbent.

Unfortunately for Democrats, this own-goal will stand. "You don't get a do-over for poor ballot design," says Michael McDonald of the University of Florida. Brenda Snipes, the county's elections supervisor, has a dreadful record on supervising elections. In 2004 her county lost 58,000 ballots; in 2012 1,000 uncounted votes turned up a week after polling day. This points to yet another problem in Florida. Election supervisors are elected, but few voters know anything about the candidates for the office or bother to turn up and vote.

Ms Snipes says that her county received a pile of ballots by mail just before the deadline, lengthening the count. Other states also had problems certifying election returns. Arizona was slow to count, something its secretary of state, Michele Reagan, attributes to the large number of early votes: 320,000 ballots were unsealed on election day. Each one needed its signature checked, and then to be checked against the election-day ballots, to eliminate any double voting. Most of the states that have certified results are smaller: Delaware and Vermont were among the first to fully report. Florida, by contrast, must count more than 8m ballots.

Having a fragmented, low-tech election administration has some advantages. Though foreign powers might interfere with election campaigns, ancient voting machines are hard to meddle with. The GRU's hackers did not alter any vote tallies. Yet badly designed ballots and interminable recounts corrode confidence in other ways. For a relatively meagre investment, states could buy voting machines that are not connected to a network, and therefore cannot be hacked remotely, and that spit out paper receipts, so results can be audited later. Failure to do so will invite claims of fraud in 2020 from more candidates, probably starting with the president.

This article appeared in the United States section of the print edition under the headline "Bitter orange"

Boondocks and boondoggles

Bringing investment to poor places

Will opportunity zones work? Or are they just a tax break for America's wealthiest?

Print edition | United States Nov 17th 2018

CENSUS TRACT three in Cumberland County, Maine covers part of the city of Portland, named America's top food destination by *Bon Appétit* magazine. Its dock is the landing spot for an expected 200,000 tourists this year. Yet Census Tract Three has also been designated as an opportunity zone, America's favourite new policy for increasing investment in poor places.

These zones are part of last year's tax cut. The policy tempts investors to put their money into poor areas with generous tax incentives. It allows investors to defer tax on any unrealised capital gains they reinvest in the zones. If the resulting investment is held for seven years, 15% of that original capital-gains liability is written off. And if the investment is held for more than ten years, any associated capital gains tax due on gains during that decade is waived. The scope of the policy, as well as its cost in foregone tax revenue, is vast: nearly 35m Americans live in places designated as opportunity zones.

Investors are salivating. On November 10th Anthony Scaramucci, President Donald Trump's one-time adviser, announced he would be starting a real-estate fund to invest in the zones. Boosters point to the trillions of dollars of unrealised capital gains ready to be unlocked, and Steven Mnuchin, the treasury secretary, has speculated that as much as $100bn could flow in to the 8,761 zones. The Joint Committee on Taxation has estimated that it will cost $1.6bn over their ten-year forecasting window. But as the scheme is uncapped, the final amount could be much larger than that.

Plenty of policy wonks like place-based policies in theory, because they worry that poor parts of America now find it harder and harder to catch up with rich ones. In theory, geographically targeted tax cuts or subsidies could encourage new clusters of economic activity to form, thereby lifting depressed places.

But getting good results, or good evidence, is not so straightforward. Earlier place-based policies have been difficult to evaluate, in part because some were tried in areas that would probably have recovered without them. They also have tended to be multi-pronged, making it difficult to know what precisely has generated any success. In 1994 Congress created a number of Empowerment Zones, offering both grants and tax breaks for employers, in places with high poverty or which had suffered a lot of emigration. This appears to have raised employment and wages in these places. More recently, the New Markets Tax Credit has handed tax credits to investors in certain areas. One study published in 2012 found the scheme raised employment and lowered poverty a bit in the affected places. Vetting was stringent: only 16% of applications for the credit between 2003 and 2017 were successful.

The other evidence is mixed. Enterprise Zones in Britain and France, for example, offered tax breaks to businesses operating in certain areas and appear to have raised employment, but at the expense of areas nearby. The European Union doles out "structural funds" for investment in poorer regions, which seem to raise local output and employment, but there are questions over how lasting their effects are. In America state and local governments compete with each other to attract business by offering packages of tax cuts, and it seems that successful bids do deliver benefits to the local community. But there is little evidence to suggest that this is much more than a zero-sum game between places.

Opportunity zones differ from these earlier attempts, in that they come with very few conditions. Investors will be free of any kind of approval process. There are some restrictions on what counts as a qualifying investment. Golf courses and massage parlours are out. Real-estate developers must make "substantial improvement" to a property within 30 months of buying it, equivalent to doubling the value of any pre-existing buildings. The law is not supposed to be for investment in mega-corporations either. To qualify, companies that receive investment must have at least 50% of their activity and 70% of their physical capital in a zone. But relative to comparable schemes there are very few strings attached.

One concern is that investors will pocket tax rewards for investments that they would have made anyway. The benefit to locals may not be worth the cost of the forgone federal tax revenue, which could otherwise be used for different things. Then there is the matter of creating a new, open-ended tax break for investors, who are usually the wealthiest Americans.

The Maine chance

Portland's Census Tract Three, and other places like it, offer a warning. Ideally tax credits would do the most good in areas that were not showing signs of revival on their own. A study by Hilary Gelfond and Adam Looney of the Brookings Institution, a think-tank, found that 89% of selected opportunity zones do have poverty rates higher than the national average. But when selecting census tracts to be opportunity zones, most states picked places that were more likely to show signs of gentrification than eligible ones that were passed over. In such cases, it seems right to ask how much investment taking advantage of the tax break might have happened anyway.

Doug Ray, who helped Maine's governor, Paul LePage, to draw up that state's list of places, explains that to be picked as one of the opportunity zones, it helped to have sites ready for investment, as well as an adequate supply of workers and housing. "A lot of areas that are eligible are where investors would not probably want to put money," he says.

Perhaps the most worrying element of the policy is that it will be fiendishly difficult ever to know whether it has succeeded or has just been a gigantic waste of money. So far it is unclear whether the government will track how opportunity-zone funds are used. If state and local governments simply use them to turbocharge existing development policies, or are forced to harness the incoming investment by offering even more tax incentives, then isolating their impact will be even harder.

The scheme is still in its infancy. The first batch of Treasury regulations was released on October 19th, and another is due later this year. John Lettieri of the Economic Innovation Group, a think-tank and advocate of the zones, says that "there's a failure of imagination about what this could be if it's done well." For the moment, though, scepticism is in order.

This article appeared in the United States section of the print edition under the headline "Boondocks and boondoggles"

Lexington

Adam Schiff hopes to fight Donald Trump with facts

Hollywood's unlikeliest star will assume a lead role in 2019

Print edition | United States Nov 17th 2018

ONLY A PARTISAN Republican could describe the congressman for Tinseltown as a "Hollywood liberal". Though socially liberal, Adam Schiff, a 58-year-old former federal prosecutor, is a fiscally sensible moderate with national-security chops. He is also, despite being the likely next chairman of the House intelligence committee, hardly anyone's idea of box office.

As the ranking Democrat on a committee that has degenerated to dog-eat-dog partisanship and conspiracy-mongering under Devin Nunes, Mr Schiff has been much provoked in the past 18 months. He remains relentlessly measured and low-key. A look of pained consternation, over his Republican colleagues' latest attack or intelligence leak, is as animated as he gets. "I think they will have a lot to answer for when this chapter of history is written," he says, more in sorrow than rage. Yet Mr Schiff, though neither charismatic nor fiery, qualities that some Democrats think indispensable to resisting the president, will soon lead that effort.

He will be responsible for holding Donald Trump to account on the president's main vulnerability: his dealings with Russia. In part this will mean backing Robert Mueller's investigation into Russia's effort to get Mr Trump elected. Mr Nunes has tried to obstruct and discredit the special counsel. Mr Schiff will provide him with testimonies gathered by the committee's own Russia investigation, which Mr Nunes has refused to release.

He also means to continue the committee's probe. Indeed, though its Republican contingent prematurely declared the inquiry over, he and his Democratic colleagues never stopped investigating. With control of the committee's staff and subpoena power, which House committees, unlike the more collegial Senate, reserve for the majority party, their effort will soon be more imposing. "The highest priority will be not to reinvent the wheel but to look at investigating threads the Republicans stopped us looking at," he says. "There are any number that were in the category of conspiracy or collusion that we were not able to pursue."

This points to the main danger for House Democrats bent on applying oversight to the administration. It has generated such a lot of sleaze and intrigue—also including the conflicts of Ryan Zinke and Wilbur Ross, the policy blunders at the borders and in Puerto Rico, the president's attacks on governing norms—that the watchdogs will simply have too much to grapple with. The temptation will be to spread themselves too thinly and lose focus on what matters most. That would also turn off ordinary Americans. Having little interest in the details of 47 different Trump scandals, many would view the Democratic onslaught, however justified, as over-egged and needlessly partisan. Mr Trump, by fulminating against witch-hunts and firing off fictitious accusations against his accusers, would encourage and be strengthened by that.

By the same token, Mr Schiff's effort to reinvigorate the House investigation, despite Mr Mueller's ongoing investigation, could look gratuitous to a public that has little interest in the Russian plot. That would be wrong, given the seriousness of Russia's attack, and worrying, given the likelihood of a repeat. Yet it could happen, and in that case Mr Schiff would end up politicising the special counsel's more high-powered investigation even more than it already has been. Mr Trump would waste no time in framing Mr Schiff and Mr Mueller as conspirators in a liberal vendetta.

He acknowledges some of these risks: "The president is going to fight oversight tooth and nail, which means we must pick and choose our fights." He says he will focus his investigation on allegations surrounding Russian payments to Mr Trump's company before he was elected. Neither the House nor Senate probes looked at this, though many believe it could help explain Mr Trump's cravenness towards Vladimir Putin. Mr Schiff says the allegations may turn out "more compromising than any salacious videotape".

He believes the special counsel has not looked at them either, but even if he has, he says there is little danger he will muddy the water between his probe and Mr Mueller's. Congressional oversight, tarnished by House Republicans, is both important in itself and fundamentally different from the special counsel's brief, he says. Mr Mueller has a mandate to investigate crimes. Having done so, he could choose not to release his findings. Congressional oversight, by contrast, is as much about bringing the truth to light as miscreants to book: "The public deserves an accounting."

Mr Schiff's eagerness to prioritise also suggests he has taken a lesson from his Republican tormentors. He is a veteran of one of the eight Republican investigations into Hillary Clinton's alleged culpability for the deaths of American diplomatic staff in Benghazi in 2012. It was a bogus charge: she had no direct responsibility. Yet in the process of devoting hours of airtime and millions of dollars to it, the Republicans raised doubts about Mrs Clinton's integrity which helped deny her the presidency. With so many real scandals to choose from, the Democrats need to focus not only on the most serious but also, as the Republicans did, on what seems most indicative of their opponent's character. Mr Trump's alleged malfeasance fits that bill.

You say subpoena

Sticking it to him in this way might placate Democratic activists who want to impeach the president, which the party's leadership, including Mr Schiff, does not want: "There's only one thing worse than putting the country through the wrenching experience of an impeachment, and that's a failed impeachment". It would also indicate that Mr Trump is better opposed with fact and reason, the grounds he cannot compete on, than fire and nonsense.

This is why Mr Schiff, calm and rigorous, looks like an effective opponent for Mr Trump. It is also why the president's effort to tar him as "Sleazy Adam Schiff" fell flat. The only association with sin that clings to Mr Schiff, a marathon-running vegan, relates to the fact that his wife is called Eve.

This article appeared in the United States section of the print edition under the headline "Hollywood's unlikeliest star"

Gun control in Canada
Drop it!

Drop it!

Canada debates a gun ban

An argument about firearms will help to shape next year's election

Print edition | The Americas Nov 17th 2018

WHEN A MAN with a rifle charged into Canada's parliament in 2014, Michelle Rempel, a Conservative politician, was among the people who fled from a caucus room as gunfire rang out around them. Security guards killed the intruder, who had shot a sentry outside.

Deeply unsettled by the attack, Ms Rempel pondered a friend's claim that a ban on guns could have prevented it. She delved into regulations, studied crime data and came to an unexpected conclusion. The young politician from Alberta bought a handgun, joined a sports-shooting club and became Canada's most prominent proponent of gun ownership—as a responsible pastime, she says.

Ms Rempel is at the forefront of a debate that has gained urgency. In July a gunman killed an 18-year-old woman and a ten-year-old girl, and wounded 13 other people, on a shopping street in Toronto. In 2017 a bigot killed six worshippers and injured 19 at a mosque in Quebec City.

City councils in Toronto and Montreal have asked the federal government, which regulates firearms, to ban all handguns and assault rifles. Justin Trudeau, the Liberal prime minister, instructed Bill Blair, a security minister, to examine a "full ban". The former police chief is consulting Canadians. At the same time, Parliament is considering a bill, C-71, that would tighten background checks and record-keeping. The argument over these proposals will help to shape the parliamentary election due in October 2019.

Canada's gun debate differs from that in the United States. Canadians, unlike Americans, have no constitutional right to bear arms. Sales and possession of firearms are permitted but tightly restricted. Buyers must undergo background checks, take safety courses and get a separate permit to transport firearms. The process often takes months. The purchase of a gun for self-defence is allowed only if buyers can show that the police cannot protect them. Canada has issued just two such permits.

Despite these obstacles, Canada has the fifth-highest rate of gun ownership among 56 countries: 34.7 per 100 people, according to the Small Arms Survey, based in Geneva. That is far behind the United States' rate of 120.5 but higher than that of Germany, France and Mexico. Ranked by the number of deaths from firearms as a share of the population, Canada is 107th among 195 countries, according to the Institute for Health Metrics and Evaluation in Seattle. (The United States is 20th.)

Yet Canada's discussion of guns is becoming more American. Horrors like the killings on November 7th of 13 people in Thousand Oaks, California, and of 11 people at a synagogue in Pittsburgh on October 27th receive saturation coverage. Pro-gun Canadians use arguments honed in the United States, including, increasingly, the need to own them for self-defence. Anti-gun activists point to American shootings as an argument for enacting a ban.

Groups representing Canada's 2.2m licensed gun owners say regulations on buying, storing and transporting firearms are tight enough. Further restrictions would not make the public safer, says Tracey Wilson of the Canadian Coalition for Firearms Rights, the only registered gun lobbyist (the United States has more than 11,000). Ms Rempel, who was minister in charge of economic diversification in western Canada when Parliament was attacked, has said that the police background check required for her to obtain a licence was more thorough than the vetting she underwent to join the cabinet. She waited a year for approval. "You can ban my sports-shooting equipment, but that is not going to take the handguns being used in violent crime off the street," says Ms Rempel.

Some law-enforcement officials agree. Brenda Lucki, who as commissioner of the Royal Canadian Mounted Police is the country's top cop, is not sure a ban is the answer. The head of the Toronto police union says a handgun ban would have little impact on criminals. Canada has no national data on the origin of guns used to commit crimes. So police cannot tell how many are smuggled in from the United States and how many are bought or stolen within Canada.

Gun owners say it is they who are being treated like criminals. Farmers, who use rifles to shoot pests and predators, are especially aggrieved. Although the proposed ban would probably apply just to handguns and assault rifles, farmers fear it would lead to more restrictions. They see the anti-gun campaign as an example of "downtown elites lecturing them", says Darrell Bricker of IPSOS, a pollster.

When Canadians see a gun in a film, on television or in the news it is usually being used to commit a crime, frets Nicolas Johnson, a hunter who writes TheGunBlog. "We as a community have done a really bad job in terms of communicating this is a legitimate, safe, common activity," he says. Gun-owners are trying to improve their image. Ms Wilson's group publishes a Gunnie Girl calendar showing women hunting and shooting for sport.

That does not impress prohibitionists. Wendy Cukier, president of the Coalition for Gun Control, says arguments in favour of gun rights are American imports with no basis in Canadian law. Canadians can buy the AR-15, a semi-automatic rifle used by mass murderers in the United States, she points out. Her group, created after a gunman killed 14 female students in Montreal in 1989, is lobbying to make the proposed C-71 bill more restrictive as well as to impose a ban. She has received death threats, including a picture of her face with a target superimposed on it.

Like Republicans in the United States, Canada's opposition Conservative Party gets strong support from rural districts. The last Conservative government, which left office in 2015, ended a firearms registry set up by a Liberal one. Ms Rempel sponsored an electronic petition on October 11th calling on the government to scrap C-71 and the proposed ban, and to respect "law-abiding" Canadians. More than 28,000 people have signed it.

The two parties are already testing anti-crime arguments for next year's vote. On November 8th the Liberal government announced C$86m ($65m) of extra spending on border security and intelligence to fight gangs and gun crime. The Conservatives want to lengthen jail terms for gang members and make it harder for them to be released on bail or obtain parole.

The Liberals' clampdown on gun ownership may give them an edge. A poll conducted this year, before the shooting in Toronto, found that most Canadians support a handgun ban. An even bigger group wants to outlaw assault rifles like the AR-15. Mr Blair plans to continue his consultations until the end of 2018, which means that Parliament will debate the ban next year. So Canadians are likely to be talking about guns as they prepare to vote. Mr Trudeau, who hopes to be re-elected, will probably welcome that.

This article appeared in the The Americas section of the print edition under the headline "Drop it!"

The plot thickens

Colombia's biggest corruption scandal gets more complicated

The magnate, the attorney-general and two strange deaths

Print edition | The Americas Nov 17th 2018

ON THE NIGHT of November 8th, Jorge Enrique Pizano's wife found him lying on the bathroom floor in their house north of Bogotá, the capital, wrapped in a towel and breathing heavily. He died on his way to hospital. The cause was a heart attack, said forensic experts. Three days later, his son, Alejandro, who had returned from Spain for his father's funeral, took a sip from a water bottle on Mr Pizano's desk. He complained of a foul taste, fainted and died moments later. Doctors said he had been poisoned with cyanide. His stomach, they said, was destroyed by the toxin. Alejandro's apparent poisoning raises questions about whether his father was the victim of foul play, too.

The death of the Pizanos is the most dramatic twist yet in Colombia's biggest corruption scandal. The case involves Odebrecht, a Brazilian construction firm that has bribed officials in a dozen Latin American countries, and Grupo Aval, Colombia's biggest financial group. The two firms were partners in a $1.6bn contract to build Ruta del Sol, a motorway linking the capital region and the Caribbean coast.

Documents and recordings made public show that Mr Pizano, an auditor for Grupo Aval, detected more than $30m in payments by the consortium for non-existent consultancies. Some of the money may have been bribes to politicians.

Grupo Aval is owned by Luis Carlos Sarmiento, Colombia's richest man. Its legal adviser for many years was Néstor Humberto Martínez. Since 2016 he has been Colombia's attorney-general. Odebrecht has admitted in a plea bargain with the United States' Department of Justice that it paid $11m in bribes to Colombian politicians in order to obtain the Ruta del Sol contract. Both Grupo Aval and Mr Martínez denied prior knowledge of these payments, and of any subsequent ones.

But earlier this year, Mr Pizano gave Noticias Uno, a television programme, recordings he made secretly of conversations he had with Mr Martínez in 2015 regarding the payments for consultancies. Noticias Uno aired them after Mr Pizano's death. In them, Mr Martínez can be heard promising to inform Mr Sarmiento of the murky payments. In a statement, Mr Martínez said that Mr Pizano could not confirm that those payments were bribes. As matters stand, Aval is blaming Odebrecht for paying the bribes behind its back. But Mr Pizano's documents and recordings seem to show that the consortium made some sort of shady payments and that Aval at least knew about them.

In 2017 Mr Martinez's office ordered the house arrest of Luis Fernando Andrade, a former partner at McKinsey, a management consultancy, who was then the director of the government's infrastructure agency, arguing that he illegally awarded an addendum to the contract to extend Ruta del Sol. Mr Andrade denies any wrongdoing. As Aval's lawyer, Mr Martínez reviewed that addendum and approved it.

Whatever the truth of Mr Pizano's allegations, Mr Martínez, who has powerful political backers, is clearly in no position to conduct an impartial investigation into them, as he may have a case to answer himself. Yet he cannot be sacked as attorney-general. He has recused himself from two of many related cases, placing a subordinate in charge. Many Colombians want him to step aside entirely, or resign.

This article appeared in the The Americas section of the print edition under the headline "The plot thickens"

From tax shelters to tree chicken

Grand Cayman is overrun with green iguanas

The government wants to bring back the blue variety

Print edition | The Americas Nov 17th 2018

THE CAYMAN ISLANDS, a British territory, does not tax companies. So Grand Cayman, its largest part, has more companies (106,000) than people (61,000). Its population of green iguanas greatly outnumbers both. There are perhaps 1.3m of them, more than 6,000 per square kilometre. The lizards, which can be up to 1.5 metres (five feet) long, are a nuisance. They defecate on cars, chomp up crops and gardens, eat the eggs of wild birds and short-circuit electricity transformers. The burrows in which they lay eggs damage roads and golf courses.

The pests arrived on the island about 25 years ago as pets. In their native habitats in South and Central America, snakes and birds of prey feast on iguana eggs and babies. In Grand Cayman they face few threats besides cars; iguana roadkill is a frequent sight. So the Cayman Islands' environment department has intervened. On October 29th it began a cull of green iguanas, paying $6 per dead lizard to a few hundred people who have registered as bounty hunters. Each is expected to kill hundreds a month (humanely, the government insists). By mid-November they had dispatched more than 100,000. Although the rate of culling will decline as beasts become harder to find, the green-iguana population is likely to fall significantly.

At the same time the government is trying to bring back native blue iguanas, which were nearly wiped out by loss of habitat and by predators such as rats and cats. (Adult green iguanas defend themselves from these with spines, claws and whip-like tails.) Female blues lay from one to 20 eggs a year, compared with up to 70 for greens. By 2004 a dozen or so blue iguanas were left. A breeding programme increased their numbers and has released 1,000 into nature reserves with few predators.

The unloved green sort could bring the island extra cash. "Tree chicken" is a delicacy in some of the iguanas' native countries. Spinion, a local firm, already exports lionfish, another invasive species. Now it plans to sell iguana meat to North America. Grand Cayman, known mainly as a tax haven, could become a leading supplier of tree chicken.

This article appeared in the The Americas section of the print edition under the headline "From tax shelters to tree chicken"

Bello

Why Latin American governments spend money badly

Costa Rica, among others, is trying to change that

Print edition | The Americas Nov 17th 2018

IN COSTA RICA'S rainy season, bright mornings yield with deceptive suddenness to tropical downpours. So it was on September 10th, when the country's civil servants went on strike. They oppose a fiscal reform that raises some taxes and limits automatic wage increases. Universities and public offices were deserted. After blocking roads and a railway, many went home before the afternoon shower. Two months later, some are back at work. But teachers are still on strike and many state schools remain shut. With reform stalled, the currency is under pressure and investors have pushed up the cost of servicing the public debt. Unless Carlos Alvarado, a social democrat elected as president in April, wins this trial of strength, Costa Rica may follow Argentina into the arms of the IMF.

This is in a country that, like its weather, in many ways sparkles. Its long-established democracy and new industries, such as ecotourism and medical instruments, make it a model for Latin America. But its fiscal clouds may represent the region's future, too. Costa Rica spends badly. And it finds it hard to raise the taxes necessary to pay its bills. The fiscal deficit stands at 7% of GDP. Past governments ramped up public employment. Costa Rican civil servants are unusually well rewarded. The public wage bill is 12% of GDP. That is above the Latin American average of 8.4%, which is itself high by international standards, according to data from the Inter-American Development Bank (IDB).

The question at stake in Costa Rica is a crucial one for Latin America: is the main purpose of the state to benefit citizens, or its own workers? This matters because, although there are big variations, on average public spending rose sharply in the region in this century, partly because of the (temporary) extra revenues furnished by the commodity boom. The days of easy public money are now over. Faced with more demanding electorates, which want better public services, governments must learn both to spend more efficiently and to change their priorities.

There is scope to do so, as the IDB argues in a recent report ("Better spending for better lives"). Its authors say that, on average, 16% of government spending (or 4.4% of GDP) in Latin America is wasted. The reasons include inefficiency or corruption in procurement, as well as paying low-ranking civil servants more than private-sector workers in similar jobs.

Spending on payrolls and pensions squeezes out public investment, especially in the region's missing or crumbling transport infrastructure. Big pension outlays discriminate against the young. On average, governments spend $4,000 a year per person on people who are over 65 and $1,500 on under-tens. Brazil, a country crying out for better health care and policing, spends half of the federal budget on pensions. "The bottleneck for our development is the inefficiency of the state and its costs," says Ottón Solís, an adviser to Mr Alvarado in Costa Rica.

Behind every inefficiency are beneficiaries who tend to be organised, while losers are not. That is Mr Alvarado's battle in Costa Rica. His fiscal reform is modest. It might reduce the deficit slightly, by 1.5% of GDP, mostly by replacing a sales tax with a value-added tax, which would apply to staple items and to untaxed services, such as university education. It would also curb some civil servants' entitlements. That is what has riled the trade unions.

They say the government should fight against tax evasion instead (it should, but that does not make the reforms unnecessary). They present the strike not as a defence of their privileges but as a fight against the value-added tax, which will hurt ordinary Costa Ricans. (In fact, the tax on staple items is just 2%, and will help in combating evasion.) The unions have appealed to the supreme court's constitutional chamber, which must rule by November 26th on whether the reform requires a two-thirds majority in congress. The judges benefit from the status quo, so the government may have to round up the extra votes. It probably can, but that is no certainty.

Latin American leaders will have to fight similar battles on equally pressing issues, for example boosting the region's lacklustre productivity. That will require reforming archaic labour laws.

To tackle vested interests political leaders require "moral authority", argues Mr Solís. Mr Alvarado probably still has that. But most of Latin America's other democratic politicians have rarely been less trusted than today. Better states require better-regarded politicians. That is the really hard part.

This article appeared in the The Americas section of the print edition under the headline "The captured state"

Ageing in Japan
Demographic warrior

Land of the rising bills

How Japan's prime minister plans to cope with daunting demography

The reforms he has in mind are not bold enough

Print edition | Asia Nov 17th 2018

"THE DECLINE of the birth rate and the ageing of Japanese society is accelerating at unprecedented speed," warns Shinzo Abe, Japan's prime minister. Given the scale of the problem, he told *The Economist* this week, the government must push for "impactful policies" to tackle it right away. He mentions a series of reforms, intended to boost the workforce and reduce the cost of supporting the elderly. The Diet is currently debating a government proposal to admit 345,000 foreign workers over five years, for instance.

That sounds dramatic, but the demographic decline is even bigger. There are 400,000 more deaths than births each year. Life expectancy is 84 years—the highest in the world. Over 28% of the population is older than 65, compared with 21% in Germany, 15% in America and 6% in India. The country has 69,785 centenarians, a seven-fold increase on two decades ago.

The welfare state has become unaffordable. Public debt is 250% of GDP. And Japan is suffering from an acute labour shortage. There are already 1.6 jobs for every job-seeker, and the workforce is predicted to shrink from 67m last year to 58m in 2030.

One obvious solution is immigration. Only 2% of the workforce is foreign-born, compared with 17% in America. But the government has been surreptitiously admitting more foreign workers, mostly in the guise of students and trainees. The plan before the Diet aims to attract blue-collar workers in 14 industries, including construction, shipbuilding and caring for the elderly. They will receive visas of no more than five years, at least initially, and will not be able to bring their families. All must have some proficiency in Japanese.

Mr Abe plays down the idea that he is doing anything momentous. In debates he is at pains to stress that the new arrivals are not permanent immigrants, but guest workers. Moreover, he portrays foreign workers as a last resort, to fill gaps while the government tries to get more Japanese to work. During his six-year tenure, 2m more women have joined the workforce, lifting the female participation rate above America's. He has increased the number of nurseries and made big companies document their efforts to promote female workers. From next year nurseries will be free. Over half of women return to work after having a child, compared with 38% in 2010. "We have tried to make a society that enables more women to be active, advanced and empowered," he says.

Mr Abe also wants people to "remain active without retirement throughout their lives". His government is likely to raise the retirement age for civil servants from 60 to 65, and to encourage companies to do the same. As it is, many companies have raised their retirement ages or taken to rehiring retired workers, often on a part-time basis. Fully 23% of over-65s work; they constitute a much bigger share of the workforce than in other rich countries (see chart). Mr Abe plans to bolster this trend by increasing the public pension for those who agree to start drawing it later than they are currently entitled to. In the long run, the prime minister hopes, robots and artificial intelligence will help ease the labour shortage. "I do think that we will need fewer jobs because of higher productivity."

Getting older people to work for longer is especially beneficial to the government's finances, since it leads both to higher tax revenue and lower spending on pensions. Mr Abe's tweaks are the latest in a series of changes intended to make the pension system more affordable. But the government is always playing catch-up, as the ageing of the population and shrinking of the workforce accelerate. It reckons social-welfare costs will rise by more than half by 2040, from ¥121trn ($1.06trn) to ¥190trn.

Mr Abe appears to be planning sweeping changes to put the welfare state on a firmer footing. "There will be an overall social-security reform, including health and medicine, pension and others," he says. "We are trying to create a society and community where people can remain healthy and active...and find meaning in staying alive and living long."

Yet in practice Mr Abe is being cautious. Even after the retirement age increases, it will still be lower than in many other rich countries. Moreover, the current system discourages those over 65 from working more than part-time since their pension is reduced if their income from it and their salary exceeds 460,000 yen ($4,039) a month. It is not clear whether this will change. The government has modified but not eliminated a tax quirk that discourages married women from earning more than a relatively lowly amount. By the same token, the share of medical expenses that patients must pay under the public health-care system falls as they get older, imposing a big burden on the state. There are various ways the government could reduce its health-care bill, including increasing premiums for the public insurance scheme, raising patients' co-payments for treatments and excluding some expensive procedures from the scheme.

Yet Mr Abe only hints at the need for any of this. “We are not thinking about immediately raising the co-payment for medical and health services,” he says. “But there must be a careful review of the balance between the contribution and benefit.” Those who take action to prevent illness, such as regular exercise, could be rewarded. “We would like to think about the incentives—what should be done to the contributions that have to be paid by the people who adopt habits to prevent diseases,” he says.

This caution is excessive. Pushing back the retirement age is not as controversial in Japan as elsewhere. A government poll conducted in 2017 found that 42% of people aged 60 or more who work want to continue to do so. Although some politicians fret about foreigners bringing crime and disturbing social harmony, the majority of the population approves of Mr Abe’s plans to admit more foreign workers.

Mr Abe wants Japan to be a model for other ageing societies. He has done more than his predecessors to prepare for a smaller, older population. The danger is that Japan will become an example of a country that has done too little, too late.

This article appeared in the Asia section of the print edition under the headline ”Demographic warrior”

Putsch-tush

A bloodless coup in Sri Lanka is going awry

No one knows who is in charge

Print edition | Asia Nov 17th 2018

THE SCHEMES of Maithripala Sirisena, the president of Sri Lanka, are blowing up in his face. On November 13th the Supreme Court suspended his order dissolving parliament and calling a snap general election. The next day the reinstated parliament raucously approved a motion of no confidence against the government that the president had only just installed. It was a stinging rebuke to Mr Sirisena, who had stretched the constitution in his attempt to replace a supposed ally, Ranil Wickremesinghe (pictured, sitting), with a supposed enemy, Mahinda Rajapaksa.

The president has put Sri Lanka in a constitutional quandary. It now has no clear government. Mr Rajapaksa's team have occupied all the ministries, but Mr Wickremesinghe's insists that it remains the legitimate cabinet. "We went from one prime minister to two prime ministers to no prime minister in a span of 20 days," says Thishya Weragoda, a bemused lawyer.

The crisis began on October 26th, when Mr Sirisena abruptly sacked Mr Wickremesinghe's government—a power the constitution reserves for parliament, under an amendment Mr Sirisena himself ushered into law. The president denounced Mr Wickremesinghe as arrogant and stubborn. He replaced him with Mr Rajapaksa, a populist former president in whose cabinet Mr Sirisena had served from 2005 to 2014, before allying with Mr Wickremesinghe to defeat Mr Rajapaksa in the presidential election the following year. Mr Sirisena later accused Mr Rajapaksa of corruption and even of plotting to kill him.

Mr Sirisena now insists that Mr Rajapaksa is the best candidate for prime minister. To avoid learning parliament's view, he suspended it for three weeks. Meanwhile, he swore in a new cabinet. But Mr Wickremesinghe refused to give way, calling his sacking illegal. The bureaucracy fell into near paralysis.

In response to growing pressure, Mr Sirisena grudgingly called for the legislature to convene on November 14th. He gambled on gaining the required 113 votes in the 225-seat parliament to validate Mr Rajapaksa's appointment. MPs claim they were offered cabinet portfolios and millions of dollars to support the new order. Even so the numbers looked to be falling well short. So on November 9th Mr Sirisena dissolved parliament altogether and announced a snap election—again, a move that appeared to exceed his constitutional authority.

Mr Wickremesinghe's backers complained to the Supreme Court. After two days of hearings, the three-judge bench—including the chief justice recently appointed by Mr Sirisena—suspended the presidential decree dissolving parliament. The ruling applies until December 7th, when the court will take up the case again.

That led to chaotic scenes in parliament. Mr Sirisena did not turn up to deliver the president's customary statement at a re-opening. Mr Rajapaksa took the seat allotted to the prime minister. His supporters disrupted attempts to vote on the no-confidence motion with a show of hands, so 122 MPs signed a letter saying they had voted for it. The speaker notified Mr Sirisena, who declared the vote irrelevant.

Mr Rajapaksa's supporters are defiant. Dinesh Gunawardena, an MP, tweeted that they would not accept the decision as "there was no vote taken". They argue the speaker is biased. But in a triumphant press conference, Mr Wickremesinghe warned police and public officials not to follow "illegal orders from the purported government that has failed to demonstrate the confidence of the people". He invited Mr Rajapaksa to propose a fresh vote if he had difficulty accepting the legitimacy of the one that had already taken place. Mr Wickremesinghe said his administration will take steps to ensure the government in place before October 26th will continue. How he will do that remains to be seen. Mr Sirisena, angry and defiant, retains nominal control of the army and police while Mr Rajapaksa, sullen and chagrined, enjoys widespread public support. That is the crowning irony: had he simply waited for elections in two years' time, he would probably have walked into the job.

This article appeared in the Asia section of the print edition under the headline "Putsch-tush"

Jail sheikh

Indonesia's prisons will soon start spawning even more jihadists

A new law is funnelling more radicals into the ordinary prison population

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AMAN ABDURRAHMAN was first arrested in 2004 following an accidental explosion during a bomb-making class near Jakarta. But his career as a jihadist really got going in prison, where he has spent 12 of the subsequent 14 years. Until recently Mr Aman was able to run a militant propaganda campaign from his cell. He translated some 115 articles from Islamic State publications into Indonesian and uploaded them online. He also recruited volunteers to go fight in Syria—all from behind bars. He became IS's "most important ideological promoter" in Indonesia, according to Sidney Jones of the Institute for Policy Analysis of Conflict (IPAC), a think-tank in Jakarta. Abu Bakar Basyir (pictured), a radical cleric on death row for masterminding bombings in Bali in 2002 that killed more than 200 people, first befriended Mr Aman in prison and then distanced himself from him because he was "too hardline".

Indonesia's 477 prisons were built to house 125,000 prisoners. They are currently crammed with more than 254,000. One facility, in the province of South Kalimantan, holds 2,459 in a space meant for 366. An officer at a high-security prison in Jakarta says it is not uncommon for 15 inmates to be placed in a cell of nine square metres intended for three people.

Graft flourishes. Earlier this year a raid by the KPK, an anti-corruption agency, revealed cells with air-conditioning, flat-screen televisions and private bathrooms. Even the KPK could not get into several cells, because the keys were kept by their occupants.

Small wonder, then, that jihadists have been able to recruit and organise freely from prison. Authorities were shocked to discover that a gunman involved in an attack on civilians in Jakarta in 2016 was a former prisoner who had served as personal masseur to Mr Aman while in jail. He had been granted an early release just months before for "good behaviour".

Abu Husna is another man who organised terrorism from jail. He leads one of the two main Indonesian factions supporting IS (Mr Aman leads the other) and is a former cellmate of Mr Basyir. Baim Maulana, a former weapons-procurer for jihadist groups and separatists in the province of Aceh, describes how Abu Husna and fellow IS supporters controlled certain parts of the maximum-security prison in which he used to be held: "This included the kitchen at one point." Mr Maulana received an invitation for a meal with Abu Husna, who wanted Mr Maulana to work for him. "I couldn't refuse at that point, so I left it open-ended—surviving in prison was already tough as it was without rejecting their offer," Mr Maulana says.

Terrorist inmates sit atop a "moral hierarchy" in prison and are often regarded by other inmates as enlightened, at least in comparison with drug offenders and petty criminals, says Taufik Andrie of the Institute for International Peace-Building, which helps released extremists reintegrate. "They act like *pesantren* (Islamic school) leaders," he says, "and are given a lot of privileges in jail amongst inmates". Amir Abdillah, who helped build the bombs used in an attack in Jakarta in 2009, says, "Radicals offer fellow inmates a chance to atone for their sins and pray together." Mr Amir says that when he was arrested, he was convinced he "was doing the work of God and would be respected even in prison".

The key to stemming the spread of radical ideology among inmates, argues Mr Andrie, is segregating the hardliners. "This unfortunately does not happen in 'medium-security' prisons or in centres where detainees await trial," he explains. Until 2016, when Mr Aman was transferred to a maximum-security prison, he could receive visits from admirers. Some of his visitors went on to commit a series of bombings of churches and police posts in Surabaya in May. The same month Mr Aman reportedly mediated between police and pro-IS inmates at another prison after they seized control of part of the building and slit the throats of five police officers.

Since the bombings in May the authorities have been trying hard to disrupt terrorist networks. A revision to the anti-terrorism law allows suspects to be arrested pre-emptively and held for up to three weeks (a judge can extend the detention to as much as 290 days). A spike in arrests has followed; there are only 466 people convicted under terrorism laws in Indonesia's jails, but since June some 350 suspected terrorists have been arrested.

In the absence of reforms to the prison system, however, this campaign is likely to make things worse, not better. "It is not clear how already overburdened detention centres, prosecutors, courts and prisons are going to cope," writes Ms Jones in a recent IPAC report. In all likelihood, thrusting so many radicals among other prisoners will simply create more terrorists.

This article appeared in the Asia section of the print edition under the headline "Jail sheikh"

Sub ordination

India's long-awaited nuclear-armed submarine goes on its first patrol

More are under construction

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WHEN, IN EARLY NOVEMBER, INS *Arihant* surfaced off India's east coast, its submariners breathed in the claggy air of the Bay of Bengal for the first time in almost three weeks. They may also have breathed a sigh of relief. Although the Indian authorities are understandably cagey about the details, the sub is believed to have carried as many as a dozen nuclear missiles through the Indian Ocean, in all probability around the southern tip of India and into the shallower waters of the Arabian Sea close to Pakistan.

The *Arihant*'s inaugural voyage was a triumphal step forward in India's long, often tortuous quest to deploy atomic weapons at sea. Until now India has relied on aircraft armed with nuclear bombs, which might struggle to break through air defences, or land-based missiles, which are at risk of being spotted by gimlet-eyed satellites. Hiding missiles in the ocean solves these problems, giving India more confidence that its forces could survive a nuclear attack from China or Pakistan, and hit back.

But managing such weapons is not easy. One difficulty is ensuring that a submarine can receive orders without giving away its location. India has been building low-frequency radio stations, which use large antennas to propel signals underwater, for this purpose. Yet these are also vulnerable to attack, which is why some nuclear-armed states use airborne transmitters as well.

A second hitch is that the K-15 missiles aboard the *Arihant* can only fly a puny 750km, which means that the submarine would have to park itself dangerously close to China's coastline to have a hope of striking big cities. Longer-range missiles, which could be fired from the safety of Indian waters, are in the works. But bigger missiles, and more of them, necessitate a bigger hull. That, in turn, requires that the nuclear-powered subs be fitted with bigger reactors—a fiendish technical challenge.

A third problem is keeping the *Arihant* safe. Nuclear submarines can only do their job if they can slip silently out of port and into the oceans. They are typically chaperoned by leaner attack submarines. But admirals complain that the navy, whose share of the defence budget has dwindled to 15%, has just 13 of these. The delivery of new French attack subs has been delayed.

Meanwhile India's nuclear arsenal is swelling. A recent report by the Bulletin of the Atomic Scientists, a research organisation, estimates that it has 130-140 nuclear warheads, with enough fissile material for 60-70 more. The stockpile, though smaller than Pakistan's and half the size of China's, has roughly doubled since 2010. Many of the new warheads will go to sea. A second nuclear submarine, the *Arighant*, is nearing completion, and a third is in the works. Others are expected to follow. Indian sailors should enjoy the fresh air while they can.

This article appeared in the Asia section of the print edition under the headline "Sub ordination"

Banyan

India's ruling party's penchant for renaming things is un-Indian

The BJP is undermining the country's founding principles

Print edition | Asia Nov 17th 2018

FOR GENERATIONS the high-collared waistcoats beloved of Indian politicians have looked much the same. But are they Nehru jackets or, as salesmen now label them, Modi jackets? The ones popularised by India's first prime minister, Jawaharlal Nehru, tended to come in plain charcoal, ivory or, at a daring limit, a rusty maroon. Narendra Modi, the current prime minister, inclines instead to vigorous patterns or solid, bright pastels. The particular hue he favours, the one that appears in countless posters touting every official project from e-government to subsidised cooking gas, is orange. The message is unsubtle. Orange is not only a stripe on India's tricolour flag; it also evokes the saffron robes of Hindu priests, and so symbolises a renaissance of India's ancient faith. In effect, Mr Modi has rebranded a standard item of apparel in keeping with his Hindu-nationalist political project.

With just months to go before what looks set to be a suspenseful general election, his Bharatiya Janata Party (BJP) seems keen on stamping its brand on other things. One way is by simply changing the names of places, from streets and stadiums to towns and districts. As might be expected of a politician who actually wears a saffron robe, Yogi Adityanath, a Hindu holy man chosen last year by Mr Modi as chief minister of India's most populous state, Uttar Pradesh, is an enthusiast.

Even as a mere MP, the monk-turned-politician liked to redub places in his district, Gorakhpur, with names more to his liking. Urdu Bazaar, a shopping street, became Hindi Bazaar. Ali Nagar morphed into Arya Nagar, Islampur into Ishwarpur. If he had a chance, he said, he would even rename the Taj Mahal, the 17th-century tomb of a Mughal queen that is Uttar Pradesh's most iconic monument, as Ram Mahal, after the Hindu god.

Mr Adityanath has not gone that far, yet. As chief minister the biggest thing he has renamed is the district of Faizabad, which used to be named after its biggest city. It is now called Ayodhya, after a smaller town that happens to be the legendary birthplace of Lord Ram, and the focus of an ugly dispute since a right-wing mob tore down an old mosque in 1992 in order to "rebuild" a Hindu temple that it claimed had once stood there. Mr Adityanath has also, without consulting its inhabitants, turned the city of Allahabad (population 1.2m) into Prayagraj.

For centuries, it is true, a great Hindu festival has been held at a place on the outskirts of Allahabad called Prayag, in the flood plain where the Yamuna and Ganges rivers meet. But historians say that Allahabad itself rose around a fort built by the ecumenical emperor Akbar in the 16th century. He called it Ilahabas, meaning "Abode of the God," in reference to his dream of blending Hinduism and Islam into a syncretic *din-i-ilahi* or Godly Faith.

Alas, dreams of blending faiths seem very out of fashion now. Inspired by Mr Adityanath, other right-wing politicians are calling for Ahmedabad (population 6m) to become Karnavati, Hyderabad (population 7m) to become Bhagyanagar and even for Delhi, India's capital, to "revert" to Indraprastha, the name of one of the many cities that have flourished and died near the same site.

The aim is clear: to erase traces of the nearly thousand-year stretch when Muslim dynasties ruled large parts of the country. If there were any doubt, Sambit Patra, official national spokesman for the BJP, put things plainly in an appearance on a talk show. After explaining how Muslims had long oppressed Hindus, he barked at a protesting Muslim politician to shut up, "or else I will rename a mosque after Lord Vishnu."

The name-changing fervour has provoked pride in some and anger in others, as well as lots of mockery. After Mr Adityanath renamed Mughalsarai, a busy railway station, as Deen Dayal Upadhyaya Junction, one wit asked whether Mughlai chicken, a creamy curry, would also have to be named after the BJP ideologue. But the renaming binge has serious implications. This is not just because it suggests that, in the coming election, the BJP will revert to its tried and tested strategy of stirring resentment among the 80% Hindu majority while blaming opponents for "appeasing" the 14% Muslim minority. In the longer term, the "Sanskritising" of geography threatens to change the very nature of India. Since partition in 1947, its identity as a secular and inclusive country has made an inspiring contrast to the enforced uniformity of all-Muslim Pakistan. With that difference disappearing, the pair look more and more alike.

This article appeared in the Asia section of the print edition under the headline "Welcome to Hindustan"

Fiji's election

Fiji's coup-makers act democratic

Two former military men go head to head in the polls

Print edition | Asia Nov 17th 2018

PERPETRATORS OF COUPS tend to do badly at the polls. Those who start their political careers as soldiers seldom adjust easily to life as elected politicians. Frank Bainimarama seems to be an exception. A former head of the armed forces who seized power in a coup in 2006, he won a general election on November 14th, for the second time in a row, with 52% of the vote, according to partial results released the next day. He may have been helped by the fact that his main opponent was another former coup leader and army commander, Sitiveni Rabuka, who started Fiji's cycle of coups and counter-coups back in 1987.

Despite his civilian clothing, Mr Bainimarama has not entirely shed his authoritarian instincts. He bullies journalists and uses an anti-corruption agency to hound rivals. Before the election he said he hoped for a parliament devoid of opposition. On that, at least, he will be disappointed.

Mr Bainimarama can boast of some genuine successes. He and his powerful attorney-general, Aiyaz Sayed-Khaiyum, have sought to modernise Fiji and defuse tensions between indigenous Fijians and those of Indian descent. They have built roads and bridges, declared Fiji a secular state and abolished the powerful Great Council of Chiefs. They have declared all citizens to be Fijian, a term not previously used for ethnic Indians.

Mr Rabuka says he accepts some of those changes. But he accuses Mr Bainimarama of bias against their fellow i-Taukei, "the people of the land" (ie, indigenous Fijians), and gives voice to their sense of victimhood. Before the election he brought together the often quarrelsome heads of Fiji's three traditional confederacies in an unusual display of indigenous unity.

Indigenous Fijians make up nearly two-thirds of the population, and so dominate at the ballot box. At the time of the coup in 1987, Fijians of Indian descent made up nearly half the population. But since then many have emigrated to New Zealand, Australia and North America. They now probably number less than a third. At the previous poll, in 2014, Mr Bainimarama romped home with 59% of the vote, strongly backed by Fijian Indians and by about half of the indigenous people. This time, his indigenous support has slipped a bit but his Indian base has stayed solid.

The electoral law also helped. The country is treated as a single constituency, with a 5% threshold to win a seat. Few independents bother to run. A sudoku-style ballot paper features only numbers, each representing a candidate. Political parties are invisible. The system rewards Mr Bainimarama's national popularity, while hurting opposition parties with regional bases.

Mr Rabuka is a divisive figure, disliked not only by the victims of his coup, but also by many in his own party. In a televised debate with Mr Bainimarama just before the election, he struggled to defend his record as prime minister in the 1990s, when the National Bank of Fiji collapsed. He was also interrogated on his role in a shambolic coup in 2000 and during a mutiny later in the same year. On both occasions he was accused of seeking to usurp Mr Bainimarama as head of the armed forces. Pandering to indigenous voters, the two rivals upbraided each other for having sold off indigenous land to develop tourist resorts and for incurring too much debt to China.

The risk of yet another coup is always lurking, although the current commander has promised not to intervene. Mr Rabuka challenged Mr Bainimarama to swear that, if he lost the election, he would not instigate a coup. On that score Mr Bainimarama was cagey and evasive. Now that he has won, Mr Bainimarama's sincerity as a democrat will not have to be tested.

This article appeared in the Asia section of the print edition under the headline "Strongman v strongman"

Wigs v heels

Imelda Marcos is found guilty of corruption, but not imprisoned

The former Philippine first lady has not exhausted her appeals

Print edition | Asia Nov 17th 2018

SURVIVORS OF THE tyrannical and rapacious regime of Ferdinand Marcos, strongman of the Philippines from 1965 to 1986, are rejoicing at the prospect of his widow, Imelda—famous for her vast shoe collection—soon having to don prison-issue plastic sandals. On November 9th the special court that tries cases of official corruption found Mrs Marcos guilty of spiriting $200m to Switzerland while she was a congresswoman and then governor of Manila under her husband. The court sentenced her to 77 years' imprisonment, and ordered her arrest. But the joy among those who joined the People Power revolution of 1986, which overthrew what they called the conjugal dictatorship of Marcos and the former beauty queen, is premature.

Mrs Marcos has said she will appeal against the conviction. While that appeal is pending, she cannot be arrested. Since the wheels of Philippine justice grind slowly, she will be a free woman for a good while yet, even if the verdict is eventually upheld. It was in 1991 that the court first began hearing the charges on which she has at last been convicted. A final decision may still be years away.

The former First Lady is 89. Even assuming that she lives long enough to exhaust her appeals, she would have good reason to hope for a presidential pardon. Gloria Arroyo, a former president, backed the prosecution of her predecessor, Joseph Estrada, but pardoned him soon after, when he was just 70. Mr Estrada had been overthrown, just like Marcos, by a "people power" uprising that centred on complaints about corruption. He spent less than seven years in detention, mostly under house arrest, and later made a political comeback as mayor of Manila.

The current president, Rodrigo Duterte, has already shown some sympathy for the deceased dictator's family, allowing the burial of Marcos's remains in Manila's "Heroes' Cemetery" despite opposition from victims of his regime. When Mr Duterte was elected president, Mrs Marcos's son, Ferdinand Marcos junior, aka Bongbong, came within a whisker of winning the vice-presidency (voters cast separate ballots for the two posts in the Philippines). Mr Duterte has spoken of Bongbong as presidential material. He may not want to get on the wrong side of the family, in case he ever needs help from them. Or he may just be heeding Mrs Marcos's frequent warning: "Hell has a special place for persecutors of widows and orphans."

This article appeared in the Asia section of the print edition under the headline "Wigs v heels"

Academic research
Looking to beat the world

Seizing the laurels

Tsinghua University may soon top the world league in science research

In China, its rapid rise is not unique

Print edition | China Nov 17th 2018

TSINGHUA UNIVERSITY was born out of national humiliation. It was founded in the aftermath of the Boxer Rebellion—an anti-foreign uprising in 1900—and paid for with the reparations exacted from China by America. Now Tsinghua is a major source of Chinese pride as it contends for accolades for research in science, technology, engineering and maths (STEM). In 2013-16 it produced more of the top 1% most highly cited papers in maths and computing, and more of the 10% most highly cited papers in STEM, than any other university in the world, reckons Simon Marginson of Oxford University (see chart). The Massachusetts Institute of Technology (MIT) still leads in the top 1% of STEM papers, but Mr Marginson says Tsinghua is on track to be "number one in five years or less".

Tsinghua and Peking University are modelled on Western research universities. The two are also neighbours and rivals, China's Oxford and Cambridge. Tsinghua is the conventional, practical one—the alma mater of many of the country's leaders, including the current one, Xi Jinping, and Hu Jintao, his predecessor. Peking University is the home of poets, philosophers and rebels; Mao Zedong worked in the library, and the university was at the forefront of the Tiananmen Square protests of 1989. Like other Chinese universities, the two foremost ones all but ceased to function during Mao's Cultural Revolution of the 1960s and 1970s; rival Red Guard factions waged bloody struggles for control of Tsinghua. But both quickly rebounded. Tsinghua retained its scientific bent and became the principal beneficiary of the country's boom in STEM research.

Seizing the laurels

Since 1995 the central government has mounted a series of efforts, involving billions of dollars in spending, to turn China's best universities into world-class ones. First came Project 211, which aimed to improve around 100 institutions to make them fit for the 21st century. The latest incarnation of this scheme is the Double First Class Plan, which was launched in 2015. Its goal is to foster world standards in two groups, one consisting of leading universities and the other of select departments in a wider range of institutions.

Money is the lever. The funding system motivates universities to produce top-class research. Universities, in turn, give their academics an incentive to do so. A study by three Chinese researchers, published last year, noted that payments for getting a paper published had risen steadily from the $25 that was offered nearly 30 years ago by Nanjing University, the first university to give such rewards. Now such bonuses range up to $165,000—20 times the annual salary of an average academic—for a paper in *Nature*, depending on the institution. The system has responded. China's share of STEMpapers in Scopus, the world's biggest catalogue of abstracts and citations, rose from 4% in 2000 to 19% in 2016, more than America's contribution.

Tsinghua creams off the best researchers. And, like China itself, when it comes to scoring, it benefits from its size. PhD students are the workforce of the research business. In 2017 the university awarded 1,385 doctorates (some recipients are pictured), compared with 645 conferred by MIT. But numbers are not the main reason for Tsinghua's success. Yang Bin, its vice-president, says "the most important moment in the development of Tsinghua" was in 1978, when Deng Xiaoping said China would send larger numbers of students abroad. "We need to send tens of thousands," Deng said. "This is one of the key ways of...improving our level of scientific education." Officials worried that few of them would return, but Deng insisted that enough would. He was right.

Forty years on, Tsinghua and the country's other top universities are reaping the rewards. The return flow of highly trained people is gathering pace. The government has provided extra resources to attract them. Tsinghua cannot match the best American packages, but it can offer six-figure dollar salaries—and the opportunity for young parents to bring up their children in their own culture. Qian Yingyi (Columbia, Yale, Harvard, Stanford, Berkeley and subsequently dean of Tsinghua's school of economics and management) and Shi Yigong (dean of Tsinghua's school of life sciences; previously at Johns Hopkins and Princeton) are among the star returnees who have transformed the university. "Those intellectuals played a very important role, changing the whole climate, raising standards," says Mr Yang.

Reforms in staff management have helped, too. In 2012, in the school of which he was dean, Mr Qian replaced a personnel system dominated by personal contacts and political clout with an American-style tenure track: six years of research, then a review of performance, mainly based on published work, after which academics were hired permanently or shown the door. This approach then spread through the university. The result, says Mr Yang, is that "people work terribly hard here: the lights are on all night, people work all weekend", hoping to get papers into leading journals. The speed with which their efforts have dragged Tsinghua up the rankings is astonishing. In 2006-09 the university was 66th in the maths-and-computing-research league table. Now it is top.

But there are worries about Tsinghua's direction—particularly among engineers, who used to dominate the university. Their applied skills have played a crucial role in China's modernisation, but because they produce relatively little cutting-edge theoretical research, they have been losing out under the new regime. Engineers complain that they struggle to get funding or promotion, and that the focus on research neglects their contribution to society.

Others worry that the university is still not cutting-edge enough. "Many Japanese people have won Nobel prizes," says Mr Yang. "People are saying: 'Why not the Chinese?'" Mainland China has only one Nobel prize in science, awarded to Tu Youyou for discovering an anti-malarial drug in the 1970s. Japan has 23; America has 282. Mr Yang reckons that the pressure to publish is problematic. "It's good for short-term results, but not for really big things, for unorthodox thinking. Too many people have the attitude of followers. They're not entrepreneurial enough. I say: Start some new field. Don't care too much about recognition from peers. Risk your whole career." Persuading researchers to think radically instead of incrementally would mean changing the way the system incentivises them.

And while China's universities forge ahead in the hard-science league table, they seem less likely to triumph in the social sciences. One problem is language. All the world's leading journals are published in English. That matters less for hard scientists, who communicate mostly in symbols, than for social scientists, who use many more words. An academic in Tsinghua's education department says Chinese social scientists complain that their best ideas are difficult to translate. "Writing papers for English-language journals is like competing in an exam that is set by the West," she quotes them as lamenting.

The constraints on free speech, increasingly felt in universities, are another reason why China's STEM triumph may not spread to other disciplines. In 2013 the government told universities that seven topics, including universal values, judicial independence and the past mistakes of the Communist Party, were off-limits. "At a great university," says William Kirby, professor of China studies at Harvard, "there isn't one thing that can't be talked about, let alone seven."

This article appeared in the China section of the print edition under the headline "Looking to beat the world"

No place for the disloyal

In China, political screening of university entrants causes an uproar

A state-controlled newspaper attacks it, too

Print edition | China Nov 17th 2018

"ARE THEY retarded or just plain evil?" So asked a scathing commentary that was circulated recently through China's social media. The author was referring to officials at the education bureau in Chongqing, a south-western region. On November 2nd they had published a document saying that students wishing to take the university-entrance exam must undergo *zheng shen*, or political vetting. Those who failed this screening would be barred from taking the test.

What was striking was not so much Chongqing's reminder that students must toe the Communist Party's line, but the outcry this triggered in spite of strenuous efforts by China's leader, Xi Jinping, to keep dissent in check. Parents in Chongqing and farther afield expressed incredulity. The term *zhengshen* briefly lit up Weibo, China's equivalent of Twitter, before references to it were scrubbed by censors.

Zhengshen has a long history. During Mao's rule, those sitting the exams were disqualified even for having relatives with dodgy views or wealthy class backgrounds. In the late 1970s Deng Xiaoping decreed that family ties should no longer be an impediment to university entry. Milder forms of vetting have continued. But in practice the screening of school-leavers has usually been "just a formality", says Zeng Xiaodong of Beijing Normal University. Ms Zeng says she cannot recall a single case in China of a student flunking the political test (though it is unlikely that such cases would be reported in the state-controlled media or publicised by family members).

So why the outcry? One reason is that the word is associated with the totalitarian controls of the Mao era. In the post-Mao period it has been largely replaced in official parlance by euphemisms such as testing a candidate's "political and ideological qualities". On November 8th officials in Chongqing issued an apology. They said using the word *zhengshen* had been a mistake. All that was meant was that candidates for the entrance exam must undergo ideological screening as long ago ordered by the central government.

A newspaper in the capital, *Beijing News*, went further—attacking *zhengshen* itself. It called on the government to abolish all "unreasonable and unnecessary" conditions for university admission. The screening of journalists may not be going quite as well as the party would like.

This article appeared in the China section of the print edition under the headline "No place for the disloyal"

Chaguan

China’s internet, despite controls, offers fame and fortune to some

How a small-town boy is trying to make it big in livestreaming

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BEFORE HU JINZHOU began his climb into the foothills of fame, as a professional player of computer games in China’s multi-billion-dollar livestream industry, he was a schoolboy tearaway. He got into playground fights, tried to sell his textbooks to classmates and sneaked out after dark for some online gaming.

Back then, Mr Hu’s reluctance to conform was a drama played out on a small stage. “Our hair went white trying to straighten him out,” sighs his stepfather, Cai Hongbo, recalling nights spent hunting for the boy in the internet cafés of Dangyang, a factory town in Hubei, a central province. Quick-witted and popular, if not with teachers, Mr Hu shrugged off efforts to control him. “We’d get him to kneel…” recalls his mother, Zhao Aiying. “…To write letters of apology,” chips in her husband at their foot-massage parlour on a busy market street, where traders sell roasted nuts, vegetables of the brightest green and fish from the nearby Yangzi river. Their son embarked on a life of menial, migrant jobs.

Today he is 20 and his roguish charm is a marketable commodity, offering substantial rewards but also risks on a national stage. At its most commercial, China’s internet can look like online life elsewhere. It is not. Behind China’s Great Firewall of internet censorship, even online entertainment must bow to political diktats.

“Boss Cai”, as Mr Hu is known on online, has for the past year played computer games in a glass-walled studio in Shanghai for eight hours a day, six days a week, showing off his virtual fighting skills and wisecracking to fans, 140,000 of whom follow him on social media. Add together Boss Cai’s salary from Chuxin, the agency that employs him, payments from internet platforms that broadcast his performances and his share of the online gifts that followers send him (the equivalent of tips thrown into a busker’s hat), and he can make 50,000 yuan ($7,190) in a month—more than many former classmates earn in a year. His parents are proud of his earning power—though his father needed assuring that his son had not become an exotic dancer. “He thought it was the type of livestream where you dance and shake your bum,” explains Boss Cai. “I said there were boys who livestream, too.”

Still, it is not a conventional career. Some children in Dangyang have seen Boss Cai online and are wide-eyed at his celebrity. Their parents can be sniffier. “They’ll say, there aren’t a lot of geniuses made by playing games,” his mother reports.

Parental disapproval helps explain why few livestreaming stars come from so-called first- or second-tier cities, such as Beijing or provincial capitals, admits Dai Qianwen, Boss Cai’s real-life boss at Chuxin. Big cities supply much of the livestreaming audience. Take a subway or grab lunch in Chongqing or Guangzhou, and a startling number of those around will be gazing at a smartphone. Many young men will be watching livestreamers playing such games as “Honour of Kings” or “PlayerUnknown’s Battlegrounds”. There are female gamers, though livestream firms mostly try to attract female viewers with video of young women singing, dancing and cracking jokes in winsome simulacra of teenage bedrooms. For that homelike feel, Chuxin’s female stars broadcast from company apartments. (Creepily, a female livestreamer’s income can come mainly from two or three big-spending male fans.) But after measured doses of online fun, big-city kids are expected to hit the books and cram for college.

Many livestreamers come from fourth- or fifth-tier cities with few opportunities, says Ms Dai. In addition to placing recruitment advertisements online, Chuxin sends scouts to schools and internet bars to find talent as young as 16. The firm prefers to recruit unknowns who can be moulded into stars, she says. Lank-haired and slumped in padded swivel-chairs, young performers at Chuxin’s studios in Shanghai are kept supplied with witty lines, snacks and energy drinks. Some take naps on narrow beds in a corner. A regional link can be a crowd-pleaser. Girls from Sichuan are famously pretty, says Ms Dai; north-easterners are funny; and the mangled vowels of the Hunan and Fujian accents are cute.

Only room for one party host round here

There are greater risks with online fame than the disapproval of neighbours. In October Yang Kaili, a livestreamer with tens of millions of followers, was detained for five days for singing a few bars of China’s national anthem in a “disrespectful” manner online, a criminal offence. She apologised and promised to embark on a course of patriotic education. To China’s rulers, it is useful when citizens are distracted from stressful lives by smartphones showing larky videos or wholesome livestreams. But those seeking prominence of any sort—including producers of real-world or virtual content—must know their place. Chuxin reminds its stable of young performers that big stars have been ruined by online comments made when they were small fry, but which were unearthed years later. The big Chinese livestream platforms warn Chuxin when sensitive topics are trending online, and will shut down performers who stray. Even a newcomer like Boss Cai feels pressure. “The minute you get famous, all eyes are on you,” he says carefully.

The result is a heavily policed version of non-conformism. Whenever Boss Cai is playing, his audience includes Chuxin staff assigned to manage him, monitors from the livestream platform that hosts him, unknown agents of the government, and his mother back in Dangyang (at least once a day, she admits). Asked why she watches her son on her smartphone while he engages in virtual combat, Ms Zhao quietly explains: "I just miss him."

Boss Cai calls his life both painfully tiring and fun. Is it lonely, he is asked? His bravado fades for a moment. "Exceptionally lonely," he answers. In China, individualism has a cost.

This article appeared in the China section of the print edition under the headline "The meaning of fame"

From ceasefire to crisis in Israel
An election looms

From ceasefire to crisis

An election looms in Israel

A crisis over Gaza threatens Binyamin Netanyahu

Print edition | Middle East and Africa Nov 17th 2018

WHEN AVIGDOR LIEBERMAN became Israel's defence minister in 2016, he vowed to eliminate the leader of Hamas within 48 hours. Two years later Ismail Haniyeh is still alive—and may have just helped eliminate Israel's government. On November 14th Mr Lieberman (above, left) resigned, withdrawing his party from the ruling coalition over its supposed meekness in the latest flare-up in the Gaza Strip.

That leaves the prime minister, Binyamin Netanyahu (above, right), with a one-seat majority in the Knesset. He may lose that if other right-wing parties follow Mr Lieberman's example. The general election scheduled for November next year is likely to be brought forward to the spring. A week that began with efforts to bring calm to Gaza has sparked a coalition crisis in Israel.

After more than a decade under an Israeli and Egyptian blockade, Gaza seems as intractable as ever. Conditions for its 2m people are dire. Poverty is widespread; infrastructure is crumbling. Since March large crowds have been protesting every week at the border fence. Scores have been killed by Israeli snipers. Flaming kites launched from Gaza have burned thousands of acres of Israeli land. Frequent exchanges of rockets and air strikes threaten to turn into a full-scale war. In the past decade there have been three.

Mr Netanyahu has sought a deal to prevent a fourth war. On November 8th Israel let a Qatari envoy into Gaza carrying three suitcases stuffed with $15m in notes. The cash was distributed to civil servants. Many had not been paid since the summer. Israel also allowed lorries laden with diesel oil, also donated by Qatar, to enter the fuel-starved strip, letting its sole power plant restart a second turbine. Gazans now get at least eight hours of electricity a day. That is an improvement, given that they endured barely four hours in the summer. In return for these meagre comforts, Hamas agreed to limit the protests.

Blood money disdained

Many Israelis disliked the deal, seeing it as akin to paying protection money to the militants. But Mr Netanyahu believed he could withstand the criticism. Keeping Gaza out of the headlines would reduce the pressure to make concessions to the Palestinians, which he has spent his career trying to avoid. On November 11th, while visiting Paris for Armistice Day, Mr Netanyahu said the deal would prevent "unnecessary war" and a humanitarian crisis in Gaza.

The calm lasted only a few hours. That evening a squad of Israeli soldiers in civilian clothes, some dressed as women, ran into gunmen from Hamas, the Islamist movement that rules Gaza, during an intelligence mission there. A firefight ensued, with a car chase to the border. The commandos called in air strikes and helicopters to extract them. Seven Palestinian militants and an Israeli officer were killed. Hamas and its allies fired 460 rockets and mortars at Israel; Israel struck 160 buildings in Gaza. Eight more Palestinians were reported killed in Gaza, and one in Israel.

Egypt soon brokered a truce. Neither side wanted a war. Mr Netanyahu was bent on the deal, as was Hamas, which hopes better conditions in Gaza will sustain its unpopular rule. But Mr Netanyahu's allies were furious. They wanted a stronger reaction. In Sderot, a town close to the border with Gaza, hundreds of residents came out in protest, burning tyres. Mr Lieberman claims to have advocated a much tougher line on Gaza, one opposed by Mr Netanyahu and Israel's generals. Announcing his resignation, he accused his boss of a "surrender to terror". The truce, he said, would bring short-term quiet at the expense of Israel's real security.

The leader of the right-wing Jewish Home party, Naftali Bennett, covets the defence ministry. But the prime minister is loth to elevate one of his chief rivals. Instead Mr Netanyahu will take over the post himself, adding it to his jobs as foreign minister and head of government. As a result, Mr Bennett seems likely to quit the coalition and force an election.

Mr Netanyahu had hoped to start the election campaign on his own terms. In July the Knesset passed a law declaring Israel the nation-state of the Jewish people. Though largely symbolic, it alienated Israel's non-Jewish minorities and drew scorn abroad. But it pleased his base. Last month the prime minister visited Oman, which has no official relations with Israel, and met its sultan. He hoped to campaign as a statesman and staunch nationalist who has brought peace and quiet to southern Israel. Instead he is having to fend off attacks on his security record.

But Mr Lieberman will not have an easy time either. As defence minister, he endorsed many of the decisions he now criticises. Mr Bennett has attacked his record for months. All three will compete for the same right-wing vote. Mr Lieberman's

Yisrael Beiteinu party, which draws support from an ageing crop of Russian émigrés, is polling poorly. His attack on Mr Netanyahu's policy in Gaza, although well timed, feels like a desperate bid for survival.

After a decade in power, Mr Netanyahu could soon surpass David Ben-Gurion's record as Israel's longest-serving leader. With a divided field and an uninspired opposition, he may still win the next election. But corruption charges have cast a shadow over his administration. His list of challengers is long and growing. For years they avoided attacking him directly, thinking they would lose. But Mr Netanyahu may no longer have that weapon of deterrence.

This article appeared in the Middle East and Africa section of the print edition under the headline "An election looms"

A new type of nip and tuck

Designer vaginas are all the rage in Lebanon

Some women seek plastic surgery for a smoother look

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"IN THE GULF the ladies want a big butt and a big vagina. Not the Lebanese. They want smaller vaginas. They are more like the Europeans: they want the labia inside." So says Dr Hussein Hashim, a plastic surgeon in Beirut, as he sits behind a desk scattered with buttock implants. He and his colleagues perform surgeries with names like "The Barbie Look" or "The Beverly Hills Rejuvenation"—operations that trim the inner labia, tighten the vagina or reduce the fold of skin covering the clitoris.

Labiaplasty is the fastest-growing cosmetic surgery in the world. Lebanese women, who have a penchant for biological improvement, are particularly keen on it. Only Spain and Brazil do more vaginal procedures per head. "Beauty used to be all about the face. Now it's about the body. Buttocks and vaginas are the big thing," says Elie Abdel Hak of Lebanon's plastic-surgery society.

The rise in women who want so-called designer vaginas has confounded researchers. Some say the Brazilian bikini wax has made women more conscious of their vulvae. Others blame online pornography for idealising the vagina and depressing women who think their genitals are abnormal. They don't want their vaginas showing through their shorts or bikinis, says Mr Hak. "They've become ashamed." Tighter clothes, childbirth, irritation during exercise and insults from men also play a role, studies suggest.

In Lebanon women are often influenced by magazines featuring slim yet voluptuous women. A nip and tuck is relatively cheap (a labiaplasty costs about $1,500). Girls as young as 14 have nose jobs, often brought to the clinic by their mothers. But a labiaplasty carries risks. America's Food and Drug Administration has warned that some of the tools used to destroy and reshape vaginal tissue are dangerous. Lasers used to "rejuvenate the vagina" may cause burns, scarring or pain during sex.

More study is needed, but in general the satisfaction rate is high and the complication rate low. Lebanese women who have undergone the procedure certainly seem happy. "It's amazing," says one. "I'm like a baby now."

This article appeared in the Middle East and Africa section of the print edition under the headline "A new type of nip and tuck"

Up a creek

Conflict in the Gulf is hurting Dubai

Foreigners are leaving the Middle East's business hub

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DUBAI IS UNLIKE most of the Gulf's sheikhdoms. Its economy thrives not on oil, but on tourism, trade and finance. Its patch of desert hosts one of the world's busiest airports, its tallest skyscraper and the region's biggest port at Jebel Ali. The pace of construction is dizzying. The emirate's GDP is projected to grow by 3.3% in 2018, up from 2.8% last year.

Below the rosy top-line figures, though, there are growing signs that Dubai is running into trouble. Rising oil prices created momentum in the short term, but "trends are downwards" over the long term, says Ehsan Khoman of MUFG, a bank. He and other analysts say an oversaturated property market and regional conflict are the biggest causes for concern.

Dubai's stockmarket has slumped by 20% year-on-year and is the worst-performer in the Middle East. The recent collapse of Abraaj Group, the largest firm in the Dubai International Financial Centre, has jolted confidence. New business licences are far fewer and employment is shrinking for the first time on record. The emirate withholds statistics needed for a sovereign-credit rating, but state-owned companies provide a bellwether. In September S&P, a credit-rating agency, downgraded two, citing a weakening economy.

Foreigners make up more than 90% of the population, but schools for expatriates are closing. Removal companies say departures far outstrip arrivals. Real-estate agents bemoan a rash of empty flats, even as developers build more. Falling rents made Dubai's property market the world's second-worst performer in 2017. Shares in Emaar Properties, the emirate's biggest developer, have sunk by 38% in a year.

Banks learnt to be more prudent after a debt-driven crisis in 2009, when Dubai needed a $20bn bail-out (equal to about a quarter of its GDP at the time) from Abu Dhabi, the richest fellow member of the United Arab Emirates (UAE). Analysts do not expect another such crisis, but they still worry about the exposure of regional banks to property. Some would have gone bankrupt were it not for help from the central bank, says an asset manager.

Rising oil prices (until recent weeks), a recovery in Saudi Arabia, the Gulf's biggest economy, and construction related to the next World Expo, which Dubai will host in 2020, help explain why firms say they are optimistic. But they also worry about protracted conflicts in the Gulf. Dubai, long a haven in the volatile region, has lately been caught up in the trouble. In August officials were forced to deny claims made by Yemeni rebels to have hit Dubai's airport with armed drones.

Dubai is moored to the bellicose policies of Muhammad bin Zayed, the crown prince of Abu Dhabi and de facto ruler of the UAE. He and Muhammad bin Salman, the crown prince of Saudi Arabia, have not only led the war in Yemen but also a 17-month-old blockade of Qatar. As a result, Dubai lost a trading partner. Flights connecting the busy airport in Doha, Qatar's capital, to Dubai have been grounded. Qatar's imports, once routed through Jebel Ali, now go direct (or via Oman). Rather than share the business generated by Qatar's hosting of the World Cup in 2022, the UAE is trying to scuttle the tournament.

Dubai's profitable relationship with Iran has been similarly disrupted. The emirate earned big port fees from the $17bn trade in re-exports to Iran. But America's re-imposition of sanctions, with the support of the two belligerent princes, has scared away business. The dhows that shipped goods across the Persian Gulf every week now go once a month. Dubai has become less attractive as a back door to Iran. In May American and Emirati monitors dismantled a currency-exchange network in Dubai used by the Quds Force, the foreign wing of Iran's Revolutionary Guard Corps. America has added Dubai to its anti-money-laundering watch-list.

With Muhammad bin Zayed calling the shots abroad, Dubai's emir, Muhammad bin Rashid, has introduced stimulus measures at home. Over the summer he froze private-school fees and cut levies. In order to keep more foreigners from leaving, he introduced longer-term work visas and loosened restrictions on business ownership. There is hope that Chinese investors will start piling in. China, for its part, is developing the Omani port of Duqm, which could allow ships to bypass Jebel Ali.

Optimists point to opportunities resulting from the UAE's foreign adventures. The capture of ports in Yemen has opened new lines of commerce and might eventually benefit DP World, a port operator owned by Dubai. An alliance with General Khalifa Haftar, a Libyan warlord, could provide similar prospects on the Mediterranean. Emirati footholds in Somaliland could lead to more business in Ethiopia's landlocked market. Quiet ties to the regime of Bashar al-Assad in Syria could lead to reconstruction contracts. But as the UAE becomes more entangled in the region's political fights, so does Dubai. The emirate long benefited from the region's distress. Now it risks becoming a victim of it.

This article appeared in the Middle East and Africa section of the print edition under the headline "Up a creek"

Making a militant

A mysterious Shia group has Nigeria worried

But the army's brutal tactics risk making matters worse

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THE STREETS are quiet and the tear gas has dissipated, but no one knows for sure how many protesters were killed in Abuja, Nigeria's capital, at the end of October. The army claims six people died when soldiers stopped demonstrators from overrunning a checkpoint. Human-rights groups say at least 45 were killed—and that the demonstrations were peaceful.

More mystery surrounds the group that organised the protests, the Islamic Movement in Nigeria (IMN). It is known to be made up mostly of Shia Muslims. Analysts count millions of members. Many gathered in Abuja to demand the release of their leader, Ibrahim Zakzaky, who was jailed three years ago. He preaches non-violence, but the army is testing the IMN's restraint. Some fear the government is creating a new Boko Haram, the Sunni jihadists waging a bloody insurgency in the north.

There were few Shias in Nigeria 40 years ago. Mr Zakzaky is almost single-handedly responsible for changing that. Entranced by the Iranian revolution, he converted from Sunni Islam to Shiism in 1979, then went about converting others. Today analysts think Nigeria has up to 3m Shias; nearly all are in the IMN. They form a small minority of Nigeria's roughly 180m population, split between Muslims (mostly Sunnis), who dominate the north, and Christians, who dominate in the south.

Mr Zakzaky has amassed followers in the impoverished north by railing against the government's ineffectiveness and corruption (while extolling the virtues of Iran). Many are drawn to the IMN's schools and welfare schemes. But it has evolved into something of a messianic cult, centred around Mr Zakzaky. Similar groups have a long history of stirring up trouble in the north. The IMN's rise coincided with that of the Yan Tatsine cult, which followed a preacher called Maitatsine and clashed with the government in the 1970s and 80s. Now Boko Haram, which is much smaller than the IMN, torments the state.

For most of its existence, the IMN was largely ignored by the government. That changed when members blocked the Nigerian army chief's convoy in the state of Kaduna in 2015. At least 300 of them were killed when soldiers cleared the road, say human-rights groups. (It is not clear if the soldiers were attacked.) Mr Zakzaky and his wife were injured, then arrested. For two years they were held without charge, despite a court order in 2016 to release them. In April they were charged, implausibly, with conspiracy to kill the army chief. The IMN, now banned in Kaduna, has vowed to keep protesting until Mr Zakzaky and his wife are released. On November 7th they were denied bail by Kaduna's high court.

The government's response is starting to resemble its tactics against the Yan Tatsine and the forerunner to Boko Haram, which caused both groups to become more violent. "The state is going about this in the wrong way," says John Campbell, a former American ambassador to Nigeria. He fears the IMN will abandon non-violence.

Others worry that the stand-off could descend into a proxy war. The IMN reportedly receives cash from Iran. The group denies this—and accuses the government of being in thrall to Saudi Arabia.

Things may be coming to a head. "We don't want to use violence," says Ibrahim Musa, a spokesman for the IMN. "But if they keep being violent against us, I don't know what will happen. Already some members are saying enough is enough."

This article appeared in the Middle East and Africa section of the print edition under the headline "Making a militant"

Bringing Jammeh to justice

The Gambia grapples with the legacy of its former dictator

A new truth commission hopes to expose past crimes

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WHEN JENEBA heard that Yahya Jammeh, then president of the Gambia, had found a cure for AIDS, she tossed away her medicines and signed up for his treatment programme. Every morning she and hundreds of others went to his private clinic. The president, dressed in white and often waving a Koran, would massage creams into her face. Nurses gave her a foul-tasting concoction. Soon patients began disappearing from their hospital beds. "We all suffered from terrible sickness and diarrhoea," says Jeneba (not her real name). "At least 20 of my friends died that way."

Mr Jammeh committed less bizarre crimes. His henchmen, known as "the junglers", routinely killed and tortured those who spoke out against the regime. But the big man lost an election in 2016 and, after trying to hold on to power, was forced out by the country's neighbours. Now Gambians are coming to grips with his 22-year rule. An 11-member Truth, Reparations and Reconciliation Commission (TRRC) was launched in October, tasked with laying bare the old regime's crimes, recommending prosecutions and paying compensation to victims. With a mandate lasting two years, its staff is already travelling up and down the country, which has over 2m people, collecting testimonies.

The TRRC faces big difficulties. Its executive secretary, Baba Jallow, says that, even with cash coming from the UN and Qatar, it will struggle to pay reparations to all deserving victims. Another issue is the Gambia's understaffed and ill-equipped judiciary, which is meant to hear cases recommended by the TRRC. The courts are already overloaded. They do not have audio-visual equipment, which would allow witnesses living abroad to testify.

Still, Mr Jallow hopes to change the way Gambians view their government. The word for president in the country's three main tribal languages translates as "king", he says. Mr Jammeh's face still adorns banknotes. Until last year, most Gambians lived their entire lives under his dictatorship. So the TRRC has launched a "Never Again" campaign to teach young people about democracy and prevent a repeat. It also wants to put Mr Jammeh on trial. But the odds are against that happening, at least in the short term. He lives in Equatorial Guinea under the protection of that country's dictator, Teodoro Obiang.

The Gambia's new and inexperienced president, Adama Barrow, has raised hopes in the country. But as the TRRC moves ahead with its business, some worry about Mr Barrow's judgment. He has the power to pardon criminals—and, for reasons that are unclear, recently tried to use it to free a Norwegian paedophile convicted of abusing six children in the Gambia. (The pardon was withdrawn after a public outcry.) "His government is still groping in the dark and working things out on a day-to-day basis," says Demba Jawo, a former communications minister.

Jeneba, meanwhile, is struggling. During her ordeal at Mr Jammeh's clinic, her husband left her. She is bringing up four children alone. One has HIV. She does not have much to say about the TRRC—but she wants to live long enough to see Mr Jammeh punished for his crimes.

Correction (November 19th 2018): *We previously stated that Baba Jallow was the chairman of the TRRC. He is actually its executive secretary. This has been amended.*

This article appeared in the Middle East and Africa section of the print edition under the headline "Bringing Jammeh to justice"

Sweet dreams

Cocoa processing is not a golden ticket for west Africa

It may smell good, but it is unlikely to bring much revenue or many jobs

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IN 1876 TETTEH QUARSHIE, a blacksmith, smuggled the first cocoa beans into Ghana, hidden beneath his box of tools. He is now celebrated as a national hero; his trees, planted in the hills outside Accra, are a tourist attraction. But did cocoa make him rich? "No," says a guide. "He harvested for the first time, and then he died."

West Africans have been seeking fortunes in cocoa ever since. Like Mr Quarshie, they have been short of luck. Ghana and Ivory Coast produce about 60% of the world's cocoa. Yet they mostly sell unprocessed beans. Their cocoa-export earnings are equivalent to less than a tenth of world chocolate sales. Power lies with a small group of trading firms and chocolate-makers in rich countries. "We send raw materials, they add value," sighs Owusu Afriyie Akoto, Ghana's agriculture minister.

Ghana and Ivory Coast are trying to claw up the value chain. Ghana is close to finalising a $600m loan from the African Development Bank, some of which is expected to support cocoa processing. It is also seeking Chinese help to build a state-run processing plant. Observers see cocoa as a test-case for African industrialisation. But it is not a very useful model. Cocoa is unlikely to bring much revenue or many jobs.

Granted, there have been some successes. About 21% of the world's cocoa is ground in Africa, up from 15% a decade ago. Ivory Coast grinds nearly a third of its beans and rivals the Netherlands as the world leader by volume. In Ghana's Tema "free zone", the smell of cocoa is in the air. Niche Cocoa, one of several processors there, ships cocoa butter, liquor and cake abroad, while selling chocolate at home. Customers cannot believe it is made in Ghana, chuckles Lloyd Ashiley, the plant manager.

Most of the processing in the region is done by the same multinationals that were already grinding cocoa in Europe or elsewhere. In Ghana, firms in free zones get tax breaks. The government, which dominates the cocoa industry, gives a discount on smaller, "light-crop" beans to encourage local processing. But when the cheap beans run out, machines sit idle. Nearly half of capacity is unused.

Gone are the days when George Cadbury built model villages for his British workers. A modern cocoa factory is a labyrinth of juddering metal, supervised from behind computer screens. The entire Ghanaian processing industry employs just a few thousand people. The capital investment required to create one job grinding cocoa in Ivory Coast could create over 300 jobs processing cashew nuts, said the World Bank in 2012.

The biggest problem is geography. Most of the value in chocolate comes from marketing and branding. And it is a big step up from grinding to chocolate-making. Consumers are mostly in Europe or North America. Transporting chocolate through tropical climates is a logistical headache. Chocolate consumption in Africa is low.

Some artisanal confectioners are breaking the mould. Instant Chocolat, an Ivorian firm, sells posh chocs in flavours including baobab and hibiscus. A Ghanaian brand named 57 Chocolate—for the year of the country's independence—stamps its bars with the Adinkra symbols more commonly found on Ashanti fabrics. Kimberly and Priscilla Addison, the sisters who founded it, hit upon the idea while living in chocoholic Switzerland. "Why not try to produce a chocolate brand that is uniquely African?" asks Kimberly. But these firms operate on a tiny scale. For wannabe chocolate-makers, alas, there is no golden ticket.

This article appeared in the Middle East and Africa section of the print edition under the headline "Sweet dreams"

France and Europe
Macron's long march

Macron's long march

Why and how Emmanuel Macron seeks to lead Europe

The president's ambitions are huge but necessary. Achieving them will be hard

Print edition | Europe Nov 17th 2018

ALONGSIDE DOZENS of their peers, today's leaders of France and Germany—Emmanuel Macron and Angela Merkel—walked in moving spectacle to the Arc de Triomphe on November 11th, a century after their countries' murderous guns fell silent. "Will this be the resounding symbol of a lasting peace between nations?" asked Mr Macron of the assembled potentates, including Donald Trump and Vladimir Putin; or "a last moment of unity before the world darkens into a new disorder?"

Mr Macron's grave words frame what is set to become a polarising debate in Europe over the coming months: between the defenders of the liberal order and post-war institutions, and the rising forces of nationalism. Ahead of elections next May to the European Parliament, the French president has boldly (some might say hubristically) cast himself as the guardian of the continent's democratic values, and loses no opportunity to underscore what is at stake. "Old demons are rising again, ready to complete their task of chaos," he declared, to a scowling Mr Trump and a poker-faced Mr Putin in Paris. Mr Macron does a fine job of laying out the battle of values confronting Europe. Yet if the French president is to do anything about it, he needs two things: first, a solid centrist political base at the European level, like the one he forged last year in France with En Marche. Then, he needs to win support for his European reform agenda from other countries, especially Germany.

A year ago, there were high hopes within Mr Macron's team that La République en Marche (to give the party its full name) could repeat his feat and up-end the European party balance, too. The French president was the poster boy for pro-European centrists, as popular at home as he was courted abroad. Today, despite a record of domestic reforms, the president's star has waned. His poll ratings have tumbled. He now faces a revolt by motorists, who are planning a huge protest on November 17th over green fuel taxes. And En Marche is struggling to raise its profile in Europe.

"Our objective is to create a new political group that can bring together different parties and end the domination of the EPP," says Pieyre-Alexandre Anglade, the En Marche deputy who co-ordinates European party recruiting, referring to the broad centre-right group. Home to Mrs Merkel's Christian Democrats, the EPP is the biggest in the European Parliament. A new group, insists En Marche, will be founded only after next May's elections, since Mr Macron currently lacks any Euro-MPs. No polls suggest that a new centrist group could supplant the EPP. But it might just become a decisive second force.

The ambiguous plan

The contours of En Marche's strategy to achieve this are beginning to emerge. At their congress in Madrid on November 10th, the Alliance of Liberals and Democrats for Europe (ALDE), which reaches from Nordic and Dutch liberals to Spanish centrists, announced that it will hook up with Mr Macron's party to campaign next May. En Marche hopes to agree on campaign issues and assumes (perhaps wrongly) that Mr Macron will be its figurehead.

What remains unclear, though, is the nature of this partnership. Viewed from Paris, it is a non-exclusive "collaboration", which will allow En Marche to keep seeking other friends and maintain its independence from a group perceived in France as too "liberal". There is still talk of trying to peel away potential allies, such as Italy's Democratic Party from the Socialists and Democrats or even German Greens on the left, or Greece's New Democracy from the EPP on the right. The hope is that Mr Macron's political clout, combined with En Marche's seats, will enable them to impose a new group and bring ALDE on board.

Yet at most Mr Macron can hope to win around 20 seats, whereas ALDE expects 70-odd. If he comes in behind Marine Le Pen, his Euro-star will be tarnished. En Marche hopes its French candidate line-up will reach from the Greens to the centre-right around Alain Juppé, a former prime minister. But it has yet to secure a suitably prominent figure, such as Pascal Canfin, a Green and head of France's World Wide Fund for Nature, to head its party list. Moreover, Mr Macron has so far made no progress in winning new recruits. Unless he can do so, En Marche will end up being swallowed by ALDE, not the other way round. One source calls En Marche's strategy a "classic case of Macronist constructive ambiguity".

All this manoeuvring matters because Mr Macron wants to secure influence in the European Parliament in order to shape the next European Commission, and therefore the union's agenda. Unlike the EPP and the Socialists, which have each named a candidate to run the commission, Mr Macron wants to keep his options open on this point, too. His underlying aim is to secure an extra push for his European ambitions, first laid out in a speech at the Sorbonne over a year ago.

On this front, the frustration in Paris is clear. During 18 months in office, Mr Macron has visited 19 EU countries. On some matters, such as the setting up of Europe-wide universities, or a co-ordinating defence framework known as the European Intervention Initiative, he has made progress. His recent call for a "real European army"—which so irked Mr Trump, who wrongly claimed that Mr Macron wants it in order to protect Europe from America—was a way of referring in popular terminology to such efforts. Mrs Merkel this week backed the French idea, using the same phrase. But Mr Macron's calls for substantial euro-zone reform, to protect the currency area from future shocks, have gone largely unheeded. An enfeebled Mrs Merkel, now on her way out, is unlikely to become any more obliging, especially if Mr Macron is trying to poach her group's MEPs.

The stakes are high for Europe as well as for Mr Macron. Leadership on the continent is one way for him to regain authority at home. So, arguably, is a more confrontational approach to Mr Trump, who was treated in Paris to a French lecture on the difference between nationalism and patriotism, and responded with an anti-Macron tweetstorm. Perhaps the best hope is that such aggression, which Mr Macron chose not to dignify with a response, will unify the continent's liberal-minded leaders and jolt them into getting on with fixing things rather than just making speeches about how they want to do so.

This article appeared in the Europe section of the print edition under the headline "Macron's long march"

Talking rubbish

Sweden fails to form a government

New elections may beckon

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TO UNDERSTAND Swedish politics, consider the trash in Stockholm. Busy Stockholmers who want their clutter lugged to distant recycling centres can download an app that connects them to casual workers who will do it cheaply and straight away. Tiptapp, the "Uber for trash", is popular not only among time-poor professionals but also among the legions of refugees who cannot find jobs. Tens of thousands have offered their services.

Stockholm has responded by banning Tiptapp, though the ban is not being enforced while Tiptapp appeals. The city argues that rubbish collection is a government monopoly—which perhaps explains why the official contractors are so unhelpful. When Johan Norberg, a local columnist, tried to get a Tiptapp-like service from one, he was told it would cost roughly 20 times as much, take up to five days and only happen during office hours, when he is not at home.

Between 2013 and 2017 Sweden let in 353,000 refugees, equivalent to 3.5% of its population. It has failed woefully to integrate them. Red tape makes it hard for them to find jobs. After five years in the country only 40% of male refugees and 20% of female ones are working. For native-born Swedes of either sex, the figure is nearly 80%. Combined with large handouts, this means that refugees tend to drain the public purse. And this avoidable policy error has helped to poison Swedish politics.

The Sweden Democrats (SD), an anti-immigrant party, warns that newcomers will bankrupt Sweden's welfare state. The SD won 17.5% of the vote in a general election in September, up from 13% in 2014 and 0.4% 20 years ago. The traditional centre-right and centre-left alliances each have roughly 40%. So a party with neo-Nazi roots holds the balance of power.

This creates a dilemma. The government has already made it much harder for new asylum-seekers to enter Sweden. But the mainstream parties hesitate to embrace the SD itself. To do a deal with the nationalists would lend them respectability. But if the mainstream parties form a grand coalition to exclude the SD, it would become the only serious opposition, and protest voters would have nowhere else to go. Either way, the SD stands to gain.

How worrying is that? As it has grown, the SD has expelled its most openly racist members, and its more virulent youth wing has split away. But it remains a magnet for those who dislike Muslims, railing against polygamy and crimes committed by immigrants.

On November 14th Ulf Kristersson, the leader of the Moderate party, the largest in the centre-right Alliance, failed to form a government. Parliament rejected his attempt, after his own allies deserted him when it became clear that the SD would vote to allow hin to form a minority government—not, it appeared, as part of any explicit deal he had reached with them. "This is the most serious crisis I've been involved in all the years I've been in politics," Mr Kristersson said. If after four formal votes there is still no government, a fresh election will have to be held.

It is unclear what the Sweden Democrats are after. Mostly, they just want mainstream politicians to sit down with them. Some pundits even argue that a share of power might force them to become more responsible, as has happened in Norway. Others, though, predict that they would play the centre-right and centre-left off against each other, threatening to support the other side's budget if their demands for ever-more-draconian migration curbs are not met.

Support for the SD has grown "on the back of unsolved problems the big parties have not addressed", says Mr Kristersson. Getting migrants into work will be "difficult but not rocket science", he says; it will require a mix of better education and new types of jobs for the unskilled.

He is right. Refugees are typically less educated than Swedes, and just starting to learn Swedish. Many are not worth hiring at prevailing wages, which unions can enforce with intimidating tactics such as organising workers at an errant firm's suppliers to shut down deliveries. All this makes it hard for unskilled workers to price themselves into a job. Such problems can hardly be tackled without a government.

This article was amended on November 16th to make clear that Tiptapp remains operational pending its appeal.

This article appeared in the Europe section of the print edition under the headline "Talking rubbish"

Working to rule

A defiant Italy puts Europe's fiscal rules to the test

The government has refused to revise its budget

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THE NEXT bout in the fight between Italy and the European Union has begun. Italy's deadline to resubmit its budget plans to the European Commission, on November 13th, lapsed without its government flinching. To have given in, said Luigi Di Maio, the leader of the Five Star Movement (M5S), one of the two governing parties, would have been "to commit suicide". In turn, the commission is said to be planning to launch an excessive-deficit procedure (EDP)—a disciplinary process that could lead to financial penalties—as early as next week.

The confrontation is the first test of the EU's fiscal compact, agreed on at the height of the euro-zone debt crisis. It beefs up the commission's oversight over countries' budgets and its power to impose sanctions if they transgress. The commission has so far shied away from imposing sanctions on euro-zone members, but they now seem a distinct possibility.

The fiscal rules are intended to keep macroeconomic imbalances in check. But sovereign-debt crises exposed flaws in the original framework. The rules that existed before 2011—that fiscal deficits not exceed 3%, and public debt 60%, of GDP—had not taken prevailing economic conditions into account. The result was too little prudence during good times, with transgressors going unpunished. Nor was there enough stimulus during bad ones. Much-needed state spending during the crisis was frowned upon: 23 out of 27 countries were judged to have excessive deficits in 2012.

Reforms to the system in 2011-13 tried to take better account of the economic cycle, while tightening enforcement. New rules seek to calculate "structural", ie, cyclically adjusted, deficits. Debt stocks must be brought down at a prescribed pace. The commission assesses draft budgets every year. Its decision to impose sanctions can only be overturned if a qualified majority of member states vote to do so. That is meant to make it harder for rule-breakers to sway the vote, as Germany and France did in 2003.

If an EDP is launched against Italy, it would be the first time the procedure has been used because of a breach of the debt, rather than the deficit, rule, says Gregory Claeys from Bruegel, a think-tank. Instead of declining by the required average of 3.5 percentage points a year in order to get it down to the targeted 60%, Italy's debt ratio of 131% of GDP is forecast by the commission to be flat during 2018-2020.

Italy's proposed fiscal deficit, though larger than the commission would like, does not breach the 3% ceiling. But the commission reckons it could come perilously close. In its forecasts published on November 8th it was more pessimistic than the government about Italy's economic growth. It thinks the resulting lower receipts and higher spending will push the deficit to 2.9%, rather than the government's estimate of 2.4%.

Breaking the rules is necessary for an EDP to be invoked, but is not sufficient. Starting the procedure is also a sign that Italy has exhausted the commission's flexibility. As the rules have proliferated, so have exceptions to them, says Philippe Martin, from France's Council of Economic Analysis. Allowances are granted to countries struck by unforeseen events, such as an economic downturn, earthquake or influx of refugees, all of which can push up government spending. Those implementing costly structural reforms, or expecting a temporary deviation from the rules, might also be let off the hook.

Critics say that such exemptions have contributed to the opacity and unpopularity of the rule book. But Italy has tended to benefit from the flexibility. It has been let off despite breaking the debt rule before. The commission estimates that Italy was granted €30bn ($34bn, or 1.8% of GDP) worth of exceptions to its deficit commitments as previous governments undertook reforms. The current one, which has undone structural reforms, eg, to pensions, can make less of an argument for special treatment. Nor has it tried to plead its case. Indeed, its rulers see confrontation with Brussels as a vote-winner.

Once an EDP has been approved by the European Council of heads of state, which could happen at their summit in December, a programme of recommendations and deadlines will follow. Italy's progress will be monitored every three or six months. If the commission thinks Italy has not done its homework, it can impose a fine of 0.2% of GDP, and suspend payments from EU funds. Further cycles of homework and fines may follow until Italy is deemed compliant.

So far, though, the commission has been reluctant to whack countries with penalties. The nearest it came was in 2016, when Portugal and Spain were "fined" the sum of €0.The commission backed down for fear of worsening their fiscal problems and, perhaps, of stoking Euroscepticism.

Some northern states are also uncomfortable with the EU's intrusion into national fiscal affairs, preferring that financial markets do the dirty work of disciplining profligacy instead. In October Giovanni Tria, the Italian finance minister, said that the government would reconsider its plans if the spread (ie, the difference) between Italian and German government borrowing costs were to rise to 400 basis points. (On November 13th it stood at just over 300.) The danger, though, is that investors could overreact. Market reactions can be both untimely and disorderly.

The political and economic costs of imposing fines could yet stay the commission's hand. But the latest violation of the rules is particularly brazen, says Mr Claeys. Ignoring it risks undermining the commission's credibility. That could well compel it to hurl its hefty rule book at Italy.

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Where borders are the migrants

The resurgence of regionalism in Europe

Europe's populist wave is stirring up tensions between national minorities and their neighbours

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A CENTURY AFTER its collapse, Austria-Hungary lives on in the tidy Alpine town of Bolzano in northern Italy (Bozen to German-speakers). Viennese coffee houses and beer halls clatter and chatter with life. Streets have names like Bahnhofsallee. "Under Austria, life here was very plural. There were equal rights. People could speak what language they wanted," notes Sven Knoll. Then, he adds, came Mussolini, who tried to Italianise the region by imposing language restrictions and encouraging migration from the south. Mr Knoll's South Tyrol Freedom Party wants Austrian passports for German-speaking locals and eventually secession for the region, which was awarded to Italy after the first world war for its support of the Allies. The current right-wing government in Vienna is planning a new citizenship law, so the first goal is within reach. Mr Knoll hopes the second is only a matter of time.

Europe is a mixed and mingled continent, so maintaining borders that reflect where people feel they belong has never been easy. Today's Catalonia (then Aragon) formed a union with Castile in 1479, but later became subordinate to it. In 1866 Prussia seized Schleswig from Denmark, putting many Danes on the German side of the line. In 1913 a dying Ottoman empire ceded majority-Muslim Kosovo to Serbia. The Trianon Treaty of 1920 gave Hungarian areas to Romania and created the new state of Czechoslovakia. Such deliberations were not always very thorough. In his diary entry for February 7th 1919 Harold Nicolson, a British diplomat at the Paris peace conference, wrote breezily: "Spend most of the day tracing Rumanian and Czech frontiers with the US delegation. There are only a few points at which we differ."

The result of this slapdash border-design is that Europe's map is speckled with "national minorities"—the minorities who did not migrate, but saw borders migrate over their heads. They include once-independent states incorporated into larger ones (like Catalonia or Scotland) but also groups who do not live in the country with whose dominant culture they most identify (like the Austrian-Italians of the South Tyrol). In recent decades it seemed European integration would be the answer. Conflicts between autonomists and centralisers seemed to be dissolving into a patchwork of mutually understanding European regions. Catalonia would remain in Spain, but would be autonomous and European. German-speakers from Bolzano could shop in Innsbruck using the common euro. Kosovars and Serbians would treat EU membership as a common goal.

As the passport debate in the South Tyrol shows, the route to settled, Europeanised relations between national minorities and the majorities with whom they rub shoulders is getting rocky once more. Old tensions never quite die. When a coalition of the centre-right People's Party and hard-right Freedom Party (FPö) came to power in Austria last year, issuing passports for South Tyrolers was one of its aims—one particularly promoted by Heinz-Christian Strache, the FPö vice-chancellor. Barrelling into a beer cellar in Bolzano to the "Radetsky March" last month, he addressed a cheering crowd wearing dirndls and felt-collared Tyrolean jackets: "There is an Austrian minority here that we can't forget! We want a Europe of national identities!"

The rise of populism across Europe has been accompanied by a surge in tensions between autonomists and centralisers. A new them-versus-us style of politics, the rise of social-media echo chambers and demagogues' disregard for old political norms is inflaming them. Rightists in the poor eastern regions of Saxony in Germany increasingly rail against Sorbs, a Slavic group. A proposed land-swap between Serbia and Kosovo—trading Serbian-dominated parts of Kosovo's north for the fertile Presevo valley in Serbia—could reignite Balkan conflicts. The recent referendum in Macedonia on a name-change to settle grievances with Greece failed partly because voters there noticed the populist swerve by Greek rightists, who are now stirring up anti-Macedonian sentiment in regions close to the border. Viktor Orban, the autocratic prime minister of Hungary, wants to give passports to ethnic Hungarians in Romania and Slovakia.

This trend is more than a reaction to economic woes. In fact it is most pronounced in Europe's most successful regions. The South Tyrol is one of the wealthiest on the continent. Northern Italy, the richest part of the country, has long flirted with the idea of floating off to form a country called Padania. In booming Denmark, the right-populist Danish People's Party has called for the annexation of Schleswig from Germany. A party representing the Russian minority in Latvia, which has become much richer since joining the EU, won the most votes in an election there last month. Catalonia is the most productive part of Spain, but has been fighting for independence from Spain to cut its payments to poor Andalusians.

Guten Tag, arrivederci

Autonomists in the South Tyrol reject the charge of populism, arguing that their goal is to be more European, not merely Austrian. Catalonian separatists portray themselves (though it is a stretch, given Spain's modern democratic nature) as the freedom-seeking victims of a still-Francoist state. In Corsica separatists won a surprise 57% of the vote in an election in December, but their demand was reasonable rather than emotional: fair recognition within France. Scotland's nationalism is if anything leftist, secessionists insisting that an independent Scottish state would be more, not less, welcoming to immigrant "new Scots".

All of which should trouble Europe's leaders. The continent's integration was meant to solve such questions. But they are once more surfacing. A resurgence of old communal hatreds, even violence, in places like Northern Ireland or Kosovo is no longer as unthinkable as it was a few years ago. Populism sets people against people. And in a continent with as many peoples mixing and mingling as Europe, that is dangerous.

This article appeared in the Europe section of the print edition under the headline "Where borders are the migrants"

Britain and the European Union
Exit music

Exit music

The beginning of the endgame for Brexit

Theresa May's deal has provoked resignations from the cabinet. Getting the agreement through Parliament is looking ever harder

Print edition | Britain Nov 15th 2018

AFTER WHAT had seemed an endless period of delay and crunches evaded, this week Theresa May at last presented a draft Brexit deal agreed by negotiators in Brussels. The prime minister steered it through a lengthy cabinet meeting on November 14th. Yet the following morning her own Brexit secretary, Dominic Raab, quit in protest. Others followed. As Conservative MPs condemned the deal, talk of a leadership challenge to the prime minister grew.

Many more dangers lie ahead. The deal requires the consent of all 27 EU countries, with a special summit of leaders booked for November 25th. The European Parliament must approve it. Hardest of all, the agreement must pass the Westminster Parliament. With Leaver and Remainer MPs from all parties falling over each other to denounce the deal even before it was published, that hurdle looks very high.

The deal comes in two parts. The first is a draft withdrawal agreement that runs to 585 pages, including a protocol on Northern Ireland. The second is a seven-page political declaration about the future relationship between Britain and the EU. The first will become a legally binding treaty that covers such matters as Britain's exit bill and EU citizens' rights, as well as the so-called Northern Irish backstop. It will also create a standstill transition period after Brexit day on March 29th 2019, which will last until at least December 2020.

The much shorter second document will guide the future talks but be aspirational in nature. This may upset anyone who hoped Mrs May's Brexit deal would be the end of the process. In fact, negotiations on almost every aspect of the future relationship, from security to trade, will begin only after Britain leaves the EU in March. Moreover, establishing a link between the two documents, on the basis that nothing is agreed until everything is agreed, will be difficult. That is a problem for those who believed payment of the exit bill would create useful bargaining leverage for a future trade agreement.

The main cause of delay in reaching a Brexit deal was Northern Ireland. The idea of a backstop plan that would avoid a hard border in Ireland in all circumstances was accepted by both sides last December. But Mrs May rejected the EU's interpretation of the agreement, which was to keep Northern Ireland in a customs union and in regulatory alignment with its single market. She was partly driven by her government's dependence on the Northern Irish Democratic Unionist Party (DUP), but also by her own revulsion at the notion of a customs border in the Irish Sea. The backstop in the withdrawal agreement is to keep the whole United Kingdom in a customs union with the EU until an alternative is found.

Yet two politically awkward tweaks were needed even for this to get through. The first concerns the question of how long the backstop lasts. Brexiteers hate the customs union because it precludes trade deals with third countries. So they wanted it to be time-limited (impossible, since this would negate the very purpose of a backstop) or at least for Britain to have the unilateral right to walk away from it. The compromise is an arbitration mechanism that will decide if the backstop, once invoked, is no longer needed. But that falls far short of a unilateral right of exit. MPs will want to see the legal advice on this point from the attorney-general, Geoffrey Cox, now a crucial pro-Brexit voice in the cabinet.

The second tweak was the determination of other EU countries to attach conditions to a UK-wide customs union. These have become known as "level playing-field" requirements. They include commitments to observe not just most single-market rules but also all EU environmental, labour and other standards. The fear of the EU 27 is of a Britain that benefits from frictionless trade in the customs union but is able to undercut continental competitors with laxer regulation. The EU wants to make clear that post-Brexit Britain is a rule-taker, not a rule-maker. By applying even more single-market rules to Northern Ireland, the EU's backstop also clearly envisages greater regulatory (but not customs) checks in the Irish Sea.

It is easy in the Westminster bubble to forget that other EU countries have politics too. Indeed, their approval of the Brexit deal cannot be taken for granted. As Mujtaba Rahman of the Eurasia group, a consultancy, says, EU leaders may make further amendments to the level playing-field conditions or add new demands over access to British fisheries. Any such changes are likely to make the deal even less palatable in Westminster. And the EU's determination to show that Britain will be worse off as a result of Brexit is likely to be supported by the economic-impact analysis the government has promised to give MPs.

Their already gloomy reaction to the withdrawal deal will only darken when they consider the accompanying political declaration. This has the benefit of being compatible with anyone's preferred outcome, from a Norway-style relationship to a deal modelled on Switzerland or Canada. But in truth the EU 27 will be in control, with Britain having few cards to play. And the process is likely not just to be miserable but interminable. The Canadian free-trade deal took nine years; the two packages of

Swiss bilateral deals 13. The process of ratifying any trade deal with Britain by all national and some regional parliaments will be tortuous.

These considerations chime with the view that Mrs May has failed to win most of the Brexit aims she set out to achieve (see table). Most MPs are disenchanted with the deal. The language used by some was venomous. Jacob Rees-Mogg, chairman of the European Research Group (ERG) of Eurosceptic Tory MPs, said the deal would make Britain a "slave state". Boris Johnson, who quit as foreign secretary over Mrs May's Chequers plan in July, called it "vassal-state stuff" that should be chucked out.

If all goes well, the parliamentary vote on the Brexit deal is likely to be held in mid-December. Even if it goes through there may be problems ahead, as Parliament must pass a mass of legislation, starting with a bill to give the deal legal effect and set a framework for transition. But there are serious doubts about whether MPs will approve the deal. Tory whips express confidence that the vote will be won. They hope that pressure from ministers, businesses and the EU itself will tell, as will fear of alternatives, notably of a no-deal Brexit. Yet the parliamentary arithmetic looks stacked against them.

Rebels with a cause

Start with the Tories. Steve Baker, who helps to manage the ERG, says over 50 hardline Brexiteers will vote against the deal. Mr Baker says he does not want a no-deal Brexit, but cheerfully admits that parliamentary rejection of the deal would produce "chaos". The odds of this have been increased by the anti-Brexit wing of the party. Jo Johnson resigned as transport minister on November 9th to fight for a second referendum (see Bagehot). Along with Dominic Grieve, a former attorney-general, and others he may form part of a group of perhaps a dozen pro-European Tories voting against Mrs May. The 13 Scottish Tory MPs could be another problem, especially if they detect a sell-out on fisheries.

Tory opposition means that Mrs May will have to look to other parties to get her deal through. The DUP seems implacably opposed. Despite its official support of her government, it says it cannot accept any of the regulatory barriers in the Irish Sea implied by the deal. The Scottish Nationalists and Liberal Democrats are certain to vote no. That leaves the official Labour opposition as the only possible party in which to fish for favourable votes.

Labour's position on Brexit has been consistent only in its ambiguity. Jeremy Corbyn, the party leader, is a lifelong Eurosceptic. His policy was in theory set by Labour's latest party conference. It is to oppose any deal that does not deliver on an impossible-to-meet set of six tests. If the deal is defeated, he wants a general election. And if that is not obtainable, Labour is open to other options, including a public vote with staying in the EU as an option. Despite this, Mr Corbyn recently said that Brexit could not be stopped—only to be corrected by his shadow Brexit secretary.

The lure of defeating the government and, just possibly, precipitating an election, will surely drive most Labour MPs to vote no. Even the hard-core few that have previously backed Mrs May in Brexit votes cannot be relied on this time. But Tory whips believe that they might win over as many as 20-30 Labour MPs who are both hostile to Mr Corbyn's leadership and anxious to avoid the risk of a no-deal Brexit. After all, it took a rebellion by pro-European Labour MPs to get Britain into the European project against hardline Tory opposition in the early 1970s.

Mrs May and her whips will mount a strong campaign to force through her deal, which she insists is in the national interest. Hardline Brexiteers will be told that defeat risks a reversal of Brexit. Softer MPs will hear that defeat could lead to Brexit with no deal. Others will be frightened by the prospect of a new prime minister, as the numbers of MPs' letters calling for a Tory leadership contest approaches the 48 needed to force one. And others will fear even the remote possibility of an early election that might put Mr Corbyn in power.

Yet it is hard to see these arguments swaying enough MPs to swing the vote in favour of the deal. Nicky Morgan, a former Tory minister and chair of the Treasury select committee, puts the odds of success at 50-50. That they are so low is largely Mrs May's fault. Had she been more honest earlier about the basic trade-off between securing better access to the EU's market at the cost of being bound by most of its rules, she might have made her compromise more appealing.

This article appeared in the Britain section of the print edition under the headline "Exit music"

The great ’dane

Andy Haldane, the maverick at the Bank of England who could one day run it

A Labour government may well choose the chief economist to lead the bank

Print edition | Britain Nov 17th 2018

CENTRAL BANKERS usually keep a low profile. Most like nothing more than to spend hours in dingy meeting rooms poring over the latest data on wages or petrol prices. Not Andy Haldane. The Bank of England’s chief economist has written for the *London Review of Books*, fodder for middle-class dinner parties. He has argued that the Occupy protesters of 2011-12 were right to focus on problems of the global financial system. Lately his profile has risen further. Some of those who are close to the bank and to John McDonnell, the shadow chancellor, think that a Labour government might choose Mr Haldane to lead the 324-year-old institution.

The role of chief economist has grown in recent years. Previous holders of the job, including Lord King, who went on to become governor, focused on monetary policy. But under Mr Haldane the role has broadened to include responsibility for building the bank’s research, analysis and data-gathering capabilities. On top of that heavy workload the 51-year-old, who attended a comprehensive school in Leeds before studying economics at Sheffield and Warwick universities, has founded an organisation which links economists with charitable projects. Last month he was appointed (in a personal capacity) to chair the government’s Industrial Strategy Council, a new body that will monitor progress on improving Britain’s low rate of productivity growth.

In his big office at the bank, Mr Haldane thinks big thoughts. He was one of the first economists in Britain to cotton on to the fact that, as in America, the market power of large companies appears to have risen in recent years. And he has excited radical economists by musing about whether it might be a good idea to abolish cash, and arguing that weak trade unions damage Britons’ pay. During a recent interview with *The Economist* he got on to the subject of “why it was that humans were able to chart a very different evolutionary course to all other animals.”

Even in the more mundane area of monetary policy, Mr Haldane has been making waves of late. He was once happy “to be perceived as towards the dovish end of the spectrum,” as he puts it, meaning that he was thought likely to favour lower interest rates. In June 2017, however, he delivered a speech which caught traders by surprise, arguing that “the balance of risks associated with tightening too early, on the one hand, and too late, on the other, has swung materially towards the latter.” Since then he has voted to raise interest rates three times, compared with twice for the monetary-policy committeeas a whole. These days traders view him as the second-most hawkish member of the nine-person MPC.

What explains Mr Haldane’s hawkish turn? He demurs. “It’s not like my preferences around the economy have changed.” The depreciation of sterling since the Brexit referendum of 2016 has raised the cost of imports, pushing consumer-price inflation well above the bank’s 2% target. Mr Haldane noted a “shift in inflation expectations” in the speech in June 2017.

But he seems to place more weight on developments in the domestic economy. The unemployment rate is near a four-decade low, at 4.1%. Firms appear to be competing harder to attract and retain workers. In a speech last month Mr Haldane pointed out that “wage forecasts [are] no longer undershooting”. Private-sector pay growth, excluding bonuses, is running at about 3% a year in nominal terms. “We’re not talking about...chocks away,” he says. But in an era of low productivity growth, the additional employment costs on businesses from even weak wage-growth risk causing higher inflation across the economy.

In Mr Haldane’s view soft data complement the hard kind. Lately the bank has tried to engage more with the general public. Mr Haldane has attended town-hall meetings up and down the country, where ordinary people give their views on the economy. “Conversations with people, both on the employer and on the employee side, convinced me that this was indeed a generalised tightening,” he argues. For years British workers have managed to get a decent pay rise only if they change jobs. Increasingly, however, it seems that they are able to get them even if they stick with their current employer.

Predicting who will be the bank’s next governor is a mug’s game. (“It’s for others to speculate,” Mr Haldane sighs.) Yet the chief economist’s apparent hawkish turn might not hurt his chances. Choosing a governor with a reputation for monetary tightness could help a Labour government avoid giving investors the impression that it might debase the currency. “It’s such a key appointment,” points out Mathew Lawrence of Common Wealth, a think-tank that is close to Labour. “The bank can firewall a Labour domestic agenda if it acts to stabilise any market reactions.” In the coming years Britain could be hearing a lot more from the Bank of England’s maverick.

This article appeared in the Britain section of the print edition under the headline ”The great ’dane”

A deal of two halves

Brexit could mean fewer but better foreign players in the Premier League

A rare example of more opportunities for locals and a more global Britain

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ENGLAND'S FOOTBALL Premier League, the richest in the world, is a giant exporter of culture. But it is also a big importer of labour. Last season 67% of minutes spent on the pitch were played by foreigners. At the most successful clubs Englishmen are even rarer: they made up just 6% of the minutes played by Chelsea last season.

The free movement of people within the European Economic Area (EEA) allows clubs to sign any European player they can afford. In contrast, they may sign a player from the rest of the world only if he has played a certain percentage of his matches for a country ranked within the top 60, or if he commands a transfer fee above the Premier League median, according to rules set by the English Football Association (FA), the game's governing body. If these rules had been applied to European players, more than half the foreigners who signed to top-flight English clubs between 1992 and 2018 would have been blocked, finds Laurie Shaw of Harvard University.

Unless the rules are changed, all foreign players will face the same hurdles after Brexit that non-Europeans must currently clear. That would drastically reduce clubs' ability to recruit from abroad. Unsurprisingly the Premier League is against this, arguing that eligibility requirements should be dropped for all overseas players. But the FA wants to restrict the number of foreign players, arguing that local sportsmen should get a shot at playing in their home league.

The two positions may appear irreconcilable. But they could give way to a grand bargain. Under a plan reported by the *Times* newspaper, the FA would abolish eligibility rules for Premier League signings if clubs agreed to a lower cap on the number of foreigners on their teams. At the moment each 25-man squad is allowed up to 17 overseas players. The FA proposes to cut this, perhaps to nearer 12. In return, clubs could have their pick of the world's footballers, free of the usual eligibility rules. That would allow them to snap up talented Brazilian teenagers, say, who are currently ruled out by their low cost or lack of experience.

Under the rules of FIFA, football's global governing body, Premier League clubs would only be allowed to sign foreign players aged 18 or over. FIFA makes an exception for clubs within the EEA, which are allowed to transfer European players from the age of 16. After Brexit, English clubs would lose that right, reducing their ability to sign young European talent on the cheap.

Should the FA and the Premier League agree on their grand bargain, it would probably be approved by the government. Ministers have already argued that after Brexit migrants should be treated equally regardless of their country of origin. They would surely be glad to have a glamorous example of an industry in which greater opportunities for local workers were compatible with the notion of a more global Britain.

This article appeared in the Britain section of the print edition under the headline "A deal of two halves"

The line of beauty

How to defeat nimbyism: build more beautiful houses

The government hopes that better architecture could make it easier to build

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THE GREAT debate about Theresa May's government is whether it is a one-trick pony or a no-trick pony. Will it manage to shove a Brexit deal through Parliament or will it fall apart in the effort? Brexit has crowded out all its other ideas.

There is one odd exception to this otherwise dismal picture. James Brokenshire, hardly a man known for wacky thinking, has embraced a surprising new idea for dealing with one of Britain's stickiest problems: entrenched opposition (particularly in the south-east) to building new houses. Mr Brokenshire, the housing secretary, argues that the way to tackle nimbyism is to pay more attention to what new houses look like and whether they are in keeping with their local environment. To this end he has created a "Building Better, Building Beautiful" commission and appointed Sir Roger Scruton, a philosopher and expert on aesthetics, to run it. Tom Tugendhat, a Tory MP, calls it "the biggest idea in housing policy since the sale of council houses under Margaret Thatcher". It is certainly the most interesting.

The beauty agenda is the brainchild of Policy Exchange, a think-tank. It has commissioned some striking opinion polls on nimbyism, which find that opposition to building new houses goes down dramatically when they are designed to please the eye and fit in with their surroundings. The right-leaning think-tank also argues that the market alone cannot solve the problem because it is dominated by vested interests, such as giant housebuilding companies (the only ones with the time and resources to negotiate the complicated planning laws) and architects (who for the most part subscribe to modernism and look down on what they regard as "twee" designs).

The Ministry of Housing has taken up the idea with vigour, fighting off bitter resistance from the architectural establishment (one architect accused the commission of championing architecture that appeals only to "blinkered, quasi-fascist, old, white men"). It has emphasised that its aim is pluralism: it wants to require architects to pay more attention to "design, style and community consent", rather than make them build neo-Georgian pastiches. It helps that Mr Brokenshire's adviser, Liam Booth-Smith, was brought up on an aesthetically challenged housing estate.

Mr Brokenshire's commission faces two problems. The first is Brexit, which threatens to swallow up the next few weeks, if not months. The second is that Sir Roger is a two-edged sword: his appointment has simultaneously raised the initiative's profile and made it more controversial than it needs to be. He is a professional contrarian as well as a serious philosopher, who has said a lot of controversial things about everything from gay marriage to Islam. This has diverted attention from the substance of the idea. This week Mr Brokenshire found himself in Parliament defending Sir Roger's appointment rather than lambasting ugly architecture. It has also made it more difficult to build a cross-party consensus for the beauty agenda.

There is no reason why this should be a party political issue. One of the fathers of British socialism, William Morris, was also the father of the arts and crafts movement, which was based on the idea that beauty should be for the many, not the few.

This article appeared in the Britain section of the print edition under the headline "The line of beauty"

Hungry for answers

The real reasons why food-bank use is soaring

A shift in the nature of poverty, not its overall incidence, best explains their spread

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IT IS LUNCHTIME in London, and customers at the Hub Coffee House are tucking in to jacket potatoes. Just up the stairs, though, people are going hungry. Folk at the Waterloo food bank wait their turn to stock up on tinned food. "The bills are killing me," says Abie Alghali, who is too ill to work but must feed five children. She has no idea what she will cook them for dinner tonight. "What I get," she says.

Food banks spread across America in the 1970s but were unheard of in Britain until recently. The Trussell Trust, a Christian charity that oversees most of them, opened its first branch in 2000. It now has more than 1,200 outposts. Since 2011 the number of parcels the trust gives out has risen nearly tenfold. Food banks are often cited as a proxy for rising poverty. They are back in the news thanks to a visit by Philip Alston, the UN special rapporteur on extreme poverty. "Their numbers have gone up and up," he says. "It's a pretty significant indictment of the situation."

Yet at first blush their spread poses a conundrum. They have proliferated even as the most common measures of poverty have either flatlined or only ticked up a little (see chart), and as food prices have fallen. There was a far greater increase in relative poverty (those earning less than 60% of median income) during the 1980s, but no formal food-bank network was set up to alleviate the plight of the poor then.

Figures are not kept for the proportion of Britons going hungry. But there are two reasons to think that this number has probably risen less dramatically than the soaring number of food-bank users suggests. First, food banks in Britain do not include soup kitchens. They comprise only about a quarter of all food aid, which includes soup kitchens and cheap cafés. "Food banks are a new way of giving food," says Maddy Power of York University. "But the idea of food charity is long-standing." Estimates of the amount of food aid are hard to come by, but services such as soup kitchens have long had plenty of customers, and the increase in food banks may therefore exaggerate the increase in hunger.

Second, some of the rise in food-bank use demonstrates latent rather than new demand. Job centres started referring hungry jobseekers directly to food banks in 2011. "A large part of this is that it was not visible before," says Rachel Loopstra of King's College London. If food banks had been around in the 1980s, they would probably also have seen a surge in demand, Ms Power reckons. Instead, the hungry may have relied in part on informal support, such as asking friends for food.

Even so, it is likely that hunger has risen under the most recent governments. Between 2007 and 2017 the rate of hospital admissions for malnutrition rose from 0.8 to 1.5 per 100,000 people. Cuts to benefits, including a four-year freeze in most working-age benefits introduced in 2016, and a rapid growth in housing and energy costs disproportionately hit the poorest Britons, who are most likely to use food banks. When a study in 2015 controlled for an increase in food-bank capacity, it still found a rise in demand for their services between 2010 and 2013, albeit a smaller one.

This rise can in part be explained by a shift in the nature of poverty. Low-earners' income has become less secure following the spread of zero-hours contracts and the gig economy. Measures of poverty usually count annual income, so would not register a rise in the number of people going a few weeks without pay. Someone whose annual income is above the poverty threshold may still need to use a food bank from time to time. Elisabeth Garratt of Oxford University says food banks cater to a broader population than soup kitchens, which largely help the homeless and destitute. "One of the reasons society is so shocked by food banks is the idea that there are ordinary people in ordinary homes who can't afford food," she says.

Take Ely, a prosperous town in Cambridgeshire with one of the country's lowest unemployment rates. It too has a busy food bank, where some donors drop off products from Waitrose, a posh supermarket. Cathy Wright, who runs it, reckons a fifth of users are working. Recently, a social worker struggling after separating from his wife was referred to her. "Things piled up on him," she says. "People are working but they're just not able to make ends meet."

Nor do poverty statistics pick up temporary dips in benefit payments. Evidence suggests that the number of benefit sanctions, which reduce or stop payments for claimants, has risen since 2015. Four in ten Trussell Trust referrals cite benefit delays or changes. Universal credit, a new, catch-all benefits system, is exacerbating the problem: many users experience delays lasting months before receiving their first payment. It is, says Liz Dowler, a food-poverty expert, "the final nail in the coffin". Then she corrects herself. "No, it is the current nail in the coffin."

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Bagehot

The case for another vote on Brexit is gaining strength

Support for one is no longer confined to a motley group of die-hards, no-hopers and eccentrics

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A YEAR AGO the case for a second vote on EU membership looked like the definition of a lost cause. At the general election in 2017 both major parties promised to "deliver Brexit". The only party that wanted to hold another referendum, the Liberal Democrats, got 8% of the vote. Support for a so-called People's Vote on the terms of Britain's exit from the EU was confined to a motley group of die-hards, no-hopers and eccentrics who spent more time feuding over technicalities (should 16-year-olds be given a say this time round?) than they did making their case to the people.

Today there is a significant chance that Britain will end up having a vote on whether to accept the Brexit deal that Theresa May presented to the cabinet on November 14th. Over the past few months the no-hopers have racked up a succession of victories. In October the People's Vote campaign organised a march of 670,000 people in London. On November 9th Jo Johnson, a transport minister and brother of Boris, resigned from the government and argued that, given Britain now faced a choice between "vassalage" and "chaos"—that is, remaining tied to the EU without a say on its rules or leaving without a deal—the only reasonable choice was another vote. On November 12th Gordon Brown became the third former prime minister to call for another vote. And Mrs May herself admitted this week that Britain faced a three-way choice: her deal, no deal, "or no Brexit at all."

The mood in the People's Vote headquarters in Millbank Tower is understandably upbeat. Serried rows of millennials and younger-than-millennials examine battle charts of target audiences and chat excitedly into their mobile phones (there is nothing so old-fashioned here as a landline). People's Voters have even been honoured with their own version of Watergate: some miscreants ("undoubtedly Brexiteers") broke into the headquarters and urinated into the sweet bowl on the reception desk (unfortunately Bagehot was told about this transgression only after he had helped himself to a generous portion of sweets from said bowl).

Why has such a lost cause become such a powerful force in political life? Luck clearly played its part. Mrs May made a succession of errors, including triggering Article 50 before she had worked out her demands and calling an election that destroyed her majority. The EU played its hand brilliantly, particularly when it came to Northern Ireland. But in the end it was down to logic. The Brexiteers had promised the impossible—all the advantages of EU membership with none of the disadvantages—and disillusionment was inevitably going to follow.

This remorseless logic has had the peculiar effect of turning the People's Vote's weaknesses into strengths. The campaign has always lacked the normal requirements for political success: a charismatic leader, a clear organisational structure and a common identity. It consists of nine different organisations that bear a striking resemblance to Monty Python's People's Front of Judea and its challengers. But having hobbled it at first, these weaknesses are now helping it. Because it is not associated with any political party or grandee, it can reach across the political spectrum. And because it is driven by young volunteers whom nobody has ever heard of, it can challenge the idea that it is a front for Blairite centrism. Ironically, the movement that the People's Vote most resembles is the campaign to leave the EU, a movement that began as a collection of no-hopers, ran on a combination of adrenalin and passion, and then broke all the conventional rules of politics.

There are strong arguments against having another vote. Doing so would once again bitterly divide the country and might even lead to civil unrest. David Cameron's government promised that the referendum in 2016 would decide whether Britain left or stayed. About 2.8m people who had given up the habit of voting on the grounds that the establishment rigs the system turned up to vote (almost all of them for Leave). A second referendum might produce another close result or another victory for Leave. There are also practical problems: how do you go about throwing another vote into the political mix? And what would the question be?

Blow me down

But the question at the heart of British politics is not whether this or that option is difficult and painful but whether it is more or less difficult and painful than the alternatives. The politics of having your cake and eating it have long since given way to the politics of choosing between gruel or bread and water. A second vote would divide the country and infuriate Leavers. But the country is already divided and Remainers (who include the vast majority of younger voters) are in a fury. Another vote would mean going back on Mr Cameron's promise to the voters. But as David Davis, the former Brexit secretary and an ardent Leaver, pointed out before the referendum of 2016, "If a democracy cannot change its mind, it ceases to be a democracy." Opinion polls already suggest that a small majority of voters supports staying in the EU. That majority might easily be much bigger if the voters are confronted with a choice between the existing arrangements and a deal which, as both Remainers and Leavers now recognise, would force Britain to abide by many of the EU's rules while depriving it of any say over those rules. The practicalities of holding a vote would be complicated—and would undoubtedly involve calling for an extension of the deadline for withdrawal under Article 50—but Lord Kerr (who wrote the article in question) has identified six paths to another referendum.

Britain is now entering into a political hurricane the likes of which it has not seen for decades. How the hurricane will blow itself out is anybody's guess. It is possible that Mrs May will get her deal. There is no shortage of people who will accept any compromise to finish the whole thing. It is equally possible that her deal will unravel and that Britain will face chaos. The fact that the result of the chaos could be another vote on EU membership is one of the most extraordinary stories of these extraordinary times.

This article appeared in the Britain section of the print edition under the headline "How to escape a hurricane"

Technology and schools
Teacher's little helper

Ed-tech

In poor countries technology can make big improvements to education

Teachers are often unqualified, ignorant or absent; tablets show up and work

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AT KICOSHEP SCHOOL in Kibera, a vast Nairobi slum, Grade 3 is learning English. The teacher, Jacinter Atieno, asks questions about a story on the exploitation of children as domestic servants. At the back of the class, a coach logs information about Mrs Atieno's performance into a tablet. Halfway through the class, the coach summons three children and tests their reading. The scores go into the tablet, which then makes suggestions—that, say, Mrs Atieno might watch one of its instructional videos, or improve her English pronunciation with its letter-sound tool. The information is uploaded to the county office that runs the local schools, and can be reviewed by the teachers' bosses there.

This is Tusome—"let's read", in Kiswahili—in action. A huge programme, funded by USAID to the tune of $74m over five years, it has been adopted by the Kenyan government and is used by 3.4m children in 23,000 government primary schools and 1,500 private schools. The coach-and-tablet element is just one part. A curriculum based on synthetic phonics (widely used in developed-country schools) has been designed and 23m books distributed, along with detailed lesson plans to make life easier for teachers. But the technology is crucial to supporting them and providing their bosses with data about their performance. Mrs Atieno is surprisingly enthusiastic: "I love the coach. When I have a problem I can tell her and she comes to help me."

Cheap and cheerful

The costs are low—around $4 a child a year—and the results impressive. In the first year of Tusome's operation, the proportion of Grade 2 pupils who could read at 30 words per minute (wpm) rose from around a third to two-thirds. Yet by rich-world standards these levels are poor: Americans are expected to read at 60wpm by the beginning of Grade 2 and 90wpm by the end. Even accounting for the difficulty of using a second language, the gap in attainment in rich and poor countries, even at the earliest stages, is staggering.

Thanks in part to the challenge set by the Millennium Development Goals, almost all primary-age children almost everywhere in the world are now in school. But in many of those schools children are learning next to nothing. Research by the World Bank in seven sub-Saharan African countries, for instance, has found that half of Grade 4 students cannot read a simple word; almost three-quarters cannot read all the words in a simple sentence; 12% cannot recognise numbers; 24% cannot add single digits; and 70% cannot subtract double digits. It is not just Africa. A recent study in India shows that 38% of Grade 3 children in government schools cannot read simple words, and only 27% can do double-digit subtraction.

The big problem is teachers: often too few, too ignorant—or simply not there. Unannounced visits to classes across seven sub-Saharan African countries by the World Bank found that in nearly half of them, the teacher was absent. Many teachers who do turn up are startlingly underqualified. In Bihar in northern India, for instance, only 11% of government-school teachers could solve a three-digit by one-digit division problem, and show the steps by which to do it.

Paying teachers more is not likely to improve the situation. As research by Justin Sandefur of the Centre for Global Development shows, poor-country teachers tend to be remarkably well-paid, by local standards (see chart). And evidence from countries as diverse as Indonesia and Pakistan suggests that teachers' pay levels have little impact on learning. Ideally, governments would invest in training teachers properly and promote or fire them on the basis of their performance. But the first of these ambitions requires levels of governance lacking in many developing countries, and a time-horizon beyond that of many elected governments. The second is often politically unrealistic: teachers' unions can be exceedingly powerful outfits for a range of reasons—including that polling stations are often located in schools and run by teachers.

Tech is not a substitute for well-qualified, motivated teachers, but—used appropriately—can mitigate the problems. The qualifier is important. In 2006 Nicholas Negroponte, founder of the MIT media lab, launched the One Laptop Per Child (OLPC) initiative to put computers in the hands of the world's poor children, saying: "We will literally take tablets and drop them out of helicopters." They did not, literally; but even when cheap laptops were delivered (by road) to poor-country schools, they did not improve learning levels. In Uruguay, for instance, 1m were distributed, but they had no impact on test scores.

Anti-dumping duties

OLPC illustrates what Michael Trucano, ed-tech specialist at the World Bank, regards as a basic law of tech interventions: "If you dump hardware in schools, and expect something magical to happen as a result—it won't." But he also believes that "successful systems are the ones that fail, learn quickly from failure and make improvements based on what's been learned."

Recent studies suggest that some places are at last getting it right—and that tech helps most in poor countries. A survey of ed-tech initiatives around the world by George Bulman and Robert Fairlie of the University of California, Santa Cruz, published by America's National Bureau of Economic Research, a think-tank, found that "evidence of positive effects appears to be the strongest in developing countries". They suggested this might be because "the instruction that is being substituted for is not as of high quality in these countries."

Tech can help solve many of the problems that developing-country education systems face. Take teacher absenteeism. The data the Tusome coach logs into her tablet, combined with GPS, tell the county education director whether the teacher and the coach were on duty. Some counties do nothing with the data; some use it to hold educators accountable. (Teachers are not fired—their union is too powerful—but some coaches have been.)

Technology can also help teachers manage a wide range of abilities in a class. In India, for instance, more than half of those in Grade 5 cannot read at Grade 2 level. If children never learn to read properly, they are doomed economically. In a big test among randomly selected children in government schools in Delhi, Mindspark, an interactive software developed in India, has been shown to make a big difference. It sets students work suitable to their level. The weakest children benefited most. If software can help stop children from dropping through the net, that is a massive gain.

Tech can also ease the burden of overloaded teachers. Interactive software produced by onebillion, a British non-profit group, has been tested in Malawi, where the average primary-school class has 76 pupils in it. Andrew Ashe, onebillion's co-founder, says he has seen a class of 250. For the onebillion trial, children were taken out of their huge classes, put in groups of 25 and given tablets loaded with maths software; similar-sized groups were given tablets without the maths software, to control for the possibility that children might benefit from any instruction given in smaller groups. Those with the maths software made significant gains.

Onebillion's software is among five systems undergoing the toughest test of all: teaching children in the absence of any teachers. They are finalists in the Global Learning XPrize, sponsored by Elon Musk, a Silicon Valley mogul. They are being tested in 150 remote villages in Tanzania that have no schools. A "solar mama" in each village is given a charger, and hands tablets to the children every morning and collects them every evening. The $10m prize will go to the software that most successfully enables children to read, write and do simple maths problems in the absence of a teacher. The data on learning will be collected in March. In the meantime the behaviour of the 3,000 children in the trial is being studied. Emily Church of the XPrize Foundation says they are showing more respect, obedience and confidence, and are "bathing before using the tablets, and dressing as though they were going to school."

Systems such as Mindspark's and onebillion's can also help overcome basic teacher ignorance. Good software, unlike many poor-country teachers, can do its sums correctly, spell, compose a grammatical sentence and offer a wide range of information through videos. Rich-country parents might tut at their children being taught by computers. But if the alternative is an ill-educated teacher, well-designed software may be a better option. Pranav Kothari of Mindspark says ed-tech is much more useful in India than in, say, Singapore: "In India, we need 9m teachers, but we don't have 9m people who can teach."

Tusome's company

But designing the right software gets you only so far. One of the lessons from Tusome is that in order to make a big difference, tech innovations need the acceptance of teachers and administrators. RTI International, the American non-profit group that devised Tusome, worked for years within the education system, testing different versions, and even got the approval of the local teachers' union. That is how it got into 23,000 public schools, not the usual handful in a short-lived pilot project.

This year Mindspark is being tried in government schools in the northern Indian state of Rajasthan. At the primary school in Ghanghu, a village in a desert landscape where camels nibble loftily at thorn-tree branches, children sit in the "Mindspark lab"—a bare room with tablets on desks around the walls—doing sums, playing learning games and watching videos. They are not familiar with tech—none reported having been on the internet—but seem to like it. "In every story I learn new words and their meaning," says 12-year-old Chanda. Mohit, 14, reckons, "It's good because the teacher isn't there, so you're not scared of getting the wrong answer." A Mindspark assistant is always present, so the children get on with their work even without teachers. "It's a normal school," says one of the Mindspark staff. "The teachers are there three or four days out of six."

Ravindra Sharma, the head teacher, is enthusiastic. The children like the tablets, the villagers are interested, and Mindspark has made his school more popular. Enrolment at most government schools in Rajasthan is falling, as more and more parents send their children to private schools. But his rolls have increased from 130 to 143 this year. He hopes that Mindspark is there to stay. Since the costs—$15 per child per year—are not enormous, the studies suggest it is effective and the state government seems to be determined to improve learning outcomes, he may be in luck.

On a shelf above his head, however, sits a *memento mori* for an ed-tech project: a computer monitor still in its box, covered in dust and detritus. Mr Sharma consults his staff about how long it has been there. They think it was part of a government initiative around ten years ago. But memories of the programme, and of what happened to it, have faded into the mists of time.

This article appeared in the International section of the print edition under the headline "Teacher's little helper"

Competition
An age of giants

Competition

Across the West powerful firms are becoming even more powerful

That could undermine public faith in capitalism, says Patrick Foulis

Print edition | Special report Nov 15th 2018

ONE BRIGHT morning earlier this year your correspondent travelled from New York to the University of Chicago to attend a conference on the threat to prosperity posed by monopolies. The journey began with an alarm beeping on a handset made by Apple (which has a 62% market share in America), then a bumpy taxi ride to the airport paid for using a piece of plastic issued by one of the three firms, American Express, MasterCard and Visa, that control 95% of the credit-card market. In the terminal, breakfast was scoffed from a supersized fast-food chain, while emails were checked using Google, which has 60% of the browser market.

The mobile signal was transmitted on one of the three networks that control 78% of the telecoms market. The flight was with one of the four airlines that control 69% of journeys within America. In Chicago your correspondent checked into the LondonHouse hotel, which looks like a boutique but turns out to be part of Hilton, which controls 12% of all rooms in America, and 25% of the new rooms being built. The booking was made on Expedia, which has 27% of the North American online travel market.

The firms involved in the journey made profits of $151bn and had a median return on capital of 29% last year. An equally weighted basket of their shares—call it the monopoly money portfolio—beat global stockmarkets by 484% over the past decade. Collectively, 17% of the companies' shares are owned by just three investment mega-managers, BlackRock, Vanguard and State Street.

Described this way, America's economy has become a capitalist dystopia; a system of extraction by entrenched giants. Europe shows signs of the same sickness. Growing protectionism and increased digitisation may make things worse. The stakes are high.

Competition is an elixir. It spreads wealth today by lowering consumer prices and giving workers more choice of jobs, reducing firms' monopsony power over them. It boosts productivity tomorrow by pushing firms to create better products for less. If profits in America fell to historically normal levels thanks to more competition, and private-sector workers got the benefits, real wages would rise by 6%. If competition also revived productivity growth, wages could rise a lot further. Without competition, capitalism is torpid and favours the few, not the many.

This special report will examine the claim that big firms are too powerful and that they are stifling competition. It will look at Europe and America, arguing that competition has faded and that a carefully calibrated response is needed. Next, it will consider the tech sector—simultaneously a source of dynamism and monopoly power. Finally it will examine the intellectual decay of the antitrust establishment and explain why inaction is dangerous.

A wake-up call

The view that competition might be in peril extends beyond those travelling from New York to Chicago. It feeds into the public's sense that the economy is rigged. Pension funds are making huge bets that the likes of Facebook and Hilton can crank out vast profits in perpetuity. Economists worry that powerful firms could distort interest rates; central-bank bosses debated this in August at their gathering at Jackson Hole. In Europe regulators are angry with Silicon Valley. America's antitrust agencies are waking up from a decades-long slumber, rather like financial regulators after the shock of 2008. Into the vacuum has stepped a radical new antitrust movement that believes the ideal economy is made up of lots of smaller firms with fragmented economic power. It wants to smash concentrations of capital in the name of liberty.

But the story is more complex than big business unfairly crushing all before it. Powerful firms are often efficient and pass the gains to consumers; think of Walmart selling mountains of baked beans for peanuts. They are often innovative, too. Netflix is burning cash to entertain 130m binge watchers. Populists often claim that the West has been ravaged by Chinese competition and is full of lazy incumbents, but can both be true? If monopolies are causing prices to rise, why is inflation low? Go back to that journey to Chicago. Your correspondent chose to switch from Samsung to Apple. The breakfast was cheap. Three of America's four big airlines have spent time in Chapter 11 protection from creditors since 2005, while its three biggest telecoms firms invest $45bn a year. Expedia's margins are falling. It is hard to prove that big investors collude. And the LondonHouse is elegant and keenly priced.

“Competition is for losers,” writes Peter Thiel, an American venture capitalist, in his book, “Zero to One”. Monopoly is the goal, he says. But society benefits if successful entrepreneurs are constantly toppled by others. The levelling effect of competition means a constant struggle with vested interests that has played out for hundreds of years.

Adam Smith, a Scottish economist, attacked the guilds that stifled 18th-century Britain. As America boomed in the 19th century industrial empires were created that trustbusters later broke up. Cartels were instrumental in 20th-century totalitarianism. In 1946 American administrators dissolved Japan’s *zaibatsu* (large industrial and banking conglomerates), and Germany’s Christian Democrats made competition their first priority in their economic manifesto in 1949. Margaret Thatcher used competition to revive Britain’s economy in the 1980s. In the 1990s the European Union used the single market to prise open stuffy industries. But after 2000 the West became complacent. Globalisation was assumed to guarantee competition. Over-mighty firms were judged to be a risk for corrupt emerging countries like Russia and the Philippines but not the rich world.

In fact powerful firms were gaining more clout in the West, for bad and good reasons. The bad reasons involve muffling competition. Some $44trn of takeovers have taken place since 1998, many aimed at creating pricing power or efficiency gains whose benefits are not passed to consumers. It has become fashionable for managers to build “moats”, or barriers to entry. That is reflected in the philosophy of Warren Buffett, who has built the world’s most valuable investment vehicle by betting on mature oligopolies in America. Clever firms found new ways to constrict competition. A fifth of all American workers are covered by non-compete clauses. Patents are “evergreened”. Arbitration clauses and complex contracts are used to hobble competitors. A few fund managers own big chunks of most firms. They do not conspire but they do set the tone at the top, doing little to encourage price wars.

The good reason for more powerful firms is the rise of an innovative elite that is an engine of efficiency. Its members are companies that have mastered digital technologies and enjoy network effects that help them fend off slower competitors, says John Van Reenen of MIT. In the tech sector this is clear. In old-fashioned industries, however, particularly regulated ones, digital wizardry is less likely to explain powerful firms’ clout. Whether they were created by cronyism or genius, if extraordinary profits are maintained for many years with no sign of new entrants, it is a clue that competition may not be working. In America and Europe there is a growing body of evidence that this is the case.

Sources and acknowledgements are listed here

This article appeared in the Special report section of the print edition under the headline ”An age of giants”

America v Europe

Dynamism has declined across Western economies

Fewer new firms are being started and America's opening to the world has stalled

Print edition | Special report Nov 15th 2018

A BIG PROBLEM when attempting to tell if competition has weakened is that experts have stopped trying to answer the question. In the 1930s industrial economists viewed an uncompetitive industry as one in which a few firms had a large share of output and prices were high or quality low. Roll forward 80 years and competition regulators take refuge behind legal definitions of types of misconduct, such as price-fixing. If you ask them whether economy-wide dynamism has ebbed, they often insist that there are no analytical concepts or satisfactory data that allow that question to be answered, rather like medieval geographers who refuse to consider any evidence that the world is round unless it is written by members of the church in ecclesiastical Latin.

This learned helplessness reflects the tricky legacy of Robert Bork, an American scholar and judge who wrote "The Antitrust Paradox", a deeply influential book published in 1978. It correctly criticised blundering state intervention in the 1960s and 1970s, and pointed out that many big firms were efficient and many concentrated industries competitive. But Bork went further and argued there was no logical or empirical link between competition, profits and concentration. He also wrote that, when assessing takeovers, it did not matter if consumers were damaged by higher prices and less supply, as long as firms captured enough profits from efficiencies, so that in aggregate both were better off.

Bork's view of real firms has aged badly. He described the dynamism of Detroit's carmakers just before Japanese rivals exposed them as lazy and dangerous, and criticised AT&T's break-up, which became a triumph for consumers. Forty years later the economy has changed. A battery of new studies link concentration, profits and falling wages. Intellectual property, not physical objects, is where the action is, and tech has created networked business models. Since 1978 total profits (that is corporate free cashflows, or the money that firms make after paying for investment) have risen from 1.9% of GDP to 4.5%. It is sensible to ask why competition is not bringing earnings down to earth and what might be done to boost it. The alternatives are to do nothing about inequality, or to introduce draconian taxes or regulation to redistribute income.

A working definition is that an industry may be uncompetitive if there is a concentration of sales, employees, intellectual property or data, and if returns on capital are abnormally high for long periods of time, with little sign of churn or new entrants. If you want a sense of the global hotspots, follow the money. It points you towards America, tech and others sectors not exposed to trade.

Consider the global pool of abnormal profits, or all the earnings that companies make above a hurdle rate for their cost of capital. This exercise assumes an 8% cost of capital excluding goodwill and includes the world's top 5,000 non-financial firms. In order to capture intangible assets, these figures capitalise research and development (R&D) spending as an asset with a ten-year life.

Global "excess" profits are $660bn. Some 72% of that is made by American firms, split between tech, health care and sectors that are not exposed to trade, such as airlines and defence (see chart). Other industries that are exposed to trade, including manufacturing, are less important. Europe accounts for 26% of the global pool of excess profits. Firms in the rest of the world capture 2%, with Chinese firms earning less than the hurdle rate.

Three tests

At the national level, America and Europe can be examined using three tests: concentration, abnormal profits and openness. America scores badly.

Take concentration first. The numbers need to be treated with caution, but between 1997 and 2012 it rose in two-thirds of 900-odd census industries, with the weighted average market share of the top four firms growing from 26% to 32%. It continued to rise in 2012-14. A tenth of the economy is made up of industries where four firms have more than two-thirds of the market.

Profits are indeed abnormally high. A good measure is the free cashflow of corporate firms. This is 76% above its 50-year average, relative to GDP. There are pockets where profits and prices are high compared with other countries, including airlines, credit cards, telecoms, pharmaceutical distribution and credit checking. As anyone who has squeezed into an old economy-class seat or signed fiddly receipts at the check-out knows, these industries clearly lag behind the rest of the world. They also involve thickets of regulation.

As for openness, America is still the world's largest centre of innovation. It spends $450bn a year on R&D, 20% more than China and more than Europe, Japan and South Korea combined. But business churn is subdued: of the listed firms that made a very high return in 1997, 50% still did in 2017 (using a hurdle of 15% and excluding goodwill). Fewer new firms are being started. And America's opening up to the world has stalled, with trade to GDP falling steadily since 2011 and the output of foreign firms' subsidiaries in America stagnating.

America became a unitary market more than 100 years ago. Europe has not finished the job. The typical big European firm is smaller than its American rival, reflecting a punier domestic market, with more global spread, showing the need to escape that market. There are few big tech firms. The largest generators of excess profits include Unilever and Nestlé, drugs firms, and luxury-goods stars such as LVMH that dress Crazy Rich Asians, not locals.

Nonetheless, there are grounds for concern. Europe relies on American tech firms. Concentration is creeping up. A forthcoming study by Chiara Criscuolo and colleagues at the OECD, a club of mainly rich countries, shows that the average market share of the top four firms in each industry has risen by three percentage points since 2000, roughly half of the rise in North America. The free cashflow of non-financial firms as a share of GDPis 18% above its 20-year average. A very profitable listed firm in 1997 had a 46% chance of still being very profitable in 2017. Like America, Europe has suffered a decline in the number of new firms. It is weak on innovation, spending half as much on R&D in absolute terms as America. It scores better on trade, however, which has risen slightly relative to GDP since 2007.

Joseph Schumpeter, an Austrian economist, distinguished between two kinds of competition. There is the daily battle of wits between two apple sellers. And then there are breakthroughs by entrepreneurs that transform how industries operate. These leaps are unpredictable. In 1920 America's cutting-edge giants included the Central Leather Company and Baldwin Locomotive, but they were soon overtaken by a new generation of consumer-goods firms. Perhaps today giant profits will stimulate a new leap in competition amid the fears of decline.

There are some green shoots. Investment among listed firms in America is rising at an annual rate of 18% as the Trump boom motors along. A giddy mood should lead to more start-ups. Retail, media and health-care firms live in terror of digital competitors. Some investors think that artificial intelligence could create the next Schumpeterian revolution. Masayoshi Son, a Japanese investor, is betting $100bn on the Singularity, the moment when computers become more intelligent than humans.

Other signs point towards entrenched power. The high stockmarket values of profitable firms show that investors think their advantages will endure. Protectionism will reduce competition. There are few new entrants in, say, internet search or American airlines or telecoms. And powerful firms intend to stay powerful tomorrow. Of the total capital spending and R&D done by America's leading 500 companies, the top 20 firms account for 38%. Big firms are buying innovative start-ups. And data may bind customers to incumbent firms. At the heart of this is the modern world's greatest creation and biggest source of fear—the tech industry.

This article appeared in the Special report section of the print edition under the headline "The big picture"

Big tech

Technology firms are both the friend and the foe of competition

This presents economies with the ultimate dilemma

Print edition | Special report Nov 15th 2018

ONE OF THE few things that most people in the West agree on is that there is some kind of problem with the big tech firms. Here is a list of common complaints. They have high market shares and concentrated ownership so that tycoons mainly benefit from their growth, cause addiction, censor free speech, do not censor free speech, are infiltrated by Russian spies, suck up to Chinese autocrats, do not pay customers for their data, give private data to third parties, refuse to give data to third parties, don't invest much, bully their critics, underpay workers, poach too many experts from universities, pay too little tax and corrupt politics. Some of these are directly about competition. In other cases the link is tangential. For example, if customers had good alternatives perhaps they would switch from today's firms when the companies behave badly. Often there is no link to competition at all.

Tech firms get so much flak that it is worth considering the case for the defence. It is surprisingly easy to make. Consumers love their products. Between them the big Silicon Valley platform firms have 8bn customers. They have increased choice for consumers. If you want to watch the greatest hits of Scottish curling or Arnold Schwarzenegger you no longer have to dig around car-boot sales. Amazon has 353m products on sale, 3500 times more than the typical supermarket. In one poll Americans said they would have to be paid an average of $17,500 a year to forfeit the use of their search engine, which if true means that total search revenues could be 83 times higher than the sales of Google's parent, Alphabet, last year.

Despite the ubiquitous use of the term "giant", today's tech firms are not unprecedentedly large. Ranked by domestic sales Apple is 14th in America, Amazon is 15th, Alphabet 37th and Facebook 107th. Uber and Airbnb are minnows that don't even make the top 300. The tech firms are accused of extracting giant rents from society. But the largest five have lower earnings relative to the economy than the mightiest monopolists of the past did, with a median profit of 0.16% of GDP. That compares with a median of 0.24% of GDP for four historical goliaths in the year that antitrust regulators hit them: Standard Oil and US Steel (1911), IBM (1969) and AT&T (1974). For Amazon and Netflix the rents flow in the other direction because their prices are low today: in total they subsidise their combined 240m paying subscribers to the tune of about $50 per person per year, based on the amount of additional free cashflow they would have needed to cover their cost of capital in 2017.

Thanks for everything

Their effect on the economy has been positive in many ways. Online inflation is running at one percentage point below official inflation, reflecting the bargains available on the web. Economists have criticised the firms for employing only a few tech bros and creating no assets apart from executive Koi carp aquariums. But this view is out of date. The big five tech firms have almost 1m staff, not far off the 1.5m Walmart has in America. They are investing at a massive pace: some $137bn in 2017. As a result their combined hoarding rate (their free cashflow) actually fell from a peak of 0.66% of GDP 2015 to 0.61% last year.

The tech firms can be a powerful source of competition. Think of Amazon threatening to take on America's rotten drug-distribution industry, or Netflix's detonation of the cable-TV racket in America. The danger of digital disrupters is forcing comfortable incumbents to raise their game, from Germany's car firms to Walmart. Meanwhile, the perception that big tech is entrenched is itself new. Facebook almost missed the mobile revolution: in 2012 it had fewer than 20 staff working on its core mobile team. Today Apple, Facebook and Google still depend on one main source of revenue. If they ever face a serious threat they could crumble.

Finally, tech firms are belatedly improving their conduct in response to the public outcry. Next year their collective tax rate is likely to be in line with the national average in America. On October 2nd Jeff Bezos at Amazon said that it would raise the minimum wage it pays its workers to $15 (twice the national minimum). Facebook has hired an army of people to clean up its content. As they are getting older they are getting nicer. What's not to like?

To see why tech platforms might be a threat, you have to think about a different kind of corporate concentration: the market share of the mind. Typical Britons spend 24 hours a week online. Some 77% use social media, 89% say they compare prices online, and 57% use their phone as a ticket or boarding pass. A majority shop and bank on the web. All of these figures are higher for young adults, suggesting that usage will rise over time. Only 30% of Britons are fully aware of all the ways in which their personal data are being harvested.

Seen in this light, tech firms are becoming the conduit through which people interact with the world. Their business model is to impose a levy, either by charging users subscriptions and commissions, or by manipulating their buying decisions, or by charging other firms that want to access the platforms' captive customers through advertising. The tech sector becomes a layer that sits across the entire consumer economy. Network effects mean that big firms are hard to dislodge. As they accumulate data on their users they become more enmeshed in their lives, making it expensive for customers to switch. And as artificial intelligence and data mining get cleverer, the platforms will manipulate their users even more, until eventually it is not clear who is in charge.

Disrupters keep disrupting

This future may sound abstract, but it is implicitly what Wall Street expects to happen. Politicians and regulators rarely consider stockmarket valuations, but they imply that tech firms will acquire an alarming amount of clout. To justify its valuation, Facebook's rate of "monetisation" will have to surge, suggesting that it extracts a bigger fee from other firms who want to reach consumers. To justify its $820bn market value, Amazon will have to increase its share of American retail to 12% (Walmart's share today is 7%). Likewise Netflix will have to roughly double its nominal fee per user over the next ten years. Though tech firms' profits as a share of GDP today are not extraordinarily large, Wall Street is predicting they will be in a decade's time, with the median ratio for the five firms rising to 0.28%. That is above the 0.24% median level of Standard Oil, US Steel, AT&T and IBM when they were each clobbered by antitrust regulators. The tech firms are expected to have higher returns on capital than the oligopolies of old, suggesting that they are better at extracting income per dollar of assets.

As they expand, the West's tech firms have the capacity to disrupt new industries. But one test of their limited appetite for competition is to compare them with China's two big tech platforms. Alibaba and Tencent are pouring money into a wild, economy-wide price war that has escalated to include digital payments, video, retail, games, travel, home delivery, cloud computing and music. Most of these areas are also contested by speculative upstarts that are losing billions of dollars a year subsidising customers. Compared with this violent scrum, America's tech sector looks like a genteel game of badminton. During 2018 the two Chinese firms' combined operating margin is forecast to fall by eight percentage points as price battles and new investments weigh. For the five American firms margins will stay roughly flat.

Meanwhile the development of new technologies could cause the tech firms' manipulative capabilities to rise. Personal assistants could spy on and deceive their users. So far the practice of price discrimination, or charging different customers different prices for identical products, does not seem to be widespread. Alberto Cavallo, a scholar at Harvard University, has analysed Amazon's prices and found that they are identical across different geographies 91 times out of 100. Still, it is easy to see how this could change. Imagine that Alexa, Amazon's voice assistant, were to study your shopping habits and charge you a "surge" price when you run out of milk. Or what if Siri, Apple's equivalent, were to track your email conversations with friends, conclude that you are keen to visit them and direct you to expensive flights, taking a cut from the airline? As data analysis and platform spying become more sophisticated, every price could be bespoke and opaque. Perhaps in the future, machines will even collude with each other to rig prices without humans knowing.

It would help if consumers had the capacity to switch away from technology networks that gradually start to exploit them. In the first half of the 20th century food brands competed on safety: the comforting knowledge that you would not find a dead mouse in your Kellogg's cornflakes is why such firms did so well. Today's tech markets seem stable but could flip suddenly if the powerful network effects that created them were to go into reverse. There could be a sudden surge of customers towards a new search engine or social-media firm that promised to guarantee users' privacy or pay them for their data.

All this has become less likely because the big tech firms are ruthless about buying up nascent competitors. Facebook's purchase in 2012 of Instagram, a rising social platform, for $1bn is perhaps the most famous example. The following year it tried to buy Snap, another potential rival, and when it could not, replicated many of its features. In 2014 it bought WhatsApp. Alphabet has invested in over 300 start-ups since 2013. The fear among start-ups of being bought or being crushed has led to talk of a "kill zone" surrounding the big firms which no new firm can survive.

The tech platforms therefore present the ultimate dilemma. They are the superstars of the Western world, and yet their business models have the potential to become malign, their market values imply they will become more powerful and their conduct suggests that they will avoid major confrontations with each other and wipe out potential competitors. The list of possible solutions is shorter than the list of grumbles. There are four main categories.

Come in like a wrecking ball

The first is to break the firms up. In some cases this could be done without huge damage. For example AWS, Amazon's cloud division, could survive happily as an independent company, eliminating the danger of data about third parties gathered from it being used to influence Amazon's e-commerce arm. But for many firms break-ups would also eliminate the benefit that customers say they get from participating in a network. It is possible that one of the dismembered parts of Facebook or Google would grow quickly to become as dominant as the erstwhile parent. For governments in all but two countries in the world, America and China, break-up would be hard since the big firms are not headquartered there.

The second approach would be to turn platform firms such as Facebook, Alphabet, Uber and Twitter into regulated utilities. Their prices and return on capital would be capped (causing profits to fall by about 65% and 81% for Alphabet and Facebook, respectively). Economic regulation would sit alongside a broader attempt to police the firms' behaviour, just as utilities have to promise to provide clean water and reach every home. But state supervision would douse these firms' innovative spirit. America's two 20th-century experiments with price regulation were disasters. The airlines between 1938 and 1978, and AT&T until 1982, were inefficient empires that did not care about customers. Because of the politicisation of America's institutions and the rise of lobbying, the risk of cronyism today would be high.

The third approach would be to counter the platforms' power with people power. Users might team up to form large "customer unions" that bargained collectively with the tech firms, demanding better privacy terms or even payments for users in return for their data. Or new "digital concierge firms" might be set up to act as trusted intermediaries with the tech firms, ensuring that privacy terms were met and search results were fair, and arranging any flow of payments in return for the use of data. This could work well, though it is not clear that consumers can be bothered.

That leaves the last category: creating competition by force. The idea is not as strange as it sounds. Across the world governments have opened up consumer markets for energy and telecoms. In the case of tech the big firms could be prohibited from buying smaller ones. They could be forced to share their data and intellectual property with new entrants on reasonable terms. In 1956 regulators forced IBM to give other firms access to its patents in return for a fair fee, a decision that helped new tech firms emerge. And even if the agglomerated systems and databases of the tech firms remained intact, they could be forced to give customers ownership of their own data and pay them for their use (in the case of Facebook and Google this could amount to roughly $8 per customer per year). Customers would capture a bigger slice of the pie and have an incentive to switch to firms offering better terms.

Entrepreneurs are starting to experiment. For example, Sir Tim Berners-Lee, the inventor of the web, has launched a firm called Inrupt that offers a virtual "pod" where users can keep their data.

It took years of trial and error before markets for gas and power took off around the world. As well as requiring entrepreneurs, such a change needs deft regulators operating in strong institutional frameworks. At the moment those do not exist.

This article appeared in the Special report section of the print edition under the headline "The tech antitrust paradox"

Hotspots

Which American industries are most in danger of monopoly?

Mapping the problem in America

Print edition | Special report Nov 15th 2018

HOW CAN you identify the hotspots in the economy where competition might be a problem? *The Economist* has tried to answer this question with a series of filters which we have applied to the top 500 firms in America. The process is designed to narrow down where trustbusters may want to look more closely. Existing competition doctrine is not helpful in this exercise, since it lacks any clear sense of what competition is. Instead the inspiration is Warren Buffett, an investor. He argues that some firms have "moats" that protect them from competition. Often these are deserved, being the result of investment, innovation or excellence. In some cases they are not.

The first question is whether a moat exists. We include firms in concentrated markets, or ones that are heavily regulated or reliant on patents, or whose customer is the state. The next point to decide is whether companies are highly innovative or not. Schumpeter would, correctly, argue that firms which innovate deserve a window of competitive advantage. The third filter is the size of firms' rents, or the free cashflow generated above a hurdle rate, which could reflect either innovation or a lack of competition (we assume a 12% hurdle rate, exclude goodwill and treatR&D as an asset with a ten-year life).

Then we consider openness, or whether market shares and returns on capital shift around, and whether new entrants exist. Finally, in a nod to worries about Amazon and Netflix, we consider the capacity for firms with keen prices and low rents to engage in long-term "clawback" by eventually cranking up prices in the future. It is a bad idea to punish firms that are a source of disruption, but worth keeping an eye on what they may do in future.

We use a traffic light system. A red light means action is needed to open the market. An orange one means a watching brief. A green light means there is nothing to worry about. Apple gets a green light: it has a large market share and high profits but is innovative and faces two credible new entrants from China. Google and Facebook are similar, but there is no sign of new entrants. That gets a red light. Amazon has a large market share in e-commerce and is innovative, but has low free cashflow (after adjusting for leases), indicating consumers get a good deal. The fear that it has enough power to claw back huge rents in the future earns it an orange light: it should be watched.

The exercise suggests that 24% of the market value of the S&P 500 is in firms that get a red light and 14% in firms that get an orange. That points to the need for precise interventions to spur competition in these limited parts of the economy, not a sprawling campaign to bash big business.

Clarification (November 20th, 2018): This article was amended to make clear Amazon's large market share refers to its market share in e-commerce.

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The regulators

Regulators across the West are in need of a shake-up

Trustbusters are too cosy with their industries and lack bite

Print edition | Special report Nov 15th 2018

WHEN YOU come into contact with the competition establishment in the rich world—regulators, academics, lawyers —the cruellest comparison is with financial watchdogs before the 2008-09 crash. They are the proud custodians of an internally logical set of rules, developed over years, that do not seem to be producing good results and cannot easily be communicated to anyone outside the priesthood. Most competition authorities are unwilling to be held accountable for the level of competition in the economy; indeed they go further and insist that it is impossible to measure. Given the profound consequences of a rise in corporate power, that is an unsustainable position and will have to change.

The regulatory regimes on either side of the Atlantic have a lot in common. In America, the Federal Trade Commission (FTC, answerable to Congress) and the Department of Justice (DoJ, a creature of the executive) look at firms and bring cases to court. In Europe the European Commission and national regulators divide the load. The commission can punish firms, which can then go to the courts to appeal. The original laws are short and vague: America's Sherman act of 1890 has 769 words, and the pertinent passages in the Treaty of Rome of 1957 contain 396 words. At any moment the courts interpret these fastidiously, but over time they have been highly inconsistent.

The apparatus says its purpose is consumer welfare. Its actions fall into three categories: punishing cartels, policing mergers and dealing with dominant firms that abuse their position (Europe sometimes looks at state aid, too). The offences that firms are booked for are technical, such as "foreclosing"—refusing to supply another firm—and "tying"—forcing people to buy particular bundles. Judged by cartel decisions and abuse of dominance cases, activity by regulators has fallen since the 1970s in America and been steady in Europe (see chart). Between them, those regulators employ 6,000 people and keep lots of lawyers in silk.

They suffer from three main problems. The first is a lack of curiosity. The big economic trends are high profits, high and persistent returns on capital, takeovers, tech platforms, some spread of tech through older sectors, a decline in new entrants and the use of "moats" such as patents to protect them from competition. Investors have been aware of this for at least 15 years, and the best ones have profited hugely from it. The world of macroeconomics woke up in 2015 after a landmark paper by Jason Furman and Peter Orszag on the link between companies and inequality, and there has been a surge of studies since.

In America the DoJ and FTC have been woefully behind. They seem to lack basic knowledge about the economy, although both bodies have newish bosses who may change that. Europe's trustbusters have a better record. They began to examine digitisation several years ago. They have also been strict with telecoms and airlines, two of America's problem areas.

The second problem is a lack of clarity. There is no definition of what competition, or its absence, looks like, other than the near-tautology that it is whatever is good for consumers. Instead there are technical offences. Many of the measures used to gauge these look strange. Lots of emphasis is placed on whether prices rise. But consumers can suffer even while prices fall: the cost of a long-distance call was dropping even when telecoms was a monopoly but collapsed after deregulation. In many modern markets there is no price. Payment is in kind, for example in the form of data, not cash.

Competition authorities sometimes look at profitability, but choose some odd definitions. They consider whether prices exceed marginal cost, which is undetectable in the real world. They look at gross margins, but these are not statutorily defined by American or European accounting regulators and are arbitrarily computed by each firm at its discretion. Sometimes experts discuss absolute profits, but rarely the capital used to create them. In this last respect the system has regressed over the past century. The fact that Standard Oil made large profits relative to its capital base was viewed as important during the court case which raged in the early 1900s. Today that would be viewed as risqué.

The third problem is that competition regulators have been captured. Financial regulators were swayed by theories about the efficiency of financial markets and by a revolving door between the public sector and the firms they were supervising. That led to denial about the build-up of risk before 2008. Competition regulators have a dated view of the economy and, in official forums about how to reform competition policy, lawyers acting for private firms are given undue weight. Academics are paid as witnesses or are sponsored by firms without disclosing it. Officials rotate between the agencies and law firms which defend big companies. Consumers rarely have a voice. In America things have slipped so badly that a material conflict of interest is not considered a disqualifying condition, or even a relevant consideration, for someone to pronounce on antitrust policy and be taken seriously.

Hot stuff

Imagine disregarding the existing apparatus and starting again from scratch. The first step would be to identify the hotspots in the economy where competition might be a problem (see article). The next step is translating this economic and financial analysis into a legal one. This is like working rock into flints. In both Europe and America a body of case law and rules has defined narrow kinds of misdemeanour, but these apply to old industries and have to be adapted to present circumstances. Prosecutors have been creative over the 128 years since the Sherman act, but recently they have struggled to fit the modern world into the doctrines of old law. A particular weakness is dealing with firms that are already powerful, which has become more important since a takeover boom has already been waved through.

The European Commission's competition arm is an example of what happens when well-meaning energy is used to contort economic worries into a flawed legal framework. It has scrambled to find ways in which tech firms might be deemed to offend existing doctrine. It has examined whether, from the mid-2000s, Google forced manufacturers to pre-install its browser (technically "tying"), fining it $5bn this year. Last year it fined Google $3bn for favouring its own shopping site in its search results. In 2016 it found Apple guilty of receiving state aid through tax breaks from Ireland. The impression is of a scattergun approach, with long delays and fines that are a tolerable cost of doing business for tech firms. The mismatch in clout was highlighted by Facebook's takeover of WhatsApp in 2014. The commission permitted it on the basis that the two firms would not link their data. They then did. On September 26th Brian Acton, a founder of WhatsApp, indicated to *Forbes* magazine that this had been the plan all along. Facebook has been fined $125m—a rounding error for such a firm—for misleading the regulator. The deal will not be reversed.

The legal frameworks need to be updated. One source of optimism is Germany. In 2017, at the behest of the Bundeskartellamt, the competition watchdog, it made several tweaks to the law to modernise it for the digital age. Among other things, these confirmed that a market can exist even if money does not change hands, with payments made in data, for example. They also changed the threshold for looking at takeovers in order to capture expensive purchases of small firms with few revenues, which typically happen when big firms buy putative competitors. Germany also has more legal flexibility to scrutinise powerful firms that treat customers unfairly, which it has used to investigate Facebook's approach to customers' data. Andreas Mundt, the Bundeskartellamt's president, says: "We cannot pretend that nothing has happened in the economy and we are living in the 1990s. We need to adapt our instruments and tools and proceed into the digital world."

In America the chance of turning sensible economic analysis about competition into action appears small. Part of the reason is the rickety architecture. The two agencies, the FTC and the DoJ, have retreated from a swathe of the economy that does not work well. A legal doctrine established in 2004, in a case known as Trinko, states that the benefits of antitrust action in regulated sectors, "will tend to be small". That may have led trustbusters to steer clear of industries with abnormally high returns, including telecoms, health care and airlines. The sectoral regulators may have been captured, and the economy-wide trustbusters look away.

Compounding all of this are the courts in America. In Europe the commission has the benefit of the doubt: it makes decisions and then firms can appeal. In America the courts must decide, giving them enormous clout. Their reluctance to act has intensified since the 1980s, partly as a result of an ideological shift (see article). Some experts, and even senior officials, talk about starting over and redrawing the entire antitrust architecture, much as America did in 1890 when it passed the Sherman act, and again in 1914 when the FTC was formed.

One option would be for Congress to write a completely new law, and create a new enforcer and even a new court system to handle competition. A watered-down option would be to pass a new law that gave the courts specific guidance about how to interpret existing competition law. At the moment competition policy is not a political priority for mainstream politicians, in America or elsewhere in the rich world. But if reform does not happen, the risk is that something uglier will fill the vacuum.

This article appeared in the Special report section of the print edition under the headline "Who you gonna call?"

Solutions

Western governments need a plan for reinstating effective competition

Opening up the problem industries transcends the political divide

Print edition | Special report Nov 15th 2018

EVER SINCE the financial crash of 2008-09, capitalism has not been working well. Ordinary people sense it and so do the elites, who have prospered through the West's lost decade. The symptoms are lower growth, less dynamism and greater inequality. Damagingly, this has led to a widespread belief, particularly among young people, that the system is gamed and that things will not improve, even in the long run, Public anger has so far bounced back and forth among bankers, politicians, "experts", remote bureaucrats, foreigners, China and the European Union, but sooner or later attention may turn to companies. After all, they employ lots of people, invest more than states or households and make all the profits. If you think that the economy is misfiring, it is perfectly logical to ask whether companies are misfiring, too.

After 30 years of globalisation, growing profits and rising executive pay, businesses have forgotten how far the pendulum can swing in democracies. History shows that those swings can be surprisingly large. America saw a backlash against big business in the 1910s and 1930s. Even in the 1970s President Richard Nixon accused supermarkets of profiteering and introduced price controls. In Europe state ownership became popular after the second world war, and France under President François Mitterrand nationalised banks and industrial firms in the 1980s. Today the world's most dynamic large economy, China, likes to have a few giants in strategic industries that it can control. Across the emerging world, countries are as inclined to follow China as they are the West.

America and Europe have three main sources of ideas on how to make business work better for everyone: the left, the right, and incumbent firms with their self-interested agenda. Each is bad in its own way. Start with the left. In August Elizabeth Warren, a Democratic senator and a likely presidential candidate in 2020, launched the Accountable Capitalism Act, which would put workers on boards, create federal licences for firms that can be revoked for bad conduct, and require boards to balance the interests of shareholders, workers and local communities. In September Britain's Labour Party floated plans to seize 10% of every firm and place it in "workers' trusts" which would hand most of their income to the state, not to employees. It has since backtracked a little.

Clever activists on the left have already spotted how antitrust could be another lever. The trick would be to change the objective of competition policy from consumer welfare to a broader set of goals such as reducing inequality, increasing minority rights or saving small firms. In America, a bill known as the Merger Retrospective act, promoted by a group of Democratic politicians, proposes that the competition authorities review past deals for their impact on factory closures, inequality and R&D. Neither the Warren bill nor the Merger act will be passed, but both are indicators of the policies that have become mainstream among left-leaning parties. The intention is to make big business work better for ordinary people, but the result would be clumsy government intervention, a dilution of property rights and the spectre of heavily regulated firms under politicised supervision.

Boot camp needed, not cheerleading

The right, meanwhile, argues that business can work for all if only it is freed from its constraints. This is the present line of the Republican party, and of some right-leaning politicians in Europe. Some of the proposals being put forward, such as simplifying regulations and tax codes, make sense. But the approach as a whole will not work. The current boom is likely to prove temporary, and when it runs out of steam, investment levels and the formation of new businesses will probably fade again. Meanwhile the lobbying power of incumbent firms has increased further, with summits at the White House, perks buried in the new tax code and exemptions from the tariff lists. The government has pepped up USA Inc with some backslapping, but has not made it fitter.

The last of the terrible trio is the self-interested voice of big incumbent businesses. It holds that the executives in charge need more power: to help frame government policy, to retain more profits and to disregard shareholders. Often this is packaged as "long-termism", corporate responsibility or patriotism. Yet the companies that support this agenda—JP Morgan, Berkshire Hathaway, BlackRock, McKinsey and Unilever—are clearly part of the establishment. They want a world in which incumbent firms are under less pressure to plough abnormally high profits back into the capital markets, giving them a licence to invest the money so they can grow ever larger, while enjoying tacit co-operation with the government to pursue industrial and social goals. It is a soft corporatism, dreamed up after a long boom, by powerful people who think the problem is that they are not powerful enough. What the West needs is dynamism and openness, not happier incumbents.

The alternative to this unappetising menu is a calibrated competition agenda. The problem industries amount to perhaps 20% of the American economy, and less in Europe. In the non-tech economy in America they are mostly not exposed to trade and involve lots of interaction with the state. Opening them up is an obvious move that transcends the political divide, and its attractions can be easily explained: lower prices, a wider choice of products, more potential employers and an economy in which upstarts have a chance. Competition has credentials as a remedy for the rich world's problems. It can help spread wealth by making goods cheaper and reducing the monopsony power that firms can have over workers. It creates wealth by pushing firms to innovate.

A pro-market initiative would see governments set a broad agenda based on commonsense proposals to deal with problems that have emerged. It should be communicated to the public. Existing legal doctrine should be a tool of the policy, and a potential constraint on it, but not its master. A screening process could identify industries where this might cause difficulties.

Next the institutional architecture would be reformed. What is worrying from a consumer's point of view must have a corresponding concept in competition law so that action can be taken in a way that is limited and predictable. That means updating laws for the 21st century. Markets can exist even when no money changes hands; concentration can include intangible assets; dominant firms can kill competitors by buying them. Europe's competition bodies can improve the way they are run; the European Commission takes too long to investigate cases. In America the entire system may need to be redesigned. A far stricter attitude is needed towards conflicts of interest among officials and lawyers.

Finally, remedies need to be established that make a difference to consumers. Levying modest fines years after offences were committed makes little difference to the public. Wrapping companies in regulations and systems of supervision is counterproductive; indeed the ability of incumbents to take advantage of red tape is part of the problem. Instead the priority should be systematically to open up markets that appear to be closed or rigged.

That means removing legal or regulatory impediments for new firms, and untying knots of data and patents controlled by one firm so that they are available, on commercial terms, to everyone. It means replacing industry regulators who are too chummy with incumbents, and preventing powerful companies from taking out emerging rivals. It also means creating digital markets that empower individuals rather than tycoons.

All this may seem a tall order. Yet protectionism makes it even more crucial to prevent domestic markets from becoming cosy. After the next recession strikes, and perhaps after America's presidential election in 2020, the West may look for new ways to make the economy work better for all. Competition should be top of the list. It could help save capitalism from itself.

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The courts

Judge dread

The troubling lesson from the American Express and AT&T Time Warner cases

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TWO COURT cases this summer illustrate the decay of America's machine for policing competition. Telecoms and credit cards are problematic industries: concentration, prices and profits are high, and, despite the firms' rhetoric about innovation, the sophistication of the technologies being used is no better and sometimes worse than in the rest of the world. Antitrust regulators and the courts had an opportunity to review the evidence that consumers are getting a bad deal, and to consider remedies, but they fluffed it.

In the first case the government lost a case against American Express, which it argued unfairly imposes contractual limits on merchants such as shopkeepers, by prohibiting them from telling shoppers that there are cheaper ways to pay. Amex operates a two-sided market, bringing together merchants and consumers who use credit cards. America's payment market is concentrated and backward. Contactless card readers are rare. Cabbage vendors in China use digital-payment systems that have yet to reach Fifth Avenue stores. Visa, MasterCard and Amex control 95% of the market and make a combined 174% return on equity, excluding goodwill.

The Supreme Court ruling notes that Amex has a 26% market share and has raised prices for merchants 20 times between 2005 and 2010. It argues that these gains have been passed on to cardholders, but contains no empirical evidence of this. It uses a book published in 2004 to support the claim that the credit card market is competitive and ignores the payments revolution taking place outside America. The ruling may help tech firms that run two-sided networks, such as Facebook and Google, since it suggests that they can hike prices for one group of customers who depend on them without passing the gain to customers on the other side.

In the second case the Department of Justice failed to block the acquisition by AT&T of Time Warner, a content provider. AT&T has re-assembled part of the empire broken up in 1982 and controls 30% of the wireless market, in which by global standards prices are high and the industry regulator is feeble. AT&T behaves a lot like an old-school monopoly, running with high debt (indicating it does not expect its margins to fall in the near future) and using lobbyists. In May it admitted paying money to Michael Cohen, President Trump's former lawyer.

The only logical motive for the $107bn deal is that AT&T plans to direct its wireless customers to Time Warner content, disadvantaging other content firms, and using data to lock customers in. The company denies this. It is an argument that needs scrutiny. But the case became a fiasco after President Trump criticised CNN, a channel owned by Time Warner, raising worries of political interference. The DOJ's case was narrow, focusing on two peripheral assets, AT&T's satellite TV business and a group of channels known as Turner Networks. The judgment shows little interest in how inadequate competition in the mobile market could infect the content market, and treats AT&T with deference. It ends with a call for the rights of a specific group of shareholders, not all consumers. There is nothing better to illustrate all of America's antitrust problems in one place.

Sources and acknowledgments

Print edition | Special report Nov 15th 2018

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The chemicals industry
Hazard signs

Hazard signs

Upheaval in the chemicals industry

A consumer and regulatory backlash threatens old business models

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AMERICAN JURIES are well known for the generosity of their awards in civil cases. In 2002 a Californian jury fined Philip Morris, a tobacco company, a whopping $28bn for causing a heavy smoker's cancer, only for the amount to be slashed to $28m by a judge on appeal. So Bayer, a German chemicals giant, told shareholders not to worry when a Californian jury in August ruled that Monsanto, an American firm it bought two months before, had to pay $289m to Dewayne Johnson, a former school caretaker. Mr Johnson alleged that Roundup, a glyphosate-based weedkiller, had caused his terminal cancer. The jury made a judgment based on "junk science", Monsanto said. It would surely be overturned on appeal.

Last month a judge reaffirmed the verdict; the damages were trimmed, but to a still-hefty $78.5m. With Bayer's admission on November 13th that the number of similar lawsuits had reached 9,300, it is clear that the bill for compensation could reach tens of billions of dollars.

Bayer still denies any link between Roundup and cancer. Its boss, Werner Baumann, says it will defend the cases "with all means". But Mr Johnson's lawyer, Robert F. Kennedy Jr, is sure that he will keep winning. "We're going to win enough of these to be a problem for Monsanto and a poison pill for Bayer." Monsanto makes 70% of its operating profits from Roundup-related products. Bayer has lost over €27bn ($31bn) in market value since the first ruling.

The verdicts have spread disquiet through the sector. Other big pesticide-makers, such as BASF of Germany and DowDuPont of America, have been hit almost as hard as Bayer (see chart), despite being less reliant on glyphosate. Investors are increasingly nervous of a backlash against chemicals products, both in agrichemicals, an industry with annual sales of $380bn, and in petrochemicals, which is worth around $800bn.

The past two decades increasingly look like a golden era. Between 2000 and 2015, listed chemical firms produced total returns to shareholders of 300%, three times higher than firms across all sectors. Surging consumption in China helped demand for their products rise faster than GDP growth. Several rounds of mergers have reduced price competition in the industry, particularly in agrichemicals. Falling trade barriers let firms move production to low-cost places.

These trends have reversed, notes Florian Budde of McKinsey, a consultancy. Demand from China is likely to slow, because consumers are buying fancier goods, such as posher cars, as well as services, both of which require less plastic. State-owned Chinese enterprises are muscling onto the global stage, encouraged by the government's emphasis on self-sufficiency in chemicals, which exerts downward pressure on prices. Last year ChemChina bought Syngenta, a Swiss agrichemicals firm, for $43bn, for example. It is now grabbing market share from the Western giants in Africa and Latin America. Trade wars between America and China will hit the industry's global supply chains, lifting costs.

But the sense that something deeper is wrong also troubles the industry. For the first time since the advent of industrial chemicals in the 19th century, bosses are worried about the long-term prospects of some of their best-selling wares, from the pesticides farmers spray on crops to the plastics used in millions of products.

The glyphosate saga symbolises one of these worries—a regulatory crackdown. Since the World Health Organisation declared in 2015 that the compound was "probably carcinogenic", regulatory pressure on its use has increased. Last year President Emmanuel Macron promised to ban it in France by 2021. Germany also announced plans to limit its use earlier this month. Health Canada, a regulator, is reviewing its approval because of claims from environmental groups that Monsanto secretly influenced the scientific studies it used (Monsanto has denied any such thing). Many firms are bracing themselves for the European Union to decide not to renew its licence for glyphosate after 2022. Also in regulators' sights are hormone-disrupting chemicals such as bisphenol A, found in many plastic household items.

Regulators are not the only source of concern. Consumers in many places are showing themselves ready to pay more for food involving little or no use of pesticides. Farmers in turn are switching to "precision" methods, entailing more targeted use of chemicals or robots to do weeding. Bayer executives fear this shift could hit demand for its pesticides by as much as 20-30% over the next decade, says Markus Mayer, an analyst at Baader Bank, an investment bank near Munich.

Precision farming "will change how we think about farming", says Sam Watson Jones of the Small Robot Company, a British startup. It is developing three small autonomous robots—called Tom, Dick and Harry—which will only feed and spray the specific plants that need it rather than dusting an entire field with chemicals from a tractor or plane. He claims that his company's system will cut chemical use, and carbon emissions, by up to 95%.

Agrichemical salespeople are not alone in anticipating disruption. The petrochemicals industry is experiencing a backlash against single-use plastics, a key source of demand for its product. Spencer Dale, chief economist of BP, an oil giant, has estimated that more regulation of plastic could lower global demand for petrochemicals by around a sixth by 2040. China's crackdown on waste will have a particularly big impact on demand for plastic. In January it banned imports of plastic rubbish from other countries; it is tightening up compliance with its rules and taxes on plastic bags.

Chemicals bosses are well aware of these pressures. Responding to them may be easiest in agrichemicals. Here at least, digitisation has scope to answer consumers' concerns about indiscriminate use of chemicals, and also to generate a new stream of profits. Many firms are racing to offer digital-farming tools, which can provide advice to farmers using big data, satellite pictures and weather information.

The market leader in this field in America is Monsanto-Bayer's FieldView platform, produced by a subsidiary called Climate; in Europe it is BASF's Xarvio app. Some of Bayer's executives think that, however much grief Roundup causes, its purchase of Monsanto was worthwhile just to get its hands on Climate's technology, which farmers already pay to use on 60m acres of fields in America. When regulation of glyphosate hits in Europe, Bayer can potentially replace revenues from chemicals with revenues from data, says Mike Stern, the company's head of digital farming.

But there are still doubts over whether digital husbandry can make up for the revenues that are at risk. Five years after Monsanto bought Climate for nearly $1bn, it still produces only a tiny slice of overall revenues. Mr Stern says that this is because, like any young tech firm, it is focusing on market share rather than profit. But it is also possible that tractor-makers, such as John Deere of America, turn out to be better at selling digital tools for precision farming than chemical firms, says Oliver Lofink of PA Consulting.

"This case is way bigger than me," said Mr Johnson, who is dying of non-Hodgkin lymphoma, after the first verdict came in. He wasn't wrong.

This article appeared in the Business section of the print edition under the headline "Hazard signs"

Bartleby

Crossed lines in the boardroom

The inside tale of how Nokia lost a market it dominated

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IT IS A tale that might have been written by Shakespeare. It features hubris, nemesis and partial redemption, as well as clashing personalities and losses in the billions of dollars. And it all takes place in the most unlikely of dramatic settings: a Finnish boardroom.

Risto Siilasmaa is the chairman of Nokia, which is today a very different and much smaller company than in 2008 when he joined its board as a non-executive director. His book* recounts the gripping saga of how Nokia was driven out of the mobile-phone business it dominated, and had to reinvent itself.

When Apple launched the iPhone in 2007, Nokia at first seemed to view it as a niche competitor with a high price-tag that would capture only a small slice of the market. After all, Nokia's phones appeared to have all the bells and whistles needed to succeed. Users could download music and listen to the radio; they could use their phones to take photos and videos; they could send and receive email; and even use maps.

Mr Siilasmaa had a front-row seat for the drama that ensued when he first joined the firm, but very little real influence. As he explains, board members have limited access to limited quantities of important company information. With his software background, however, he quickly perceived the firm's big problem. Its devices could rival the iPhone mechanically, but the operating system could not compete. Nokia's Symbian system was cumbersome for users, who had to send confirmations whenever any function was added to the phone.

Nokia also had a wide range of devices with different operating requirements, making it difficult for app developers to customise their offerings. Apple, by contrast, had only one platform and enjoyed the benefit of being able to design a system from scratch.

Increasingly concerned about these problems, Mr Siilasmaa wrote a strategy document suggesting that the company should consider embracing the Android operating system for phones, which was rapidly gaining market share. He sent it straight to Nokia's chairman, Jorma Ollila.

Every good play needs a villain, and this book casts Mr Ollila in that role. Before becoming chairman, he had been Nokia's chief executive from 1992 to 2006, the years of its rise to dominance. He did not seem to appreciate a non-executive director putting his oar in. Mr Siilasmaa writes that "with a sharp-tongued and thin-skinned chairman at the helm, intent on maintaining iron authority, raising questions can be close to mutiny". He tried again, this time sending his memo to the chief executive and other board members, but says his concerns were never addressed in board meetings.

Mr Ollila, now 68, has described Mr Siilasmaa's claims as exaggerated or not true. But Nokia's performance deteriorated sharply during his last years in charge, and nothing he did was able to stop it. The company did team up with Microsoft to launch a Windows-based phone, the Lumia. But by 2012, when Mr Ollila left the board, Nokia's market value had fallen by 92% since Apple's iPhone was launched and the firm was making a loss.

The mutineer was then obliged to move to centre-stage. Mr Siilasmaa came in as the new chairman when the company's fortunes seemed to be at rock-bottom. Instead, the news got worse: the Lumia phone received good reviews but failed to gain market share.

So Mr Siilasmaa acted. In 2013 Nokia sold the phone business to Microsoft and struck out in a different direction. The company bought out the share of Siemens in a joint venture called NSN and acquired Alcatel-Lucent. Now Nokia offers "end-to-end" digital infrastructure, supplying network equipment and software to telecoms operators. It is profitable, but its share price has barely moved in the past five years and future success is dependent on a wave of spending on 5G telecoms networks, which may come slowly.

Nokia was already a classic example of the perils of disruptive innovation for industry leaders. Mr Siilasmaa's account underlines how little influence board members often have when faced with an entrenched management team. He insists that a board's role must be to challenge management. Bosses must have an attitude of "paranoid optimism", always on the lookout for potential threats. Nokia's story shows why.

* "Transforming Nokia: The Power of Paranoid Optimism to Lead Through Colossal Change"

Economist.com/blogs/bartleby

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Tough call

MTN faces angry regulators, US sanctions on Iran and civil wars

For South Africa's telecoms champion it comes with the territory

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FEW FIRMS know the promise and the pitfalls of doing business in Africa better than MTN, a telecoms giant. Connecting its first calls in 1994, the year that Nelson Mandela came to power, the firm became an emblem of the new South Africa and an early vehicle for black investment. At the time there were just 6m landlines in sub-Saharan Africa, one for every 100 people. Today MTN alone boasts 225m mobile subscribers in 21 countries across Africa and the Middle East. A former chairman, Cyril Ramaphosa, is now South Africa's president.

One reason for MTN's rapid growth is its focus on emerging markets, where young, fast-growing populations are eager to connect. But it can be tough to operate in such places. A degree of risk comes with the territory, says Rob Shuter, MTN's phlegmatic boss. "There's going to be good patches and bad patches." That is putting it mildly: his current headaches include Nigerian regulators demanding billions of dollars, sanctions against Iran and some civil wars.

The biggest worry is Nigeria, which contributes 27% of MTN's revenues. In August its central bank ordered the group to return $8.1bn, which it said had been taken out of the country illegally. Then the attorney-general weighed in, chasing $2bn in back taxes (the two sums add up to roughly MTN's market value). The double whammy knocked a third off MTN's share price in a week on the Johannesburg Stock Exchange. South Africa's central bank recently warned about risks to the financial system if MTN were forced to pay up soon.

That is unlikely. MTN has gone to court in Nigeria to challenge the claims, which relate to transactions stretching back a decade. The governor of Nigeria's central bank has said he expects the sum to be reduced. As *The Economist* went to press, reports circulated of a deal over the $8.1bn. It is in both sides' interests to reach a resolution, says David Ferguson of Renaissance Capital, not least since MTN is one of only two firms in Nigeria with resources to make big investments in telecoms infrastructure (the other is Airtel, a subsidiary of Bharti Airtel, an Indian telecoms firm).

There is a precedent for compromise. In 2015 a Nigerian regulator fined MTN 1trn naira (then worth $5.2bn) for failing to disconnect unregistered sim cards: some of them, it said, were being used by Boko Haram, a violent Islamist group. The amount was reduced to 330bn naira. As part of the deal, MTN promised to list its local unit on Nigeria's stock exchange. That move, planned for this year, may be delayed.

The spat has also hurt Nigeria's reputation. The political landscape is "hard to navigate with all of these landmines", says Bright Khumalo of Vestact, a South African asset manager which holds MTN shares. The case is symbolic, because MTN is one of the few South African firms which has succeeded in Nigeria. Many others, including a hotel group, a retailer and a food manufacturer, have pulled out in recent years.

But MTN has learned to live with the unexpected. After Nigeria, its second-largest subscriber base is in Iran, which it entered in 2006. It holds a 49% stake in MTN Irancell, a joint venture with a consortium linked to the Iranian government. Renewed American sanctions could trap cash in the country: by the end of September, MTN's outstanding balances there were worth €143m ($161m). In its cashflow forecasts, the group assumes it will not be able to get any cash out for the next three years.

Elsewhere MTN wrestles with volatile economies and hyperinflation. It works in war zones in Syria, Afghanistan, Yemen and South Sudan (those countries contributed less than 5% of revenues in the first half of the year). In Uganda, its data centre was recently raided by government spies.

A review of where the firm operates is under way. It has already sold a tiny unit in Cyprus; small west African units, in places like Liberia, could go next. But the changes mark consolidation rather than retreat. The group is eyeing new markets in Angola and, perhaps, in Ethiopia, where the state is tentatively loosening its grip on the telecoms sector. It hopes to ride on rapid demand growth: in Africa as a whole, there are projected to be 440m more smartphones by 2025. There are pitfalls aplenty, but the promise remains.

Correction (November 29th 2018): *We originally referred to Airtel in Nigeria as a local firm. It is in fact a subsidiary of Bharti Airtel, an Indian telecoms firm. This has been amended.*

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Vaping vaped?

America's teenage juuling craze attracts regulatory ire

Juul makes concessions ahead of expected new rules from the FDA

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AMERICA'S FLOURISHING e-cigarette industry is braced. Scott Gottlieb, head of the Food and Drug Administration (FDA), a regulatory agency, has made it clear that he holds the sector responsible for an "epidemic" of youthful vaping. Manufacturers, he tweeted not long ago, have no idea how much they sell to teenagers: "We're finding out for them." As *The Economist* went to press, the FDA was expected to announce restrictions on the sale of vaping products in an effort to combat under-age use.

One company in particular is in its cross-hairs: Juul, based in San Francisco. FDA staff even turned up unannounced at its headquarters in September and carted off more than 1,000 pages of documents on the firm's sales and marketing practices. Its growth has been spectacular. Sales increased from 2.2m devices in 2016 to 16.2m last year. It has captured the largest share of America's e-cigarette market—around 75%—and in its last round of fundraising was valued at $15bn. Its sleek products are popular with teenagers: youngsters often pose with them on social media.

Juul this week tried to get ahead of a crackdown. Its chief executive, Kevin Burns, on November 13th admitted that under-age use had become a serious problem for the company. He said it would pull its flavoured nicotine liquids off shop shelves and restrict its own use of social media in America. Juul still plans to sell its flavours online, but with age restrictions. It also wants to continue to offer menthol flavour in shops. It remains to be seen whether the FDAwill judge these actions to be sufficient. The agency could ban Juul from selling any fruit flavours, even online.

The risks to Juul, and to its peers such as Vuse, MarkTen, blu e-cigs and Logic, of much more stringent rules go beyond the hit from selling fewer products to minors in America. The FDA is watched around the world. A severe crackdown may serve as a warning to other countries of the potential for misuse of their devices by the young, and as an encouragement to follow suit. That could spell trouble for Juul's expansion plans. It opened offices in London in July, and wants outposts in France, Israel and Singapore. Israel has already said it is not welcome because the high levels of nicotine in its e-cigarettes pose a "grave danger to public health" (an odd decision for any country that allows the sales of conventional tobacco cigarettes).

Flavours are also an appealing part of the product for adult smokers as well as adolescent ones—it is not only under-age consumers who enjoy the taste of mango or fruit vape fluid. A study published earlier this year in a scientific journal, *Harm Reduction*, concluded that restricting access to e-cigarette flavours might discourage adult smokers from attempting to switch to vaping products.

That puts regulators in a difficult spot. On the one hand, innovation in e-cigarettes has created a product that is good enough to wean smokers from far more toxic products. But an e-cigarette can also be used to hook an entirely new generation of consumers on nicotine. Juul is not the only one with hard choices to make.

This article appeared in the Business section of the print edition under the headline "Vaping vaped?"

Lost in the supermarket

A local chain may have cracked the Indian consumer

DMart is succeeding where giants such as Carrefour and Tata have struggled

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TO FIND A crowd on a Sunday, in many parts of the world you go to a church—or perhaps a football match. In Thane, a suburb of Mumbai, the place to find hordes of people on the Sabbath is at the local branch of DMart, a supermarket chain. Hundreds of people argue and jostle in the aisles over bargains. As bags of sugar, lentils and rice are picked off the lower shelves by shoppers, men carrying ladders push through and clamber up to the higher ones where boxes of fresh supplies are stored. In the walls a few air-conditioners struggle against the intense heat.

Supermarkets in India are rare, accounting for just 2% of food sales; most people shop at open-air markets or in tiny local shops. Dmart is giving many Indians their first-ever feeling of shopping at one big store. “The prices are low and the quality is good,” says Shekhar Raman, who works at a bank, as he joins a long queue of bag-laden people waiting for rickshaws.

Even with only 163 stores, in less than half of India’s states, DMart is making its mark. In the six months to the end of September its revenue reached 94bn rupees ($1.3bn), up by 33% compared with the same period last year. Profits, of 7.4bn rupees, were healthy. DMart’s revenue per shop is four times higher than its nearest competitor, partly because of its packed floor space. The firm seems to have cracked selling to the new Indian middle class, which is intensely price-conscious, rather than only to the rich in big cities. Its shops are mostly in fast-growing “second-tier” cities and in the suburbs.

It has two types of customers, says Neville Noronha, chief executive of Avenue Supermarts, DMart’s parent company. The first are lower-middle-class people, who are proud to shop at a more upmarket establishment. The second are upper-middle-class folk, who “may not necessarily identify with their fellow shoppers”, he says, but cannot resist the bargains.

No other chain has enjoyed such success. Across the street from the Thane DMart is a new branch of Star Bazaar, a brand run by a partnership of Tesco, a big British retailer, and Tata, a huge Indian conglomerate. Instead of chaotically piled bags of grains, fresh fruit and vegetables are arranged neatly. But whereas DMart has kids in the halls, Star Bazaar is silent and lonely. Moreover, Star Bazaar had to close 20 smaller shops in shopping malls in April, because rents were too high. DMart, by contrast, owns most of its buildings.

Other giants have also retreated. In 2014 Carrefour, the world’s second-biggest retailer, closed down its operations in India after four years. Walmart continues to operate a number of wholesale stores, but since its purchase of Flipkart, an Amazon-style delivery firm, in August, its focus seems to be on delivering pricier products to relatively wealthier customers, rather than running supermarkets.

DMart has sky-high investor expectations to fulfil. On the Mumbai stock exchange its shares boast a price-earnings ratio of around 100, about the same as Amazon’s. Rapid expansion to live up to its lofty valuation could conceivably spoil things, some analysts say. Sanjay Badhe, a retail consultant, worries that as more stores have opened of late, the firm has changed some of its best policies. When it had fewer shops, for example, DMart left most decisions about what items to stock to local managers. Now more are made centrally. Suppliers who used to favour the firm because it paid them on time complain more about delays. But if it does not botch its roll-out, DMart could be the firm to get Indians all lost in its aisles.

This article appeared in the Business section of the print edition under the headline ”Lost in the supermarket”

A chicken in every pot

Thailand's largest private company outdoes its peers

CP Group offers everything from flights to pork steaks

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A MYSTERIOUS THAI tycoon recently purchased *Fortune*, a business magazine that was formerly part of the Time Inc stable, for $150m. The publication's title suits Chatchaval Jiaravanon, a member of the Chearavanont family, among Thailand's richest. The clan's wealth comes from the Charoen Pokphand Group (CP), a conglomerate it largely owns, which in turn presides over an agribusiness giant.

From a small seed shop opened in 1921 on the Song Wat Road in Bangkok, CP has grown to become one of Thailand's most enormous private firms, with holdings in more than 200 subsidiaries around the world, employing 300,000 people. Last year its revenues reached 1.8trn baht ($54bn). It offers consumers everything from insurance contracts to juicy pork steaks, business flights to cars, and cloud-computing services to fancy property.

CP claims to embrace modern management methods, setting up a leadership institute and welcoming outsiders into its senior ranks. But there is no question where the power lies. At the company's pinnacle sits Dhanin Chearavanont, the patriarch, who started at the conglomerate over five decades ago. After a reshuffle last year he became CP's senior chairman; his eldest son became chairman and his youngest the chief executive.

The enormous empire underneath them has long enjoyed good relations with the public sector. There is an old joke in the Thai civil service, where levels of seniority were once graded from C1 to C11, that the next stage was CP. Given the country's unpredictable politics, former government officials and diplomats have proved to be desirable employees.

Work with governments in Thailand, China (where CP was the first foreign investor after China opened up in 1978) and elsewhere has often helped push the firm into new areas. Noppadol Dej-Udom, who oversees CP's sustainability and governance, notes that it got into telecoms in the first place because the Thai government needed help to install telephone lines to meet demand in the 1990s. On November 12th a consortium involving CP submitted a bid to build a $6.8bn high-speed railway to link three of Thailand's busiest airports, part of a government plan to boost infrastructure.

Railways are certainly a far cry from CP's biggest business, food, which, together with its agri-industry business, accounts for 54% of revenues. Its vertically integrated poultry empire, one of the world's biggest, requires farmers to fatten chickens with CP's feed until they are large enough to enter one of its processing centres, often leaving as nuggets.

At CP Foods' Korat poultry-processing site, a few hours' drive north of Bangkok, vast quantities of birds a year are stunned, killed and then chopped up by machines. Korat produces about 36,000 tonnes of fresh meat each year and more than 65,000 tonnes of cooked products. Among other destinations, bread-crumbed chunks of chicken from the facility appear in British outlets of KFC, a fast-food chain. The birds' wings often go to Japan.

Chicken products also arrive in Thailand's 7-Eleven stores, part of an exclusive franchise in the country run by CP All, the group's retail wing (retail and distribution make up another 31% of CP's sales). The franchise has more than 10,000 outlets and controls 64% of the market for convenience shops, according to the Thai Retailers Association. As the proportion of modern grocery retail outlets, compared with informal markets and street-selling, is roughly two-thirds that of Singapore, thousands more 7-Eleven stores will appear in future. The group also runs CP Lotus, a large supermarket chain in China, as well as wholesale shops under the Makro brand in Thailand and Cambodia. New opportunities in India and Vietnam may be next.

Not wanting to be left behind in the world's fastest-growing region of internet users, CP also boasts e-commerce platforms in Thailand such as wemall and weloveshopping.com. But these two are trifles in a market dominated by Chinese-linked giants such as Lazada, owned by Alibaba, and JD.com. CP's future hopes may lie instead in grocery delivery from its network of 7-Eleven stores, reckons one venture capitalist.

Nimble, single-business firms increasingly have the edge over giant conglomerates in the region, according to analysis by Bain, a consultancy. Yet CP bucks the trend. Several of its flagship firms are listed in Thailand, including CP Food, CP All and True, its big telecommunications firm, and the group's average annualised total shareholder returns, of 40% between 2007 and 2016, have been the best among South-East Asian and Indian conglomerates.

Yet while CP reaps rewards from its vast reach, it also runs risks. Proper oversight of its wide-ranging operations remains difficult, and a series of recent scandals have damaged the group's reputation. Four years ago it emerged that suppliers providing CP Food with fishmeal for its prawn-farming operations used slaves on their boats. The firm now buys pricier, certified fishmeal from Vietnam.

In 2015 an insider-trading furore at CP All erupted, leading to the creation of new governance structures. Internal investigations are going on into whether outside recruitment agents working for CP Food wrongly extracted fees from workers coming to the firm from Myanmar. "The extent of compliance with ethical recruitment principles across the different companies within the group remains inconsistent," says Andy Hall, a migrant-rights activist in Nepal. Mr Noppadol says CP's vast size helps to make it an easy target for criticism. "If you ring the biggest bell, it makes the loudest noise," he explains.

This article appeared in the Business section of the print edition under the headline "A chicken in every pot"

China v America

Hank Paulson and Wang Qishan illustrate a superpower divide

A 20-year relationship between the two is under strain

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IF YOU WANT to understand the commercial relationship between America and China, it is worth tracking the paths of two powerful people who have dedicated their careers to it: Henry Paulson, a tough-as-nails former head of Goldman Sachs and former American treasury secretary, and Wang Qishan, a well-read banker and bureaucrat who is China's vice-president. Since the 1990s they have worked together, episodically, on reforming state-owned enterprises (SOEs), boosting trade and fighting the 2007-08 financial crisis. Now they are trying to bridge a deep divide.

The two appeared on November 6th and 7th in Singapore at the New Economy Forum—a gathering of business royalty organised by Michael Bloomberg, New York City's former mayor, designed to air trade tensions and look for a response to populism. With Henry Kissinger sitting in the front row, Mr Wang warned that the "polarisation of right-leaning populism" in the West was stoking anger and destabilising the global order. A day later Mr Paulson stood up and complained about China's misconduct and warned of a new "economic Iron Curtain" falling between China and America.

Messrs Wang and Paulson first worked together in 1996. Mr Wang was a high-flying reformer in charge of the giant China Construction Bank and was orchestrating the flotation of China Telecom, the first huge SOE to list in New York. Goldman was the underwriter. By 1997 he was an official in Guangdong province and asked Mr Paulson to help restructure Guangdong Enterprises, a crippled SOE. The two men ascended in parallel. In 2001 when China joined the World Trade Organisation, Mr Paulson was running Goldman; Mr Wang guided China's economic-reform agency.

By the time Mr Paulson became treasury secretary in 2006 he had visited China 70 times. He led a new "strategic economic dialogue"—an almost continual bilateral discussion that covered everything from currency movements to pirated DVDs. Mr Wang became vice-president three days after Bear Stearns was rescued in March 2008. When Lehman Brothers failed in September, the mesh of friendships and institutional links between the countries' leaders helped contain the crisis. China refused to dump Treasury bonds and stimulated its economy to offset America's slump.

In this golden era of superpower relations other executives formed strong relationships with China, too. Stephen Schwarzman, the head of Blackstone, a private-equity firm, sold 9% of it to a Chinese state fund in 2007 (it sold out in March of this year). Multinationals such as General Electric had close contact with China's leaders. One boss recalls his board huddling round Jiang Zemin, China's party chief between 1989 and 2002, for a group photograph.

A commercial edifice was then built on these relationships, although not the one that might have been expected. China has not opened up its financial industry—Goldman makes less money from Asia now than in Mr Paulson's last year in charge and has only 1% of its balance-sheet exposed to China. Still, in total USA Inc made $450bn-500bn of sales from China last year. An elite of a dozen or so firms, including Apple and Boeing, make over $1bn a year in profits. China exported $500bn of goods to America. Measured this way the relationship is roughly in balance.

In private many American executives still view China as the world's most important market after their own. In public they have turned hawkish. This may reflect an intimidating political climate at home. On November 9th Peter Navarro, a White House trade adviser, said that Wall Street bankers were acting as China's "unpaid foreign agents". But there is real disillusion among executives, too. They persuaded themselves that Chinese SOEs might metamorphose into private-sector firms, and the country would become a market economy with property rights and a level playing-field for foreign companies. It has disappointed on both counts. Mr Paulson says that American business has gone from "advocate, to sceptic and even opponent" of past American policies towards China.

A decade ago, whenever tensions arose they were defused with flurries of phone calls and red-eye flights. But the habit of frequent, intimate discussions has atrophied and trust has faded. In Singapore Mr Wang insisted that China is open for talks on trade, which may resume ahead of the G20 meetings on November 30th and December 1st. He is known as the Chinese leader with a deft touch with foreigners—unlike most of them, he talks off the cuff and makes jokes. Yet this time his punchlines did not raise a laugh. One American involved in the face-to-face negotiations says that for a year China has refused to budge on intellectual-property theft and state intervention. Mr Wang's visit was a "waste of jet fuel".

Just as business responded to China's opening up in the 1990s, so it is adjusting to a new, de facto cold war. Charles Li, the head of Hong Kong's exchanges, says the two economies are like saltwater and freshwater systems that meet but do not mix well. America's tariffs on Chinese goods are due to rise from 10% to 25% on January 1st. Multinationals are stockpiling inventories inside America. Logistics companies have plans to reconfigure aircraft fleets. Speculation swirls around the firms with the most global supply chains. On November 5th Apple revealed that it has bought 2,450 acres of land in America in the past year, prompting chatter that it might bring more production home.

A long march, not a sprint

If, in 1996, Mr Paulson and Mr Wang could have seen the world today, they would have been awed by the scale of the commercial links between China and America, but worried by their fragility. Their personal instincts now sit uneasily with domestic politics. Mr Paulson is a Sinophile in a more nationalist America; Mr Wang is an economic reformer at the heart of an autocracy. But as they survey the dismantling of their 20-year project, these two masters of the long game might console themselves that the political tides can shift again, and that, in time, the attempt to find an accommodation between America and China may resume.

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The Chinese economy
Ten-year hangover

Ten-year hangover

What China talks about when it talks about stimulus

Excesses from its 2008 push limit options today

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THE CAREER of China's biggest property tycoon can be divided into two stages. Xu Jiayin started slowly, focusing on Guangzhou, a southern city. Then came the global financial crisis and the government's response, a giant economic stimulus, launched a decade ago this month. For Mr Xu it was a signal to become far bolder. His company, Evergrande, now has projects in 228 cities. Last year it completed enough floor space for 450,000 homes, up from 10,000 the year the stimulus began. It has bought a football club, built theme parks and entered the insurance business.

Yet expansion has come at a cost. Evergrande's debt has soared to nearly $100bn. Short-sellers regularly target its stock. So far Mr Xu has defied the naysayers. But the market bears are taking another run at him. Evergrande's stock is down by more than a third this year. Last month it struggled to sell new bonds, until Mr Xu bought $1bn worth with his own cash. As one of the richest people in China, a billionaire many times over, at least he can afford it.

For China as a whole, the government's decision in 2008 to rev up investment was also a dividing line. Growth rebounded, while it sputtered elsewhere. Before the crisis China had a 6% share of global GDP; today it is closer to 16%. Yet there was a big downside. The economy became much more reliant on debt.

On the tenth anniversary of its big stimulus, China is again confronted by flagging growth, as Mr Xu can see from a recent slowdown in housing sales. The government has started dropping hints that a new stimulus is on the way. But the excesses from 2008 constrain it today. China knows it cannot afford another binge.

That caution reflects a change. Officials were almost uniformly positive in their initial verdict on the stimulus. Exports had plunged but growth was back to double digits within a year. In 2011 Wen Jiabao, the prime minister, said that not only had China been first in the world to recover from the crisis, but it had also laid a foundation for long-term growth. Now there is widespread recognition that the foundation was less solid than it appeared.

China's steep rise in total debt, from 150% of GDP in 2008 to more than 250% today, is the most obvious problem. Such increases in other countries have often presaged trouble. Much of the debt was channelled through institutions outside the formal banking system, which are less transparent and more lightly regulated. Though some borrowers, such as Evergrande, profited from easy money, many others struggled. Dozens of industries, from solar power to steel, are grappling with overcapacity. Bai Chong'en, a former adviser to the Chinese central bank, has argued that one consequence has been a permanent decline in productivity.

As a result, stimulus has almost become a dirty word in policy circles. Li Keqiang, Mr Wen's successor, has sworn off what he calls "flood-irrigation stimulus", a reference to the farming practice of soaking all the soil, not just the crops. Over the past couple of years the government has tried to mop up the mess. It has aimed to slow the rise in debt, closing shadow banks and curtailing excess capacity.

But the resolve to tackle financial risks was easier to summon when growth was strong. In recent months it has sagged. With investment sluggish and the trade war rumbling on, headwinds are getting stronger. Many analysts think growth will dip towards 6% next year, which would be China's weakest since 1990. For firms that had based their plans on sustained high-speed growth, even a mild slowdown hurts. Corporate-bond defaults in China have reached nearly $10bn this year, a record. Markets are braced for worse: borrowing rates for China's high-yield issuers of dollar bonds have almost doubled, to 11%. Evergrande was forced to offer 13.75% on its bond in October.

It is against this jittery backdrop that investors are speculating about a new stimulus. The government, despite its vows to be prudent, has form: besides the massive stimulus in 2008, it also propped up the economy when growth softened in 2012 and 2015. As a first step officials appear to be relaxing their campaign to clean up the financial system. After a quarterly meeting on October 31st, the Politburo omitted a prior pledge to reduce debt.

Simply describing this as a shift to stimulus is too crude. Larry Hu, an economist with Macquarie Securities, separates China's policy easing into three. First, fine-tuning, including doveish language. Second, more direct measures, such as interest-rate cuts. Third, all-out support, with infrastructure spending cranked up. Mr Hu reckons that China is now between the first and second, good for the stockmarket but not enough to stop the economy's slide.

Can China find a way to shore up growth without falling back on debt-fuelled stimulus? It does have options, though they are likely to provide less of an immediate boost. The central bank could reduce benchmark interest rates, which have stayed unchanged since 2015. The finance ministry has scope to cut taxes more aggressively, especially for companies. Where borrowing is the only option, it is trying to make it safer. It is making it easier for officials to pay for infrastructure via bonds rather than shadow banks. Xi Jinping, the president, could also take long-delayed steps to lessen the clout of state-owned companies, giving private firms more leeway to invest in sectors such as energy and finance.

One thing China is likely to avoid is a significant change to its property policies, a crucial part of the stimulus in 2008. Mr Xi has repeatedly said that homes are for living in, not for speculating on. A thicket of restrictions has cooled the market, slowing purchases and choking off loans to developers. If Mr Xu of Evergrande is upset, he is not showing it. In a speech published this year he credited his firm's success to government policies. Long a beneficiary, he has the sense not to turn critic.

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Buttonwood

Should investors diversify away from America?

Even global indices are still heavily exposed to the country

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IN THE MID-1980S Carol Goland spent two years in the Andes. The subsistence farmers she studied in Cuyo Cuyo, in Peru, planted as many as 20 fields scattered around the mountain. They used up precious calories going back and forth between each field. Yet on closer inspection, this pattern had a logic to it. Crop yields varied widely from field to field, because of erratic microclimates. By spreading their bets the farmers reduced their risk of starvation.

The farmers knew the penalty for failing to diversify. That lesson ought to be heeded in investing, too. But it isn't. Three-quarters of equity funds in America are held in shares listed there, according to Morningstar, a data-tracking firm. American stocks have beaten a broad index of other rich-world stocks in seven of the past ten years. Even so, it is a lot of eggs to have in one basket. Those who seek to diversify by buying a global index find they are still heavily exposed to America. American-listed stocks account for 55% of the value of the MSCI All-Country World Index, a widely used benchmark.

When the harvest in one place has been consistently good, people are reluctant to look elsewhere. But wiser investors follow the practice of Peru's mountain farmers and spread their bets far and wide. America's stockmarket cannot outperform forever. When the investment climate changes, a heavy tilt towards a single country can be costly.

In principle, investors would be best off holding a broad range of equities from many countries. In practice, they have a tendency to favour their domestic market. This "home bias" is a puzzle. Domestic equities are a poor hedge against one of the biggest hazards to wealth—the loss of a job due to a faltering economy. Of course, many firms listed in America have substantial foreign earnings. But the risk-diversification they offer is still limited. Home bias, it seems, is mostly a quirk of behaviour. Investors think of foreign stocks as more risky than they really are.

In any event, it is not so easy to follow a spread-your-bets approach. MSCI's global index is weighted by the market value of its constituents. America looms large in it. This is in part because the world's most valuable stocks are listed there. But it also reflects the nature of business ownership. In America big companies tend to be public. In other places many are family-owned. How open a country is to investors must also be allowed for. China's weight is tiny because its market is less accessible.

And the same question invited by those field-scattering Peruvian farmers also arises. Why bother? After all, it is America's stockmarket that makes the global weather. Were it to crash, it would take down other markets, too. Research by Cliff Asness, Roni Israelov and John Liew of AQR Capital Management finds that in a panic, all markets get trampled. In October 1987, when American stocks fell by 21.4%, a global portfolio of 22 equally weighted equity markets fell by 21%.

Over time, however, returns are driven by fundamentals in each economy, and the global portfolio performs better than the worst-hit individual market. A portfolio that is weighted by market capitalisation, like the MSCI index, is a less potent diversifier. But it is still far better than being over-exposed to one bad market.

Those seeking the ideal balance of risk and reward should prefer to own shares of firms in proportion to their importance to the world economy. But ordinary investors should also like to keep things fairly simple. A good investment rule, then, might be to allocate a third of an equity portfolio to American stocks, a third to an index of stocks listed in other rich countries and a third to emerging-market shares. Such a portfolio would better reflect the make-up of global GDP. It would cap exposure to any one bloc. And it would anticipate a secular shift. As more emerging-market stocks are added to the global index, says Victor Haghani, of Elm Partners, America's weight will diminish.

Investors following such a rule must sacrifice some of the ease of buying and selling American equities for somewhat less liquid markets. The other big drawback is that when American stocks do especially well, a more diversified portfolio has lower returns than the global benchmark. Peruvian farmers would be prepared to live with that. By spreading their bets, they suffered lower yields than they would have had they only planted in the best field. But they could never have been sure in advance which was the right field to pick.

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Trumpsy turvy

The oil price swings dramatically

Blame the turmoil on American policy

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THE OIL price was supposed to be soaring around now. With American sanctions against Iran taking effect earlier this month, exports from that country, the world's fourth-largest producer of crude oil last year, were expected to shrink to close to zero. In anticipation the price of Brent crude, the international benchmark, went above $86 in early October, a four-year-high, and some warned of prices above $100 a barrel.

Instead, by November 8th oil had entered a bear market. The price of Brent crude stood at $66.53 on November 14th. West Texas Intermediate, the American oil benchmark, dropped for 12 straight trading sessions, until November 14th, when it at last ticked up (see chart). That was the longest uninterrupted decline in over three decades. American crude futures have plunged by 20% from their recent peak.

Some of the reasons for the slump are standard fare. In October the IMF lowered its forecast for global economic growth. Trouble in emerging markets has an outsize effect on their demand for dollar-denominated oil, as it becomes more expensive in weakening local currencies. But the oil market's recent volatility also reflects new forces, including the limits of conventional producers and the peculiar impact of America's president, Donald Trump.

The Organisation of Petroleum Exporting Countries (OPEC), led by Saudi Arabia, aspires to cosy stability. Prices should be high enough to sustain its members' budgets and low enough to support global demand. But its grip has slipped. There are now three dominant oil producers: America, Saudi Arabia and Russia, only one of which is a member. As America's shale industry has boomed, Saudi Arabia has turned to Russia to help co-ordinate production. Their interests are not perfectly aligned. Saudi Arabia's oil minister, Khalid al-Falih, this week said the kingdom would lower output by 500,000 barrels a day in December; Russia's oil minister doubted that there would be oversupply.

But it is America that has had the greatest destabilising effect. This year it became the world's top producer of crude. Its shale companies are pumping out oil at a phenomenal rate. Output in August was 23% above the level 12 months earlier. But the shale industry is beholden to investors, not an oil minister, and production may taper if oil prices continue to slide and investors demand higher returns. On top of that come Mr Trump's policies, which are helping to shove oil markets this way and that.

After he announced sanctions on Iran in May, OPEC and its allies agreed to increase output. Production from Saudi Arabia and Russia has climbed to record highs. Then, on November 5th, America announced that it would grant 180-day waivers to China, India and six other countries to continue to import from Iran—countries that together account for more than 75% of Iranian exports, according to Sanford C. Bernstein, a research firm.

Mr Trump's trade policies are also depressing demand for oil. The IMF's lower forecast for growth is due in part to a slowdown in emerging markets, but also to rising tensions between America and its trading partners, a strain that further weakens emerging economies. The growth in air freight and shipping has fallen by about half in the past year, says Edward Morse of Citigroup, depressing demand for diesel fuel. Mr Trump's trade war with China is particularly important for oil markets, as China accounted for about 40% of the growth in demand for oil last year. On November 13th OPEC lowered its forecast for global oil demand next year.

But even as oil prices fall, there is reason to think they could spike again soon. More production cuts may come next month, after OPEC and its partners meet in Vienna. On top of uncertainty in Iran, disruption in Venezuela, Libya, Nigeria or Iraq could squeeze global supply. These "fragile five", as some investors call them, accounted for 12% of global oil production from July to September, more than Saudi Arabia.

Then there is always the possibility that Mr Trump could reverse course—striking a trade deal with China, for instance, or tightening restrictions on Iran once more. Or he might simply write a tweet. On November 12th he took to Twitter to call on OPEC to refrain from cutting production. The oil price fell.

This article appeared in the Finance and economics section of the print edition under the headline "Trumpsy turvy"

Warning shots

America's trade relations with its allies are extremely fragile

The EU's trade commissioner is in Washington for tricky talks

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AFTER A TRIP to France for the centenary of the end of the first world war, President Donald Trump quickly turned his Twitter feed over to trade-related tirades. On November 12th he opined that "Trade must be FREE and FAIR!" The next day he complained about French tariffs on American wine, concluding "Not fair, must change!" A day later came another reminder of the brittleness of transatlantic trade relations, when reports emerged that Mr Trump was meeting his officials to discuss an investigation launched in May into whether imported cars and car parts threaten America's national security. If it concludes that they do, he can impose whatever trade restrictions he wants.

The idea that importing cars from close allies threatens America is barely plausible. In reality the investigation is intended to strong-arm trading partners into concessions. The tactic met with some early success. In July Jean-Claude Juncker, the president of the European Commission, and Mr Trump agreed to work towards a world with no tariffs, non-tariff barriers or subsidies for non-auto industrial goods.

But the hostilities have been postponed, not called off. There are warning signs that they may soon resume. A meeting on November 14th between Cecilia Malmström, the European Union's trade commissioner, and Robert Lighthizer, the United States Trade Representative, was supposed to secure an "early harvest" from July's agreement, on areas of regulatory co-operation. It ended with no joint statement. Next is supposed to come a formal trade deal. That will be much harder.

The first problem is what will be included. This was supposedly settled in June. "President Juncker was crystal-clear, saying that agriculture would not be in the deal," said Ms Malmström on November 13th. The Europeans may fear that America's hormone-injected, genetically modified foodstuffs will drive their small farmers out of business. But America also has a powerful agricultural lobby. It has been more than usually ravenous for new export opportunities since China put tariffs on American farm produce in retaliation for American tariffs on Chinese industrialised goods. Not only is that lobby well represented on the congressional committees that Mr Lighthizer must consult, but there is a case that excluding agriculture from the talks would break the terms of the legislation on which Mr Lighthizer's authority rests. Add that to Mr Trump's tweets about French wine, and it is likely that agriculture will reappear on the agenda.

If that happens, trade relations are likely to deteriorate. A month ago Mr Lighthizer notified Congress of his plans to start negotiations, and he has until mid-December to tell them what the objectives will be. If they include agriculture, said Ms Malmström on November 14th, she would not start scoping a deal. And if talks end, tariffs on cars and car parts could soon follow.

Even without agriculture, any deal could be hard for European governments to sell to voters. When the EU and the Obama administration were negotiating the Transatlantic Trade and Investment Partnership, a deal since put on hold, thousands of protesters took to European streets. At the time, 86% of Germans and 84% of French people told Pew, a pollster, that they had confidence in Barack Obama to do the right thing on world affairs. Just 10% of Germans and 9% of French respondents now say the same of Mr Trump.

European negotiators dearly wish to avoid higher tariffs on their auto exports. But their spines may be stiffened by the example of America's reworked trade deal with Canada and Mexico. Even though new terms were agreed on last month, the American administration has not yet lifted tariffs on imports of steel and aluminium from its neighbours. The appeal of bowing to pressure palls if it is unlikely to make the pressure stop.

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Not so fast

Borrowing by mobile phone gets some poor people into trouble

As mobile money spreads, so might the problem of overborrowing already seen in east Africa

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MOBILE MONEY, which offers the equivalent of a basic bank account to almost anyone with any sort of phone, has long been seen as a boon for financial inclusion. So recent evidence that it is leaving problems in its wake is causing dismay. Digital credit through mobile phones is leading in some places to overborrowing, hardship and—horror of horrors—even more financial exclusion.

The starkest evidence is in east Africa. Thanks to M-PESA, its largest mobile-money service, with over 20m users, Kenya has been a pioneer in both mobile money and mobile financial services, such as lending. Anecdotal evidence is mounting of abuses—most notoriously of young Kenyans borrowing to splurge on online betting sites. The number of Kenyans blacklisted by the country's credit bureaus, and so unable to borrow, has risen to more than 500,000, up from 150,000 three years ago. The proliferation of mobile credit, offered by over 50 competing lenders, is blamed for the increase. The loans are mostly a few dollars and the maturities a matter of days or weeks. But the damage could be lasting.

Two recent surveys, one of borrowers, one of lenders, suggest the scale of the problem. One, by the Consultative Group to Assist the Poor (CGAP), a consortium of donors affiliated to the World Bank, used telephone calls to thousands of mobile-phone users in Kenya and Tanzania and analysis of data from over 20m digital loans. It found that 35% of respondents in Kenya and 21% in Tanzania had taken out digital loans. Of these, 47% in Kenya and 56% in Tanzania reported having made late repayments, and 12% and 31%, respectively, had defaulted. Less than 40% said they were borrowing for business needs. Few admitted to gambling. But, as with the default and late-payment numbers, self-reporting may make this an understatement. Late-night borrowers are more likely to default.

The second survey is the seventh in a series started in 2008 by the Centre for the Study of Financial Innovation (CSFI), a London-based think-tank. It asks microcredit-lenders and the like around the world about their main worries. This year, for the first time, the number-one risk was "technology". This, the CSFI concluded, "is facilitating growth but making excessive risk-taking more likely, particularly by encouraging people to overborrow."

Certainly, the appeal of new digital lenders is that they make it easy to borrow. "No paperwork or collateral required" boasts, for example, the website of Mother Finance in Myanmar. SimSim, a digital wallet in Pakistan run by a fintech company, FINJA, and a microcredit provider, offers "nanoloans" that can get bigger as the borrower establishes a repayment history.

The fear is that the problems seen in east Africa herald similar ones in other markets, where mobile money has not yet made such inroads. Two factors could help prevent this. One is better regulation. "Fintech", says Deborah Drake of the Centre for Financial Inclusion at Accion, a think-tank, "is evolving quicker than regulation can keep up." Much digital lending in east Africa, for example, is in effect unregulated. But in Pakistan SimSim's nanoloans were halted for a while, since the funds came from a microfinance firm not authorised to lend for consumption.

The second measure is better credit assessment. By analysing payments and other data on a client's phone, algorithms can be used to lend to borrowers to whom banks would never lend. As data pile up, microlenders' judgments should improve—and if they have to give credit bureaus good news as well as bad (often, now, they are not so obliged), they should stop being vehicles for new financial exclusion.

In the meantime, the annualised interest rate on many microloans in Kenya is several hundred percent, suggesting that lenders are, in effect, pricing in high rates of default. And that highlights a tension in the financial-inclusion business. Many of its pioneers have a social mission, namely to alleviate poverty. But they also rely on commercial lenders to carry it out. Digital platforms offer new opportunities for do-gooding microfinanciers, but also for cut-throat payday lenders.

This article appeared in the Finance and economics section of the print edition under the headline "Not so fast"

Building to last

The economy of the Philippines wobbles

The government wants to tame inflation and improve infrastructure

Print edition | Finance and economics Nov 17th 2018

FOR DECADES economists wondered why the Philippines was doing so badly compared with its less gifted, more tigerish neighbours. In recent years, they have wondered how it was doing so well. The economy has grown briskly, without intolerable inflation or too much borrowing from abroad. And it has done so despite stagnant investment, lousy infrastructure and a narrow manufacturing base. Economists have long urged it to "walk on two legs", expanding industry rather than placing all its weight on services. Instead it has kept hopping—but with impressive speed and balance.

Now, however, that balance is at risk. Inflation hit 6.7% in September, close to its highest rate in a decade and far above the central bank's target of 2-4%. The current-account balance (which remained in surplus for 13 years in a row, thanks to strong remittances from emigrant cleaners, carers, nurses and the like) posted a narrow deficit in 2016 that has grown since. The stockmarket has lost over a fifth of its value since its January peak. And though growth remains impressive by international standards (6.1% in the third quarter, compared with a year earlier), it is at a three-year low. The government is seeking to get the economy back on track ahead of mid-term elections in May. The popularity of the president, Rodrigo Duterte, depends on it.

It is tempting to blame the country's economic wobble on its volatile and reckless leader. Mr Duterte has, after all, destabilised much else in the Philippines. With his encouragement, police and vigilantes have slaughtered drug-dealers and addicts with impunity. When he became president in 2016, business types were spooked. But Mr Duterte's iron fist is not chiefly to blame for the country's economic trouble. International investors have largely turned a blind eye to his excesses. For them his bloody focus on crime has had a welcome side-effect: economic matters have been left largely to well-trained technocrats.

It is these technocrats, however, who bear some of the responsibility for the country's current pickle. They have strived to find a second leg for the economy, beyond services. That has contributed to the country's momentary loss of poise.

They recognise, rightly, that the Philippines lacks the infrastructure needed to attract export-oriented manufacturing. Years of underinvestment have left ports congested, airports overcrowded and cities choked with traffic. To help diversify the economy away from services, the government has embarked on an ambitious infrastructure drive. Dubbed "Build, build, build", it aims to raise spending on roads, bridges, railways and ports from less than 5% of GDP to more than 7% by 2022.

To make room for this extra spending, the technocrats began a series of tax reforms. The first lifted the income-tax threshold and raised the top rate from 30% to 35%, as well as increasing consumption taxes on a range of goods, including petrol and sugar. But the early signs are that revenues will fall short of what was hoped for, says Ramon Clarete, an economist at the University of the Philippines Diliman. And the government's loss of popularity means that further reforms, planned for corporate, property and mining taxes, may be postponed or even abandoned.

As a result, the economy has started to live beyond its means, with national spending exceeding production, imports increasing and prices rising. In principle, it makes sense for a developing country to borrow from abroad to invest in infrastructure that will eventually improve productivity and diversify exports. But with interest rates rising in America and contagion spreading across emerging markets, the Philippines has chosen a bad time to become a deficit country, relying on capital inflows to sustain its economic ambitions.

Meanwhile inflationary pressure continues to build, build, build. The problem has been exacerbated by policy blunders that have caused the cost of rice to soar. The Philippines is the only country in the world that limits the volume of rice imports. An agreement at the World Trade Organisation that permitted those restrictions for more than two decades expired last year. Rather than seize an opportunity to use cheap imports to keep prices down, Congress has tarried for months over a planned liberalisation. Meanwhile the National Food Authority (NFA), a government agency that oversees rice imports and is supposed to ensure the stability of food prices, has delayed rice imports at the border.

More expensive food, especially rice, is hardest on the poorest Filipinos. According to a government survey in 2015, the poorest fifth of households spend 20% of their total budgets on rice; the richest fifth spend just 5%. Higher food bills further fuel inflation by pushing up wage settlements: Manila's minimum wage is due to rise by 4.9% to 537 pesos ($10) a day.

In recent weeks Mr Duterte has harangued food-hoarders and smugglers for pushing up prices—though they are incentivised by the current corrupt system, under which the NFA doles out import licences and acts as both regulator and market participant. More to the point, he has ordered the NFA to ease limits on food imports, lift non-tariff barriers and allow private traders to bring in more rice. Meanwhile, the central bank has also sought to tamp down price pressures. This week it raised its benchmark interest rate to 4.75%, up from 3% at the beginning of 2018.

To woo newly nervous foreign investors, Mr Duterte has eased some limits on inward investment. Firms with up to 40% foreign ownership can now bid to work on locally funded infrastructure. The previous limit was 25%. And he has continued to court aid and investment from foreign governments. In particular, since taking office he has cosied up to China, saying little about the two countries' rival territorial claims in the South China Sea. In return, China has promised $9bn in infrastructure investment. But few of these promises have been fulfilled. Projects have been delayed by technical constraints, uncertainty over their viability and a lack of corporate interest. Of the $9bn pledged, only one irrigation project and two bridges, worth less than $200m in total, have broken ground. Mr Duterte must hope that a visit this week by China's president, Xi Jinping, will help unlock funds.

The economy of the Philippines does not yet walk on two legs. But, by curbing inflation and courting foreign capital, the government is at least fighting the current bout of instability with two fists.

This article appeared in the Finance and economics section of the print edition under the headline "Building to last"

Settling for more

Stock exchanges find novel uses for blockchain

Australia, Singapore and Switzerland are among those experimenting with cryptotechnology

Print edition | Finance and economics Nov 17th 2018

BLOCKCHAIN, THE technology underlying bitcoin and other cryptocurrencies, was designed with an ideological aim: to sidestep central authorities and governments. But many people have become intrigued by its practical uses, such as updating back-office processes. And few institutions have shown more interest in such applications than financial exchanges.

Although stock trades are often made in milliseconds by algorithms, completing them involves co-ordinating payment and delivery among a mess of databases and then reconciling the records. In big financial centres trades take two full days to settle. Some stock exchanges wonder whether blockchain's distributed, tamper-proof ledgers and immutable and transparent transaction records could speed up and simplify the process.

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Exchanges from America and Australia to Switzerland and Singapore are studying the concept. Australia's stock exchange, the ASX, has moved furthest towards using blockchain to replace its main clearing and settlement platform. It has been testing technology from Digital Asset, an American firm, and will go live in mid-2021. And on November 11th SGX, Singapore's stock exchange, and the Monetary Authority of Singapore (MAS), its central bank, announced a prototype using blockchain for delivery, payment and settlement of assets.

These projects are strikingly unlike the vision of blockchain enthusiasts. ASX's, for example, uses ledgers but remains quite centralised. A single counterparty, ASX itself, must approve participants (which removes the need for energy-intensive verification and updating of records, as with bitcoin). Though open to all, only some banks and brokers will opt for direct access. Everyone else must trade through them. In contrast to the complete transparency of the bitcoin ledger, market participants will not have access to the whole dataset (for legal reasons, but also so they do not have to give away their positions). And settlement will not be in real time.

Why, then, bother? Kelly Mathieson of Digital Asset says her firm's purpose-built programming language, DAML, which enables financial contracts to be automated, will make further innovation easy. The tedious processes of reconciliation, she says, will be drastically simplified.

As soon as next year investors will be able to see the result of another, smaller experiment. SIX, the owner of the Swiss stock exchange, will launch a separate digital platform for trading assets, such as stocks and bonds, in "tokenised" form—that is, in a format blockchain can handle. Tokenising will eliminate minimum trade sizes, says Thomas Zeeb of SIX. It will also make a much wider range of assets tradable. Mr Zeeb has already been approached by a museum that wants to tokenise its art collection, as a novel source of funding. Investors would gain exposure to the value of the art going up or down through such tokens, which they could trade.

All these projects have, or plan to obtain, official blessing; after all, exchanges are highly regulated. But the Singaporean project shows the value of seeking more than a nod of approval. MAS's involvement meant the prototype did not limit itself to stock trading or settlement, but also looked at digital currency issued by the central bank. Quite a turnaround for a technology designed to circumvent governments.

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A remedy for high prices

A study measures the cost of lack of competition

How Italy's notoriously uncompetitive pharmacies rip off new parents

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THAT COMPETITION keeps prices down is well known. But it is hard to measure by just how much, because prices vary for all sorts of reasons, from differences in labour costs and rents to taxes. Rising to the challenge is a new paper in *The Economic Journal* by Giacomo Calzolari, Andrea Ichino, Francesco Manaresi and Viki Nellas, economists at the European University Institute, Bologna University and the Italian central bank. They looked at pharmacies and specifically at customers who may be particularly easy to rip off: new parents.

Using data for 2007 to 2010 covering about a fifth of pharmacies in Italy, the researchers measured the way in which prices of hygiene products for babies changed as the number of babies varied. They took advantage of a peculiar law from the 1960s, according to which municipalities with at most 7,500 people are allowed just one pharmacy (supposedly to keep the quality of services high). They compared prices in places with populations just below this threshold, and just above.

The products studied included some 3,000 varieties of shampoos, bath foams, baby wipes, creams and so on. Many are also used by adults on themselves. Some people, for example, prefer sun-cream labelled "for children" because of its high level of protection. When raising prices for these products, even a pharmacist with a monopoly must consider the risk that adult users will switch to products that are not aimed at children. But a rise in the number of babies, and hence in the fraction of buyers who are parents, could tip the scales towards price increases. By contrast, the pharmacist should already be charging as much as parents are willing to pay for products without adult users, such as nappies.

The scholars found that pharmacists raised prices when there were more new parents—but only in municipalities with a single pharmacy, and not for nappies. In monopoly areas a doubling of the number of babies from one month to the next (not unusual in a small population) coincided with a 5% increase in the price of the basket of baby-hygiene products.

The study is timely. Italy's government has started to loosen some of the many restrictions that stifle competition in the pharmacy sector (though not yet the one that the researchers relied on). But such regulations are plentiful in many other lines of business, and not just in Italy. The consumers who pay the price are often those who find it hardest to travel to shop around—for example, people with crying babies on their hands.

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Free exchange

Superstar cities have a big advantage in attracting high-paying jobs

How can the understudies best prepare themselves for a lucky break?

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IN THE END, Amazon disappointed everyone. A year ago the e-commerce giant said it would open a second headquarters, and solicited bids from cities keen on the 50,000 new jobs and $5bn in investment it would bring. The gambit might have produced a fascinating experiment in urban development, and a departure from the concentration of top tech firms in a few favoured places. It did not. Though local governments wooed the firm with juicy incentives, no city nabbed the promised co-headquarters. On November 13th Amazon said it would split its new office between New York City and Arlington, a suburb of Washington, DC.

The decision to bring tens of thousands of high-paying jobs to two of America's richest metropolitan areas is a notable example of a broader trend. Another came a few days earlier, when the *Wall Street Journal* reported that Google planned a dramatic increase in hiring in New York City. Politicians interested in boosting the fortunes of places other than superstar cities have their work cut out.

Once, poor places caught up with richer ones. From 1940 to 1980 the gap between wages in rich cities and in poor ones closed at a rate of about 1.4% per year, according to recent work by Elisa Giannone of the University of Chicago. Then convergence halted. Behind cities' diverging fortunes is a change in the return to education. Wage convergence did not end for all workers after 1980, says Ms Giannone, but only for those with a college degree. That is because well-educated workers have done best in places where there are lots of them. The share of workers with a college education has risen most in cities where the population of graduates was already large. This clustering has helped push incomes in different locations apart. Regional inequality has been worsened by restrictive development rules in thriving places. The resulting competition for pricey living space favours people with higher incomes and filters those of modest means out of superstar cities.

Those cities are vehicles for transmitting knowledge. Edward Glaeser and Matthew Resseger of Harvard University argue that higher pay in skilled cities is not merely a matter of sorting educated and uneducated people into different locations; rather, cities facilitate learning and boost the productivity of entrepreneurs. When access to them is rationed by dear housing, some workers and employers lose out. The economy as a whole suffers. In recent work Chang-Tai Hsieh of the University of Chicago and Enrico Moretti of the University of California, Berkeley, estimate that looser zoning rules in elite cities could increase GDP growth by a third.

Other attractions probably drew Amazon and Google. The interests of tech giants are different from those of startups. Entrenched technological leaders have little reason to love places that encourage entrepreneurship and the transfer of knowledge. They can gain access to rivals' innovations by buying them and would prefer their own proprietary technology to remain proprietary. It is possible that Amazon wants HQs 2 and 3 enmeshed in local tech ecosystems. But it is more likely to have had other benefits in mind.

Access to labour, for instance. Amazon cited the advantages of New York and Washington for its drive to attract "world-class talent"; each employs more knowledge workers than any other American metropolitan area. Large labour markets improve the quality of matches between workers with rare skills and the firms that need them, and cut the cost of economic disruptions (a sacked worker will more easily find a new job in a town with thousands of employers than one with just a handful). Amazon could probably attract applicants no matter where it is located. But some workers are hard to find outside superstar cities. Only there can households with two high-powered earners be certain that both will have access to a wide range of lucrative jobs. Siting its offices in such places may be the only sure way for Amazon to fish in an elite labour pool. Moreover, it is households with two high incomes that can best cope with expensive housing. For them, and the elite firms that want to employ them, other places are a poor substitute.

New York and Washington also offer proximity to important customers. Though Amazon and Google look like consumer-facing businesses, their growing range of cloud-computing services means they are increasingly participants in business-service supply chains. Close contact between different supply chains helped produce the growth of cities during the Industrial Revolution; the high cost of moving bulky goods pushed manufacturers to cluster. Building and maintaining products in the cloud for multinational firms (and for the American government) might similarly require tech firms to operate cheek-by-jowl with business partners.

That, too, is disconcerting. Productivity growth across the developed world has been disappointingly weak in recent decades. Dan Andrews, Chiara Criscuolo and Peter Gal of the OECD, a rich-country think-tank, put the blame on the slow diffusion of productivity-boosting techniques from top firms to the rest of the economy. As long as realising the benefits of new technologies requires close co-operation with leading tech firms, this is unlikely to change. The payoff to developing bespoke AI solutions for a major multinational with headquarters in New York might be big enough to attract an Amazon or Google to site an office there. When the customer is a local bank in Topeka, Kansas, it is not.

Prime donna

Small cities are at a disadvantage, then. But co-operation might level the playing-field. Cities could collectively agree to stop competing to lure firms with piles of taxpayer cash—which could be better spent on productivity-enhancing public goods such as infrastructure and education. Experimentation with promising but untested development strategies is badly needed, as a forthcoming paper from the Brookings Institution argues. Cities could work together to run pilots for such programmes and to share best practices. Then, if talented and ambitious workers grow weary of life in superstar cities, smaller ones might be ready to capitalise.

This article appeared in the Finance and economics section of the print edition under the headline ”Capitalising on competition”

Marjorie Deane internship

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Applications are invited for a Marjorie Deane internship in our New York bureau. The award is designed to provide work experience for a promising journalist or would-be journalist, who will spend three to six months at *The Economist* writing about economics, business and finance. Applicants are asked to write a covering letter and an article of no more than 500 words, suitable for publication in the Finance & economics section. Applications should be sent by December 14th to deaneinternny@economist.com.

Metric units
Weighty matters

Weighty matters

The kilogram and three other metric units are about to be revamped

They are being redefined as the values of physical constants

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THROUGHOUT MUCH of human history, man has been the measure of many, if not all, things. Lengths were divided up into feet, palms, spans and smaller units derived from the human hand. Other measures were equally idiosyncratic. Mediterranean traders for centuries used the weight of grains of wheat or barley to define their units of mass. The Roman libra, forerunner of the pound, was 1,728 siliqua (carats), each the weight of a carob seed (possibly because they were thought, erroneously, to be less variable in mass than the seeds of other species).

The sizes of similarly named units could also differ. The *pied du roi* (king's foot), used in France for nearly 1,000 years after its introduction by Charlemagne in around 790AD, was, at 32.5cm, around a centimetre shorter than the Belgic foot, used in England until 1300. The talent was the mass of water required to fill an amphora (approximately 28kg), but Greek, Egyptian and Babylonian versions varied from one another by a few kilos. Nor was there agreement on such things within countries. In France, where there was no unified measurement system at the national level, the situation was particularly dire. The *lieue* (league), for example, varied from just over 3km in the north to nearly 6km in the south.

Although John Wilkins, an Englishman, first proposed a decimal system of measurement in 1668, it was the French, full of revolutionary zeal, who in 1799 made it law. Standards for the metre and kilogram were duly cast in solid platinum, and while Napoleon lampooned the new units, the Système international d'unités (SI, or the metric system, as it is better known) descended from them and became the official measurement in all countries except Myanmar, Liberia and the United States. Now the International Bureau of Weights and Measures (BIPM) in Paris is set to give the metric system its biggest shake-up yet.

At a meeting in Versailles on November 16th, the world's measurement bodies are almost certain to approve a resolution that will mean four out of the seven base SI units, including the kilogram, will follow the other three, including the metre, in being redefined in terms of the values of physical constants. Each of the chosen constants has been measured incredibly precisely. Furthermore, they represent fundamental characteristics of the universe that are not expected to change (at least on the sorts of earthly timescales likely to concern the human race). This would mean that from May 20th 2019 the constants will themselves be fixed at their current values for ever. Any laboratory in the world will then be able to measure, for example, the mass of an object as precisely as the accuracy of their equipment will allow.

Plus ça change

In 1967 the redefinition of time, in the form of the second, led to the current overhaul. Rather than pegging the second to the rotation of the Earth about its axis, the second is now defined by the ticking of a caesium atomic clock. This neither loses nor gains more than a second in 1.4m years. This clock relies on microwaves, which at a frequency of 9,192,631,770Hz are known to make electrons jump between two particular energy levels, known as the hyperfine ground states of caesium. The microwaves are tuned to this frequency and the pulses used to measure out a second of time, just as the regular oscillations of quartz crystals are used to calibrate electronic watches.

The candela, a unit of luminosity originally based on the brightness of a candle flame, was redefined in 1979 to be based on the brightness of a source emitting light at a specific frequency in the green part of the spectrum, to which the human eye is most sensitive. In 1983 it was the turn of the metre, which by virtue of the fact that light travels at a fixed speed (299,792,458 metres per second) through a vacuum, was redefined that way. Now it is the turn of the units of mass (kilogram), current (ampere), temperature (kelvin) and the amount of a chemical substance (mole) to be redefined so that they too can, in theory, be reproduced at any time and in any place.

The change is most significant for the kilogram, physically defined by a cylinder of platinum-iridium alloy housed under nested bell jars in a vault at the BIPM in Paris. Known as the International Prototype of the Kilogram, or Le Grand K, this was made in 1889 to be of about the same mass as the original Napoleonic-era ingot. The problem is that the masses of the six official copies have drifted a little from that of Le Grand K over the years (see chart). Why that is so is not known, but since the copies have changed, it is likely that the mass of the original has, too. Because Le Grand K is the standard against which the copies are measured, it is meaningless to ask whether it has gained or lost weight. And despite all the security, there is an outside chance that should the prototype ever be stolen or destroyed, as the Imperial Standard Pound was when the Palace of Westminster in London burnt down in 1834, there would be no official measure.

How to Kibble it

The new definition of the kilo will turn Le Grand K into a museum relic. The role will instead fall to a piece of kit called the Kibble balance, formerly known as the Watt balance, but renamed in 2016 after its inventor, Bryan Kibble of the National Physical Laboratory in Britain.

The Kibble balance measures a mass by looking at the amount of energy it takes to balance its weight using electromagnetic forces. The amount of energy required to measure 1kg will depend on a value known as the Planck constant, which is depicted by the letter *h*. The constant is a number from the weird world of quantum physics that, for example, links the energy of a photon of light to its frequency.

To calibrate all the Kibble balances in the world, it is necessary to first measure the Planck constant using a known reference mass, such as Le Grand K. Scientists around the world have been doing that in a series of elaborate tests. These involve placing a mass in a pan suspended on a length of wire within what is known as an ambient magnetic field. When an appropriate current is run through a coil of wire attached to the pan, it generates another magnetic field, which interacts with the ambient field to produce a force upwards that exactly balances the weight of the mass. The current flowing through the wire is easy to determine accurately, but the strength of the ambient magnetic field is not. Measuring that involves removing the mass, turning the current off and moving the coil at a fixed velocity through the ambient field. This movement induces a voltage across the wire that is directly related to the strength of the ambient magnetic field. This voltage, like the current, can be measured stringently. As both are related by the Planck constant, it will allow scientists to come up with an agreed value for it.

That value is set to be fixed on May 20th 2019, after which any lab with a Kibble balance handy will be able to determine the mass of an object without recourse to Le Grand K or its near-clones. There is a certain irony that a constant arising from quantum mechanics, famous for its uncertainty principle, will thenceforth bring more certainty to measurements of mass.

Similar efforts with the ampere, kelvin and mole will link them, respectively, to the elementary charge, *e*; the Boltzmann constant, *k*; and the Avogadro constant, *N*{-A}. Like the Planck constant, their values will be fixed next year if the vote in Versailles goes as planned. Those who need to determine such things can then measure a current by counting single electrons (each bearing a charge, *e*) passing a point in a circuit; temperature by measuring the average speed (and thus the heat energy) of an assembly of molecules; and the amount of stuff by determining the number of particles (usually atoms or molecules) composing it. For those with the expertise and cash, the apparatus for making such measurements is available.

Those hoping, however, to effortlessly shed some weight before the festive season as a result of these changes will be disappointed. As the determinations of the Planck constant used the prototype kilogram, there will be no difference between the new and old kilo.

This article appeared in the Science and technology section of the print edition under the headline "Weighty matters"

The blame game

The Philippines wants big companies to accept responsibility for a devastating typhoon

Did the big emitters help to cause extreme weather?

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"I AGONISE WAITING for the word for the fate of my very own relatives... I speak for the countless people who will no longer be able to speak for themselves after perishing from the storm." With these words, Yeb Sano, the Philippines' representative to the 2013 UN climate summit in Warsaw, Poland, became the unexpected figurehead of those talks. Three days earlier, on November 8th, supertyphoon Haiyan had barrelled into his country, cutting off all communication with the outside world. More than 6,000 people died in the storm.

Mr Sano's emotional appeal to his fellow delegates drew a direct line between climate change and Haiyan. Whether the damage caused by extreme weather events can be linked to human emissions of greenhouse gases is one of the hottest topics in climate science. And that debate leads directly to another: if this link can be established, who bears the responsibility?

Both of these questions are at the centre of an inquiry by the Philippine Commission on Human Rights, whose latest hearings took place in London earlier this month. It is the first time a human-rights commission has heard evidence on whether large emitters violate basic human rights by causing climate change.

Addressing the hearing from Geneva, Benjamin Schachter, who acts for the Office of the UN High Commissioner for Human Rights on such matters, said that the impacts of climate change "directly and indirectly threaten the full and effective enjoyment of a range of human rights, including the rights to life, water and sanitation, food, health, housing, self-determination and development." Certain studies support this. Felix Pretis of the University of Oxford has shown that even 1.5°C of warming (relative to pre-industrial times) will reduce economic growth in some regions, and that the tropics will feel this impact more than other parts of the world. Some studies predict that a rise in the number of heat-related deaths in many parts of the world, South-East Asia among them, will outweigh any reduction in the number of cold-related deaths.

Storm force

And then there are the impacts of extreme weather events, which have the potential to kill thousands. Myles Allen, a climate modeller at the University of Oxford, who has led research into whether specific weather events can be attributed to broader climate trends and who testified at the hearings, cited a 2015 study led by Izuru Takayabu of Japan's Meteorological Research Institute. This used climate models to simulate supertyphoon Haiyan with and without human greenhouse-gas emissions. The former accurately reproduced the actual events, in terms of the weather patterns, wind speeds and storm surge. By comparison, in 15 out of 16 simulations without industrial emissions, the storm was weaker.

The study suggests human emissions are likely to have increased wind speeds, which resulted in a storm surge that was 20% higher than it might have been in the absence of climate change. It was this storm surge that proved particularly devastating. "It's not true that but for human influence this event could never have happened," Dr Allen told the hearings. "But through this study you can see that human influence has exacerbated [the events]."

Conclusions such as these are relatively familiar. Where the hearings become more unusual is in investigating the link between the damage caused by climate change and the behaviour of large industrial companies. This is predicated on recent efforts to trace greenhouse-gas emissions back to large corporate and state-owned producers of fossil fuels and cement, dubbed the "carbon majors". The latest analysis by CDP (formerly the Carbon Disclosure Project), a non-governmental organisation that works with companies, cities and states to measure their environmental impact, published in 2017, found that 100 of them had produced just over half of emissions since the Industrial Revolution.

According to Dr Allen, who also gave evidence in a case earlier this year in which seven Californian cities and counties sued big oil and gas firms for damage resulting from rising sea levels, one issue is whether the companies could have taken another course of action. In other words, did they know the damage that their activities were causing and, given the need for energy to run modern societies, what options were available at the time to mitigate emissions?

Both questions are hotly contested. Last year, for example, Geoffrey Supran and Naomi Oreskes of Harvard University published a study of documents from Exxon and Mobil, which merged in 1999 to form ExxonMobil. Their review concluded that more than 80% of peer-reviewed studies written by the firm's own researchers acknowledged that climate change was happening. ExxonMobil described the study, which accused the company of misleading the public about climate science, as "inaccurate and preposterous".

As for whether companies could have taken action to avoid their emissions at a time when oil, coal and natural gas were the primary sources of energy, Dr Allen estimates that had emissions ceased entirely in the 1980s, roughly 40% of the warming being seen today relative to pre-industrial times could have been averted. That presupposes that alternative sources of energy were available. They were not.

Some, including Dr Allen, have argued that fossil-fuel companies could have captured CO_2 and stored it before it reached the atmosphere. The processes for stripping CO_2 from a mixture of gases and then pumping it underground were known about well before the 1980s. Some companies used them to enhance oil recovery. But it was not until the 1990s that the first carbon capture and storage (CCS) project for the explicit use of avoiding CO_2 emissions took off. That was in the North Sea, in response to a Norwegian carbon tax. “In my opinion, oil companies could have had carbon capture and storage operating in the 1980s, easily,” says Stuart Hazeldine of the University of Edinburgh, who leads a research initiative on CCS. But that is not quite the same question as whether the companies should have done so, given their responsibilities to their investors and the absence of regulatory pressure.

The Philippine hearings will come to a close in December in Manila. The commission does not have the power to compensate victims of typhoons or to sanction emitters of carbon dioxide. According to Roberto Cadiz, one of the commissioners, that isn’t even the point. His wish is to open a dialogue about possible solutions to climate change that includes the industrial emitters. So far, however, only one side of the story is being heard. The emitters have declined to participate.

This article appeared in the Science and technology section of the print edition under the headline ”The blame game”

Of all the tea in China

A newly discovered tea plant is caffeine-free

It was found growing wild in Fujian province

Print edition | Science and technology Nov 17th 2018

THE WORLD loves a cuppa. Even though it takes just a few grams for a brew-up, some 3m tonnes of tea are consumed every year. And tea can be good for you, as it contains compounds that help to lower cholesterol and reduce the risk of cardiovascular disease. But there is a downside. Tea contains caffeine which, although it improves mental alertness, can also cause anxiety, insomnia and other problems.

Sipping decaffeinated tea can help, but there are drawbacks to this, too. Stripping away caffeine from tea involves either immersing the leaves in carbon dioxide at extremely high pressure or treating the leaves with searing hot water. Although this will get rid of most of the caffeine, it can cause collateral damage to some of the fragile compounds that give tea its benefits. And, as with decaf coffee, which is treated in similar ways, many people argue that it also spoils the flavour.

What would be agreeable is a tea plant that provides all the taste and goodness but with little or none of the caffeine. Liang Chen and Ji-Qiang Jin of the Tea Research Institute of the Chinese Academy of Agricultural Sciences think they have found just such a plant growing wild in a remote area in Fujian province, southern China. As they report in the *Journal of Agricultural and Food Chemistry,* not only is the tea plant naturally caffeine-free but it also contains a number of unique medicinal compounds that, the locals believe, offer considerable health benefits.

This is not the first such find. In 2011 a tea plant discovered in neighbouring Guangdong province was found to contain little or no caffeine. That plant, known as *Camellia ptilophylla,* contains compounds that look promising for the treatment of obesity, although research is still continuing. That discovery spurred Chinese botanists to look for others that might be hiding in the rugged vastness of the country, and the latest find is one result.

Known locally as Hongyacha, the newly discovered plant grows only between 700 and 1,000 metres above sea level around a handful of Chinese alpine villages. Although Hongyacha has never been formally studied in a laboratory, people in the region have been experimenting with its properties for generations and claim it provides medical benefits ranging from curing colds and lowering fevers to soothing stomach pains.

Dr Chen and his colleagues confirmed that Hongyacha does indeed lack caffeine. Using a variety of procedures, including liquid chromatography and mass spectrometry, they found it also contains an intriguing array of other compounds in its buds and leaves. Of particular interest was a compound in the plant's leaves that is known to hamper the growth of tumours as they attempt to improve their access to nutrients by growing new blood vessels.

Upon closer inspection of Hongyacha's genetics, the researchers discovered that the absence of caffeine was the result of a mutation in the gene that codes for the production of an enzyme known as caffeine synthase. Somewhat surprisingly, this mutation is different from the one found in *C. ptilophylla* and suggests that the two plants made their evolutionary journey towards losing caffeine independently.

Precisely why caffeine—which, being lethal to many insects, functions as a pesticide in some plants—was selected against by evolution remains an open question. It is possible that the metabolic cost of producing caffeine was high and that other compounds that were easier for the plant to make were as effective. It is also possible that threats from insects were reduced at some point in the history of these two plants, and that led to the selection of individuals that lacked the insecticide.

The researchers are now exploring methods to protect Hongyacha in its natural habitat while further studies are carried out. It can take time—and sometimes it does not work—for new plant varieties to be bred for commercial use. A pair of naturally caffeine-free coffee plants were discovered in 2003, but little progress has been reported. Tea enthusiasts will be watching Hongyacha with interest. And others will wonder what else is out there.

This article appeared in the Science and technology section of the print edition under the headline "Of all the tea in China"

Wind-up merchants

The Swiss invent a novel watch spring

It could change the way mechanical watches are designed

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DIGITAL ELECTRONICS has transformed many consumer-goods industries, but analogue niches survive and even thrive. Vinyl records have staged a comeback, sales of printed books have been growing faster than e-books in some markets, and cameras that use old-fashioned film have seen a bit of a revival. The Swiss are also still happily making mechanical watches, particularly the high-end sort, and last year exported more than 7m of them worth some SFr15bn ($15bn).

Whereas an electronic watch uses a battery as its power source and a quartz oscillator to measure time, a mechanical watch relies on a set of gears and springs. A coiled mainspring stores the energy needed to turn the gears, and the movement is regulated by an oscillating balance wheel controlled by a tiny hairspring. Mainsprings and hairsprings have to be made of special alloys that retain their physical characteristics as much as possible in different temperatures, so that the watch maintains its accuracy wherever its wearer ventures.

Most mechanical Swiss watches use springs made from an iron-nickel alloy called Nivarox, produced by a company of the same name that is part of the Swatch Group. But the dominance of Nivarox may about to be unwound. A different sort of spring has started undergoing tests with an unnamed Swiss watchmaker. This new spring is the result of a process developed by researchers at the Laboratory for Mechanics of Materials and Nanostructures, part of Empa, the Swiss federal research institute for materials science.

Instead of the traditional method of finely transforming a metal wire into a thin spring, the process can produce new types of spring that open up novel design possibilities for watchmakers. The Empa team use a form of electroplating to "grow" mainsprings and hairsprings. The process begins with a wafer of silicon, similar to those used to make computer chips. The wafer is coated with an electrically conductive layer of gold, on top of which is added a layer of light-sensitive paint. Light is then projected onto the surface; a mask keeps only the required shape of the coiled spring in the shade. The illuminated area reacts with the paint, causing it and the gold beneath to be etched away with chemicals. The shape of the spring is left behind, outlined in gold. The wafer is then placed into a bath containing dissolved metallic compounds and an electric current is applied, causing metal to be deposited onto the gold outline to build up the spring.

A few other processes are required to check, clean and finish the springs before they are sent off to the watchmaker for testing in prototype timepieces. The lab is also working on variations in the process, including a form of 3D printing, to manufacture springs in different shapes and to produce other minute structures which might be used in mechanical watches.

There is some way still to go in refining the process, says Laetitia Philippe, one of the Empa researchers. The materials which can be used should provide watch springs with good temperature stability, she adds. Moreover, the springs could be made lighter and, as they are built up layer by layer, have specific features incorporated into their structure for different types of watch mechanisms. Dr Philippe believes the springs could also be used in other devices, such as electronic and mechanical sensors. All of which suggests the analogue world still has plenty of time on its side.

This article appeared in the Science and technology section of the print edition under the headline "Wind-up merchants"

History wars
The story of a horse

The story of a horse

A new museum captures Austria's ambivalence about its past

In a way the museum, with its own fraught back story, is itself the best exhibit

Print edition | Books and arts Nov 17th 2018

MODERN AUSTRIA turned 100 on November 12th and, as a present, gave itself a history museum. Its first exhibition includes a towering wooden horse that sports the brown cap of Hitler's Sturmabteilung (SA). The Waldheim-Pferd, or Waldheim Horse, was first seen at demonstrations in 1986, when Kurt Waldheim ran for the country's presidency, playing down his role in the Wehrmacht during the second world war and claiming he had never joined any Nazi organisation. His opponents joked that only his horse had been a member of the SA.

Waldheim won the election, but Austria was changed for ever. "It was the end of the era in which Austria only saw itself as a victim of Hitler's aggression," says Georg Hoffmann, a curator at the House of Austrian History, the new museum, which occupies a set of rooms in Vienna's imperial Hofburg palace. "It was the first time Austria openly debated its co-responsibility for Nazi crimes." Wehrmacht records are on display near the horse, which show that Waldheim had indeed been a member of the same outfit as his mount.

Austria may have changed in the Waldheim era, but not every Austrian changed with it. Views on the country's past remained divided, which helps explain why it took 20 years for the idea of a national history museum to come to fruition. (This was just the most recent incarnation of the scheme: the first push for a museum began in 1946.) Austria's Social Democrats secured the founding of the institution in 2016, while in coalition with the centre-right People's Party. The latter, now in government with the far-right Freedom Party, honoured this commitment, albeit on a temporary basis. State funding is guaranteed only until the end of next year (though Austria's parliament has suggested that it may stump up some cash beyond that).

In a sense, then, the House of Austrian History is its own best exhibit, and the most fitting 100th-birthday present the country could receive: a project almost as vexed as the story it tells, and as precarious as the statehood it commemorates has sometimes been.

The myth of victimhood

Like several other European countries, the Austrian Republic was born as the first world war ended, formed from the rump of the 600-year-old Habsburg empire that Czechs, Hungarians, Poles and Slovenes had not claimed for their own nation-states. Most Austrians saw Austria as an aberration, cut off from its wheat in the east, its port on the Adriatic and the industry of Bohemia; the Allies denied their wish to join a "greater Germany".

These problems of national identity were compounded by severe economic difficulties, and were ultimately followed by the Anschluss of 1938, in which Austria's own authoritarian government was overrun by Nazi Germany, to the jubilation of millions of its people. Despite the horrors that this greater Germany then inflicted on its neighbours and the world, the Allies in 1943 declared Austria the "first free country to fall victim" to the Nazis. Their hope was to stoke resistance to Hitler, but the revisionism also led to what the post-war Austrian left called the "victim myth".

"Austria successfully defended this 'victimhood narrative' when dealing with the Allies after 1945," says Anton Pelinka, a political scientist. Victim status enabled the country to differentiate itself from Germany—but it also made it easier for governments to allow former Nazis to take part in the new democracy. "That was the foundation of revelations like those about Waldheim years later," says Mr Pelinka.

All Austrians were victims; all Austrians were Nazis: these competing simplifications are at the root of Austria's ambivalence about its past. The museum acknowledges that tension frankly. What, for instance, to call the authoritarian era of Engelbert Dollfuss and Kurt Schuschnigg from 1933 to 1938? The country's left for years referred to it as Austro-Fascism, the right as the Corporate State. The museum displays these and other terms, and plumps for the "Dollfuss-Schuschnigg Dictatorship", at least for now.

"We see ourselves as a forum for debate," says Monika Sommer, the director. "We are quite comfortable with showing that there isn't always one view on history." She hopes that exhibits like the Waldheim-Pferd will prove to be "friction points" that galvanise discussion. There are bound to be controversies, she acknowledges. The museum's aim is to provide a stage on which to air them, perhaps even to forge a new consensus.

As the House of Austrian History documents, the distortions go all the way back to the beginning. The museum shows how "the state nobody wanted", as Hellmut Andics, a well-known writer, described the republic of 1918, deserved more esteem and, after the disgrace of Nazism and Austria's post-war recovery, eventually got it. Some of the republic's first laws made generous provision for the war-wounded, adumbrating modern Austria's munificent welfare state. Parts of the constitution of 1920 were incorporated into the current version.

A recent preview at the museum was attended by members of Vienna's Jewish community. One of them, Awi Blumenfeld, a teacher whose parents survived Auschwitz, enjoyed the Waldheim-Pferd, which he saw as a symbol of Austria's divisions, and a reminder that lies are unsustainable. (The liberal political group that owns the horse has the right to reclaim it if it disagrees with the curators' approach.) Mr Blumenfeld was sure the museum will secure long-term funding. After all, even the present right-wing government "understands that we need a national narrative that goes beyond Mozart."

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They go low

Michelle Obama's memoir is a call to action

In "Becoming" she pulls back the curtain in a way she could not when her husband was in office

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Becoming. By Michelle Obama. *Crown Publishing Group; 448 pages; $32.50. Viking; £25.*

BEING A FIRST Lady, writes Michelle Obama in her candid, engaging memoir, is "not technically a job, nor is it an official government title. It comes with no salary and no spelled-out set of obligations." Many of the women who held that title before her had already been conditioned to the odd role of political spouse. But her husband had been a senator for just four years before he won the presidency in 2008. And there had never been a First Lady who looked like Mrs Obama.

"Not for one second", she writes, reflecting on the interlude between Barack Obama's victory and inauguration, "did I think I'd be sliding into some glamorous, easy role. Nobody who has the words 'first' and 'black' attached to them ever would." Yet she performed her duties with dignity and compassion. To read her reflections is to recall and hope for a better America.

Mrs Obama is a product of the South Side of Chicago. Her father worked for the city, tending boilers at a water-filtration plant; her mother stayed at home while Mrs Obama and her brother were young. Her family was stable and rooted; by contrast, her husband barely knew his father and was brought up in Hawaii by his white Kansan grandparents while his mother was in Indonesia. She is frank about the impact of that difference on their relationship; the way it first threatened to destabilise, but has ultimately enriched, their marriage and family.

She depicts the hard task of being an intelligent, ambitious, private woman married to an intelligent man, whose own ambition leads him to the world's most public career. The future president initially failed to impress her, arriving late for his first day at the law firm where she was his mentor, then lighting a cigarette after their first lunch together. Others at the firm swooned, but, she writes wryly, "in my experience, you put a suit on any half-intelligent black man and white people tended to go bonkers." But he was charming, and "oddly free from doubt"; in a sure sign of compatibility, both loathed "Les Misérables" enough to leave early.

In "Becoming", Mrs Obama pulls back the curtains around their lives in a way she could not while Mr Obama was in office. She describes the pain of a miscarriage and the benefits of couples counselling, guided by a therapist who "separat[ed] out our weapons from our wounds". Besides her lovely turn of phrase, she is a gifted and empathetic observer. The portrait of Fraser Robinson, her loving and stoical father, who died long before she became First Lady and retained his gentle good humour as his body failed, is particularly moving.

She is unsparing, though, about the current occupant of the White House, who surfaced in politics at the end of Mr Obama's first term "to offer yammering, inexpert critiques of Barack's foreign-policy decisions and openly questioning whether he was an American citizen." She worried that Donald Trump's stirring of xenophobic bigotry put her family at risk, "and for this, I'd never forgive him." She attended his inauguration but, as pictures of that day show, "I stopped even trying to smile."

Above all, the book brings home how fundamentally opposed her and her husband's vision of America is to Mr Trump's. His is angrily revanchist, intent on stoking fear and exploiting division. He is a demagogically gifted campaigner but appears to have little interest in governing or policy. Mrs Obama, by contrast, is a wary campaigner, easily stung by the wilful distortions of the right-wing press, who called her "Obama's Baby Mama" and mistook her serious expression for anger.

Yet she found her voice during the campaign of 2008, among rural Iowans "who despite the difference in skin colour reminded me of my family"—blue-collar strivers who wanted better lives for their children. They may since have voted for Mr Trump, but Mrs Obama's memoir is a reminder that Democrats can and should try to win such voters back. "Let's invite one another in," she writes. "There's grace in being willing to know and hear others."

This article appeared in the Books and arts section of the print edition under the headline "They go low"

Where the heart is

Lucia Berlin made art from her chequered life

Two new books should ensure that the revival of interest in her work continues

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Welcome Home. By Lucia Berlin. Edited by Jeff Berlin. *Farrar, Straus and Giroux; 176 pages; $25. Picador; £16.99.*
Evening in Paradise. By Lucia Berlin. *Farrar, Straus and Giroux; 256 pages; $26. Picador; £14.99.*

IN 2015, 11 years after her death, Lucia Berlin was rediscovered. The posthumous publication of "A Manual for Cleaning Women", a collection of finely crafted short stories about everyday trials, won widespread acclaim for a writer who had been largely overlooked during her lifetime.

That life was eventful. Born in Alaska in 1936, she spent her early childhood in a succession of mining camps and towns in Idaho, Kentucky and Montana, and her teenage years in Chile. This nomadic lifestyle continued into adulthood. She studied in Albuquerque, moved to New York, and in 1960 eloped to Mexico. She wrote fitfully throughout the following decades in California and Colorado while juggling a series of jobs, bringing up four sons, battling alcoholism and contending with disability.

In the tales that appeared in a range of publications she mined the rich seam of her biography, drawing on her travels and struggles, her friendships and romances. Her fiction plays out in the many places she called home (18 in total); it features female protagonists who make the same choices and mistakes as she did, and do the same kinds of jobs (high-school teacher, emergency-room nurse, switchboard operator, cleaner). Berlin expertly balances beauty and bleakness, and finds drama, joy or revelation in humdrum experiences.

Two new works will help sustain the revival. The first, "Welcome Home", is a short, unfinished memoir of her first 29 years. Augmented with photographs and letters, the book provides both an illuminating portrait of the artist and an insight into Berlin's documentary fiction. Beginning with impressions of Alaska and culminating with chronic misfortune in Mexico, she evokes the people and places that shaped her. She recalls episodes from her sunny youth, including the time she decorated the walls of an old prospector's cabin with magazine pages: "I believe this was my first lesson in literature, in the infinite possibilities of creativity." The levity ebbs when her father goes off to war and, later, when she is diagnosed with scoliosis, a spinal condition that would plague her until her death at 68.

After a blissful account of first love, her emotional world is volatile. Her first husband leaves her when she is pregnant with their second child. Her third marriage proceeds "with him on and off heroin, with us all in and out of happiness". She writes candidly about what she enjoyed and endured; when her narrative peters out in mid-sentence, she leaves her reader wanting more.

The other new book, "Evening in Paradise", is a batch of 22 fresh stories, in which Berlin once again makes original art from her chequered life. The longest and most disturbing, "Andado: A Gothic Romance", focuses on an American girl in Chile and her rough sexual awakening. In "Itinerary", a young woman leaves Chile for college in New Mexico; during stopovers in Peru, Panama and Miami, she learns new truths about her father. Elsewhere Berlin taps into a childhood spell in El Paso and revisits past addresses and upheavals. Several stories draw on dark material: "La Barca de la Ilusión" alludes to her husband's drug addiction, "Rainy Day" to her boozing. "I drink", the narrator soberly explains, "just to shut off the words."

When the words flowed, Berlin managed to perform small miracles with them. Whether describing lucky breaks or hard knocks, her prose is intense and intimate, at once disconcerting and entrancing. These two books should ensure that she is back for good.

This article appeared in the Books and arts section of the print edition under the headline "Where the heart is"

Living the dream

Andy Warhol was a prophet of media-saturated modernity

A new retrospective at the Whitney in New York showcases his oracular verve

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HE DIED MORE than 30 years ago, but Andy Warhol has never seemed more relevant. That is the persuasive case made by a new retrospective of his work at the Whitney Museum of American Art. When the line between celebrity and genuine achievement has been nearly obliterated, when hosting a reality television show can serve as the launching pad for political office, and when status is measured in clicks, likes and followers, Warhol—a pale, oracular ghost—looms as a spiritual father of this media-saturated age.

Beginning in the early 1960s, he and his Pop Art colleagues rejected Abstract Expressionism—an introspective mode that probed the psychological depths of the individual—in favour of art that portrayed the experience of consumerism. Using the photo-mechanical techniques of the mass media, Warhol depicted commercial products (Coca-Cola and Campbell's soup) and pop-culture icons (Elvis and Marilyn), as well as the underside of the American success story (race riots and violent death). He never judged or editorialised, churning out the good and the bad, glitz and grunge, with the market's undiscriminating alacrity.

In this way he became the foremost chronicler of a revolution in consciousness enacted as a world dominated by things morphed into one glutted by images. He was famously obsessed with fame, yet one of his insights was that in an economy propelled by Madison Avenue hype and Hollywood, fame was priceless but also value-free and fleeting.

In a marketplace of images, visibility was the only thing that mattered: the imperative was to have your face splashed on a magazine cover, to be a presence on the scene, to be available like a product on the shelf, ready for sale and easy to acquire. Though Warhol's vision can seem dystopian, it also implies a kind of perverse democracy, since everything (and everyone) is interchangeable. Reduced to mere commodities, Chairman Mao and Mick Jagger trade on the same exchange, and the Mona Lisa is just another corporate logo. All these faces feature in "Andy Warhol—From A to B and Back Again" (which next year will transfer from the Whitney to the San Francisco Museum of Modern Art and thereafter to the Art Institute of Chicago).

The age of schmaltz

One of the quirks of Warhol's career is that the artist who invented the concept of "15 minutes of fame" has had a staying power few of his peers can match. The longevity rests on his studied neutrality, which has allowed him to be appreciated by both Marxists and capitalists. To some, his ironic detachment seems to render its own damning verdict; but it is impossible to know for sure whether he is a satirist of consumerism or a fan, a critic or a booster, since he presented himself as a passive receiver of the ambient culture. He was the blankest of blank slates, forcing viewers to fill in the gaps based on their own biases—a process he made explicit when, in 1984, he began his Rorschach series, mimicking the ink blots of the renowned personality test.

Warhol took the American myth of the self-made man to a logical extreme. Consumers, in his view, did not have stable identities. Unlike his Abstract Expressionist predecessors, he dismissed the search for an "authentic" self as a fool's errand. From his perspective, people seemed to have no fixed centre; they were merely bundles of urges that changed in response to the latest come-on, their appetites always primed but never sated. They were defined by what they bought, the shows they watched, the clothes they wore—all of which were disposable.

"You live in your own dream America," he said, "that you've custom-made from art and schmaltz and emotions." As an openly gay man in a conformist age, for Warhol the custom-made dream was liberating, offering a chance for constant reinvention. He was attuned to the mass media's ability to break down barriers and flatten hierarchies: between high art and commerce, between public and private.

The processes he made visible have only accelerated in the age of the internet, when lives are largely virtual and identity is constructed by browsing history and credit-card purchases and charted in complex algorithms. Dream or nightmare, this is a reality Warhol saw before anyone else—and helped bring into being.

This article appeared in the Books and arts section of the print edition under the headline "Living the dream"

Johnson

How language problems bedevil the response to crises

To solve them, interpreters must grasp cultural differences as well as linguistic ones

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SITTING ON A muddy floor beneath a tarpaulin roof, Nabila, a 19-year-old Bangladeshi, fiddles with her shoelaces as she listens to Tosmida, a Rohingya woman in her mid-30s. Both are crying. Nabila, a student-turned-interpreter, says awkwardly: “She had it from all of them in her secret place.”

The struggle to tell the story of Tosmida’s gang-rape is not just an emotional but a linguistic one. Since some 700,000 Rohingyas escaped persecution in Myanmar and fled to Bangladesh over a year ago, many Bangladeshis like Nabila have suddenly found themselves with new jobs, as interpreters. Tosmida’s Rohingya and Nabila’s Chittagonian are related but not identical. Interpreters, quickly trained, must try their best to understand another language, and fill in the gaps left by cultural differences—including taboos about what victims can say.

The biggest practical issues concern health, says A.K. Rahim, a linguistics researcher working with Translators Without Borders (TWB), a group that helps humanitarian agencies. In Chittagonian, health terms come from Bengali and English; scientific knowledge and vocabulary have trickled down from educated elites. But among the relatively few educated Rohingyas, health terms come from Burmese. Most—especially women, who tend to be cut off from the outside world and denied education—have not been touched by that learning. Instead they have developed their own lexicon. They avoid *haiz* (menstruation) and say *gusol* (shower). Diarrhoea, a common camp ailment, was routinely misdiagnosed in the first few months. Many Rohingyas reported, “My body is falling apart” (“*Gaa-lamani biaram*”), baffling health-care workers.

Sex is the trickiest minefield. In the Rohingyas’ conservative Muslim culture, women are not supposed to talk about sex or their bodies at all. They employ euphemisms, using different words to describe sex permissible by religion, or illegal sex and sex out of wedlock. Most of these terms are deliberately vague; they refer to “shameful spaces” and “secret places”. For rape, they might use a word that means forceful torture. This has legal consequences. “I cannot imagine a Rohingya woman standing up in court and saying, ‘I was raped’,” says Mr Rahim. Interpreters must be cautioned not to fill in gaps or encourage their subjects to say particular things; that could weaken a prosecution.

These problems are far from unique to the Rohingyas. Ellie Kemp ofTWB adduces the situation in north-eastern Nigeria. For many of the women there, the word for “widow” is taboo. Instead they must be asked: “Do you have a husband? Did you have one? Is he dead now?”

Ms Kemp says crisis-responders often don’t know what language expertise they will need. They hire “local” workers, assuming that is enough. In Nigeria, these might be educated people who speak only English and Hausa, one of the country’s biggest languages. But Hausa may be of little use in Borno state, where the insurgency of Boko Haram rages. If aid workers are lucky, they may find people who know Kanuri, a kind of lingua franca in Borno. But even that might not help in a state where 28 languages are spoken.

Higher-status people—often powerful men—may know several languages and act as a bridge. But aid workers are typically trying to reach the most vulnerable. Ms Kemp notes that in the last Ebola outbreak in west Africa, women were affected worst, because most international advice on prevention came in English and French, which they were less likely to speak.

Some of these problems are intractable. But some are not. Downloadable glossaries (say, between a national and a regional language) can help an aid worker with a smartphone render technical terms in a way locals will understand. In future, automated translation tools such as Google Translate might extend to lesser-known languages. That will be difficult: translation software must be trained with a lot of parallel text that has already been translated by humans. So TWB is giving some of its language data to companies such as Google and Microsoft for that purpose.

Outsiders often think an alien language has “no word for” a concept that is taken for granted in English. These problems are better thought of as cultural rather than linguistic: the words exist, but it is vital to have interpreters who know which can be used and when. In a crisis, aid agencies must work quickly; often they can spare their staff for only a day or two’s language training. That is time well spent.

This article appeared in the Books and arts section of the print edition under the headline ”Lost without translation”

Wildfires
Burning out

Burning out

Despite California's inferno, global wildfires are fizzling out

Climate change makes fires worse, but agricultural development limits them

Print edition | Graphic detail Nov 17th 2018

PARADISE, A SMALL Californian town, looks like hell. Some 80-90% of its homes have been incinerated by the state's deadliest-ever wildfire, which so far has killed 48 people and left over 200 missing (see United States section). Measured by area burned, nine of California's ten worst recorded fires have occurred since 2000.

President Donald Trump says that poor forest management is the sole cause of the blaze. Scientists beg to differ. John Abatzoglou and Park Williams, two academics, have shown that temperature and dryness exacerbate wildfires in the western United States. Without global warming, they reckon, only half as much woodland would have burned between 1984 and 2015.

America is not the only rich country in danger. Since 2016 Portugal and Greece have suffered their most lethal wildfires in history, killing over 200 people. One study found that if global temperatures reach 3°C above pre-industrial levels, the area burned in southern Europe would double.

Yet despite the attention paid to such disasters, their rising frequency in parts of the West is an exception to the global trend. Most wildfires occur in developing countries, where they are declining. According to Niels Andela of NASA, the world's total area on fire fell by 24% from 1998 to 2015.

Two main reasons are agriculture and stronger property rights. Two-thirds of the world's burned area is in Africa, a dry, hot continent where pastoralists have often used fire to clear land. Slash-and-burn methods remain common in parts of Asia as well. The growth of modern farming is helping to put blazes out: dividing land into pastures and fields breaks up terrain and makes it harder for infernos to spread. Settled people who have things to lose prefer fighting fires to starting them.

This trend is so robust that fire is expected to keep fizzling out. Across various scenarios of global warming and population growth, Wolfgang Knorr of Sweden's Lund University finds that the fire-reducing impact of changing land use generally outweighs the effect of rising temperature.

This will save lives. Wildfires cause 330,000 premature deaths a year by spewing smoke, far more than by trapping victims. People moving onto fire-prone land put themselves at risk. But by keeping flames in check, they make the air more breathable for everyone else.

This article appeared in the Graphic detail section of the print edition under the headline "Burning out"

Ruth Gates
Where corals lie

Where corals lie

Obituary: Ruth Gates died on October 25th

The marine biologist and champion of the world's corals was 56

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A RATHER LARGE number of people thought that corals were rocks. And certainly, in Ruth Gates's almost-bare office at the Hawaiian Institute of Marine Biology, where Kaneohe Bay filled the window, the only object on her desk was a lovely ivory-pinkish stone coral, branched like a tree. But it would have been much more beautiful alive, a colony of tiny polyps bustling and busy as a three-dimensional city. It would have been much more stunning when the algae lodged in every cell of every polyp were feeding them sugars built from sunlight and colouring them so crazily that she could only gasp "Wow!", and laugh, when she swam past them. But then she also said "Wow! That's gorgeous!" when she saw, under the laser scanning confocal microscope, just one daring individual flex its muscular mouth or shoot out its sting-tipped tentacles to catch food from the water. Her single-minded mission was to keep these beauties going.

It was hard work. It got all the harder as the oceans warmed and acidified and the corals, stressed and angry (for they had feelings), spat out their algae and began to bleach and die. In 1998, 2010, 2015 and 2016, increasingly close together, mass bleachings occurred all round the world. She was the first to show that it happened more in warmer waters. Diving in Kaneohe Bay, where most healthy corals were an elegant dark brown, she found a muddy olive mess. Elsewhere she saw reefs she had once loved full of white ghosts, like a battlefield. Off the north shore of Jamaica, where she had done her doctoral work in 1985 on a reef with a sudden, sheer wall of massive and beautiful corals, developers killed it in two weeks. She could never go back to places that humans—"we", she always said, not exempting herself—had so recklessly destroyed.

Ardent voices were speaking up for the giant panda and the rainforest; not many spoke for corals. She strode right in. A third-degree black belt in karate and an explosive technique on a boxing punchbag made her pretty well-formed to fight. It was horrible, though, to state the facts. Over 90% of global warming in the past 50 years had occurred in the oceans. About half of the world's reefs had been lost since 1990. By 2050 they could either all be gone, or damaged beyond recovery. And a quarter of marine species, the main food source for half a billion people, depended on them.

She had a plan, however. She laid it out in 2013 in an essay that won a prize of $10,000 from the Paul G. Allen Foundation and then, with Madeleine van Oppen, a grant of $4m, after which she was made director of the institute, among the palms of Coconut Island. That was a joy: a campus big enough to deploy her battered golf-cart, and freedom to pick colleagues properly mixed by race, gender and sexuality, not tediously white male. ("You rock!" was her cry of encouragement to them.) Out in the bay, fortified with coffee and sometimes buzzed by turtles, she did her almost daily diving, feet-first off the boat when she was really eager.

Back in her lab, in a "gym" (or possibly a spa) for corals, she put the strongest little beasties in vats and doused them with warming water. Her purpose was not to kill them but to create "super corals", by giving them an experience of stress they might remember and prepare for. For corals had good memories. She had found, too, that their algae came in many varieties, some more helpful against stress than others, so she persuaded less choosy, "entrepreneurial" corals to host heat-tolerant algae, to see how they got on. Those that did best would be returned to the reef, and weaklings rejected. She also played matchmaker, collecting sperm and eggs from healthy individuals in their weirdly brief breeding season to produce *in vitro* offspring that might prove hardy sorts.

This drew plenty of criticism. She was accused of tinkering with nature, speeding up evolution, narrowing diversity. Besides (said the critics), the money should be spent on slowing climate change. Though she was friendliness and niceness itself, still carrying her Englishness in her accent and in a tendency to go pink in the heat, she sharply rebutted those remarks. Tinkering with nature was nothing new; dogs had been selectively bred for the longest time. As for narrowing diversity, climate change was forcing the most obscene genetic-narrowing experiment that had ever been done. She was doing what she could to help nature resist. Ideally, she would not have to. But this was a desperate situation.

What frustrated her most, as a scientist, was that fellow-scientists stayed in their own silos, producing lengthy papers to be peer-reviewed, arguing endlessly with each other, while corals were dying. She had the data. Everyone did. She told the public the story in blunt, simple words. And she had to act now, not wait for permission. Her work might be only small-bore, not scalable; she accepted that. But if some coral colonies survived, there was hope, and she lived on that. What idiots they would be if, after all their talking, there was no coral left for anyone to see, and the underwater films of Jacques Cousteau which had so amazed her as a child, even in black and white, turned out to be a record of a lost world.

Co-operation was the key. She wanted scientists and others in every field to say, “I have this piece of special knowledge; how can I help?” For planet Earth was like a jigsaw puzzle in which corals and giant pandas, savannah and rain forest, were all pieces that must fit together. If one piece was lost, what would be the consequences for the others? What would happen to human beings? She did not know. But the corals, which in easier times lived in such happy symbiosis with the algae inside them—maybe the corals knew.

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