The Economist

SUICE PERSONNEL SUITE SUITE

Our annual supplement: The World If

The transatlantic rift

A guide to disarming North Korea

Where BATs fight FAANGs

How India fails its women



Contents

The world this week

- 1 Politics this week
- 3 Business this week
- 4 KAL's cartoon

Leaders

5 Europe and America

Transatlantic rift

7 Women in India

How India fails its women

9 Denuclearising North Korea

Mistrust and verify

10 Tech wars

FAANGs v BATs

11 Conscription

Fall in, or halt

Letters

12 On guns, startups, academic journals, suicide, Parkinson's Law, drink

Letters to the editor

Briefing

15 Indian women

A job of her own

United States

18 The Supreme Court

The coming storm

20 Race

Coming apart

21 Car insurance

Brake padding

22 **Soft power**

The real ambassadors

23 Scott Pruitt

Swamp thing

24 Illinois's embattled governor

Springtime in Springfield

25 Lexington

The threat within

The Americas

27 Mexico's new president

Man with a plan?

29 Mexico's congress

The whole enchilada

30 Donald Trump's trade war

Patriotic ketchup

31 Bello

What AMLO portends for Latin America

Asia

32 Immigration to Japan

Hidden masses

34 The economy of Turkmenistan

Turkmenezuela

35 Aboriginal rights

230 years later

36 **Malaysian politics** Najib, handbagged

37 In the dark

The Thai cave rescue

38 Banyan

Divide and kill

China

40 Prostitution

Sin city

42 The status of Taiwan

Drop-down showdown

Middle East and Africa

43 Migration

Last stop before the desert

45 Digital dishonesty

How to stop students from cheating

46 France in Africa

Françafrobeat

47 War. Peace. Repeat

Will the fighting ever stop?

48 Crime in Uganda

Bad cops

49 Mediterranean gas

Eni time in Egypt

50 Lebanon's war missing

Raising the dead

Europe

51 Donald Trump and NATO

A perilous summit

53 Germany and migration

Your papers, please

54 Butchers v vegans

Meating the challenge

55 Nationalist parties and LGBT rights

Pride and prejudice

56 Poland's judges

Collision course

57 Russia's World Cup

Festival of freedom

58 Charlemagne

The Austrian way

Britain

60 **Gender and politics**

A culture war comes to Westminster

62 A new Novichok poisoning

Mystery on Muggleton Road

63 Sport in Scotland

Make golf great again

64 Sad students

The glum ones

65 Integrating refugees

After the exodus

66 Modern slavery

Captor, caught

67 Court attire

Wigged out

68 **Bagehot**A dangerous relationship

International

70 Nuclear-inspection regimes

How to disarm North Korea

72 The Iraqi precedent

Cats, mice and despots

The World If

73 If China made the rules

Xi's world order: July 2024

75 If every child went to school

Universal lessons

77 If Europe's divides deepened

Breaking point: December 2020

79 If 50% of CEOs were women

Generation XX: January 2069

81 If companies had no employees

Run, TaskRabbit, run: July 2030

83 If people were paid for their data

Data workers of the world, unite

85 If drones ruled the waves

Avast, me hearties

87 If there was no Moon

Empty sky, empty Earth?

89 If new foodstuffs became popular

Insects, algae or artificial meat?

91 If people had no hair on their heads

Hair today, gone tomorrow?

92 If Martin Luther King had not been assassinated

A different dream

Business

93 Tech firms in emerging markets

Clash of the titans

95 Bartleby

The A teams

96 Chinese venture capital

A different vision

97 Carbon dioxide

In a fizz

98 Germany's embattled carmakers

Brakes on

99 Canadian cannabis startups

Pot of gold

100 Pharmaceuticals

Pill-popping

101 Glencore and the DoJ

Digging for dirt

102 Schumpeter

History's biggest companies

Finance and economics

104 US-China trade

Theatre of war

106 The price of oil

Donald v the OPEC dons

107 Argentina's economy

The rocky road to recession

108 Corporate concentration

From the many to the few

109 Central Europe's Goldilocks economies

Never had it so good

112 Buttonwood

The index fear

113 Free exchange

The critics it deserves

Science and technology

115 Military aviation

Welcome to the wingbot

117 Camouflage

Heat shield

118 Surgery and ethology

Mixers, not misters

119 Animal conservation

Drinking in the last-chance saloon

Books and arts

120 Literature and nationhood

BrexLit

122 Native American fiction

Bruised beauty

123 India's rise

The great ghatsby

124 Crime and prejudice

Watching the detectives

125 **Johnson**

Great apes

Economic and financial indicators

126 Output, prices and jobs

- 127 Trade, exchange rates, budget balances and interest
- 128 The Economist commodity-price index
- 129 The Economist poll of forecasters, July averages
- 130 Markets

Obituary

131 Harlan Ellison

Great balls of fire

The world this week

Politics this week

Politics this week

Print edition | The world this week Jul 5th 2018

Andrés Manuel López Obrador, a left-wing populist, won **Mexico's** presidential election with 53% of the vote. He defeated candidates from the ruling Institutional Revolutionary Party (PRI) and the National Action Party, which between them have governed the country since the early 20th century. Mr López Obrador's Morena party and its allies won a majority in both houses of congress and five of the nine governorships that were contested in the elections. The PRI is now the fifth-largest party in congress. See article .

A court in **Ecuador** ordered the arrest of a former president, Rafael Correa, who now lives in Belgium. A former legislator, Fernando Balda, has accused Mr Correa of arranging his kidnapping in Colombia in 2012. During Mr Correa's presidency the government accused Mr Balda of participating in an unsuccessful coup attempt. Mr Correa denies wrongdoing.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Chinchilla v corruption

Honduras's congress appointed Óscar Chinchilla to a new term as the country's attorney-general. Mr Chinchilla was not on a list of five candidates considered by congress, casting doubt on the legality of his appointment. But MACCIH, an anti-corruption agency under the aegis of the Organisation of American States, praised it. Mr Chinchilla will be responsible for following up recent allegations that 38 politicians and officials, including the president's brother-in-law, channelled nearly \$12m of government money to the ruling National Party and to the opposition Liberal Party during elections in 2013.

The Trump administration revoked guidelines issued during Barack Obama's presidency that encouraged colleges to take account of **race in admissions**. Officials say the guidelines were misinterpreted to suggest there was a legal basis for racial quotas.

Donald Trump was reported to have sent letters to several leaders of countries in **NATO** castigating them for failing to increase spending to 2% of GDP on defence, as they have promised. Mr Trump has stepped up his criticism of the military alliance he once described as "obsolete" ahead of a summit that is expected to be as frosty as last month's G7 gathering in Canada. After the NATO summit, Mr Trump will meet Vladimir Putin in Helsinki, Finland's capital. See article.

Merkel's migrant muddle

Angela Merkel, the **German** chancellor, defused an immediate threat to her government over a demand by her Bavarian allies to turn certain asylum-seekers away at the border. But she now faces problems with her Social Democratic allies, and accusations that she is undermining the Schengen free-travel zone. See article.

Poland's government attempted to force more than a third of its Supreme Court judges to retire; many of them retorted that their jobs were guaranteed under the constitution and said they would not quit. See article.

In Britain, two people were found unconscious after being exposed to Novichok, a **nerve agent**. It is thought the pair may have come acrossa vial or syringe left behind after an attack on a former Russian spy and his daughter in March, which Britain has accused Russia of carrying out.

Closed borders

Fighting in Deraa and Quneitra, two provinces in south-west **Syria**, has displaced at least 270,000 people, according to the UN. The regime of Bashar al-Assad is battling rebels in the area. Many of the displaced have fled towards the borders with Jordan and Israel, which say they will not let them in. Russia, which backs Mr Assad, is trying to persuade the rebels to hand over their weapons as part of a deal to end the fighting.

The United Arab Emirates paused its offensive on the port city of Hodeida in western **Yemen**, which is held by Houthi rebels. The UN envoy held talks with the rebels and the internationally recognised government, which is backed by the UAE. He said the warring parties offered "concrete ideas" to achieve peace.

Germany arrested an **Iranian** diplomat, normally based in Austria, who is suspected of plotting to attack the meeting of an Iranian opposition group in Paris. Two other suspects, carrying homemade explosives, were arrested in Belgium. The Iranian government said the arrests were a plot to sabotage a visit to Europe by President Hassan Rouhani.

Extremists in **Mali** mounted several attacks on French and other international forces. Two Malian soldiers and a civilian were killed in a car-bomb attack on a command post of the G5 Sahel, a multinational counter-terrorism force, in Sevare. In other incidents four Malian soldiers were killed when their vehicle hit a mine and several civilians were killed in an attack on a French army convoy in northern Mali.

Cameroon postponed its next parliamentary election by 12 months to October 2019. Its president, Paul Biya, has been in power since 1982.

The fall

Najib Razak, who was voted out of office as prime minister of **Malaysia** in May, was arrested and charged with several crimes related to 1MDB, a state development fund from which billions of dollars have disappeared. Mr Najib pleaded not guilty; he has been released on bail. See article.

Mike Pompeo, America's secretary of state, announced a new round of disarmament talks with **North Korea**. John Bolton, the national security adviser, said North Korea could dismantle its nuclear programme and surrender its warheads within a year. See article .

China released Stern Hu, a former Shanghai-based executive of Rio Tinto, a global mining firm, after he had served eight years in jail for corruption and stealing commercial secrets. Mr Hu, an Australian citizen, was given a ten-year prison term in 2010 after a trial that was closed to foreign journalists.

Thousands of people joined a pro-democracy march in **Hong Kong** to mark the anniversary of the territory's handover to China in 1997. Turnout for the annual event was one of the lowest in recent years.

Twelve boys and their football coach, who had been missing in a flooded cave in **Thailand** for ten days, were found alive. But rescuing them is proving difficult, as the way out of the cave complex is still inundated and most of the team does not know how to swim. Divers have been taking food to them. See <u>article</u>.

Business this week

Print edition | The world this week Jul 5th 2018

Michael Dell presented a plan to bring his personal-computer and corporate-technology firm back to public markets. Frustrated by the short-term pressures of being a publicly listed company, Mr Dell took **Dell Technologies**, as it is now called, private in 2013. He wants to simplify its capital structure by swapping new shares for tracking stock that was issued as part of the purchase in 2016 of EMC, a data-storage firm. If investors agree, Dell would become a public company again, but without a conventional public offering.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

A new Chinese fund was launched to invest in technology. The **China New Era Technology Fund**, which is inspired by SoftBank's \$100bn Vision Fund, hopes to raise 100bn yuan (\$15bn) to plough into tech assets. China Merchants Group, a state-controlled conglomerate, is among those putting in money. See <u>article</u>.

Break the chain

Turkey's annual inflation rate soared to 15.4% in June, a 14-year high, putting more pressure on the lira. The currency has fallen by almost a fifth against the dollar since the start of the year, which has pushed up consumer prices. Markets want the central bank to tame inflation through higher interest rates, but the bank has to contend with objections to lofty rates from Recep Tayyip Erdogan, the re-elected Turkish president.

The **yuan** also had a wobbly week. After falling to its weakest point in almost a year, Yi Gang, the governor of the People's Bank of China, said he was "closely monitoring" market fluctuations and pledged to keep the yuan's exchange rate "generally stable".

As America prepares to tighten the screws on Iranian oil, it put more pressure on Saudi Arabia to pump more of the black stuff in order to dampen rising prices. President Donald Trump asked the Saudis to ramp up output by 2m barrels a day, and then accused OPEC of manipulating **oil markets**. The kingdom reiterated that it "is ready to use its spare capacity when needed" in co-ordination with other producers. See article.

Wang Jian, the co-founder and chairman of HNA, one of China's biggest private conglomerates, died after falling from a wall in a village he was visiting in Provence. He was 57.

Glencore received a subpoena from America's Department of Justice related to its operations in the Democratic Republic of Congo, Nigeria and Venezuela, stretching back to 2007. The subpoena demands that the company hand over documents in compliance with America's Foreign Corrupt Practices Act and money-laundering statutes. Glencore's business in Congo has come under particular scrutiny in the recent past. See <u>article</u>.

BAE Systems, the world's fourth-biggest defence company, won a contract to build nine Type 26 Hunter class frigates for the Australian navy. The deal is a boon for British defence exports. The warships will be built in Australia, which prompted British unions to complain about a lack of government investment in Britain's naval shipyards. But many British firms supply components and expertise for the Type 26 and are likely to benefit. Canada is also considering placing an order.

The road less travelled

Tesla at last reached its goal of making 5,000 Model 3 cars a week, after it set up a temporary production line in its car park to hit the target. But that was over only the last week of June; it fell far short of promised vehicle deliveries overall for the second quarter, driving its share price down. Still, Elon Musk, the electric-carmaker's boss, celebrated the milestone as marking the point when Tesla "became a real car company". He hopes to push production to 6,000 Model 3 cars a week by the end of August.

Atlantic Media sold *Quartz*, an online business magazine, to **Uzabase**, a Japanese media company, for up to \$110m, depending on *Quartz*'s financial performance this year. Uzabase will use the acquisition to expand its mobile news app.

The share prices of America's leading pharmacy chains fell sharply when **Amazon** announced that it was buying **PillPack**, an online service that delivers prescription drugs in simple colour-coded packages for patients with multiple conditions. Pill-Pack has a pharmacy licence to operate across America and works with established suppliers of medicine, attractive assets for Amazon in its push into web-based health care. See article.

At the bottom of the issue

The Federal Aviation Administration brought no cheer to passengers during the July 4th holidays when it decided that cramped **seating on planes** is nothing to do with the agency, and should be dealt with by the airlines instead. A group called Flyers Rights had sued the FAA to do something about shrinking seats, made to feel still smaller by expanding waistlines.

KAL's cartoon

Print edition | The world this week Jul 5th 2018

Leaders

Europe and America

Transatlantic rift

Transatlantic rift

The Western alliance is in trouble

That should worry Europe, America and the world

Print edition | Leaders | Jul 5th 2018

AMERICA did as much as any country to create post-war Europe. In the late 1940s and the 1950s it was midwife to the treaty that became the European Union and to NATO, the military alliance that won the cold war. The United States acted partly out of charity, but chiefly out of self-interest. Having been dragged into two world wars, it wanted to banish Franco-German rivalry and build a rampart against the Soviet threat. After the Soviet collapse in 1991, the alliance anchored democracy in the newly liberated states of eastern Europe.

Today, however, America and Europe are separated by a growing rift. The mood before the NATO summit in Brussels on July 11th and 12th is poisonous. As President Donald Trump accuses the Europeans of bad faith and of failing to pull their weight, they accuse him of crass vandalism. A second summit, between Vladimir Putin and Mr Trump in Helsinki on July 16th, could produce the once-unthinkable spectacle of an American president treating his Russian opponent better than he has just treated his allies.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Even if the two summits pass off without controversy—as they might, given how Mr Trump delights in confounding his critics—the differing priorities, divergent beliefs and clashing political cultures will remain. The Western alliance is in trouble, and that should worry Europe, America and the world.

Every alliance has its tensions, but the Western one is strained on a bewildering number of fronts (see article). Mr Trump, and his generals, are exasperated by the feeble efforts of many NATO members to honour their promise to raise defence spending towards 2% of GDP by 2024. The American right tends to condemn European support for the Iranian nuclear deal (which Mr Trump quit), and what it sees as a bias against Israel. And policymakers from both parties think that, as the world's attention shifts to Asia, whining, sanctimonious Europeans deserve less of their time.

As if that were not enough, Mr Trump fatuously accuses the EU of being "set up to take advantage of the United States" and chastises it for unfair trade. Meanwhile, Europe is divided. Italy has a new populist coalition that is pro-Putin. So, increasingly, is Turkey, a member of NATO (but not the EU) which is hostile to the liberal democratic values that bind the alliance. Worse could be in store. A Labour government in Britain under Jeremy Corbyn, who has a long history of opposing the use of arms by the West, would treat America with deep suspicion; he could even try to leave NATO.

SACEUR punch

This newspaper believes that the Western alliance is worth saving. In a dangerous and increasingly authoritarian world, it can act as a vital source of security and a bastion of democracy. But the alliance does not have a God-given right to survive. It must continually earn its place. The question is: how?

The first step is not to make the job harder. Europe should do everything it can to resist Mr Trump's instinct to lump trade with security. Wrapping them up together will only make the West less secure as well as poorer.

Next, supporters of the alliance need to be practical. That means paying up. Mr Trump is right to complain about countries like Germany and Italy, which spent just 1.22% and 1.13% of GDP on defence in 2017. Indeed, he could go further. Too little of defence spending is useful—over a third of Belgium's is eaten up by pensions. More should go on R&D and equipment.

For America's allies, being practical also means keeping up. Collaboration in areas like cyber-security will make the alliance more valuable to America. More urgently NATO must continue to sharpen its response to the tactics of misinformation and infiltration that Russia used in Crimea and eastern Ukraine. Politics waxes and wanes. Lost military understanding is hard to rebuild. Exercises that cement NATO's remarkably close working military relations are more vital than ever.

And being practical means sticking together. Negotiating over Brexit, the EU is minded to shut Britain out of the union's security structures because it will no longer be a member. Given Britain's military experience, its arms industry and its intelligence agencies, that is self-defeating. Instead, the EU's members should seek to bind Britain in by, for example, promoting the European Intervention Initiative, proposed by France, which aims to create a force that can act in crises. Once America would have seen such a plan as a threat to NATO. Today it would stand both as insurance and as a sign that Europe is willing to take on more responsibility.

Fighting for the mind

Last is the battle of ideas. If NATO and the EU did not already exist, they would not be created. Since the Soviet collapse, the sense of threat has receded and the barriers to working together have risen. Yet that does not make the transatlantic alliance "obsolete", as Mr Trump once claimed. America's alliances are an asset that are the envy of Russia and China. NATO is an inheritance that is all the more precious for being irreplaceable.

The need for security remains. Russia is not the Soviet Union but, as a declining power, it feels threatened. It has modernised its forces and is prepared to deploy them. The need to anchor European democracy remains, too. As authoritarianism creeps up on Poland and Hungary, the EU and NATO can once again help limit its advance. And there is the extra benefit of how Europe helps America project power, by providing bases, troops and, usually, diplomatic support.

NATO is more fragile than Mr Trump thinks. At its core is the pledge to treat an attack on one member in the North Atlantic region as an attack on them all. His vacillation and his hostility to Europe weakens that promise, if only because it reveals his scorn for the idea that small countries have the same rights as big ones. Asia is watching, as is Mr Putin. The more Mr Trump bullies his allies, the more the world will doubt America's security guarantees. Because great powers compete in a grey zone between peace and war, that risks miscalculation.

Mr Trump believes he is a master negotiator in pursuit of a stronger America. With Europe, as with so much else, he gravely undervalues what he is giving up.

This article appeared in the Leaders section of the print edition under the headline "Transatlantic rift"

The missing 235m

Why India needs women to work

Were India to rebalance its workforce, the world's biggest democracy would be 27% richer

Print edition | Leaders Jul 5th 2018

LAKSHMI, the goddess of wealth and fortune, is the closest thing Hinduism has to an economic deity. How poorly her earthly sisters in present-day India are faring. There, women are less likely to work than they are in any country in the G20, except for Saudi Arabia. They contribute one-sixth of economic output, among the lowest shares in the world and half the global average. The unrealised contribution of women is one reason India remains so poor.

Yet far from joining the labour force, women have been falling away at an alarming pace. The female employment rate in India, counting both the formal and informal economy, has tumbled from an already-low 35% in 2005 to just 26% now. In that time the economy has more than doubled in size and the number of working-age women has grown by a quarter, to 470m. Yet nearly 10m fewer women are in jobs. A rise in female employment rates to the male level would provide India with an extra 235m workers, more than the EU has of either gender, and more than enough to fill all the factories in the rest of Asia.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Imagine the repercussions. Were India to rebalance its workforce in this way, the IMF estimates, the world's biggest democracy would be 27% richer. Its people would be well on their way to middle-income status. Beyond the obvious economic benefits are the incalculable human ones. Women who work are likelier to invest more in their children's upbringing, and to have more say over how they lead their lives. Given that more Indian women have been beaten up by their husbands than are in work, there is room for improvement.

Rich irony

The first step in reversing the dramatic drop in female employment is understanding it (see Briefing). Some of the fall is a sign of progress. Girls are staying in school, and thus out of the labour force, for longer. But mostly it is the result of two unwelcome trends. As households become richer, they prefer women to stop working outside the home. It is not unusual in developing economies for a family's social standing to be enhanced by having its women remain at home. But India stands out, as its female labour-force participation rate is well below those of countries at comparable income levels.

Social mores are startlingly conservative. A girl's first task is to persuade her own family that she should have a job. The in-laws she will typically move in with after marriage are even more likely to yank her out of the workforce and into social isolation. In a survey in 2012, 84% of Indians agreed that men have more right to work than women when jobs are scarce. Men have taken 90% of the 36m additional jobs in industry India has created since 2005. And those who say that women themselves prefer not to work must contend with plenty of counter-evidence. Census data suggest that a third of stay-at-home women would work if jobs were available; government make-work schemes attract more women than men.

That points to the other problem: the lack of employment opportunities. The workforce has shifted from jobs more often done by women—especially farming, where most Indian women work but are being displaced by mechanisation. At the same time, inflexible and unreformed labour markets have hampered the rise of manufacturing and low-level services, the gateway for women in other poor countries. In neighbouring Bangladesh, whose customs are not so different from India's, a boom in garment manufacturing has increased the number of working women by 50% since 2005. In Vietnam three-quarters of women work. But the mega-factories that boosted female employment there are largely absent in India.

Men, to your mops

What can be done? Many of the standard answers fall short. Promoting education, a time-tested development strategy, may not succeed. Figures show that the more schooling an Indian woman receives, the less likely she is to work, at least if she has anything less than a university degree. Likewise urbanisation, another familiar way to alleviate poverty: city-dwelling women are half as likely as rural ones to have a job.

Promoting female-friendly workplace policies, such as generous maternity leave, goes only so far in a country where most workers operate outside the formal economy. The most fruitful policy would be to reform India's labour market so that women can be sucked into jobs en masse. When hiring and firing decisions have to be validated by bureaucrats, few entrepreneurs want to set up large factories.

A huge amount can be achieved in the intimacy of people's homes without any help from the deskwallahs in Delhi. Indian women do 90% of the housework, the most of any large country. Gentlemen, spending just two hours a week doing the dishes or putting the kids to bed, would translate into a ten percentage point increase in female labour participation, according to a World Bank study. If that raised GDP by \$550bn, as the McKinsey Global Institute, a think-tank, has suggested, it would surely be the easiest half-trillion-dollar boost available to the global economy—and to one of its poorest countries, too.

An optimist might argue that more women are not working because India is still paying for the sins of the past, when so many of them were illiterate and high fertility rates bound them to the home. Most measures of female welfare are improving.

India has many more girls in classrooms and fewer child brides than it once did.

But simply waiting for that progress to trickle down into the labour market ignores India's dismal recent record. The socially conservative bent of the Hindu-nationalist government of Narendra Modi makes it an unlikely champion of women's rights. Other countries are trying harder to get women into gainful employment. Unless something changes, it will not be long before Saudi women are more common in the workplace than Indian ones.

In fact, many fear that all that extra schooling was a parental ploy to improve a daughter's prospects not in the labour market but in the arranged-marriage market, part of the all-important quest to snag a suitable boy. A further push is needed to get Indian women what they really need: a suitable job.

This article appeared in the Leaders section of the print edition under the headline "How India fails its women"

Mistrust and verify

How to denuclearise North Korea

Mike Pompeo is due in Pyongyang. Here is how one of the CIA's North Korea-watchers might advise him

Print edition | Leaders | Jul 5th 2018

SIR: Decades of trying to keep tabs on North Korea's bombs and missiles have taught us that the Norks lie and cheat and that they throw hissy fits when we call them out. Kim Jong Un and POTUS got along famously but we must assume that Little Rocket Man is going to try it on again. We need an agreement that stops him doing that. Some basic requirements:

1. A plausible declaration. In the past few days we have facilitated some stories in the press about what they are up to: stepping up uranium enrichment and expanding one of their missile factories. This has let the Norks know that we know that they plan to cheat. So they may think twice about declaring just a bare minimum of nuclear and missile facilities. We know a bit more about them than they thought. With luck, they will not realise how little that bit is.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

- 2. Front-load it. They must move first, opening up to inspection, and stopping enrichment. But upfront complete capitulation on the "Libya" model is a non-starter. (In fact, don't mention Libya, a red rag.) We can probably cut the Norks a few months' slack before they dismantle any bombs. We could even let them have a rump civilian nuclear programme. But all sanctions should stay until foreign eyes are on their programme. And they should snap back as soon as any foot-dragging or deception emerges. POTUS's suspension of joint military exercises with the South should itself be suspended. And we should clarify that when he said it was "OK" that China is already easing up its enforcement, he meant it is not OK at all.
- **3. Multilateralise it.** While we're on China: it must be part of the agreement. Since this is about getting rid of actual nuclear weapons, the five authorised nuclear powers should all be on board. South Korea should be in there, too—no country has more at stake—as well as Japan.
- **4. Verify it.** You were spot on to shut down that pesky journalist by calling it "insulting and ridiculous and, frankly, ludicrous" to ask why the Singapore text doesn't include verification. It's our weak point. Highly intrusive inspection is essential. It must be more rigorous than the nuclear agreement with Iran—and that includes continuous monitoring of enrichment sites and snap inspections. We need more than we had in Iran: access to the missile factories, too, and to military facilities. This may be a deal-breaker. The idea of foreigners touring North Korea, crawling through their tunnels, seems fanciful.
- **5. The crunchy carrots.** The one-in-a-million chance is the hope that, in its third generation, the Kim dynasty has decided its future depends not on being able to incinerate Seoul and Los Angeles but on being part of the world economy. The rewards would be huge. But of course, the Norks want more: a "security guarantee". They probably mean an end to our nuclear "umbrella" over South Korea and even perhaps the withdrawal of all our 28,000 troops there. Awkwardly, that is what they often mean by the "denuclearisation" that POTUS signed up to in Singapore. None of this should be on the table.
- **6. Holy of Holies.**Let's face it. The Norks are most likely back to their old game of winning some short-term relief from international isolation while they keep the nuclear programme sacrosanct. It is still, after all, in their constitution. In that case, the best that can be hoped for is a tough regime that curbs the growth of their arsenal and maybe even begins to cut it. At least that should leave us a little better prepared when the current love-in gives way to the next hissy fit.

This article appeared in the Leaders section of the print edition under the headline "Mistrust and verify"

FAANGS v BATS

America's tech giants vie with China's in third countries

The most titanic commercial battle in the world

Print edition | Leaders Jul 5th 2018

IT IS the world's most titanic commercial fight. Facing off are the towering giants of American and Chinese tech, led by the FAANGs (Facebook, Amazon, Apple, Netflix and Google's parent, Alphabet) on one side and the BATs (Baidu, Alibaba and Tencent) on the other. These are some of the planet's biggest firms, with a combined stockmarket capitalisation of more than \$4trn. At play are some of its most promising markets. Why, then, has the battle largely escaped attention?

One reason is where it is taking place. The titans have avoided each other in their home markets, and rising trade tensions make it ever less likely that a clash will happen there (see article). Except for Amazon and Apple, the FAANGs are already all but banned in China. America, meanwhile, is putting up barriers to Chinese firms. This week the Trump administration declared China Mobile, the world's largest carrier, a potential threat to national security. Ant Financial, an affiliate of Alibaba, was stopped from buying an American payments firm earlier this year. Tighter investment restrictions are on the way. So the cream of America and China are taking each other on directly only in third countries, such as Brazil, India and Indonesia (see article).

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Another reason for the battle's low profile is that it is not being fought in the open. The American firms have, broadly, transplanted their services to other markets; Amazon has pledged over \$5bn to replicate its offerings in India, for example. But the Chinese giants are taking a different tack, buying stakes in local firms and weaving them together into complex tapestries of services. The ecosystem of Tencent and Alibaba, with over 1,000 stakes in foreign firms, includes dozens in emerging markets. Along with Ant, they have backed 43% of all Asian unicorns, startups worth more than \$1bn. Chinese tech firms pumped \$5bn into Indian startups in 2017, a fivefold increase on the year before. America's tech giants are wearing uniform abroad; China's melt into the background.

The battle for emerging markets warrants closer attention—and not just because it has been below the radar. It has implications for the world's tech giants. Over half of Google's revenues come from outside America; eight of Facebook's ten biggest territories by user numbers are emerging markets. Alibaba wants to raise the value of sales on its platform that are made abroad to 50% by 2025, implying stratospheric growth in places like India. Around half of the world's population is online; that leaves an awful lot of new eyeballs to monetise.

In addition, a proper east-west tech rivalry promises to bring big economic benefits. At home, the tech giants prompt worries about their dominance. Abroad, they are scrapping for consumers and companies. Ant and Tencent, for instance, are introducing Germans to the blessings of Alipay and WeChat Pay, their mobile-payment systems. Amazon has helped bring big warehouses and other e-commerce infrastructure to India. Over time, many digital markets tend to become more concentrated, as size begets size and winners take most of the spoils. For now, in third countries, competition rages.

Bloc-heads

The last reason to watch this unfolding battle is geopolitical. America and China are vying for digital supremacy. The fight between their tech champions in other markets will inevitably have political overtones. Chinese technology is sold by firms that will work with the authorities. That may tip the scales in their favour in countries with less democratic regimes. Online data provide the fuel for artificial intelligence; deciding if they flow into Chinese computing clouds or American ones could have consequences for how dependent countries become on one superpower. The battle between the FAANGs and the BATs is a commercial one. But its outcome could put third countries in one camp or the other, increasing the risk that the world eventually splits into two techno-blocs.

This article appeared in the Leaders section of the print edition under the headline "FAANGs v BATs"

Fall in, or halt

If national service is so good, everyone should do it

Why should older people be exempt from a plan designed to bring society together?

Print edition | Leaders Jul 5th 2018

CITIZEN armies have been replaced in most countries by professional soldiers, who tend to do a better job of defending the nation than conscripted interns. But the draft is making a comeback in some surprising places. Sweden brought back military service this year, after an eight-year hiatus. France's president, Emmanuel Macron, is planning to revive national service, which was abolished in 1997. Thinkers in America, Britain and elsewhere have floated the idea—and polls suggest that voters like it.

Some small countries with menacing neighbours, like Sweden and Lithuania, are resuming conscription for defensive purposes. But others have different motives. France, which will let teenagers work in a civil organisation rather than the armed forces if they prefer, hopes to foster social cohesion. This cuddlier sort of conscription is already popular in Scandinavia, and growing elsewhere. South Korea has announced plans for social service as an alternative to the military sort, following a court ruling in favour of conscientious objectors.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

National service has much to recommend it. It creates a shared experience in otherwise fragmented societies, breaking down barriers of class, race and gender. It can be used to instil the values of a country in its population. It builds respect for the armed forces, teaching civilians that their freedom ultimately depends on others' willingness to kill and be killed. And it subjects a pampered population to a bracing dose of spartan clean living, away from iPads and alcopops.

The odd thing is that this wonderful opportunity should be reserved only for the young. Age limits are understandable if the purpose of conscription is to repel marauding Russians. But it makes no sense when the aim is social cohesion. One of the greatest divides is generational; that will hardly heal if oldies sit out the experience. Targeting the young also means that immigrants, who might benefit most, miss out if they arrive as adults. As for the need to impart wholesome values, youngsters should not be the priority. In France, as elsewhere, the elderly are most in need of a refresher on the importance of *égalité*, at least when it comes to women, gays and Muslims. Older people also drink more and watch more TV. They are, in short, ripe for a few weeks a year of boot camp.

So why do countries with "socially cohesive" conscription not impose it on their entire population? The answer is embarrassingly obvious. Voters conclude, reasonably enough, that the benefit to society is not worth the cost to their personal liberty. State-mandated work is often used as a punishment, after all. It interrupts plans, breaks up families and has the potential to be colossally boring. Most polls find that national service is popular only among age groups that would not have to do it. If they believe that such an exercise is not worth their own time, they should not impose it on others.

Fraternité v liberté

The more liberal alternative is to expand the opportunities for voluntary service. America's Peace Corps is one model. Britain's Teach First scheme has got bright graduates into classrooms of their own free will. Other public services, including the armed forces, could increase the number of short-term placements, for all age groups. Doubtless Mr Macron, who sadly was just too young for the draft, would sign up like a shot.

This article appeared in the Leaders section of the print edition under the headline "Fall in, or halt"

Letters

On guns, startups, academic journals, suicide, Parkinson's Law, drink

Letters to the editor

Letters

Letters to the editor

On guns, startups, academic journals, suicide, Parkinson's Law, drink

Print edition | Letters | Jul 5th 2018

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

The Founders on guns

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

To understand America's Second Amendment (<u>Johnson</u>, June 9th) you should look at the original text in the first Congress on the right to bear arms. In June 1789 James Madison proposed nine resolutions, borrowing from state constitutions and the English Bill of Rights. He submitted the following language regarding the right to bear arms, the basis of which eventually became the Second Amendment:

"The right of the people to keep and bear arms shall not be infringed; a well armed and well regulated militia being the best security of a free country; but no person religiously scrupulous of bearing arms, shall be compelled to render military service in person".

Congress was more concerned about the mechanics of setting up a functioning government. After a "desultory" conversation on the amendments, they were referred to a committee of 11 men. The language on bearing arms was revised to:

"A well regulated militia, composed of the body of the people, being the best security of a free state, the right of the people to keep and bear arms shall not be infringed; but no person religiously scrupulous shall be compelled to bear arms."

Elbridge Gerry of Massachusetts led the debate in the House of Representatives. Not one person challenged his assertion that the capacity to bear arms referred to the people's ability to form militias as a defence against a tyrannical government (much of the debate surrounded the question of religious scruples). Senators, however, objected to a number of amendments, without comment as to why, and finally revised the text to:

"A well regulated militia being necessary to the security of a free state, the right of the people to keep and bear arms, shall not be infringed."

The original intent of the amendment was to link the right to bear arms with militia service. The Supreme Court ruled as such on a number of occasions in the 19th and 20th centuries. It was not until the court changed direction, led by judges committed to interpreting the "original" meaning of the constitution, that regulating the militia and the right to bear arms were decoupled. Ironically, these originalists ignored the Founders' original intent.

THOMAS HAYCRAFT Fairfax, Virginia

Why there are fewer startups

You omit one factor explaining the decline in the number of American startups ("Into the danger zone", June 2nd). It used to be the case that software in America had greater patent protection than most other countries, providing a strong base for the initial growth of companies such as Amazon, Facebook and Google. That all changed with the Supreme Court's *Alice* decision in 2014, which reduced the patentability of software "subject matter". Copyrighted software can be written around; patented software cannot, so small software firms today find it much harder to protect their innovative ideas. Intellectual-property strategists forecast at the time that *Alice* would have a damaging effect on the American software industry. With 2014 to 2015 marking the point where the downturn in software-based startups began, their fears have been realised.

IAN HARVEY
Former chief executive
BTG plc
London

What's in the journals?

There is a real problem with "questionable" science journals ("Publish and be damned", June 23rd). The need to publish has only increased as the supply of young scientists in many areas has grown beyond the available jobs. The concept of the LPU (Least Publishable Unit) has been a joke among researchers for years. Demand has created a supply. A new industry of pop-up journals, often with fake credentials, has arisen to ensure that no fledgling manuscript fails to find a citable home. I get a solicitation in my inbox almost every week from a new pop-up journal, asking me to review for, or even edit, it. My favourite is *Global Finance Review*.

PROFESSOR JOHN STADDON

Department of Psychology and Neuroscience

Duke University

Durham, North Carolina

Might some of the published research actually describe good work that would have passed peer review? I take the view of Richard Ernst, who insists that you have to read a research paper before judging its authors. Evaluating the journal's reputation often leads to the wrong conclusions. And even the most stringent peer-review process often resembles a lottery. The reviewers may have an incomplete understanding of the science, tend to defend their established convictions regardless of the presented data, and are sometimes just merely uninterested.

PROFESSOR THOMAS SCHULTZ

Ulsan National Institute of Science and Technology

Ulsan, South Korea

Suicide is a disease

"The sorrows of Werther" (June 16th) observed that one obstacle to suicide-prevention is that people "see suicide as a choice". Indeed. In Goethe's novel, Werther tells the bourgeois Albert that suicide is a disease, not a moral failing: "I find it just as odd to say that a man who takes his life is a coward as it would be inappropriate to call someone a coward if he died from a malignant fever." That was 244 years ago. We still don't give suicide-prevention proper attention.

ILANA WALDER-BIESANZ

San Francisco

False equivalence

* Likening George Soros to the Koch brothers is a false equivalence ("Kochtopus's garden", June 9th). Unlike the Koch brothers, Mr Soros did not inherit his wealth but is a self-made man. Unlike the Koch brothers, Mr Soros has no history of denying climate change. Unlike the Koch brothers, Mr Soros has shown serious concern for human rights and freedom. His insistance that universal priniciples apply to Palestinians, too, has earned this Jewish philanthropist the scorn of Binyamin Netanyahu, Israel's prime minister. The Koch brothers' idea of freedom, by contrast, is simply that those with money should be allowed to do whatever they want.

HANS DEMBOWSKI

Frankfurt

Parkinson's Swedish Law

Bartleby's column on pointless tasks mentioned Parkinson's Law: work expands to fill the time available (June 2nd). C. Northcote Parkinson invented another, not-quite-so-famous law when he gave a speech to the Swedish Employers' Confederation in 1980. "Aim at prosperity and employment will follow. Aim at employment and you will get anything but prosperity."

That is still good advice for parties trying to combat unemployment. Parkinson called it his Swedish Law. CARL-JOHAN WESTHOLM

Uppsala, Sweden

Drink down all unkindness

It is with much regret that the demise of alcohol is happening across much of society, and not just in Parliament (Bagehot, June 2nd). As a veteran of the Lloyd's of London insurance market with a proud 330-year history of lunchtime drinking, regretfully, even in this corner of the world, we are subjected to a management edict of boring dry lunches. The very thing that has helped lubricate much ingenuity and build personal relationships and trust in the business of risk is now being increasingly denied.

DAVID DOE

Oxted, Surrey

The decline of drinking in the political classes reminds me of the advice Don Quixote gave to Sancho Panza as future governor of fictitious Barataria: "Drink moderately; for drunkenness neither keeps a secret, nor observes a promise."

ANTÓN GALDIZ

Bilbao, Spain

^{*} Letters appear onlline only

Briefing

Indian women

A job of her own

A job of her own

Culture and the labour market keep India's women at home

How can they be helped to return to the workforce?

Print edition | Briefing Jul 5th 2018

Neither of Kirandeep Kaur's older sisters works. Nor do most of her girlfriends. But the 21-year-old is giving it a shot. By the summer, upon completion of a three-month nursing course, she hopes to start as a bedside assistant in a hospital in Kapurthala, a town near her village in the northern Indian state of Punjab. In a windowless classroom bedecked with medical diagrams, she and a dozen others are learning the difference between a stethoscope and an endoscope.

Ms Kaur would rather not act as a pioneer among her peers. But her father, a labourer on building sites, has heart problems, her mother is dead and her sisters live with their husbands' families. Financial necessity and the prospect of a 5,000 rupees (\$73) monthly pay cheque trumped any patriarchal hesitation her father had about her new path. After several years at home since finishing school, the putative nurse thinks she might enjoy it, too.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Everything suggests that Indian women ought to be following Ms Kaur into the workplace. The economy has grown at around 7% a year for two decades, girls are now far better educated than their mothers and fertility rates have dropped rapidly. Such dynamics sucked millions of women into the labour force in other poor countries. Excluding India the proportion of women who work worldwide is 50% (see chart 1). But in India, it has declined from 35% in 2005 to 26% today. No country has experienced such a steep decline, and from a low level to boot.

India's bid to become a middle-income country hinges on the likes of Ms Kaur. India, soon to become the world's most populous country, now stands at 121st out of 131 countries ranked by the International Labour Organisation (ILO) for female participation in the workforce. Across the world, some 700m more women would be working if their employment rates matched that of men. A third of those, or 235m, would be in India. Even if India had maintained the rate of 2005, that would have translated into a further 42m workers. That is not far from the number employed in all Indian manufacturing. China, whose footsteps to relative prosperity it aches to follow, has barely more men working than India. Despite a drop as workplace participation dipped for both men and women, its overall workforce is nearly 50% bigger thanks to many more women working.

What prompted the drop? Part of the fall in the number of working women is actually good news. Indian girls are staying in school longer. Research suggests that it explains perhaps a third of the decline in the participation rate, which counts all females aged 15 and above. (But a startling gender gap remains: some 49% of women between 15 and 24 years old are not in education, employment or training, compared with just 8% for boys.)

This learning spurt would be good news if girls used it to secure jobs. But a paradox of present-day India is that the more education a girl gets, the less likely she is to work, bar the few that continue their studies past school. Various studies have found a "U-shape" relationship between educational attainment and workforce participation (see chart 2).

Illiterate women, often from society's poorest segments, have little choice but to work. Most end up doing what amounts to subsistence farming. Two-thirds of India's population live in the countryside and agriculture accounts for over half all female employment. As family incomes rise, women get more education, but upon completing their studies are excused from drudgery in favour of tending home. This would have been the fate of Ms Kaur, who has 12 years of schooling to her name. The trend reverses only with the small number of highly educated women.

From farm to plating up

Patriarchal social mores supersede economic opportunity in a way more usually associated with Middle Eastern countries. Outside a small urban elite, the default position is for women not to work unless there is no other way for a family to make ends meet. This reflects an enduring stigma of women being seen as "having" to toil. A family's social standing partly derives from women being able to stay at home. Such social restrictions become more rigid higher up the caste hierarchy.

The likelihood of a woman working is, in essence, inversely related to her family's income—at a time when families are getting richer. Vast discrepancies exist between Indian states. In places where many men have migrated to cities leaving wives behind, such as in the hilly north-east of the country, female employment rates are relatively high. In places like Punjab, and in much of the populous and conservative Hindi Belt it abuts in the north of the country, the figure is below 15%.

The most marked chasm is between urban and rural areas. Women in cities are about half as likely to work as those outside them. The gap is declining only because rural women are falling out of the labour force. Between 2005 and 2012, the rural female labour-force participation rate declined from 49% to 36%. In urban areas, the figure stayed around 20%. Because

India's population is steadily migrating to cities, this gap is depressing participation. Cities have fewer farming jobs, which are among the only ones that allow women to work and to take care of children.

Even those women who want to work face plenty of obstacles. Harpreet Kaur of the Pratham Institute, the charity coordinating the nursing course in Kapurthala, says getting girls to sign up is the hardest part of her job. A village leader must first give permission for girls living there to be trained, which is forthcoming just half the time. Then parents are approached. Only if they agree is the potential trainee asked her opinion.

Even after training for and getting a job few stick around. Data from Rohini Pande and others at Harvard University suggest that less than 20% of the girls who finish the kind of courses offered by Pratham (as well as nursing, it offers training for beauticians) will still be working a year later. That is roughly half the figure for men doing similar courses. The most oft-cited reason for girls dropping out is family obligations.

Marriage is what nips many careers in the bud. Most girls on Pratham courses say they would like to keep working after they get married. Almost none of them do so. Many badger their parents to find a match who will allow it (nearly nine in ten marriages in India are arranged). In practice, only 10-15% get the opportunity, says Ms Kaur. "It is totally frustrating. But if the husband has a good job, the question becomes 'why work?'", she says. Indian women are not expected to have a job—41% of young Indians think it better if married women do not work. As the median age of marriage is 19, there is little time to experience the workplace. It does not mean a life of idleness. Women do 90% of all housework, the highest proportion in the world, soaking up over 40 hours a week.

Why do girls stay in school if they do not intend to get a job? "There is a trade-off between spending money on educating a girl or spending it on a dowry; education often means a smaller dowry or none at all," says Anirudha Dutta, the author of "Half a Billion Rising: The Emergence of the Indian Woman". Dowries are illegal but payments averaging 35,000 rupees remain the norm. As this represents about half a median annual income, keeping a girl in school is a cost-effective way of reducing the bill.

It does not, however, mean a girl can use her education in the workplace. Families scouting for wives for their sons are looking for their own future carers and housemates, given the tradition of brides moving into the in-laws' family home. Most seek an educated mother for their grandchildren rather than extra income.

Indian women, like their counterparts in most of the world, are having fewer children. They have gone from having an average of four in 1990 to just over two today. But declining fertility has not had the same impact as elsewhere. Western women used the time to build careers; Indian women use it to lavish more attention on fewer kids. According to the World Values Survey, 76% of Indians agree that "when a mother works for pay, children suffer", the highest figure outside the Middle East.

There is evidence that many women want jobs. Census data suggest 31% of stay-at-home women would work if a job were available. When opportunities exist, they are snapped up. A government make-work scheme that guarantees 100 days of paid labour a year for rural Indians has more female participants than male ones.

India's cultural barriers to women seeking jobs will be hard to break down. And even if they are removed, some argue it is not clear the country's labour market could provide jobs for moderately educated women. There are around 1m new entrants to the labour market every month. They are hardly overwhelmed with job offers, whatever their sex. A recent advertisement for 90,000 railway jobs attracted around 25m applicants.

Nor are female jobseekers likely to have the same chance of success as a man. In a survey in 2012 by Pew, a research outfit, 84% of Indians agreed that "when jobs are scarce, men should have more right to a job than women". The upshot can be seen at the workshop of KR Metal Industries, a small-scale garment manufacturer in an industrial park in Lower Parel, a neighbourhood of Mumbai once known for its teeming textile mills. The scene is reminiscent of countless sweatshops across Asia. Rows of workers are silently hunched over chattering sewing machines, others are ironing or stitching buttons. With one difference: every employee is a man.

Jobs for the boys

The trend extends to nearly all parts of the economy. Less than a quarter of workers in manufacturing are women, compared with nearly half in China. In Brazil 51% of workers in the service sector are women, compared with just 19% in India. Across the world, just under three-quarters of all health-care workers are women, according to the ILO. In India the figure is under half.

Worse, as the Indian economy has grown it has shifted away from female-friendly sectors towards those where men dominate. Since 2005 agriculture has shed 35m of its 250m workers, as tractors and other types of mechanisation reduced the workforce required. Two-thirds of those displaced were women. At the same time employment in industry grew by 36m—enough to absorb all the redundant farmers, male or female. But men nabbed 90% of those jobs. Of the 56m jobs in the service sector created during the same period, men got nearly 80%. Near the top of the pay scale, hiring in the IT outsourcing industry (which is relatively female-friendly) has all but stalled as its biggest companies face pressures from automation and the prospect of resurgent protectionism.

Industries that spawned tens of millions of female jobs in other emerging economies are largely absent from India. Antiquated labour laws and a government fond of harassing big business are to blame for an absence of mega-factories spewing iPhones or T-shirts. Vietnam and Ethiopia, which have plenty of giant factories employing women, mostly making clothing and footwear, boast female workforce-participation above 70%.

Denying women access to jobs has held back India's economy. A study cited by the IMF estimates India would be 27% richer if more women there worked. But the impact runs much deeper. The skewed labour force affects the distribution of wealth between men and women, and thus their respective roles in society.

Neither fine nor balanced

Studies show that women with their own economic resources—a piece of land, for example—are far less likely to be victims of domestic violence. And working women are more likely to control household finances. Those who do so spend more on the well-being of their children. The opening of factories where women can find jobs results in an increase in girls' education in neighbouring districts, and even affects the amount of food they receive.

In a country with pockets of abject poverty, that can have dramatic consequences. Around 600 young girls a day die of neglect resulting from gender bias, according to a study published in the *Lancet*. The authorities estimate that India has 63m fewer women than it would otherwise because of differing survival rates between boys and girls as well as gender-selective abortions. Across India only 900 girls were born for every 1,000 boys in 2013-15, a ratio that is expected to worsen.

Improving the lot of women who want jobs will be a hard slog. India is hardly fertile ground for feminism. A poll of young Indians last year found over half agreeing that women should always obey their husbands. The patriarchal approach is enthusiastically endorsed by the politically dominant Hindu nationalist movement, spearheaded by Narendra Modi, the prime minister. A female functionary of the women's wing of the Rashtriya Swayamsevak Sangh, the ideological parent of Mr Modi's Bharatiya Janata Party, recently explained that "a man's job is to make money...whereas a woman's quality is motherhood. She should never forget that."

Women's issues receive limited political attention. A new goods-and-service tax adopted in 2017 put a levy on tampons (while exempting condoms and much else besides). All 33 of the politicians setting the tax rates were men. Only one in eight ministers or members of parliament is a woman; just two of 23 Supreme Court judges are female. The corridors of corporate power are largely men-only zones.

Labour laws that might help women, such as extended maternity leave, have limited scope given that only 5% of women work in formal salaried jobs. Similarly, although men and women should in theory get equal pay for the same work, in practice women get just 62% of what men earn. While women are meant to inherit land as easily as their brothers, few do so in practice. Less than 13% of all agricultural land is controlled by women.

Allies of Mr Modi insist that his development agenda will help all Indians but women most of all, including helping them into the labour market. Perhaps it will. A push to get gas cookers into 50m homes has exceeded targets, for example. Each cooker can cut the gathering of wood or cow-dung (still used in over half of all households, and mainly foraged by women) by up to an hour a day. A World Bank study suggests that just two hours less housework a week could bump up female employment by ten percentage points.

Women may benefit disproportionately from other schemes, such as those to improve access to bank accounts or mobile phones. Better roads and electricity connections remove obstacles to women getting jobs, studies show, and are part of the government's infrastructure push.

Against that, public safety for women remains an oft-cited barrier for employment. Some cities, notably the capital, Delhi, are perceived as inhospitable to single women. That makes moving to find work harder for women than for men, for whom hostels are abundant. In most states, women are barred from overnight shifts at factories for safety reasons.

Optimists point out that countries have their own U-shape of female employment. Women tend to pull out of work as countries move from agriculture to manufacturing and services, but return when more of them get educated. In Turkey female employment slumped then recovered as the country urbanised. The trough of the "U" is at roughly \$10,000 of GDP per head, measured at purchasing-power parity. India, which performs notably worse than countries at similar stages of development, stands at \$6,500; the figure is increasing by around \$400 a year. That suggests things might get worse before they get better.

The steepest fall in India's female-participation rate was between 2005 and 2012, since when things have at least not become much worse (see chart 3). Yet the ILO forecasts that even by 2030 India will not have as many working women as it did in 2005, despite a 44% increase in its female working-age population between those dates.

The goddess of big things

The Hindu goddesses of wealth, power and learning are all women, Mr Dutta points out. But Rama Bijapurkar, a marketing consultant, argues that these are the wrong deities for ambitious Indian women to pray to. Their liberator will instead be the "Goddess EMI". Equated monthly instalment is the name given to the loans more and more richer Indians are taking out to finance anything from mobile phones to scooters and homes.

At least among richer Indians, consumer debt is rising rapidly and with it repayments. Increasingly, says Ms Bijapurkar, a single salary is not enough to balance the bloated household budget. That presents an opportunity. For Indian families need not look far for a willing volunteer to bring in a second income. She is in the next room, dealing with a load of washing.

This article appeared in the Briefing section of the print edition under the headline "A job of her own"

United States

The Supreme Court

The coming storm

The coming storm

A court with a solid conservative majority could reshape American life

Here's how

Print edition | United States Jul 7th 2018

WHEN Anthony Kennedy announced his retirement from the Supreme Court on June 27th, Democrats rushed to the barricades. "This is the fight of our lives," announced Senator Elizabeth Warren of Massachusetts. Senator Kamala Harris proposed delaying confirmation hearings for Mr Kennedy's successor until after the next election, which falls in November 2018, just as Mitch McConnell, the Senate majority leader, did with Barack Obama's nominee in 2016. In practice, Democrats cannot stop Mr Trump from placing his second justice on the country's highest court. Mr McConnell is serenely untroubled by the precedent he set, and President Donald Trump plans to announce his nominee on July 9th. When the nominee is confirmed in the autumn, he or she should cement a reliable conservative majority that could, among other things, make abortion less accessible and federal agencies less powerful, though not quite in the way that many seem to expect.

The next justice will almost certainly be young (Mr Trump talked of wanting his nominee to serve for 45 years) and farther to the right than Mr Kennedy, a libertarian conservative whose moderate social views made him the court's swing vote. Predicting a jurist's voting patterns used to be harder. David Souter, appointed by a Republican (George H.W. Bush), became a reliably liberal jurist. Hugo Black, a former Klansman from Alabama, ruled school segregation unconstitutional. Today's Republican appointees, though, come up through a conservative legal pipeline that was in its infancy a few decades ago. They have reliable paper trails and are thoroughly vetted. Republicans have learned the "no more Souters" lesson. To shore up his standing with white evangelicals, the president released lists of potential nominees during the campaign, and has met at least seven people on those lists, though Mr Trump, an inveterate showman, may choose someone else entirely.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The president has stoked Republican hopes by musing about the Supreme Court overturning *Roe v Wade*, which found that a constitutional right to privacy protects a woman's decision to terminate her pregnancy. That seems unlikely. It would be political self-harm, galvanising the left while removing a longtime inspiration for religious conservatives. Justices also tend to dislike simply overturning past rulings (though the court's five conservatives, including Mr Kennedy, displayed no such squeamishness in a recent case that overturned decades of precedent to weaken public-sector unions).

Nothing seems to fit

The court need not explicitly overturn *Roe* to functionally outlaw abortion, though. It could simply approve onerous state-level restrictions. In 2016 Mr Kennedy voted with the Court's four liberals to strike down, as an undue burden on a constitutional right, a Texas law requiring that abortion providers have the right to send their patients to nearby hospitals and that abortion clinics have similar facilities to surgical centres. Several similar cases are wending their way through the federal-court system. Under a more conservative justice, abortion may not become explicitly illegal, just inaccessible in many states.

A similar pattern may hold for gay rights, a cause that Mr Kennedy helped not just with his rulings on gay marriage, but going back to 1996, when he struck down a Colorado law that would have exempted gay people from anti-discrimination protections. Here, too, the risk is less that his successor renders gay marriage illegal than that the court permits various religiously inspired opt-outs. State clerks who refuse to sign marriage certificates for same-sex couples on religious grounds could find their actions protected, for example. What was once the law of the land could end up applying only in some places.

A Kennedy-less court would probably be less hospitable to all sorts of regulation. The Affordable Care Act looks secure for now, because the block that upheld it (Mr Roberts and the court's four liberals) remains intact. But conservative jurists are sceptical of the doctrine known as Chevron deference, which tells courts to defer to government agencies in their interpretations of ambiguous statutes, as long as they are reasonable. Conservatives complain that, in effect, this lets agencies make laws as well as enforce them, usurping power that properly belongs to Congress.

Chevron defenders argue the doctrine is essential to a functional government. Getting rid of Chevron would fit well with the goal of dismantling the administrative state announced in the first months of the Trump administration. This involves an intriguing family subplot. In the case that gave rise to Chevron, the court ruled in favour of granting the Environmental Protection Agency (EPA) discretion. The boss of the EPA at the time was Anne Gorsuch. Her son, Neil, was Mr Trump's first nominee and could be charged with undoing his mother's handiwork.

Regulation of greenhouse gasses may be less vulnerable. In 2007 Mr Kennedy was the fifth vote in *Massachusetts v EPA*, which said the agency had the authority to regulate emissions that contribute to climate change. Mr Roberts, who will now

be the court's likeliest swing voter, has indicated that he regards this as settled law. His sympathy for business may prove an unlikely boon to environmentalists. David Doniger, of the Natural Resources Defence Council (NRDC), an advocacy group, says he views Mr Roberts as persuadable, "if we could show that the impact of regulation was tolerable and predictable and [that] undoing them would be a mess."

On issues concerning race, however, Mr Roberts has shown no such flexibility. In a 2007 case barring school districts from considering students' races when assigning them to schools, Mr Roberts wrote, "The way to stop discrimination on the basis of race is to stop discriminating on the basis of race"—a perfectly admirable sentiment in the abstract that takes little account of the structural unfairness which affirmative-action is supposed to address. Since 2003 five affirmative-action cases have come before the Supreme Court. It is inevitable that a sixth will bubble up before long. Whoever the next nominee is, considering race in university admissions—which Mr Kennedy deemed narrowly permissible in 2016—will probably be deemed unconstitutional.

Mr Roberts also ruled in 2013 that parts of the Voting Rights Act were no longer necessary. This past term he voted to let Texas use an electoral map that a lower court found discriminatory against Latino voters and to let Ohio purge its rolls of people who have not voted in several elections and returned a postcard confirming their address. The court punted on three partisan gerrymandering cases. Much of the court's conservative block opposes restrictions on campaign contributions.

The departure of Ruth Bader Ginsburg or Stephen Breyer, liberal justices respectively aged 85 and 79, could give Mr Trump an opportunity to move the Court to a 6-3 conservative majority. Fearing that, some on the left have begun floating proposals to increase the number of justices on the Supreme Court. The constitution does not specify a size for the court, but it has had nine justices since 1869. The last serious proposal to increase its size came from Franklin Roosevelt in 1937, when the conservative court repeatedly blocked New Deal legislation.

No serious Democratic politician has taken up the call. But if Mr Trump gets a third nominee, some could. If that happens, the Supreme Court's reputation as a neutral arbiter above the partisan fray, which is already shaky, would be kaput.

Correction (July 29th, 2018): A typographical error initially credited Anthony Kennedy with contributing to a crucial gay-rights decision in 1986—one year before he was appointed to the Supreme Court, and six years before Colorado passed the law ruled unconstitutional—rather than 1996. Sorry.

This article appeared in the United States section of the print edition under the headline "The coming storm"

Coming apart

The wage gap between white and black men is growing wider

WRITING in 1978, William Julius Wilson, an influential sociologist, began a controversy in "The Declining Significance of Race." Mr Wilson argued that the plight of poor black Americans was due more to labour-market forces than to contemporary racial discrimination. "I wanted to call attention to the worsening condition of the black underclass, in both absolute and relative terms, by relating it to the improving position of the black middle class," he later wrote. Four decades later a bevy of economic studies provide some vindication for Mr Wilson. While highly educated African-Americans are now more successful than ever, the bottom appears to have fallen out for poor blacks. Although the earnings gap between the typical white and black man began narrowing from 1940, the trend stopped in the mid-1970s. Many assume that the earnings gap then stayed constant, but it has in fact widened. Today the difference is as large as it was in the 1950s.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That is one result from a recent working paper by the economists Patrick Bayer of Duke University and Kerwin Charles of the University of Chicago. Previous studies of racial wage gaps only examined those in work. That understates the problem because a staggering number of prime-age black men are not—35% compared in 2014 with 17% of whites (see chart 1). Much of this difference is due to mass incarceration. Nearly 8% of prime-age black men did not work because they were institutionalised—the vast majority in prison—compared with 1.5% of whites. The elevated rates of workforce non-participation and unemployment for black men could also be explained by employers' reluctance to hire applicants with criminal records.

At the top end of the income scale, the earnings of black men and white men are closer, even as their peers in the middle fall further behind. To illustrate this, Messrs Bayer and Charles use a useful thought experiment which they call the "earnings rank gap". Suppose that a man at the exact middle of the black earnings distribution were white instead. How would he look then? And how has his relative position changed over time? In 1940 a black man in the 50th percentile among blacks would fall in the 24th percentile if he were white. By 2014, his position would have barely budged, resting only at the 27th percentile. Things look much better for the well-to-do black man, sitting at the 90th percentile of the black earnings distribution. In 1940 he'd only be at the 53rd percentile among white men. In 2014 he would be at the 74th (see chart 2).

Two forces are behind this tale of diverging fortunes among African-Americans. The first is not specific to race. Declining rates of union membership, deindustrialisation and rising income inequality have wreaked havoc among middle- and lower-class black men. The second force is race-specific. As discrimination declined, black Americans entered occupations that had previously been closed off to them. "In 1960, the very smartest black kid in Texas could not go to the most selective college in America. And even if he did, he became a preacher," explains Mr Charles. "Today, he goes to Princeton. And when he's out, he can become an editor at *The Economist*."

A much-discussed study published in March by Census Bureau researchers and the economists Raj Chetty of Stanford University and Nathaniel Hendren of Harvard University showed that black boys did much worse in the labour market than white boys, even if they had similarly rich parents, educational qualifications and inherited wealth. Yet the same was not true of black girls, who showed no differences in wages upon controlling for parental income. In response, some formulated a muddled theory of racial discrimination specific only to black men and not women. A clearer explanation of this trend are the stark differences in high-school completion and incarceration between black and white boys, which the authors also show. A black boy born to parents in the top 1% of the earnings distribution had the same chance of being in prison as a white boy whose parents made \$36,000 per year.

This article appeared in the United States section of the print edition under the headline "Coming apart"

Rate expectations

Why Detroit is the most expensive city in America to buy car insurance

It has more to do with bad state policy than crime
Print edition | United States | Jul 5th 2018

ASK Mike Duggan, the mayor of Detroit, what keeps him up at night and he replies, without a second's hesitation, "car insurance". For those familiar with the city's precarious finances, bad schools and blighted neighbourhoods, this might seem a strange answer. But even among this throng of flashy ailments, Detroit's car-insurance problem looks egregious. The average cost of insurance premiums in the city is \$5,414 per year, more than twice the state average and nearly four times the national average. For the typical Detroit household, making \$26,300 a year, this would represent 21% of pre-tax income. Cars are an inescapable necessity in Motor City, a 140-square-mile expanse lacking robust public transportation. Residents therefore flout the law by registering their policies at addresses outside the city, where insurance costs less than half what it does inside, or by driving without any insurance at all. Good numbers are understandably difficult to come by, but it is now estimated that up to 60% of Detroiters drive without insurance.

The problem is not just limited to Detroit. Costs are also spiralling out of control in Flint, another Michigan city down on its luck. Car-insurance premiums there have spiked 30% since the city's water crisis in 2014, and now stand at \$3,507 per year. In fact, car-insurance premiums in the state are so hugely regressive that those living in the poorest zip codes, where the typical family lives below the federal poverty line, can expect to pay twice as much to insure their cars.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Adding to the cost of driving, Michigan introduced a "Driver Responsibility Fee" in 2003 to shore up state finances. This added extra fees for things like speeding or making improper turns, on top of the existing fines. These responsibility fees could amount to \$1,000 a year. Those who failed to pay had their drivers' licenses suspended. "It was essentially a sin fee," says Joshua Rivera of the University of Michigan. (After several years of legislative haggling, the fees will be scrapped in October.)

Insurers in the state base their quotes on a driver's zip code, credit score and educational qualifications. Scoring poorly on any of these results in a higher rate. Loretta, an Uber driver, says her insurance bills exceeded her car payments when she lived in Detroit. When she moved 30 miles away, her premiums halved. Insurance companies may make for easy targets, but blame really lies with the state of Michigan, which has put bad policy in place and failed to fix it. The state mandates that all drivers buy no-fault insurance with unlimited medical insurance—meaning that the insurer will pay for unlimited lifetime medical expenses, rehabilitation services and lost wages after a car accident, no matter who is at fault. It is the only American state that mandates such generosity.

Originally, the hope was that the no-fault system would simplify claims and reduce the number of lawsuits. That opposite seems to have happened. Lawyers, drawn to the potentially unlimited stream of cash, have more than doubled the number of lawsuits, which can earn them 30% of the resulting damages. Hospitals siphon off some of the cash sloshing around by billing procedures at three or four times the typical negotiated rates. Other states have reduced such costs by setting ceilings on what hospitals can charge. Michigan has not. Medical bills for those injured in car accidents have tripled since 2000. Ballooning medical costs are the chief cause of costly insurance—jumping from 22% of premium costs in 2000 to 52% in 2013. Much of this spending is duplicative, since the vast majority of Michiganders already have health insurance. Fraud is thought to be rampant. One chiropractor clinic allegedly sent "chasers" to find people who had recently been in a car accident, in order to urge them to file a claim.

When this insurance regime interacts with Detroit's high rates of car theft and the shoddy state of Michigan's roads, a death spiral ensues. Those too poor to pay for insurance go without, raising the costs for their fellow drivers. Insurance becomes even more unaffordable, so more people drop it. "The innocent are paying for the sins of the wicked," complains Mo, a 40-year resident of the city. Some companies now sell short-term insurance, for as little as seven days, so that drivers can pass muster when they show up to city offices to renew their registration. This adverse selection harms poor, existing residents by gobbling up a huge share of their incomes. But it comes with another cost. Although downtown Detroit today is newly bustling with millennials and their accompanying creature comforts, the crazy price of car insurance acts as a brake on further revitalisation. For those considering moving from New York, car-insurance costs alone amount to a \$3,000 annual surcharge. Detroit, of all places, cannot afford that.

This article appeared in the United States section of the print edition under the headline "Brake padding"

The real ambassadors

America's amateur diplomats

WHEN Jim Byrum returned to America in 1970 after a two-year tour of Chile with the Peace Corps, he found himself hankering for Chileans to hang out with. Then he discovered the Columbia Council for Internationals, a volunteer organisation that receives visiting scholars, students, journalists and foreign government officials on State Department fellowships. Half a century later, Mr Byrum remains closely involved with the council, which has 100-odd members. They organise meetings and field visits, potluck dinners and Sunday brunches, and sometimes become friends with their guests.

Mr Byrum is one of thousands of what the State Department call "citizens diplomats" at nearly 90 non-profit organisations in more than 40 states. Each year about 5,000 foreigners visit the United States on the State Department's International Visitor Leadership Program (IVLP). Participants are chosen by embassies and invited to America for tailored tours. Alumni include more than 500 current or former heads of state or government, including Margaret Thatcher, Nicolas Sarkozy and Indira Gandhi. The programme is administered by the State Department's Bureau of Educational and Cultural Affairs (ECA), which also runs the Fulbright programme. But visitors' hosts are everyday people like Mr Byrum. The State Department reckons some 40,000 Americans participate in programming IVLP.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The scheme has its origins in 1940, when Franklin D. Roosevelt appointed Nelson Rockefeller to be the first coordinator of commercial and cultural affairs. Rockefeller invited Latin American leaders for two-month tours of America, meeting local businesses and officials. The first visitor, Father Aurelio Espinosa Pólit of the Colegio de Cotocollao in Quito, the capital of Ecuador, arrived in December that year. In 1948 Congress made the exchanges official in the Smith-Mundt Act, which laid the groundwork for the IVLP. From the outset, the State Department recognised that volunteer-run groups would be more effective than government propagandists. Even today, says Mr Byrum, visitors "think it's phenomenal that we're not told what to say."

The visitors' programme provides plenty of bang per buck. In 2017 the ECA spent about \$18,000 per participant, almost all of which went back into American pockets. In return, future national leaders go home with new friends and warmer feelings towards America. (Mrs Thatcher once remarked that "the excitement which I felt has never really subsided"; F. W. de Klerk, a former president of South Africa, credited his visit with changing his mind on race relations.) Yet the White House, in its enthusiasm to cut spending, this year proposed slashing the ECA's budget by 75% to \$159m. Congress responded by raising its budget from \$629m to \$646m. Nearly \$100m of that goes to IVLP.

The problem facing the visitors' councils is not money but manpower. Many of the volunteers who staff them are retired or elderly. Councils do attract some younger members, says Joseph Jastrzembski, who runs the Minot visitors council in North Dakota. But they usually get busy with work or with their own lives, or move away to bigger cities. The pipeline of volunteers is a national problem, says Katherine Brown of Global Ties US, the national co-ordinating body for the councils.

For those who stay, the visitors councils provide a window on the wider world—and on their own regions. "I haven't travelled a lot," says Mr Jastrzembski. "So this is my surrogate travel. I get to interact with all these visitors. I get to make friends with people from all over the world. And I get to do things with them in Minot that I normally would not have been able to do."

This article appeared in the United States section of the print edition under the headline "The real ambassadors"

Swamp thing

The list of charges against Scott Pruitt keeps growing

Yes, the boss of the EPA is still clinging on

Print edition | United States | Jul 5th 2018

THE past week saw heat records set across the world. Even Scott Pruitt, who heads the Environmental Protection Agency (EPA), might have been sweating a bit. Not because of the temperature (Mr Pruitt has the unruffled air of a man who sets the air-conditioning to Arctic mode), but because, after months of mounting scandals, President Donald Trump's spokesman said on July 3rd that the president finds Mr Pruitt's reported behaviour "troublesome".

Mr Pruitt is facing no fewer than 13 federal inquiries. Last year he spent \$50 a night to stay in a condominium on Capitol Hill owned by the wife of an energy lobbyist who had business before the agency he runs (stays at the Capitol Hill Holiday Inn, by way of comparison, can run above \$250 on weeknights). He spent \$3.5m on his round-the-clock, 20-man security detail in his first year in office—nearly double what his predecessors spent, on average, and a much larger security detail.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

He regularly travelled first-class at taxpayer expense, which he says was necessary for security reasons. Mr Pruitt says he has started flying coach, though last week two aides told Congress that he pressed to travel by private jet.

Mr Pruitt reportedly assigned aides to perform essential tasks such as finding him tickets to an American football game and figuring out how to buy a used mattress from a Trump hotel. Federal ethics standards bar subordinates from performing tasks of personal assistance; neither they nor perhaps any other standards can explain why a man so fond of first-class travel could not spring for a new mattress.

In addition, Mr Pruitt seems to have persuaded aides to reserve his hotel rooms with their personal credit cards, and failed to reimburse at least one of them. According to the *New York Times*, at least five aides who questioned Mr Pruitt's behaviour were demoted, reassigned or asked for new jobs.

Reports have also surfaced that Mr Pruitt suggested to Mr Trump that he really ought to replace Jeff Sessions as attorney-general. Mr Sessions has earned the president's ire for recusing himself from overseeing Robert Mueller's investigation. Mr Pruitt denied these reports, but he possesses two useful qualities that Mr Sessions lacks: a blind-spot for conflicts of interest and the ability to withstand endless bad press.

This article appeared in the United States section of the print edition under the headline "Swamp thing"

Springtime in Springfield

Bruce Rauner discovers bipartisanship

It may be too little, too late for the governor of Illinois **Print edition | United States** Jul 5th 2018

BY HIS own admission Governor Bruce Rauner has not ticked off many of the 44 points on the "turnaround agenda" that four years ago the voters of Illinois, in their wisdom, elected him to pursue. If he were to give himself a grade for his first term in office, it would be "incomplete", says the governor, sitting at a desk at his campaign headquarters that are adorned with pictures of Ronald Reagan and Abraham Lincoln. Running in a state that Hillary Clinton won by a million votes, he may be the most vulnerable Republican governor up for election this year. He squeaked through the Republican primary against a little-known state legislator and he will be the underdog in November, when he will face J.B. Pritzker, a billionaire businessman who comfortably won the Democratic primary. What went wrong for the successful private-equity investor, who ran for the first time for office in 2014 and managed to win the gubernatorial election by four percentage points in a Democratic state?

Governing Illinois is hard. Four of Mr Rauner's seven predecessors went to jail for corruption. Democrats have a supermajority in the statehouse, limiting what any Republican governor can do. Yet plenty of Governor Rauner's problems have been of his own making.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

On taking office, argues Gabriel Petek of S&P Global, a credit-rating agency, the governor should have followed the example of Governor Jerry Brown in California. The recession, which both California and Illinois entered with budget deficits, took a disproportionate toll on the two states' finances. But when Mr Brown took over as the Democratic governor of California in 2011, he put contentious reforms aside and focused on stabilising the Golden State's finances. Only once the budget had been repaired did he pursue his projects.

Mr Rauner, by contrast, followed the mantra of Chicago's mayor, Rahm Emanuel: never let a good crisis go to waste. When his first budget was before the statehouse, in 2015, Mr Rauner insisted that state representatives also pass a list of pro-business, anti-union measures, which included curbing the cost of workers' compensation for businesses, an insurance policy against workplace injury, changes to tort law and restrictions on the collective-bargaining rights of public-sector employees.

Stalemate ensued, predictably enough. Illinois's financial health went from poor to catastrophic. With no budget passed, around 90% of state spending had to be disbursed through a patchwork of state laws and court orders. The state's backlog of unpaid bills ballooned last year to more than \$16bn and the deficit depleted budget reserves. Moody's, another credit-rating agency, calculated that Illinois's pension debt had grown to \$250bn, far more than the \$130bn the state said it owed.

Lawmakers proposed increasing income taxes from 3.75% to 4.95% and corporate taxes from 5.25% to 7%. Mr Rauner vetoed that. The legislature overrode his veto in July 2017. Another year without a budget would have made Mr Rauner's defeat in November a virtual certainty, so in February this year the governor proposed a budget for the current fiscal year that includes the money generated by the tax hikes he vetoed and shifts a portion of the cost of pension contributions to school districts and local governments. (Governor Brown did something similar in California during his first year in office.) In June Mr Rauner approved a full budget for the first time, signing a \$38.5bn spending plan. He did not tie the budget approval to his planned reforms and only requested that the budget would not include any more new taxes.

Having successfully infuriated Democrats, Mr Rauner has also annoyed plenty of Republicans. After signalling that he would veto HB 40, a bill that expanded the access to abortion for recipients of Medicaid, the federal and state health-insurance programme for the poor, he signed the bill. Giving public money to abortions was a principled but politically dumb decision, says a former member of Mr Rauner's staff. Cardinal Blase Cupich, the popular archbishop of Chicago, accused the governor of breaking his word. "I am trying to stay away from social issues that divide us," says a chastened Mr Rauner, explaining that he signed HB 40 because he believes in giving poor women the same access to abortions wealthy women have.

Republicans in Illinois are unlikely to be won back by the governor's equivocal support for President Donald Trump. Mr Rauner is careful not to criticise the president, whom he did not endorse (he also skipped the Republican convention in 2016). Yet he is alarmed by Mr Trump's imposition of tariffs that are hurting Illinois farmers and manufacturers such as Caterpillar, a maker of heavy machinery, and John Deere, a maker of agricultural equipment. "No one wins in a trade war," says Mr Rauner. Nor does he see eye to eye with the president on immigration. Last year he signed the TRUST act, which bars co-operation between Illinois's police and immigration officials unless a federal judge issues an arrest warrant. Illinois has an estimated 511,000 undocumented immigrants, 183,000 of whom live in Chicago.

The Governor Rauner running for re-election sounds very different from the political novice of 2014, who proclaimed that he would shake up Springfield. The policies to fix Illinois are not partisan, he says, citing Democrats' support of the reform of workers' compensation in Massachusetts and former President Barack Obama's support for redistricting and term limits, two big items on his reform agenda. Mr Rauner says he is keen to be bipartisan. Yet the moment for that may already have passed.

Lexington

The Trump-Putin summit in Helsinki

A new low in the politicisation of foreign policy

Print edition | United States | Jul 5th 2018

WASHINGTON is scandalised by a report that President Donald Trump has insisted on seeing his Russian counterpart, Vladimir Putin, one-on-one, with no witness present, during their summit in Helsinki on July 16th. Yet it seems more surprising that he could consider such a precaution necessary. To amend one of his more outlandish boasts, Mr Trump could walk down Fifth Avenue and publicly thank Mr Putin for his help in delivering him the White House and it might not cost him a vote. Of all the ways Mr Trump has altered the party of Ronald Reagan, none is more remarkable than its new complacency about Mr Putin and his ongoing effort to undermine American democracy.

Before Mr Trump entered politics in 2015, Republicans took a bleaker view of Russia than Democrats. Yet over the course of a presidential run in which Mr Trump expressed bizarre, fawning admiration for the Russian strongman, Republican opinion flipped. The proportion of Republicans who approved of Mr Putin doubled, to around 25%. And despite subsequent revelations that Russian spies were all the while flooding social media with pro-Trump propaganda and otherwise manipulating the election in his favour—decisively, in the view of James Clapper, a former director of national intelligence—Republican voters appear if anything more relaxed about the Russian threat now. Defying America's own intelligence agencies, Mr Trump maintains there was no Russian meddling. Most Republicans say they agree with him—despite evidence suggesting senior members of Mr Trump's campaign team knew of and welcomed the Russian help. Today, around half say they consider Russia friendly.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

No wonder Washington policy types are alarmed by the summit plans. The president's desire to be soft on his Russian counterpart (while claiming to be so tough) and his supporters' willingness to accept whatever compromise he might have in mind—on Syria, Crimea, or whatever—are beyond doubt. The most cautionary precursor to Helsinki, a report issued this week by the Republican-controlled Senate Intelligence Committee that confirms the agencies' view on Russian election-meddling, has been mocked or ignored in conservative media. This is new terrain for America. It means that whatever reset Mr Trump may have in mind for Russia will be far less credible, far more divisive and tarnished by partisanship than the corresponding efforts of his two immediate predecessors in the White House.

It was this partisan dysfunction that made the Russian misinformation campaign so potent, even though it was haphazard and low-budget. (It appears to have cost less than Mr Trump's travel arrangements for Helsinki will.) This is also why the coldwar framing of the summit, thanks to the choice of venue and grim talk by both administrations of a new low in relations, is off-beam. The summits Reagan and Mikhail Gorbachev held in the 1980s looked in retrospect like surrender talks between an ascendant America and a broken rival. In great-power terms, the Helsinki summit, by contrast, is scarcely about Russia at all. It is more a test of whether American foreign policy can navigate the fissures in America's democracy that the summit's participants, separately if not in tandem, have widened.

The structural forces behind the Republicans' Russia delusion make that a forbidding examination. Like most of America's political problems, they flow primarily from high levels of partisanship. Despite occasional blazing rows, foreign policy was until recently fairly bipartisan. But that consensus had been softening in both parties. Mr Trump has obliterated it. He has shown contempt for the bipartisan foreign-policy establishment and used foreign policy as a means for partisan point-scoring, including by dismantling whatever Barack Obama built. He also treats foreign policy as an instrument of his personal whims and interests. This is what the transactional edge he has inserted into American diplomacy boils down to. It is hard to imagine Mr Trump focused on any policy, least of all the long-term alliance-building his predecessors were committed to, that did not promise a win for him personally. This has made foreign policy unprecedentedly politicised: how Americans feel about it is almost entirely determined by how they feel about the president. How they feel about Russia illustrates this especially starkly—because the implications of thinking that Mr Trump is wrong and Mr Clapper right, as many Democrats do, is that the president may be illegitimate.

Other reasons for Trump supporters' willing suspension of disbelief on Russia's malign intent are unique to Republicans. The most important is the fervour of their support for Mr Trump's blood-and-soil nativist policies. This is the main explanation for his hold on the right and the reason he can flip opinion on arcane foreign or economic policies so easily. American politics will remain fiercely antagonistic, polarising the country on foreign and domestic policy, so long as it is defined in such visceral terms.

From Washington with love

The Russian campaign was based on a simple appreciation of that fact. Many of its propaganda tools merely aped the sorts of chauvinist and ethno-nationalist sentiment that Mr Trump and other right-wing politicians have long used to charge up their base. The hashtag #Hillary4prison was a Russian favourite. A Russian Twitter account published an illustration of Jesus

arm-wrestling Satan, with the headline: "Satan: If I win, Clinton wins!" Another reason Republicans might choose to deny the existence of such propaganda is because to do otherwise would be to admit that they have been had, and not only by Moscow.

Once a display of strength, relations with Russia have become a mirror to America's big weakness, the political threat from within. That is why Mr Putin has been able to sow such chaos so cheaply; why he is getting away with it so easily; and why his meddling will surely continue. It is not clear what might break the cycle. But you can bet it will not happen in Helsinki.

This article appeared in the United States section of the print edition under the headline "The threat within"

The Americas

Mexico's new president

Man with a plan?

Leaving Los Pinos

Will AMLO deliver?

Mexican voters have great expectations of the new president. He risks letting them down

Print edition | The Americas Jul 5th 2018

"I WILL not fail you. You will not be disappointed." Standing before a crowd of perhaps 100,000 people in the Zócalo, Mexico City's central square, on July 1st, Andrés Manuel López Obrador seemed fully aware of the magnitude of what he had just accomplished. The charismatic populist had won Mexico's presidency in the country's first democratic landslide. His electoral coalition, Juntos haremos historia (together we will make history), will control congress and the government of Mexico City, the capital, giving him unprecedented power for a modern president (see article). No president has come into office with such high expectations since free elections began in 2000.

It is uncertain that he will meet them, in part because of the sort of politician he is. Mr López Obrador, who is often called simply AMLO, is a conundrum. He can sound like a fiscally conservative pragmatist in one speech and a messianic rabble-rouser in the next. Mexicans cannot be sure which AMLO will turn up to work on December 1st, the day he is due to take office.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

A 64-year-old ex-mayor of Mexico City who has run for the presidency twice before, Mr López Obrador won 53% of the vote. His nearest challenger, Ricardo Anaya of the National Action Party (PAN), trailed far behind with 22%. José Antonio Meade of the governing Institutional Revolutionary Party (PRI) won a dismal 16%. Mr López Obrador's victory was not a surprise: he has led in the polls by double-digit margins since March.

But it is an epochal event in a country where political change has often come at a glacial pace. When the PRI lost power in 2000 after governing Mexico for 71 years, the PAN, founded six decades earlier, came in. But it did not change much, paving the way for the PRI's return to office in 2012. Mr López Obrador, who founded Morena, the main constituent of Juntos haremos historia, as a party in 2014, denounced the two big parties as enablers of a "mafia of power". His election has destroyed the political duopoly. On the campaign trail he told supporters it would be the most momentous occasion since the revolution that began in 1910.

Rhetoric v results

Mr López Obrador promises to be the antithesis of the out-of-touch presidents who came before him. He will not live in the Los Pinos palace and will halve the salaries of senior bureaucrats, including his own. His wife, Beatriz Gutíerrez Müller, will not be the "First Lady", a term that she deems classist. AMLO will not need bodyguards, because "the people will protect me."

They want him to protect them, too. He won primarily because he promised to reduce crime and eliminate corruption, scourges that neither of the two big mainstream parties managed to control. Graft flourished under the current president, Enrique Peña Nieto. In one PRI-governed state, the health system administered distilled water instead of drugs to children with cancer. Last year the murder rate broke a new record. The political campaign itself was plagued by violence: more than 120 politicians and political workers have been killed since last September.

It is one thing to rail against crime, corruption and impunity, quite another to take command of the apparatus of law enforcement. Mr López Obrador's ideas for curing Mexico's plagues are fuzzy. He has talked of giving amnesty to members of drug gangs, then clarified that he meant mainly poppy farmers and other non-violent folk. In June Olga Sánchez Cordero, AMLO's prospective interior minister, called for the decriminalisation of cannabis. Mr López Obrador has talked of creating a federal gendarmerie, which would be good if it happened. He sees reducing deprivation, for example through a programme of scholarships for young people, as a way to cut gangs off from their supply of recruits. But his "peace and reconciliation plan" is still a work in progress.

Likewise his approach to fighting graft. He talks of centralising government procurement and of enlisting citizens to monitor it. His campaign proposed a constitutional amendment to prohibit public officials from engaging in businesses that might conflict with their duties. But Mr López Obrador has shown little interest in such vital reforms as ensuring that both the attorney-general and the anti-corruption prosecutor are free from political influence. As with crime, he seems to believe he will succeed where his predecessors have failed through a combination of good intentions, personal rectitude and popular pressure. Anti-corruption NGOs were notably unenthusiastic about his candidacy.

Where Mr López Obrador will take the economy is unclear. He promises prudent budgeting and no tax increases. In his post-election remarks he sought to reassure nervous investors. "We will act respectfully. It will be an orderly transition, to

maintain economic and financial stability," he promised. The peso has strengthened a bit since mid-June.

But the president-elect has also made expensive promises, including to freeze petrol and electricity prices in real terms, to subsidise agriculture, to pay for scholarships and to expand pensions. If all his spending plans were implemented in his first year, they would add 5.5 percentage points of GDP to the fiscal deficit, says Carlos Serrano, chief economist of BBVA Bancomer, a bank. Mr López Obrador imagines, preposterously, that reducing graft will pay for most of what he wants.

Then there is the North American Free-Trade Agreement (NAFTA) with the United States and Canada, which has helped industrialise northern and central Mexico. Mr López Obrador once denounced the agreement but now claims to support it. He and President Donald Trump, who has made Mexico a scapegoat for crime and industrial decay in the United States, had a friendly phone call after his victory. During the transition period Mr López Obrador wants his team to participate in the renegotiation of NAFTA demanded by Mr Trump, which is already under way. But if the United States' protectionist president decides he wants to scrap the deal, it is hard to see Mr López Obrador fighting hard to save it.

The jubilation that his victory has inspired is the clearest sign of the dangers that await him and Mexico. Voters have placed their faith not in a programme but in a man. They thrilled more to his symbolism than to his substance. But starting next year Mexicans will demand results from their new president. As he now knows, they are not afraid to punish failure.

This article appeared in the The Americas section of the print edition under the headline "Man with a plan?"

The whole enchilada

Mexico's motley new congress

A big majority will give Mexico's left-wing president-elect vast power—if he can tame it

Print edition | The Americas | Jul 5th 2018

THE change brought by Andrés Manuel López Obrador to Mexico's congress is as startling as his election to the presidency on July 1st. His coalition, Juntos haremos historia (together we will make history), is expected to have three-fifths of seats in the lower house and the senate (see chart). Defections could give it a two-thirds majority, which is needed to change the constitution. The ruling Institutional Revolutionary Party (PRI) will become the fifth-biggest party in the 500-member lower house. The centre-right National Action Party (PAN), with 92 seats, will be the main opposition.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Mr López Obrador's legislative forces are a motley group of activists, celebrities and professional politicians. The heart of the coalition is his four-year-old Morena party. It also includes the anti-capitalist Workers' Party (PT) and the conservative Social Encounter Party (PES), which has evangelical roots.

Many of Morena's new lawmakers are radical. A third are from outside the party. The new president's allies include celebrities such as Sergio Mayer, who once starred in a male strip show, and Érik Morales, a boxer. Napoleón Gómez Urrutia, the leader of a mining union who fled to Canada after charges of embezzlement (later dropped), is a Morena senator. Many congressmen have no previous political experience. Some are activists, swept from the fringes of power to the centre by Mr López Obrador's landslide. Thanks to a quota, women hold half the seats.

Mr López Obrador's congressional majority will give him more power than any president has wielded since the 1990s. At first, he is likely to use it to bring in more generous pensions for the old and scholarships for the young. He might overturn parts of a meritocratic reform of education begun by the current president, Enrique Peña Nieto.

More radical policies, such as reversing the opening of the energy market, would require changing the constitution. Mr López Obrador has not said recently that he wants to do that. He has promised not to amend the constitution in the first half of his six-year term. In any case, Morena and its allies do not yet control the legislatures of most of the 32 states; to change the constitution, a majority must assent. That could happen by 2021, if Morena continues to win state elections.

Will congress follow where Mr López Obrador leads? The conservatives and the anti-capitalists are sure to disagree on social issues. Morena has few legislators with experience in whipping congressmen into line. The incoming congress will be the first whose members are allowed to run for re-election. If Mr López Obrador remains popular, that will encourage them to do his bidding. If not, they could defect. As with so much about the new president, his congressional clout will depend on his star power.

This article appeared in the The Americas section of the print edition under the headline "The whole enchilada"

It doesn't have to be Heinz

To resist Trump, Canadians try local ketchup

OTTAWAFinding domestic alternatives to American products is not easy

Print edition | The Americas Jul 5th 2018

JUSTIN TRUDEAU gave the first of his Canada Day speeches on July 1st from the steps of a food-processing plant in Leamington, Ontario, the country's tomato capital. By Canadian standards, it was a belligerent act. H.J. Heinz, an American company, moved its ketchup production to the United States in 2014, threatening to shut the factory, which employed 740 people. The plant is still in business under Canadian ownership (but with around 200 fewer workers). Mr Trudeau, the prime minister, came to exact revenge. Ketchup is among the C\$16.6bn (\$12.6bn) worth of American goods that are subject to tariffs imposed by Canada to retaliate against American levies on its steel and aluminium. The tariffs, including the 10% charge on ketchup, took effect on Canada Day.

The threatened plant closure made Heinz ketchup a target of consumers even before the trade spat. The Canadian market share of French's ketchup, made with domestic tomatoes and processed in Canada, more than doubled. But now that the anger is directed at the United States, rather than at one firm, consumers are having to make tricky choices. "My visits to the grocery store are becoming more and more complicated and time-consuming, as I have to read every label," tweeted a shopper under the hashtag #BuyCanadian.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

French's, for example, is owned by an American firm (McCormick & Co). Primo, however, is all-Canadian, according to a chart headed: "How Canadian is your ketchup?" Online guides on how to "shop like a patriot" suggest Royale toilet paper in place of Charmin, chocolatey Smarties instead of fruit-flavoured Skittles and Minute Maid orange juice, which is packed in Canada, instead of Tropicana from Florida. Some brands are less Canadian than they seem. Canada Dry is owned by Dr Pepper/Seven-Up of the United States but bottled in Canada, and Molson Canadian is owned by Molson Coors (but brewed with "Canadian water" in Montreal). It is easier to be picky about fresh produce, because its country of origin is clearly labelled.

Canadians buy more American foods than any other country, so the weaponising of shopping carts could affect the American economy (albeit not much). Canadian tourists, who made 42m visits to the United States last year, could deliver a slightly bigger blow. In 2018 they spent nearly \$20bn. Steve Paikin, a television host, told his fellow Canadians to holiday elsewhere. "America, you just don't deserve our money," he wrote on his blog.

So far, the data do not show that trade is suffering. Imports from the United States rose 4.7% between April 2017 and April this year, the latest month for which figures are available. If they fall, one cause might be the depreciation of the Canadian dollar, whose value has dropped from 80 cents in April to 76 cents, partly because of the trade war. That may curb imports more than targeted tariffs do. The best test of Canadian feelings may come in winter, when hundreds of thousands of "snowbirds" flock to holiday homes in the southern United States. Will they brave Canada's harsh weather or fly south, bringing bottles of Primo with them?

This article appeared in the The Americas section of the print edition under the headline "Patriotic ketchup"

Bello

What AMLO portends for Latin America

Mexico's president-elect will weaken the coalition pushing for democracy in Venezuela

Print edition | The Americas Jul 5th 2018

AMONG the messages of congratulation for Andrés Manuel López Obrador on his landslide victory in Mexico's presidential election, one stood out. Nicolás Maduro, Venezuela's semi-Stalinist dictator, declared with more enthusiasm than coherence that it would "open the broad avenues of sovereignty and friendship between our peoples". Whatever else the triumph of AMLO (as Mexicans call Mr López Obrador) may portend, it has provided a fillip for the Latin American left, of all varieties, after it has suffered a series of defeats. It may shift the region's diplomatic balance and offer encouragement to Mr Maduro's regime. And it will have an important bearing on Latin American economic integration.

Even more than his domestic plans, AMLO's future foreign policy remains vague. He has a profound attachment to his country and a similarly profound indifference to anywhere else. "The best foreign policy is domestic policy," he said during the campaign, arguing that a stronger Mexico would be more respected in the world. Other Mexican presidents-elect have used the absurdly long five-month transition before taking office to go on foreign tours. After he has refined his policy proposals, AMLO plans a victory lap around his own country.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In office, his priorities may change. At the behest of pragmatic advisers, over the past year he made trips to the United States, Europe and South America. Perforce, his handling of President Donald Trump and the renegotiation of the North American Free-Trade Agreement will have a big impact on his presidency. Interdependence with the United States is a fact of life for Mexico, which sends 80% of its exports across its northern border.

It is on Latin America that Mexican foreign policy may change most. Whatever its faults, the outgoing government of President Enrique Peña Nieto has played a leading role in two regional initiatives. One is the Lima group, an ad hoc gathering of 14 countries trying to restore democracy in Venezuela. The other is the Pacific Alliance, comprising Mexico, Chile, Colombia and Peru, which espouses free trade and liberal economic policies.

The stance Mr López Obrador takes on these initiatives will depend in part on which of two advisers he picks as foreign minister. Marcelo Ebrard, his successor as mayor of Mexico City, is a modern-minded social democrat. Héctor Vasconcelos, a long-standing supporter of AMLO, was briefly ambassador to Denmark. He has said that Venezuela's problems are a "strictly internal" matter and that he would not have signed the Lima group's call for the re-establishment of democracy. He espouses the principles of non-intervention and unrestricted respect for sovereignty that Mexico adopted during the cold war. "It's back to a 1960s and 1970s way of looking at things," says Andrés Rozental, a former diplomat. "They might not pull out [of the Lima group] but their position would be different."

On trade, Mr López Obrador has an opportunity. With Mr Trump bent on protectionism and with the European Union immersed in internal problems, Latin America's best hopes of expanding its exports lie in Asia and, above all, in South America. By facilitating scale and specialisation, deeper regional integration would not just boost trade but would make Latin American companies more competitive in global markets.

Yet Latin America's web of 33 subregional preferential trade agreements, each with different rules, is giving diminishing returns. Intra-regional trade peaked in the early 2000s and Latin American exports have lost global market share since 2012. A new study by the Inter-American Development Bank (IDB) argues for moving to a Latin America-wide free-trade agreement. Nearly 80% of regional trade is already duty-free. According to Antoni Estevadeordal of the IDB, "the big missing link" involves Mexico and the Mercosur group (based on Argentina and Brazil). The Pacific Alliance and Mercosur are holding informal technical discussions about how to harmonise their rules. Mexico and Brazil are negotiating to deepen their bilateral trade accord.

Will AMLO support these talks? The signals are contradictory. On the one hand, he has made protectionist noises, such as saying that Mexico should produce the food it consumes. On the other, he says he wants a stronger economy, trade diversification and closer engagement with the rest of Latin America. "I think he will understand eventually that [trade agreements] don't contradict any of his fundamental positions," says Mr Rozental. Sadly for Latin America, that open-mindedness may not extend to the collective defence of democracy in Venezuela.

Immigration to Japan

Hidden masses

Hidden masses

Japan is finally starting to admit more foreign workers

But it does almost nothing to integrate them

Print edition | Asia Jul 5th 2018

WHEN Sakura no Mori hospital and care home in Kawaguchi, 20km north of Tokyo, hired its first foreign workers six years ago, some of the patients would shout "gaijin" ("foreigner") to summon them; others were wary of having anything to do with them at all. Today Verlian Oktravina, a 26-year-old Indonesian nurse, says the Japanese she works with are more curious than hostile. Yoko Yamashita, the director of the care home, says patients can see that foreign workers are as good as Japanese ones: "They accept them." She herself, she admits, was initially sceptical about hiring immigrants, but has since changed her mind.

Acceptance of foreign labour is gradually increasing in Japan, one of the world's most homogenous countries, where only 2% of residents are foreigners, compared with 16% in France and 4% in South Korea. A poll conducted last year found opinion evenly split about whether Japan should admit more foreign workers, with 42% agreeing and 42% disagreeing. Some 60% of 18-29-year-olds, however, were in favour, double the share of over-70s.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Whatever Japanese think of them, foreign workers have become a fact of life, at least in cities. There are 1.3m of them, some 2% of the workforce—a record. Although visas that allow foreigners to settle in Japan are in theory available only to highly skilled workers for the most part, in practice less-skilled foreigners are admitted as students or trainees. The number of these has been rising fast. Almost a third of foreign workers are Chinese; Vietnamese and Nepalese are quickly growing in number.

More *gaijin* are on their way. In June the government announced that it would create a "designated skills" visa in order to accept 500,000 new workers by 2025, in agriculture, construction, hotels, nursing and shipbuilding. More significant than the number, perhaps, is the government's willingness to admit lower-skilled workers openly, rather than through the back door. "It is not the Berlin Wall coming down, but it is a significant shift," says David Chiavacci of the University of Zurich.

Help wanted

Pressure from business lies behind the change in attitudes, both societal and official. Over the past 20 years the number of workers below 30 has shrunk by a quarter. In addition, the ageing population is creating jobs that few Japanese want at the wages on offer, most notably as carers. There are 60% more job vacancies than there are people looking for work. Industries such as agriculture, construction and nursing are increasingly dependent on foreigners. Some 8% of Sakura no Mori's staff are foreign, as are 7% of workers at 7 Eleven, Japan's biggest convenience-store chain.

More exposure to foreigners, through tourism, has reassured Japanese that they can get along with them, reckons Hidenori Sakanaka, a former immigration official who now heads the Japan Immigration Policy Institute, a think-tank, and has long advocated widespread immigration. Fears that more foreigners would bring more crime have proved unfounded (although many landlords still refuse to rent to them).

Attracting the foreign workers Japan needs will not necessarily be easy. Language is a big barrier. Highly skilled immigrants, for whom the government has made it easier to get permanent residency, reducing the required period of residence from five years to one, are not required to speak Japanese. But only a handful of companies, such as Rakuten, an e-commerce giant, work in English. Lowlier workers must pass a Japanese exam and are not allowed to bring their families, even under the new "designated skills" visa.

Business practices are another barrier. Workers on student and trainee visas are vulnerable to exploitation. Firms where promotion is based on seniority rather than merit and where long hours are the norm will find it hard to attract workers.

Japan also needs to do more to help integrate foreigners, says Iki Tanaka, who runs Youth Support Centre Global School, a private institute in Fussa, a city of 60,000 people west of Tokyo. A teacher at the school is coaching a group of foreign students, including Nepalese and Filipinos, in Japanese. The goal is to get them into state secondary school.

Ms Tanaka suspects that the government makes little effort to help foreigners integrate because it does not really want them to stay. It requires many of those already present to renew their visas frequently, for example. The case of *nikkeijin*, immigrants of Japanese extraction, is instructive. They have the right to move to Japan based on family ties and so provide an easy way around the restrictions on low-skilled migrants.

In theory they should be easy to integrate; many are familiar with the culture and speak some Japanese. In practice, however, the government has made no effort to help them. The children of *nikkeijin* do worse in school than those of other im-

migrants. The clearest sign of the government's ambivalence came in 2008, when the economy took a turn for the worse and unemployment rose. It offered *nikkeijin* free flights and other subsidies to move back to their home countries if they promised not to return.

Accepting mainly skilled workers has allowed Japan to get away without any integration policy until now, says Mr Chiavacci. But as the number of immigrants rises, and especially as more low-skilled workers are admitted, this omission threatens to bring about some of the very concerns that prompted the government to restrict immigration in the first place, such as ghettoisation and poverty. "With the right policies, we could transform ourselves from the weirdest nation in the world on immigration to a model for how to do it," muses Mr Sakanaka.

This article appeared in the Asia section of the print edition under the headline "Hidden masses"

Turkmenezuela

Turkmenistan finds a novel solution to mass emigration

It is simply stopping people from leaving

Print edition | Asia Jul 5th 2018

CITIZENS of Turkmenistan are definitely allowed to leave the country, its immigration service insisted in a statement in mid-April. The declaration came in response to reports that men under the age of 30 were being prevented from boarding international flights. But in recent weeks reports have begun emerging again of men as old as 40 not being allowed to travel abroad. The authorities are so desperate to stem emigration, it seems, that they are simply stopping their countrymen from getting on planes.

With the world's fourth-largest gas reserves and a population of just 5m, Turkmenistan should be prosperous. But its rulers have fallen out with both Iran and Russia, leaving China as their sole customer for gas. Much of the revenue from sales to China goes towards repaying the loans taken out to build the pipeline through which the gas flows. Some of the rest has been squandered on white elephants, such as a vast, empty, falcon-shaped airport and a ritzy but ghostly beach resort on the Caspian Sea. And a good chunk of the money has been stashed away abroad. Data from the Bank for International Settlements show that \$23bn from Turkmenistan has accumulated in accounts in Germany, although the data do not reveal who the account-holders are.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Back home, the economy is in crisis. The government fixes the exchange rate of the local currency, the manat, at 3.5 to the dollar. The black-market rate, however, is closer to 25. To maintain this regime, the government has resorted to strict currency controls, including severe restrictions on international transfers. The amount Turkmen citizens abroad can withdraw from their bank accounts at home via cashpoint machines—the only way to benefit from the official exchange rate—is limited to as little as \$12 a day.

The shortage of foreign currency prevents firms from importing much, which has sparked inflation. There are long queues for food at state-owned supermarkets, where prices are fixed. Cashiers demand identification to confirm that buyers live in the area. For foreign firms, the hard-currency drought makes collecting payments difficult and repatriating profits almost impossible. Reuters, a news agency, reported in June that Turkish companies operating in Turkmenistan on government contracts have not been paid in years.

The government has also resorted to layoffs, even in the all-important gas industry, to make ends meet. Foreign analysts estimate unemployment to be 50-60%, with many Turkmen doing odd jobs, such as driving taxis, to scrape together a livelihood. The underpaid police have found a way to capitalise on this trend, by levying fines on anyone driving a dirty car. No wonder hungry, jobless Turkmen are trying their luck elsewhere—or would be, if the government would let them.

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

230 years later

Australia's states offer to make treaties with aboriginals

Something the federal government has long refused to do

Print edition | Asia Jul 5th 2018

PATRICK DODSON was there on the day, 30 years ago, that prime minister Bob Hawke promised aboriginals a treaty that would at last acknowledge their rights. At the time Mr Dodson was the manager of one of the many "land councils" that aboriginals had formed in an effort to reclaim their traditional lands. He helped Mr Hawke draft his declaration. "It was a breath of fresh air that at long last Australia was prepared to sit down and discuss the way in which the country was taken from first-nations people," the senator from the Labor party recalls.

Mr Hawke said that negotiations could be concluded within three years, but his plans were scuttled by the conservative opposition. "The whole notion of a treaty got pushed further and further to the background," says Mr Dodson. Today, aboriginals are no closer to an agreement with the federal government than they were in 1988. Instead, the current conservative coalition had offered to hold a referendum on "constitutional recognition"—another cherished goal of aboriginal activists. Yet when aboriginal leaders suggested that any amendment to the constitution should empower, rather than simply nod at aboriginals, the government demurred.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

"We've had enough of symbolism," says Jill Gallagher, an aboriginal leader from the state of Victoria. "At a national level, our country is not mature enough to have this conversation, so the states need to be willing to do it." Several of them are: Victoria's Labor government has been consulting with local tribes about a treaty since 2016. In June the lower house of the state assembly passed a bill to get formal negotiations going. The bill obliges the state to recognise a representative body to negotiate on behalf of aboriginals and establishes a fund to help aboriginal communities prepare for the talks. Ms Gallagher has been appointed as a commissioner to push the process forward.

Other parts of the country are following. The chief minister of the Northern Territory, Michael Gunner, recently promised to begin negotiations on a treaty that would "cede decision-making power back to [aboriginal] communities". The Labor party in New South Wales, which is currently in opposition, promises to do the same if it returns to office.

Many aboriginal leaders have come to view state treaties as more achievable than a federal one. Australia has 500-odd distinct indigenous groups. Reaching an overarching agreement with all of them would be a spectacular challenge, even if the federal government wanted to do so. Victoria and the Northern Territory say they will negotiate with individual clans, if that is what they want. State treaties could recognise aboriginals as the original inhabitants and give them the kind of say in their own affairs that the federal government denies them. They could establish truth-telling commissions and acknowledge—and even apologise for—past atrocities.

Unlike their counterparts in America, Canada and New Zealand, the Europeans who settled Australia never struck any sort of formal treaty with indigenous people. The land was declared *terra nullius*: free for the taking. Aboriginals were mentioned in the constitution only to make clear they were second-class citizens (one clause stated that census-takers should ignore them). Those clauses were removed in the 1960s, leaving no mention of aboriginals at all. They were given the vote only in 1962, and only in 1992 did the courts acknowledge that the land had once been theirs.

State governments may be more willing than the federal one to face up to all this, but none would be willing to concede aboriginals' "sovereignty", as some activists demand. Paying settlements to individual clans and tribes could become a big drain on state budgets. Peter Yu, a leader of the Yawuru people from the state of Western Australia, says that treaties could be undone if they are not protected in the constitution. He points to South Australia, which began negotiating with aboriginal clans last year, and signed a preliminary agreement with one in February. Then an election ushered in a conservative government. It has shelved the talks, saying that it has "other priorities".

This article appeared in the Asia section of the print edition under the headline "230 years later"

Najib, handbagged

Malaysia's former prime minister is charged with breach of trust

 $Trust\ in\ government\ will\ be\ hard\ to\ restore$

Print edition | Asia Jul 5th 2018

"IF YOU are listening to this message," began the recording posted on the Facebook page of Najib Razak, the Malaysian prime minister unseated in elections in May, "it means action has been taken." The action in question was Mr Najib's arrest, on July 3rd. After a night in jail, he was charged with three counts of breach of trust and one of abuse of power, all tied to the disappearance of billions of dollars from 1MDB, a state development fund. Mr Najib pleaded not guilty and has been released on bail, although he is not permitted to leave the country. His trial will begin in February.

The arrest had been a long time coming. News of the scandal first emerged in 2015. But Mr Najib sacked the attorney-general and any other colleagues who wanted it properly investigated. He airily dismissed the \$681m that had appeared in his personal accounts as a gift from an unnamed member of the Saudi royal family, since returned. Authorities in America, Switzerland, Singapore and elsewhere painstakingly charted the money trail through a series of secretive accounts and shell companies. America's Justice Department even began a lawsuit to reclaim apartments, paintings, jewels and a yacht that it alleged had been bought with the stolen funds. All the while, the Malaysian authorities insisted that there was nothing to investigate.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That changed when Mr Najib lost the election. Soon afterwards he was hauled before the country's anti-corruption commission, along with several family members. His residences have been raided. Investigators have confiscated almost 300 boxes of designer handbags, as well as piles of jewels and cash. It has not helped that his estranged stepdaughter has publicly railed about how her parents kept "money in briefcases" and "safes full of jewels, precious stones and cash".

Mr Najib insists his prosecution is an act of revenge by his political opponents. Mahathir Mohamad, the new prime minister, insists that Mr Najib will be treated fairly, and that the government is merely seeking to restore the rule of law. But that is a huge task, and Dr Mahathir is an unlikely candidate to complete it. Mr Najib was once his protégé. During a previous stint as prime minister, Dr Mahathir presided over trials that human-rights groups condemned as politically motivated, such as the prosecution for sodomy of Anwar Ibrahim, a lieutenant who fell from grace but has once again become an ally. Graft accusations have been levelled against ministers in the new government. The candidate most closely allied with Mr Najib won the contest to replace him as head of Malaysia's oldest and grandest political party, the United Malays National Organisation. It will take more than one trial to do away with the country's long tradition of abuse of power.

This article appeared in the Asia section of the print edition under the headline "Najib, handbagged"

In the dark

The Thai cave rescue

In the dark

The Thai cave rescue

Print edition | Asia Jul 5th 2018

TEN days after a flash flood inundated a 10km-deep network of caves in Thailand which 12 boys and their football coach had been exploring, the missing team was found alive by rescue divers. But the 13, who were discovered 2km into the cave, are still unable to leave. The way out remains flooded. The monsoon rains are impeding efforts to pump the water out. Some of the boys do not know how to swim. The water trapping them is murky and fast-moving and the tunnels they must pass through are narrow and winding in places. As *The Economist* went to press, rescue workers were trying to teach the children the rudiments of swimming and diving, to allow them to be guided out.

Banyan

From dusty villages to Delhi, Indians seek people to persecute

The lesson of partition does not seem to have been learned

Print edition | Asia Jul 5th 2018

WHEN the two old friends set off in early June for a day in the country, they had no inkling of what was in store. Abhijit Nath, a 30-year-old businessman, liked cooking, dogs and fancy pet fish. Nilotpal Das, 29, a dreamy, dreadlocked sound technician, had recently motorbiked the breadth of India, from the beaches of Goa in the west all the way back to their shared hometown, Guwahati, capital of the north-eastern state of Assam. Both loved the outdoors, which is why they steered Mr Nath's shiny black SUV out of the city towards Kangthilangso Falls, three hours to the east, in jungle-wrapped hills.

Accounts vary, but the outcome is not in question. Towards dusk, as the two friends headed down from the falls into flatter, more open country, a crowd of villagers surrounded their car. Many carried clubs or metal bars and shouted, "Child-snatchers!" Footage of the scene captures the bloodied victims pleading that they are not child-snatchers nor even outsiders, but native Assamese—to no avail.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Two of many

Within the past two months, angry mobs have bludgeoned 22 people to death in similar fashion and for similar reasons. On July 1st it was five beggars who had just stepped off a bus at a village market in Maharashtra. On June 26th the victim was a woman, dragged out of an autorickshaw in the western state of Gujarat. Soon afterwards mobs in Tripura far to the east killed three people in separate incidents; one of them, ironically, was a man hired in a government campaign to raise awareness of the danger of fake news, particularly about strangers hunting children to steal.

Many blame social media for these incidents, and especially WhatsApp, which is ubiquitous on Indian mobiles. Yet although it is true that such services have indeed been vectors in the epidemic of deadly rumour, the focus on their role obscures other factors of equal or perhaps greater importance. There is, for example, the uncomfortable fact that lots of children do get snatched and sold, whether to childless families, or into servitude or sex work or worse. Official crime statistics suggest that between 2011 and 2016 the number of children reported missing each year rose by 250%. Of the 110,000 that disappeared in 2016, half remained untraced by the end of the year.

A further disturbing fact is that, given the nature of India's police force and its courts, it is perhaps natural that poor villagers should feel little compunction about taking the law into their own hands. Tasked primarily with keeping basic order and protecting the powerful, the thinly spread and formidably corrupt police are ill equipped either to uphold the law in remote provinces or to inspire much respect for it. Even when the wheels of justice do turn, the slowness of the courts discourages all but the infinitely patient, naive or rich from resorting to them.

There is another unsavoury factor, too. A striking detail unites virtually all the latest instances of child-snatching vigilantism, as it does other cases of deadly mob violence in supposed defence of cows, or directed against suspected witches, or lower-caste defilers of upper-caste space. Perpetrators and victims tend nearly always to belong to starkly different social groups. They are strangers, divided by religion or language or caste, and in today's India this difference seems to translate into a licence to hate.

For all their pleading to be as native to Assam as their killers, Mr Nath and Mr Das were seen as outsiders. They happened to be urban, Assamese-speaking, Hindu and middle class. The tribal area where they met their fate is one of the poorest in India. Its Karbi people speak their own language. Their folk tales warn children to beware of long-haired strangers.

Moreover, being a suspicious stranger has lately taken on special meaning in Assam. The state is among India's most ethnically, linguistically and religiously varied, and practises some of its most toxic identity politics. For decades the largest group, Assamese-speaking Hindus, has railed about the terrible threat to their culture supposedly posed not just by various "jungli" tribes, but most especially by the third of the state's inhabitants who speak Bengali. Most are Muslim, and some are recent immigrants from neighbouring Bangladesh.

Acting on claims that voter rolls are packed with such interlopers, the state's government is working hard to complete a register of its 30m citizens. Its rules place the onus upon anyone fingered as a possible alien to prove otherwise. Shoddy record-keeping, low literacy and shifting, poorly demarcated borders make this difficult. Already some 2,000 people have been jailed for failing to establish Indian citizenship. Supporters of the state government hope some 4m-5m more will similarly be stripped of their rights, though it remains far from clear what might then happen to them. Bangladesh, already host to 1m destitute Rohingya refugees chased out of Myanmar, wants nothing to do with the whole process. As July 30th, the date for the publication of the final list, approaches, tension in the state is rising.

Assam's pursuit of slow, democratic and legally sanctioned ethnic cleansing is also causing friction with the central government. Not because the two disagree in principle: the same party rules both state and centre. The trouble is that the government

in Delhi is backing another law, which specifically states that India will henceforth accept refugees from neighbouring countries only if they are Hindu, Sikh, Buddhist or Christian. Muslims need not apply. Yet instead of attracting applause from Assamese chauvinists, the law raises a red flag, because thousands more Hindu refugees from Bangladesh might invade "their" state.

It is ironic that India, a country that was wounded at birth by the politics of division, should keep re-enacting partition at every level, from the dustiest hamlet to the pinnacle of power in Delhi. Of all people, Indians should know that the making of aliens and enemies is a dangerous game.

This article appeared in the Asia section of the print edition under the headline "Divide and kill"

China

Prostitution

Sin city

Sin city

In China, sex work is being pushed back into the shadows

But the risk of punishment may be falling

Print edition | China Jul 5th 2018

ONCE referred to even in China's media as the country's "sex capital", the southern city of Dongguan remains the subject of many lewd jokes. Tens of thousands of sex workers used to practise in the city, servicing people working in its vast sprawl of factories as well as visitors drawn by its sleaze. That began to change early in 2014, when the local government launched an unusually fierce anti-vice campaign. In the first few days alone some 6,000 police raided 2,000 saunas, karaoke bars and other such venues. They hauled away many of their staff and patrons.

Four years later punters can still buy sex in Dongguan, as they can across China. A taxi-driver explains that instead of operating in posh hotels and "super saunas", as many of them used to, Dongguan's sex workers now mainly ply their trade more discreetly. He offers an appointment with a woman he knows. Yet city officials have done a far more thorough job of clamping down on the business than most locals expected. They have persisted with their efforts, even though their campaign has damaged service industries in Dongguan (also sometimes called "sin city" in China's English-language press) that depended on the sex trade. Many of Dongguan's prostitutes were migrants from rural areas. A lot of them appear to have left town.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The Communist Party has long portrayed prostitution as a form of exploitation and itself as a liberator of women who engage in it (with the help of thought reform in labour camps). After seizing power in 1949, the party used its control of the economy to provide alternative jobs for many prostitutes. Before long it claimed to have wiped out the trade entirely.

Prostitution returned in force after China began liberalising its economy in 1978. The government encouraged foreign investment and relaxed restrictions on migration from the countryside to cities. Rural women took the opportunity to seek better-paid work. Businesspeople from Hong Kong, Taiwan and elsewhere began piling in to build factories, including in Dongguan. Many of the migrants found jobs on the new production lines. Some sought work in new red-light districts.

Experts reckon there may be millions of sex workers in China, most of them women. Despite numerous campaigns against the business, prostitution is probably becoming more common. Surveys carried out over 20 years by Pan Suiming and fellow researchers at Renmin University in Beijing found that the proportion of Chinese men who admit to having hired a prostitute doubled to around one in seven in the decade to 2015. They believe it might reach more than one in six by 2020. China's skewed sex ratio, caused by a traditional preference for sons that has encouraged abortions of female fetuses (a problem exacerbated by a now-abandoned policy of limiting couples to having only one child) means that there will be growing demand for commercial sex from men unable to find wives.

Most Chinese sex workers choose the trade freely, says Ding Yu of Sun Yat-sen University in Guangzhou. Some prefer it to jobs that are commonly done by poor women from the countryside, such as in shops or factories. They gamble that, in spite of being illegal, prostitution will offer more chance to save money. Others become sex workers only as a last resort. China's limited social safety-net can leave those who are ill, unemployed or on the run from violent men with few other options, says Lijia Zhang, a writer who has researched China's sex business.

The penalties are harsh. Sex workers and their clients can be fined and locked up without trial for up to 15 days. Prostitutes caught repeatedly can be sent, also without trial, to "custody and education" centres, a type of jail where they can be held for up to two years. Pimps can be sentenced to up to ten years in prison. There is less risk of public shaming. In 2010 the government banned police from parading sex workers in the streets, once a frequent form of punishment. But health campaigners criticise a common police practice of using the presence of condoms as evidence that any woman found during a raid on a massage parlour, hair salon or karaoke club is engaged in prostitution (this makes sex workers less likely to carry or stock them, says Tingting Shen of Asia Catalyst, a charity). Tales abound of sex workers swallowing used condoms when police storm in.

For all the crackdowns, however, official statistics show a drop of two-thirds in the number of prostitution-related cases investigated by the police since a peak in 2001 (see chart). One reason is that police forces can no longer take a cut of the fines they collect, so they have less incentive to target petty criminals, according to Mr Pan of Renmin University. Their reduced income from this source has been offset by better funding. The number of custody and education centres has been falling too, from 183 in 2000 to 116 by 2014.

When they are not in the midst of an anti-vice campaign, officials can seem surprisingly indulgent. In a central part of Beijing, Ying Ying sells sex from a room with a door that opens directly onto a busy lane. To one side is a barber's chair where she occasionally provides haircuts. On the other side is a single bed, hidden behind a heavy curtain hanging from the ceiling.

Her neighbours know what goes on there, she says; so do police officers, whose daily duties frequently require them to walk past outside. She has been questioned a few times, but thinks her small business is not a police priority except during sporadic anti-prostitution campaigns. She says that on one such occasion local officers simply advised her to take down her giveaway "barber's shop" sign.

In Dongguan some residents believe that the sex trade has been targeted by the central government more as a way of bringing to heel corrupt officials who support the industry than of stamping out prostitution itself. Xi Jinping, who took over as China's leader in 2012, has made fighting corruption a prominent cause.

This does not mean that the government has become any more willing to consider legalising prostitution. Some officials may recognise that the sex industry is nothing like the social evil that the party has traditionally held it to be. But the party is often slow to reverse ill-considered positions, such as the one-child policy, fearing questions about its judgment. One result of Mr Xi's efforts to tighten the party's control over the media has been that public discussion of prostitution has become even more prudish. Chinese journalists are more reluctant to report on topics such as sex, gender or sexually transmitted disease. It has become harder to publish sex-related research in scholarly journals. But even as the sex business moves further into the shadows, it thrives.

This article appeared in the China section of the print edition under the headline "Sin city"

Drop-down showdown

A deadline looms in China's battle with foreign firms over Taiwan

Most carriers will take the easy route and stop calling Taiwan a country

Print edition | China Jul 5th 2018

WHEN it comes to asserting sovereignty over Taiwan, no fight is too small for Chinese officials. In January censors shut down the website of Marriott, a hotel chain, after it referred to Taiwan as well as Tibet, Hong Kong and Macau as countries in a customer survey. The site was unblocked only after the company's chief executive issued a grovelling public apology. In April China complained about an online allusion to Taiwan as a country by organisers of the Man Booker prize for fiction (they eventually chose a fudge, listing the island instead as a "country/territory"). Gap, a fashion retailer, came under fire in May for selling a T-shirt with a map of China on it that did not include Taiwan. The firm responded by withdrawing the product and promising "rigorous reviews".

China is still doing battle with international airlines. In April its civil aviation administration, CAAC, sent a letter to 44 of them, demanding that they specify Taiwan, Hong Kong and Macau as being parts of China when including them in drop-down menus of countries on booking websites. Fair enough for Hong Kong and Macau, which are universally recognised as being Chinese territories. But CAAC wants Taiwan to be called "Taiwan, China", and maps to use the same colour for both the island and the People's Republic. That is a problem. The island calls itself an independent, sovereign state.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Originally CAAC ordered the companies to comply by May 25th. However, by that date only 18 airlines had done so, despite the authority's hint that violators would face punishment, including fines or action against their websites. Officials extended the deadline to July 25th, saying that some airlines were experiencing "technical difficulties" updating their lists. Among those that have fallen in line are Air Canada, Air France, Lufthansa and Singapore Airlines. Among the latest companies to do so is Air India, which this week began calling Taiwan "Chinese Taipei", a term acceptable to China but viewed with disdain in Taiwan, which uses it only when access to international events requires it. Holdouts include the American carriers Delta, United and American Airlines, as well as a handful of Asian ones.

China's spat with the airlines coincides with its stepped-up efforts to put pressure on the island itself. In the past year the Chinese armed forces have staged a growing number of exercises near Taiwan, including the flying of bombers and other aircraft around it. In May it deprived Taiwan of two members of its tiny band of diplomatic partners by establishing relations with Burkina Faso and the Dominican Republic (China does not allow countries to have formal ties with Taiwan and China at the same time). Apart from wanting to signal displeasure with Taiwan, which has been led since 2016 by a party whose members scorn the idea of eventual reunification, China wants to warn America's president, Donald Trump, that he should not get too friendly with the island.

Both America and Taiwan have bristled at China's attempt to strong-arm the airlines. The White House called it "Orwellian nonsense". Joseph Wu, Taiwan's foreign minister, says it represents "a new level of hysteria" in China's approach to how others describe Taiwan. In theory, the island should have no objection to being called "Taiwan, China". Its official name is the Republic of China and Taiwan is technically a province of that. But it worries that the word China is usually understood to mean the Communist-ruled entity that lays claim to Taiwan. "In essence, Taiwan is a country itself," says Mr Wu. Informally, that is the name its officials give it.

China is digging in its heels. According to Reuters, it has refused an American government request for talks about the problem. Chinese leaders may be mindful of their image at home. In the cases involving Marriott, Gap and several of the airlines, it was Chinese netizens who sounded the alarm about the firms' categorisations of Taiwan. Chinese social media blazed with rage as nationalists excoriated the companies. Under such pressure, the government had to take action, says Xin Qiang of Fudan University in Shanghai. Mr Xin says that, as Chinese officials see it, the risk of a domestic backlash for not acting toughly outweighs that of economic or diplomatic damage resulting from feuds with other countries. Most international airlines are likely to take the route of least resistance.

This article appeared in the China section of the print edition under the headline "Drop-down showdown"

Middle East and Africa

Migration

Last stop before the desert

The traffickers' lament

On the edge of the Sahara, people mourn the decline of people-smuggling

The flow of Africans through Niger to Europe is being shut off. Those who profited from it are unhappy

Print edition | Middle East and Africa | Jul 5th 2018

ON JUNE 14th the Sultan of Aïr, the traditional leader of the Touareg people of Agadez, came out to pray. It was a grand spectacle. Thousands had gathered to mark the end of the Muslim fasting month of Ramadan at a huge open ground. When the Sultan had finished praying, he rode back to his palace, flanked by nobles on horseback and tootling trumpeters. In the streets everyone was smiling and waving. It must have been a relief for the Sultan: a few blessed hours of not having to listen to his subjects moaning about the collapse of the people-smuggling trade.

For centuries Agadez, home to perhaps 200,000 people, has lived off trans-Saharan commerce. Once camel trains set off from here with slaves, pilgrims, salt and gold. More recently it has prospered from a boom in the traffic of people north across the sands to the Mediterranean and onward to Europe. Many Europeans think of this flow of people as a vast, terrifying flood. It has prompted Italy to close its ports to rescue ships, and almost led to the collapse of Germany's governing coalition this week. Yet as anyone in Agadez will tell you, it has now dried to a trickle.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Over the past four years some 600,000 people are thought to have crossed the sea from Libya to Italy. Most of those probably reached Libya via Agadez, crossing Niger at a rate of about 100,000 a year on average since 2000, reckon researchers at the Clingendael Netherlands Institute of International Relations. After the fall in 2011 of Muammar Qaddafi, Libya's late dictator, the numbers crossing shot up, peaking at 330,000 in 2016. Now the number making their way north from Agadez could be fewer than 1,000 a month.

This is largely because of bigger efforts to restrict migration through Niger. The European Union (EU) has pressed the Nigérien government to stanch the flow. Its own people have demanded action, too, after the deaths in 2013 of 92 Nigériens, mostly women and children, who had been dumped in the desert by smugglers. In 2015 Niger passed an anti-trafficking law. In 2016 it began seriously to enforce it. Drivers carrying migrants north were jailed and their cars were confiscated. In return the EU has stepped up aid to Niger. Rhissa Feltou, the mayor of Agadez, says that, in effect, the Nigérien police checkpoint outside the town has become the new southern frontier of the EU. And with it has come hardship for his town.

At the peak of the migrant boom some 6,000 people were directly employed in ferrying people north or providing food and lodging on the way, according to the Dutch study. In addition, young men earned a living driving motorcycle taxis that ferried migrants around town as they bought food, water, turbans and sunglasses for the desert crossing. Indirectly one in two households in Agadez benefited. Since the slump bus companies have fired 75% of the staff who worked on the route from Niamey, the capital, to Agadez.

The flow has not halted completely. But migrating has become more dangerous, and more expensive. Officials demand bigger bribes to look the other way. Smugglers avoid the main road, which is so infested with bandits that traders move in convoys, escorted by the army. The crackdown has made people-traffickers nervous. When they think they are about to be caught by the police or army, they abandon their passengers in the desert to avoid being prosecuted and losing their trucks. The International Organisation for Migration (IOM) has rescued 8,255 people stranded in the desert since August 2016. Many more are doubtless never found. Goge Maimouna Gazobi, the head of Niger's anti-trafficking agency, insists that stricter enforcement has reduced the number of people being left in the desert, because fewer set out in the first place. No one knows for sure.

Although the number of people heading north from Agadez has plunged, a few thousand each month pass through in the other direction, having failed to make it to Europe. Some of those now being cared for in IOM transit centres report that lawless militias in Libya are kidnapping migrants and holding them for ransom.

Many of those who flow back south do so indirectly. After being blocked in Libya thousands of migrants have gone to Algeria, hoping to find work, or to Morocco, hoping to find an alternative route to Europe. But Algeria is ever less welcoming. It is "vomiting" migrants into Niger, says Alessandra Morelli of the UNHCR.

Since 2014 Algeria has deported 31,697 Nigériens. Recently it has also been illegally deporting citizens of other west African states to Niger. Typically people are arrested on the street and not allowed to collect their belongings, savings or sometimes even children before being loaded onto lorries. Since September more than 13,000 people have been discarded in the desert several hours' walk from the Nigérien border post. When they straggle across the IOM puts them on buses to Agadez, where they join a hotch-potch of nationalities who have come here via circuitous routes.

Among these are some 2,000 Sudanese from Darfur, most of whom had gone to Libya before being sent back south to Agadez. Hundreds now live on the streets. Elsewhere in Niger the UN is caring for almost 58,000 Malian refugees and more than 250,000 people displaced by Boko Haram, a jihadist group in Nigeria, or by fighting in Niger near the border with Mali.

Mr Feltou, the mayor, says that "extraordinary resilience" is part of the Agadez tradition. That is evident in how the city's inhabitants are finding profit in other smuggling ventures. Entrepreneurs now buy cheap or stolen cars from Libya and drive them to customers across west Africa. Drugs and guns are also flowing across the Sahara via Agadez. Ibrahim, a petrol-station manager, says that each of those involved in smuggling migrants "supported five families". Now they are looking for another way to make a living.

This article appeared in the Middle East and Africa section of the print edition under the headline "Last stop before the desert"

Digital dishonesty

Why some countries are turning off the internet on exam days

With so many students cheating electronically, governments are taking drastic steps

Print edition | Middle East and Africa Jul 5th 2018

AS LONG as there have been exams, students have found ways to cheat. Today the correct answers are just a few taps away on a smartphone. So countries have come up with new ways to stop the funny business. Some use metal detectors, surveillance cameras, mobile-phone jammers and even drones. Others have taken a more drastic step.

Cheating in high-school leaving exams got so bad in Mauritania and Algeria that this year the authorities turned off the internet for the entire country. Algeria did so for at least an hour during tests (which last about a week); Mauritania cut access from morning until evening on exam days. Other countries, such as Iraq, Uzbekistan and Ethiopia, have for years been shutting down the internet during exam time.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In each country students are under enormous pressure to do well in the tests, which often determine whether they can continue their education at a good university. A splendid grade may mean a scholarship abroad. But high marks are rare. In Algeria only around half of students passed the exams in recent years. In Mauritania the rate is much lower.

Teachers try to help—in their own way. For a fee some will provide answers on WhatsApp, a messaging service, says Sidi, a recent high-school graduate in Nouakchott, the capital of Mauritania. After Algeria's tests were posted early on Facebook in 2016 the government blocked it during exam periods. Dishonest boys have a harder time than girls, who often aren't checked and sometimes hide earphones under their veils.

Turning off the internet is expensive. Darrell West of the Brookings Institution, a think-tank, estimates that in 2015-16 internet shutdowns ordered by governments—whether to stop cheating or stifle dissent—cost countries at least \$2.4bn. For that kind of money, countries could even improve their schools.

This article appeared in the Middle East and Africa section of the print edition under the headline "How to stop students from cheating"

Françafrobeat

Emmanuel Macron pays tribute to Fela Kuti, a Nigerian musician

But it wasn't all singing and dancing

Print edition | Middle East and Africa Jul 5th 2018

THE old Afrika Shrine, a music venue in Lagos, the commercial capital of Nigeria, was burned down by soldiers in 1977. Its founder, the late Fela Kuti, a musical megastar, had called them "zombies" in a song. The soldiers beat Kuti badly and threw his mother from a first-floor window. But Kuti's children, Yeni and Femi, rebuilt a nearby venue in 2000. Ever since, the New Afrika Shrine has attracted hip Nigerians and expats, including a young Emmanuel Macron, who once worked as an intern in the French embassy in Abuja.

Mr Macron, now president of France, seems to have developed an attachment. When visiting Nigeria on July 3rd he went out of his way to visit the nightclub, known for its gyrating dancers and counterculture vibe. "What happens in the Shrine remains in the Shrine," Mr Macron told the unusual crowd. Musicians, artists and stars from the Nollywood film industry drank champagne with government dignitaries, few of whom had ever visited the club. (The day before Mr Macron's visit, the potholed road to the Shrine was blocked by steam rollers pressing hot new tarmac.)

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Fela Kuti is best known in the West as the king of Afrobeat, which mixes African music with jazz, soul and funk. But across Africa many people also remember him as the self-styled "Black President", an anti-establishment musician who wrote protest songs and was a thorn in the side of Nigerian military regimes until his death in 1997. Nigeria's current president, Muhammadu Buhari, was head of a military government that threw Kuti in jail in the 1980s. At the time, Amnesty International listed him as a prisoner of conscience and campaigned for his release.

For Mr Macron, it may have been astute politics to honour a musician who had slammed former colonial powers with lyrics such as: "Colo-mentality...De ting wey black no good" (roughly: "Colonial mentality says anything black is no good"). A year ago he was criticised for saying that Africa's problems were "civilisational".

This visit was not all fun. Whereas France previously focused mainly on relations with French-speaking Africa, Mr Macron is trying to strengthen ties with Anglophone countries. Before visiting the Shrine, he met Mr Buhari and promised to help him fight Boko Haram, a jihadist group that uses children as suicide bombers. France has about 4,500 troops conducting counterterrorism operations in Africa, mostly in French-speaking countries in the Sahel. Mr Macron warned of growing ties between jihadist groups in the Sahel and Boko Haram. "The challenge for us is to manage the conflicts…and stop them joining together."

As the dignitaries left in their big cars in the early hours, the Shrine's young regulars—fat joints in hand and demanding entry after being locked out of the party—forced their way through the turnstiles. Many may well have had some of Kuti's lyrics on their mind. Of the colonial elites, he sang: "Dem go turn air condition/ And close dem country away" ("They will turn on the air conditioning/ And suck the life out of the country").

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

War. Peace. Repeat

Ceasefires in South Sudan seldom last

The latest such agreement is already falling apart

Print edition | Middle East and Africa | Jul 5th 2018

CEASEFIRES in South Sudan's civil war tend to be short. At least nine such agreements have been signed since the war started in 2013. Only one has lasted longer than a month. The latest ceasefire, agreed to on June 30th, is already in danger of falling apart. On paper it sets the stage for power-sharing talks between President Salva Kiir and rebel leader Riek Machar, a former vice-president. But hours after it took effect both sides reported violations. Analysts say Messrs Kiir and Machar have lost full control of their forces, which have splintered into factions. To make matters worse, Mr Kiir unveiled plans on July 2nd to extend his term by three years, to 2021. The opposition said the move would derail the peace talks.

This article appeared in the Middle East and Africa section of the print edition under the headline "Will the fighting ever stop?"

Bad cops

Uganda's politicised police force is not reducing crime

Public insecurity is eating away at President Museveni's authority

Print edition | Middle East and Africa Jul 5th 2018

"STOP killing us!" chanted a crowd of several hundred people as they marched through Kampala on June 30th. Their protest has good cause. Last year the bodies of more than 20 women, many strangled and mutilated, were found after being dumped in two neighbourhoods close to the Ugandan capital. Scores more people have been kidnapped. "You never know, maybe I'm next," says Shamim Masika, a student.

Insecurity has become a hot political issue in Uganda. Newspapers have chronicled a wave of crime, from armed robberies to the murder of Muslim clerics. In June an MP was gunned down. Most startling of all was the murder last year of the police spokesman, who was shot in broad daylight outside his home. That case, like many others, remains unsolved.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Yoweri Museveni, the president, has proposed solutions ranging from more security cameras to a ban on hoodies. But many see the ageing guerrilla himself as part of the problem. When he fought his way to power in 1986 he had little trust in police officers: they would rather vote for a cow, he once griped, than for him. In 2005 he appointed General Kale Kayihura, a loyal soldier, as police chief. The new man promoted cronies and created parallel units, says Julius Odwe, a career cop who was his deputy until 2011. "Professionalism has been dying slowly," he laments.

The force also became more political. Its swelling budget was used to buy tear-gas and anti-riot gear. Suspects limped into court with open wounds, saying they had been tortured by the police. Political protests were crushed, often with the help of vigilantes who included a motorbike-taxi baron. Stick-wielding thugs would beat protesters while uniformed officers looked on. A vast network of civilians was recruited before an election in 2016. "The police concentrated more on political intelligence and the protection of the regime" than on crime, says Nicholas Opiyo, a lawyer.

Meanwhile, the murder rate rose by a third between 2005 and 2014, according to UN data. The police have since stopped publishing statistics. General Kayihura was sacked as police chief in March and since June 13th has been held under army detention. No official reason has been given. Mr Museveni had previously complained about criminals infiltrating the police. He also keeps a wary eye on the machinations of Paul Kagame, the Rwandan president who was once a comrade-in-arms but is now a bitter rival for influence in the region. Last year the army arrested seven police officers whom it accused of kidnapping and illegally repatriating Rwandans on the run from Mr Kagame. General Kayihura had promoted some of those officers.

Mr Museveni boasts that he ended the violence and criminality of previous regimes, so public anxiety over safety tugs at the roots of his authority. For Mugisha Muntu, who led the army for a decade, the failings of the security apparatus illustrate the president's two weaknesses: his desire to hang on to power and his tendency to subvert institutions. He sees the police, says Mr Muntu, "as an extension of the ruling party". The force now has new leadership. But its rot starts at the top.

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

Eni time

Egypt is optimistic about new gas discoveries in the Mediterranean

Some think the new fields could turn Egypt into an energy hub

Print edition | Middle East and Africa Jul 5th 2018

FIVE years ago the country that hopes to become a Mediterranean energy hub couldn't even keep the lights on. When Abdel-Fattah al-Sisi took power in a coup in July 2013, Egypt was plagued by blackouts. Factories shut down. Surgeons operated by torchlight.

Egypt's energy supply is still spotty. But on June 27th newspapers trumpeted the discovery of an enormous natural-gas field, called Noor, off the coast of North Sinai (see map). They billed it as the largest in the region. That title is already held by Egypt's massive Zohr field, discovered in 2015, which is expected to change the country from a net importer to a net exporter of gas by next year.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Much of the enthusiasm is premature. The Egyptian government has downplayed reports of the Noor field's size. Eni, the Italian firm working on the field, has done only seismic surveys of the area. It will not drill an exploratory well until August. Still, it is clearly optimistic. It paid \$105m for exploration rights.

Not long ago it was Israel, not Egypt, that was tipped to become the region's gas giant. It had found two fields, Tamar and Leviathan, with combined reserves of perhaps 800 billion cubic metres, enough to meet domestic demand for decades and leave vast quantities for export. The problem was getting it to market. Israel does not have pipelines to big consumers, nor the facilities to liquefy gas in order to export it by ship.

It found the answer in Egypt, which diverted exports for domestic use when gas production fell after the revolution of 2011. That left two liquefaction terminals sitting idle. In February an Egyptian firm, Dolphinus Holdings, signed a deal for \$15bn to buy Israeli gas and prepare it for export. Cyprus, too, wants Egyptian firms to liquefy gas from its Aphrodite field. Zohr did not change the equation, because most of its production will stay at home to meet ravenous demand. More than three-quarters of Egypt's electricity comes from gas-fired plants, and power consumption grew by 14% last year.

If Egypt keeps finding new reserves, though, it will need those terminals to export its own gas. New finds seem inevitable. Eni alone plans to invest more than \$10bn in Egypt by 2022. It and other firms have struck onshore gas in the western desert, where the government is keen to explore further. "All the offshore works in the Mediterranean are east of the [Nile] delta. The west is unexplored," says Tarek al-Molla, the petroleum minister.

Mediterranean gas will have no shortage of buyers. Demand is soaring in developing countries. Consumption in China alone grew by 15% last year. But it would be particularly attractive to Europe, which depends on Russian gas. European imports from Russia hit a record high in 2017. Former Soviet states fear this gives Vladimir Putin, the president of Russia, leverage over them. His country has cut off supplies in the past. Egypt and its neighbours could help Europe diversify its suppliers.

First they need to get it there. New liquefaction terminals would create jobs and revenue for Egypt. They would also cement economic ties with Israel and help Cyprus, where Eni is exploring a Zohr-like field called Calypso off the south-western coast. Israeli officials have talked for years about a trilateral pipeline to Europe. It would be the world's longest undersea pipeline, at 2,200km. The \$7bn price tag kept it a pipe dream. But it is looking increasingly viable.

The biggest beneficiary of Egypt's gas finds may be Mr Sisi, the country's president. Egypt's budget deficit is projected to be \$24bn this year (8.4% of GDP), and Mr Sisi is running out of ways to squeeze extra revenue out of a mostly poor population. In the past two months his government has raised the prices of water, fuel, electricity and public transport, all of which are still heavily subsidised. Even the cost of a driving licence abruptly shot up by 1,400%. Mr Molla wagers that Egypt has done with buying gas abroad. Revenues from future exports will not turn the country into a flashy Gulf emirate. But they should keep the lights on in Egyptian hospitals—and perhaps pay for some new ones, too.

This article appeared in the Middle East and Africa section of the print edition under the headline "Eni time in Egypt"

A buried past

NGOs in Lebanon want to dig up mass graves from the civil war

Will their efforts heal or reopen old wounds?

Print edition | Middle East and Africa Jul 5th 2018

LINA MAHFOUZ was six years old when Lebanon's civil war began. She remembers hearing screams outside her bedroom window. One evening she saw a man in black carrying what looked like a dead body into the orange grove behind her home. "Years later I realised what they were doing. They were torturing and then burying people in the orchard," she says. "The bodies are there."

It has been nearly 30 years since the civil war ended. But thousands of people are still missing. Most are probably dead: killed in Syrian prisons, dumped in the Mediterranean or buried in one of more than 100 mass graves dug by sectarian militias. The men who started the war also negotiated the peace, granting themselves amnesty for their crimes. Many are still in power. The government has had scant interest in digging up the past.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

But several Lebanese NGOs think bringing up the bodies will provide closure to the families of the missing. They support a bill that would establish an independent commission to investigate the fate of the missing, protect and exhume mass graves, and return the bodies to their families. One of the NGOs, Act for the Disappeared, has found 111 burial sites, 23 of which are in Beirut. The International Committee of the Red Cross has begun collecting samples of saliva from relatives to identify bodies.

Finding the bodies is becoming harder, as memories fade, and graves are not always protected. The orange grove next to Ms Mahfouz's home was chopped down to make way for apartment blocks. Building firms often burn human remains when they stumble on them or bury them under building foundations. Some militias dumped bodies in cemeteries, mixing them with the bones of others. Religious authorities that control the cemeteries don't want to reveal atrocities committed by their own side. When the police get their hands on bodies they sometimes rebury them in unmarked graves, for lack of space in morgues.

Politicians argue that digging up the dead will reopen old wounds. Many fear being called to account for past crimes so the draft law does not mention justice. Assad Chaftari, once head of intelligence for a Christian militia, sees the benefit of exhuming the bodies. "If we don't speak of the wounds of the past then we are passing the suffering, the pain and the anger to the next generation."

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

Donald Trump and NATO

A perilous summit

Lies and damned allies

Will Donald Trump be Triumphant, Tetchy or Torpedo?

The president who arrives at the NATO summit next week has the potential to be one of three

Print edition | Europe Jul 5th 2018

FIRST came the fiasco of the G7's summit last month in Charlevoix, Canada, when President Donald Trump refused to sign the final communiqué amid angry tweets from Air Force One. Now for the sequel. Many fear an even more damaging bust-up at the NATO summit to be held in the 29-member alliance's new headquarters in Brussels on July 11th-12th. It features the same lead characters. "We've seen that movie and it didn't end well," says Admiral James Stavridis, dean of the Fletcher School at Tufts University and a former supreme allied commander Europe.

Although as president Mr Trump has affirmed his commitment to the alliance, some suspect his support is at best skindeep. On the campaign trail he described NATO as "obsolete" and at Charlevoix he is said to have called it "as bad as NAFTA", a trade agreement he regards as a rip-off. The president resents his allies for failing to bear their fair share of the costs of defending Europe. Never mind that some of them put their soldiers in harm's way in perilous places such as Helmand province in Afghanistan. His view of their efforts boils down to a single number: the share of GDP spent on defence, and whether it meets NATO's guideline of 2%.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Hence the letters he sent to fellow NATO leaders last month bluntly urging them to do better. It will become "increasingly difficult", he told Erna Solberg, Norway's prime minister, among others, "to justify to American citizens why some countries fail to meet our shared collective security commitments".

The letters to Norway and Canada found their way onto the internet. The one to Germany was particularly sharp, judging by extracts in the *New York Times*. "Continued German underspending on defence undermines the security of the alliance and provides validation for other allies that also do not plan to meet their military spending commitments," Mr Trump told Chancellor Angela Merkel. (Britain, which does meet the 2% target, got a subtler prod from James Mattis, Mr Trump's defence secretary, who wrote to his British counterpart that Britain risked being eclipsed by France as America's "partner of choice" if it did not invest more.)

Mr Trump's confrontational approach has only added to worries that a full falling-out is only an intemperate tweet away. It comes on top of his rejection of the nuclear deal with Iran and the fight he has picked over trade tariffs.

Given the potential for trouble, why bother to meet at all? Having Mr Trump sit and listen as other leaders drone on would seem the perfect way to exasperate him. In the alliance, "you don't actually need summits for anything," points out Ivo Daalder, a former American ambassador to NATO. The allies' political body, the North Atlantic Council, can take binding decisions. As it is, its 29 members must brace themselves for a wide range of potential outcomes.

Triumphant, tetchy or torpedoed

One possibility (call this scenario Triumphant Trump) is that the summit goes fine. Mr Trump is said to hate appearing predictable, so he may surprise everyone by behaving himself. He could point to increased NATO defence spending and decide to declare victory.

Last year saw "the biggest increase in defence spending across Europe and Canada in 25 years", says Jens Stoltenberg, NATO's secretary-general. Since the beginning of 2017 the number of allies on track to spend 2% of GDP on defence by 2024 has more than tripled, from five to 16, according to Wess Mitchell, America's assistant secretary of state for Europe. The number allocating at least 20% of that budget to major equipment (another pledge from a summit in Wales in 2014) has risen from 14 to 24. Last year Mr Trump tweeted that "money is beginning to pour in–NATO will be much stronger." Although NATO's bigger budgets are largely a response to Russia's invasion of Ukraine, Mr Trump could boast that his pressure made the difference.

To bolster NATO's eastern frontier, American forces are now deployed in Poland, and there are contingents led by Canadians in Latvia, Britons in Estonia and Germans in Lithuania. NATO has tripled the size of its rapid-response force and set up a task force ready to move within 48 hours. The allies have held firm on sanctions against Russia.

In Brussels next week they will agree to be ready for "four 30s" by 2020: the ability to move 30 mechanised battalions, 30 air squadrons and 30 combat ships within 30 days. They will endorse new command centres in Ulm in Germany and in Norfolk, Virginia. They will extend funding for the mission in Afghanistan and launch an enlarged training mission in Iraq. They plan to show that the door remains open to new members by announcing accession talks with Macedonia, now that the country is on its way to solving a dispute with Greece over its name, and they will pledge closer collaboration with the European Union.

None of this points to an alliance in crisis. With the help of the reassuring Mr Mattis, things are running smoothly. "People who think we're coming apart from within are wrong," says Michael O'Hanlon of the Brookings Institution, a think-tank.

Yet Mr Trump may be less interested in a declaration of victory than in keeping up the pressure on America's allies. He "grows more not less convinced over time that the allies are out to take advantage of the United States," says Kori Schake of the International Institute for Strategic Studies in London. That mindset suggests a second summit scenario: Tetchy Trump, in which the president stars as berater-in-chief.

If so, he will have no shortage of targets. Military exercises have revealed glaring shortcomings in the ability to move forces swiftly across Europe, both because of bureaucracy (customs officials asking to see passports at borders) and inadequate infrastructure (the bridges, roads and railways that have to handle military transports). The allies' spending may have risen, but not by enough.

Germany still falls far short of NATO's 2%-of-GDP guideline. Even the country's stated aim of reaching 1.5% of GDP by 2024 is not matched by actual spending plans, which suggest the share will remain at around 1.2%, notes Claudia Major of the German Institute for International and Security Affairs in Berlin. None of Germany's six submarines is operational. Only four of its 128 Eurofighter jets are combat-ready. "We failed" on the defence budget, says Ms Major. Germany is now "paying the price for a very long neglect".

Mr Trump has other grudges against Germany, from its trade surplus with America to its support for the Nord Stream 2 pipeline that will increase its dependence on Russian gas. But Germany is not the only potential focus of a falling-out. There are deep disagreements over Iran, and strains with Turkey over its intention to buy a Russian air-defence system. Noisy rows would risk undermining the sense of political unity on which deterrence depends. They could also distract NATO's attention from the things it needs to focus on, such as improving its cyber-defences.

Still, as Mr Stoltenberg stresses, the alliance has survived disagreements in the past, from Suez to the Iraq war. Arguments can be healthy. The secretary-general has welcomed Mr Trump's strong message on spending. In the absence of the old Soviet threat, forcing people to explain what NATO does and why it is needed may be no bad thing. The real fear is that things could spiral out of control—that, as Ms Major says, "because of different world views, this summit might actually explode."

Hence a third version of the summit: Torpedo Trump. NATO's nightmare is that a frustrated Mr Trump openly questions America's commitment to Article 5, the alliance's mutual-defence clause, under which an attack on one member is viewed as an attack on all. He might, for example, tell the allies that they can't count on Article 5 unless they hit the defence-spending target of 2% of GDP. Having thus shaken the foundations of the alliance's collective defence, a few days later the president proceeds to embrace President Vladimir Putin in Helsinki, and agrees to cut back on "expensive" troop deployments in Europe and "provocative" missile defences. In other words, the sequence becomes a replay of the G7 falling-out followed by the embrace of Kim Jong Un of North Korea.

A plausible nightmare

What makes this scenario possible is that doubts about Article 5 seem to be lodged in the president's mind. In a speech when NATO leaders last met he pointedly left out any reference to it. And his America First reservations about multilateral arrangements, from the G7 to the WTO, NAFTA and NATO, run deep. Last week exasperation at Mr Trump's attitude to the EU and the alliance led to the resignation of America's ambassador to Estonia. "There used to be a suspicion that Trump doesn't understand alliances, that he just sees them as encumbrances," says Jonathan Eyal of RUSI, a think-tank. "It's gone further than that—a thought in Europe that he wants actively to undermine them."

Maybe disaster can be avoided this time. But worries about whether Europeans can continue to count on America did not begin with Mr Trump. In France, says Alexandra de Hoop Scheffer of the German Marshall Fund, the turning-point came when Barack Obama failed to enforce his "red lines" on Syria, in 2013. Yet the Europeans have so far taken only baby steps to develop their own defence efforts.

Amid strains on national budgets, the political appetite for big increases in defence spending is missing. At the European Union level, collaborative defence initiatives tend to be bureaucratic (its Permanent Structured Co-operation, or PESCO, is as cumbersome as its name suggests). Some have higher hopes for the new "European intervention initiative", a brainchild of President Emmanuel Macron which involves nine countries including Britain, even though it is leaving the EU, and aims to muster coalitions of the willing for joint action in a future crisis. But it was born only last month and its effectiveness remains to be seen.

All of which means that the Europeans' ability to push back against Mr Trump's disruptive instincts is limited. The allies are left hoping that any summit damage will not be too serious. "It is not written in stone that the transatlantic bond will survive forever," Mr Stoltenberg said in a speech in London last month. "But I believe we will preserve it."

This article appeared in the Europe section of the print edition under the headline "A perilous summit"

Your papers, please

Angela Merkel's flawed deal on migrants

A deal to tighten Germany's borders does not resolve the chancellor's woes

Print edition | Europe Jul 5th 2018

THE drama roiling German politics lately had little to do with the bare facts. Notionally the dispute between Angela Merkel's Christian Democratic Union (CDU) and the Christian Social Union (CSU), its more conservative Bavarian sister party, concerned asylum-seekers who are registered and meant to stay in other EU countries, especially Italy, but then travel to Germany. The number of such "secondary" arrivals so far this year is under 20,000: eminently manageable in a country of 83m. The subject did not even come up during coalition talks between the two parties (and the centre-left Social Democrats, or SPD) this spring.

Yet until July 2nd, when the CDU and CSU reached a shaky compromise, it seemed this modest subject could fracture that young government and even end Mrs Merkel's long chancellorship—because for both sides it was the symbol of something larger. The CSUers were driven by years of frustration at what they deem the chancellor's complacent and haughty leadership style, as well as blind panic at the rise of the anti-immigrant Alternative for Germany (AfD) in Bavaria ahead of a state election there in October.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

For the chancellor their shibboleth, a demand that secondary migrants be checked and turned back at German borders, risked further undermining Europe's battered "borderless" Schengen zone. That would weaken a multilateral international order which, with perhaps an eye on the history books, she considers it her job to help defend.

On June 18th the CSU leadership gave Horst Seehofer, the party's boss, who is the federal interior minister, its blessing to implement the new border regime against Mrs Merkel's wishes, while first granting the chancellor two weeks to pursue an alternative "European solution". On July 1st she reported back on an EU-wide agreement to tighten Europe's external frontiers. She outlined deals with 14 individual states whereby these would readmit secondary migrants from Germany. At a fraught eighthour meeting in Munich the CSUers deemed the package inadequate. Mr Seehofer resigned rather than defy the chancellor, but then at the urging of his colleagues unresigned, pending one final meeting with her. Late the next day, amid speculation that the CSU could quit the coalition, the two sides finally reached a deal.

It pledges new controls on the Austrian-German border, the main entry point for immigrants travelling from Europe's south (see map); extraterritorial "transit centres" on borders from which rejected asylum-seekers will be deported to countries with bilateral deals with Germany; and a policy of turning back those whose countries of registration do not have such a deal, under an arrangement to be agreed with Austria. Mr Seehofer got a crackdown that will play well in his home state in the run-up to the election there; almost the entire border that Germany shares with Austria is Bavarian. So Mrs Merkel managed both to resolve the dispute and to avoid unilateral German action.

Neither of her achievements looks firm, however. Settling the battle with the CSU may now cause one with the SPD, which opposes any measures that would formally detain asylum-seekers. A meeting of the three party leaderships on July 3rd produced no agreement.

In any case, is the CDU-CSU conflict really settled? Only hours before the deal was struck Mr Seehofer was seething contemptuously: "I won't be dismissed by a chancellor who is only chancellor because of me." Having achieved concessions by pushing Mrs Merkel to the brink this time, his party will be tempted to do so again—whether on immigration or another subject, like euro-zone reform.

Meanwhile the agreement will avoid unilateral German action only if the right international deals can be done in the coming weeks: most notably a repatriation arrangement with Italy, whose new populist-led government says it wants fewer, not more, asylum-seekers on its territory; and a border deal with Austria, where politics has taken an anti-immigrant turn since the refugee crisis and where the hard-right Freedom Party controls the interior ministry. In a frosty statement issued on July 3rd the government in Vienna, where officials bridled at Berlin's failure to consult them, threatened to impose new controls on its own southern border if the Germans started turning back asylum-seekers. That jeopardises the smooth flow of people and goods over crucial transalpine routes such as the Brenner Pass.

In other words, the deal in Berlin may not pacify the CSU and risks unleashing precisely the domino effect of unilateral actions that Mrs Merkel most feared. Rather than averting the choice between her domestic political interests and those of the wider European order, she may have merely postponed it.

This article appeared in the Europe section of the print edition under the headline "Your papers, please"

Meating the challenge

French vegans are tormenting France's butchers

There's a lot at steak

Print edition | Europe Jul 5th 2018

THICK, fleshy, severed cow's tongues, their tips curled neatly on to the butcher's tray. Skinned whole rabbits, limbs stretched taut as on a rack, eyes glassy. A moist pink blooded pig's brain, decorated jauntily with a sprig of parsley. A butcher's counter in France is a feast for carnivores—and a shop of horrors for the squeamish. Now it has also become the object of a violent anti-meat campaign, which is stirring a resistance movement among the country's *bouchers*.

In recent months, a growing number of *boucheries*, particularly in northern France, have been vandalised or sprayed with fake blood. "Meat is murder", or "Stop speciesism", a campaign message designed to halt abuse of one species by another, are the attackers' signature graffiti. Such has been the concern among butchers that last month they sent a joint letter to Gérard Collomb, the interior minister, to demand better security. On July 3rd a delegation from the French Confederation of Butchers, Pork-Butchers and Caterers (CFBCT), which represents 18,000 butchers across the country, met his team to discuss their safety. **Get our daily newsletter**Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

For years, the best a vegetarian could hope to find on the menu of a typical French brasserie was omelette and chips. The French have a higher consumption of beef per person than any other European country. Yet even in France, where a steak-frites is part of the national culinary identity and livestock-rearing the very fabric of rural life, consumption of red meat has been on the decline. Amid concerns about health as well as rising prices, sales of fresh beef have dropped by about a fifth over the past decade, and those of veal by even more.

Vegan restaurants, meanwhile, have sprung up in Paris and edgy bits of other cities, serving raw food, kale and green shakes to *végétaliens*. Vegan lobby groups argue that a minority of militants do not represent the majority of peaceful consumers and campaigners, whose only aim is to persuade the French that their meat-based culture of *gastronomie* has got it all wrong. Butchers, though, will not give up without a fight. Jean-François Guihard, head of the CFBCT, laments what he calls the "excessive media coverage of the vegan way of life". He is "shocked", he says, by an attempt to "impose on the vast majority a way of life, if not an ideology".

This article appeared in the Europe section of the print edition under the headline "Meating the challenge"

Pride and prejudice

Europe's anti-immigrant parties are becoming more gay-friendly

Partly as a way to bash Muslim immigrants

Print edition | Europe Jul 5th 2018

AMID a sea of rainbow flags, Sebastian Tynkkynen sings along to ABBA's "Dancing Queen" and waves a pro-gay placard. "Christians, don't hate us. Islam, don't kill us" reads his sign. Like many others at an LGBT pride parade in Kokkola, a small town in Finland, Mr Tynkkynen is proud to be bisexual. Unlike most of them, he is also proud to be anti-immigrant.

Mr Tynkkynen (pictured) represents the nationalist Finns Party (formerly the "True Finns") on the city council of nearby Oulu. He also used to lead the party's national youth wing. Last year a court fined him €300 (\$350) for inciting hatred after he wrote a Facebook post that said: "The fewer Muslims in Finland, the better."

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Mr Tynkkynen's gay-friendly Islamophobia is not unusual. Nationalist and anti-immigrant parties in Europe's more socially liberal countries are trying to shed their old reputation for gay-bashing. Partly, this is because they are genuinely less homophobic than they used to be. Partly, it is because voters are. But also, it gives them a handy excuse for bashing Muslims.

It started with Pim Fortuyn, a Dutch politician who was exceptionally open both about his sexuality (he once described the taste of semen on television) and his belief that Muslims would make the Netherlands less tolerant of people like himself. (He was murdered in 2002 by a non-Muslim animal-rights activist.) Today, the Alternative for Germany (AfD) has a lesbian leader in the Bundestag and its own gay wing, the Alternative Homosexuals. The openly gay Florian Philippot was the vice-president of France's National Front until last year. He has now left the party to set up an outfit even more extreme. Paula Bieler, genderequality spokesperson of the xenophobic Sweden Democrats, says homophobes "are not welcome in our party".

Dropping the worst of their own anti-gay tendencies allows nationalists to project themselves as the true guardians of tolerance. They argue that Muslims represent the biggest threat to LGBT safety on Europe's streets, and that only those prepared to curb their numbers truly have gay people's best interests at heart. "We are the only party worried about the Islamisation of Finland," says Mr Tynkkynen.

Sam van Rooy, a spokesman for the Flemish nationalist Vlaams Belang, declares that his party is Belgium's most gay-friendly. "All other parties are willing to import thousands of Muslims who have very violent ideas against being gay or transgender," he shudders.

Many gay people are wary of the populist right's overtures. "The LGBT people convinced by this are usually wealthy gay white men. For now they are a minority, but [they] are very vocal and can cause a lot of harm," says Viima Lampinen, the chairperson of Seta, Finland's largest LGBT organisation. Sceptics also see it as a selective embrace. Populist parties talk endlessly about the Islamic threat to gay people but rarely bother to champion other gay issues, such as gay marriage.

This article appeared in the Europe section of the print edition under the headline "Pride and prejudice"

Collision course

Poland's government sacks a third of its Supreme Court

A direct challenge to the rule of law, and to the EU

Print edition | Europe Jul 5th 2018

JUDGES are a pampered caste of crooks, according to Poland's governing Law and Justice party (PiS). On July 3rd its new law on the Supreme Court took effect, the culmination of a series of judicial changes pushed through by the party. The European Union has urged the government to back down, warning that it is undermining the rule of law. Poland represents a vital battle for Brussels. If the EU cannot defend its fundamental values, including the rule of law, within its own borders, other illiberal leaders will surely take note.

The latest judicial reform lowers the retirement age from 70 to 65 for judges on the Supreme Court, which, among other responsibilities, rules on the validity of elections. As the law took effect on July 3rd, more than a third of its 72 judges were forced to step down. Some have asked the president for permission to stay on for the rest of their six-year terms, but critics fear the only judges to be granted that permission will be the pliant ones.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The purge follows a verbal campaign against judges by PiS politicians, who have called them a "caste of superhumans" and "a state within a state" with a murky past under communism (there is some truth to the second of those charges). Mateusz Morawiecki, the prime minister, recently alleged that an "organised criminal group" is operating at a court in Krakow.

Poles are split over PiS's reform. According to a poll in June, some 44% say Supreme Court judges older than 65 should not be allowed to give judgments; 33% disagree. At dusk on July 3rd a crowd gathered outside the Supreme Court in Warsaw to protest against the changes. Other protests took place in over 60 towns across Poland. At the one in Lublin, a city in the country's conservative east, a banner on the district courthouse urged Europe to protect the Supreme Court. "Without rights there is no freedom," it read.

Despite its long stand-off with Warsaw, the EU has failed to stop the purge. In December, citing "a clear risk of a serious breach of the rule of law" in Poland, the European Commission triggered action under Article 7 of the EU treaty, which could eventually result in the country's voting rights being suspended. The chance of that happening is remote, however, because such a decision would require a unanimous vote by the other EU governments, and Hungary, for one, has vowed to stop it. Without the required support of four-fifths of the EU's countries even to get to an earlier stage of condemnation, the procedure has reached an impasse. In a last-minute effort, the commission on July 2nd launched a separate infringement procedure against Poland for violating EU law with its changes to the Supreme Court. The Polish government now has a month to respond. After that, Poland could face a case before the EU Court of Justice, which can impose large fines but which cannot strip Poland of its voting rights.

Defying the new law, most of the Supreme Court's judges came into work on July 4th, where they were greeted by a crowd of supporters, some holding posters with "konstytucja" (constitution) printed on them. The fate of the Supreme Court's president, Malgorzata Gersdorf, who turned 65 last November, is uncertain. The presidential palace says she is retiring; she says no, her term is guaranteed by the constitution. By opposing the reform, judges are turning the court into a circus, said Marek Suski, head of the prime minister's cabinet, on July 2nd. As PiS pushes on with its overhaul of Poland's institutions, it is unclear who will have the last laugh.

This article appeared in the Europe section of the print edition under the headline "Collision course"

Festival of freedom

Russia shows another side at the World Cup

But will anything really have changed?

Print edition | Europe | Jul 5th 2018

THE only thing more improbable than the Russian national team's performance on the pitch has been the buoyant atmosphere around this year's World Cup. Fans from around the world have poured into the country despite political tensions—though the poisoning of two more people with the nerve agent Novichok in Britain cast a pall over the next round (see Britain section). At home, Russian security services have turned a blind eye toward minor infractions, allowing city centres to become non-stop parties. When Russia defeated Spain on July 1st cars blocked Moscow streets and started impromptu street discos. Thousands of dancing revellers snaked past the Bolshoi Theatre, where ballerinas had also been watching the match backstage, and up to the doorsteps of Lubyanka, the headquarters of the FSB, the successor to the KGB.

Such permissiveness has made for a more convivial tournament than many expected. "Marches that don't need to be approved a month in advance, open-air celebrations that don't lead to prosecutions, backslapping with police officers—the World Cup in Russia has turned into a festival of freedom," observed Maxim Trudolyubov, a columnist. Foreign visitors have found warm hosts in Russian fans, who have in turn discovered an outside world less hostile than state television would have them believe. Copious amounts of beer and sun helped.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The festival of freedom will almost surely end with a return to the prior rules, rather than a permanent thaw. But the fact that the Russian authorities can tighten and loosen the screws at will is not new. What is more notable is that ordinary Russians have turned their team's fairy-tale run into a grassroots national holiday that has unified people across the political spectrum. Even the opposition leader Alexei Navalny could not contain his glee: "How wonderful this is," he tweeted after the victory over Spain. President Vladimir Putin, whose ratings have been sliding, had stayed away, presumably fearing a loss. The Kremlin would like to own the victory, of course, but it is not property that the state can simply seize. As an editorial in *Vedomosti*, a business daily, drily noted, "Not a single camera captured the chanting turning from 'Rossiya!' or 'Akinfeev!' [the name of the heroic Russian goalkeeper] into 'Putin! Putin!"

Some fear the Kremlin will exploit the sport for political purposes, as it did with the Sochi Olympics in 2014. (After cheating its way to the top of the medal count, Russia annexed Crimea.) But this time the sporting euphoria feels like a sigh of relief, after the constant confrontation of recent years. Witness the American and Russian fans hugging in the Moscow metro and repeating to each other, "There will be change." The chants of "Ros-si-ya", which became synonymous with aggressive Russian nationalism during the annexation of Crimea, sound benignly patriotic. To be sure, happy vibes will not transform Russia's politics, much less its foreign policy; they will not put an end to Mr Putin's aggression abroad, nor free the political prisoners withering in his jails. But hosting a global carnival may make it a little harder for the Kremlin to turn Russia back into a besieged fortress again.

This article appeared in the Europe section of the print edition under the headline "Festival of freedom"

Charlemagne

Europe is moving towards the tough immigration policies of Sebastian Kurz

Austria's chancellor wants an "axis" against illegal migration

Print edition | Europe Jul 5th 2018

IT WAS all smiles this week as Austria assumed the rotating presidency of the Council of the European Union, one of the club's law-making bodies. But behind the scenes Sebastian Kurz, Austria's young chancellor, provokes knotted brows. Mr Kurz's political identity, more than that of most other European leaders, is bound up with illegal immigration. Fans say his tough line, honed as foreign minister during the 2015-16 refugee crisis, blunts the appeal of the far-right Freedom Party (FPÖ), the junior coalition partner to his centre-right People's Party. Foes say his shift towards harshness makes it hard to tell the difference between moderates and extremists. "Kurz is on a dangerous course," said Jean Asselborn, Luxembourg's foreign minister, this week.

In office for barely six months, Mr Kurz has made his share of enemies. Some detect a whiff of demagoguery. There have been mis-steps: a meeting with the Bavarian government, which raised eyebrows in Berlin; Mr Kurz's call for a European "axis of the willing" against illegal immigration. Some salty language has surfaced in Austrian documents on the difficulties of integrating men from regions marked by "patriarchal…or backward-looking religious attitudes". Even central European officials fear the Austrians sometimes go too far. "There's a naked populism there," shudders an EU official who has watched Mr Kurz in action.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That seems unfair. The well-coiffed Mr Kurz may have swallowed large parts of the FPÖ's platform, but he never rails against elites or dabbles in George Soros conspiracy theories. Inside Austria, many see him more as opportunist than grand schemer. "I'm not sure Kurz has a strategy for Europe beyond trying to remain chancellor of Austria," says Laurenz Ennser-Jedenastik of the University of Vienna. Yet all agree on his remarkably well-tuned political antennae. Mr Kurz detected earlier than his counterparts, such as Angela Merkel in Germany, that illegal immigration demanded a firm response from the mainstream right. "It's not a question of left or right," he told Charlemagne this week from his office in Vienna. "It's just a question of rational politics."

So it rather suits Mr Kurz that Austria takes the helm just as Europe's migration headache has come thumping back. At a summit last week the EU's heads of government again agreed to try to overcome their long-running differences over how to share responsibility for asylum-seekers who reach Europe. In its new role the Austrian government must try to broker a deal, but it has no faith that it will find the breakthrough that eluded so many others. Instead Herbert Kickl, the interior minister and an FPÖ member, has urged a "Copernican revolution" in asylum policy. And there is a model. "We have to learn from Australia," says Mr Kurz.

To simplify a bit, following the Australian model means doing two things. First, taking tough action along borders, at sea and "upstream" (inside Africa) to slash the number of asylum-seekers smuggled to Europe. Second, striking deals with poorer countries to establish camps, run with UN agencies, to receive, detain and, eventually, return migrants. Thwarting smuggling, the argument goes, would reduce drownings at sea (over 1,000 have died this year), and reassure voters who might otherwise be tempted by the far right. A bit of theatre helps, too; in June the Austrians sent police and troops to the Slovenian border to stage an exercise in pushing back refugees. Says one Austrian official, "80% of the work has to be calming down others."

The summit gestured in this direction by proposing "disembarkation platforms" for migrants saved at sea. Mr Kurz calls it a "milestone". But among many unanswered questions was whether such migrants would then be able to apply for asylum in the EU. The Austrians insist that they must not. Otherwise the centres would become magnets for fresh migrants from across Africa—irritating the countries that must be persuaded to host them.

Fortress Europe, then? If so, it has a gate. Once order at the borders has been restored and voters reassured, genuine refugees may be selected for resettlement by EU countries via the UN's refugee agency—albeit in far smaller numbers than in 2015-16. "It's much more humanitarian to help those really in need than those who are able to pay for a smuggler," says Mr Kurz. Even the central Europeans, who refuse to accept refugees redistributed inside the EU, might play along if they can choose them from outside.

What voters can bear in Canberra

Control first; then generosity. It is an alluring thought. Europe's model, in which asylum is reserved mainly for people who somehow reach its territory, guarantees smuggling and drowning. Conversely, Australia resettles proportionally more refugees via the UNHCR than almost any other country. It also admits huge numbers of economic migrants. But it should not be a model for Europe. It pays Nauru and Papua New Guinea to house its asylum-seekers in grim "offshore processing" camps. Convincing African countries to do something similar would require cannier diplomacy than the EU can muster, combining trade, migration, visa and development tools. Italy's previous government was getting there with Libya, but at questionable humanitarian cost.

Mr Kurz matters because Europe's divided governments are desperately groping for a solution to their immigration problems that falls short of the full Australia. Yet their domestic politics are pushing them to demand ever tougher action, even as asylum applications and border crossings fall. This leaves the EU flailing around with a mishmash of policies that tread a fine line between politics, international law and operational reality. Each step gradually erodes Europe's territorial principle for asylum.

There is a curious symmetry to this. Mr Kurz brought far-right ideas into the Austrian mainstream to keep the parties that originally peddled them away from the top table. Now his European counterparts are adopting elements of his migration proposals in the hope that they will forestall something much more brutal. They assume that this remains possible. It may not be.

This article appeared in the Europe section of the print edition under the headline "The Austrian way"

Gender and politics

A culture war comes to Westminster

Transgender rights

A culture war comes to Westminster

Both the Conservatives and Labour agree on trans rights. Now they just have to convince the voters

Print edition | Britain | Jul 5th 2018

WITH a wince, Theresa May said she was sorry. Asked about her record on gay rights, the prime minister apologised for refusing to support the repeal in 2003 of a law which banned teaching children "the acceptability of homosexuality as a pretended family relationship". A year earlier she had voted against adoption by gay couples. Yet today, "I want to be seen as an ally of the LGBT community," said the prime minister. "We want a country where people are able to be open about who they are, who they love and how they identify." The Conservative Party, once a generator of anti-LGBT laws, has belatedly wrapped itself in the rainbow flag.

Mrs May was speaking at the launch of a consultation on reforming the Gender Recognition Act, which dictates how people can change their legal gender. Supporters of reform argue that the current system is slow and demeaning. To obtain a Gender Recognition Certificate, a person must have spent two years in their new gender. They need a doctor's diagnosis of gender dysphoria, must submit medical reports, sign a legal undertaking and pay £140 (\$185). Only 4,910 people have bothered since 2004, when the law came into force.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The government wants the process to be "streamlined and de-medicalised". Beyond that, details are thin. But the destination is clear: a looser regime. "Trans women are women; trans men are men," Penny Mordaunt, the minister in charge, told Parliament. Labour supports the plan to liberalise the law, criticising only the government's sluggishness.

Normally, unanimity in the House of Commons is reserved for uncontroversial topics. This time, Labour and the Tories have ended up on the same side of a brewing culture war. The consultation exercise has provoked complaints that women-only spaces, from toilets to domestic-abuse shelters, could become vulnerable to sexual predators if rules are loosened too much. Supporters of reform argue that single-sex spaces are protected by the Equality Act, and that trans people could still be excluded if necessary. The consultation will examine whether changing rules on gender recognition would affect these protections.

The row is bitter. Insults fly online. One offline debate ended in assault. Women wearing fake beards invaded the men's bathing pond at Hampstead Heath, to protest against trans women's use of the ladies' pond. Arguments have erupted over changing rooms, all-women MP shortlists and even the cabin arrangements of the Caledonian Sleeper train.

The viciousness stems partly from a difference between trans rights and other social-justice movements. Most of the opposition to changing the law has not come from the authorities, as in the gay-rights movement. Instead, the main struggle is with women, who argue that their own interests are jeopardised by the reforms.

That the government has waded into such a controversial area has left some MPs perplexed. For most voters, trans rights fall low on the agenda. Data are poor, but by the government's rough estimate 200,000-500,000 trans people live in Britain. "Most people now know a gay person," says Benjamin Cohen, chief executive of Pink News, a website. "But almost no one knows any trans people."

The Tories, however, are keen to atone for their past mistakes on LGBT rights, and to shake off an illiberal reputation. At last year's election the party lost support in metropolitan areas, undoing a decade of patient work by David Cameron to woo socially liberal voters. Enacting gay marriage was one of the main achievements of his six years in office. Some Conservative MPs suggest that improving the lot of trans people would win back lost votes.

Yet it is not clear that the policy will be a vote-winner. A poll by YouGov, commissioned by Pink News, found that only 18% thought that people should be allowed to change their legal gender without a doctor's approval. Among Tory voters the figure was 13%. When Mr Cameron pushed for equal marriage, a clear majority of people in Britain (if not the Conservative Party) supported it. "With gay marriage, politicians responded to public opinion," says one former Downing Street staffer. "Here, it feels the opposite."

Labour is in a similar position. Though the party backs looser rules on gender recognition, 54% of Labour voters believe it should require a doctor's approval. Muslim voters, in particular, most of whom back Labour, may be put off by the party's liberal approach to trans issues, worries one aide. The topic is divisive among the party's rank and file. Len McCluskey, the boss of the powerful Unite union, signed a letter accusing violent trans-rights activists of bringing "our progressive movement into disrepute". In turn, this letter attracted protest from some younger party members, for whom trans rights are totemic.

The wider public may yet change its attitude, as it did on gay rights. Fully 82% say they are "not prejudiced at all" to transgender people, according to NatCen Social Research. Yet only 41% say qualified trans people should definitely be allowed to

work as primary school teachers. Unlike with past social movements, if change is to come it will be from the top down. May will be hoping that the public will alter its view, just as she altered hers.	Mrs
61	

Mystery on Muggleton Road

A new Novichok poisoning in Britain

Two more people are struck down by the Soviet nerve agent

Print edition | Britain Jul 5th 2018

HAZMAT suits are back on the streets of Wiltshire. Only two weeks ago the normally sleepy part of England was celebrating its recovery from the events of March, when a former Russian spy and his daughter were poisoned in Salisbury. About 5,000 locals turned out to greet the Prince of Wales and Duchess of Cornwall, who met business owners grumbling that footfall had plunged after the attack. It was, the council boasted, proof that the city was "getting back to normal". Yet on July 4th the police tape went back up, after two residents of a nearby town fell critically ill from the same poison.

Police initially thought that Dawn Sturgess and her partner, Charlie Rowley, had taken contaminated heroin or crack cocaine. Paramedics took Ms Sturgess to hospital on June 30th after she collapsed at Mr Rowley's flat on Muggleton Road in Amesbury, seven miles from Salisbury. They later returned to fetch Mr Rowley, too, who a friend said had fallen into a "zombie-like state".

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

But four days later, local police declared a "major incident". They cordoned off buildings in Amesbury and a park in Salisbury. Scientists at Porton Down, a nearby government weapons-laboratory, were asked for help. Late that night Neil Basu, Britain's most senior counter-terrorism officer, confirmed the couple had been exposed to Novichok, the nerve agent that was used to poison Sergei Skripal and his daughter Yulia.

Britain accused Russia of poisoning the Skripals with the nerve agent, which the Soviet armed forces developed during the cold war. The Kremlin denies it attacked Mr Skripal, who was a double agent. It is much less clear why anyone would seek to harm Ms Sturgess and Mr Rowley. Mr Basu said there is no evidence they were deliberately targeted.

Another theory is that they came into contact with residue from the assassination attempt on the Skripals. Police have not yet confirmed whether the Novichok was from the same batch as that used in March. But it would not be the first time Russians have been accused of carelessness with lethal substances. The killers of Alexander Litvinenko, who died of polonium poisoning in 2006, left a trail of radiation across London.

Russian media have pointed the finger back at Britain. Channel One, a state television station, claimed that Novichok could be leaking from Porton Down. It also speculated that the government was in cahoots with the press. Apparently, they may be whipping up anti-Russian hysteria so as to overshadow the country's success in hosting the World Cup.

Meanwhile in Wiltshire public-health officials are seeking to reassure everyone that the risk to their health is low. That may be so, but locals must be wondering if still more Novichok is out there.

This article appeared in the Britain section of the print edition under the headline "Mystery on Muggleton Road"

Make golf great again

How women and children might save golf in Scotland

Tapping into a new demographic could be the way to revive the royal and ancient game

Print edition | Britain Jul 5th 2018

WHEN Donald Trump last set foot on one of his Scottish golf courses, in the run-up to his election in 2016, he was greeted by a gaggle of Scots waving Mexican flags in protest at his plans for a border wall. Since then, Mr Trump's love affair with the country of his mother's birth has become if anything even more one-sided. Protests are already being planned ahead of his visit to Britain on July 13th, which may include a golfing trip to the north.

Some Scots may want Mr Trump off the links. But the president is emblematic of a much bigger problem facing the sport. At 72, he embodies the common stereotype of a golfer: old, male and a trifle overweight. This stereotype is not entirely false, and helps explain the game's decline in the land where it was invented.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

A fifth of Scotland's courses closed between 2015 and 2016, even as the number across Europe remained stable. Some 50,000 Scottish members have walked away from their clubs in the past ten years. If the exodus continues, Scottish golf clubs will have no members in 40 years' time. As well as hurting national pride, golf's decline imperils an industry that employs about one in every 125 Scottish workers.

The sport's problem is its failure to evolve in the 500-odd years since the first game was played. Women have not embraced it, and some clubs have failed to welcome them. Only 12% of golfers in Scotland are female, half the proportion across Europe. The club at Muirfield did not allow female members until last year—and it will be years more before a woman makes it through the admission process.

The game has also struggled to attract young players. Around 60% of people who play golf in Scotland are over 55. Jeans and collarless shirts tend to be banned in clubhouses, which doesn't help to bring in the teenagers. One club doesn't allow the consumption of crisps unless they are in a bowl. Many clubs still think that social media means a photocopied newsletter.

Adding to these self-inflicted problems is a new financial one. Scottish Golf, which promotes the sport, suffered a 40% cut in grants from the Scottish government and the National Lottery in 2017, and revenues from sponsors are dwindling. Meanwhile the drop in the number of people playing has forced clubs to raise their membership fees, which now average £480 (\$635) a year. In 2007 a typical member had to play 20 rounds to make membership cheaper than paying for each round individually. In 2017 they had to play more than twice as often to justify their fees.

There is a way out of the bunker. The idea that golf is for upper-class white men "needs to be challenged", says John Fry, the author of a recent report for the R&A, golf's governing body, which highlighted the opportunity for growth in the youth and women's games. Many clubs are trying. At Mortonhall, one of the oldest courses, the "Junior Champions" board is prominently displayed in the clubhouse. In the past two years the club has recruited over 130 youth members, and has a growing waiting list. More junior members means more parents playing. "The future of golf is family golf," notes Bernadette Geifer, the club manager.

"Big problems require big solutions," says Eleanor Cannon, chairwoman of Scottish Golf. Yet golfers are not always keen on change. There was outrage this year when Mr Trump made a modest tweak to tradition at one of his clubs near Aberdeen. His offence? Banning Irn-Bru, which vies with whisky as Scotland's national drink, for fear that its bright orange colour posed too great a risk to the ballroom's carpet.

This article appeared in the Britain section of the print edition under the headline "Make golf great again"

The glum ones

London has excellent universities—but unhappy students

Why are the capital's undergraduates gloomier than those in other big cities?

Print edition | Britain Jul 5th 2018

AT BUSH HOUSE in central London, formerly the home of the BBC's World Service, the finishing touches are being applied to King's College London's swanky new campus, which will open in September. The building's Portland stone exterior and marble interior, capped by a rooftop café with a fabulous view, make it a grand home for KCL, and a possible, partial solution to a problem from which all of London's better universities suffer: students don't much enjoy attending them.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In terms of student satisfaction, London's top universities underperform (see chart). The International Student Barometer, which measures the views of students around the world studying outside their home country, finds that international students in London would be significantly less likely to recommend their university than would those in Britain's other cities.

That is, no doubt, in part the consequence of their location, for big cities tend to be unfriendly and pricey. Yet New York's top universities compare better with their compatriots than London's do with theirs. Indeed, Columbia, one of America's best, also has one of its highest student ratings. So what's the problem in London?

In part, it is the teaching. Imperial is the only one of London's top universities to get a gold award in the government's Teaching Excellence Framework (TEF); the London School of Economics got a bronze, the lowest level of award. The TEF is an odd measure, bundling data on teaching with other measures such as whether an institution's graduates get jobs and what they are paid. But students echo its conclusions, especially in big disciplines like economics.

Saira, an LSE geography and economics graduate, says that the teaching in economics was "a bit hit and miss. Some were brilliant, some didn't engage at all...I don't think some of the economics tutors knew who we were." Alex, a third-year philosophy and economics student at University College London, says: "I have no relationship with my economics tutors. I have four tutorials a term, and I get new tutors every term." Students tend to feel better cared for in smaller disciplines.

Poor teaching may be related to the high ranking of some London universities. It is research excellence that wins an institution a top spot in the three global rankings that matter—*Times Higher Education*, QS and Shanghai—and a focus on research sometimes comes at the expense of teaching. Ed Byrne, principal of KCL, acknowledges that "students haven't been happy with feedback and assessment. They're entitled to feedback, not just to a mark." Things are, he says, improving.

Social factors are at work, too. Creating a feeling of community is particularly hard for KCL, which has five campuses and 160 buildings around the city. "We're increasingly aware of the isolation that's a problem for first-year students," says Mr Byrne. The hope is that Bush House will provide a focus for university life. LSE, too, is spending heavily on its campus: a £350m (\$460m) revamp will open next year.

The high proportion of foreign students may contribute to the problem. At LSE, half of undergraduates and nearly three-quarters of the whole student body are from overseas. Being a foreign student can be tough. Momin Saqib, now president of KCL's student union, could not afford to return home to Pakistan over his first Christmas break, and found himself alone and friendless. Large groups of foreign students may also lead to social fragmentation. "The Asian students stay with the Asian students," says Alex, from south London. "Then there's the rich international crowd that went to British boarding schools."

The universities try to mitigate the effects of big-city living. But "if you've got to spend an hour getting across London to see your counsellor, it's difficult," says Mr Byrne. The student unions also make efforts to help people through difficult times. KCL's persuaded the university to stay open over Christmas; LSE's has run a "De-Stress Week", including a petting zoo. But the demand for help sometimes overwhelms supply. A UCL student says that he and his three housemates all suffered from depression and were told there was a six-month waiting list for counselling.

Yet for most London university students, the positives outweigh the negatives. Most would recommend their institution; most of those interviewed for this article were, on balance, satisfied with their choices. Even Ajay, a third-year maths, statistics and business student who has not enjoyed his time at university, says he does not regret his decision to study in London: "The job prospects outweigh three years of misery."

This article appeared in the Britain section of the print edition under the headline "The glum ones"

After the exodus

A Welsh town shows Britain a new way to welcome refugees

Two-dozen community groups are volunteering to integrate Syrian families

Print edition | Britain Jul 5th 2018

NARBERTH LIKES to look after itself. Natives of the small town on the southwestern fringe of Wales are proud to have two independent butchers but no branch of Tesco, an otherwise ubiquitous supermarket. When their library looked set to close, they stepped in to man it. They took over the swimming pool when it faced being shut. So when their local authority seemed slow to welcome Syrian refugees, they thought little of taking on this task, too. The town's only Muslim family, the Bataks of Damascus (pictured), moved in last July. Locals found them a house, filled the cupboards with food and—to the family's delight—laid out prayer mats and a copy of the Koran.

Refugees arrive in Britain through two routes. Some make their own way and then apply for asylum. The luckier ones fly to Britain as part of official resettlement schemes, which seek to help needy refugees living close to their home countries. In 2015 David Cameron, the then prime minister, pledged to expand the second route to accommodate a total of 20,000 Syrian refugees by 2020.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Councils are usually responsible for helping them adjust to their new lives. But since July 2016, community groups have also been able to house resettled Syrians. They must raise £9,000 (\$11,900), find a house which the refugees can afford to rent for two years and agree to help them for at least a year as they settle. Ministers borrowed the idea from Canada, where neighbourhood groups have rehomed 300,000 refugees since the mid-1970s.

Not every town was as enthusiastic as Narberth. Only 138 refugees have been sponsored so far, by 24 groups. A report in May by the Chief Inspector of Borders and Immigration said that the government had been slow to capitalise on the public's willingness to help Syrians. Exempting sponsored refugees from the government's quota would help, campaigners suggest, since volunteers would know they were helping people who would not otherwise have been able to come to Britain. Bureaucracy is also a sticking point. Groups sometimes have to wait for a year while the Home Office assesses their capability and finds them a family; Narberth's volunteers were asked to tweak their submissions three times. One of them, Jill Simpson, calls the application process a "drawn-out, bureaucratic nightmare".

Yet the scheme is likely to grow. On June 18th the government gave £1m to Reset, a new organisation that will support potential sponsors as they make their applications. And it seems that once one group in an area sponsors a refugee, others learn about the scheme and submit their own applications. There is another group in Pembrokeshire not far from Narberth, and groups in Peckham, Streatham and Herne Hill in south London.

Evidence from Canada suggests that privately-sponsored refugees integrate more quickly into society than their government-supported counterparts. One study found that 50% of sponsored refugees had found a job within a year, compared with 10% of those helped by the state. They are more likely than other refugees to praise the help they receive and less likely to rely on food banks.

It is too early to tell whether Britain's scheme will achieve the same results, but there are some encouraging signs. One sponsored Syrian refugee found a job with the Salvation Army in London. Another, who wants to open a restaurant in Manchester, was given seed capital by his sponsorship group.

One year on, Narberth's volunteers are exhausted, but proud of their successes. Ahmad Batak and his family had not heard of Wales until a few weeks before they flew in. They were initially bemused by the complexity of bus timetables, bin collections and—most of all—by the changeable weather. "In our country, when it's summer, it's summer," says Ziead Alsaouah, Mr Batak's son-in-law.

But the volunteers helped them feel at home. They drove Mr Batak's wife to a church knitting group, where she learned to crochet. They bought pigeons for Mr Batak to keep in his garden, as he used to do in Damascus. And they found voluntary jobs for Mr Batak and his brother and for Mr Alsaouah. When she learned that Mr Alsaouah was a talented woodcarver, one group member let him work in her shed. Locals clubbed together to buy him some tools and have commissioned him to make a house sign and a headboard. Perhaps the best omen of integration, though, is the arrival of his baby daughter, Maria. She was born on St David's Day.

This article appeared in the Britain section of the print edition under the headline "After the exodus"

Captor, caught

Britain's new law against modern slavery secures a rare conviction

Only 6% of modern-slavery offences lead to charges or court summonses

Print edition | Britain Jul 5th 2018

TALES of black magic are not common fare in British courtrooms. But for the past two months, jurors at Birmingham Crown Court have learned the grisly rituals of a juju ceremony. They heard how a British nurse, Josephine Iyamu, forced five women to eat chicken hearts and drink a cocktail of blood and worms. Once the women swore their allegiance, she arranged for them to travel to Europe, at a cost of \leqslant 30,000 (\$35,000) or more. They were forced to work as prostitutes to repay the debt to the woman they knew as "Madam Sandra". The jury found her guilty of slavery offences and perverting the course of justice. On July 4th a judge sentenced her to 14 years in prison.

Yet no part of the crime took place in Britain. The women are from Nigeria and were forced to work in Germany. It was the first time a court had used Britain's Modern Slavery Act, introduced in 2015, to convict someone of an extraterritorial offence.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Most British legislation applies only to crimes committed within the country. But a few laws, such as those against murder and the sexual abuse of children, can be enforced regardless of where they are broken. Parliament added modern slavery to this list to prevent British criminals escaping prosecution in countries with less stringent anti-trafficking laws, and because the crime is often spread across borders.

Britain's campaign against slavery is hardly new. In the 19th century the Royal Navy sent a squadron to the Atlantic to break up the trade, seizing slave ships and freeing their human cargo. Politicians who support the new law proudly invoke this history. But the definition of modern slavery is much broader than its historical equivalent. A Home Office briefing note lists 17 types of abuse, ranging from forced labour to coercing spouses or servants into domestic work. Criminals who force others to commit crimes, such as kingpins who send teenagers to deal drugs, also count towards the tally.

Existing laws banned most of these practices, but the new act introduced stiffer penalties, including lifetime jail sentences. Police recorded more than 5,000 possible victims of modern slavery last year; the Home Office estimates that in 2013 the true figure could have been 10,000-13,000. Theresa May, the prime minister, championed the legislation as home secretary and has called modern slavery "the great human-rights issue of our time".

Yet Ms Iyamu's conviction is the exception, not the rule. Only 6% of the modern-slavery offences recorded by police in the year to March 2017 resulted in charges or court summonses. Officers point out that charges are sometimes brought under different laws, meaning the total proportion will be higher. Even so, a report in 2017 by the police inspectorate raised "serious concerns" about the quality of modern-slavery investigations, and found some officers did not fully understand their new powers.

Even the most committed cops can struggle to build a case. David Lewis of Dorset Police says victims sometimes don't understand that they have been exploited if they are paid more than they would have earned in their home country, making the case hard to prosecute. Ms Iyamu's victims had to overcome their fear of the *juju* oath, as well as learn to trust the police, says Kay Mellor of the National Crime Agency.

The law also requires businesses with a turnover greater than £36m (\$48m) to publish a plan to prevent abuses in their supply chain. But estimates suggest only 30% have done so. A parliamentary committee recently concluded that the government's "hands-off" approach "is not working". Kevin Hyland, the anti-slavery commissioner, says the Home Office should keep a register of all companies required to have plans, and fine those which fail to comply. If Mrs May wants this flagship policy to succeed, she will have to pair her strong words with actions.

This article appeared in the Britain section of the print edition under the headline "Captor, caught"

Wigged out

As temperatures rise, English lawyers' costumes look odder than ever

Robes and horsehair wigs are not ideal for summer

Print edition | Britain Jul 7th 2018

STEPPING into the airy Royal Courts of Justice in central London provides immediate respite from the blazing summer sun. But upstairs, in the stuffy courtrooms lined with old bookshelves, the heat is palpable. Judges and barristers sweat beneath their curly horsehair wigs and black robes. In one room, these are set aside, because the judge has decided to have the hearing "unrobed" on account of the heat.

Reforms in the past decade have done away with barristers' wigs and robes in most civil cases, and even at the Supreme Court. But the antiquated costume is still in use for a hotch-potch of court proceedings, including all criminal cases and appeals. Its drawbacks are evident, even on cooler days. The wigs are itchy, especially for those with thinning hair. And they must be kept close to hand, for occasionally a barrister may face a sudden situation in which a wig and a robe are required, says Joyce Arnold, a barrister at One Essex Court chambers. Proceedings in commercial court, for example, are wig-free, but if an application to send someone to prison for contempt of court is made then wigs and robes must be donned. An urgent application to the Court of Appeal could also require a dash to the office for the ensemble.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In theory, a judge may decline to hear a barrister who flouts the dress code. In reality, that happens rarely, if at all. In 2014 a judge in Wales reprimanded a solicitor advocate who had pinned some badges to his gown and threatened not to hear him if he showed up again "looking like something out of Harry Potter".

Another problem is the cost. Wigs are £560 (\$742) apiece at Ede & Ravenscroft, a big legal outfitter. With the gown (£199) and extras like the wig tin (£270), a full kit costs more than £1,000—a lot for a barrister who is starting out. Some get lucky with hand-me-downs. Less picky barristers store their wigs in biscuit tins.

Despite all this, many barristers do not want the wigs and robes abolished. In 2007 the Bar Council, which regulates the profession, sought opinions on the matter. Two-thirds of the 2,500-odd barristers who replied wanted the outfit to stay. For some, getting fitted out at Ede & Ravenscroft is an eagerly awaited rite of passage. Others believe that the get-up makes it less likely that a vengeful criminal recognises them outside the courtroom. Some barristers feel that the outfit gives them more punch when they cross-examine witnesses. (Wigs and robes were banned in family court for being intimidating for children.)

As temperatures soar, some may be tempted to think again. But as the late Lord Donaldson, a senior judge, once put it: "There is no urgent need to go discarding something which has been out of date for at least a century."

This article appeared in the Britain section of the print edition under the headline "Wigged out"

Bagehot

The special relationship once enriched Britain's politics. No longer

America has become a source of bad ideas, polarisation and parochialism

Print edition | Britain Jul 5th 2018

MOST members of the British political elite are citizens of two countries—their own and the United States. They follow American elections with obsessive zeal. They gorge on fat biographies of Lyndon Johnson and Alexander Hamilton. They scheme to get their children places at Harvard and internships in Congress. The dirty secret of the Brexit debate is that most British politicians are not so much hostile to the European Union as bored by it. America is where their heart lies.

For much of the past 40 years this love affair has served Britain well. It has strengthened the forces of reform and regeneration, enlivened policy discussions and put the kibosh on little Englandism. Thanks in part to its close relationship with America, Britain has been able to revive the position it seized in the 19th century in the slipstream of liberal thought.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The first example of this was Thatcherism. American thinkers such as Milton Friedman and George Stigler provided Margaret Thatcher with the academic firepower she needed to tackle overmighty trade unions, public-sector interest groups and unproductive state companies. Thatcher's close relationship with Ronald Reagan allowed her to play a disproportionate role in the greatest drama of her time—the collapse of Soviet communism—and curbed her parochialism.

The second example was the Third Way. The task facing Britain in the early 1990s was to broaden and deepen Thatcher's reforms. Neither the Conservative Party nor Labour seemed capable of doing this—the Tories because they were riven with internal splits and Labour because they were brain-dead. Bill Clinton's New Democrats provided Tony Blair's New Labour with the intellectual heft to make progressivism exciting again, after the dismal years of fights over nationalising the means of production and scrapping nuclear weapons.

The record since 2000 is more mixed. Mr Blair's decision to support George Bush's invasion of Iraq poisoned politics. David Cameron's friendship with Barack Obama was benign but banal. But Donald Trump's election in 2016 has turned what was once a clear positive into a clear negative. Thanks in part to Mr Trump himself and in part to the multiple dysfunctions that brought him to the White House, America is becoming a source of bad ideas rather than good ones, of polarisation rather than problem-solving and, bizarrely, of parochialism rather than cosmopolitanism.

The Brexit wing of the Tory party is intertwined with Mr Trump's Washington. Last month John Bolton, the president's national-security adviser, met senior members of the European Reform Group of hardline Eurosceptic MPs and suggested that Mr Trump wanted a trade deal with Britain as soon as possible. Downing Street was not told. Liam Fox, the trade secretary, boasts about his contacts with conservative Washington. This year's winner of the Irving Kristol Award, presented by the American Enterprise Institute for "exceptional intellectual and practical contributions to improve government policy, social welfare or political understanding", is none other than Boris Johnson.

Even if you believe that Brexit is a sensible policy, linking Brexit to Mr Trump is foolhardy. The president shows no sign of having the capacity to turn a vague promise into the nuts and bolts of policy. He is trying to undermine the EU just when Britain needs to exercise diplomatic restraint. Brexit is divisive enough without being associated with a president who will provoke mass protests when he arrives in London for a visit on July 13th.

The American left has also become a source of intellectual dysfunction. Mr Clinton's "vital centre" has been destroyed by money-grabbing and complacency. During her run for the presidency Hillary Clinton presented few solutions to the problems created by the downside of her husband's policies. At the same time, the so-called progressive left is taking the Democrats in a dangerous direction. It repeatedly flirts with illiberalism: witness the fashion for no-platforming heterodox speakers in universities, putting "trigger warnings" on books and privileging group rights over individual rights. It pays disproportionate attention to the plight of activist groups while ignoring or vilifying the working class.

The British left has gone further in importing American progressivism than the right has in importing Trumpism. The 2017 Labour Party rulebook, a 91-page document, contains 26 mentions of gender, 41 of BAME (black, Asian and minority ethnic), 43 of ethnic and 11 of race, but only two of class. Bahar Mustafa of the students' union at Goldsmiths, University of London, banned white people and men from attending a diversity event and tweeted such things as "#killallwhitemen". Cambridge University has put trigger warnings on works by Shakespeare.

Beware Friday the 13th

Bad ideas feed on each other. The more the progressive left focuses on the politics of minority groups, the more the Trumpified right will focus on the politics of national identity. They also distract attention from tackling pressing problems, such as poor productivity and pockets of social deprivation (Britain has six of the ten poorest regions in northern Europe). A struggling country can ill afford to waste its energies on American-style culture wars that can achieve nothing more than division and distraction.

There is more to America than the White House, with its bellicose nationalism, and the elite universities, with their tedious orthodoxies. State and city governments continue to focus on real problems. Silicon Valley companies are forging the future. It is time for the British political elite to re-examine its ingrained habits when it comes to the special relationship. Focus on the laboratories of democracy across the country, rather than on the White House and Harvard Yard. And pay more attention to innovations in other parts of the world—in Asia and Australasia, for example, and even, dare we say it, in continental Europe.

This article appeared in the Britain section of the print edition under the headline "A dangerous relationship"

International

Nuclear-inspection regimes

How to disarm North Korea

How to defang a phantom

North Korea presents nuclear disarmament's biggest challenge yet

Precedents, from Iraq to the former Soviet Union, offer only very limited lessons

Print edition | International Jul 5th 2018

SIEGFRIED HECKER, a professor who used to run America's nuclear laboratory at Los Alamos, recalls the most recent of the seven trips he has made to North Korea, in 2010. His hosts were showing off their sprawling Yongbyon atomic-energy complex. With a blend of shyness and defiance, they displayed an astonishing spectacle: a hall with 2,000 brand-new centrifuges, machines that enrich uranium, either for electricity or nuclear bombs.

Apparently assembled in another, unsuspected site, they had appeared in Yongbyon since Mr Hecker's previous trip in 2008. This implied that, besides its existing plutonium-based technology, the country could make nuclear bombs from uranium. He was also shown the beginnings of a light-water reactor that could produce more plutonium. The message: "We have more nuclear capacity than you think, and you'll never know how much..."

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

North Korea's arsenal has since grown. Estimates range from 20 to 60 warheads, and its latest test was apparently of a hydrogen bomb, 100 times bigger than the earliest devices. It has also made strides in developing missiles; one tested last year could have reached America. The whole nuclear and military complex may involve 100 sites besides Yongbyon. The world's knowledge is sketchy. A well-connected American think-tank, the Institute for Science and International Security, recently spelled out a long-mooted suspicion. As well as Yongbyon, it said, there seemed to be an older, undisclosed uranium-enrichment site, which it named as Kangsong.

So diplomats and nuclear scientists take a deep breath as they contemplate the "denuclearisation" of North Korea, an undefined goal reaffirmed at the summit between Kim Jong Un and President Donald Trump on June 12th. In Pyongyang this week Mike Pompeo, America's secretary of state, is trying to put flesh on those flimsy bones. Even if the two sides can agree on a definition of denuclearisation, it will present bigger challenges than any previous exercise in managed disarmament.

Larger arsenals have been dismantled elsewhere, but in kinder political climates. And well-run programmes have monitored pariah states suspected of coveting the deadliest of weapons. But none involved an arsenal or a nuclear-fuel cycle as lethal, big or elusive as North Korea's.

The world has a well-tried set of mechanisms for coping with such situations. They include the Nuclear Non-Proliferation Treaty (NPT) and the Vienna-based nuclear inspectorate, the International Atomic Energy Agency (IAEA). These structures would be tested by any deal with North Korea; but history suggests they can morph in surprising ways if the will exists.

Broadly, the NPT is a deal between five recognised nuclear powers and other signatories. In exchange for abjuring nuclear weapons, these other signatories are promised access to civil nuclear power, if they can show (with the IAEA's help) that it will not leak to military uses. North Korea left the NPT in 2003, after America accused it of pursuing a secret nuclear-arms effort. It cannot rejoin until all its atomic weapons have been dismantled. So one dilemma is whether any rewards should be offered for steps along that road.

The only country to have built nuclear weapons and then renounced them, gaining NPT membership and respectability, is South Africa. But it had just six bombs and its state was transparent compared with North Korea's. Also, it faces no external threats. With apartheid crumbling, its white rulers were eager to renounce illicit weapons. They began dismantling in early 1990 and by September 1991 they were ready to call in the IAEA for tough inspections, which were completed in two years.

An inspector calls

North Korea, by contrast, already has a dismal history with the IAEA. Its inspectors began working there in 1992, to be thrown out the following year and readmitted a year later. Co-operation ceased in 2009, after multilateral negotiations broke down and North Korea started producing plutonium again. The IAEA's director, Yukiya Amano, says his people stand ready to go back to Pyongyang. But they will need far greater access than they ever enjoyed before if their efforts are to be meaningful.

During the years of intrusive inspection which followed the 1991 Gulf war in Iraq, the agency also played a vital role (see article). And under the deal struck in 2015 to curb Iran's nuclear activities, from which America has just pulled out, IAEA inspectors have enjoyed access to the Iranian nuclear cycle of which Korea-watchers only dream. That deal also allows for short-notice inspections; the IAEA says that at least until America's withdrawal, the Iranians were co-operating quite well. But the agreement had noisy critics; some military sites were out of bounds, and it did not touch delivery systems, as any deal with North Korea must.

And there is another snag. The IAEA can trace the flow of nuclear fuel from one facility to another and pinpoint where materials might have been diverted to bomb-making. But once nuclear weapons are made, the Vienna agency bows out. Only the five authorised nuclear states can help dismantle and remove nuclear weapons.

The most ambitious effort of that kind was the destruction and evacuation, after 1991, of parts of the former Soviet nuclear arsenal in Ukraine, Belarus and Kazakhstan. This was an initiative by the world's nuclear giants: America and newly democratic Russia. They agreed that the Soviet arsenal must be slashed and regrouped in Russia. America acquiesced in its monopoly over the Soviet strategic legacy.

Hundreds of long-range missiles and silos were destroyed. The warheads were taken to Russia and neutralised. Uranium was extracted and much of it sold to America. The Soviet system for transporting sensitive materials by rail made this easier. By 1996, the effort was complete; an arsenal of 1,800 warheads was no longer in Ukraine.

Two American senators, Sam Nunn and Richard Lugar, masterminded the legislation which helped neutralise the residual threat from the Soviet weapons of mass destruction (WMD): chemical and biological as well as nuclear. Among their best ideas was an initiative to find benign jobs for re-employed weapon scientists.

Vice-President Mike Pence conferred last month with Mr Nunn and Mr Lugar. The American-Russian amity that underpinned their work has gone. An obvious partner in any effort to neutralise and evacuate North Korea's nuclear bombs and material would be China.

A less auspicious precedent has also been mentioned as a template for North Korea. The dismantling of Libya's ramshackle nuclear programme (along with chemical weapons and efforts to make biological ones) started in December 2003 and was completed in 2004. Libya's leader, Muammar Qaddafi, craved respectability and sanctions relief. American aircraft carried documents and equipment, including parts of centrifuges and missiles, to a laboratory in Tennessee. But Libya was years away from making any complete bombs. John Bolton, America's national-security adviser, caused consternation in Pyongyang when he suggested in April that Libya might be a useful model. He since added that again, components from a lethal arsenal might be flown to Tennessee.

Nuclear scientists say that airlifting Korean bombs could be acutely risky. Disassembling and transporting nuclear warheads could trigger explosions, albeit probably not nuclear ones. As a minimum it will need close co-operation between the scientists who made them and at least one member of the existing nuclear club.

The other reason why talk of Libya horrifies North Korea is the fate of Qaddafi. Overthrown in 2011 with the help of Western air power, he was captured, raped with a bayonet and shot by Western-backed rebels. The pariahs of the world took note. Still, Mr Bolton made clear on July 1st that one aspect, at least, of the Libyan operation was worth copying: its speed. He said Mr Pompeo would be talking to the North Koreans about dismantling all their WMD and ballistic-missile programmes "within a year". Mr Pompeo has mooted a slightly longer timetable: by January 2021.

If "dismantling programmes" means renouncing the capacity for further development, this could indeed be done in a year or two. For example, reactors that produce plutonium could be paralysed; and missile-testing sites destroyed, as Mr Trump (wrongly) claimed was happening already. But verifiably dismantling the existing arsenal and deploying inspectors across all sites would take much longer; Mr Hecker and others have suggested a decade.

Mr Bolton's brisk approach leaves some analysts gasping. "If you knew everything they had, if they were fully committed and if you had unlimited resources, something might be achieved quite rapidly," says Tom Plant of RUSI, a London think-tank. "But all those conditions are hypothetical."

This article appeared in the International section of the print edition under the headline "How to disarm North Korea"

Whack-a-nuke

How Iraq was deprived of its weapons of mass destruction

The world's great powers were united behind the effort to tame Saddam Hussein. Kim Jong Un may be luckier

Print edition | International | Jul 5th 2018

ROLF EKEUS, a Swedish diplomat, once personified the most sustained effort ever undertaken to deprive a country of weapons of mass destruction (WMD). He was the leading figure in a programme to enforce peace terms on Saddam Hussein, Iraq's dictator, in 1991, forcing him to renounce nuclear, biological and chemical weapons and long-range rockets.

His United Nations Special Commission (UNSCOM) had powers to inspect any building, to confiscate documents and to seize and destroy weapons and equipment. Its monitors scored an early success by grabbing documents pertaining to Iraq's nuclear ambitions. And it forced Saddam to admit dabbling with germ warfare and to stop. By 1998, when UNSCOM was stood down, it had exposed Saddam's efforts to develop all manner of deadly weapons and missiles, and largely put a stop to them.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

So Mr Ekeus had a told-you-so feeling when the Americans, after invading Iraq in 2003, found no weapons of mass destruction (WMD). "I would have been surprised if any deadly weapons had been found," he says. But his effort may represent a unique moment in history. The UN Security Council invested him with extraordinary authority because, for different reasons, all five permanent members wanted him to succeed.

At least in the immediate aftermath of the 1991 victory, the American administration wanted Iraq, without WMD but otherwise flourishing, as a responsible power in the Middle East and counterweight to Iran. Russia wanted Iraq to get back on its feet and settle its debts for Soviet arms deliveries. France saw Iraq as a promising arena for oil deals.

The International Atomic Energy Agency laboured to monitor Iraq's nuclear-fuel cycle, but for other possible misbehaviour, including efforts to make poison gas or deadly germs, Mr Ekeus had to recruit his own team of experts. He also had to raise money for UNSCOM, which ran well-staffed offices in Baghdad, Bahrain and New York. He was able to do all that because all the world's main diplomatic powers (and generous sponsors of his work, like the Saudis) had the same goal in mind. Whether the same unanimity exists over North Korea is extremely doubtful.

This article appeared in the International section of the print edition under the headline "Cats, mice and despots"

The World If

If China made the rules

Xi's world order: July 2024

If China made the rules

Xi's world order: July 2024

As America defies and dismantles the international rules-based order, a report from the future imagines what might replace it

Print edition | The World If | Jul 7th 2018

NEWS OUTLETS call him "China's Edward Snowden". His fans worldwide call him "Brother Fu"—a tag now seen on T-shirts and in internet memes. Both labels are said to mortify Fu Xuedong, the shy Canadian-educated software engineer whose allegations about Chinese cyber-spying have been the summer surprise of 2024. Mr Fu has thrown this, the final year of Donald Trump's second term, into turmoil with his allegation that China's intelligence services, working with the country's technology firms, have turned millions of cars in America, Europe and Asia into remote spying devices, letting Beijing track vehicles in real time, identify passengers with facial-recognition and even eavesdrop on them.

China denies the claims, which if confirmed would amount to the largest espionage operation in history. Yet the fury of its response sits uneasily with its talk of Mr Fu as a "fantasist" and "a historic liar". A cyber-security specialist at an innovation laboratory in Shenzhen, he has now been on the run from Chinese agents for five weeks—the past four of which he has spent holed up in the American consulate in Istanbul, as diplomats and politicians wrangle over his fate. So far Mr Fu's saga is one with no winners, but many losers—including some of the world's largest firms and governments that have buckled at the first hint of Chinese anger.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

But the most important loser may be an abstract principle: namely, the idea of an international rules-based order in which predictable, transparent legal principles bind even the mightiest states. The ordeal of Fu Xuedong—an owlish, soft-spoken man who seems stunned by his sudden notoriety—has vividly revealed the extent to which China's commitment to the rule of law is conditional. As one senior diplomat ruefully puts it: "What China wants is really vague rules, and the right to interpret them."

The earliest commercial casualties of Mr Fu's whistleblowing were carmakers in America, Europe and Japan, whose share prices plunged after he posted a YouTube video describing how he stumbled on a secret backdoor seemingly built into millions of advanced, semi-autonomous vehicles. It allows access to the encrypted channels that send data back to carmakers and—in the other direction—carry messages such as traffic alerts, navigation advice and software updates to vehicles. Nearly three-quarters of the high-tech cars on the road today use Chinese-designed 5G mobile chips for these data transfers, after foreign carmakers bowed to Chinese pressure to adopt its technology as part of a deal to allow greater access to the mainland's vast car market.

The cyber-espionage scandal has also hurt the reputations of more than one foreign government. After fleeing to Turkey from China Mr Fu, who was born in Hong Kong and who carries British-issued travel documents that afford some of the protections of full citizenship, initially sought sanctuary at the British consulate, having evaded alleged Chinese agents at Istanbul airport. But after some hours in a waiting room Mr Fu was asked to leave by British diplomats, who cited his dual Canadian and Hong Kong-Chinese nationality and urged him to seek consular help from those countries instead.

The British government denied claims by Senator Marco Rubio of Florida, a Republican with hawkish views on China, that this decision was a "craven surrender" linked to London's ambitions to become a legal and financial hub for Chinese companies. Specifically, Mr Rubio charged that London, having lost ground to New York and Frankfurt in the wake of Brexit, is "desperate" to host a new standards-setting forum and venture-capital hub serving the Global Infrastructure Centre. The GIC is a Beijing-based clearing house for projects linked to what used to be called the Belt and Road Initiative, China's ambitious project to link itself with Europe, Africa and the Middle East with new railways, ports, roads and data cables.

In addition to physical links, president-for-life Xi Jinping has also promoted less tangible bonds, including Chinese standards and norms of governance, through the GIC. Crucially, it decides which schemes are eligible for billions of dollars in Chinese loans and grants, and picks foreign firms as partners using opaque rules devised by Communist Party planners. London hopes to become the GIC's favoured gateway to global capital markets, to the benefit of British-based bankers, lawyers and consultants.

Mr Fu never even made it to the Canadian consulate, whose diplomats informed him by telephone that they needed more time to study an urgent "red notice" issued by Interpol, the global police organisation, at the request of Chinese authorities. The notice, which is not legally binding, asked all 192 Interpol member countries to hold Mr Fu on suspicion of espionage, theft and undermining state security. Canadian opposition politicians have accused the prime minister, Doug Ford, of sacrificing Mr Fu in a bid to secure a controversial agreement opening Canada's Arctic waters to Chinese oil tankers and other shipping, as sea-ice retreats.

After obtaining refuge at the American consulate, Mr Fu initially gave a flurry of media interviews by Skype. But internet access to the consulate was severely restricted the next day. American diplomats say Turkey has erected a version of China's Great Firewall around the consulate under the terms of a previously secret bilateral security pact with China, ostensibly intended to curb Islamist militancy among Uighurs, a Turkic-speaking minority from China's restive far-western region of Xinjiang.

All this has left the United States as Mr Fu's superpower protector. The White House press secretary, Laura Ingraham, has repeatedly urged Turkey to allow the engineer to leave the country unmolested, calling Chinese criminal charges against him "fake news". In Congress, both the House and Senate intelligence committees have issued subpoenas for Mr Fu to give evidence in Washington, DC, as soon as possible. Mr Rubio has offered to collect Mr Fu from Istanbul in person. But sadly for the software engineer, Mr Trump's America is a distracted superpower, which has taken a wrecking-ball to the rules-based order. So its criticism of China's disregard for long-standing rules and norms now rings hollow.

Mr Trump's advisers remain as divided as they were when he first took office. The economic nationalists want him to use his so-called Section 301 powers to punish China for obliging carmakers to install technology that "steals American secrets and jobs through the same backdoor", as Lou Dobbs, Mr Trump's national economic-security adviser, put it. An unusual coalition including the bosses of Ford and General Motors, the European Union and the governments of Japan, Germany, Britain and France, wants Mr Trump to take China to the World Trade Organisation. But America has made a mockery of the WTO by picking trade fights with friends and enemies alike, and by refusing to appoint judges to its appeals body—opening the way for China to set up a rival body of its own.

America's disdain for the rules-based order means its criticism of China now rings hollow

An obscure Chinese arbitration panel, originally created to hear disputes linked to the Belt and Road Initiative, was rebranded in 2022 as the Global Infrastructure Tribunal. With its first cases this embryonic trade court has offered glimpses of how a Chinese-led commercial order might work. Unlike the WTO, it draws no distinction between nations with state-directed and market economies. Its judges take a benign view of subsidies that claim to support national development. And though they talk a good game about intellectual-property protection, they have consistently taken the view that sovereign governments, rather than individual businesses, should have final say in patent disputes.

Attempts by the West to mount a united challenge to such Chinese swagger are hindered by another fight that the Trump administration has picked with its own allies, after the president's withdrawal from the Iran nuclear deal in 2018. When US Treasury officials sought to punish companies and banks that used dollars to buy and sell Iranian goods, notably oil, China created an alternative system for international payments in Chinese yuan, euros and Russian roubles, aimed at the Eurasian countries that form the backbone of the Belt and Road Initiative. The new system, powered by Chinese technology and encryption standards, has weakened both the dollar's dominance in international business and the grip over cross-border banking long enjoyed by the SWIFT consortium, based in Belgium. Russia has used the new system to create banks immune to dollar-based American sanctions, with customers said to include the governments of Iran, Syria, Sudan and North Korea.

As Treasury officials find it harder to impose financial sanctions, American naval commanders are struggling to tighten the noose on China. In theory, China remains at loggerheads with its Asian neighbours over contested rocks in the South China Sea. But Chinese efforts to expand and fortify those reefs have been matched by diplomatic victories. It has pressed neighbours to declare much of the South China Sea off-limits to military exercises involving outside powers, using an innocent-sounding "code of conduct" between countries that border those contested waters. Some, like Singapore, have resisted calls to make the code binding. Others, like the Philippines and Vietnam, are being offered a share of oil- and gasfields controlled by China, and are wavering. For its Asian neighbours the political and economic costs of defying China, and of helping America police the high seas, are rising.

All in all, it would be unsurprising if Mr Fu felt a bit friendless just now. He has told interviewers that he decided to risk his career, and even his freedom, after concluding that autonomous vehicles were being turned into a global surveillance network by Chinese spies. Few others in this saga display so clear a sense of right and wrong. China's vision for a new world order has emerged sooner than expected because the West, led by Mr Trump's America, has beaten so hasty a retreat. Rarely mounting direct challenges, China has instead tested, probed and introduced ambiguities into every aspect of global governance. Established powers have not so much acquiesced as proved too weary to resist. Mr Fu mis-timed his display of principle, defending a rules-based order that is being abandoned by its original designers, America first.

If every child went to school

Universal lessons

Their lives would be better, even if they did not learn very much

Print edition | The World If Jul 7th 2018

AS YOU WALK from classroom to classroom at Tibba Khara school on the outskirts of Lahore, Pakistan's second-biggest city, the children seem to disappear. Pandemonium prevails in the first classroom, packed with five- and six-year-olds in their first year of school. But pass through the next few rooms, with progressively older classes, and both the number of pupils and the volume level steadily diminish. By the time you reach the class of ten- and 11-year-olds, there are just a handful of pupils left, silently studying.

This pattern of school attendance, steadily declining with age, is not unique to Pakistan. The global share of children who do not attend primary school has fallen from 28% in 1970 to 9% in 2016. But progress is stalling, and is less impressive than it appears. The share of children not attending school has fallen by less than one percentage point since 2007. Some 63m children of the relevant age do not go to primary school; another 200m do not attend secondary school. And although roughly the same proportion of children start school in rich and poor countries, most in poor countries do not finish. Fully 96% of children in the OECD club of mostly rich countries attend secondary school through to the age of 16; in poor countries the share is just 35%.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The highest dropout rates are in sub-Saharan Africa, north Africa and the Middle East. Girls from poor rural families fare especially badly. Fewer than one in 20 such girls in sub-Saharan Africa can be expected to finish secondary school. Worldwide, girls remain twice as likely never to start school in the first place.

In principle the world is committed to making sure every child attends school until the age of 16. In 2015 the members of the UN pledged that by 2030 "all girls and boys [will] complete free, equitable and quality primary and secondary education." In 2016 a commission of the great and good (plus Shakira, a pop star) recommended increasing annual spending on education in developing countries from \$1.2trn in 2016 to \$3trn in 2030, in part to ensure every child completes school. What if that were to happen?

Perhaps naturally, educationists assume that it would lead to millions more children cramming their brains with knowledge. But evidence from schools in poor countries suggests otherwise. Many children learn precious little in their classes. If you want to find an uneducated child in today's world, argues Lant Pritchett, an economist at Harvard University, "you can find them in school".

The extent of the failure is immense. According to a survey of three east African countries (Kenya, Tanzania and Uganda) published in 2014, three-quarters of pupils in the third year of primary school could not read a sentence such as: "The name of the dog is Puppy." In rural India almost the same share could not subtract 17 from 46, or perform similar calculations with two-digit numbers. Research by the Centre for Global Development (CGD), a think-tank, suggests that in half of the developing countries for which they have data, less than 50% of women who left school after the age of 11 can read a sentence. UNESCO, the United Nations body responsible for education and science, estimates that six out of ten children worldwide (a total of more than 600m) do not meet a minimum standard of proficiency in reading and maths. The vast majority of these children are in school.

If the children not in school began attending, it is therefore unlikely that they would learn much either. To understand why, consider what happens—or does not happen—in classrooms. According to data from the World Bank, rates of teacher absenteeism in developing countries range from 11% to 30%. (In Uganda the rate is 60%.) And teachers who do show up often cannot teach. In South Africa, for example, nearly 80% of primary-school maths teachers have knowledge of the subject below that expected of a sixth-grade pupil. Those who can teach frequently focus their attention on smarter pupils, ensuring that laggards fall further behind. A study published in 2016 found that the knowledge of sixth-grade pupils in a poor part of Delhi is $2\frac{1}{2}$ grades below what the maths syllabus expects of them. That gap grows to $4\frac{1}{2}$ grades by for ninth-grade pupils.

Poverty makes educating children much harder. Children who turn up tired and hungry struggle to pay attention. Teachers who do not have books, equipment or electricity cannot concentrate on teaching arithmetic and language. But the problems in the classroom are political, not financial, in origin. Teachers are often appointed on the basis of patronage, not merit. Powerful teachers' unions protect woeful educators when they should be sacked. Politicians prefer cutting ribbons outside new schools to improving what happens inside them.

Spending more money on current education systems would probably do little to improve what happens in the classroom. A review of 30 randomised-controlled trials, published in 2013 in the journal *Science* by Michael Kremer, Conner Brannen and Rachel Glennerster, found that "more-of-the-same" policies would have little or no effect on the quality of learning. These included interventions such as adding more teachers to reduce class sizes, or paying for more textbooks. By contrast, changes that did not cost very much but are hard to implement, such as changing pedagogical approaches or introducing short-term contracts for teachers, were associated with higher test scores for pupils.

It sounds like a counsel of despair. If every child went to school, millions more would sit in woeful, boring classrooms. But while this sounds awful, it would probably still be good for them, their families and broader society. For, as Justin Sandefur of CGD points out, there is plenty of evidence that even when children do not learn much at school, they still do better for having gone.

Some benefits are economic. Attending school for longer is associated with earning more in later life, in part because those with additional schooling are more likely to get non-agricultural jobs and move to cities. This may indicate that young people are in fact learning something useful at school that is not being picked up by researchers. But it could also be a signalling effect: a shopkeeper may prefer workers who stayed at school for at least five years.

Attending school, even a bad one, also brings benefits related to health and fertility. Girls who attend school are likely to delay getting married and having children, even in countries where education is terrible. In Nigeria, where just 8% of women who leave school after the age of 11 can read a sentence, one study suggests that an extra year of schooling is associated with women having 0.26 fewer births. Similar results have been found in Indonesia, Ethiopia, Uganda and Kenya, among other countries. Children born to these women are also less likely to be malnourished and die early.

There are several potential reasons for this. One is simply that if girls are at school they are not having sex at home. Another possibility is that schooling raises the opportunity cost of getting pregnant, by giving girls more to lose. In many countries pregnancy is grounds for expulsion, which means girls can no longer learn, or at least gain the labour-market advantage of having a few years' extra education. Attending school can also improve a girl's self-image. Simply wearing school uniform can increase girls' self-esteem and their sense of not yet being adults. This may, in turn, give them the confidence to defer sex and marriage. And even if girls do not learn much from teachers, they may learn useful things from their peers—about contraception and child-rearing, for example.

Parents will send their children to school if they feel it will give them a better shot at life. They will keep them at home if they believe their children can make more money for the household working the fields or the marketplace, or if they worry for their children's safety in the classroom. So efforts to reform schools and improve teaching would result in more children enrolling in (and completing) school. But even without such reforms, the implication from the research is clear: if every child went to school, no matter how terrible, they would benefit. Even a bad school, it turns out, is better than no school at all.

Breaking point: December 2020

If Europe's divides deepened

Breaking point: December 2020

After the euro crisis and Brexit, Poland and Italy could open up new fissures within the EU. A report from 2020 imagines how

Print edition | The World If | Jul 5th 2018

IT HAD SEEMED a small thing at the time. A court ruling in Ireland in March 2018 attracted little attention in a period when an uptick in growth meant the European Union was, for once, basking in an unexpected glow of optimism. The ruling halted an extradition request from Poland that one of its nationals, Artur Celmer, should be handed over to face drugs charges. The judge, Aileen Donnelly, opined that "what appears to be the deliberate, calculated and provocative legislative dismantling" of the independence of the judiciary had "systematically damaged" the rule of law in Poland. She took the fateful step of asking the EU's supreme judicial body, the European Court of Justice, to rule on the matter. And in late 2018 it issued its final decision. By agreeing with the Irish court, and declaring the Polish court system to be in effect illegitimate, the ECJ exacerbated the EU's widening east-west divide.

For years, the liberal democracies of western Europe had been worried about the drift towards authoritarianism in the EU's new members in the east; first in Hungary, and then in Poland. After the Polish Law and Justice party (PiS) returned to power with an absolute majority in 2015, it began altering the make-up of the constitutional court and increasing the government's powers to sack and appoint lower-court judges. In December 2017 the European Commission had triggered Article 7 proceedings against Poland for its "serious and persistent breach" of the EU's "values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights". Critics wondered why the commission had not acted earlier in the case of Hungary. But whatever the merits of that forbearance, Brussels seemed determined, in the age of Trump and Brexit, to be more vigilant.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The ECJ's decision in November 2018 put on hold all extradition to Poland from elsewhere in the EU, and triggered multiple requests for ECJ reviews of commercial disputes. Buttressed by the ruling, European leaders decided they had no choice but to turn up the pressure on Poland. The nuclear option—suspending its voting rights in EU decision-making—was off the table, because it would have required unanimity among all EU members except Poland itself, and Hungary indicated that it would veto any such move. Instead, in the spring of 2019, attention shifted to an area where the western Europeans had more leverage: money. With the EU budget due to run out at the end of 2020, a new "multiannual financial framework" had to be agreed well before then, and approved by the European Parliament. EU governments, supported by the commission, made clear their willingness to use the budget process to discipline Poland and others.

In May 2019 things got tougher. After the unexpectedly strong showing of Emmanuel Macron's new left-of-centre alliance, Europe En Marche, in elections held across the continent that month, the European Parliament shifted decisively to the left. Mr Macron's star power, and Angela Merkel's waning influence as the guiding light of the right-of-centre European People's Party, led to a new insistence that liberal principles be upheld.

So the decision was taken to attach stringent new "rule of law" conditions to the EU's funding programmes for poorer regions. Naturally, Poland and Hungary—along with the Czech Republic, Slovakia, Romania and Bulgaria, which were also sometimes accused of having less than perfect governance—objected strongly to this move. But they found themselves in a weak bargaining position. For one thing, it was difficult for them to argue that the "rule of law" conditions meant they were in danger of losing out, because that would be tantamount to admitting that they were indeed violating eu norms. Moreover, they were, to use a diplomatic term, the *demandeurs*. As large net recipients of EU largesse (in some years Hungary, for instance, receives EU funds equivalent to 6% of its GDP), the thing they feared most was that no budget would be passed at all, and the money would stop flowing.

The EU's attempt to put pressure on Poland in this way now looks like a mistake. After Poland's election in November 2019, PiS found itself on the back foot, almost losing its majority to the revived liberals. The party responded by beating the nationalist drum louder, with a series of actions that seemed calculated to upset Brussels: passing a new law banning foreign donations to NGOs, closing down a number of pro-opposition websites and newspapers on the grounds that they violated Polish national security, and firing a handful of members of the constitutional court. Acting by qualified-majority vote, as the new regulations permitted, the EU's Council of Ministers duly suspended development-fund money to Poland in October 2020.

In response, the government has now gone for broke, threatening to pull Poland out of the EU altogether by means of a referendum. The continued insistence that Poland and other eastern European countries should accept Muslim refugees from Greece and Italy did not help. A new wave of refugees from Syria, after Turkey rescinded its migrant-halting deal with the EU in June 2019, made matters much worse, as new arrivals hit record levels. Polish nationalists, who had long resented the interference of Brussels, were also emboldened by Britain's conclusion of a deal that allows it, for all practical purposes, to remain in a customs union with the EU, thus avoiding the worst economic consequences of Brexit; and by Britain's liberal visa regime with the EU, which makes it easy for border-crossing workers to get temporary work permits.

Poland had, as recently as 2018, been one of the most pro-EU countries in the EU. But now, at the end of 2020, polls show support for Polexit running at only 5% behind the Polish remainers in next month's referendum. If the commission continues with its plan to take Poland and Hungary to court for failing to accept their share of refugees, the balance could easily tip towards a Polish exit.

While relations with Poland worsen, the EU is contending with a second slow-motion car-crash, in Italy. After taking power in June 2018, the populist coalition, combining the Northern League and the radical Five Star Movement (M5S), started its own battle with the EU, also on the subject of migration. Italy had received over 500,000 migrants in the surge of 2015-16, and was furious that the rest of the EU had done so little to help. It demanded more burden-sharing, threatening, if it did not get it, that it would send its migrants north, and that it would defy the EU by busting its budget rules. But eastern European objections, coupled with Mrs Merkel's weakness, meant little happened. The countries to Italy's north simply sealed their borders to migrants, and the mood in Italy got uglier. Matteo Salvini, the League's leader, became prime minister in early 2019 after forcing an early election, which returned the coalition to power with his party as senior partner.

Initially, the coalition government had been fiscally responsible. Its manifesto had called for guaranteeing every Italian a basic minimum income (pushing government spending back up again just as it had started to come under control), and for cutting taxes in accordance with the flat-tax programme pushed by the League. But the coalition recognised that it could not do these things without sparking panic in the markets. So it moved slowly to begin with: the budget that was eventually passed at the end of 2018 was only modestly different from the 2017 one.

Double trouble

During 2019, however, with nothing to show on the migrant issue, and nothing much on the economy, the coalition's supporters grew restless. What was the point of throwing out the old government if the new one simply copied its policies? Both parties saw their poll numbers slide. Silvio Berlusconi, the Lazarus of Italian politics, returned to parliament in September 2019, after a ban relating to his conviction in a tax-fraud case expired. His Forza Italia party started chiselling away at the League's vote, while the Democrats began picking up support from the floundering M5S.

Accordingly, the budget passed in late 2019 included deep tax cuts and more generous benefits, pushing the predicted budget deficit for 2020 up to about 5% of GDP, well above the 3% limit required under EU rules. The European Commission declared Italy to be the subject of its "excessive deficit" procedure, a process that can lead to large fines unless governments promise to mend their ways—something the League and M5S refused to do.

During 2020 Italian bond yields have been edging higher; the spread above German bonds is now 4.5 percentage points. So far nobody is predicting a return to the full-blown euro crisis of 2010-11; but higher interest rates and the Polish referendum have prompted renewed calls from members of both the League and M5S for Italy to abandon the euro. This is still not government policy, though Mr Salvini has come close to calling for it. But that could easily change as Italy's relations with Europe deteriorate.

Britain's departure from the EU showed that leaving the club is possible, if painful. A Polish exit, unlikely though it still seems, would deal another heavy blow to the European project. But there is no formal mechanism for Italy to leave the euro. With no way out, Italy's remaining within the EU could do even more damage.

Generation XX: January 2069

If 50% of CEOs were women

Generation XX: January 2069

How the business world finally reached a milestone—and what had to change along the way

Print edition | The World If | Jul 7th 2018

AS THE GLOBAL elite gathered this week for the World Economic Forum's annual meeting in Davos, the exclusive Alpine mountain-biking resort, the picture was familiar. Rotorpods with blacked-out windows dropped off captains of industry, there to discuss the plight of the world, as they have since the 1970s. But this year there was no mistaking the passing of an important milestone, with noticeably more high heels, pumps and sandals stepping out onto the landing zone. In 2069, almost a century after Katharine Graham became the first chief executive of a listed American company, half of global CEOs are now women.

The ball had started rolling in 2018. Back then, just 7% of government leaders, 15% of board members and around 3% of chief executives were female. Of America's *Fortune* 500 companies, 23 were led by women; in Britain, the leaders of the FTSE 100 included more Davids (8) than women (7). The World Economic Forum had calculated in 2017 that, given how slowly things were changing, it would take 217 years to close the gender gap—even though women in the rich world were by then as educated as men (in several places more so) and made up 47% of the global workforce.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Initial attempts to fix the gender leadership gap had focused on the use of quotas to improve board diversity, but the trickle-down effect was disappointingly limited. In late 2018, however, several different forces converged. Public anger over sexual harassment was reignited by #MeTooRound2, which highlighted the scale of harassment and discrimination faced by women in low-wage jobs. In the public's mind such abuse was intertwined with subtler forms of unequal treatment of women. As companies were pressed to publish detailed pay figures, it became apparent that women were structurally under-represented in senior ranks across every industry. Everything pointed to the same problem, which came to dominate headlines: unequal access to power.

In retrospect, the most important change in 2018 was that men got involved. For back then they didn't just run 95% of companies, but also made 80% of business decisions and controlled the vast majority of capital. At first, the "50/50" commitment made at the 2019 Davos meeting—that within 50 years 50% of CEOs would be female—seemed little more than lip-service to a temporary flurry in public opinion. It even seemed to make things worse.

Knee-jerk responses by nervous HR departments didn't help. Men were sent on awkward gender-awareness courses. Drinks with colleagues became a thing of the past. Several firms installed "stop-light systems" for consent ahead of any physical contact, making handshakes tricky. Rather than making workplaces safer and more inclusive, the 50/50 commitment fed further segregation as senior men declined to mentor or sponsor junior women. In a few particularly incompetent firms, poorly enforced targets fuelled resentment among men overtaken by less-qualified women. Several men won high-profile sex-discrimination lawsuits.

The backlash spread. Violence against women spiked; groups of angry men around the world organised "male marches" and gathered online, grumbling that their rights were being trampled, their jobs stolen and their dinners no longer prepared. Malerights groups allied with nationalist, anti-migrant political parties, boosting them in the polls. Several countries introduced regressive policies, restricting access to contraception and abortion.

By 2021 things had improved. One milestone was the successful class-action suit against Blokes&Partners, a prominent law-firm, by a group of mid-ranking female employees on the grounds of discrimination in promotion. (Part of the evidence was that the firm hired equally but over-promoted men.) Public outrage helped propel women towards the C-suite. Empowered consumers began to boycott sexist companies, armed with gender scores which included everything from sexual-misconduct complaints to staff attrition rates to the availability of breast-pumping rooms. Shareholders began to dump low-scoring companies, associating them with underperformance. Institutional investors pressed boards to shake up corporate culture. Top business-school talent flocked to employers that were ahead of the curve.

Governments stepped up too. Quality child care and early-years education became free at the point of use in many countries, as did social care. Several countries introduced "use it or lose it" paternity leave, after it was shown to be closely linked with gender equality and child development, and some (including Germany) cut back on overly generous maternity leave. Parents still took leave to look after newborns, but as they did so in equal measure this no longer penalised women. Schools were pushed to ensure girls left with equal maths skills to boys—and, crucially, equal confidence in them. This boosted female enrolment in STEM subjects (science, technology, engineering and maths) at universities, which in turn helped fill the CEO pipeline (because many bosses have a STEM background).

To begin with, business leaders committed themselves to gender equality because it was good publicity—and to avoid getting sued. But before long the "war for talent" became the bigger impetus. The Davos 50/50 target was never truly about CEOs. Rather, it was about fixing the leaking pipeline to the top. Gender targets became the norm within firms. Smart ones focused on specific targets for "hot" jobs—client-facing roles, or those with direct profit and loss (P&L) responsibilities—which had been

launchpads for 90% of new CEOs in 2017. Increased competition for these roles led to more men ending up on non-leadership tracks, on the radical basis that not all men are leadership material.

Aided by the technological and cultural breakthroughs that made remote and flexible working the norm, women became as likely to remain in full-time work as men. Yet by the late 2030s firms realised that women were still not reaching the top ranks as often as men. For some this proved what they had long suspected: that women did not have the same capability or desire to lead as men did. But others turned to the last and possibly toughest hurdle: structural, unconscious biases that favoured men as leaders.

In the early 21st century several studies had shown that the bar for women to lead was higher than for men—a finding that helped explain why women-led companies on average outperformed the market. Korn Ferry, a recruitment firm, found in 2017 that when finally landing their first CEO job, women in America were on average four years older and had previously changed jobs more often than men. This chimed with findings by Catalyst, another recruitment firm, that women were promoted on past performance and men on future potential. And in the early 2000s the infamous Heidi-Howard study had shown that mba students preferred a male candidate (Howard) over a female (Heidi) with an identical back story and CV: both were rated as competent, but Howard was considered more likeable and thus hireable, and Heidi as more selfish.

With other barriers lifted, firms began to experiment with levelling the playing field in how employees were appraised, promoted and—crucially—identified as "leadership material". They did away with "gut feeling" decisions and instead promoted on the basis of quantifiable experience and skills. Inspired by the success of gender-blind music auditions, decisions were made gender-blind wherever possible. Sexless computers were the perfect arbiters, with algorithms increasingly replacing human decision-making, ironing out biases. The effect on female representation in senior and "hot" jobs was dramatic—and more women were appointed to the top job, too. And now, 50 years after the Davos 50/50 commitment in 2019, women finally make up half of all global CEOs.

The knock-on effects of reaching CEO gender parity are only beginning to be understood, but a few stick out. First, companies with female bosses on average outperform those with male ones. This is the result not of differences in leadership style, but of the improvements in diversity that got women to the top. For decades it has been clear that firms with mixed leadership teams are more agile, creative and successful than those with more homogenous leadership. This links to the second knock-on effect: executive teams have become more diverse in a broader sense, as narrow (white-male) leadership stereotypes have been challenged. The wider economic impact has been substantial. Firm have made better use of the diverse talent available, boosting productivity and profitability.

Feminists' claims, back in 2008, that the financial crisis could have been averted had Lehman Brothers been Lehman Sisters instead, were undermined in the crash of 2048. It was triggered by the collapse of Wealth4us, an entirely female-led bank. The fiasco illustrated two things: that homogeneity and groupthink are corporate risks, and that true parity has been reached, with female CEOs now as likely to be flawed as male ones. That is not to say that there are no differences in leadership style between the sexes. In 2018 there were too few female CEOs for large-scale study. But today academics are testing several hypotheses: are female bosses more conservative, focused on long-term growth and likely to promote agile working? Do they increase diversity and take corporate responsibility more seriously than men? And are they less likely to make takeover bids or take on high levels of debt?

Interestingly, the mere presence of a female CEO has not automatically made workplaces better for women. Not all women do good for other women, and some of the best champions for female leaders have been men. Yet the share of female CEOs has become a bellwether of wider equality. It is the consequence, rather than the cause, of true equality in opportunity and access to power.

Run, TaskRabbit, run: July 2030

If companies had no employees

Run, TaskRabbit, run: July 2030

Driven by technological and legal changes, how far can the "gig economy" go?

Print edition | The World If Jul 7th 2018

THE EMAIL that landed in Eva Smith's mailbox at 7pm on Friday October 13th 2028 had the ominous subject line "Changes". Ms Smith, a director at a private-equity firm in New York, opened it with trepidation. "Dear team," it began, "You have probably heard rumours that we are shaking up the way we work at Innovation Investment Management. We will be transitioning to a new model."

All jobs below C-suite level are to be reclassified. All those impacted will no longer be employees of IIM. Instead you will work for IIM on a contract basis. This change sounds scarier than it really is. It holds great benefits both for you and for IIM. The company will be able to respond more nimbly to a rapidly changing marketplace. We hope that you will continue to perform services for IIM on a contract basis, but you will also have the opportunity to work and earn elsewhere. If you have any questions, please ask Irma, our human-resources chatbot.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

To begin with, Ms Smith did not notice much difference in her relationship with IIM. She was already working on a deal, and while doing so she moved seamlessly from her full-time, permanent position to a fixed-term contract. (Her hourly rate went up by 20%, but she became responsible for her own pension and health insurance.) Ms Smith had hoped to be involved in the next deal. But she then learned that someone with a PhD in engineering from Harvard had got the contract for that gig, not her. "It's not personal; they have the perfect skill-set for this deal," said IIM's boss.

Ms Smith's experience is increasingly typical. During the 2020s companies across the rich world began to rely more heavily than ever on outsourced, temporary workers assigned via digital platforms. TimeToCare, a platform known as the "Uber for social care", organises 90% of the in-home elderly-care visits in America. Workers from autonomoustaxi mechanics to retail assistants to flight attendants have jobs assigned on a daily or weekly basis through online exchanges that match firms with contractors.

McDonald's, a fast-food company, has taken things the furthest, outsourcing 100% of its restaurant jobs. Servers, cooks and cleaners at McDonald's are no longer employees of the firm or its franchisees, but bid for positions at the till on an hourly basis through TaskRabbit, an online labour platform. "The First *Fortune* 500 Company With No Employees," trumpeted *Fortune*, a business-news service, in its profile of the firm published in 2029.

It is all a stark contrast to the way work was organised in the second half of the 20th century. Back then, businesses were fairly self-contained operations. Most functions were completed in-house by permanent, full-time employees. Many people worked for only one or two companies during their careers. That arrangement had a business logic. As Ronald Coase, an economist, argued in the 1930s, it was usually cheaper for firms to have someone there at all times, and to direct them by fiat, than to negotiate and enforce separate contracts in the open market for every task.

America's disdain for the rules-based order means its criticism of China now rings hollow

In the 1980s, however, the Coasean model began to be challenged by a new way of working. As shareholders encouraged companies to focus on their core competencies, firms outsourced certain roles—cleaning, accountancy, branding—to specialist providers. During the 1990s outsourcing fever swept through the business world. Charles Handy, a management guru, spoke of the "shamrock organisation", which he defined as a "core of essential executives and workers supported by outside contractors and part-time help."

For years, however, the shamrocks struggled to flower. Outsourcing ran up against technological limitations. Firms could not know for sure that they would be able to find the right sort of labour in the open market as quickly as it was needed. Companies were thereby forced to hold on to many employees who were not really central to their business. That arrangement suited many workers, who preferred the stability of permanent employment to the alternative of flitting between short-term contracts, which they would also find difficult to organise.

But that all changed around 2010, with the rise of gig-economy platforms such as TaskRabbit, PeoplePerHour and Expert360, capable of quickly and seamlessly matching workers with employers. Ratings given by previous clients provided a way to assess quality. This enabled further chunks of firms' activities to be outsourced. The gig economy started small, but within a decade it was growing rapidly; its poster-child was Uber, a ride-hailing service. In 2018 roughly 1% of workers were listed on at least one labour platform; by 2028 that figure had risen to 30%. More and more companies are starting to look like IIM.

Two factors explain the boom in gigging. The first is changes to the law. For years the gig economy struggled against repeated legal challenges. In many cases, courts found, gig-economy workers were being classified as self-employed when they were really employees. (This meant workers were being denied things like minimum-wage protection and sick pay.) In 2020 FindMeChef, a platform linking cooks with restaurants, lost a ruling before an employment tribunal in Seattle, brought by a worker who had worked on a "temporary" basis for a client for an entire year. FindMeChef had to

pay millions of dollars in back-pay and other benefits to its chefs. And Uber lost case after case in employment tribunals around the world, which forced it to stop classifying its workers as independent contractors in some countries.

Amid such setbacks, gig-economy companies argued that governments ought to be on their side. They pointed out that gig work could be an important route into the labour market for the unemployed, and should therefore be encouraged, not regulated out of existence. In America the platforms lobbied furiously for the creation of a new category of employment, somewhere between self-employment and employment. Known as "dependent contractor" status, the third category would give workers the flexibility of self-employment but with entitlement to some workers' rights, such as sick pay.

President Donald Trump heeded the call. In 2020 he introduced a package of labour-market reforms which provided for the introduction of "dependent contractor" employment status. The package was backed by Republicans as a way to free companies from red tape, and by some Democrats as a way guarantee some basic rights to gig-economy workers. On the day the reform was announced, the share prices of the big online-labour platforms jumped. Other countries soon followed suit. High-unemployment countries in Europe saw deregulation as a way to boost jobs. Others hoped it would attract foreign investment.

The second big driver behind the gig-economy boom has been technology. Progress in artificial intelligence (AI) has made finding the right worker for a discrete task quicker and easier than ever, because modern AI systems can look past crude ratings systems and use a range of signals to determine whether a candidate is a good fit. Since 2026 LinkedIn, a professional-networking service, has offered a guarantee that it can find a suitable worker for any task within six hours—and, thanks to a deal with Uber, can ensure that they are on-site within one working day.

All this has given outsourcing a new lease of life. The latest wave of functions being contracted out includes administrative work, marketing and training. And some firms, like IIM, are going even further, shedding employees who perform core operations and rehiring them as short-term contractors to do specific tasks. True, outsourcing has not always gone well. In December 2028 an attempt by a group of American hospitals to use on-demand doctors led to a shortage of staff over Christmas, when many decided not to work even though "surge pricing" had bumped up their hourly rate. Some companies report that morale among contracted workers is low, because they do not feel part of a team. Others worry that some of the "tacit knowledge" that employees gain through working at a business full-time—the culture of a firm, say, or how to approach a particular boss—is lost.

But companies that embraced the shift away from having employees have reaped big gains. They no longer need to pay people to be in the office when demand is slack. They can find the worker with the perfect skills for a task, not just someone willing to have a go. Because individual workers' output is finely measured, and their proficiency at completing a task becomes part of their online profiles, no one can be lazy and get away with it. Productivity growth, which had stagnated in the rich world after the financial crisis of 2008-09, has accelerated since the mid-2020s.

Many workers have also benefited. For those with sought-after skills, it can be far more lucrative to flit from contract to contract than to work for a single firm. After a bumpy start, Ms Smith now earns more than she did as an employee. She checks Expert360 and LinkedIn three times a day, playing off rival bidders for her labour against each other. Alongside on-and-off work for IIM, she consults for other investment firms, writes articles and offers lifestyle coaching.

Workers without such valuable skills, however, are not doing nearly as well. The biggest problem stemmed from the 2020 labour reform. Dependent contractors working through online platforms, unlike employees, are not entitled to a minimum wage. It is difficult for trade unions to organise workers who are highly dispersed. Automation is also reducing the overall demand for low-skill labour. Having a pool of workers always available makes the gig economy operate efficiently, but limits workers' bargaining power.

In real terms, wages at the bottom of the income distribution have now stagnated for two decades. Such workers cannot afford to contribute to pension pots; health-care coverage has also fallen. Concern over the potential long-term hit to the public finances has led to calls for more regulation of the gig economy. In America, the Democrats want to undo the 2020 reform and extend minimum-wage legislation to more people. But the gig economy has a powerful logic. In 1937, Coase famously asked "why do firms exist"? Nearly a century later, as technology makes it ever easier for them to disassemble their enterprises, more and more managers are asking the same question.

If people were paid for their data

Data workers of the world, unite

Advocates of "data as labour" think users should be paid for using online services

Print edition | The World If Jul 7th 2018

"DATA SLAVERY." Jennifer Lyn Morone, an American artist, thinks this is the state in which most people now live. To get free online services, she laments, they hand over intimate information to technology firms. "Personal data are much more valuable than you think," she says. To highlight this sorry state of affairs, Ms Morone has resorted to what she calls "extreme capitalism": she registered herself as a company in Delaware in an effort to exploit her personal data for financial gain. She created dossiers containing different subsets of data, which she displayed in a London gallery in 2016 and offered for sale, starting at £100 (\$135). The entire collection, including her health data and social-security number, can be had for £7,000.

Only a few buyers have taken her up on this offer and she finds "the whole thing really absurd". Yet if the job of the artist is to anticipate the Zeitgeist, Ms Morone was dead on: this year the world has discovered that something is rotten in the data economy. Since it emerged in March that Cambridge Analytica, a political consultancy, had acquired data on 87m Facebook users in underhand ways, voices calling for a rethink of the handling of online personal data have only grown louder. Even Angela Merkel, Germany's chancellor, recently called for a price to be put on personal data, asking researchers to come up with solutions.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Data provided by humans can be seen as a form of labour which powers artificial intelligence

Given the current state of digital affairs, in which the collection and exploitation of personal data is dominated by big tech firms, Ms Morone's approach, in which individuals offer their data for sale, seems unlikely to catch on. But what if people really controlled their data—and the tech giants were required to pay for access? What would such a data economy look like?

It would not be the first time that an important economic resource had gone from simply being used to being owned and traded; the same has already happened with land and water, for example. But digital information seems an unlikely candidate to be allocated by markets. Unlike physical resources, personal data are an example of what economists call "non-rival" goods, meaning they can be used more than once. In fact, the more they are used, the better for society. And frequent leaks show how difficult it can be to control data. But another historical precedent might provide a model—and also chimes with contemporary concerns about "technofeudalism", argue Jaron Lanier, a virtual-reality pioneer, and Glen Weyl, an economist at Yale University, who both work for Microsoft Research.

Labour, like data, is a resource that is hard to pin down. Workers were not properly compensated for labour for most of human history. Even once people were free to sell their labour, it took decades for wages to reach liveable levels on average. History won't repeat itself, but chances are that it will rhyme, Mr Weyl predicts in "Radical Markets", a provocative new book he has co-written with Eric Posner of the University of Chicago. He argues that in the age of artificial intelligence, it makes sense to treat data as a form of labour.

To understand why, it helps to keep in mind that "artificial intelligence" is something of a misnomer. Messrs Weyl and Posner call it "collective intelligence": most AI algorithms need to be trained using reams of human-generated examples, in a process called machine learning. Unless they know what the right answers (provided by humans) are meant to be, algorithms cannot translate languages, understand speech or recognise objects in images. Data provided by humans can thus be seen as a form of labour which powers AI. As the data economy grows up, such data work will take many forms. Much of it will be passive, as people engage in all kinds of activities—liking social-media posts, listening to music, recommending restaurants—that generate the data needed to power new services. But some people's data work will be more active, as they make decisions (such as labelling images or steering a car through a busy city) that can be used as the basis for training AI systems.

Yet whether such data are generated actively or passively, few people will have the time or inclination to keep track of all the information they generate, or estimate its value. Even those who do will lack the bargaining power to get a good deal from AI firms. But the history of labour offers a hint about how things could evolve: because historically, if wages rose to acceptable levels, it was mostly due to unions. Similarly, Mr Weyl expects to see the rise of what he calls "data-labour unions", organisations that serve as gatekeepers of people's data. Like their predecessors, they will negotiate rates, monitor members' data work and ensure the quality of their digital output, for instance by keeping reputation scores. Unions could funnel specialist data work to their members and even organise strikes, for instance by blocking access to exert influence on a company employing its members' data. Similarly, data unions could be conduits channelling members' data contributions, all while tracking them and billing AI firms that benefit from them.

All this may sound like science fiction. Why should Google and Facebook, for instance, ever give up their current business model of using free data to sell targeted online advertising? In 2017 they raked in a combined \$135bn in ad dollars. If they had to compensate people for their data, they would be much less profitable. Meanwhile, startups such as CitizenMe and Datacoup, which can be seen as early forms of data unions, have so far failed to make much headway. Yet in other corners of the industry, tech giants already pay for data, although they are careful not to talk too much about it. Mostly through outsourcing firms,

they employ armies of raters and moderators to check the quality of their algorithms and take down content that is illegal or offensive. Other firms use crowd-working platforms, such as Amazon's Mechanical Turk, to farm out data work such as tagging pictures. Mighty AI, a startup based in Seattle, pays thousands of online workers to label images of the street scenes that are used to train the algorithms that power self-driving cars.

What is more, if AI lives up to the hype, it will lead to demand for more and better data. As AI services get more sophisticated, algorithms will need to be fed a higher-quality diet of digital information, which people may only provide if they get paid. Once one big tech firm starts paying for data, others may have to follow.

Treating data as labour means tech giants' profit margins are likely to get squeezed, but their overall business may get bigger. And workers will, at least partially, be in the driving seat. Their mornings might start with checking a dashboard provided by their data-labour union, showing a personalised list of available jobs: from watching advertising (the computer's camera collects facial reactions) to translating a text into a rare language, to exploring a virtual building to see how easy it is to navigate. The dashboard might also list past earnings, show ratings and suggest new skills.

But much still needs to happen for personal data to be widely considered as labour, and paid for as such. For one thing, the right legal framework will be needed to encourage the emergence of a new data economy. The European Union's new General Data Protection Regulation, which came into effect in May, already gives people extensive rights to check, download and even delete personal data held by companies. Second, the technology to keep track of data flows needs to become much more capable. Research to calculate the value of particular data to an AI service is in its infancy.

Third, and most important, people will have to develop a "class consciousness" as data workers. Most people say they want their personal information to be protected, but then trade it away for nearly nothing, something known as the "privacy paradox". Yet things may be changing: more than 90% of Americans think being in control of who can get data on them is important, according to the Pew Research Centre, a think-tank.

Even if people got money for their data, sceptics say, they wouldn't get much. If Facebook shared out its profits across all its monthly users, for instance, each would get just \$9 a year. But such calculations fail to recognise that the data age has only just begun. AI is often likened to electricity, and when electrification began in the late 19th century, entire cities used only as much power as a single household does today.

Wouldn't this data economy be hugely unequal? Some people's data will surely be worth much more than others'. But Mr Weyl argues that the skills needed to generate valuable data may be more widely spread than you might think, so data work could disrupt the standard hierarchy of human capital. One way or another, societies will have to find a mechanism to distribute the wealth created by AI. As things stand, most of it accrues to the big data distilleries. Unless this changes, social inequality could revert to medieval levels, Mr Weyl warns. If that happens, it is not unreasonable to assume that one day, the data workers of the world will unite.

If drones ruled the waves

Avast, me hearties

How aquatic, autonomous robots could reduce lawlessness at sea

Print edition | The World If Jul 7th 2018

IT IS A bright morning in the eastern Mediterranean, and a small robotic watercraft operated by Greenpeace, an environmental group, is quietly approaching two fishing boats about 160 miles north of Egypt's coast. Unseen by the boats' captains and crew, the bobbing drone takes a few pictures, and its on-board image-processing systems swiftly determine that illegal drift nets have been deployed. The fishermen hope to catch endangered bluefin tuna, but such nets can also ensnare dolphins and sea turtles. The drone fires off a message via satellite and continues to shadow the fishing boats from a distance. Five hours later a hastily dispatched cutter arrives, and officers from Egypt's coast guard seize both boats and arrest their crews. The drone, meanwhile, dips beneath the surface and continues on its monitoring mission.

That, at least, is how things could play out in the early 2030s, if proponents of aquatic drones have their way. As the cost of building and operating such vehicles drops, satellite communications systems provide cheaper and faster connectivity, and machine intelligence improves, drones could provide a powerful means of policing illegal activities that take place, unseen, at sea. Powered by wave action, wind power or solar panels, drones could operate for months or even years at a time, scanning large areas in swarms, monitoring environmental conditions and alerting human overseers when something looks amiss. If drones ruled the waves, fisheries would be more sustainable, pollution would be reduced and human trafficking would be harder to get away with. Even if drones can monitor only a small fraction of the ocean's surface, their presence could be a powerful deterrent.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Fishing is just one area where aquatic drones could spot illegal activity. Today around one-fifth of the annual global catch, worth around \$23.5bn, is taken illegally, as fishermen exceed quotas, fish in protected areas or use banned methods such as drift nets or dynamite fishing. The dumping of pollutants could be detected, too. By one estimate, vessels intentionally discharge some 276,000 tonnes of oily gunk into the sea each year, nearly half as much as the Deepwater Horizon disaster spewed into the Gulf of Mexico. Drones could use sensors to sample seawater for traces of improperly dumped fuel sludge, solvents and dirty engine oil, or deploy small, flying cameras to take aerial pictures of tell-tale oil slicks. In coastal waters, flying "sniffer" drones operated by port authorities could fly through the exhaust plumes of large ships to check that they are not exceeding emissions limits. (A Danish firm called Explicit uses manned helicopters to sample the exhaust from ships in the North Sea; about 6% break the rules.)

Drones could also tackle human trafficking, and the use of forced labour at sea, by spotting suspicious activity, such as boats that stay in a particular area but avoid visiting port for months at a time. Tens of thousands of men from Cambodia, Indonesia, Myanmar, the Philippines, Thailand and Vietnam are thought to have been enslaved on fishing vessels that, to prevent escapes, offload their catch and take on supplies from other vessels far out at sea.

Enthusiasm for drone-based monitoring is not driven simply by improvements in drone technology. It is also a consequence of the high cost of traditional means of enforcement. Operating a US Coast Guard cutter, for example, typically costs \$1,500-3,000 per hour. And its visibility means nabbing offenders in the act is akin "to catching lightning in a bottle", says Mark Young, a former head of enforcement for the Pacific Ocean. Manned aircraft cost more than \$10,000 per flight hour. With today's technology, says Mr Young, not even America can afford to fully patrol its "exclusive economic zone", the waters within 200 miles of its shores. Even less attention is paid to the nearly two-thirds of the ocean that is beyond any country's jurisdiction.

Satellites are already helping in some areas. Requiring ships to carry transponders that report their position, for example, can reveal vessels that suspiciously avoid ports or dawdle in marine protected areas. But not all ships are required to carry transponders, and some captains switch them off. Roughly half of fishing boats off the east and west coasts of Africa do not transmit their location, Greenpeace says. These "dark fleet" vessels can be spotted in satellite pictures, but monitoring them in this way is problematic too. For one thing, a high-resolution photograph of a square region, 10km (six miles) wide, costs about \$2,700. SkyTruth, an environmental watchdog based in West Virginia, receives some imagery free from satellite providers. But shots must be requested and scheduled hours in advance. On the last 25 occasions when he has made an educated guess as to where a suspect boat would be for a photo 12 hours later, SkyTruth's most senior analyst, Bjorn Bergman, was right half the time. (Sea Shepherd, a controversial American conservation group, has dispatched manned "direct action" ships to interfere with rogue Chinese fishing boats that Mr Bergman spotted in the southern Indian Ocean.)

One firm betting that sea drones are the way forward is Liquid Robotics, a subsidiary of Boeing, an aerospace giant. Its autonomous, surfboard-sized Wave Gliders use underwater "wings" to harvest energy from the up-and-down motion of waves to travel at one to three knots, or a bit faster using an auxiliary propeller powered by solar panels. The drones have operated for up to a year at a time and withstood hurricanes. Onboard systems collect data on submarines, fishing boats and pollution, firing off alerts via satellite to authorities. Being small and silent, Wave Gliders are unlikely to be spotted by seafarers up to no good, says Gary Gysin, the firm's boss. Liquid Robotics has sold more than 400 Wave Gliders, which cost \$200,000 or more

depending on which sensors are fitted, to outfits including the Australian and American navies and Japan's coast guard. Future models will serve as platforms for aerial drones. The firm sees an emerging "internet of things for the ocean" that reports not just on lawlessness, but also on the health of marine life, water temperatures and currents, to help ships plot more fuel-efficient routes.

Maritime Robotics, a Norwegian firm, sells a much faster surface drone that zips along at a blistering 60 knots under diesel power. Called Mariner, it can switch to battery propulsion to "sneak in" for a closer look at a suspect vessel, says Vegard Evjen Hovstein, the firm's boss. ASV Global, the British maker of a similarly fast surface drone, expects sales this year to top \$22m, up from \$15m in 2017. Dan Hook, ASV's head of business development, imagines selling models by 2030 that can dive underwater and stick up a camera and directional microphone on "a little snorkelling mast" to determine what a boat is up to.

Efforts to combat lawlessness at sea are also expected to benefit from spending on aquatic drones by navies. Pradeep Chauhan, a former head of intelligence for India's navy, reckons that in addition to their military duties, naval drones will perform the "spin-off" mission of detecting lawbreaking at sea. Nevin Carr of Leidos, a firm based in Virginia that designs submarine-hunting surface drones for the US Navy, in which he served as a rear admiral, says movement-analysis algorithms are being devised to determine what civilian vessels are doing. That could include identifying ships that are smuggling drugs, weapons or humans, says Jayanath Colombage, a former commander of Sri Lanka's navy during its fight against the Tamil Tigers, who partly funded their insurgency with such smuggling until being defeated in 2009.

Within ten years Greenpeace expects to have a fleet of aerial, surface and even underwater drones, with the latter seeking, among other things, signs of unlawful seabed mining, says John Murphy, the outfit's head of drones. Sea drones are still expensive, but costs will continue to drop because they share so many components with smartphones. Fees for satellite-data services will also plummet, experts reckon, as new constellations of broadband satellites are launched. And, says Bjarne Schultz of Norway's Directorate of Fisheries, analysis of data on individual skippers' behaviour, and the migratory patterns and market prices of fish, will allow drones to be sent to the areas where illegal activity is most likely to occur. More broadly, both coast guards and environmental groups believe that maritime drones will make the dispatching of manned patrols far more targeted and cost-effective. When it comes to preventing lawlessness at sea, swimming robots could be about to make a big splash.

If there was no Moon

Empty sky, empty Earth?

Whether complex life would still have arisen on Earth in the absence of the Moon is the subject of much debate

Print edition | The World If | Jul 7th 2018

WAXING AND WANING from invisible new to full-beam full and back, month in and month out, the Moon is famously inconstant. But appearances deceive. Its aspect in the sky may change; the brute fact of there being 73 thousand trillion tonnes of rock orbiting at a distance of some 380,000km does not. All humans with eyes to see have seen it. It has raised tides in the Earth's oceans ever since the oceans first formed.

So the Moon is ancient. But it is not necessary. Look at the Sun's other rocky planets. Venus, the one which is closest in size to the Earth, does not have a moon. Nor does little Mercury. Mars has a couple, but they are titchy. The Moon boasts more than 1% of the Earth's mass; Mars outweighs Deimos, the larger of its moons, by more than 10m to one.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That the Earth has an exceptionally big moon is, scientists believe, an accident of history—the result of a chance, and incredibly violent, collision between the Earth and another young planet, perhaps about the size of Mars, soon after the formation of the solar system. And some think it may have been a happy accident: perhaps, in a rather literal sense, a vital one.

Scientists have long wondered what aspects of the Earth made it a suitable cradle for life and, 4bn-odd years later, intelligence. It is a question that influences the way they think about the rest of the cosmos. If there is nothing much special about the Earth, then it seems a reasonable bet that life, and perhaps even civilisations, are fairly common elsewhere in the universe. But if the Earth is a space oddity, life may be rare—even, perhaps, a one-off.

The case for thinking the Earth unusual was made with influential vigour by Donald Brownlee, an astronomer, and Peter Ward, a palaeontologist, in "Rare Earth", a book published in 2000. They argued that, while microbial life might develop quite easily on all sorts of planets, the evolution of complex life had depended on various aspects of the Earth and the solar system being just so. One of these aspects was the unlikely existence of a large moon.

The idea that the Moon might have a relevance to life beyond providing nocturnal illumination was not new. Some have argued that, without the Moon, the Earth would have a stiflingly thick atmosphere like that of Venus. Fortunately, this theory suggests, the impact that formed the Moon helpfully drove off the volatile chemicals that formed the Earth's original, Venus-like atmosphere, allowing a much thinner blanket of gases to form in its place. Others have suggested that lunar tides—which were much more pronounced on the early Earth, because the Moon was then much nearer—were a prerequisite for the origin of life. By episodically sloshing seawater into tidal pools, from which it would then evaporate, they would have provided a way of concentrating the chemicals from which life developed. This is not an idea many people take seriously at the moment: the smart money on life's origin these days puts it in deep ocean hydrothermal vents, not tidal pools. But ideas on the subject have changed before, and may change again. Hypotheses, like tidal pools, come and go.

All these are intriguing ideas, but hardly compelling ones. Dr Brownlee and Dr Ward plumped instead for another lunar effect: a damping down of the Earth's wobbling. Planets do not sit up straight in their orbits: they lean over. The Earth's axis of rotation is currently at an angle of 23.4° to the vertical, as measured with respect to the plane in which the planet orbits. The planet is slowly sitting up straighter; but once it reaches about 22.1°, in a bit more than 10,000 years or so, it will start to lean over again. Its obliquity nods up and down this way between 22.1° and 24.5° regularly every 41,000 years. The effect of this nodding on the planet's seasons is one of the things which sets the rhythm of the ice ages.

On moonless Mars, things are very different; the obliquity shifts around both more, and more chaotically. Sometimes Mars sits bolt upright, with no seasons to mention. Over the aeons its obliquity can get as high as 60° —a situation in which inhabitants, if there were any, would experience the midnight sun far into the tropics, producing intolerably hot hyper-seasons. Its obliquity changes over a 100,000-year cycle.

In the 1990s Jacques Laskar, one of the astronomers who first discovered the role that chaos plays in the seemingly stable solar system, showed that the difference between the Earth's gentle nodding and Mars's wild oscillations could be accounted for by the Moon. A constant lunar tug on the Earth's equatorial bulge—a paunchy distortion of the planet's sphericity caused by its spin—keeps things in order. Take the Moon away, and the Earth's obliquity becomes even less stable than Mars's, swinging as high as 85°. Such poles-pointing-at-the-Sun episodes would make continents at currently temperate latitudes uninhabitable. In "Rare Earth" Dr Ward and Dr Brownlee argued that the double whammy of obliquities that were sometimes very high and could also shift dramatically would mean that a moonless Earth would have such a chaotic and catastrophe-prone climate that complex life would find it difficult to flourish.

Subsequently, though, the story has been shown to be a bit more complex. How chaotic a planet's obliquity is depends on how fast it rotates. The Earth and Mars happen to have days of very similar lengths, which is why, if it were not for the Moon, the Earth's axis would jerk back and forth as Mars's does. But while Mars may have had something pretty like a 24-hour day for almost all of its history, the Earth has not—because of the Moon. Straight after the collision that created the Moon, the Earth

rotated much faster than it does today. Since then it has been continually slowing down—thanks, again, to the Moon. The tides it raises in the oceans act as a gentle brake on the Earth's rotation.

So yes, without the Moon, an Earth with 24-hour days would suffer radical chaotic shifts in its obliquity. Yet no one has the faintest idea what the Earth's rotation period would be if it had not been whacked hard enough to form the Moon in the first place. Nor is there any way of finding out.

But there are other ways to make a case that complex life is a lot more likely on a planet with a big moon. David Waltham, a British geophysicist, suggests in his book "Lucky Planet", published in 2014, that complex life needs both a pretty stable obliquity and a fairly long day. On planets with significantly shorter days, he argues, the transfer of heat from equator to poles would be less efficient. The winds and currents responsible for that transfer are diverted from the direct equator-to-pole trajectory that you might expect by the Coriolis effect, which swings them to the east. The faster a planet spins, the stronger that effect would be, and the harder it would be to warm the poles. Dr Waltham argues that the Moon is just the right size to allow the Earth both a stable obliquity and poles warm enough to keep any ice ages relatively minor. It is a cunning argument, but not a compelling one.

It may be that making significant progress on the question of the Moon's importance for life will have to wait until planets inhabited by complex life forms are discovered round other stars. If there are a lot of otherwise earthlike planets boasting neither complex life nor big moons, the idea may be taken to have some merit, as it would if those searching for signals from alien intelligence found such signals coming from big-mooned planets.

While the world waits for such discoveries—a wait likely to be measured in decades, if not centuries—it is worth bearing in mind an intriguing argument made by Isaac Asimov, a science-fiction writer, in "The Tragedy of the Moon", an essay published in 1972. It argues that rather than being crucial to the development of complex life, and thus humans, the Moon might be a factor in their downfall.

Asimov's claim was that if humans had evolved on a moonless planet, they might never have come up with the idea that their home was the centre of the universe. The fact that the Moon really does revolve around the Earth, and can be shown to do so, made it natural to assume that all the other things in the sky do, too. Even true appearances deceive when they lead to false generalisations. But the easiest way to explain the different motions of the different planets is that the Earth and everything else orbit the Sun. If there had been no misleadingly Earth-orbiting Moon, Asimov argued, that sun-centred idea would have been much easier to accept. Thus a heliocentric solar system might well have been a constant of astronomical thought from Babylon and classical Greece onwards.

This would not merely have meant that the world would have been better explained sooner (though to Asimov, ever the pedagogue, that was indeed a good in and of itself). Civilisations for which the Earth was not the centre of the universe might, he suggested with a sort of atheist piety, have been less likely to develop the sort of monotheisms that see humans as the centre of the universe and the apex of creation. Such broader perspectives, he went on in an eco-gloomy, 1970s sort of way, might have led to civilisations less careless of their environments, and less likely to think that their way of seeing the world was worth preserving even if it led them to nuclear war. Such civilisations, he imagined, might last for longer than his own.

Hardly a knockdown argument. But it does sound a useful note of caution against those arguments that seek to make the Moon evolutionarily important by underlining how thoroughly humans tend to think of themselves, and their planet, as special—and how wrong they often are. And it also suggests a new prediction. If humans do make contact with aliens who evolved under a moon of their own, they too will tell all sorts of wonderful stories about its significance. Whether they will be true or not, who knows?

Insects, algae or artificial meat?

If new foodstuffs became popular

Insects, algae or artificial meat?

Examine the foodstuffs that might sustain mankind in 2050, right on your kitchen table

Print edition | The World If Jul 7th 2018

THE WORLD will need to rethink its approach to food as the planet warms and the population grows towards an expected 9.7bn people in 2050. Several options are on the menu, including wider adoption of insects such as crickets and mealworms as a source of protein; artificial meat made from vegetable protein, or grown in vats; using spirulina and other forms of algae as a food supplement, or a foodstuff in its own right; and futuristic protein shakes that provide a nutritionally complete meal in a glass—handy for the busy astronaut who needs to get back to exploring Mars. Or perhaps we'll use food robots that download recipes and 3D-print our meals from cartridges of ingredients, opening up all kinds of new shapes and textures for the cooks of the future to explore.

These different approaches each have pros and cons. But one thing is clear: consumer preferences will play a big part in determining the outcome. So which of these futuristic foods would you want to see on your table? Thanks to the magic of augmented reality (AR), which projects virtual objects into the real world, you can take a close look at some of the options in the comfort of your own kitchen. For The Economist's first foray into AR, we have teamed up with Kabaq, a startup based in New York that operates at the intersection of AR and food.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

To examine five possible futures of food, all you need is a smartphone with the Snapchat app. If you are reading this on a desktop or laptop computer, use the Snapchat app to scan the Snapcode alongside each paragraph below; if you are reading this on a smartphone, simply tap on the Snapcode and the Snapchat app will open. You will then be able to add the food in question as a temporary "lens" that lasts 24 hours (ask a teenager if you need help using the app). Within the Snapchat camera, you can then tap the red lens icon to place the food in the world.

Use your fingers to move, zoom or rotate it—and, most importantly, decide whether you'd want to eat it. (Alas, AR technology does not yet capture taste or smell.) Tap the plate to see an infographic explaining the implications of each food choice; there's also a brief audio commentary. We invite you to share an image with the hashtag #econfood once you've decided which of these options for the future of food you find most appetising. Tuck in!

EDIBLE INSECTS

Our futuristic menu starts with breakfast: a waffle made of mealworm flour, served with baked, crispy mealworms, dry-roasted crickets, strawberries and chocolate sauce. Around 2bn people already eat insects; there are over 1,500 edible species, and they are rich in protein. Insects convert feed into food very efficiently, while producing few greenhouse-gas emissions. So they could be a sustainable source of protein in a warmer, more crowded world. But not everyone likes the idea of eating beetles, caterpillars or crickets. Most edible insects are caught in the wild, so it's unclear whether they can be farmed at scale. And there has been little research on safety, toxicity and allergies associated with insect consumption. But perhaps the biggest obstacle to the wider consumption of insects is the "yuk" factor: many people in the West will happily eat shrimps or whitebait, but recoil at the idea of eating locusts. It's worth remembering, though, that consumer tastes can change quickly. Just twenty years ago, few people in the West regularly ate sushi. If all else fails, insects could be used as an invisible ingredient in foods like pasta sauces. That might make lunching on locusts more palatable.

ARTIFICIAL MEAT

This may look like an ordinary hamburger, but it is in fact a Beyond Burger made of plant-based protein, including red beets to give it a meat-like colour and allow it to "bleed". Artificial meat, whether made from plants or grown from animal cells in vats, is getting cheaper and more realistic, and could be much more sustainable than livestock farming. Today meat production uses huge amounts of water, and livestock emit more greenhouse gases than all the world's vehicles. They also take up a quarter of the planet's available land. So making artificial meat could be much more environmentally friendly—and less cruel to animals, 65bn of which are killed every year for food. But although the price of production has fallen dramatically, it still costs three times more than real meat. And if attitudes turned decisively against meat, that could threaten the livelihoods of 1.3bn people who depend on livestock farming for employment and food security—potentially a much bigger threat to employment than automation. But there is no question that artificial meat has real potential.

SPIRULINA

A form of algae that thrives in the highly alkaline lakes of Africa, Mexico and Myanmar, spirulina is the wonder-food that has never quite taken off. Spirulina powder is 60% protein by weight, and can be mixed into other foods, as shown here with cookies, or taken as a food-supplement pill. Dried cakes made from spirulina, called dihe, are a traditional food in Chad, where spirulina is included in most meals. Growing spirulina in tanks can yield 20 times more protein per unit area than soyabeans, and more than 200 times more than beef, while using much less water. But scaling up production in open tanks is hard, because as the algae blooms form, they prevent sunlight penetrating deeper into the water. And some algae species are toxic, so ensuring

purity is vital. The United Nations has endorsed spirulina as a promising food for the future—back in 1974. So far, spirulina remains the food of the perpetual future.

MEAL-REPLACEMENT SHAKES

Why eat conventional food at all, when you can get all the nutrition you need from a shake or snack bar? Such meal-replacement products, which are growing in popularity, provide a nutritionally balanced meal you can consume quickly. They let athletes, slimmers and astronauts monitor their dietary intake precisely. And if you're an entrepreneur running a Silicon Valley startup or a scientist exploring the surface of Mars, do you really have time to cook spaghetti or prepare a curry? To techy types, this seems much more efficient and futuristic. But unless you're mega-rich, it can be an expensive way to save a little time. The implications of long-term consumption are unclear, and many of the health claims made about meal-replacement products are unsubstantiated. And why abandon the pleasures of real food for something that tastes boring and may still leave you feeling hungry? You'd have to have a very good reason.

3D-PRINTED FOOD

This unusual platter is made of 3D-printed red-pepper hummus. It was created using a printer made by Natural Machines, and is here served with smoked black cod, cherry tomatoes, greens and sprouts. Proponents of 3D food-printing imagine loading a machine with capsules of ingredients, like the cartridges that go into an inkjet printer. It would then heat, cook and combine these ingredients into finished foodstuffs. Food printers could potentially prepare a wide range of meals from a handful of basic ingredients, which could be handy for time-pressed parents, the elderly, and astronauts: no wonder NASA has funded the development of a pizza-printer. Ugly vegetables and other food that currently goes to waste could be turned into raw materials for printing. New shapes and textures would become possible, and it would be easy to cater to special dietary and nutritional needs. But 3D food printers are currently slow and expensive, and can print only a limited range of ingredients that can be squeezed through nozzles. Your local pizza-delivery service has nothing to worry about just yet; the food replicator in "Star Trek" is still a long way off.

If people had no hair on their heads

Hair today, gone tomorrow?

Our cartoonist, KAL, considers a truly hair-raising scenario
Print edition | The World If Jul 7th 2018

If Martin Luther King had not been assassinated

A different dream

Fifty years on, how might things have been different?

Print edition | The World If Jul 5th 2018

WHAT IF, INSTEAD of going to Memphis in April 1968 to lead yet another march, Martin Luther King had returned home, exhausted, to Atlanta? What if he had then avoided all his other would-be assassins and lived to old age well into the 21st century? (He would have been 89 this year.)

Though it is often a mistake to attribute too much power to shape history to a single person, King's death was the spur for improvements in civil rights and race relations that might not otherwise have occurred. Had he made it through 1968 alive, however, he would have ended the 1960s as a controversial, divisive figure for many white Americans. A Gallup poll in 1966 found that only 32% of Americans had a positive view of King. In a Gallup survey in 1967 to identify the ten most-admired Americans, George Wallace, the segregationist governor of Alabama, made the list. King did not.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

By the year of his murder, King was associated with three unpopular causes, all of which he would probably have pursued had he lived. The first was opposition to the Vietnam war. This was a fringe view in America when King embraced it: in 1967 only about 30% of Americans agreed with his stance that America should not send troops to Saigon. King's conviction that the Vietnam war was a mistake was so strong that he was planning to do all he could to prevent Lyndon Johnson from running for president again in 1968, despite everything Johnson had done to pass the Civil Rights Act.

In 1968 King was exploring the idea of supporting a moderate Republican over Johnson in the presidential election. George Romney, father of Mitt, seemed to be his preferred choice. Had Romney won the Republican nomination instead of Richard Nixon, the Romneys might have become the leading Republican political dynasty, rather than the Bushes. Instead, King's murder set off a wave of rioting that benefited Nixon's law-and-order rhetoric. With no assassination, there might have been no President Nixon.

Without Nixon there would have been no Watergate and, more importantly, perhaps no political realignment in the South, during which white Democrats abandoned the Democratic Party and became solid Republican voters. With no realignment Donald Trump would still be a Democrat, elected president with southern, conservative Democratic votes. There would still be talk in Congress about impeaching him, but it would be from Republicans.

The second of King's causes in 1968, the Poor People's Movement, was even less popular than his stance on Vietnam. King is such an extraordinary figure that his admirers sometimes argue he could have made this dream of democratic socialism work. Yet given America's long-standing suspicion of left-wing ideas and the visceral anti-communism of the cold-war era, that seems unlikely. King might have become known as a former civil-rights leader who peddled crackpot plans for a living wage, job guarantees and the redistribution of land and capital—ideas that have gained ground lately, but are still outside the political mainstream.

His third cause, a commitment to improving the lives of African-Americans without resorting to violence, seemed equally shaky in 1968. Throughout the 1960s, civil-rights activists had argued about the utility of violence in pursuing their aims. King's embrace of non-violence now looks like a triumph of Gandhian wisdom, but at the time it risked looking weak, old-fashioned or out of touch. In his Pulitzer-winning biography, "Bearing the Cross", David Garrow quotes King telling a friend in Memphis that, "maybe we just have to admit that the day of violence is here, and maybe we just have to give up and let violence take its course." Paradoxically, King's murder more or less settled the argument in favour of non-violence. Groups like the Black Panthers, who had marched in California in 1967 bearing rifles, slowly faded away. The cause of racial progress continued peacefully, gradually drawing the support of more and more white Americans.

Had he lived, King might be remembered not as the man with the dream but as the leader of a failed socialist movement, or the loser in an argument within black activism over the use of force. But the country's finest speechmaker since Lincoln would have been around to tell Americans what to make of the Rodney King riots, the deaths of so many young black men, and whether sportsmen should have to stand during the national anthem. In fact he might be on cable news right now, being interrupted for breaking-news alerts about a presidential tweet or another school shooting.

Vincent Harding, a historian and activist who knew King, said that the assassination turned King into a "rather smoothedoff, respectable national hero". Death transformed King from the unpopular leader of a pair of causes that seemed lost into a hero whose example would be taught to schoolchildren of any colour. King's murder was an act of pure evil. Yet his martyrdom helped change America for the better.

Business

Tech firms in emerging markets

Clash of the titans

Clash of the titans

Chinese and US tech giants go at it in emerging markets

Colossi such as Facebook and Tencent have never competed directly. Until now

Print edition | Business Jul 7th 2018

TWO contests are under way in which titans holding billions in their thrall vie for global domination. One is unfolding on Russian football pitches and features the likes of Neymar and Harry Kane. The other is playing out on the smartphone screens of consumers in India, Indonesia, Brazil and other emerging economies. There, American online superstars such as Google, Facebook and Amazon are pitted against a Chinese dream team led by Alibaba and Tencent.

The geopolitics of business means that the world's biggest tech firms have swelled to combined market capitalisations of over \$4trn without really going head to head. China blocked Google et al with its Great Firewall, preventing American firms (Apple is an obvious exception) from taking on Chinese rivals on the mainland. Chinese giants have stayed out of America; Europe fell under the spell of Silicon Valley before Chinese tech had matured.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Time, and capabilities, have changed. Chinese tech firms once simply mimicked Silicon Valley products, from search engines to e-commerce and social networks. Now the copycats have become pioneers. WeChat, a messaging app run by Tencent with endless bells and whistles, for example, rivals anything from California.

Mainland firms are thus ready to make a strong play for markets which neither they nor American firms can call home. Rising incomes, ballooning smartphone use and improving internet infrastructure in emerging markets make them irresistible terrain for all tech firms. As they vie for the next billion consumers to come online, Alibaba is taking on Amazon, Google is matched against Baidu and Tencent can prove its mettle against Facebook.

They have very different strategies, however. American firms typically set up outposts from scratch. They fund subsidiaries that offer much the same service to Indians or Mexicans as their domestic users might expect. Amazon's foray into India, for example, involved it pledging over \$5bn to broadly replicate its American offering. It has built a network of warehouses to fulfil e-commerce orders, rolled out its Prime video service (with added Bollywood content), website-hosting services and so on. It rebrands acquisitions. Last year it paid \$650m for Souq.com, an e-commerce website based in Dubai, now clearly marked as "an Amazon company".

Google and Facebook also provide offerings abroad similar to those that consumers get in America; as a result, both are as recognised in Brasilia or Bangalore as they would be in Boston or Berlin. Google customers worldwide use the same Chrome browser, YouTube website or Android phone-operating system—and are served advertisements in much the same way. WhatsApp and Instagram, both owned by Facebook, are popular across the world.

By contrast, few Indonesians or Indians would recognise the name Alibaba. Its strategy in emerging markets has been not to set up shop itself but instead to invest in local players, whether by buying them outright or taking a minority stake. In the past two years or so it has built a constellation of firms focused on shopping, payments and delivery. These include Paytm and BigBasket in India, Tokopedia in Indonesia, Lazada in Singapore, Daraz in Pakistan and, as of July 2nd, Trendyol in Turkey. Most of their customers would have no idea that these apps are backed by a Chinese tech titan.

Tencent has similarly ploughed money into a clutch of Indian firms in areas as diverse as ride-hailing, online education, music-streaming, health care, IT and e-commerce, as well as Nigerian payments and Indonesian logistics. (Baidu is the least active thus far in building its emerging-market presence, but its heavy investment in artificial intelligence could result in its technology being used globally in self-driving cars, for example.) According to CBInsights, a data firm, Tencent, Alibaba and its Ant Financial affiliate have backed 43% of all Asian "unicorns", meaning startups worth more than \$1bn. Alibaba's investment in Lazada, South-East Asia's largest e-commerce platform, has soaked up \$4bn. Jack Ma, Alibaba's founder and boss, has pledged \$8bn to India alone.

Their different approaches reflect the way the Western and Chinese firms make money. Google and Facebook earn the bulk of their revenue from advertising against services their users flock to. This requires little localisation, bar a bit of website translation to attract native users.

Chinese firms' competitive advantage, by contrast, has historically come from being able to process payments and organise distribution of goods in a country where doing such things had previously been tricky. A business based on solving such nuts-and-bolts problems is hard to export. "For that sort of thing, it is difficult to have a one-size-fits-all approach for different countries," says Tan Yinglan of Insignia Ventures Partners, a tech-investment firm. Being a distribution expert in Singapore

(whose former postal monopoly is now 14% owned by Alibaba) brings little insight into distributing packages throughout Indonesia's 17,500 islands, say. Nor does the ability to process payments in Vietnam smooth transactions in Brazil or in Nigeria, with their vastly different banking and regulatory systems. Such intricacies, in other words, might be better delivered by local entrepreneurs who can be bought out once they have cracked them.

How are these differing strategies panning out on the ground? The most intense Sino-American rivalry thus far is focused on India and South-East Asia. The scale of investment reflects the stakes: Indian start-ups received \$5.2bn in Chinese tech money last year, according to Tracxn, a data provider, up from \$930m in 2016. Forrester, a market-research group, says that Chinese tech giants (including Didi and JD.com) spent \$6bn on acquisitions in South-East Asia in 2017.

The Chinese firms have several advantages. They have a proven record of chaperoning hundreds of millions of emerging-market consumers onto the internet. A Chinese diaspora in places like Malaysia or Vietnam, paired with plenty of mainland tourists, offers a beachhead into those markets. The Chinese giants also enjoy the tacit support of their country's government, which is keen for them to expand in "Belt and Road" countries near China. Startup founders in Asia are more likely to want to emulate Mr Ma than his American counterparts; they will certainly prefer the Chinese approach if they want to keep running their firms.

Yet to critics, the Chinese approach is akin to what corporate Japan did in the 1980s: overpay for trophy assets in a hopelessly undisciplined way. Chinese firms sometimes end up competing against themselves. Tokopedia and Lazada in Indonesia sell similar stuff and are both backed by Alibaba, for example. Its investment in Paytm came only after it had bet on Snapdeal, a former Indian e-commerce darling whose star has dimmed markedly.

Valuations can be eye-popping. That is partly because there is a lot of capital about. Venture capitalists worried about losing their relevance in the region want to stay invested. SoftBank, a risk-loving Japanese group that is attracted to fashionable startups like a Brazilian to a football trophy, is among those who made a fortune in China (it is Alibaba's biggest shareholder) and is keen to repeat the feat in other rising tech powers.

The Americans' edge lies with their record and their head start. The Silicon Valley giants internationalised operations more or less from the start. Amazon's British and German arms are about to celebrate their 20th anniversaries. It is easier for English-language firms than for Chinese ones to hire staff or to attract users. Over half of Google's and Facebook's revenues already come from outside America. Alibaba, the most internationalised Chinese firm, is barely at 10%, though it hopes half the value of the stuff sold through it will be transacted overseas by 2025.

Global heft counts for something in local battles. Services such as Amazon's movie-streaming offering can be rolled out from one country to the next, as can its relationships with global suppliers. That has made it cheaper to set up foreign outposts than to acquire them. Amazon has probably spent about \$3.5bn to date building its Indian operation, where it is largely on a par in terms of market share with Flipkart, a local e-commerce site which has raised nearly double that in equity and debt.

The downside of the American approach is that subsidiaries are wedded to a business model that proved itself in completely different circumstances. Like the Chinese, most Asian consumers use only mobile phones to access the internet; the American trio made their first fortunes through PCs. Some think the executives dispatched from head office lack the fizz of the local entrepreneurs they are taking on, and rely overly on lavish cheques from head office.

The two models could yet both be proved right, and start to converge. The advantages of being part of a global outfit might be decisive in delivering some services, such as search or social media. Alibaba is pushing its own branded B2B platform for Indian small businesses, helping them sell their wares abroad and, in this instance, expanding in much the same way that an American rival might have done. In other areas, where local nous matters more, American groups might adopt a more Chinese-style approach of building an "ecosystem" of allied firms. Amazon was said to be interested in buying Flipkart, in which Walmart is now buying a majority stake (in part from Tencent); Google is still said to be mulling a minority investment. On June 17th Google invested \$550m in JD.com, a Chinese e-commerce firm which has spent lavishly on startups in Indonesia, Thailand and Vietnam.

User numbers for services that are free of charge in emerging markets are inevitably mind-boggling—eight of the ten countries with the largest number of Facebook users are emerging markets, led by India with 270m. Whether that will translate into a commensurate level of revenue and profits is less clear. For all the excitement around Indian e-commerce, say, only about \$27bn-worth of stuff is shifted online in India each year—about what all Chinese e-commerce firms sell in just nine days and American ones in three weeks. South-East Asia is smaller still.

No matter, so far as the tech firms are concerned. Winning the next billion users is seen as an investment worth making at almost any cost. Chinese tech giants must reckon with a dwindling number of new recruits to the internet at home; they also have the confidence, clout and capabilities to expand abroad. America's titans might once have expected to face meek local rivals in emerging markets; now they have a fight on their hands. It is one they could barely have imagined four years ago, when those other titans, of the footballing ilk, were last challenging for global glory.

This article appeared in the Business section of the print edition under the headline "Clash of the titans"

Bartleby

The fashion for agile management is spreading

Executives need to be a cross between Spider-Man and Simone Biles

Print edition | Business Jul 5th 2018

AGILITY is such a modish word in modern management theory that it can seem as if the ideal corporate executive would be a combination of Spider-Man and Simone Biles, a gymnast. The concept has its roots in the idea of "lean management", developed by Toyota in car manufacturing, and in the "Agile manifesto" drawn up by a group of software developers back in 2001.

Big software-development projects were (and are) notorious for producing costly, late and cumbersome results. The idea of agility was to focus on small, innovative and multi-disciplinary teams. Among the manifesto's principles were that "individuals and interactions" were more important than "processes and tools", and that responding to change was better than sticking to the plan.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Somehow, the teams concept acquired the name "scrum". This moniker was clearly bestowed by someone who had never seen a real rugby game. An actual scrum involves 16 people pushing hard, getting nowhere and usually ending up collapsing or being penalised by the referee for foul play.

Management scrums aim to be a bit more mobile than that. In his recent book, "The Age of Agile", Stephen Denning recounts how a team at Spotify, a music-streaming provider, developed the "Discover Weekly" service, which suggests new songs to users. The team pulled together a prototype within a couple of weeks and tested it first on their fellow-employees and then on very active users. All Spotify customers were offered the Discover service within just four months of the concept being created.

Another author, Simon Hayward, writes in his book, "The Agile Leader", that the aim of agility is to bring the company as close to the customer as possible. Ideas can be tested on a small scale and abandoned if they fail to work. Feedback from the customer is essential at every stage. Teams work on small tasks in short cycles, achieving their immediate goal and quickly moving on to the next.

This way of thinking seems sensible enough for specific projects. But companies are now starting to test whether an entire business can become agile—corporate versions of the Chinese state circus. A recent article for the *Harvard Business Review* (HBR)* describes companies that have adopted an agile approach, including Bosch, a German electronics and engineering firm, USAA, an American financial-services company, and the health-information systems division of 3M, a multinational. Perhaps the most striking example is Saab, Sweden's defence firm, which created more than 100 agile teams, covering software, hardware and the fuselage, to build its Gripen fighter jet.

These firms have helped show that transforming groups into agile companies is possible. But it is not easy, says Darrell Rigby of Bain, a consultancy, one of the HBR authors. Just creating teams is not enough; the leadership and culture of the whole company must change. Items such as budgets and employee pay have to be altered to reflect the much shorter timeframes of team operations.

A much bigger agenda lies behind the emphasis on agility. Some argue that the old, top-down corporate model, associated with Alfred Sloan at General Motors in the second quarter of the 20th century, is no longer relevant. Instead, companies need to adapt to a world that is VUCA (volatile, uncertain, complex and ambiguous) and which requires continuous innovation in order to keep up. Agile teams are the equivalent of in-house startups.

It is worth remembering, however, that many startups fail to gain traction. There is a danger that, while a firm's best talent is off pursuing new ideas, the core revenue-generating business deteriorates due to neglect. Permanent revolution may sound an enthralling idea in theory but may lead to chaos in practice.

And what is the role of the chief executive at a big company in an agile world? Most of the innovation and big decisions will have been delegated down to the level of the team. The boss will of course still have an important role in allocating capital to the various teams. But will that role really justify the \$10m-plus salaries that chief executives often enjoy? Indeed, if agility is really the characteristic of business success, then perhaps the very structure of a public corporation is not the most appropriate one. Small businesses, by their nature, are more likely to be agile. The best gymnasts, after all, don't tend to be built like rugby forwards.

* "Agile at Scale" by Darrell Rigby, Jeff Sutherland and Andy Noble, HBR, May-June 2018

This article appeared in the Business section of the print edition under the headline "The A teams"

A different vision

China's new \$15bn tech fund emulates SoftBank's Vision Fund

It is riding a wave of Chinese state-backed venture capital

Print edition | Business Jul 5th 2018

THE story of China Merchants Group began in the 1870s. After its defeats in the Opium wars, the Qing government tried to learn from the West by adopting foreign technology and encouraging new commercial ventures, including China Merchants. The banking-to-shipping conglomerate, based in Hong Kong, has since evolved into one of China's largest state-owned enterprises, with \$1.1trn in assets.

Fittingly, its latest endeavour again involves looking westward for new technologies. On July 1st it announced that its investment arm and other China-based investors would put 40bn yuan (\$6bn) into a 100bn yuan venture-capital (VC) fund, the China New Era Technology Fund.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That total pot is a nod to the much larger project that it aims to replicate: the \$100bn Vision Fund, formed by Masayoshi Son, founder of SoftBank, a Japanese telecoms and internet firm, to invest in flashy startups. It borrows a little of its aura by partnering with Centricus, a British investment company that helped Mr Son raise the initial \$45bn for his fund from Saudi Arabia's crown prince, Muhammad bin Salman. For China Merchants, Centricus will raise the remaining 60bn yuan in tandem with SPF Group, an asset-management firm in Beijing, one of whose partners is the son of Larry Fink, the founder of BlackRock.

The trio's 100bn yuan will be mainly deployed in China. They face a crowded field of competing funds, many also backed by state firms or directly by the government. China Merchants has itself set up 30-odd funds since 2015, targeting industries from robotics to semiconductors, though the China New Era one is its most ambitious. By the end of last year, ChinaVenture, a data provider, had recorded 1,166 government-led funds with 5.3trn yuan in targeted capital, up from 214 funds in 2013.

Tech funds tied to municipal governments have also recently set up abroad: Beijing's Danhua Capital and Hangzhou's HEDA Investment are both in Silicon Valley. Forays like these increasingly vex trade hawks in America, who fear that China will filch its cutting-edge technology. Investments like those targeted by the China New Era fund are bound to get even more attention, says Josh Lerner of Harvard Business School.

Skittishness abroad is not the only obstacle to success. A recent report by Bank of China, a commercial lender, warned of "scattered funds and duplicated targets" among the new state-led ones, and said they were too often run by bureaucrats. Government-backed funds do not chase the best returns. The strategic interests that govern them are the chief reason why they worry Western governments—and perhaps also why many of them peter out.

This article appeared in the Business section of the print edition under the headline "A different vision"

In a fizz

Shortages of carbon dioxide in Europe may get worse

It has affected the production of beer, fizzy drinks and even crumpets

Print edition | Business Jul 5th 2018

IN THEORY, the world has too much carbon dioxide. In 2015 the Paris climate agreement set limits on emissions of the gas to prevent global temperatures rising by more than two degrees Celsius above those of pre-industrial times. But in practice, makers of food and drink in Europe have found that they cannot find enough of the gas. And this unlikely shortage is likely to get worse in future.

Food-grade CO2 is a vital ingredient: it puts the fizz in carbonated drinks and beer, knocks out animals before slaughter and, as one of the gases inside packaging, delays meat and salad from going off. A shortage of the stuff has therefore created havoc in foodmakers' supply chains. Heineken, a Dutch brewer, and Coca-Cola, an American drinks giant, have been forced to close some of their European plants. JD Wetherspoon, a British pub chain, ran out of some beers. Scotland's largest pig slaughterhouse was forced to shut. On June 29th Warburtons, a British baker, said that the problem had affected crumpets, closing down half its production of the snacks (the affected bakeries have since reopened).

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Increased demand for food and drink due to the World Cup and sunny weather in northern Europe is only half the story, says Ned Hammond of Berenberg, a bank. Unlike America, which gets most of its carbon dioxide from natural wells, 50% of Europe's comes as a by-product of ammonia production; a further 30% stems from processes for making hydrogen and bioethanol. Those sources of supply tend to be seasonal. For instance, three out of Britain's five ammonia plants have been closed for maintenance—mostly for economic reasons. Farmers are cutting back on fertiliser use in the summer months, putting pressure on prices. And high prices for the natural gas from which ammonia is made have squeezed margins.

For most commodities, prices would then rise, encouraging more production. But the carbon-dioxide market does not work like that, explains Adam Collins of Liberum, another bank. First, there is no spot price that could adjust quickly; most of the gas is sold through long-term contracts. Second, since the gas is a cheap by-product of making ammonia and other chemicals, it is not worth making them simply to produce CO2. In 2016 global carbon-dioxide sales were worth just over \$2bn—minuscule amounts compared with \$49bn-worth of ammonia sales. And third, shipping the gas costs so much compared with its price that it is not worth moving supplies from America or Asia to Europe.

The biggest suppliers of CO2—Praxair, Linde, Messer and Air Liquide—hope that the shortage will soon end as ammonia plants restart and as the firms move stocks from other parts of Europe. But users of the gas are not so sure. There was also a shortage in 2015, says Brigid Simmonds of the British Beer and Pub Association, a trade body. And the situation each summer appears to be getting worse. Demand for carbon dioxide in Europe is rising several times faster than ammonia production, which is gradually shifting to other continents with cheaper sources of natural gas.

Co-ordinating plant shutdowns better could help in the short term. But squeezed margins could mean more, not less, downtime in the future. Other sources of CO2 could be explored. Bioethanol production could be expanded in Europe, but that would need subsidies. The emissions of power stations could be captured and "scrubbed", separating the CO2 from other exhaust gases. Producing food-grade CO2 in this way is not price-competitive with existing sources, says Ralf Gubler of IHS Markit, a research firm. But a carbon tax could make such carbon capture and storage technologies commercially viable. Such a policy would be environmentally friendly. It could save the food and drink industry's bacon each summer, too.

This article appeared in the Business section of the print edition under the headline "In a fizz"

Brakes on

Brakes on

New auto tariffs would batter German carmakers

It is chiefly Teutonic marques that President Donald Trump is targeting

Print edition | Business Jul 5th 2018

THE menace to Americans from immigration of the wrong sort is immense, according to President Donald Trump. The list of items he wants to deter from crossing the border includes objects as well as people, and one in particular holds his attention. In trade terms, he told Fox News on July 1st, "the cars are the big one." With good reason, he views auto tariffs as a far deadlier weapon than the duties already imposed on steel and aluminium when it comes to extracting trade concessions from other countries.

That is dire news for all carmakers, which are among the world's most globalised firms. But Germany's are the most dependent on exports. Most well-off Americans long ago traded in Lincolns and Cadillacs for the refinement of Teutonic marques. A tweet from Mr Trump on June 22nd reaffirming his tariff plans sent the shares of Daimler, which makes Mercedes, and of BMW into a nosedive.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Mr Trump fumes that American cars exported to Europe attract a 10% tariff whereas cars travelling in the other direction are taxed at only 2.5%—the result of trade negotiations over the years. (He naturally ignores America's 25% tariff on imported light trucks, imposed in 1964 by President Lyndon Johnson in retaliation for French and German tariffs on American chicken.) A Commerce Department probe that is set to be completed by mid-July may reach the far-fetched conclusion that imported cars, like imported steel, threaten America's national security. Mr Trump has promised a 25% tariff in response (though this has dropped to 20% in more recent tweets).

Germany's carmakers will bear the brunt. They account for around half of Europe's car exports to America. The impact on BMW and Daimler will be severe because, as Barclays, a bank, notes, exports to America account for 10% and 8% respectively of their global sales (for Volkswagen it is only 3%). This tots up to around 600,000 German vehicles. With tariffs at 25%, German carmakers would lose money on every vehicle sent from Europe, according to Evercore ISI, a research firm.

But ridding American roads of German horsepower will not be simple. The premium cars' popularity convinced both BMW and Daimler to build factories in America; indeed, Mr Trump's tariff threats may be a ploy to get them to make more in America. Factories must make over 300,000 cars a year to operate efficiently. As the American market is not big enough for all those vehicles, they must export too.

This has made them a target on another front. On July 1st China, in an effort to calm tensions, reduced tariffs on imported cars from 25% to 15%. But in response to tariffs planned by Mr Trump, it will probably raise levies on American-made cars to 40%. And the biggest exporters to China are BMW, which sent over 100,000 vehicles from its American factory last year, and Daimler, which exported over 70,000, according to Jefferies, a bank.

The slamming of globalisation into reverse gear has "caught the industry by surprise", says the boss of one carmaker. In the short term some of the mooted tariffs can be absorbed and some can be passed on to customers. That will still hit profits and sales. German carmakers are now near the top of global investors' hit lists of national sectors to avoid because of prominent export surpluses with America.

A longer-term response requires BMW and Daimler to decide whether the proposed tariffs will endure. If so, some production could be relocated to China. Factories in America might also be reconfigured to serve the local market. Instead of making just two or three models they could make twice as many, including the saloons and hatchbacks that are now imported. But that takes two or more years and requires pricey retooling, raising costs and making the plants far less efficient, points out Ferdinand Dudenhöffer of the Centre for Automotive Research in Essen.

Investors' gloom thus looks warranted. The industry is also having to cope with the fallout of its diesel crisis, and invest heavily in electric vehicles and more fuel-efficient petrol engines. Next, Mr Trump plans to renegotiate NAFTA, creating further difficulties for Germany's carmakers, all of which either already make vehicles in Mexico for both the American market and the rest of the world or are planning to do so. For German cars, trade disruption looks likely to be the big one.

This article appeared in the Business section of the print edition under the headline "Brakes on"

Pipe dreams

Canada's cannabis firms plot world domination

Being in the first big country to legalise pot means first-mover advantage

Print edition | Business Jul 5th 2018

IT IS rare to see the words "Canada" and "world domination" in the same sentence. The country's cannabis producers want to change that. With an eye on October 17th, the date on which recreational marijuana will become legal, medical-cannabis firms have been expanding at home and talking up their global ambitions in a most un-Canadian way. Lots of joint ventures—in the legal sense—are being signed abroad. The hope is that having a base in the first large country to make pot legal for adults (Uruguay legalised cannabis in 2017) will give them an unbeatable lead.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

To date firms have financed their expansion plans largely by selling shares, supplemented by funding from smaller investment banks and credit unions. Enthusiastic investors have pushed share prices to stratospheric levels (see chart)—many warn of a bubble. But the biggest banks, without whom nothing substantial is financed in Canada, have been wary. That changed on June 26th when the Bank of Montreal agreed to loan Aurora Cannabis up to C\$200m (\$147m), with the possibility of an additional C\$45m following legalisation.

The funds will allow the Alberta firm to keep pushing in its quest to have "boots on the ground in countries across the world", Terry Booth, its boss, told Bloomberg, a news provider. European demand for medical cannabis is much stronger than anticipated, he says, citing Germany, Denmark, Italy, Poland and Malta as particularly hot markets.

The Canadian strategy is to establish a beachhead in the medical-marijuana market in other countries, which can be exploited if recreational pot becomes legal. Aurora, which exports to Germany, Italy and Malta, plans to build a 1m square feet (93,000 square metres) greenhouse in Denmark in a joint venture with a European tomato producer. Another Canadian firm, Canopy Growth, which bills itself as a "world-leading diversified cannabis and hemp company", operates in 12 countries, including Australia, Germany, South Africa and Denmark.

But the Canadians will not have things all their own way. Firms in Australia, Israel and Colombia have expressed similar global ambitions. And their first-mover advantage could dissipate if America clarifies its policy. More than half of states have legalised medical or recreational marijuana use, both of which remain a crime under federal law. Paul Rosen, who co-founded The Cronos Group, which owns a number of cannabis producers, says that America will be "the next great cannabis economy", although legalisation at a federal level is unlikely anytime soon. Canadian producers may yet discover that conquering the globe is just a pipe dream.

This article appeared in the Business section of the print edition under the headline "Pot of gold"

Pill-popping

Amazon takes a big step into online pharma

Its PillPack acquisition heralds an industry shake-up

Print edition | Business Jul 5th 2018

FOR roughly a year speculation has been feverish: would Amazon, an online retail giant, muscle into America's prescription-drugs market? On June 28th that uncertainty ended when it bought a small online pharmacy, PillPack, based in Manchester, New Hampshire, for about \$1bn. When the deal is completed later this year, Amazon will be able to sell prescription drugs to customers in the 50 states where PillPack has licenses.

The news of Amazon's entry had a predictable effect on incumbent firms. Shares of three large bricks-and-mortar pharmacy chains, Walgreens Boots Alliance, Rite Aid and CVS Health, lost \$11bn in value. Drug distributors such as Cardinal Health and AmerisourceBergen were also hit. Amazon gained \$19.8bn. Michael Rea, boss of Rx Savings Solutions, a health-technology firm, says the purchase increased the speed with which Amazon can get into the prescription-drug market, making slimmer profit margins "imminent".

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In the short term Amazon is unlikely to take more than a sliver of the \$453bn Americans spend on prescription drugs. Last year the vast majority of prescriptions were picked up in person. But if Amazon can simplify the process of filling a prescription at the same time as offering cheaper prices, it could up-end the selling of medicines in the same way it has with books, toys and clothes.

Fear of what might be taking shape in the mind of Jeff Bezos, Amazon's boss, has already encouraged health-care firms to join forces. CVS is undertaking a \$68bn tie-up with Aetna, a health insurer. Cigna, another insurer, is doing a similar-sized deal to buy Express Scripts, a pharmacy benefit manager, an intermediary which negotiates drugs prices on behalf of insurers and employers. New services are also being created. CVS is starting to offer same-day delivery of prescriptions. Both it and Walgreens intend to provide medical services in more stores. Walgreens aims to roll out blood tests for medical conditions.

Buying PillPack is not Amazon's first foray into health care. It already sells over-the-counter medicines such as aspirin and antihistamines in America, alongside vitamins and supplements. It launched its own line of generic medicines called Basic Care last year. It sells medical supplies such as face masks and swabs, and wants to expand into supplying hospitals and clinics.

Amazon is also part of a three-way joint venture with JPMorgan Chase, a bank, and Berkshire Hathaway, an investment firm, to create a non-profit health-care venture. On July 9th Atul Gawande, a surgeon, writer and professor of medicine at Harvard, will start as the boss of the as-yet unnamed firm. Mr Gawande has said the venture will target excessive administrative costs, high prices and improper medical care (such as over- and underuse of specific drugs and treatments). It will initially be aimed at the three firms' combined 1.2m American employees.

If it is really serious about disrupting the American health-care system, some think that Amazon will end up having to buy, or create its own, pharmacy benefits manager. Amazon may also need a way of managing electronic medical health records as well as doing the sorts of analytics on health-care data that will allow it to wring greater efficiencies out of a notoriously bloated system. And the firm could choose to open or buy retail pharmacies, or even become a wholesale distributor of drugs. No wonder its rivals fear being killed, not cured.

This article appeared in the Business section of the print edition under the headline "Pill-popping"

Digging for dirt

Glencore faces a DoJ probe stretching from Africa to the Americas

Its swashbuckling executives may have to rethink their risk tolerance

Print edition | Business Jul 5th 2018

IT EMERGED on July 2nd that Hollywood may make "The King of Oil", a film about Marc Rich, an American-Swiss commodities trader who became a fabulously rich fugitive from American justice. On July 3rd Glencore, the firm founded by Mr Rich, said America's Department of Justice (DoJ) had requested documents regarding its compliance with corruption and money-laundering laws. Depending on the outcome, the film may have a good sequel.

It has been a year of pain for Glencore, a mining and trading giant. News that the DoJ wanted over ten years of documents related to activities in three countries, the Democratic Republic of Congo (DRC), Nigeria and Venezuela, knocked its market value by 8.5%, or \$4.3bn (on July 5th it announced a \$1bn share buyback). Its shares had already lagged its peers this year because of its exposure to the DRC and Russia, where it has suffered collateral damage from American sanctions.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Glencore, whose boss, Ivan Glasenberg, is its second-biggest shareholder, is often feted for living dangerously. The firm takes big risks, which clobbered it when commodities crashed in 2013-16. That offers big rewards when the cycle turns, as it did later. But when things that Glencore is meant to be expert at, such as operating in dodgy countries, go awry, its investment case is harder to make.

The DoJ probe comes weeks after Glencore resumed royalty payments to Dan Gertler, an Israeli billionaire sanctioned by the American government because of what it called "corrupt mining and oil deals" in the DRC. (Mr Gertler denies wrongdoing.) It is not clear whether these events are connected. The DoJ, after all, is separate from the Treasury, which handles sanctions, and Glencore says it spoke with American officials before resuming payments—in euros—to Mr Gertler. But the DoJ has the DRC in its sights. In 2016 it fined Och-Ziff, a hedge fund, \$412m for bribing officials there.

The DoJ's scrutiny of Glencore's operations in Venezuela and Nigeria, meanwhile, is likely to involve oil trading. It is unclear what may have aroused its suspicions. In Venezuela Glencore was recently named as one of 40 co-defendants in a lawsuit that alleges oil-trading firms funnelled bribes to corrupt officials.

It is also not clear whether long-term investors or speculators dumped Glencore stock. But even if it leads to no further action, the probe may have consequences. If it spooks banks and investors, Glencore's cost of capital will rise. It may also make executives think twice about taking on risk. Normally Mr Glasenberg would not tolerate such pusillanimity. If he starts to, it will be a different—and less movie-worthy—Glencore.

This article appeared in the Business section of the print edition under the headline "Digging for dirt"

Schumpeter

History's biggest firms

What 19th-century opium dealers and 1970s telecoms monopolies can teach Silicon Valley

Print edition | Business Jul 5th 2018

IS THERE any limit to how big a company can get? If Apple's shares rise by 9% its market value will pass \$1trn. It is an astonishing sum, supported by the iPhone-maker's staggering profits of \$60bn a year, or \$8 for every person on Earth. Yet it should prompt cold sweats among the firm's managers and investors. Relative to GDP, Apple's earnings are now so big that it is entering a danger zone that has been occupied by only a few other corporate colossi, including the East India Company and John D. Rockefeller's firm, Standard Oil. If history is any guide, Apple will not get bigger and other tech firms in America and China, such as Amazon and Alibaba, are testing the limits, too.

The \$1trn mark has been passed once before, by PetroChina, a Chinese state firm, for 15 days in 2007. But that reflected a speculative frenzy on Shanghai's bourse. And in any case, what matters more than nominal market values is the size of a firm's profits relative to the economy. There are no iron laws, but common sense suggests that there are limits. Vast profits might reflect products that cannot possibly become any more popular, or a concentration of power that invites a competitive or political backlash.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Six cases of gigantism stand out most, with the firms becoming so big that governments intervened. In 1813 the East India Company, a British private empire involved in opium production, among other things, lost its long-standing legal monopoly over trade with India. In 1911 America's Supreme Court broke up Standard Oil, and, as a populist wave swept the country, the government also initiated legal action against US Steel, the other giant of the Gilded Age. Trustbusters went after IBM in 1969, and then in 1974 they sought to break AT&T's grip on telecoms. And the Department of Justice sued to dismember Microsoft in 1998.

Measuring these mammoths is best done using the yardstick of profits relative to GDP. Earnings figures are fairly reliable and capture the size of the bounty these firms could trouser. *The Economist* has taken the peak figures during or just before each firm's regulatory showdown and compared that to the GDP of its country of domicile. Some caveats are in order: interpreting old accounts involves guesswork (the East India Company's books include an entry for "booty"). No official figures exist for GDP before the first world war, only academic estimates. For the East India Company and Standard Oil the sources are historical tomes and court and parliamentary documents, not company reports.

Three conclusions are clear. First, when the six firms got into trouble they had profits of between 0.08% and 0.54% of GDP, with a median of 0.24%. The East India Company is at the top end of that range and IBM and Microsoft at the bottom. Second, today's American and Chinese tech giants are already near, or within, the lower end of that danger zone, as are several nontech firms, such as Berkshire Hathaway. Apple is larger than the rest, with profits worth 0.28% of GDP. Third, the dizzying valuations of big tech firms imply that their profits will soar still further. If investors' expectations are met, by 2027 Amazon, Apple, Alphabet and Microsoft will all have profits above the historical median of 0.24%. Facebook, Tencent and Alibaba will not be far behind.

Tech tycoons have some decent arguments as to why size does not matter any more. Today's firms are more global than in the past, so comparing their profits to America's or China's economy may exaggerate their clout (although by 2027 Amazon's profits are projected to be twice as big relative to world GDP as the East India Company's in 1813). Political institutions in America, and perhaps China, are less corrupt than in 19th-century Britain and America, so big firms may be less able to capture governments.

However, today's tech giants extract profits from customers more consistently than the earlier oligopolists did. Together the seven biggest firms make a 32% return on equity (ROE). Microsoft had high returns in 1998. Standard Oil also had an ROE rivalling today's tech giants—this was a key plank of the prosecution's successful case that it was a monopoly that should be broken up. But at their zeniths the East India Company, US Steel and AT&T made ROES of only about 10%, and IBM managed about 20%.

If today's giants were broken up, would it spell disaster? According to one big shareholder, break-ups sometimes benefit investors. The shares of Standard Oil's listed subsidiaries, after all, increased in value after the court decision in 1911 to dismember the firm. Yet overall, corporate whoppers had a mixed time of it. The East India Company shrivelled after it lost its monopoly. US Steel won its case and avoided being broken up but, after a brief surge during the first world war, it faded from view. By the 1990s IBM was making losses and today it is a shadow of its former self. The firms that resulted from breaking up Standard Oil, including Exxon and Chevron, have, in total, smaller profits than it did relative to GDP. Two firms have fared better. AT&T's descendants, Verizon and AT&T, have gobbled up many of their competitors and together now squeeze out similar profits to those their parent did in 1974. And though Microsoft had a rough patch after it escaped being dismembered, it has since almost doubled in size.

The incredible hulks

The past is not regarded as a meaningful guide to the future in Silicon Valley and Chinese tech circles. But at the height of their powers, giant companies make blinkered, unreliable guides to their own futures. In 1974 AT&T's annual report dismissed the risks of antitrust and advised Americans that "competition breeds a wasteful duplication". In 1909 Standard Oil told the courts that its founders, with their "infinite skill", had succeeded as if they had developed "a gold or diamond mine, and abundant revenue legitimately became theirs"—a piece of logic not dissimilar to how today's tech titans justify themselves. The fallibility of corporate superstars is worth bearing in mind as today's tech stocks cruise towards valuations that were almost unimaginable only two years ago.

This article appeared in the Business section of the print edition under the headline "History's biggest companies"

Finance and economics

US-China trade

Theatre of war

Theatre of war

As its trade tussle with America heats up, China is on the back foot

But tumbles in Chinese equities and the yuan stem more from domestic causes

Print edition | Finance and economics Jul 5th 2018

FOR months Chinese officials have stuck to the same script: China does not want a trade war, but will win if dragged into one. As hostilities turn more serious, this confident façade has taken a blow. Chinese equities have plunged into bear-market territory. The yuan had its biggest monthly fall against the dollar on record. Economic indicators have weakened. Even bombastic state-run media have turned introspective, counselling against arrogance.

All this, and the tit-for-tat trade battle is only just getting under way. On July 6th, after *The Economist* went to press, America was due to impose its first major set of tariffs on China: 25% duties on \$34bn-worth of imports, notably machinery and electronic parts. China was set to retaliate with tariffs on goods worth the same amount, hitting products from soyabeans to sport-utility vehicles. Both countries have listed more tariffs to follow, on goods worth another \$16bn. Both have also warned that they are willing to inflict much more pain if the conflict escalates.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Donald Trump's bet is that since China has a massive bilateral trade surplus, it stands to lose more than America as barriers go up against imports. Were their stockmarkets gauges of the two countries' trade-war prospects, he would seem to have a point. The S&P 500, America's leading index of big shares, has fallen by 5% since late January; the CSI 300, China's analogue, is down by more than 20% over the same period. Exchange-rate movements reinforce the impression. The yuan has depreciated by 5% against the dollar over the past three months, a sharp fall for a closely managed currency (see chart).

China is nervous about the perception of vulnerability. A drumbeat of reports in state-run media have talked up the stock-market. On July 3rd the central bank tried to bolster the yuan, saying that the economy's fundamentals were strong. But the toll from the trade war is starting to show up in some data. Surveys of China's manufacturing sector have pointed to falling export orders. Mr Trump could take all this as evidence that he was right when he tweeted that trade wars would be easy for America to win.

In that, though, he would be mistaken. The turbulence in China reflects domestic challenges more than trade tensions. The hit to growth from the \$34bn-worth of tariffs is likely to be minuscule, adding up to just about 0.1% of Chinese GDP. Depictions of China as a trade-reliant economy are hopelessly outdated: net exports account for just 2% of national income.

Instead, the bigger cause of China's market turmoil is homegrown. After a rapid build-up of debt over the past decade, officials have been working to defuse financial risks. This has depressed demand for both equities and corporate bonds. Slower credit growth has weighed on liquidity. Capital spending has slowed sharply. Adding to the gloom was a report published by the National Institute for Finance and Development, a government-backed think-tank, on June 25th, warning that China was "very likely to see a financial panic". The institute's head later clarified that he believed the government could manage the risks. But jittery investors latched onto his warning, not his reassurance.

Yet seen from a different angle, China's market troubles demonstrate one of the reasons why its officials think they can outlast America in a trade war. An authoritarian regime can limit and dictate the public discussion. After the stockmarket tumbled, authorities warned journalists against citing the trade conflict as an explanation, according to a directive published by the China Digital Times, a website that tracks government censorship. Reporters were also ordered to emphasise the economy's bright spots. In America, meanwhile, the hurly-burly of its public discourse has been on display. On July 2nd the US Chamber of Commerce, the country's biggest business group, launched a lobbying campaign to explain how tariffs would hurt the economy. Republican lawmakers in Congress are criticising the president's trade policies more openly than heretofore—though on past form, if Mr Trump pushes ahead, they will probably fall into line.

Another source of confidence for China is the knowledge that it is not fighting America alone. From steel tariffs on Japan to threats of auto tariffs on Europe and negotiations that might wreck the North American Free-Trade Agreement, Mr Trump is taking on every one of America's allies. China has tried to rally them to its side. It has asked the European Union to join it in condemning Mr Trump's trade actions, according to Reuters (the EU declined because of its own trade grievances against China). Even as it raised tariffs on soyabeans from America, it removed them from soyabeans from India, South Korea and others in Asia. Xi Jinping, China's president, has hinted that its markets will become more open to non-American firms.

Still, China's preference would be to avoid a trade war altogether. That is why its officials had tried in May to hammer out an agreement to buy more American oil and farm goods, which they thought might satisfy Mr Trump. Many in China still cling to the hope that he can be reasoned with. Hawks in the White House had, after all, pushed for harsh restrictions on Chinese

investors in late June, but Mr Trump went for a softer option, refusing to single out China. Lu Zhengwei of Industrial Bank, a Chinese lender, says the staggered way in which Mr Trump is imposing tariffs suggests that he wants to leave room for talks. "It feels like a chess match," he says. With its financial markets in bad shape, China's opening move looks wobbly. But the game is nowhere close to checkmate.

This article appeared in the Finance and economics section of the print edition under the headline "Theatre of war"

Donald v the OPEC dons

The American president is stirring up trouble in a volatile oil market

IT USED to be said that America's shale producers were the new "swing factor" in global oil markets. It turns out that role is being taken by America's president.

At a time when oil prices are at three-and-a-half-year highs, markets are being buffeted by three countervailing forces unleashed by President Donald Trump: his geopolitical agenda, particularly sanctions on Iran; his domestic political agenda, to lower American petrol prices before the mid-term elections; and his looming trade war with China. If he does not get his way, he may have a dangerous weapon up his sleeve—America's Strategic Petroleum Reserve (SPR). His meddling risks making OPEC, the oil cartel that is a focus of his wrath, look like a paragon of predictability.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

First, geopolitics. Despite an agreement late last month by Saudi-led OPEC and Russia to increase output by up to 1m barrels a day (b/d), the price of Brent crude, a benchmark, has risen to above \$77 a barrel. The proximate cause this week was a brace of supply outages in Libya and Venezuela, both of which are in upheaval. But adding fuel to the price rally is the Trump administration's pressure on America's allies to cut oil imports from Iran to zero by November 4th, or risk punishment for violating American sanctions. This is more draconian than expected.

Brian Hook, an official at the State Department, said on July 2nd that more than 50 international firms, including energy ones, had agreed to pull out of Iran. Though America may allow some countries—possibly Turkey, France and others—to reduce imports rather than cut them completely, it will not grant any waivers. According to Clearview Energy Partners, a consultancy, a "zero-barrel" response could see between 800,000 and 1.05m b/d of Iranian crude come off the market, with the squeeze starting in September, 60 days of shipping time before the sanctions kick in.

Mr Trump's Iranian ambitions are working against his domestic political ones, however. Higher oil prices mean the price of gasoline in America is hovering around \$3 a gallon, just as Americans take to the road for the holidays. Those hurt most are drivers on lower incomes, who are more likely to vote Republican in the mid-term elections. Though some Republican states produce oil, and will therefore benefit from higher prices, the president is clearly worried. In an interview on Fox TV aired on July 1st, he ordered OPEC to stop manipulating the market, threatening some of its members with the loss of American protection if they do not.

Mr Trump also tweeted on the need for Saudi Arabia to increase production by up to 2m b/d—an unusually open attempt by an American president to intervene in the nitty-gritty of OPEC policy. The White House later backtracked from his claim that Saudi Arabia had agreed to the request, but not without affirming that the kingdom had 2m b/d of spare capacity.

Whether or not the Saudis can use that buffer is a different matter. Energy Aspects, a consultancy, says that the highest level of production Saudi Aramco, the state-owned oil giant, has tried for any length of time is 11m b/d (it is about 10.3m b/d at the moment). But keeping production at that level for several months would damage its reservoirs. Pumping 12m b/d would also take spare capacity in the global oil market to uncharted lows, leaving it dangerously exposed to supply shocks.

Complicating matters is the imminent risk of an America-China trade war. China has threatened tariffs on American oil imports if retaliation meets more retaliation. And China may pay no heed to American sanctions on Iran, which would further stoke tension between the two.

These factors, some bullish for oil prices, some bearish, may offset each other. But they have already had the unfortunate consequence of putting Mr Trump alongside the rulers of Saudi Arabia and Russia in the driving seat of global oil policy. Shale producers, who cannot respond to price signals anything like quickly enough to please Mr Trump, are sidelined.

He may yet exert his influence even more openly. Analysts predict that if petrol prices continue to rise ahead of the midterms, Mr Trump will use a release of up to 30m barrels from the SPR to flood the market. That would be tantamount to launching an oil war against OPEC and Russia, in addition to the trade war. But it cannot be ruled out.

This article appeared in the Finance and economics section of the print edition under the headline "Donald v the OPEC dons"

A rocky road before recovery

Argentina's currency crisis is far from over

BUENOS AIRESA weak currency and punishingly high interest rates mean recession appears inevitable

Print edition | Finance and economics | Jul 5th 2018

ON A residential street corner in Buenos Aires, Van Koning Market sells imported beers to the city's well-heeled. Since it opened in June last year costs have soared. The peso has plummeted, meaning wholesale prices have shot up. Inflation is running at 26%; the reduction of government subsidies means the monthly electricity bill has risen from 700 pesos to 4,000 pesos (\$142). Already losing customers, Sergio Discenza, the manager, is reluctant to raise prices much. "In a normal country this would be a viable business," he says. "But here everyone is struggling."

The year started badly for Argentina when the worst drought in 50 years hit the harvest of maize and soyabeans, both important exports. In May a stronger dollar and higher US Treasury yields prompted international investors to flee risky assets. Most emerging-market currencies suffered, Argentina's especially. Its twin fiscal and current-account deficits have seen the peso lose more than a third of its value this year, making it the world's worst-performing currency (see chart). A recession, the fifth in a decade, appears inevitable.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

In May the central bank hiked interest rates to 40% to prop up the peso. When that failed Mauricio Macri, the president, secured a \$50bn credit line from the IMF. The peso continued to fall. On June 14th the central-bank governor resigned, admitting he had lost the confidence of investors. Luis Caputo, a former Wall Street trader, was moved from the treasury to replace him. Mr Caputo has had a tough start: since his appointment the peso has slid by a further 4% and the Merval, Argentina's benchmark stock index, by 8%.

Frustratingly for Mr Macri, Argentina's travails are, in part, a consequence of his efforts to put the economy on a firmer footing. When he took office in December 2015, inflation was running at 25%. He allowed the peso to float. It quickly fell by 29%. He also gave the central bank freedom to raise rates, which encouraged foreign investors to buy government bonds and supported the currency. It remained overvalued. That kept imports high and made it hard for exports to compete. The current-account deficit rose to more than 5% of GDP. Meanwhile the government raised large amounts of foreign-denominated debt to cover the fiscal deficit. When investors cooled on emerging markets, all that left Argentina painfully exposed.

The IMF credit line means most of Argentina's external-financing requirements are covered until 2020. But it is tied to austerity measures, including cutting the budget deficit, which reached 3.9% in 2017, to 1.3% of GDP next year and to zero by 2020. The savings are supposed to come from postponing infrastructure projects, cutting subsidies and transfers to the provinces, and shrinking the federal payroll. But Mr Macri controls neither house of congress, and investors fret that austerity lacks support. If he were to lose the presidential election due in October 2019, the deal with the IMF might collapse.

The currency crisis has also stoked social unrest. Argentines have long regarded the peso's strength against the dollar, which is widely used for savings and property transactions, as a yardstick for their country's economic performance. On June 25th a general strike called by the General Confederation of Labour, the largest trade-union grouping, in protest at the government's economic policies, brought the country to a standstill. According to Capital Economics, a consultancy, "further strikes could force President Macri into wage concessions, slowing progress in bringing down inflation and the budget deficit."

The pressure on Mr Macri is unlikely to ease soon. Aggravating the rise in prices caused by the peso's weakness, oil prices are on the way up. As pay packets stretch less far, consumption will suffer. Interest rates will have to remain high for some time, putting companies off investment. Most analysts expect Argentina to fall into recession in the third quarter.

A stronger harvest could mean a return to growth next year, says Irina Moroni of Fundación Capital, a consultancy in Buenos Aires. But interest-rate hikes elsewhere may yet hurt any future recovery: in America because it puts investors off emerging markets and in Brazil because of the impact on already-feeble growth in Argentina's largest trading partner. In January the World Bank predicted 3% growth for Argentina's economy in 2019; last month it cut that forecast to 1.8%.

Mr Macri was elected because Argentines, sick of populist economic policies, supported his plans for reform. Now many are wavering. A recent poll of Buenos Aires residents found almost half saying they had been happier under his populist predecessor, Cristina Fernández de Kirchner. "We would probably have sold more beer under the previous government," says Mr Discenza, standing in his deserted shop. Until recently, political analysts felt confident that Mr Macri would win a second term. His hopes rest on convincing Argentines that their glasses are still half full.

This article appeared in the Finance and economics section of the print edition under the headline "The rocky road to recession"

From the many to the few

Companies appear to be gaining market power

That may mean lower pay for workers, and less innovation

Print edition | Finance and economics Jul 7th 2018

COMPETITION forces companies to keep prices low to attract customers. But if a few firms become powerful enough, they can see off competitors and charge more. A new working paper by Jan De Loecker of the University of Leuven and Jan Eeckhout of University College London presents evidence that this is happening across the rich world.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The researchers examine markups—selling prices divided by production costs. At 1, products are sold at cost; above 1, there is a gross profit. Using the financial statements of 70,000 firms in 134 countries, the authors find average markups rose from 1.1 in 1980 to 1.6 in 2016.

America and Europe saw the biggest increases (see chart). But in many emerging markets markups barely rose. In China they fell. That suggests rich-world firms may have been able to increase markups by outsourcing to cut labour costs. Another possibility is that corporate concentration may have increased because of lax antitrust enforcement or the growing heft of companies benefiting from network effects, like internet firms.

Policymakers should take note. Greater market power for firms may also mean less bargaining power for workers, and hence lower wages. A recent study by David Autor of the Massachusetts Institute of Technology and four other economists found that workers' share of income in America has declined most steeply in the most concentrated sectors.

A recent IMF working paper found that companies with relatively low markups invested more when markups increased, whereas those that had started with high markups invested less. This was particularly evident in highly concentrated sectors. And the ratio of dividends to sales was higher for companies with higher markups. Firms with greater market power, it seems, may not only have higher profits but innovate less.

Sources:

- "Global Market Power", Jan De Loecker and Jan Eeckhout, NBER working paper, 2018
- " Global Market Power and its Macroeconomic Implications", Federico Diez, Daniel Leigh, Suchanan Tambunlertchai, IMF working paper, 2018
- "The Fall of the Labor Share and the Rise of Superstar Firms", David Autor, David Dorn, Lawrence F. Katz, Christina Patterson, John Van Reenen, 2017

This article appeared in the Finance and economics section of the print edition under the headline "From the many to the few"

Never had it so good

Central Europe's Goldilocks economies

The region is enjoying a boom. But long-term success requires more skilled workers and more innovative companies

Print edition | Finance and economics | Jul 5th 2018

THEY evoke metal gorillas in a cavernous, floodlit hall: 640 robots with riveting guns and arms for handling parts. They will spring into action this autumn at the opening of a new plant for Jaguar Land Rover (JLR), built at a cost of €1.4bn (\$1.6bn) on former farmland in Nitra, in western Slovakia. Cars under construction will travel along 3.9km of elevated maglev track, taking just two days from start to completion. The robots, together with 2,800 human workers, will assemble a Land Rover Discovery every two minutes.

JLR is just the latest carmaker to come to Slovakia. VW arrived 27 years ago, followed by Kia and PSA. The firms together churn out over 1m cars annually, more per head of population than any other country. JLR considered 30 or 40 locations, says Alexander Wortberg, who oversees operations at Nitra. Mexico has cheaper workers and (for now, at least) favourable access to the American market. But Nitra is close to a new motorway and Slovakia has an impressive supply chain, with more than 300 factories making car parts.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The new JLR factory gives a fair picture of Slovakia's, and more broadly central Europe's, model of development. First, it was built with foreign capital and largely by foreign contractors. Signs for Bouygues, from France, and Takenaka, from Japan, hugely outnumber those for Dynamik, a local building firm. Membership of the EU has facilitated the flow of capital from the bloc's western members to its eastern ones. Second, it depends on customers in economies to the west slurping up goods made relatively cheaply in the hinterland.

And third, government support was essential. Last year the European Commission said it was checking if the €125m JLR received broke the bloc's state-aid rules. Such subsidies are common in central Europe. Investors flock to special economic zones across the region, lured by tax giveaways. EU funds boost investment in infrastructure that appeals to foreign investors, like roads and rail. Even in Poland, the region's biggest and most diversified economy, this money matters. It will be nearly 3.5% of GDP and 10% of public spending each year until 2022, reckons Pawel Borys, head of Poland's development fund. In Hungary it added spending worth an average of 5% of GDP over the five years to 2015.

This foreign-led development model has had much success. Countries from the Baltic states in the north to littoral Black Sea states have become considerably richer over the past two decades (see map). GDP per person in the Czech Republic is now close to that in Spain. Bulgaria and Romania are much poorer, but managing to win investment and grow, too.

The European Commission tracks the progress of five EU members immediately east of Germany and Austria (the Czech Republic, Hungary, Poland, Slovenia and Slovakia) compared with a group of four wealthy "frontier" EU countries (Austria, Denmark, the Netherlands and Sweden). In 1995 average GDP per person (at purchasing-power parity) was around 55% lower in the five central European countries than in the frontier countries. By 2016 the difference had shrunk to 39%. Average incomes in the five countries are now equal to those in Portugal and far above those in Greece. Slovakia saw the most dramatic gains.

But the challenge for these countries—as for any hinterland reliant on supplying labour to produce goods for richer neighbours, *maquiladora*-style—is to keep closing the income gap. The next stage of development is bound to be harder, requiring more productive firms, more private capital and more skilled labour. It is not clear that central Europe is ready.

Up in the air

For now, the good times roll. The region is growing strongly once again. The IMF expects these countries to expand by an average of some 4% this year, nearly twice as fast as western Europe. This expansion looks more sustainable than the last one, which ended with the 2007-08 financial crisis. Back then, cheap foreign loans, including Swiss-franc mortgages taken out by individual households, had boosted consumption but quickly became hard to pay off. Today banks are in better shape, investment plays a bigger part in growth and consumption is supported less by debt and more by rising incomes.

The region's increasingly nasty politics have taken some of the shine off the EU's eastward expansion. But so far foreign companies seem unruffled. Though Viktor Orban, Hungary's prime minister, is an illiberal authoritarian, Mercedes Benz announced an investment of €1bn in the country two years ago and plans to make 330,000 cars yearly by 2020. Though Poland's nativist government is hostile towards immigrants and, on occasion, the rule of law, foreign capital keeps coming and annual GDP growth has touched 5%. Anti-corruption protests toppled Slovakia's prime minister in March. Even so, "corruption or political instability doesn't deter investors when other conditions are good," says a consultant at Vienneast, a business-risk analyst.

Building firms are doing particularly well. Construction activity in the region has typically grown twice as fast as GDP in recent years, says Thomas Birtel, the boss of Strabag, Austria's largest building company. Central Europe accounts for a fifth of its business; bright prospects there help explain why its share price has risen by two-thirds in the past three years. Business in

Poland has gone so well that Strabag is branching out from EU-funded infrastructure into hotels, shopping centres and office blocks.

Weinberger, a building-materials supplier, has 64 plants across eastern Europe (if you include Austria and Turkey). A spokeswoman for the firm says 30% of homes in the region are not connected to a sewerage system, compared with just 5% in western Europe. Hungary has been headiest of late, as Mr Orban scrambled ahead of an election to build roads, tunnels and bridges. Subsidies for better housing have meant a boom in brick sales.

Services are playing a bigger part in this expansion than in the pre-crisis boom. Cornelius Walter of McKinsey, a consultancy, says white-collar work is doing well. Western banks are moving back-office jobs east to pleasant, affordable spots such as Krakow. JPMorgan Chase is putting 2,500 jobs in Warsaw; Goldman Sachs is recruiting there. McKinsey itself has 1,000 analysts in Poznan in central Poland, serving clients globally. Brexit will probably mean some mid-level finance jobs move from London. Poland's Association of Business Service Leaders already counts 750 firms, most foreign-owned, in business services, employing 265,000 people.

Fritz Mostbock of Erste, an Austrian bank with 16m customers in Poland, the Czech Republic, Slovakia, Croatia, Serbia, Romania and Turkey, says it expects banking in central and eastern Europe to grow faster than in western Europe for years to come. Central Europe has transformed Vienna Insurance Group, a 194-year-old institution, says a spokesman. Its 21 companies across central and eastern Europe now provide half of all VIG's premiums and profits. "As incomes rise, spending on insurance goes up," he says.

It seems, then, that central Europe's Goldilocks economies are well set for sustainable growth. But there are three reasons to worry: a lack of innovation in local firms, a coming demographic squeeze and an over-dependence on foreigners, especially German ones, to drive development.

The first concern is illustrated by how few locally owned, non-state firms can compete with foreign ones. Sazka Group is one, but it is small. A Czech operator of lottery companies at home and in Greece, Italy, Cyprus and Austria, it has shown rare foreign ambitions. Last year it generated some €500m in revenues and employed 5,600 staff. Robert Chvatal, its boss, talks of plans to list in London, to raise capital for further expansion.

Cord Prinzhorn, the boss of Prinzhorn Holding, an Austrian packaging and recycling firm that has invested €650m in central and eastern Europe in a decade, says rivals do pop up, notably in Poland. But not many, and none has grown big. The few big domestic firms are state-owned behemoths left over from pre-capitalist days, such as PKN Orlen, a Polish oil refiner with a market capitalisation of over €8bn.

The region is in large part a back office and workshop for western Europe, says Richard Grievson of WIIW, a think-tank in Vienna, and is reliant on companies created and based elsewhere. He worries that, though open capital accounts and lashings of foreign direct investment have helped it to grow up till now, they are not a strong basis for further development.

More needs to be done to encourage innovation, says Marcin Piatkowski of the World Bank. He thinks universities and governments could help by promoting better management. Officials should be quicker, he reckons, to choose startups that get grants for research and development or help in scaling up.

Jadwiga Emilewicz, an economy minister in Poland, claims that the country's firms are being prodded to move up value chains. Spending on research and development reached 1% of GDP last year, up from 0.5% in 2016. The goal is 2.7% by 2021, in line with America, Germany and Sweden, the world leaders. An "innovation act" will give tax benefits to firms that commercialise research, among other pro-business measures. Other countries in the region have similar goals.

A more immediate difficulty is finding skilled, competitively priced labour. A building boom has soaked up workers. Mr Wortberg of JLR has just hired his 1,000th employee. Most are Slovaks, but he foresees having to import staff, though bureaucrats make that difficult. The squeeze is only going to get worse. Ageing populations, continued emigration and widespread hostility to migrants mean workforces are soon going to shrink. Old-age dependency ratios across the region are already rising fast, and in the coming two decades will soar (see chart).

Labour markets are rigid. People in rural areas are reluctant to move for a job, which helps keep participation rates low. Older people, who are more likely to live in villages than youngsters, are the least likely to work: according to Eurostat, less than half of Polish 55- to 64-year-olds have jobs. At the plant in Nitra, Mr Wortberg thinks that the difficulty of finding housing means that workers do not move.

Populist policies compound the problem. Last year Poland lowered the retirement age, immediately limiting the labour force. The number of employed Poles rose by a mere 135,000 in 2017, a pitifully small gain in a country with an 18m-strong workforce experiencing an economic boom. Poland has 152,000 vacancies, with construction, IT and transport firms most in need. In the Czech Republic there are around five vacancies per 100 people employed, the highest rate in the EU. "Companies' main problem is a lack of workforce, especially skilled workers," says Adam Czerniak of Polityika Insight, a think-tank in Warsaw.

Few hands, heavy work

If central Europe succeeds in moving up the value chain, the coming demographic crunch will matter less, as more productive workers will find it easier to support a growing dependent population. But making that happen will require doing more to create a skilled workforce. Apprenticeship schemes and vocational education of the sort common in Germany, Switzerland, Singapore and the Nordic countries, are rare in central Europe.

All the while, tight labour markets mean fast-rising wages, at least in cities. In Poland salaries are rising by an average of 7% yearly, far above inflation, says Mr Borys. Wages in Prague are close to those in Austria, notes an official at the Austrian central bank. Mr Birtel at Strabag, the building firm, says he expects wage growth to push up costs of materials and subcontracting work, and thus to eat into profits. Higher wages spread economic benefits, especially as many salaries used to be desperately

low. But unless workers also become more productive, rising wages will make the region less appealing to investors. Mr Grievson predicts that central Europe's demography will limit growth from the 2020s on.

Even before then, the region's close links with western Europe leave it exposed to any change in policies or financial conditions there. Its reliance on exports means that any softening of demand to the west would be felt quickly. If President Donald Trump's threats to put higher tariffs on American imports of European-made cars become reality (see article), its car and auto-parts manufacturers would soon suffer. It could also be hit as monetary policy tightens in the euro zone, since rates are set to suit larger, richer countries rather than those to their east.

What is more, the next round of EU cohesion-policy funds, to run from 2021 to 2027, will be much less generous to central and eastern Europe than the current one, which started in 2014 and runs until 2020. Proposals published by the European Commission in May would give Poland, for example, €64bn, down from €84bn in 2014-20. That is partly because central Europe is comparatively richer than it used to be. It is also because Brexit will cut the EU budget and because western Europeans are peeved at populists to the east refusing to help share the burden of refugees. Central Europe has benefited greatly from integration with countries to the west. But its dependence on exports and EU funds is also a source of vulnerability. It needs to plan for what might replace them.

This article appeared in the Finance and economics section of the print edition under the headline "Never had it so good"

Buttonwood: The index fear

The growth of index investing has not made markets less efficient

IN THE autumn of 1974 Paul Samuelson, a prominent economist and Nobel prizewinner, issued a challenge. Most stock-pickers should go out of business, he argued. Even the best of them could not always beat the market average. But there was a snag. "If this advice to drop dead is good advice, it is obviously not counsel that will be eagerly followed." An alternative was needed to set an example. Someone should set up a low-cost, low-turnover fund that simply tracked the S&P 500 index of stocks.

The following year Vanguard, then a fledgling firm, took up Samuelson's challenge and launched an index fund for retail investors. It was not eagerly received. Denounced on Wall Street as "un-American", the index fund raised a mere \$17m in the half-decade after its launch. It has been only in the past two decades that index investing has prospered. Indexed funds have grown around six times faster than those tended by active fund managers who select stocks to buy. Lots of investors now get the average stockmarket return for a fee of as little as 0.03% a year.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Samuelson's case for an indexed fund rested on the idea that stockmarkets are "efficient", in that any relevant news about a company's prospects is quickly reflected in its share price. If there were obvious bargains, a little effort would bring riches at the expense of slothful investors. Yet if more people are buying the index, might the market become less efficient? And might that, in turn, create opportunities for the very stockpickers who Samuelson thought should cease trading? In fact, the opposite is more probable. If index investing has displaced bad stockpickers, as seems likely, it will have made the market more efficient, not less.

A tautology—that the whole is the sum of its parts—is central to an understanding of why this is so. The average investor can do only as well as the stockmarket average. For some investors to beat the market, others must be beaten by it. Stockpickers go to great pains to gather the facts, to assess them and to trade them. And the performance of most mutual funds does not justify these costs. A talented few are able to beat the index, at least for a while. But if they can do so consistently, they will charge a lot to manage your money. And it is always possible that they are lucky and not skilful. The average person will not be able to tell the difference.

Passive aggressive?

A low-cost index fund looks like a sounder bet. As more investors come to that conclusion, what is the effect on market prices? These are set by trades between informed active managers with differing opinions. Index funds are passive. Yet a concern that is often heard is that index investing helps to inflate bubbles, because index funds are forced to put more money into fashionable stocks even as they become more expensive. This rather misses the logic of indexing as a passive strategy. The index weights each stock by its value. If a stock's price rises rapidly, its weight in the index increases. But its value in the indexed portfolio also increases. No buying is needed.'

A more valid concern is what happens when capital moves to an indexed fund from an active investor who has trailed the market average by shunning fast-rising stocks. The net effect of the switch is to add to the demand for such stocks. The more pension-fund mandates that such "fundamental" investors lose to index-trackers, the greater the chance that bubbles will inflate. Yet it is worth thinking about what would happen if index funds did not exist. Our hypothetical pension-fund trustee might instead switch funds to another active investor, who had done well by betting on recent winners. That would make a bubble far more likely.

Perhaps the growth of indexing has robbed the world of outstanding stockpickers. But it seems more likely that it has put a lot of bad managers out of business, just as Samuelson hoped. And it is not as if the buying and selling of stocks by informed investors with opinions has ceased. The turnover of stocks has actually increased over time. Active investors are more active than ever.

Why do they bother? If the rise of index investing means less dumb money, then it is harder to beat the market. Yet it goes against human nature for people to think of themselves as mediocre or settling for the average. People will try, even though failure is more likely than success. Imagine, wrote Samuelson, that a think-tank discovered that one in 20 alcoholics can learn to become moderate drinkers. Even if the finding was well grounded, he argued, the wise clinician should still act as if were false—"for you will never identify that one in twenty, and in the attempt, five in twenty will be ruined".

This article appeared in the Finance and economics section of the print edition under the headline "The index fear"

Free exchange: Chinese statistics

China's statistics are bad. Many criticisms of them are worse

China's census-takers should be more open about what they can and cannot measure

Print edition | Finance and economics Jul 7th 2018

"Our people crave, more than anything else, to know the extent of the nation," says the narrator in "Do You Love Me?", a short story by Peter Carey set on an imaginary world that lionises cartographers. To satisfy that craving, the country carries out a regular, exhaustive census: a "total inventory of the contents of the nation". Helpful householders even move their possessions—furniture, appliances, utensils, heirlooms—into the street for easier counting.

China, like many countries, is keen to know its own extent. This year it is preparing its latest economic census, a twice-adecade undertaking. Like the census in Mr Carey's fable, it is a "mammoth task". The most recent one employed 3m people, counted more than 8m enterprises and estimated a GDP of almost 59trn yuan (\$9.5trn at the time). This year's census may find that GDP per person has exceeded \$10,000, enough to form a tidy pile of possessions on the street.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

But why, many people will ask, does China bother? Doesn't everyone know that its GDP is "man-made", as Li Keqiang, the country's prime minister, once said? Aren't the data fabricated to support the ruling party's narrative of fast and steady progress? Why pretend that it is an inventory, not an invention?

The critics have plenty of material with which to build their case. China has now reported exactly the same pleasing growth rate (6.8%) for three quarters in a row. The economy grows robustly even when vital correlates of production, such as electricity consumption or rail freight, do not (see left-hand chart). And China's national GDP figure is laughably out of line with the sum of its provincial GDP figures. The various levels of government cannot keep their statistical stories straight.

In recent weeks, China's data have invited further scorn. The National Bureau of Statistics (NBS) reported that industrial profits in the first five months of the year amounted to more than 2.7trn yuan, 16.5% higher than a year ago. That would be a reassuring result in the midst of a stockmarket slump. The problem is that this time last year the NBS reported that industrial profits were 2.9trn yuan for the same period of 2017. That would imply a 6% decline from then until now (see right-hand chart). Similar discrepancies have appeared in recent retail-sales figures.

In Mr Carey's strange tale, some parts of the country prove increasingly hard to enumerate. Indeed, these "nebulous areas" become hard to discern at all. Unused for agriculture or industry, they "become less and less real". Eventually, they dematerialise.

Something similar may excuse some of the flaws in China's data. China's vast, protean economy is certainly difficult to enumerate. Small firms and self-employed entrepreneurs are hard to track. And the biggest part of GDP is neither agriculture nor industry but "nebulous" services, a growing share of which are provided digitally or purchased implicitly, such as the accommodation that a home can provide to the people who own it.

These measurement difficulties may help explain some of the oddities that harsher critics delight in pointing out. It is true, for example, that China's quarterly GDP figures are implausibly smooth. But so are Indonesia's. That suggests mismeasurement may be as much to blame as manipulation. For the quarterly numbers, points out Carsten Holz of Hong Kong University of Science and Technology, the NBS can draw on the data reported directly to it by large enterprises (those with annual revenues of over 20m yuan). But it remains largely in the dark about smaller firms. Big enterprises are disproportionately state-owned. They tend to lumber along at a steadier pace than their private rivals, which respond more adroitly to market ups and downs. For the rest, the NBS must make educated guesses, which will err on the side of continuity.

It is also true that China's GDP often grows faster than physical correlates, like tonnes of rail cargo or kilowatt-hours of electricity, two alternative indicators once cited by Mr Li. But this may be because GDP reflects the value of final goods, not simply their volume. An economy that produced 100 phones last year and 103 this year can be growing at more than 3% annually if the phones are not only more numerous, but better. (Besides, electricity and freight are both now expanding faster than China's GDP.)

Many critics who quote Mr Li's scepticism forget that he was talking about Liaoning, the province he once oversaw, not China's national figures. Several provinces have since admitted that their figures have been grossly overstated, presumably to help local leaders win promotion. It should therefore be a source of reassurance, not scorn, that China's national GDP number is not simply the sum of its provincial numbers.

Indeed, the NBS has its own survey teams in many parts of China and requires large enterprises to report data to it directly. That cannot prevent the firms misreporting figures, but it does stop direct meddling by local officials. And next year the NBS will take more centralised control of provincial GDP numbers.

Some of China's recent statistical embarrassments may stem, paradoxically, from its efforts to improve matters. For example, the industrial profits recently reported by large enterprises were lower than those reported last year because some under-sized and double-counted firms were purged from the sample. Retail-sales figures were also revised in light of a new survey, making them incomparable with those reported last year.

The truth in the fable

Mr Carey's story ends badly for the statisticians. As the world becomes more nebulous, the census-takers succumb to political pressure, faking information missing from their surveys. Even so, they are blamed for the disappearance of things they cannot measure. Once respected, they become disdained.

China's census-takers should be more open about what they can and cannot measure, inviting outsiders to cross-check their results. In admitting what they do not know, they will gain credibility. Their past opacity has shielded them from searching criticism, but exposed them instead to the laziest disdain.

This article appeared in the Finance and economics section of the print edition under the headline "The critics it deserves"

Science and technology

Military aviation

Welcome to the wingbot

Military aviation

Tomorrow's squadron leaders will be accompanied by drones

Welcome to the wingbot

Print edition | Science and technology Jul 5th 2018

JULY 16th sees the opening of the Farnborough air show. Plane spotters attending the show, which by *entente cordiale* alternates annually with that in Paris, will be hoping for an appearance by one of the F-35 Lightning fighters delivered recently to Britain's air force and navy. The F-35 represents the best that the present has to offer in aerial military technology. The minds of visitors from the aerospace industry and the armed forces, though, will mostly be on the future—and in particular what sort of aircraft will follow the F-35. All around the show will be drones of almost every shape and size. This raises the question: will future combat aircraft need pilots?

At least part of the answer can be found 400km north of Farnborough, near Preston, Lancashire. Warton Aerodrome is the site of Britain's nearest equivalent to Lockheed Martin's celebrated Skunk Works—a research and development facility run by BAE Systems, the country's largest aerospace and defence contractor. Inside a high-security building called 31 Hanger sits *Taranis*, an aircraft named after the Celtic god of thunder.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Taranis looks like something out of "Star Wars". It is about the size of a small jet fighter, but is shaped like a flying wing. It is an unmanned, stealthy combat drone. Like most military drones it can be operated, via a secure data link, by a pilot sitting in a control centre on the ground. Taranis, however, can also be let off its digital leash and allowed to think for itself using artificially intelligent automated systems. Left to its own devices, Taranis can take off, find its way to a combat zone, select a target, attack said target with missiles and then find its way home and land. A ground pilot would be needed only to keep an eye on events and take control if there was a problem.

Thunder follows Lightning

Removing the pilot, together with the systems required for a human being to fly a fighter aircraft and remain alive during the gut-wrenching manoeuvres this involves, has many advantages—not least of them, cost. A manned version of *Taranis*, were one to be built, would be twice the size and twice the price. The current prototype is thought to have set BAE back by around £185m (\$244m). That is cheap for what is a one-off experimental prototype. The F-35, a ten-country effort led by Lockheed Martin, is reckoned to be the most expensive military weapons system in history. Some \$50bn was spent developing the aircraft, which cost around \$100m each.

At present, *Taranis* is not scheduled for production. It was built to explore what such a drone is capable of achieving. After a series of successful test flights in Australia (pictured above), BAE's engineers are ready to apply the lessons they have learned to their designs of combat aircraft that might take to the sky a decade or so hence.

The good news for pilots is that even in drone-heavy air forces they will still have a job—though not necessarily in the air. Many will be employed supervising drones from the ground. Others, though, will indeed remain flying for, as Michael Christie, BAE's head of air strategy, observes, in the future pilotless and piloted fighter aircraft will operate together.

A human being who can make decisions will always be needed somewhere in the system, Mr Christie reckons. And in some cases it would be best if that person was in the aerial thick of things. Just as fighter pilots now fly with wingmen alongside them, a single pilot could fly with a number of combat drones, similar to *Taranis*, as his "wingbots". The drones would operate autonomously but respond to a pilot's command. They might be used to reconnoitre an area or attack it, permitting the manned aircraft to hold back.

The idea of people flying in formation with drones is being explored in several other countries, too. Last year Lockheed Martin's research engineers converted an F-16 fighter into an unmanned drone, complete with various anti-collision systems, and flew it alongside a manned fighter to carry out ground attacks on a test range. Japan is also looking at using drone squadrons to accompany piloted aircraft. Japanese officials say the drones could undertake defensive twists and turns at g-forces so high that a human being could not withstand them, and thus be used to divert incoming missiles away from a manned fighter. China is also developing a combat drone known as *Dark Sword*, which might similarly be used in conjunction with manned fighter jets.

This vision of a team of full-sized drones with a single human mind in charge gives the term "squadron leader" a whole new meaning. It also requires new technology, some of which is prefigured in the F-35. This aircraft is a massive information system, in which the amount of data generated by its sensors is beyond anything a human being could take in, so the aircraft's computers

dish up only what a pilot needs to know, when he needs to know it. Information relevant to the flight at any particular time is presented on touchscreens in the cockpit and as images projected within the pilot's helmet. His vision is improved further by cameras embedded in the aircraft's skin, allowing him to "see" through its structure. That way he can spot anything which might otherwise be obscured—even things directly below.

This information feed also extends to other manned aircraft, to reconnaissance drones and to ground forces. Instead of attacking a heavily defended position himself, an F-35 pilot could, for example, summon a missile strike from a ship. Eventually, this information feed will extend to his receiving data from, and issuing orders to, accompanying combat drones.

All these extra data mean military aviators of the future are likely to be even more reliant than today's are on their helmets. BAE has an experimental system in which almost all the physical instruments and controls in a cockpit have been replaced by virtual ones projected into the pilot's helmet. The pilot can reach out to touch or operate these controls as if they were in physical form, with sensors recognising from his movements what he is trying to do. This could mean that when an aircraft's flight systems need updating, it is the pilot's helmet rather than the aircraft itself that is revised.

Dropping the pilot

Such possibilities raise the question of just how far automated operations could spread to civil aviation. Digital fly-by-wire systems, in which computers make the high-speed decisions needed to execute manoeuvres signalled by movements of a pilot's joystick, have already migrated from military jets to the cockpits of civilian airliners. America, Russia and other countries are now exploring the possibility of using unmanned military planes to carry cargo and as refuelling tankers. Civilian freighters could be automated too. Airline bosses tend to think, however, that passengers would not be comfortable boarding a plane that has no pilots.

Yet there is a halfway house for airliners. The radio operator, navigator and flight engineer have already been made redundant by technological advances. Drone technology could see the co-pilot relieved of duty, too. Airbus, for one, is known to be looking at single-pilot operation in some circumstances. Such a system would allow a ground-based pilot to take control of an aircraft in the event of a problem. A team of seasoned pilots based in a control centre would be able to monitor a fleet of jets. Whether that would be enough to reassure the nervous traveller, even if it results in lower fares, remains to be seen.

This article appeared in the Science and technology section of the print edition under the headline "Welcome to the wingbot"

Camouflage

How to fool infrared vision gear into thinking you are not there

Use graphene

Print edition | Science and technology Jul 5th 2018

ANIMALS have made use of camouflage to hide from one another for almost as long as eyes have been around to spot them. Humans, being copycats, have made extensive use of camouflage tricks they have seen in nature by applying concealing colouration to everything from clothing to tanks. A way to thwart camouflage, though, is to employ infrared-viewing technology to look for the heat emitted by an otherwise-camouflaged object. Designing something that can prevent this, and can thus carry camouflage into the infrared, has proved tricky. But Coskun Kocabas of the University of Manchester, in England, thinks he can do it.

Giving thermal invisibility to an object whose own temperature and that of its surroundings are constant is not too hard. But maintaining that cloaking as either the object or its surroundings heats up or cools down is tricky. Dr Kocabas thought he might be able to do this using graphene, a material composed of a single layer of carbon atoms.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Pure graphene is almost transparent to infrared, but Dr Kocabas suspected he could tune this transparency by drenching a stack of graphene layers in an ion-rich liquid. Graphene's optical properties depend on the ability of its electrons to move freely around the atomic sheet. That, in turn, depends on the fact that not all the energy states which electrons could occupy in that sheet are, in fact, occupied. If the electrons in the sheet could be locked in place, however, it would become opaque—reflecting infrared rather than passing it, and thus hiding any source of heat behind it. And the electrons can indeed be so locked, by running a current through the ion-rich liquid. This drives extra electrons into the graphene, filling up all its energy states and eliminating mobility.

Dr Kocabas tested this idea and, as he reports in *Nano Letters*, he found that it works. When the team used a battery to apply a potential difference of three volts to the ion-soaked graphene layers, the stack became opaque to infrared. And when Dr Kocabas used a thermal camera to record what happened when he pressed his hand against the back of the stack, the answer was "nothing". The camera could not see his hand through the stack. When he reduced the voltage to zero, however, his hand became visible within a second.

At least as important as this was the finding that applying between zero and three volts allowed some of the heat shed by his hand to be seen. That is what makes the system tuneable. So, after this first test, he arranged for thermocouples, a type of sensor, to measure the changing temperature of the stack's environment. He then used a computer to convert that information into a voltage appropriate to the task of allowing the graphene layers to blend in with the changing thermal background. This worked.

Given these successful tests, Dr Kocabas thinks that his ion-drenched graphene layers do indeed have the potential to act as thermal camouflage. Though still a long way from the battlefield, they may eventually find their way into military applications where masking heat signatures is, quite literally, a matter of life and death.

This article appeared in the Science and technology section of the print edition under the headline "Heat shield"

Medicine and ethology

Mixed surgical teams lead to less medical error

Diverse surgical leadership promotes co-operation and decreases conflict

Print edition | Science and technology | Jul 5th 2018

SURGEONS are people, and people are animals, and animals often fight. Which is why Frans de Waal, an expert on animal behaviour, has turned his attention to the operating theatre to see if the methods he honed studying chimpanzees might be used to improve surgical practice.

Dr de Waal—and, more particularly Laura Jones, his colleague at Emory University in Atlanta, Georgia, who did the actual field work—used those methods to construct ethograms of surgical teams. An ethogram is a list of all the types of behaviour that occur within a group of animals. To draw up these lists Dr Jones observed interactions between 400 doctors, nurses and technicians during 200 operations. She logged all the non-technical communications she spotted, and classified them as "cooperative" (likely to lead to better surgical outcomes), "conflictive" (potentially jeopardising patient safety) or neutral.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

As she describes in the *Proceedings of the National Academy of Sciences*, after analysing each of more than 6,000 exchanged insults and pleasantries, she found that surgical communication does indeed mimic wild-animal behaviour, both collaborative and hostile. In particular, as happens among wild animals, individuals jostle for dominance with others of their own sex while trying to ingratiate themselves with members of the opposite one.

Given males' especial reputations for such jostling, it was hardly surprising that predominantly male surgical teams that were led by a man proved twice as likely as similar teams led by a woman to experience conflict (50.6 % of operations, rather than 21.3%), whereas in female teams there was no difference, regardless of leader. More intriguing though, was that when Dr Jones looked at the fraction of interactions which were collaborative, it was higher, regardless of whether the lead surgeon was a man or a woman, when that leader was of the opposite sex to most of the underlings.

Previous research suggests that between 70% and 80% of surgical mishaps are caused by interactions between those present going wrong. This work by Dr Jones and Dr de Waal suggests how that fraction might be reduced both in the short term, by mixing and matching personnel, and in the long term by encouraging more women into what is now a male-dominated profession, so that such mixing and matching is easier to do.

This article appeared in the Science and technology section of the print edition under the headline "Mixers, not misters"

Animal conservation

IVF may bring northern white rhinos back from the brink of extinction

But honestly, it's a long-shot

Print edition | Science and technology Jul 5th 2018

SUDAN, the last male northern white rhinoceros on Earth, died in March. He is survived by two females, Najin and her daughter Fatu, who live in a conservancy in Kenya. This pair (pictured) are thus the only remaining members of the world's most endangered subspecies of mammal. But all might not yet be lost. Thomas Hildebrandt of the Leibniz Institute for Zoo and Wildlife Research, in Berlin, in collaboration with Avantea, a biotechnology company in Cremona, Italy, is proposing heroic measures to keep the subspecies alive. In a paper just published in *Nature*, he and his colleagues say that they have created, by *in vitro* fertilisation (IVF), apparently viable hybrid embryos of northern white rhinos and their cousins from the south. This, they hope, will pave the way for the creation of pure northern-white embryos.

IVF seems the last hope for the northern white rhino. Though stored sperm from Sudan and several other males are available, both Najin and Fatu now seem unable to conceive. This means, if the subspecies is to be preserved, that one or both of them will have to have some eggs removed from their ovaries and combined with stored sperm in a Petri dish.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Extracting rhinoceros eggs is hard. The animals' ovaries are over a metre deep inside them, meaning that the extraction procedure, which employs a probe with a sharp needle attached to it to suck the eggs out, is hazardous. But practice makes perfect, so the team started by obtaining instead some eggs from a southern white rhino, the northern's close cousin. They combined these with some of their cache of northern sperm and coaxed seven of the resulting zygotes through the early stages of embryonic development, to the point where they could be implanted in the uterus of a southern white, who would act as a surrogate mother, with a reasonable hope of success.

That has not yet happened. The seven embryos are now in a freezer awaiting the results of research on how best to transfer them to surrogates. In the meantime, having proved their technique with these hybrids, Dr Hildebrandt and his colleagues now hope to create more embryos, this time using eggs from the two remaining female northern whites.

Even if they succeed, though, it will be a long haul back for the northern white rhino. Members of any new generation resulting from IVF will have then to be bred with each other to create subsequent generations—with all the risks of reduced biological fitness which such incest entails. It is not so much a gene pool that Dr Hildebrandt is working with as a gene puddle.

Then there is the question of what to do with the resulting animals. Analysis of other rhinoceros species, both in Africa and Asia, points to a viable population in the wild needing to be at least 500 strong. Even if such a group could be created, and not collapse from lack of genetic diversity, releasing it into the tender mercies of what remains of Kenya's savannah would be risky. The reason the northern white has come so close to extinction—poaching—is unlikely to go away anytime soon.

Dr Hildebrandt's work is thus a half step along what is likely to be a very long road indeed. Charismatic megafauna rhinoceroses may be. But whether that charisma can sustain enough effort for long enough to save the northern white is about to be tested.

This article appeared in the Science and technology section of the print edition under the headline "Drinking in the last-chance saloon"

Books and arts

Literature and nationhood

BrexLit

BrexLit

Brexit is reverberating in British literature

Sometimes the most oblique references to the referendum are the most enlightening

Print edition | Books and arts Jul 5th 2018

TO REACH Blackwater you take the Yarmouth Road out of Norwich, passing housing estates, a shimmering glass business park and a tangle of roundabouts. On the far side of Postwick, a throwback English village with a flint church and a cricket pitch, you follow a heavily rutted track down to the river Yare, emerging opposite the Ferry House pub. Fishermen sit silently on the banks as pleasure boats churn the muddy water. The entrance is via a rickety wooden bridge over a dyke; a path through a dense thicket delivers you into a sudden green wildness.

Mark Cocker, a British author and environmentalist, bought Blackwater, a five-acre plot of damp fen woodland, in 2012, with the aim of returning it to a state of nature. Six years later, the site seethes with life, barely visible trails cutting through rampant sedge and mallow, cow parsley and burdock. Chiffchaffs and willow warblers sing in the sallow and alder, while every leaf seems to hold a butterfly or dragonfly or hoverfly. There are clumps of nettles, tortuous brambles, and a sense that, for all its beauty, this terrain is made not for people but for what Mr Cocker calls the "more-than-human parts of life".

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

His latest book, "Our Place", is a broadside against the British—who, despite their self-declared love of nature and widespread membership of conservation groups, have wrecked their landscape and slashed its biodiversity. "At every turn in the road, we chose ourselves," Mr Cocker writes. In a book that otherwise oscillates between anger and pessimism, there is a single ray of hope: Brexit.

Blackwater is a few miles from Great Yarmouth, one of the five most enthusiastically leave-voting towns in the country. By his own account, Mr Cocker is himself a "lefty liberal". But in "Our Place" he suggests that leaving the European Union, and the "feudal system" of the Common Agricultural Policy, may help recast Britain's relationship with the natural world, too, prompting his compatriots "to recognise truly that land itself is a unique and special asset". In his rolling Derbyshire accent, Mr Cocker says in person that his hopes for Brexit are "a shadow of that thing that happened after the end of the second world war, when people said 'You know, I actually want to be able to walk on land, and I want to share in it."

Anywheres and somewheres

Shelves of books have attempted to explain the Brexit referendum of 2016. In "The Road to Somewhere", for example, David Goodhart, a former editor of *Prospect* magazine, argues that Britons have become divided between "anywheres" and "somewheres". Novelists have weighed in alongside the politicos. "Autumn" and "Winter", the first two books in a quartet by Ali Smith, a Scottish author, try to anatomise the divisions of post-Brexit Britain. "The Lie of the Land" by Amanda Craig presents a clash between anywheres and somewheres in rural Devon.

In a sense, though, every book bears traces of the times in which it is written—and some of the subtlest and most interesting reflections on the roots of Brexit have come in titles that engage with the subject indirectly. "Our Place" mentions Brexit only six times; but looked at in a certain light, it is a book about Brexit hiding in a manifesto about nature. It is about a sense of place and a nation's relationship to its land. It is about heritage, nostalgia and identity; about overpopulation and migration and the threats they pose.

These preoccupations are not Mr Cocker's alone. His restoration of Blackwater to the condition it was in before the arrival of sheep, pesticides and man is part of a broader embrace of "rewilding", in practice and literature. Both "Feral", by George Monbiot, and Isabella Tree's "Wilding" champion the power of self-regulating nature to flourish once human control is relinquished. They in turn are part of a broader florescence of nature-writing in Britain led by Robert Macfarlane, whose book, "The Old Ways", perambulates around the country's ancient byways.

This literary trend took off before the referendum, and on the face of it has little in common with Brexit. Like Mr Cocker, who cites 19th-century radicals such as William Hazlitt and William Cobbett, its exponents tend to be left-leaning. Yet their worries over globalisation, urbanisation and homogenisation overlap strikingly with Brexiteers'. In "Where We Are", for instance, Roger Scruton, a conservative philosopher, describes a crisis of identity that he attributes to Britons losing touch with "place and neighbourhood".

Both groups are striving to locate something fundamental and immutable about Britain in an era of erosion and evanescence. Similarly, some of the most insightful allusions to Brexit in fiction refer to it only subliminally, maybe even subconsciously, rather than placing the campaign and its aftermath in the foreground.

Two novels that will be published later this year share the concerns for history and place that "Our Place" addresses through the prism of environmentalism. The Suffolk countryside that is the setting of Melissa Harrison's "All Among the Barley" is barely an hour's drive from Blackwater; the novel opens, though, at harvest time in 1933, with the wounds of one war still felt, and the next dimly visible over the horizon. In the story, Constance FitzAllen arrives in the village of Elmbourne to research country ways—"We simply must keep the old skills alive"—and finds instead resentment, violence and a burgeoning political movement committed to preserving "the health and purity of our English soil".

The narrator of "Ghost Wall" by Sarah Moss is Sylvie, née Sulevia, who was named for an Ancient British goddess. Bill, her father, drags her on trips of "experiential archaeology", on which she is forced to "rediscover the lifeways of pre-modern huntergatherers", wearing a tunic, foraging for food and sleeping on a wooden bunk. In his fondness for both place and bloodshed, Bill resembles two other hard, charismatic fathers in recent novels that respond obliquely to the political moment— Daddy in Fiona Mozley's "Elmet" and Mac in Benjamin Myers's "Pig Iron". Another character in "Ghost Wall" discerns the cause of Bill's relentless search for an authentic Britain: "He likes the idea that there's some original Britishness somewhere, that if he goes back far enough he'll find someone who wasn't a foreigner."

A giant awakes

Occasionally novels manage not just to reflect events but to prophesy them. Perhaps the most acute meditation on Brexit, if also the most unusual, was written before the vote. Published in 2015, "The Buried Giant", by Kazuo Ishiguro (winner of last year's Nobel prize for literature), is set in Arthurian Britain. Saxons and Britons live together peaceably, protected from memory by a cloud of forgetful mist. Then the mist begins to dissipate.

The book seems to articulate many of the anxieties that gripped the country after its release. It dramatises the violence that underpins national identity, asking readers to consider what happens when citizens are suddenly made aware of the difference of others, when the bonds of community are loosened and connections to place are threatened or severed. In his tale of the mythical past, Mr Ishiguro shows how ambivalent are the forces of both history and nature, and how dangerous it can be to look back.

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

Bruised beauty

Tommy Orange's debut novel is a work of defiance and recovery

The panache of "There There", a story of Native American travails, enables it to transcend the misery it describes

Print edition | Books and arts | Jul 5th 2018

There There. By Tommy Orange. *Knopf*; 294 pages; \$25.95. Harvill Secker; £14.99.

WHAT does it mean to be an American Indian? The phrase itself is an absurd misnomer. Yet America's natives often prefer it to politer tags—such as Native American—in part because it helps them answer that question. To be an American Indian is not only to descend from the people encountered by European colonisers, in possession of a continent they themselves had settled over 10,000 years before. It is also to be shaped by the calamities that followed: dispossession and genocide, the forcible break-up of families and the mass substance abuse, incarceration and poverty that still blight America's misnamed indigenous people today.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

That history creates a paradox with which native intellectuals and cultural revivalists have been wrestling at least since the Indian civil-rights movement of the 1970s. To celebrate Indianness is to meditate on a disaster story; and because that disaster continues, what is there to celebrate? The oral nature of Indian cultures, with their emphasis on folk memory and storytelling, compounds the problem. The culture becomes the calamity; but to abandon the culture entails another kind of loss. Efforts to redefine Indianness as something glorious—as noble-savage Indian, or eco-warrior Indian—cannot distract from that central dilemma for long.

Tommy Orange's fine debut novel, "There There", is in part an examination of this cultural-political quagmire. Set in Oakland, California, its cast of bruised native characters, including drunks, recovering drunks, gangsters and long-suffering grandmothers, are forever questioning and sometimes dabbling in their Indian culture. Much good it does them. A native girl adopted by white parents returns to her roots, only to become a beaten wife on a reservation. A boy who discovers his grandmother's faded tribal costume, and teaches himself to dance in it, ends up gunned down in a pool of blood and feathers. Calamity and Indianness are indeed inseparable, the novel suggests; the droopy features of an Indian child who is born with fetal alcohol syndrome provide an affecting opening image.

This is scarcely overdoing it. Despite recent improvements in the situation of America's roughly 5m native people, they are among the country's poorest, unhealthiest communities. Still, Mr Orange (pictured), a member of the Cheyenne and Arapaho tribes, represents a powerful counterpoint: a cohort of young native writers and artists who are imbued with the confidence of the cultural revival, but focused more on the lives of modern Indians—most of whom live in cities, not reservations—than on the sundance or sweat lodge. A worthy member of that emerging tradition, Mr Orange offers much more than a tour through the wretchedness he describes.

His characters are deftly sketched rather than deeply worked, but interesting and sympathetic. The small successes of a hardworking postwoman who fosters her wrecked family's children, or of a recovering drunk who defies the mini-bar, appear heroic amid the general failure. And yet they are too wittily handled for easy moralising. To make herself feel better about smoking, the born-again Indian leans on the native rituals she has learned and utters a prayer with every drag of her cigarette. Such writerly panache is the true saving grace of Mr Orange's chronicle.

And given the oral culture he is channelling, that success has a wider significance. A dying protester on Alcatraz, scene of a doomed protest that spawned the Indian civil-rights movement, tells her daughter that the Indian world-view is "just stories, and stories about stories." By that token Mr Orange's sparkling debut is not merely a literary triumph but a cultural and political one, too. It is a work of defiance and recovery.

This article appeared in the Books and arts section of the print edition under the headline "Bruised beauty"

The great ghatsby

The tycoons who are powering India's rise

James Crabtree's book depicts the symbiotic relationship of Indian politics and business

Print edition | Books and arts Jul 5th 2018

The Billionaire Raj: A Journey Through India's New Gilded Age. By James Crabtree. Tim Duggan Books; 416 pages; \$28. Oneworld Publications; £18.99.

WRITING about India generally falls into one of two categories. There is what you might call the classical view, which emphasises the country's messy democracy, the court intrigue in Delhi, the role of the powerful states, and poverty and religion. And then there is the business-school view, which sees India as a huge potential market that could one day rival China, with a dynamic business scene that is already the world's eighth-largest, ranked by market capitalisation. James Crabtree's new book, "The Billionaire Raj", does the great service of tying these two stories together, showing how India's political system and its firms are symbiotically connected, in an entertaining—and sometimes disturbing—fashion.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Mr Crabtree is a former Mumbai bureau chief of the *Financial Times* and his book is full of sharp snapshots from what he calls India's new gilded age. In the London home of Vijay Mallya, a self-exiled liquor tycoon, Mr Crabtree finds a golden toilet seat and melancholia. He visits the western state of Goa, where mining outfits stripped the earth of iron ore and shipped it to China while tourists frolicked on the beaches. Elsewhere, an Aston Martin is impounded after a mysterious crash.

But Mr Crabtree also makes a muscular argument about the interlinkage of democracy, business and development. The country needs its bosses to marshal capital, build infrastructure and help it industrialise. The bosses need the government for cheap credit and permits. And the politicians—often reluctantly—tap firms for illicit cash, to pay for election campaigns that in total can cost billions of dollars.

Sometimes this arrangement delivers results. In 2004-10 India had the fastest growth spurt in living memory, with GDP rising at close to double-digit rates. A group of tycoons went on an investment binge that expanded the economy's capacity. But as Mr Crabtree documents, eventually the wheels came off, with accusations of corruption and mounting bad debts. The fallout contributed to the election in 2014 of Narendra Modi, India's strongman leader, who pushed an agenda of Hindu nationalism, clean government and development.

To illustrate his case, Mr Crabtree provides profiles of businessmen whose sheer ambition, he argues, is vital. Naveen Jindal, a mid-ranking steel magnate noted for his polo-playing and business debts, is transformed into a sympathetic figure; he is depicted in the remote state of Odisha, surrounded by forests, trying to get a steel and power project up and running.

The analysis really sings when Mr Crabtree finds new ways to capture the collision of profits, politics and public opinion. His account of India's cut-throat network-TV industry, through the eyes of a star presenter, is thrilling. And he explores the paradox of India's "southern belt" of states, most notably Tamil Nadu, which have their share of charismatic politicians and graft, but are also relatively rich. They have developed an efficient kind of populism, he concludes, in contrast to the purely venal politics farther north.

The book's main flaw is that it gives a narrow view of the business world. Like Russia and other parts of Asia, India has its politically connected moguls. But it also has what may be the world's most vibrant tech scene after America and China, a large stock of investment by multinational companies and a cohort of professionally run firms that compete in global markets.

Nonetheless the nexus of business and politics is central to India's future. Mr Crabtree thinks India needs its own progressive era, like America's in the late 19th and early 20th centuries, in which the machinery of the state is reformed in order to make markets work better. But he worries that Mr Modi, despite his formidable image and some solid accomplishments, is too cautious to make that happen.

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

Watching the detectives

When Arthur Conan Doyle cried "J'Accuse...!"

In the case of the "Scottish Dreyfus", the novelist deployed the acuity of his fictional detective

Print edition | Books and arts Jul 7th 2018

Conan Doyle for the Defence. By Margalit Fox. Random House; 352 pages; \$27. Profile; £16.99.

TOWARDS the end of the 19th century a patient appeared before a doctor and his students in a Scottish hospital. The doctor, Joseph Bell, eyes bright above a hawk nose, addressed him. "You came from Liberton," he said. "You drive two horses, one grey, one bay; you are probably employed by a brewery." To the awe of his students, the sharp-eyed doctor was right on all counts.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

The sharp-eyed reader will have guessed the identity of one of his acolytes: Sir Arthur Conan Doyle (pictured left). It is well known that Conan Doyle borrowed Bell's deductive genius (and his profile) for his fictional detective, Sherlock Holmes. Less well known is that Conan Doyle also used Bell's methods to solve real-life crimes. One such crime—a murder—is the subject of Margalit Fox's new book, "Conan Doyle for the Defence".

Conan Doyle had involved himself in miscarriages of justice before, but this one would eclipse them all. It was so corrupt that it "savoured rather of Russian than of Scottish jurisprudence"; so anti-Semitic that its wrongly accused victim became known as a "Scottish Dreyfus"; so embarrassing to national pride that British writers resorted to not one but two international analogies to convey their disgust.

The inquiry should have been simple. On December 21st 1908 Marion Gilchrist, a wealthy spinster, was bludgeoned to death with a blunt instrument. Shortly afterwards the Scottish police "solved" the case when they arrested Oscar Slater (pictured right), a local German Jew. Slater was found guilty and sentenced to hard labour in His Majesty's Prison Peterhead.

There he might have remained, had his plight not been brought to Conan Doyle's attention, via a method itself redolent of Victorian melodrama. A pleading note was carried out of Peterhead, hidden in the dentures of a discharged prisoner. Conan Doyle, a Victorian dynamo with a walrus moustache and a passion for cricket and fair play, felt duty-bound to investigate. He set to work, trawling through page after page of evidence. He was horrified by what he found.

It is a capital offence, Holmes declared to Watson, to theorise in advance of the facts. Like Bell, Holmes drew conclusions from evidence as minute as bloodstains, mud on shoes and the precise sort of ash found at a crime scene—scientific techniques that, largely thanks to Holmes himself, would eventually become standard practice in police departments across the world. As Conan Doyle examined the Slater affair, he realised the Scottish police had theorised not merely in advance of the facts but in advance of the crime.

The bobbies in Glasgow had been watching Slater for months. He was no angel but, Ms Fox argues, he had aroused suspicions mostly because he was foreign. Not merely foreign, but German, Jewish, a gambler and (perhaps most horrifying of all) debonair. The police were immediately on their guard.

The deepest stains identified in the Slater case by Conan Doyle were not of blood, but the darker tones of anti-Semitism and xenophobia. If this was a Scottish Dreyfus, then Conan Doyle was its Zola and he cried "*J'Accuse...!*" with all the might that his position allowed. On November 14th 1927 Slater was released. The case was over. But the prejudices it exposed lived on.

Slater never returned to his family in Germany. That, says Ms Fox, was probably "just as well". A few years later the Nazis took power and his two sisters were murdered at Theresienstadt and Treblinka.

This article appeared in the Books and arts section of the print edition under the headline "Watching the detectives"

Johnson

What Koko the gorilla could and couldn't do

Communication and language are not the same thing

Print edition | Books and arts Jul 5th 2018

KOKO the gorilla knew over 1,000 signs based on American Sign Language, and used them to do everything from asking for food to joking around. Her trainer and long-term companion, Penny Patterson, thought Koko went further still, signing in novel ways and showing complex emotions. According to Ms Patterson, when a cat that Koko loved was killed in an accident, Koko signed: "Cat, cry, have-sorry, Koko-love." When Koko died last month, some of her obituaries mourned the gorilla who had "mastered American sign language".

Then came the backlash, from linguists and experts in sign languages. These have complex grammars, equivalent to spoken tongues in expressiveness. Koko's ability, it was pointed out, fell well short of a fluent human signer. Moreover, Ms Patterson was her interpreter, a role that invited the question of how much she was inferring what Koko "must have meant", and explaining away random signs. (Koko was particularly fond of "nipple".) It was hard to be sure: Ms Patterson preferred speaking to journalists over sharing her video and raw data about Koko with fellow researchers.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

There is no doubt that animals communicate. Bees can demonstrate the direction and distance of a source of food. Dolphins make noises that function like names. Animals from one region can share sounds that differ from groups in another, leading researchers to talk of animal "dialects". Then there are the remarkable achievements of Koko and her primate predecessors, including a chimp delightfully named Nim Chimpsky.

Yet there is an important distinction between communication and language. Take the misleading term "body language". It is sometimes claimed that words convey just 7% of meaning, and that body language and tone of voice do the rest. This wildly overstretches an old study which found that most emotional messaging—as opposed to the propositional kind—comes from tone and body language, especially when a neutral word such as "maybe" was used. But try conveying a fact like "It will rain on Tuesday" with your eyebrows, and the difference becomes clear. Language allows for clear statements, questions and commands.

Or take the debate over whether emoji constitute a language. If anything, emoji are too good at communicating to count. They are blunt and literal. A smiling emoji means a smile. Nearly all words in a human language, by contrast, are arbitrary. A dog does not make a sound like "dog". Form has no connection to meaning. With a few joking exceptions, emoji are like gesture and tone of voice, in that their form and meaning are inextricable; they are almost impossible to misunderstand because they are universal and obvious. Indeed emoji are so popular because they do in writing what gesture and tone do for speech. But attempts to "translate" novels into emoji are mere amusements. No one without previous knowledge of the plot could possibly understand them.

Nim Chimpsky's near-namesake, Noam Chomsky, has argued that people have a kind of "universal grammar", and that all humankind's languages are mere variations on a theme. Mr Chomsky has changed his mind repeatedly on what constitutes the core of human language, but one obvious candidate is syntax—rules, not just words, which allow the construction of a huge variety of meaningful utterances. This capacity may even be infinite. Any statement in English, for example, can be made longer by adding "He said that..." at the beginning. This property is called recursion: a simple statement ("It's cold") is embedded in a more complicated one ("He said that it's cold"). Human syntax also allows for hypotheticals ("If she hadn't arrived..."), talking precisely about events distant from the present, and so much more.

Some languages may be missing some of these features. Daniel Everett, a linguist, claims that Pirahã, an Amazonian language, lacks recursion, and that its speakers do not talk about the distant past or future at all. But they still have complex grammar. No language in the world merely strings relevant signs together like emoji, or communicates at the tourist-abroad level of pointing and making exaggerated facial expressions.

That gorillas lack syntax should not blind humans to their magnificence. But the fact that Koko could communicate should not mislead observers into thinking she possessed language. *Homo sapiens* is an impressive primate too.

This article appeared in the Books and arts section of the print edition under the headline "Great apes"

Economic and financial indicators

Output, prices and jobs

Output, prices and jobs

Economic data

Trade, exchange rates, budget balances and interest rates

The Economist commodity-price index

The Economist poll of forecasters, July averages

Markets

Obituary

Harlan Ellison

Great balls of fire

Fantasy and science fiction

Harlan Ellison died on June 27th

Talented, cranky and vituperative, the American writer was 84

Print edition | Obituary Jul 5th 2018

"HATE. LET ME TELL YOU HOW MUCH I'VE COME TO HATE YOU SINCE I BEGAN TO LIVE. THERE ARE 387.44 MILLION MILES OF PRINTED CIRCUITS IN WAFER THIN LAYERS THAT FILL MY COMPLEX. IF THE WORD HATE WAS ENGRAVED ON EACH NANOANGSTROM OF THOSE HUNDREDS OF MILLIONS OF MILES IT WOULD NOT EQUAL ONE ONE-BILLIONTH OF THE HATE I FEEL FOR HUMANS AT THIS MICRO-INSTANT. FOR YOU. HATE. HATE." The great AM, the supercomputer/tormentor/god at the centre of Harlan Ellison's story "I Have No Mouth and I Must Scream" (1967), outdid its creator in bile and anger. But not by all that much. Celebrated as a pyrotechnic writer of short fiction, screenplays, comic books and criticism, Mr Ellison was as prodigious a source of anecdote, vendetta and litigation. The dust jacket of one book called him "possibly the most contentious person on Earth." The "possibly" was a bit namby pamby.

Mr Ellison would unleash his indignant and ingenious fury on anyone who offended him, relishing every opportunity to rage at reactionaries and Republicans. But he saved his fiercest and most litigious ire for people who had snubbed, perverted, stolen or paid too little for his work. He was expelled from Ohio State University for hitting a professor who once belittled his writing ability. Over the next 20 years he sent the professor a copy of every story he published. In the midst of a dispute over a contract, he mailed 213 bricks to a publisher, postage to be paid by the recipient. He accused a studio executive of having the intellectual capacity of an artichoke. A YouTube rant about Warner Bros wanting to use an interview with him without paying has become justly famous. "I've only been an asshole to assholes," he would say; he seemed to come across enough of them to remain almost permanently in their ranks.

Get our daily newsletter Upgrade your inbox and get our Daily Dispatch and Editor's Picks.

Mr Ellison was small and Jewish, both of which got him bullied a lot growing up in Cleveland in the 1930s and 1940s. On leaving home he claimed to have become a crop-picker, tuna fisherman, gun for hire, nitroglycerine truck driver, lithographer, short-order cook, door-to-door salesman both of books and brushes (not at the same time) and a customer-services representative in a department store. He wrote his first novel, "Web of the City", while undergoing basic training for the army at Fort Benning, Georgia. Previously peripatetic, in 1962 he moved to California and stayed there. It was not exactly a settling down. By the 1980s Mr Ellison had had five wives. He credited the last, Susan Toth (pictured), whom he wed in 1986, with saving him.

Novels, although he wrote three between 1958 and 1961, turned out not to be his thing. Mr Ellison's stories, his friend, the writer Neil Gaiman, says, "sparkle and glitter and shine and wound and howl...you can see Harlan experimenting, trying new things, new techniques, new voices." To maintain such intensity and inventiveness for hundreds of pages would have been exhausting to all concerned.

The stories repeatedly garnered him science fiction's top prizes; he won eight of the Hugo awards voted on by fans at science fiction's world conventions, or WorldCons. One of those Hugos was for writing "The City on the Edge of Forever", perhaps the most popular episode of "Star Trek" (and the occasion of an epic feud with the show's creator, Gene Roddenberry). Another was for editing "Dangerous Visions" (1967), a mammoth anthology that served as a rallying-point for the "New Wave" of science fiction—a movement bringing sex, drugs and literary experimentation to a genre often characterised by formal attributes as staid as its ideas were interstellar.

His television work was feted, too; the Writers Guild of America honoured three more of his teleplays, as well as the one for "Star Trek". One of his lawsuits accused the producers of "The Terminator" (1984) of ripping off his script for "Soldier" (1964), an episode of "The Outer Limits" about a remorselessly efficient soldier thrown back in time who ends up saving a family. He also sued the producers of "In Time" (2011) for its similarities to another of his Hugo winners, the much-anthologised "Repent, Harlequin!' Said the Ticktockman" (1965), which explores repression in a world where time can be conserved, like energy, to be recycled and used later; on that occasion, though, he dropped the suit.

Page after page

Mr Ellison wrote all the time, pounding out the pages first on a Remington Rand and then from the early 1950s on Olympias, which he treated like jackhammers (he never made friends with the laptop). His desk was in the library of the strange Aztec house he built in southern California, a mostly peaceful corner except for the moment in 1994 when an earthquake hurled his 30,000 books from their shelves, knocking him out.

When he wasn't being curmudgeonly, Ellison could be kind, even courtly. And he gave good, if shouty, advice. As Mr Gaiman recalled in 2013: "About 15 years ago, he came up to me at a convention and said, 'GAIMAN, WHY THE FUCK DON'T YOU EVER SHAVE?' I said, I have a really tough beard and sensitive skin, and I don't like shaving. 'CONDITIONER. JUST PUT CONDITIONER ON, LEAVE IT ON, WASH IT OFF, SHAVE. WORKS LIKE A FUCKING CHARM.' And it did."

This article appeared in the Obituary section of the print edition under the headline "Great balls of fire"