The Economist

The ascent of Elon Musk

Germany's miserable coalition

Winter Olympics: slope-a-dope

Guerrilla drones

FEBRUARY 10TH – 16TH 2018

Running hot

America's extraordinary economic gamble

Contents

The world this week

1 Politics this week
4 Business this week
6 KAL's cartoon

Leaders

7 **America's economy**
Running hot
9 **Germany**
Reheating the GroKo
11 **Philanthropy**
The billionaires and the Falcon Heavy
13 **Telecoms**
Next-generation thinking
15 **Drugs in sport**
Dope on the slopes

Letters

17 **On Honduras, Italy, tech companies, walking, The Darkness**
Letters to the editor

Briefing

22 **Elon Musk's futures**
The impact investor
28 **The Boring Company**
Tunnel vision

United States

29 **The economy**
The great experiment
33 **California's fires**
Insult to injury
35 **Politics and the FBI**
Against the law
37 **A Democrat in South Dakota**
Plains speaking
39 **The Great Lakes**
Mind-bending
41 **Lexington**
Honest Injun

The Americas

43 **Venezuela**
Lights out for democracy
45 **Ontario**
Toil and trouble
47 **Pensioners in Mexico**
Trump supporters welcome
49 **Bello**
The ills of Latin American democracy

Asia

51 **Islamic insurgency in the Philippines**
Peace without dignity
53 **Digital spin in Asia**
#TechSavvyPols
55 **Politics in Bangladesh**
In the dock and on the ropes
57 **Gangs in New Zealand**
Bigger than the army
59 **The Winter Olympics**
On thin ice
61 **Bathing etiquette in Japan**
Ink stink
62 **Banyan**
A tropical tempest

China

64 **Population policy**
Gilding the cradle
66 **Hong Kong's democrats**
Three men and a vote

Middle East and Africa

68 **Egypt**
The price is wrong
70 **Israel and its neighbours**
The guns of February
72 **Nuclear power in the Middle East**
An unenriching debate
74 **Ethiopia**
Danger, camels crossing
76 **Africa's energy drink**
Bacchus goes bananas
77 **South African politics**
Long waltz to freedom

Europe

79 **Spanish politics**
On the march
81 **Germany**
A loveless marriage
85 **Reflections on the Berlin Wall**
Still healing
86 **Russia's opposition**
The approved challenger
88 **France**
Back to bac
90 **Romania**
Nobbling the nobblers
92 **Charlemagne**
History wars

Britain

94 **The politics of trade deals**
Not so global Britain
96 **Brexit and the EU's trade deals**
Sorting the wheat from the chaff
98 **The "term funding scheme"**
A rate rise without a rate rise
100 **Manufacturing perks up**
Signs of life
102 **Integrated schools in Northern Ireland**
Baby steps
104 **The John Worboys case**
Time for reform
105 **Virgin East Coast**
Running out of track
107 **Muslim charity**
Alms and the imam

109 **Bagehot**
Meritocracy and its discontents

International

111 **Doping in sport**
Whatever it takes
114 Defence correspondent

Business

115 **Mobile telecoms**
The forces of 5G
118 **Samsung**
Get out of jail free
120 **Airbus**
Changing the pilots
122 **Mining**
They don't dig it
124 **The unwinding of HNA**
Flight of fancy
126 **Industrial property**
Everything's bigger in Nevada
128 **Schumpeter**
Tata's next chapter

Finance and economics

130 **Markets**
Boo!
133 **Digital currencies**
Crypto-correction
135 **Betting on volatility**
Vexed about Vix
136 **Buttonwood**
Breaking the bonds
138 **Insider trading**
In the know
140 **Wells Fargo**
If the cap fits
142 **South-to-South investment**
Developing ties
144 **Free exchange**
Great good to come

Science and technology

146 **Drones and guerrilla warfare**
Buzz, buzz, you're dead
149 **Phylogeny and palaeontology**
When doctors disagree
150 **Diet and health**
Bitter fruits
152 **Satellite prospecting**
There's lithium in them hills
154 **Amelia Earhart**
Mystery solved?

Books and arts

156 **French culture wars**
The river and the sea
158 **Russian film**
Only disconnect
160 **A border patrolman's lament**
Walking the line
162 **New American fiction**
Strike a pose
164 **The war in Afghanistan**
Digging a hole in the ocean

Economic and financial indicators

166 Output, prices and jobs
168 Markets
170 The Economist commodity-price index
171 The Economist poll of forecasters, February averages
172 Trade, exchange rates, budget balances and interest rates

Obituary

174 **Ingvar Kamprad**
Self-made man

Politics this week

Print edition | The world this week Feb 8th 2018

In **Syria** the regime of Bashar al-Assad pounded the rebel enclave of Eastern Ghouta, killing dozens of people. More than 100 fighters backing the regime were killed by US-led forces in a thwarted attack on a rebel stronghold. Turkey suffered its worst losses since invading northern Syria last month. A Russian warplane was shot down over Idlib. And Israeli warplanes fired missiles at positions in Syria, probably to block the transfer of arms to Hizbullah, the Lebanese militia-cum-party backed by Iran.

As women in **Iran** continued to protest against having to cover their heads in public, the office of the president, Hassan Rouhani, released a three-year-old report showing that nearly half of Iranians wanted to end the requirement.

Morgan Tsvangirai, the leader of one of the main opposition parties in **Zimbabwe**, was reported to be critically ill in a hospital in South Africa. Mr Tsvangirai, who won a presidential election in 2008 before the ruling party rigged the result to keep Robert Mugabe in power, has been receiving treatment for cancer.

The government in **Kenya** shut television stations and arrested politicians in an unconstitutional crackdown on free speech, after Raila Odinga, a leader of the main opposition alliance, declared himself the "people's president". Mr Odinga lost last year's disputed presidential election.

South Africa's parliament delayed an annual "state of the nation" speech that was to have been delivered by the president, Jacob Zuma. It was the clearest sign yet that the ruling African National Congress party is trying to get Mr Zuma to step down before the end of his second term in 2019. See article

Memogate

A row erupted in Washington when Republicans in Congress released a memo, written by the Republican chairman of the House intelligence committee, that purports to show political bias in the **FBI's investigation** into Russian ties to Donald Trump's aides. The FBI had asked for the document not to be declassified. Mr Trump crowed that the memo vindicated him. The Democrats pushed for the release of a memo they have penned that tells a different story. See article

America's Supreme Court refused an emergency request by Republicans in Pennsylvania to reinstate the state's current boundaries for congressional districts. Pennsylvania's highest state court had found that the districts had been **gerrymandered** specifically to favour the party. The Supreme Court did, however, temporarily block a similar order in North Carolina to redraw its congressional map.

Elon Musk, the founder of SpaceX and co-founder of Tesla Motors, launched a **Falcon Heavy** rocket into space from the Kennedy Space Centre in Florida. The payload was one of Mr Musk's Tesla cars, which was dispatched on a trajectory towards Mars. The spectacular display included two booster rockets returning in synchronised formation to land near the launch pad. The central booster rocket missed its rendezvous at sea, but that did not detract from the successful advance of private enterprise into space. See article

Pre-wedding nerves

Fabricio Alvarado won the most votes in the first round of **Costa Rica's** presidential election. He rose in the polls after the Inter-American Court of Human Rights, which is based in Costa Rica's capital, said the country had to legalise gay marriage. Mr Alvarado, an evangelical Christian, has promised to defy the ruling. The run-off is on April 1st.

Negotiations between **Venezuela's** authoritarian regime and the opposition, which would have set ground rules for the forthcoming presidential election, broke down. Venezuela's electoral commission, which the opposition says acts at the behest of the government, set April 22nd as the date for the election. See article

In a referendum, **Ecuadoreans** approved the introduction of term limits for elected officials. That will probably prevent Rafael Correa, who was president from 2007 to 2017, from returning to office. The referendum was organised by Mr Correa's successor, Lenín Moreno, who has rejected authoritarian politics. Voters also endorsed a measure that allows Mr Moreno to sack judges and other officials appointed by a panel controlled by Mr Correa.

Getting there

More than four months after a general election, **Germany's** Christian Democrats, their Bavarian sister party and the Social Democrats (SPD) concluded a new "grand coalition" deal, similar to the one that has ruled the country for the past four years. Martin Schulz said he would step down as SPD leader; he is tipped to be foreign minister. The deal must be ratified by the SPD's members. See article

Poland's president signed a new law that criminalises reference to "Polish death camps". The government insists that everyone call them Nazi death camps that happened to be in Poland.

The government of **Macedonia** offered to add a qualifier to the country's official name, after more than a million people demonstrated in **Greece** against their neighbour's disputed use of "Macedonia", which is also a region in Greece.

(More) trouble in paradise

Abdulla Yameen, the president of **the Maldives**, declared a state of emergency, suspended much of the constitution and arrested two of the five judges on the supreme court. The remaining three judges then reversed a ruling that had overturned the convictions of nine opposition leaders. See article

A court in **Bangladesh** sentenced Khaleda Zia, a former prime minister and leader of the main opposition party, to five years in prison for corruption. Mrs Zia claims the prosecution is politically motivated. See article

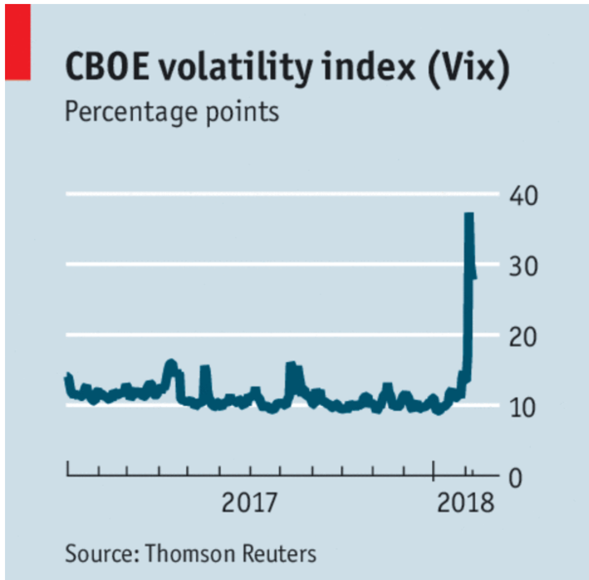
Hong Kong's final court of appeal overturned the prison sentences of three activists who took part in pro-democracy protests in 2014. But the court also said that the harsher sentencing guidelines called for by the city's government to deal with protesters will be adhered to in future cases. See article

An **earthquake** hit the Taiwanese town of Hualien. At least ten people were killed and dozens are still missing.

South Korea announced that the sister of North Korea's dictator, Kim Jong Un, will attend the **Winter Olympics** inPyeongchang, the first time that a member of the ruling Kim dynasty will visit the South. The South's democratically elected president, Moon Jae-in, will have breakfast with the brutal god-king's kin.

Business this week

Print edition | The world this week Feb 8th 2018



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It was a turbulent week on the world's **stockmarkets**, a rude awakening after a long period of calm during which share-price indices have soared. The Dow Jones Industrial Average plunged by 1,175 points in a day, its biggest points decline to date. The FTSE 100 fell by 2.6%, the most since June 2016 when Britain voted to leave the EU. A measure of market volatility, the Vix, also known as "the fear index", soared to its highest level since China's currency crisis in 2015. Among other things, markets are worried that the improving world economy and pressures on inflation will cause central banks to ramp up interest rates. See article

Welcome to the office!

The market turmoil coincided with **Jerome Powell's** first day on the job as chairman of the Federal Reserve.

Crypto-currencies also swung even more wildly than usual. **Bitcoin** dropped below $6,000 before jumping by 30% within 24 hours. A note by Goldman Sachs compared trading in digital currencies to the internet bubble of the 1990s. See article

America's **trade deficit** grew by 12% last year, to $566bn, the highest it has been since 2008. Although American exports increased to $2.3trn, imports surged to $2.9trn. That helped push up the politically sensitive goods deficit with China to a record $375bn.

Last year's intense hurricane season, wildfires in California and earthquakes in Mexico all took a toll on **Munich Re's** annual profit, which slumped by 85% to €392m ($442m). The German reinsurer estimates that the industry's claims from natural catastrophes in 2017 will top $135bn, a record.

A South Korean appeals court halved the five-year prison sentence for bribery handed down last year to **Lee Jae-yong**, Samsung's de facto boss, and suspended his remaining jail term, allowing him to walk free. The decision disappointed reformers who had hoped the sentence represented a break from the leniency shown by judges towards businessmen in corruption cases. Mr Lee was not cleared of all charges. His father, Lee Kun-hee, was meanwhile charged as a suspect in a tax-evasion case.

Wynn's gambling loss

Steve Wynn resigned as chairman and chief executive of Wynn Resorts, one of the world's largest casino companies, following allegations stretching back decades that he coerced employees into sex. He denies the accusations.

Despite a doubling of its net losses, **Snap's** fourth-quarter earnings delighted investors when it reported higher-than-expected revenues and an increase in the number of people who use its messaging app on a daily basis, to 187m. The company floated on the stockmarket last March, but its share price has fallen far below its closing price at the time of its IPO.

The ***Los Angeles Times*** has a new owner. Patrick Soon-Shiong, a biotech entrepreneur, is buying the newspaper along with the *San Diego Union-Tribune* for $500m from Tronc, which used to be part of the Tribune media empire.

Dalian Wanda, a Chinese conglomerate, sold a stake in its film business to a consortium headed by Alibaba, China's biggest e-commerce company. Dalian Wanda is under pressure from the Chinese government to pare back assets in order to reduce debt.

After months of pre-trial hearings, a court case got under way in which **Uber** is accused by **Waymo**, a self-driving car business owned by Alphabet, Google's parent company, of stealing trade secrets. Travis Kalanick, who was ousted as Uber's chief executive last year, took the stand. He described how driverless cars were a threat to Uber's taxi-hailing business model, which impelled him to acquire Otto, a startup created by Anthony Levandowski, an engineer who worked at Waymo. Waymo contends the acquisition was a ruse through which Uber gained its technical secrets.

Broadcom submitted its "best and final" offer to take over **Qualcomm**. The latest proposal is worth $146bn. Qualcomm's board has so far not engaged with its chipmaking rival, but the issue will surely dominate its shareholders' meeting on March 6th.

Roads to nowhere

Los Angeles was the most **congested city** at peak travel times in 2017, according to a report by INRIX, a transport-analytics firm. The city's drivers spent an average of 102 hours a year sitting in congestion during rush hour, more than ten hours longer than in Moscow, which ranked second in the study. Although America overall was positioned joint fifth with Russia out of the 38 countries surveyed, five of its cities made the list of the ten most congested. Despite its congestion charge, Londoners still wasted 74 hours a year snarled up in traffic, the worst of any city in western Europe.

KAL's cartoon

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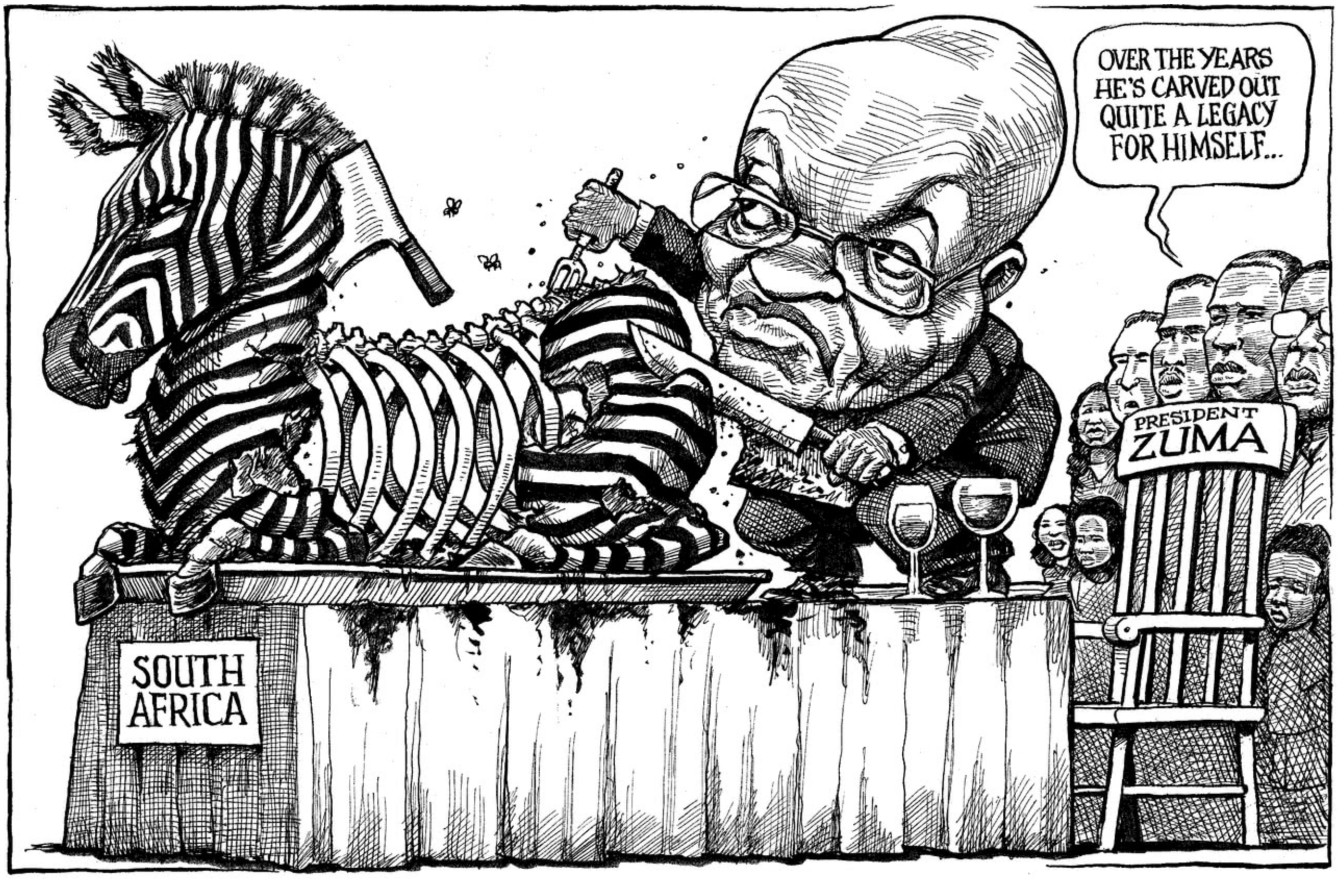


Economist.com   Kal

America's economy
Running hot

Souped up growth

America's extraordinary economic gamble

Fiscal policy is adding to demand even as the economy is running hot

Print edition | Leaders Feb 8th 2018

VOLATILITY is back. A long spell of calm, in which America's stockmarket rose steadily without a big sell-off, ended abruptly this week. The catalyst was a report released on February 2nd showing that wage growth in America had accelerated. The S&P 500 fell by a bit that day, and by a lot on the next trading day. The Vix, an index that reflects how changeable investors expect equity markets to be, spiked from a sleepy 14 at the start of the month to an alarmed 37. In other parts of the world nerves frayed.

Markets later regained some of their composure (see article). But more adrenalin-fuelled sessions lie ahead. That is because a transition is under way in which buoyant global growth causes inflation to replace stagnation as investors' biggest fear. And that long-awaited shift is being complicated by an extraordinary gamble in the world's biggest economy. Thanks to the recently enacted tax cuts, America is adding a hefty fiscal boost to juice up an expansion that is already mature. Public borrowing is set to double to $1 trillion, or 5% of GDP, in the next fiscal year. What is more, the team that is steering this experiment, both in the White House and the Federal Reserve, is the most inexperienced in recent memory. Whether the outcome is boom or bust, it is going to be a wild ride.

Fire your engines

The recent equity-market gyrations by themselves give little cause for concern. The world economy remains in fine fettle, buoyed by a synchronised acceleration in America, Europe and Asia. The violence of the repricing was because of newfangled vehicles that had been caught out betting on low volatility. However, even as they scrambled to react to its re-emergence, the collateral damage to other markets, such as corporate bonds and foreign exchange, was limited. Despite the plunge, American stock prices have fallen back only to where they were at the beginning of the year.

Yet this episode does signal just what may lie ahead. After years in which investors could rely on central banks for support, the safety net of extraordinarily loose monetary policy is slowly being dismantled. America's Federal Reserve has raised interest rates five times already since late 2015 and is set to do so again next month. Ten-year Treasury-bond yields have risen from below 2.1% in September to 2.8%. Stockmarkets are in a tug-of-war between stronger profits, which warrant higher share prices, and higher bond yields, which depress the present value of those earnings and make eye-watering valuations harder to justify.

This tension is an inevitable part of the return of monetary policy to more normal conditions. What is not inevitable is the scale of America's impending fiscal bet. Economists reckon that Mr Trump's tax reform, which lowers bills for firms and wealthy Americans—and to a lesser extent for ordinary workers—will jolt consumption and investment to boost growth by around 0.3% this year. And Congress is about to boost government spending, if a budget deal announced this week holds up. Democrats are to get more funds for child care and other goodies; hawks in both parties have won more money for the defence budget. Mr Trump, meanwhile, still wants his border wall and an infrastructure plan. The mood of fiscal insouciance in Washington, DC, is troubling. Add the extra spending to rising pension and health-care costs, and America is set to run deficits above 5% of GDP for the foreseeable future. Excluding the deep recessions of the early 1980s and 2008, the United States is being more profligate than at any time since 1945.

A cocktail of expensive stockmarkets, a maturing business cycle and fiscal largesse would test the mettle of the most experienced policymakers. Instead, American fiscal policy is being run by people who have bought into the mantra that deficits don't matter. And the central bank has a brand new boss, Jerome Powell, who, unlike his recent predecessors, has no formal expertise in monetary policy.

Does Powell like fast cars?

What will determine how this gamble turns out? In the medium term, America will have to get to grips with its fiscal deficit. Otherwise interest rates will eventually soar, much as they did in the 1980s. But in the short term most hangs on Mr Powell, who must steer between two opposite dangers. One is that he is too doveish, backing away from the gradual (and fairly modest) tightening in the Fed's current plans as a salve to jittery financial markets. In effect, he would be creating a "Powell put" which would in time lead to financial bubbles. The other danger is that the Fed tightens too much too fast because it fears the economy is overheating.

On balance, hasty tightening is the greater risk. New to his role, Mr Powell may be tempted to establish his inflation-fighting chops—and his independence from the White House—by pushing for higher rates faster. That would be a mistake, for three reasons.

First, it is far from clear that the economy is at full employment. Policymakers tend to consider those who have dropped out of the jobs market as lost to the economy for good. Yet many have been returning to work, and plenty more may yet follow (see article). Second, the risk of a sudden burst of inflation is limited. Wage growth has picked up only gradually in America. There is little evidence of it in Germany and Japan, which also have low unemployment. The wage-bargaining arrangements behind the explosive wage-price spiral of the early 1970s are long gone. Third, there are sizeable benefits from letting the labour market tighten further. Wages are growing fastest at the bottom of the earnings scale. That not only helps the blue-collar workers who have been hit disproportionately hard by technological change and globalisation. It also prompts firms to invest more in capital equipment, giving a boost to productivity growth.

To be clear, this newspaper would not advise a fiscal stimulus of the scale that America is undertaking. It is poorly designed and recklessly large. It will add to financial-market volatility. But now that this experiment is under way, it is even more important that the Fed does not lose its head.

This article appeared in the Leaders section of the print edition under the headline "Running hot"

Reheating the GroKo

Germany agrees on a coalition at last

Unfortunately, it will look very much like the old one

Print edition | Leaders Feb 10th 2018

THE Berlin Wall stood for 28 years, two months and 27 days; as of this week it has been down for longer. Just as Germany's "post-Wall" era has come to an end, so the cosy politics of the past three decades looks as if it is running out of inspiration. On February 7th news came that the Christian Democrat alliance (CDU/CSU) and the Social Democrats (SPD), had agreed on yet another grand coalition. Germany is desperate for political renewal, but all that its politicians have been able to come up with is a dreary sort of continuity that has left everyone unhappy.

Falling short

The coalition agreement sets out some modest ambitions (see article). There are spending pledges on infrastructure, where wealthy Germany is surprisingly deficient. The new government will increase child benefits, cut taxes modestly and limit immigration. It will tinker with the labour market and health care. In Europe it will aim to negotiate a permanent stabilisation mechanism for the euro, together with increased common investments in the shape of a possible euro-zone budget. That, at least, is welcome—though the language is waffly.

Working out the details will be hard. The likely appointment of an SPD finance minister from the more hawkish end of the spectrum is one sign of that. Another is the absence from the coalition agreement of any commitment to a vital missing part of the euro construct, a bank-deposit protection scheme. Other signals coming out of the coalition are also worrying. The overly pro-Russian SPD will continue to hold the foreign-affairs portfolio. And an undertaking to boost defence spending significantly towards the NATO target of 2% of GDP failed to make it into the programme.

The coalition deal has few fans, even among the people who laboured for months to negotiate it. Angela Merkel, who will become chancellor for a fourth (and almost certainly last) time, spoke of "the painful compromises" that she had to make. To seal the deal she was obliged to hand over the powerful finance, foreign and labour portfolios to her much-smaller coalition partners. Yet those partners are unhappy, too. Carsten Schneider, chief whip for the SPD, admitted that the deal was "no masterpiece".

Voters will surely share their despondency. Having hammered the "grand coalition" parties in last September's inconclusive elections, they have been telling pollsters that their support for Mrs Merkel's CDU/CSU alliance and the SPD is sliding. One poll this week gave the coalition parties well under half the votes, not enough to form a government were a fresh election to be held.

Which is really the only reason why a repeat of the unloved "GroKo" will now take power, so long as it wins the blessing of the SPD's 460,000 members, in a postal ballot that will be run over the next three weeks. Neither the CDU nor the SPD has any appetite for another election. For Mrs Merkel, it would be a humiliating end to her second attempt to form a government. For the SPD, another election might be catastrophic. In one poll the party was only two points ahead of the anti-immigrant Alternative for Germany. Its uncharismatic leader, Martin Schulz, announced his resignation on February 7th; even his colleagues felt he has been out of touch with voters' concerns.

Germany and Europe are better off without another six months of drift. Britain, Spain and Italy all suffer from weak governments and it is in no one's interest for Germany to join them. But the country's crop of humdrum centrist politicos can barely totter on, even in loveless alliances. Watch out for the younger, more extreme alternatives snapping at their heels.

This article appeared in the Leaders section of the print edition under the headline "Reheating the GroKo"

Billionaires and the Falcon Heavy

The mega-rich have ambitious plans to improve the world

Should that be a cause for celebration or concern?

Print edition | Leaders Feb 8th 2018

NOTHING declares world-changing ambition like a space rocket. This week's spectacular test confirmed the Falcon Heavy as the planet's most powerful operational launch vehicle. It also testified to the outsized vision of Elon Musk, its creator. To ensure humanity's long-term survival he wants both to colonise Mars and to wean the Earth off fossil fuels.

Mr Musk is not the only billionaire entrepreneur with grand ambitions to improve the future of mankind. Mark Zuckerberg, the founder of Facebook, wants to "cure, prevent or manage" all diseases by the end of the century. Bill Gates, having made his fortune at Microsoft, wants to eradicate polio and malaria, as part of a broader goal of improving health and alleviating poverty. Both are among a number of philanthropists who plan to remake education—Mr Zuckerberg's other goal is for children to "learn 100 times more than we learn today".

As the Falcon Heavy soared above the Kennedy Space Centre in Florida, one question was over what Mr Musk's dreams mean for business (see Briefing). The other was what to make of this desire to save humanity, in pursuit of which Mr Musk and his fellow billionaires have been strikingly innovative.

A century ago John D. Rockefeller, Andrew Carnegie and Henry Ford ruthlessly made fortunes and then established foundations to enlighten the masses and ensure world peace long after their death. Mr Gates and others, having seen how foundations can eventually become cautious and conventional, favour a "sunset philanthropy" model, aiming to spend their riches before they die. (Warren Buffett, now 87, is donating most of his fortune to Mr Gates's foundation, to dispense on his behalf.) Such tycoons also pride themselves on measuring impacts and outcomes, applying the same rigorous scrutiny to their charitable activities as they did in their business.

From Rockefeller to Rocket-fella

In the latest twist younger billionaires like Mr Zuckerberg, who made their fortunes in their 20s or 30s, have switched from a serial model of philanthropy, in which you make money first and then retire and give it away, to a parallel one, where you start giving the money away while it is still coming in. Mr Musk has gone further still. Rather than using his business wealth to support philanthropy in an unrelated area, he runs two giant companies, Tesla (a clean-energy firm that sells electric cars) and SpaceX (which builds the Falcon rockets), that further his ambitious goals directly. Both companies sell something that people happen to want now—cars and satellite launches—as a way of hastening Mr Musk's dreams.

The grand schemes of the mega-rich provoke excitement in some quarters and unease in others. One complaint involves accountability. Billionaire philanthropists do not answer to voters. Their spending power gives them the ability to do great good, but what if they prefer to act more like Blofeld-style Bond villains than Iron Man-style superheroes? Wealth also grants the mega-rich special access to policymakers and elected officials. Shovelling your fortune into a charitable foundation has the happy side-effect of reducing tax bills, too—meaning that billionaires' schemes can leave poorer taxpayers to fill in the gaps in public spending.

Given that so many of today's billionaires are geeks, there is also a danger of techno-solutionism. The idea that problems in health, education and so on can be solved with whatever technology is in vogue (today's favourite is the blockchain) has usually proved naive. Deep change generally requires co-operation with governments and social mobilisation. Recognising such things is hard for techies used to seeing politicians as clueless and regulation as something to be innovated around.

And yet these reservations are surely outweighed by the billionaires' scope for good. The would-be world-changers are applying innovative and evidence-based approaches in clinics and classrooms, where elected politicians are often too timid to risk failure, captured by entrenched interests or unwilling to spend public money on experimentation. For all their wealth, the billionaires would struggle to force change upon society. Although today's philanthropists are more visible than those of previous generations, they account for less than a quarter of all charitable giving in America—which has remained roughly constant, at around 2% of GDP, for decades, according to David Callahan of Inside Philanthropy, a specialist website.

The billionaires' most useful function, then, is not to bring about change themselves, but to explore and test new models and methods for others to emulate. Using their access to policymakers, they encourage the adoption of the ideas that work. Even an Avengers-style coalition of billionaires, like the one assembled by Mr Gates and Mr Buffett under the "Giving Pledge" banner, could not solve really big problems like infectious diseases, colonising Mars and climate change without the co-operation of governments, industry and voters.

So, as the Tesla car sent skywards by the Falcon Heavy begins its trip around the sun, salute the billionaires for their ambition. Raise your eyebrows, in some cases, at their hubris and political naivety. But applaud their role as public-policy trailblazers, opening up paths to a better future.

This article appeared in the Leaders section of the print edition under the headline "The billionaires and the Falcon Heavy"

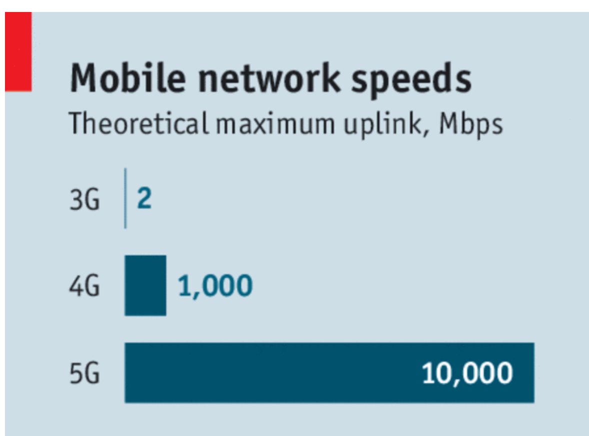
Sharing spectrum

A national 5G wireless network is not such a stupid idea

Shared networks can increase competition for the services on top of them

Print edition | Leaders Feb 10th 2018

FOR more than three decades, telecoms policy, at least in rich countries, has been a one-way street: more deregulation and more privatisation in order to foster more competition. This direction was set by America in 1984, when it broke up AT&T, its telephone monopoly. So there was much surprise at a recent memo, written for the White House by an official at the National Security Council, which argued that the next generation of mobile network, "5G" for short, should be built and run by the American government.



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The 30-page paper was widely criticised, and quickly dismissed by experts and regulators. Protecting the network from Chinese hacking, the main reason for the proposal, does not require the state to run the entire network. Huawei, a Chinese maker of telecoms gear, is already all but barred from selling its wares to American operators. Government-run broadband would instead stifle competition and increase the risk of overreach by America's own security agencies.

Yet the memo contains another idea that merits more discussion, and not just in America but elsewhere too. This is the proposal that 5G be rolled out as a national wholesale network that can be used by several service providers, just as some rail networks and electricity grids are.

High five

In the fixed part of the telecoms network—the cables that run underground, say—wholesale networks are already widespread. Under this model, the owners and operators do not also provide the services; these are supplied by separate firms, which share the network and compete with each other. Singapore and New Zealand have this sort of arrangement; so do cities in Sweden. Mobile networks have conventionally been integrated affairs, with operators both managing the network and also providing services (although they do sometimes sublet capacity to others). But sharing does happen. Rwanda has had a wholesale mobile network for some time. Mexico's Red Compartida is expected to start up soon; it has been built by a private consortium, with the government providing radio spectrum and fibre-optic links to connect the base stations.

The obvious risk of a single wholesale network is that, without the cut and thrust of competition, it ends up acting like the sluggish and underfunded telecoms monopolies of old. Critics point out that the average speed of internet connections on Australia's government-owned National Broadband Network lags behind that of most rich countries. South Korea, by contrast, has a system of competing broadband networks and some of the zippiest speeds on the planet.

But many people in South Korea live in clusters of residential high-rise buildings, which are easily wired up. For farther-flung networks, particularly in rural areas, the costs are higher. And 5G networks will anyway be more expensive to build than their forebears. They will eventually use higher-frequency radio waves, which cannot penetrate buildings and other obstacles; that means they will need more base stations and antennae. If every provider has to build its own 5G network, costs will be unnecessarily high—sometimes prohibitively so.

A single shared network would be cheaper. It could also increase competition for the services on top of it. Next-generation networks are supposed to become the connective tissue for all sorts of devices, from sensors to medical equipment (see article). If firms can lease capacity to create such networks without having to build them, in much the same way as firms use smartphones and app stores to reach consumers, the "internet of things" will be more vibrant. This kind of environment would also ease worries about the end of "net neutrality" in America. If one company discriminates against certain online content, consumers can switch to another.

Governments do not have to go as far as mandating the creation of a wholesale network, as Mexico has done, to get some of the benefits from sharing. Many states in America restrict or even ban municipalities from building networks. Eliminating such laws would be an obvious start. Regulators can also encourage other forms of sharing, for instance of spectrum, something America has started to experiment with. The White House's 5G memo is an unlikely milestone on the path towards more sharing. But in questioning the need for a lot of competing networks, it is sending the right signal.

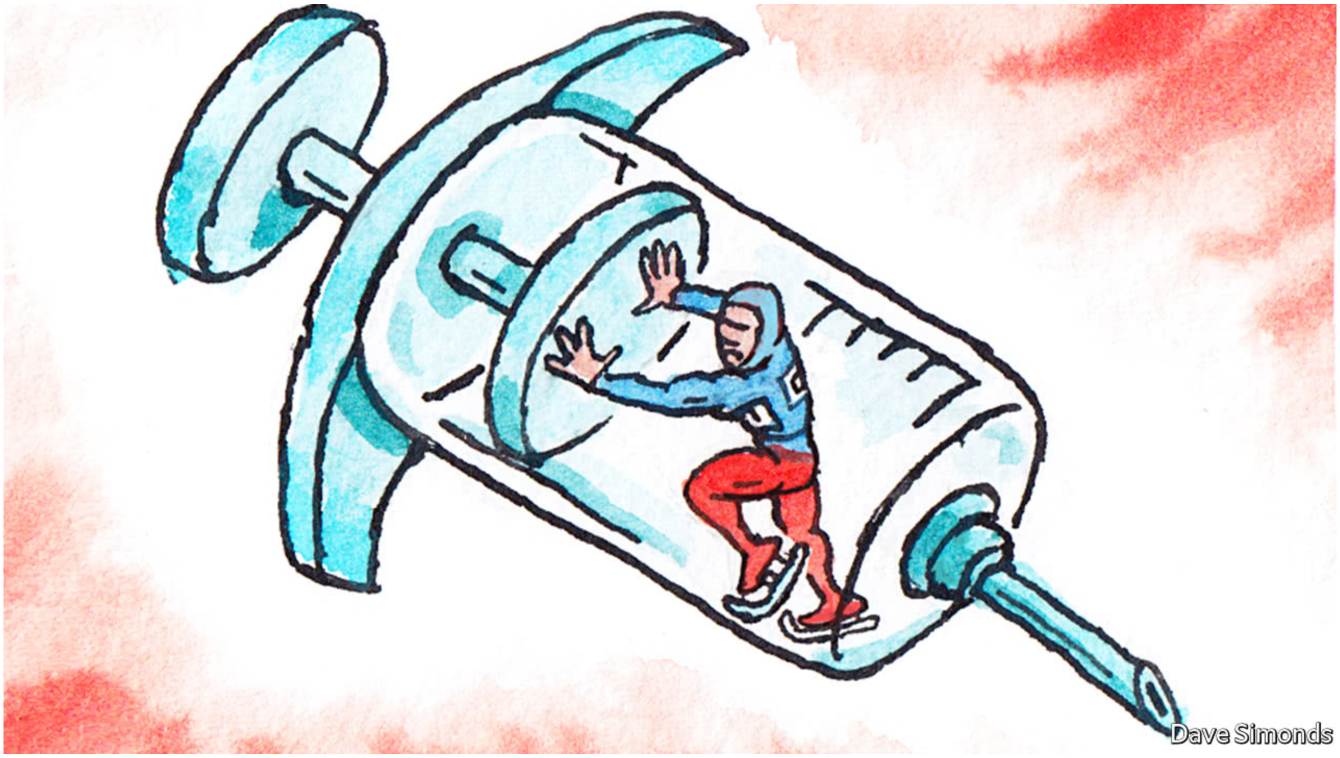
This article appeared in the Leaders section of the print edition under the headline "Next-generation thinking"

Unfair competition

How to stop doping in sports

Athletes who cheat are rarely caught. The drug-testers need better incentives to catch them

Print edition | Leaders Feb 8th 2018



PROFESSIONAL athletes pay a high price for their pursuit of excellence and glory. Training to the limit tears muscles and wears out joints. Gymnasts often need hip replacements when barely into middle age. Few footballers make it to the end of their careers with their knees intact.

But many also run a darker risk: doping. The Winter Olympics in Pyeongchang, in South Korea, starts this week in its shadow. Years after whistle-blowers first revealed wholesale doping in Russia, the International Olympic Committee (IOC) at last decided to bar it from taking part. But it has allowed many Russians to compete as individuals. And on the eve of the competition the Court of Arbitration for Sport said that 28 others should receive a more lenient penalty from the IOC, further muffling the anti-doping message.

Russia's doping is unusual only in its scale and institutional nature. No country or sport is immune (see page 57). Studies, and an anonymous survey at the World Athletics Championships in 2011, suggest that a third of athletes preparing for big international competitions take banned substances. Yet just 1-2% fail a test each year. Lance Armstrong, a cyclist who won the Tour de France seven times and later admitted to doping all the while, was tested on 250 occasions. The few times he failed, he avoided sanctions by claiming he had taken anti-inflammatories for saddle-sores.

Doping is more sophisticated than when communist states used steroids to bulk up athletes. New drugs are designed to be undetectable in a blood or urine sample. Many athletes "blood dope", receiving transfusions or taking a drug that stimulates the production of red blood cells to improve their stamina. Russian cheats "lost" test records in state-run labs and opened "tamper-proof" sample bottles with dental instruments.

Athletes who take banned substances put their health at risk. Soviet athletes who were fed steroids suffered a host of serious problems in later life. They were more likely to commit suicide, or to miscarry or have a disabled child. No one knows what risks those taking new "designer" versions are running. Blood-doping can cause heart attacks; more than a dozen cyclists' deaths have been linked to it. Some unscrupulous coaches dope promising teenagers, before they are ever subjected to testing. The performance-enhancing benefits will last into their future careers. So will the damage.

The agencies that set out to stop doping are hugely outclassed. As the backtracking and bickering over sanctions on Russia illustrate, they are divided and weak. Most testing is done by national bodies, which may not try very hard to find evidence that would get their own stars banned. The World Anti-Doping Agency (WADA), which oversees them, is packed with officials from national sports federations and the IOC. Their interests are likewise conflicted. Its budget is tiny. The system seems to be designed to look tough but punish only the occasional scapegoat. Honest athletes deserve better.

Don't throw in the towel

Fixing doping means fixing incentives. WADA needs money, and to be independent of the sports officials who currently call the shots. Then it could improve testing and carry out more investigations—Russian doping was proved after whistle-blowers raised the alarm. "Athlete biological passports", which monitor a range of markers in blood, show promise.

Above all, the punishment for doping should be severe and certain. No Russians should be competing in Pyeongchang after their country is known to have attempted wholesale fraud. Athletes should not have to choose between risking their health or being beaten by a cheat.

This article appeared in the Leaders section of the print edition under the headline "Dope on the slopes"

Letters

On Honduras, Italy, tech companies, walking, The Darkness
Letters to the editor

Letters

Letters to the editor

On Honduras, Italy, tech companies, walking, The Darkness

Print edition | Letters Feb 10th 2018

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

The election in Honduras

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

Your article on the contested inauguration of the president of Honduras includes some interpretations that I feel compelled to clarify (" A tarnished presidency ", January 27th). I do appreciate your characterisation of the position of the Organisation of American States, which clearly explained the irregularities and deficiencies of the electoral process and therefore the impossibility of establishing a clear winner.

However, I disagree with the view that starting a negotiation with the government and all institutional actors leaves democracy defenceless. In fact, I found this to be the most useful way ahead in order to keep working on the strong recommendations of the three reports of the mission that observed the election. Defending democracy and human rights doesn't mean that the most forceful measure has to be the first one taken. We all have clear obligations arising from the Inter-American Democratic Charter.

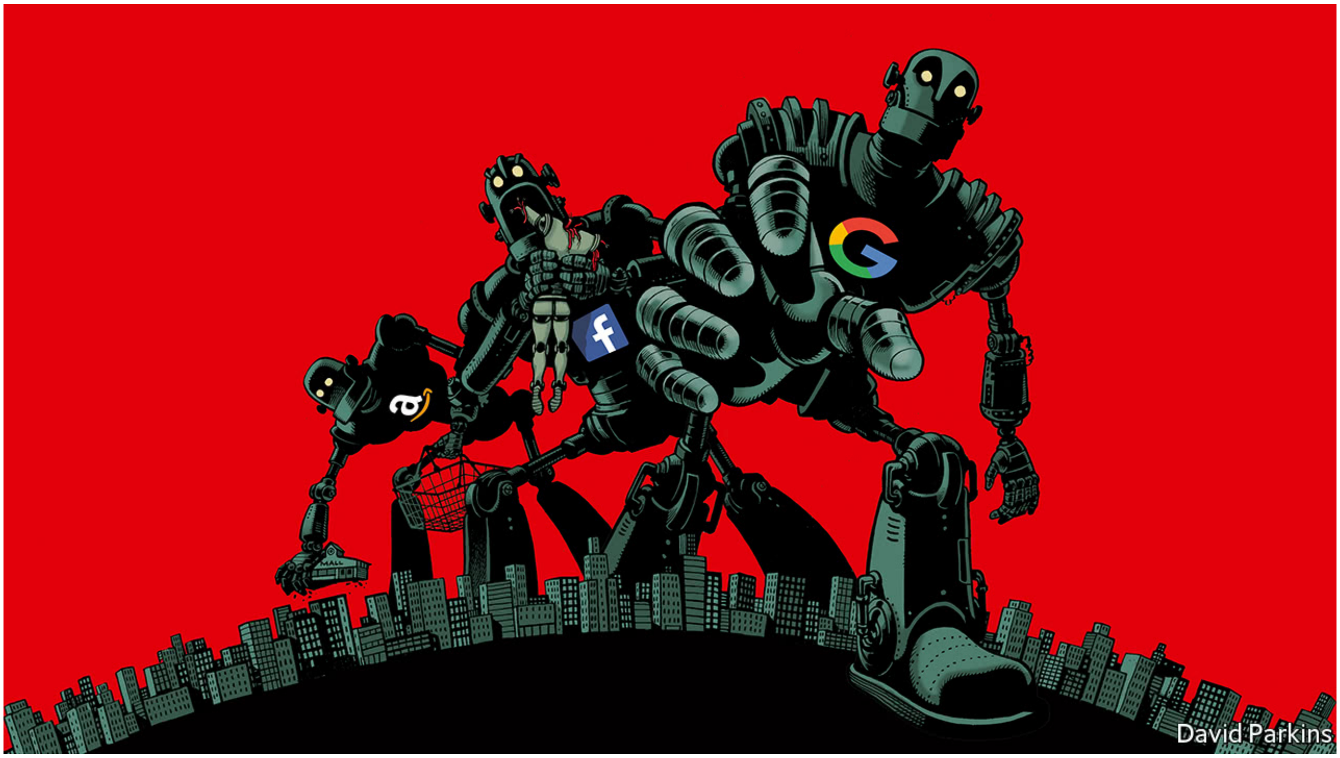
LUIS ALMAGRO
Secretary-general
Organisation of American States
Washington, DC

Italy’s compromising politics

I disagree with your comments about Matteo Renzi being a “failed reformer” who “managed only modest labour reforms before being ejected” from office as Italian prime minister (“ Battle of the benefits ”, January 27th). Most of Mr Renzi’s draft reforms reflected the principles you espouse, such as more labour-market flexibility (the Jobs Act), boosting investments in automation (the Industry 4.0 plan) and introducing a form of universal basic income (*Reddito di Inclusione*, recently introduced by the Gentiloni government).

Mr Renzi couldn’t count on a solid parliamentary majority and he had to compromise with other parties. That is a historical condition which has doomed the reforming ambitions of many past Italian governments. When you factor in Italy’s chronic political instability and consequent lack of long-term vision, Mr Renzi’s reforms are actually encouraging signs.

ALBERTO BRIGHENTI
London



Techlash backlash

“ Taming the titans ” (January 20th) suggests that successful American technology firms are alien forces that need to be controlled. However, you concede that “much of this techlash is misguided” and note that Amazon, Apple, Facebook and Google are among the companies most admired by investors. They are also the companies most loved by consumers. There is a discussion to be had about the power of the tech industry, but much of the techlash is in fact fuelled by complaints from competitors whose business models have been disrupted.

The tech ecosystem generates hundreds of billions of dollars in consumer surplus value each year. As a champion of strong antitrust laws, I am well aware of the costs of misapplied competition law. Antitrust remedies work for consumers when they are used to safeguard competition, not competitors. They should be applied to misconduct, not speculation. Consumers do not benefit when regulators pick winners and losers from among businesses, especially when goaded by parochial special interests.

ED BLACK

President and CEO

Computer and Communications Industry Association

Washington, DC

Transferring anonymised consumer data from established companies to their challengers, which you propose as one way to weaken the market dominance of tech giants, is fiendishly difficult. Data that are anonymous today may no longer be when new data see the light of day. Sharing such information could create serious risks.

You are right to say that giving people ownership of their data could be the foundation for a more competitive and humane digital economy. But your example of data portability between banks in Europe illustrates the problem. It exists in principle but not in practice, in spite of a gargantuan legislative effort. Having been passive data generators for so long, it is also not obvious that consumers have the appetite to take control.

These challenges are not insurmountable. They demand a new kind of regulation and regulator: ambitious, uncompromising and at home with technology. Rather like the tech titans themselves.

CHRIS GORST

Nesta Challenge Prize Centre

London

As a consumer, I would pay for control over my data. But that is probably the last thing these companies will give up. There is a saying: if you’re not paying for a service, you’re not the customer. You’re the product.

NIKOLAUS VAERST

Hamburg

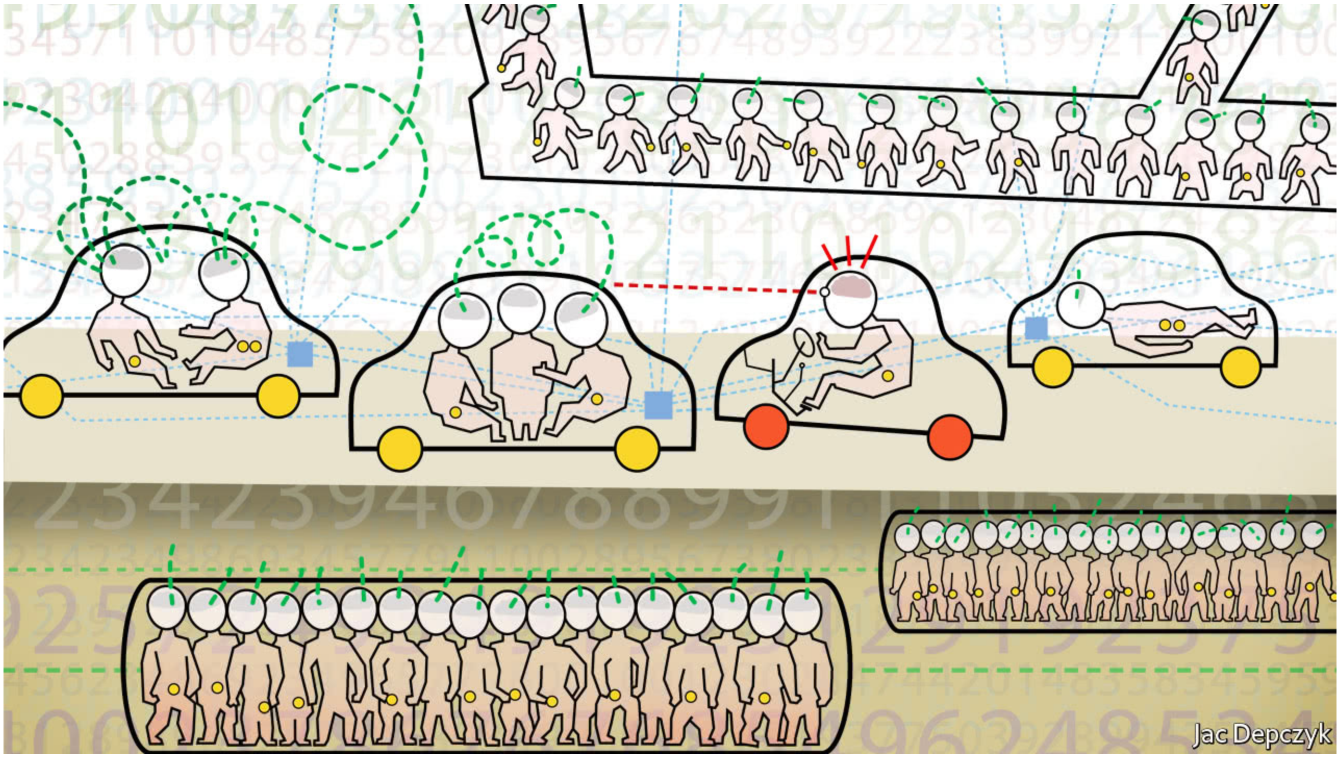
* You claim that “unlike publishers, Facebook and Google are rarely held responsible for what users do on them.” The law you allude to, the Communications Decency Act, protects every website and app that accepts comments. Tech titans can afford to police their comments for libel or other unlawful content, although they will inevitably do it poorly, using biased and unaccountable algorithms and minimally trained staff. Smaller entities cannot afford to do that and would be forced to stop accepting contributions from the public. Far from taming internet monopolists, a repeal of the CDA’s protections would help cement their dominance over potential new rivals.

MITCH STOLTZ

Senior staff attorney

Electronic Frontier Foundation

San Francisco



Get out of your car

Another way of looking at the future of urban traffic (Free exchange , January 20th) is to consider that the ease of travel is largely determined by questions of space. Cars need a lot of it, underground rail creates more of it by burrowing tunnels, buses use it efficiently (when full), but pedestrians even more so. Walking is the invisible and essential form of city travel. In central London it accounts for 78% of all trips, 47% in inner London and 35% in the outer suburbs of the city.

The logic of this is that in busy districts walking should be given pre-eminence, as the City of London has recently recognised at Bank station. This junction, which used to be a maze of crawling cars, is now peacefully devoted to buses, walkers and cyclists. This is the way ahead for city and suburb. Private cars do not work in cities. They take up too much room, whether on the move or parked (as they mostly are). Driverless vehicles, the focus of your article, could play a vital part in getting cities moving again, provided they operate as taxis. But the emphasis should be on walkers, cyclists and buses.

TERENCE BENDIXSON
President
Living Streets
London

Surely the vehicles of the future will be able to extract real-time data from a transportation database and send it ahead to traffic lights. The data could direct the timing of traffic lights, helping the flow of traffic. How many times have we sat at a red light when no cars crossed our horizon? How many times have we slowed and stopped at a four-way stop sign when no other vehicles have been around?

DERRICK VANKAMPEN
Tampa

Southern man

Having listened to The Darkness, I wasn't surprised to read about the despondency of commuters on Southern Rail (" Off the rails ", January 6th). Last year the band released "Southern Trains", a song that captures the misery endured by the train company's passengers. Among the more explicit lyrics, Justin Hawkins sings about the

Heaving carriages of indignation

Grown men weeping in pure frustration.

ALEX DEW

Salt Lake City

* Letters appear online only

Elon Musk's futures
The impact investor

How Elon Musk does it

The Falcon Heavy's creator is trying to change more worlds than one

Failure is most definitely an option

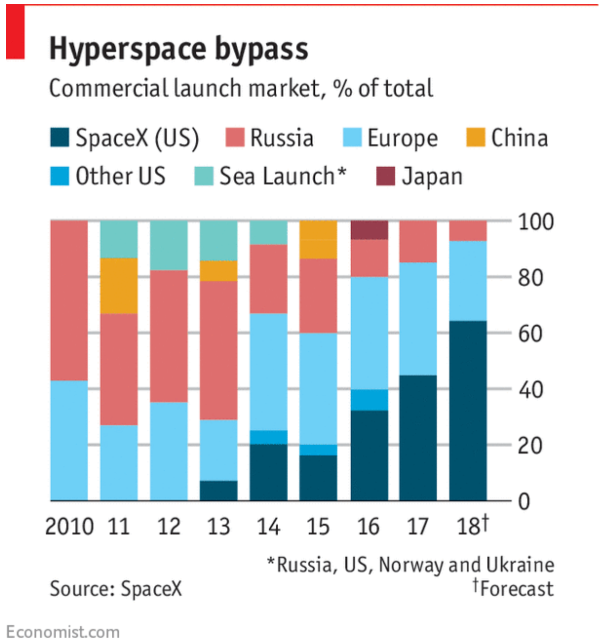
Print edition | Briefing Feb 10th 2018

IT WAS not, in the end, the much anticipated take-off that took your breath away. It was the landings. Eight minutes after they had lifted the first SpaceX Falcon Heavy off its pad at Cape Canaveral on February 6th, two of its three boosters returned. Preceded by the flames of their rockets, followed by their sonic booms, the slender towers touched down on neighbouring landing pads a fraction of a second apart. After such power, such delicacy.

Up above the atmosphere, the rocket's second stage opened its fairing to reveal its cargo: a red roadster made by Tesla, a company which, like SpaceX, is run by Elon Musk. The dummy sitting at its wheel wore a SpaceX spacesuit, David Bowie played on the stereo, the motto from "The Hitchhiker's Guide to the Galaxy"—"Don't panic!"—was displayed proudly on the dashboard. In the background, the great blue disk of the Earth receded. Down below, a million geeks swooned.

Topping off an extraordinary technical achievement with flamboyance and a touch of silliness is typical of Mr Musk. It should not be mistaken for a lack of seriousness. Mr Musk does not simply want to have fun building rockets and fast cars. Nor is he running two multi-billion-dollar companies just to become rich, or to beat rivals. He wants to open up fundamental opportunities with which he thinks the market would not trouble itself. The purpose of SpaceX is to make humanity an interplanetary species, and thus safe from global catastrophe, by providing it with the means to build a civilisation on Mars. The purpose of Tesla, emblazoned on the wall of its factory in Fremont, California, is: "To accelerate the world's transition to sustainable energy".

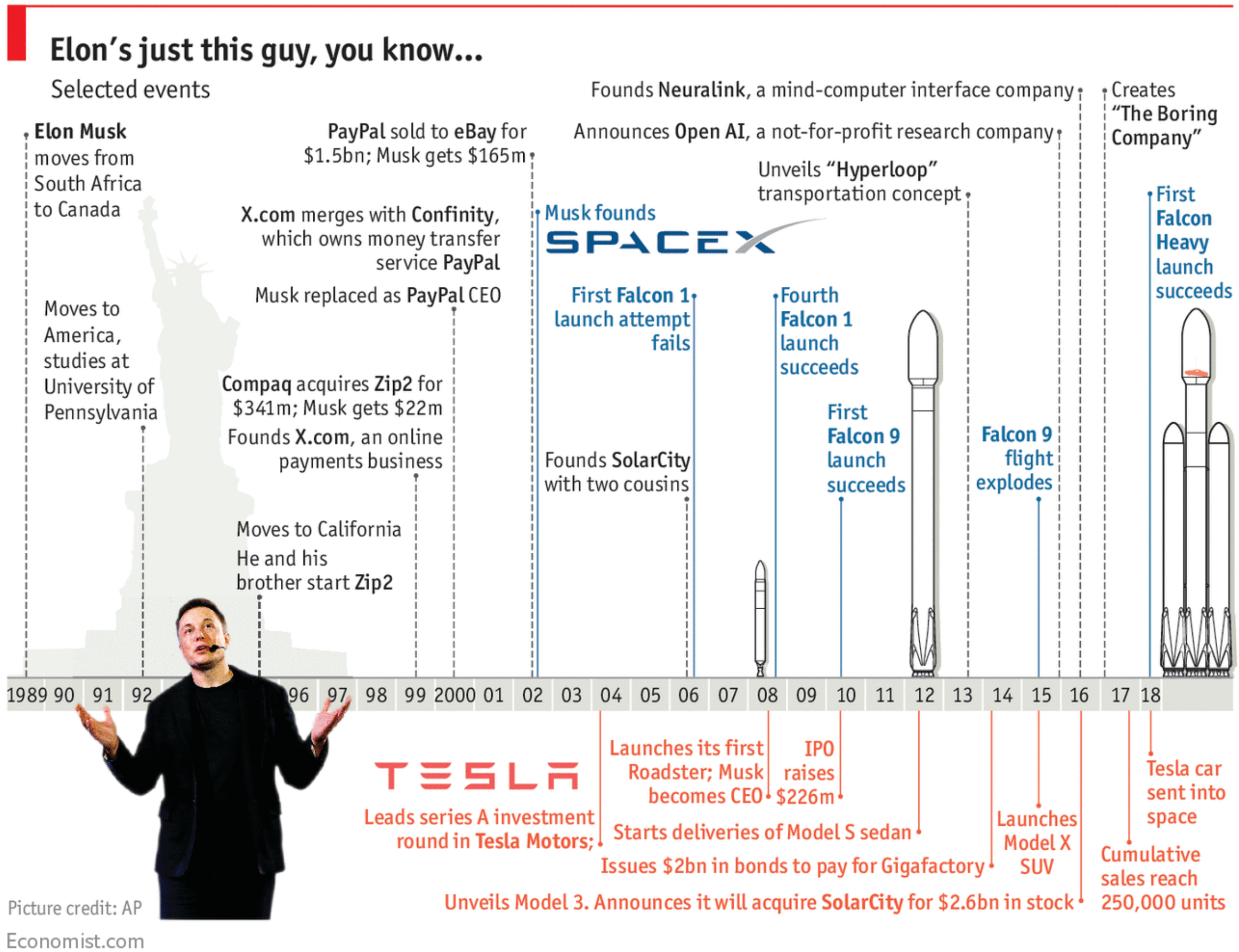
Creating either of these companies would be a signal achievement. That the same person should have built and run them in parallel is remarkable. It shows that Mr Musk has special talents as a strategist, manager and source of inspiration, as well as lofty ambitions.



Started in 2002, and with its first successful launch in 2008, SpaceX has come to dominate the commercial-launch market (see chart). In 2017 it launched 18 rockets—more than the rest of America and Europe combined. Its Falcon 9 is easily the cheapest big launcher on the market, in part because it is the only one that can fly its boosters back to Earth for reuse. (Even at SpaceX there are glitches: the third of the Falcon Heavy's boosters hit the sea at 500km an hour, rather than touching down gently on the barge provided for it.)

Tesla, meanwhile, showed that an electric car could be every bit as good as the best petrol car—better, according to many owners—and, in so doing, very quickly established a premium brand. Tesla's Model S, which sells for $70,000 and up, has been the bestselling electric car in America for the past three years. There have been more than half a million orders for its new Model 3, an attempt to capture the mass market that sells at half the price of the Model S.

Both companies beat the incumbents in their industries by combining a clear view of how technology was changing the scope of the possible with a fierce devotion to pushing that technology even further. That is familiar from other Silicon Valley success stories. But the fact that the firms' goals go beyond products and profit set the two companies apart from, say, Jeff Bezos's Amazon or Larry Page's Alphabet. In "The Complacent Class", which laments lost entrepreneurial vigour, Tyler Cowen, an economist, cites Mr Musk as a counter-example, today's "most visible and obvious representative of the idea of major progress in the physical world." The head of one of the biggest private-equity funds in the energy industry says that nobody else is driving either clean technologies or new business models forward as much as Mr Musk: "The world needs Elon Musk!"



But the achievements, the world-historical ambitions and the adulation they have brought do not mean that Mr Musk can count his high-torque photovoltaic astro-chickens just yet. The very next words out of that fund manager's mouth were "Short Tesla." Production of the crucial Model 3 remains badly behind schedule, and the company's finances look stretched. Christian Hoffmann of Thornburg, an investment firm, calls buying Tesla shares on the basis that Mr Musk will quickly solve its problems a "James Bond trade": "He needs to dodge the avalanche, avoid the gunfire, ski off the cliff, pull the ripcord and glide to safety so that he can save the world."

Maybe he can. In 2008 both SpaceX and Tesla were within days of bankruptcy. Now they have a combined value of more than $80 billion. But the chronic problems at Tesla mean that this is Mr Musk's highest-stakes year since then. To appreciate the risk, look at what Mr Musk has, and hasn't, achieved so far, and at the qualities that have allowed him to do so.

Lightly Seared on the Reality Grill

Of the two goals, colonising Mars and contributing to the greening of the Earth, the second sounds more plausible, not least because it is widely shared. But SpaceX is in much better shape than Tesla. The firm is privately held (Mr Musk, who has a controlling stake, says it will remain so). In 2015 Google and Fidelity invested $1bn, and subsequent filings put the firm's value at over $21bn.

SpaceX has a commitment to modular design, vertical integration and continual improvement not previously seen in the space business. The Falcon Heavy, for example, used 28 Merlin engines, all of them built from scratch at the company's plant in California, all of them much more powerful than the Merlins that powered the first Falcon 9 in 2012. The firm's achievements have established it as a satellite launcher and as a logistics company, with its reusable Dragon spacecraft providing supplies to the International Space Station. This business will expand when, probably some time next year, the Dragon is certified to ferry astronauts up there, too.

The innovation is continuing—which is just as well, because within a few years it may face serious competition from Blue Origin, a rocket company owned by Mr Bezos which is likely to prove more sprightly, and more ambitious than those SpaceX has faced to date. Treating the Falcon rockets as cash cows, SpaceX is moving its development efforts on to an even larger (and possibly also cheaper) launcher, known as the BFR, and a constellation of thousands of communication satellites, an undertaking that would exploit its ability to get things into space cheaply so as to provide high-speed internet access all around the world. Morgan Stanley, an investment bank, reckons that could bring the company's value up to $50bn—though it will require mastering a new manufacturing challenge and facing new competitors.

Tesla is already worth more than that: roughly $60bn. That is more or less the same value as GM, which makes 80 times as many cars. In 2004 Mr Musk took a big stake in Tesla, founded the year before, and became chairman; in 2008, when the company faced closure, he became CEO. It went public two years later and quickly became the world's leading electric-car company; last year it produced over 100,000 vehicles. At the Model 3's launch Mr Musk claimed that, by the end of 2017, it would be churning out 5,000 a week.

It wasn't. In fact it was nowhere near it. It made just under 2,500 Model 3s, half that promised week's worth, in the entire fourth quarter of 2017. It now says it will hit 5,000 a week later this year; a previous claim that it would go on to 10,000 a week by the end of the year has been dropped. Meanwhile, it faces ever stiffer competition. The world's established carmakers are getting into the electric game. Other new entrants include Alphabet, which owns Waymo, an autonomous-car firm that began as part of Google.

Given all this, many think Tesla's valuation unsustainable. Mr Musk sometimes seems to see their point. "This market cap is higher than we have any right to deserve," he said when speaking to an audience of state governors in July 2017, soon after the company's valuation first topped that of Ford. To reassure shareholders of Mr Musk's commitment, in January Tesla proposed a new pay plan that ties all his earnings to strict milestones for revenues, annual profits (of which, so far, it has made none at all) and market capitalisation. The last of these sets a target of $650bn by 2028. That is roughly the current value of the world's largest ten carmakers combined.

To accomplish such rapid growth—all but unheard of in a company its size—Tesla has to become more than just the successful mass-market car company it still isn't. It has to become an industry in and of itself, providing better, battery-powered alternatives to the internal-combustion engine wherever it is found, from lawnmowers to juggernauts, and also selling battery-storage systems to consumers and utilities on a huge scale.

Why should anyone believe such hubris? One argument is that electric vehicles, designed and built the Tesla way, are both better and potentially much more profitable than the alternatives. A recent tear-down analysis by McKinsey, a consultancy, concluded that electric cars designed from scratch are much better (for example, on range and interior room) than those that are modified versions of petrol-fired cars and still made on existing production lines. And by keeping a great deal of its cars' engineering in-house, as SpaceX does with its rockets, Tesla may stand to be much more profitable than its current competitors. Jeffrey Osborne of Cowen, an investment bank, calculates that 80% of the value of a Tesla is created in its manufacturing plant in Fremont, some three to four times the share for a typical passenger car.

What is more, electric-car factories could be a lot more productive than those for internal-combustion engines; whereas a conventional car has about 2,000 components in its drive chain, a Model S has fewer than 20. Mr Musk says that these advantages mean he can create a "machine that makes machines" qualitatively better than anyone else's. But the so-far-pitiful production of the Model 3 suggests that, at best, that machine is proving hard to bed in. It also means Tesla is not getting the revenues it based its spending plans on.

The "gigafactory", a battery plant in which Tesla and Panasonic are investing $5bn, also has its problems. The investment is based on the idea that Tesla needs economies of scale in its battery business only achievable in a factory that is highly automated and utterly huge. Mr Musk says the gigafactory—near the town of Sparks, Nevada—will be, by footprint, the biggest building in the world (see article).

Romit Shah of Nomura/Instinet, a bank, estimates that in late 2014, when the gigafactory was announced, global battery demand for electric vehicles was about 12 gigawatt-hours a year. Nomura thinks the gigafactory alone will have 40GWh of capacity by the end of this year. In 2016 Tesla bought SolarCity, a solar-power and home-energy-storage firm that Mr Musk had helped two of his cousins set up, for $2.6bn. One of the reasons was to soak up some of this huge supply of batteries. (Another was that SolarCity was drowning in debt; the bail-out of the CEO's side-gig was controversial, but Tesla shareholders ended up backing it by a large margin.) Storage, not cars, may be the biggest market for batteries long-term: it was not an accident that the company changed its name from Tesla Motors to just Tesla last year.

Getting the gigafactory up to its promised speed and scale is vital to Mr Musk's plans. It has proved frustratingly difficult. A visit to Sparks late last year found J.B. Straubel, a co-founder of Tesla and now its chief technical officer, completely consumed with the automation efforts: "Ramping up such a complicated machine," he says, "on this unprecedented timescale, has never been done before." Last October Mr Musk tweeted that the project was in "Production hell, ~8th circle".

A Series Of Unlikely Explanations

While Mr Straubel struggles in hell, Tesla burns money as the Falcon Heavy burns kerosene. Barclays, a bank, reckons that Tesla will consume $4.2bn this year. With just $3.4bn in cash at the end of 2017 Mr Musk will almost certainly need another injection of funds by the middle of the year—and maybe more later. Mr Osborne of Cowen reckons Tesla's capital expenditures will amount to $20bn-$25bn between 2017 and 2020. Jim Chanos of Kynikos Associates, a prominent short-seller who predicted the collapse of Enron, recently denounced Tesla's history of missing deadlines and targets as meaning that "the equity is worthless."

As yet, though, the shareholders do not seem to agree. Tesla's stock price has held fairly steady; people might even buy more, if offered. They invest because, as a SpaceX insider puts it: "They believe in Elon." When he says, as he did on February 7th, "If we can send a roadster to the asteroid belt we can solve Model 3 production," many happily accept the non sequitur.

His power to inspire is not limited to the public and his investors. It attracts bright people to his companies, where they work with a passion which matches his own (and may well feel his temper all the same). Mr Straubel insists that "the mission really matters—that's why we're working so hard." Gwynne Shotwell, SpaceX's chief operating officer, says Mr Musk's extreme goals for SpaceX are "incredibly invigorating" and help her recruit the very best prospects: "We rarely lose a candidate." Outside observers agree. Vinod Khosla, a Silicon Valley venture capitalist, says "Elon's mission is motivating so many people. This is common at small social enterprises, but very rare at scale."

But Mr Musk's companies rely on more than just his ideas and allure. Two other attributes stand out: his approach to risk and his embrace of complexity.

His way with risk is unlike that of his Silicon Valley peers, according to Amy Wilkinson of Stanford. She says entrepreneurs rarely take big risks on another venture after they have scored a stonking success. The few that become serial entrepreneurs typically stay within the same industry.

Mr Musk, having sold his first company, Zip2, to Compaq for $341m in 1999, ploughed the gains straight into X.com, an online bank that later become PayPal. Within 18 months of selling that to eBay for $1.5bn he had invested almost all his gains in Tesla and SpaceX. He takes on more risk with each new round of financing.

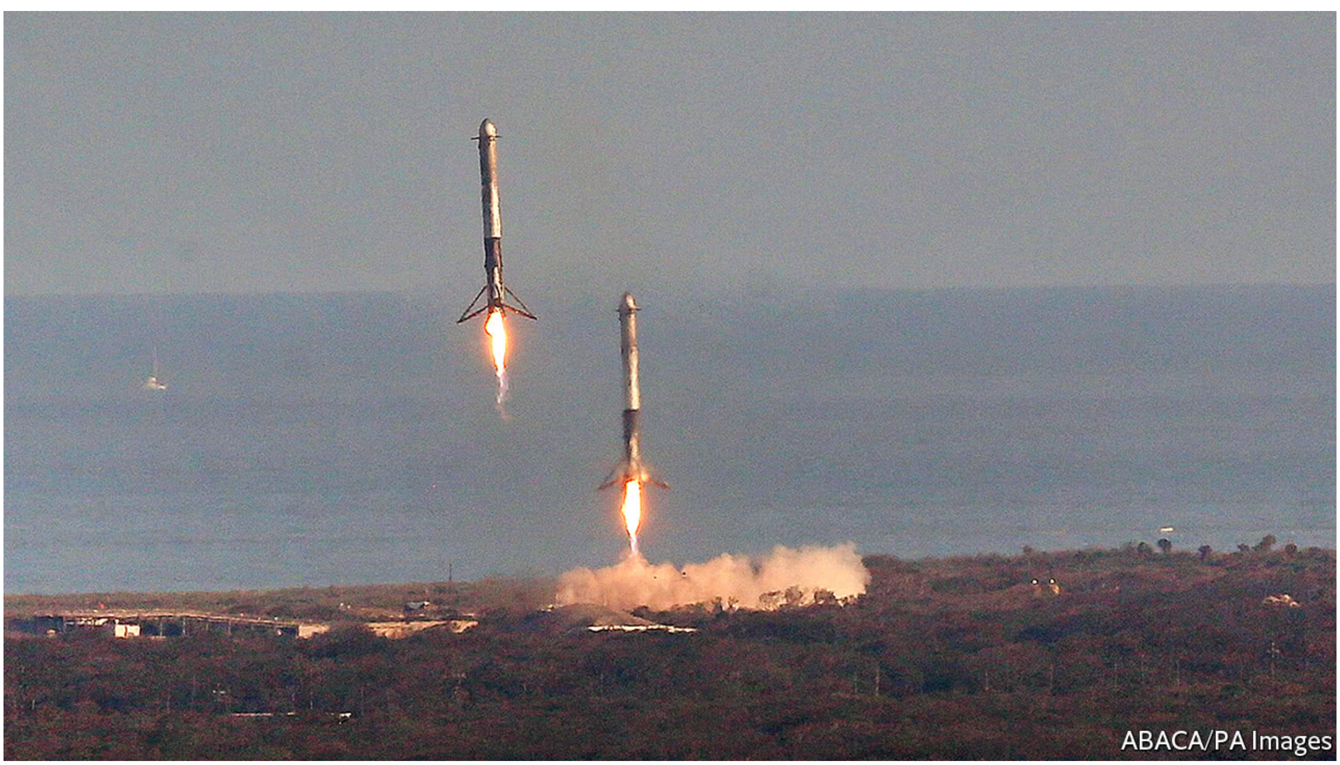
A risk-taking boss does not mean a cavalier company. Ms Shotwell points to a dichotomy in attitudes to risk at SpaceX. It is in many ways a very unified operation. Most of the managers and engineers have desks in the manufacturing facility, in among production experts and line workers. People circulate easily, trying out new ideas and learning from colleagues who, in a more traditional structure, they might never meet. But the designers and engineers are encouraged to be mavericks, whereas the operations and manufacturing teams are most definitely not. A former senior executive says that Mr Musk takes the risks he thinks he has to, but does not run extra ones just to cut corners. Another insider describes him as "a risk taker for himself, but a risk mitigator for everyone around him".

Looked at like that, his risk-taking may fit with his greater purpose; a gamble, perhaps a self-sacrifice, undertaken as part of his urge to fend off catastrophe. His faith in technological progress is, unusually for Silicon Valley, explicitly tinged with darkness: he is a paranoid optimist. Thus Tesla offers amazing air filters on the basis that they will help passengers "survive a military grade bio attack".

As befits a paranoid optimist, his broad hopes for the future are also tied up with fears. Some, such as climate catastrophe, are fairly widespread, some are more unusual—the need for civilisation to be backed up to another planet, just in case. He has been one of the loudest voices warning Silicon Valley and the world of the threats posed by out-of-control artificial intelligence (AI) and has set up a not-for-profit outfit devoted to lessening it.

Mr Musk's second defining characteristic is the willing embrace of complexity. "Complexity will happen inside or outside the organisation," says Antonio Gracias of Valor, a venture capitalist who sits on the boards of both Tesla and SpaceX. "Elon's view is that if you have it inside, you can manage it better...and can build faster, cheaper and to higher specifications." His approach echoes that of Andy Grove, a legendary former boss of Intel whose investments in integrated chipmaking turned the firm into a global powerhouse. It eliminates the "margin stacking" enjoyed by layers of suppliers and allows a continuous improvement of what the companies offer. Understanding all the linkages and dependencies in such a system is a huge challenge; so far, Mr Musk has met it.

This systems thinking can be strategic; you can see it in the way SolarCity has provided more in-house demand for the gigafactory, or in SpaceX's plans to use its launch capability to create a vast new constellation of satellites. But it figures in the smallest decisions as well as the biggest. Spurning the received opinion that micromanagement is a bad trait in bosses, Mr Musk prides himself on being a "nano-manager". "Unlike other CEOs he'll really walk through the technology with you," says a veteran engineer at one of his firms. Mr Gracias says he is the best zoom-in manager he has seen: "Elon can be at the macro, see everything that's highly disruptive, and then can zoom all the way down to the micro, down to the door handle."


ABACA/PA Images

One worry is that such intense focus, divided between two companies, cannot last—especially as Mr Musk endlessly plays around with yet more ideas, such as ultra-high-speed intercity travel (a scheme called "hyperloop" which he conceived of in

2013 and is now revisiting), novel tunnelling equipment to solve congestion on the streets (see article) and mind-computer interfaces to keep humans—or at least cyborgs—a step ahead of the AI menace (a startup called Neuralink). With Tesla seeming to need all the attention it could possibly get, these tangents appear self-indulgent. At the same time, for many of the faithful the endless flow of ideas further burnishes his image.

So Much For Subtlety

Another worry is that Mr Musk's technological insight might let him down. For example, he believes that cameras and ever smarter software will be good enough to make Teslas fully autonomous. This puts a huge demand on the company's AI team, and goes firmly against the technological grain. Other, currently more advanced, autonomous carmakers insist that lidar sensor systems are also vital. If they are right, Tesla will for the first time find itself on the technological back foot, and might even come to look unsafe (which would surely gall Mr Musk deeply).

And then there are the overly ambitious targets. Mr Musk routinely gets his teams to do things no one else can do, but they rarely pull it off by the date he originally set. Do not expect fleets of BFRs to head for Mars at any date he may suggest. Such dates are goads as much as targets. They drive the enthusiasts—and him—even harder. This has often proved forgivable. "Even if he misses his deadline, we are betting that he will still get there first," as one equities analyst puts it. The Falcon Heavy is a case in point. When Mr Musk unveiled the design in 2011, he said it would be on the pad in 2013. The task turned out to be a lot more difficult than that, and continual improvements to the Falcon 9 made it rather less necessary. But SpaceX was making money. Tesla is not.

It may be that Mr Musk's appeal will keep the company's finances together. It may also be that, even in failure, he achieves his goals. Now there is one gigafactory, others may see its merits and build more. Now there is a market for high-quality electric cars, others will expand it. Indeed, if a truly big Silicon Valley fish wanted to do so, and Tesla stumbled badly, buying it might be a good way in.

Asked about a new space race after the Falcon Heavy launch, Mr Musk was enthusiastic: "Races are exciting." They also let pacesetters guide the field. If you start a race in the direction you think people should be going, it may not, in the end, matter if you win.

And if Mr Musk does not personally deal the death blow to the internal-combustion engine, he will always have a gorgeous car in space to console him.

This article appeared in the Briefing section of the print edition under the headline "The impact investor"

Elon Musk's Boring Company

Making tunnels the way you make spaceships

The principles of Mr Musk's approach

Print edition | Briefing Feb 8th 2018

ELON MUSK can seem flakily up himself. His newish tunnelling business appears to be a case in point. The project has a cute name (the Boring Company), a wacky way of raising money (an "Initial Hat Offering" raised almost $1m by selling baseball caps), a physicist-knows-best approach to a social problem (putting private cars on high-speed underground trolleys to reduce urban congestion) and a quirky, memorable goal (to produce a tunnelling machine that goes faster than a snail, in this case a snail called Gary). But it also showcases the techniques that have made Mr Musk a success.

Chris Anderson, the curator of TED, a non-profit organisation that spreads ideas, says that Mr Musk is "uniquely good at system-design thinking". He reduces thorny problems to what he sees as their essence—typically expressed in terms of physics—and then extends his analysis to technologies, business systems, human psychology and design in an attempt to solve the issue.

In the case of tunnelling he found that current machines are much slower than physics suggested they could be. The solution, he decided, was standardisation and fixed prices, removing the option for passing extra costs up the chain. That is quite like the genesis of SpaceX, where he observed that launches were much more costly than physics required and prescribed similar solutions.

He then created a culture that emphasised experimentation, rapid learning and incremental improvements, along with a system of sticks and carrots that pushed people to squeeze out inefficiencies. Thus pushed, managers at the Boring Company have found a way to convert the muck tunnelling leaves behind into something like cinderblocks.

City planning is the field in which the idea of a "wicked problem"—one resistant to any definitive solution because of contradictory requirements—was first invented. Its practitioners are highly sceptical of technofixes. But Mr Musk's employees are fired up, which is just the way he likes them.

This article appeared in the Briefing section of the print edition under the headline "Tunnel vision"

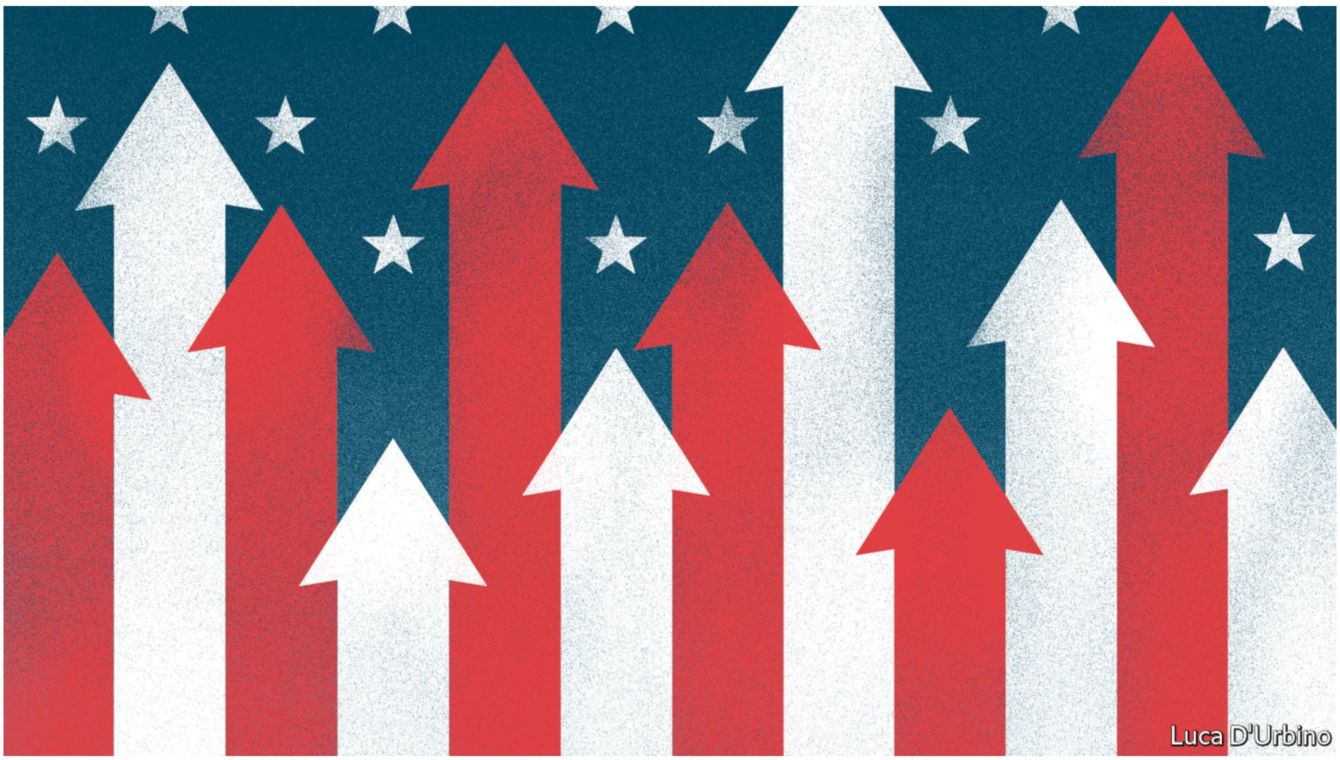
The economy
The great experiment

The great experiment

What will result from America's strangely timed fiscal stimulus?

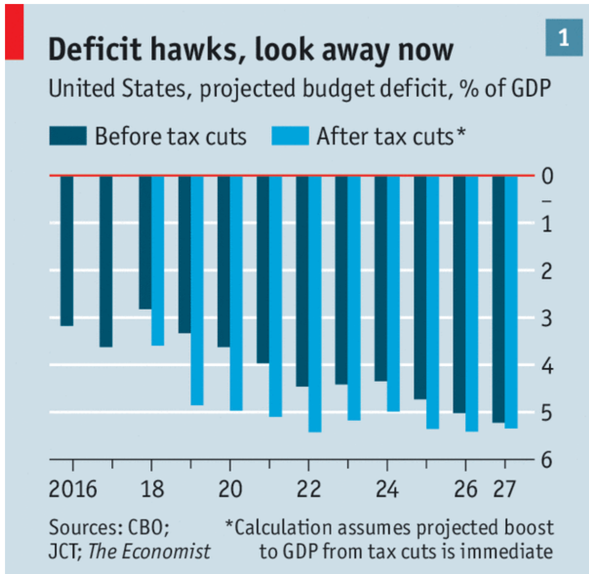
The threat of inflation is less worrying than some investors think

Print edition | United States Feb 8th 2018



GOOD economic news is not always good for everyone. On February 2nd it was revealed that average hourly wages grew by 2.9% in the year to January—the fastest growth since 2009, at the end of the recession. Stocks promptly tumbled around the world (see article). Investors fretted that inflation might rise, forcing the Federal Reserve to raise interest rates further and faster than expected. Whether the jitters are justified, however, depends on how an extraordinary experiment in economic policy plays out. America is poised to stimulate an economy that is already growing strongly, at a time of historically low unemployment.

Most of the stimulus will come from tax cuts that President Donald Trump signed into law in December. These are worth 0.7% of projected GDP in 2018 and 1.5% of GDP in 2019. On February 7th Senate leaders sketched out a budget deal containing a further fiscal boost. If the proposal passes, defence spending will rise by $80bn this year, pleasing Republicans. Democrats have been offered $63bn in spending on other programmes. The total increase in outlays is worth another 0.7% of GDP. The White House also promises to unveil an infrastructure investment plan on February 12th. Higher spending will add to government borrowing that, after tax cuts, is already likely to reach almost $1trn, or 5% of GDP, by 2019 (see chart 1).



Economist.com

The economy does not look in obvious need of stimulus. Unemployment stands at just 4.1%. Workers are in a seller's market. Wages are rising and in December 3.3m Americans quit their jobs for pastures new, the second highest reading on record. In 2017 the economy grew by 2.5%, above the roughly 2% trend that official forecasters think is sustainable as the population ages. With the economy so strong, and stimulus on the way, it is natural to worry about overheating. That a new and untested Fed chairman, Jerome Powell, took office on February 5th, as markets tumbled, only makes people more anxious.

Hawks point to the late 1960s for signs of what is to come. In early 1966, following a long spell of low inflation, unemployment fell below 4%. President John F. Kennedy's tax cuts had been signed into law in 1964. His successor, Lyndon Johnson, raised spending to pay for his "Great Society" programmes and the war in Vietnam. The budget deficit rose from 0.2% of GDP in 1965 to 2.7% of GDP in 1968. Inflation rose, too, to over 3% in 1968 and almost 5% in 1969. As the year ended, fiscal and monetary tightening caused a mild recession.

The comparison is hardly perfect, though. America's economy was very different in the 1960s. Almost a third of workers belonged to trade unions. Around one in four had wage agreements indexing their pay to inflation. Today fewer than 11% of workers are unionised and wage indexation is so rare that it is no longer closely tracked. Meanwhile global competition and discounting by online retailers holds down the prices of goods. Moreover, the labour market was not the source of the truly memorable inflationary episode of the post-war era. That began in 1973, with the first of two surges in the oil price, which sent inflation soaring to 10%.

In some ways today's experiment looks more like the boom of the late 1990s (see Free Exchange). Alan Greenspan, then chairman of the Federal Reserve, kept monetary policy loose enough to push unemployment down to 3.8% by April 2000. Mr Greenspan had correctly anticipated that computerisation would increase the economy's productive capacity and let some of the pressure out of the expansion. Inflation stayed comfortably below 2% even as wages soared. The boom eventually came to an end because a bubble in technology stocks popped—and, perhaps, because Mr Greenspan was less alert to recessionary signals than he had been to evidence of technological change.

As the stock markets wobble again, that parallel may seem unnerving. Hawks have insisted for years that loose monetary policy since the financial crisis would create another bubble—one that, they might say, has now begun to deflate. But unlike in the 1990s, no single major asset class is inspiring irrational exuberance. From bonds to buildings, a wide range of assets are expensive. High prices can be justified so long as low interest rates make future flows of income look more valuable.

In theory, fiscal stimulus should force interest rates up, which explains investors' worries. The Fed's model predicts that a tax cut worth 1% of GDP will eventually raise rates by 0.4 percentage points. If the central bank tries to keep rates where they were before the stimulus, the theory goes, inflation will get out of hand. But there are three reasons to doubt that, in reality, enough inflation will appear to force the Fed to change course.

The first is the prospect of another productivity surge. Productivity growth has been feeble everywhere since the financial crisis. Yet technological evangelists insist that a second industrial revolution is coming, in which machine learning and artificial intelligence will allow firms to do much more with fewer workers. Whether they are right or not, rising wages should encourage firms to invest more in labour-saving technology. There are signs already that productivity is rebounding. In every quarter of 2017 it was more than 1% higher than a year before, the first such sustained growth since 2010.

The trend seems to be continuing this year. A real-time estimate of annualised GDP growth in the first quarter of 2018 by the Atlanta Fed stands at 4%. If this estimate is even close to correct, it points to strong productivity growth. The alternative explanation is an unusual rise in employment or average hours worked. But job growth has in fact slowed in recent years; in January it was barely above the average for 2016, when the economy grew by just 1.8%. Average hours worked have fallen slightly.

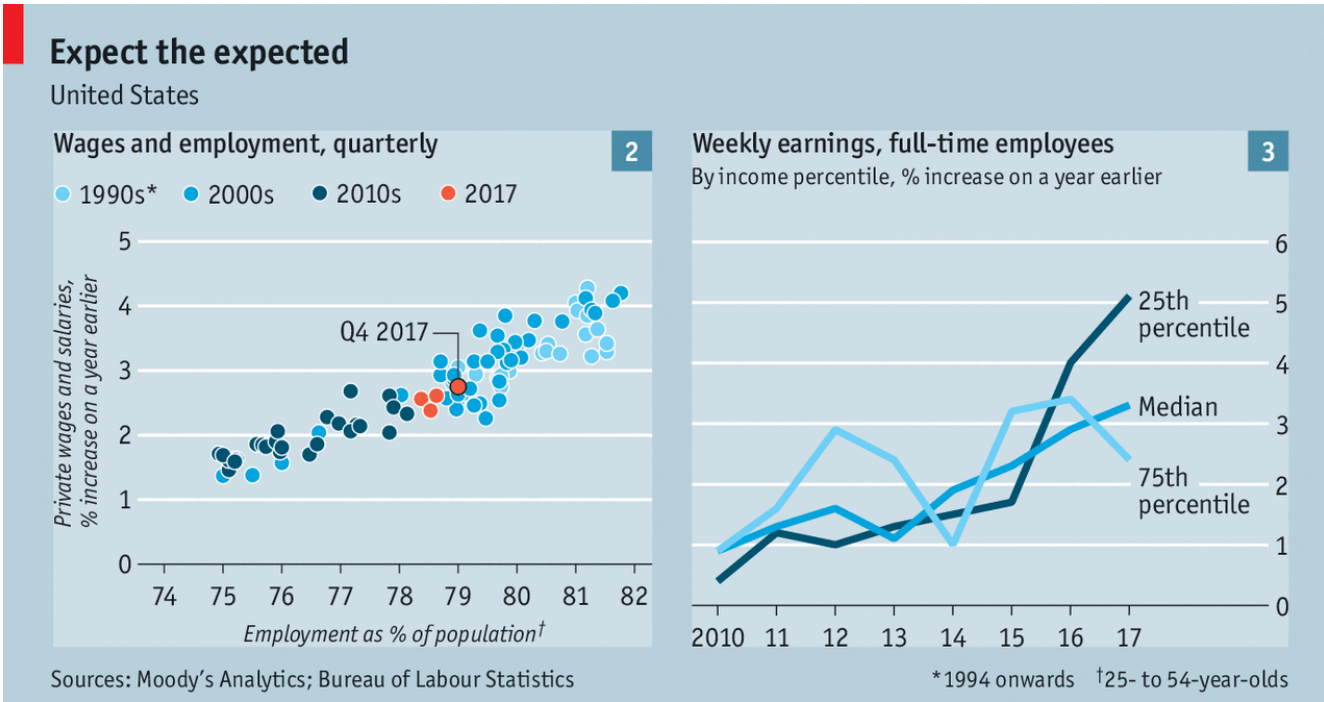
The second reason to expect inflation to remain subdued is the painful legacy of the financial crisis. Economists have long speculated that recessions might damage the supply capacity of the economy. When people are thrown out of work for months or years, for example, their skills start to atrophy. If so, the thinking goes, strong growth might arrest and even reverse this process—perhaps by encouraging labour-starved firms to offer more training to new staff. That should raise productivity, limiting inflationary pressure. In 2016 Janet Yellen, then chair of the Fed, wondered if the possibility of expanding supply might justify running a "high-pressure economy" once the recovery was complete.

Evidence that recessions damage workers' skills is patchy. But a related phenomenon may be at work. Because the unemployment rate excludes people who are not seeking jobs, it could be masking potential labour supply. In April 2000 nearly 82% of Americans aged between 25 and 54 had jobs. Today, despite low unemployment, the proportion is 79%. The difference represents about 3.7m potential workers. It is the result of a decline in labour-force participation: many people are neither working nor looking for work.

Get back to work

Official forecasters tend to assume that participation trends are immutable, and do not respond much to economic conditions. But evidence to the contrary is building. In a recent working paper, Danny Yagan of the University of California, Berkeley, compares places where unemployment rose a lot during the recession, such as Phoenix, in Arizona, to those where the increase was less severe, such as San Antonio, in Texas. He finds that for every one percentage-point rise in local unemployment during the recession, working-age people were 0.4 percentage points less likely to be employed in 2015. Unemployment rates in these places have largely converged again, whereas overall employment rates have not, suggesting that some workers were so deterred that they left the labour force altogether. Doves argue that the lower unemployment falls, the greater the chance of bringing such workers back into the fold. Sure enough, since late 2015, as the labour market has tightened, participation among prime-age workers has risen sharply.

The final reason not to fear an inflationary surge is the stability of wage and price growth in recent years. Although markets were spooked by a rise in hourly earnings, perhaps they should not have been. Pay is growing almost exactly as quickly as one would expect from looking at the overall employment rate (see chart 2). Neither wages nor prices are likely to accelerate suddenly, as some economic models forecast, because low inflation expectations have become so firmly rooted. In a recent paper for the Peterson Institute, a think-tank, Olivier Blanchard, who was until 2015 the IMF's chief economist, concludes that the current relationship between unemployment and inflation is "at odds with the accelerationist hypothesis".



Economist.com

Higher wages need not mean higher prices. In fact, economists have recently struggled to establish a causal link. Core inflation, excluding volatile food and energy prices, stands at 1.5%, just over half the rate of wage growth. Apart from higher productivity, one way the economy might absorb higher pay is if firms' profit margins shrink. Over recent decades, corporate profits have risen to record highs as a percentage of GDP. Meanwhile the share of national income flowing to workers has declined. A hot labour market might reverse those trends. Lower profits can be bad for the stockmarket, but they are good for workers. Americans might even become less grumpy about globalisation as the economy heats up. After all, it is less painful to lose a job to trade or technology when vacancies are plentiful.

Poorer households are especially likely to benefit. Between 1996 and 1998 workers at the 10th wage percentile saw their inflation-adjusted pay grow by 9% in real terms, according to one contemporaneous study. That happened despite an increase in the supply of labour. Other research found that young black workers reaped large gains from the hot economy. Similar trends may be playing out now. Since 2016 weekly wage growth has been strongest towards the bottom of the income distribution (see chart 3). Mr Trump likes to boast about recent economic gains for blacks and Hispanics, and in this case he is right.

Continued stimulus at this stage in the economic cycle is hardly riskless. The economy can behave in strange ways when policymakers break norms. And the debt incurred by tax cuts and spending sprees will eventually weigh on growth. But it seems likely that America could keep growing while avoiding an inflationary surge. After decades of weak wage growth, workers may well think the experiment is worth trying.

This article appeared in the United States section of the print edition under the headline "The great experiment"

Natural disasters

As California's fires died down, fraudsters arrived

As many as 200,000 claims for relief are suspicious

Print edition | United States Feb 8th 2018

THE past few months have been difficult for Racelle LaMar, a veterinarian who lives and works in the northern California town of Santa Rosa. First her practice burned to the ground in one of several fires that scorched 245,000 acres (99,000 hectares) of homes and vineyards in the wine region north of San Francisco last October. Then, when she requested aid from the Federal Emergency Management Agency (FEMA), things took a curious turn. Someone had already applied for money using her name, address and Social Security number.

America suffered several natural disasters last year. Over the course of a few months, hurricanes devastated parts of Texas, Puerto Rico and Florida, which are home to 8% of the country's population. As the storms died down, wildfires ignited in the West. In October 43 people died and nearly 9,000 structures were destroyed in northern California. In December the largest fire in modern state history tore through southern California, burning an area nearly twice as large as Chicago in affluent Santa Barbara County and agriculturally rich Ventura County. Requests for federal aid jumped tenfold from 2016 to 2017 as 4.7m Americans registered for help.

Fraudsters took advantage of the desperation. David Passey, a spokesperson for FEMA, says that more than 200,000 applications for relief related to the hurricanes and northern California wildfires are suspected to be fraudulent. In some cases, disaster victims found out they had been defrauded when applying for aid. In other instances, people unscathed by the storms and fires received letters from FEMA confirming they had signed up for benefits when they had not. Mr Passey suspects that sophisticated criminal organisations are involved. To swindle payments from their rightful recipients, criminals had to match breached private information to addresses within federal disaster zones. It is unclear if the scale of the fraud is related to the Equifax data breach, in which personal information on more than 143m Americans was exposed. But the incident could have made such data more accessible to criminals.

In December the Federal Bureau of Investigation launched a task force to investigate wildfire fraud complaints in northern California. Stacey Moy, the assistant special agent in charge of the northern California FBI task force, expects other fraud schemes to crop up as people move to repair the damage and rebuild homes and businesses. Residents of Mendocino County have received false bills for debris removal, a service the government performs for nothing. Government officials in Napa, Sonoma, Santa Barbara and Ventura worry they might soon see similar schemes. Mr Moy laments: "What you have is criminals keen to spin the misfortune of others into their own fortune."

This article appeared in the United States section of the print edition under the headline "Insult to injury"

Politics

Attacks on the FBI and Justice Department will harm America

How to make a country less great

Print edition | United States Feb 8th 2018

DONALD TRUMP seems to think he can best every challenge by insulting the challenger. It worked splendidly during the presidential campaign. But America's institutions are not political foes. As an investigation led by Robert Mueller into possible links between Russia and Mr Trump's presidential campaign grinds on, the president has flung ever more insults in the direction of law enforcement. His actions risk inflicting great damage on the country he leads.

On Twitter, Mr Trump calls the former heads of the FBI and CIA, as well as an ex-director of national intelligence and Democrats on Congress's intelligence committees, "liars and leakers". He also claims that "Investigators of the FBI and the Justice Department have politicised the sacred investigative process in favour of Democrats and against Republicans."

The trigger for this outburst is a memo written by Republicans on the House intelligence committee about the surveillance of Carter Page, an oil-and-gas consultant who became a foreign-policy adviser to the Trump campaign. The memo claims that the FBI and DOJ failed to disclose that "an essential part" of the evidence used, in October 2016, to obtain the warrant allowing them to monitor Mr Page came from a dossier compiled by Christopher Steele, a former British spy, whose research was funded by Hillary Clinton's campaign and the Democratic National Committee.

The memo quotes Mr Steele saying he was "desperate that Donald Trump not get elected and was passionate about him not being president" and alleges anti-Trump bias elsewhere at the FBI. Mr Trump, who approved the release of the once-classified memo on February 2nd, claims that it "totally vindicates" him.

In truth Mr Page is just one part of a sprawling, complex investigation, which began not with him but, three months before he fell under surveillance, with George Papadopoulos, another lightly qualified foreign-policy adviser, who has since pled guilty to lying to federal investigators. The memo does not say that the FBI and DOJ relied entirely on Mr Steele's evidence in applying for a surveillance warrant. It asserts that Andrew McCabe, a former deputy FBI director, told the House intelligence committee that "no surveillance warrant would have been sought" without Mr Steele's dossier. Democrats on the committee say this is a distortion.

The memo does a poor job of explaining why Mr Steele should not be trusted. He ran the Russia desk for Britain's foreign-intelligence service and provided solid intelligence for the FBI before. His objection to Mr Trump seems to have stemmed from his belief that the candidate had been compromised by Russian intelligence. That is not the same as political bias. The same could be said for FBI agents investigating the Trump campaign's alleged ties to Russia. As for Mr Page, he had been on the

FBI's radar since 2013, when Russian intelligence tried to recruit him. The court found sufficient cause to renew the 90-day surveillance warrant three times.

Congressional Republicans have nonetheless rallied around the memo. Matt Gaetz, perhaps Mr Trump's strongest supporter in Congress, said it showed "a systemic pattern of abuse" in the FBI and Justice Department. That is hardly surprising. As Asha Rangappa, a former FBI agent who now teaches at Yale University, notes, "For the people who were already convinced, the memo could have said, 'I'm Jesus' in purple crayon 50 times, and it would have proved that Mueller is wrong."

Democrats on the House intelligence committee claim that Republicans cherry-picked evidence. They have written a rebuttal memo, which the president must declassify before it can be released to the public. Should Mr Trump do so, it probably will make little difference politically. Democrats will believe one version of the truth, Republicans another.

And the damage will have been done. The Republican version of the story portrays America's chief law-enforcement agency—whose former director, James Comey, may have swung the election to Mr Trump when he publicly reopened an investigation into Mrs Clinton just days before the vote in 2016—as well as the DOJ, helmed by Mr Trump's appointee, as nests of devious liberals plotting to take down the president. This untruth appears to have caught on. A Reuters poll released on February 4th shows that 73% of Republicans now believe the FBI and Justice Department are "working to delegitimise Trump through politically biased investigations."

That suits Mr Trump perfectly. Firing Mr Mueller would be extremely risky. It could even remind congressional Republicans that they are members of an equal branch of government who took an oath to support and defend the constitution, not Mr Trump and his family. Muddying the waters is probably a more effective strategy. If anti-Trump bias pervades America's federal law-enforcement bodies, why believe anything Mr Mueller says?

But that question has an obverse. If intelligence sources believe the president might reveal confidential information whenever he deems it politically advantageous, why tell America anything? "What the memo has done," says Ms Rangappa, "is advertise that the FBI cannot protect you." Israel is already reconsidering its information-sharing after Mr Trump blithely revealed classified intelligence to Russian officials. Other countries may follow suit—not immediately, of course, and not entirely, because they still need America's intelligence and data-gathering. But when people with vital information have to decide between going to leaky America and going elsewhere, elsewhere may look increasingly appealing.

This article appeared in the United States section of the print edition under the headline "Against the law"

Billie Sutton runs for governor

A Democrat with a chance in South Dakota

It helps to have a compelling back-story

Print edition | United States Feb 10th 2018

UNDER cover of darkness, in a small town between the Missouri River and the Nebraska border, 19 people met on January 29th in a conference room to decide the presidency—of the Burke Riding Club. Nobody seemed to want the job. "There are only two ways to get out of your responsibilities: you have to die or move, and I don't plan on doing either," warned Todd Hoffman, a rangy, affable man. "Or you can run for governor", said Billie Sutton, the club's current president. "That's not necessarily an out, Billie," joked Mr Hoffman. "Governors really don't do that much." Mr Sutton, who is in fact running for governor, laughed harder than anyone else in the room.

His quest seems the longest of shots. South Dakota last elected a Democratic governor in 1974. Its delegation in Congress is entirely Republican; Republicans hold overwhelming majorities in both of the state legislative chambers; and Donald Trump won nearly twice as many votes as Hillary Clinton in 2016. Yet Mr Sutton has both a plausible path to victory and lessons to teach other Democrats about how to compete in rural America.

He also has a compelling personal story. Mr Sutton, a fifth-generation South Dakotan, began rodeo riding when he was four years old. He attended the University of Wyoming on a rodeo scholarship, eventually becoming one of the top 30 riders in the world. In 2007, as he was preparing for the National Finals Rodeo—the year's most prestigious competition—his horse flipped over, pinning him against the chute. He was paralysed from the waist down.

"I was very independent, and focused on my rodeo career," says Mr Sutton. "But I was raised to never give up, never quit, no matter the situation." Following rehabilitation, Mr Sutton returned to Burke, first getting a job at a local bank and then winning a state-senate seat in 2010, when he was 26 years old. He is one of just six Democrats in the chamber.

Ryan Maher, a Republican senator, believes Mr Sutton will give Republicans "the biggest challenge they've had in 30 years." The main divide in South Dakota politics, he posits, is not between Democrats and Republicans but between urban and rural regions. That works to Mr Sutton's advantage. As a country politician, he understands rural issues and voters. As a Democrat, he stands to do well in the state's more liberal urban areas. His personal story should resonate with South Dakotans of all stripes.

Roping them in

In the general election Mr Sutton will probably face either Kristi Noem—who has spent the last seven years in Washington as the state's sole House of Representatives member—or Marty Jackley, who has spent nearly a decade as the state's attorney general. For someone running a campaign focused on making government work for ordinary people, as Mr Sutton is, these are dream opponents, especially if their primary turns nasty. "If he can just get the state party to lay low," says Mr Maher, "he has a fighting chance."

The Democratic brand is often toxic in rural America, where it is seen as a party of coastal elites. But Western voters seem willing to pull the lever for the right kind of Democratic candidate. Although Mr Trump easily won Montana, for instance, that state has a Democratic senator and governor. For a brief spell last decade, South Dakota's two US senators were both Democrats, as was its sole congresswoman. South Dakotans recently voted to raise the minimum wage. They also approved some sweeping campaign-finance reforms, of the kind that liberals adore—although the legislature balked at that.

Mr Sutton is a pro-life, pro-gun, church-going Democrat, just as Heidi Heitkamp—a Democratic senator from North Dakota—supports fracking and the Keystone oil pipeline. They are less prairie populists than prairie pragmatists, focused on kitchen-table issues and connecting to individual voters rather than joining the partisan vanguard. Their positions may be anathema in Brooklyn and San Francisco. But what works near the oceans does not always play in the plains.

This article appeared in the United States section of the print edition under the headline "Plains speaking"

Pollution in the Great Lakes

Antidepressants are finding their way into fish brains

That's bad news for the fish

Print edition | United States Feb 8th 2018

THE abundant fresh water of the Great Lakes helped turn America's Midwest into an industrial powerhouse. Carmakers in Detroit, steelmakers in Cleveland, brewers in Milwaukee and makers of furniture in Grand Rapids used huge quantities of water to produce their wares. They also abused it. For almost a century they poured wastewater contaminated with metals, oils, paint and other toxins back into the lakes.

Midwesterners woke up to the damage done when the Chicago, Rouge and Detroit rivers caught fire in the 1960s, fuelled by the oily sludge in the lakes and their arteries. In 2010 the Great Lakes Restoration Initiative was born to improve water quality, clean up shorelines and restore habitats and species. These days, new factories on the lakes' shores are viewed with suspicion. On March 7th Wisconsin's Department of Natural Resources will stage a public hearing about the controversial plans of Foxconn, a Taiwanese maker of electronics, to draw 7m gallons of water a day out of Lake Michigan. Yet those who live near the Great Lakes are also inadvertently polluting the water.

When people take antidepressant drugs or hormonal medicines such as the contraceptive pill, or even use some grooming products, traces end up in the Great Lakes. Diana Aga, a chemist at the University at Buffalo, has found high concentrations of the active ingredients of antidepressants such as Prozac, Zoloft, Celexa and Sarafem in the brains of fish taken from the Niagara river, which connects Lake Erie to Lake Ontario.

According to national health surveys, the proportion of Americans aged 12 and over who take antidepressants rose from 7.7% to 12.7% between 1999-2002 and 2011-14. The drugs accumulate in fish. In some cases the levels of antidepressants within brain tissue are at least 20 times higher than in the water. This does not pose a danger to humans, who seldom eat fish brain, says Ms Aga. But it could well damage the ecosystem of the lakes.

Fish respond similarly to humans on antidepressants. They are less risk-averse and, it appears, happier. That seems to make them more likely to be eaten. Victoria Braithwaite, of Penn State University, worries that these sorts of changes could trigger the collapse of an entire fish population, or even seriously disrupt the biodiversity of the lakes—the largest freshwater ecosystem in the world.

A new study from McMaster University raises more concerns. It finds that bluegill sunfish, common in North America, have to burn much more energy to cope with the array of toxins that they typically encounter. They have less energy left for growth, reproduction and survival. Effluent from wastewater treatment plants does not kill the fish immediately, but its effect is insidious, says Graham Scott, one of the authors of the study.

What can be done? The molecules of antidepressants and other contaminants are too small for treatment plants to catch. Yet Ms Aga says that advanced oxidation processes can filter out many drugs and beauty products. It would be hard to update or replace more than 1,400 wastewater treatment plants around the lakes. But pressure for change could grow, especially if local industries begin to suffer. Last summer tourists visiting Niagara Falls spotted a large amount of black sludge in the river. A few months later, Andrew Cuomo, the governor of New York state, proposed to invest $20m in the wastewater system.

This article appeared in the United States section of the print edition under the headline "Mind-bending"

Lexington

Looking at Indians, white Americans see themselves

Thinking about natives in an era of nativism

Print edition | United States Feb 10th 2018

IN EARLY 1924 the blue-bloods of Virginia found themselves with a problem. To criminalise interracial marriage, the state had drafted a law that classified anyone possessing even "one drop" of non-white blood as "coloured". Awkwardly, that would include many of the so-called First Families of Virginia, because they traced their descent to a native American woman, Pocahontas, who had been abducted and married by a member of the Jamestown colony three centuries before. This ancestry had been considered far from shameful. It was a mark of American aristocracy, the real-life Pocahontas having been reinvented (she probably did not save the life of a colonist called John Smith) as an "American princess". To fix matters, a clause known as the "Pocahontas exception" was added to the racist law, to exempt anyone with no more than one-sixteenth Indian blood.

This episode, documented in a new exhibition at the National Museum of the American Indian in Washington, DC, on Indian myths and reality, helps explain a cultural puzzle. It has become clear that the pre-Columbian Americas were much more densely populated, by more sophisticated civilisations, than was previously thought. By one estimate North America, the more sparsely populated continent, had 18m people when Columbus sailed, more than England and France combined. Yet in the popular imagination it remains a vast wilderness, peopled by a few buffalo-hunters. The reason for this gigantic misunderstanding, suggest the Smithsonian's curators, goes beyond bad schooling.

It is fuelled by the ways Americans use real and mythical Indians, such as Pocahontas, to express their own ideas of citizenship and national identity. At a time when those things are contested by white nativists as well as natives, "Americans", as the exhibition is called, lives up to its name: it is about all Americans.

From their first flush of revolutionary zeal, Americans used images of Indians to represent themselves. The exhibition's oldest example is a sketch by Paul Revere from 1766. This was in part a sardonic comment on British cartoonists doing likewise. It also represented the revolutionaries' self-identification as a new race of men, free of European tyranny. An association between Indians and liberty has been prominent in official iconography, including medals, stamps and friezes, ever since. Some officials were also keen to bring Enlightenment principles to their dealings with actual Indians. To dispossess them, argued Henry Knox, George Washington's secretary of war, would be a "stain on the character of the nation." But few agreed.

In 1830 the government began removing Indians east of the Mississippi onto a shrinking territory in what is now Oklahoma. Farther north, on the plains of Minnesota and the Dakotas, white settlers encroached on the hunting grounds of some of the last free tribes, the Sioux, leading to violence that accelerated their demise. By the end of the century, America's Indians had been reduced to a sickly population of 250,000, huddled on patches of marginal land. Having dispensed with the real Indians, America then began losing its heart to imaginary ones.

Many North American Indians were settled cultivators. The nomadism of the plains was atypical and shaped by Europeans. The Sioux, formerly farmers, had shifted to hunting the herds of bison that grew in a land depopulated by imported diseases, using horses they got from the Spanish and guns from the French. Yet by the time of their futile last stand, they had come to represent all native Americans in the popular imagination. This was in some ways pernicious, a means to associate all Indians with violent resistance, justifying their eradication. Even so, Americans fell in love with the myth of the warrior-like Sioux.

With their eagle feathers and fiery expressions, Plains Indians became synonymous with the rugged individualism Americans liked to see in themselves. That is evident in the many sports teams with Indian-related names—the Cleveland Indians, Kansas City Chiefs and so on. It is also apparent in the endless consumer and military goods, from butter to missiles, marketed with images of Indians—to suggest trustworthiness; durability; environmental soundness; efficacy at killing people. Any residual negative connotations are being scrubbed from that list: the racist caricature of Chief Wahoo, the Cleveland team's emblem, is being phased out. The remaining Indian-related brand values share a sense of authenticity. "Today, nothing is quite as American as the American Indian," writes one of the Smithsonian's curators, Paul Chaat Smith, a Comanche scholar with a dry wit.

There are lessons here for understanding America's latest spasm over who is, and who isn't, a legitimate American (a word used into the 19th century in England to refer exclusively to Indians). One is that the racist enormities on which America was founded, slavery and the dispossession of Indians, are so recent and unresolved—as evidenced by protests on tribal land and at Confederate monuments—that fights over national identity are inevitable. Another is that the nativist position espoused by many on the right is illogical. A Minnesotan nativist seeks, in effect, to bar Aztec migrants (lately called Mexicans) from a state his grandparents took from people who had had it for millennia.

Siouxing for peace

A third, more hopeful, lesson lies in the way Americans have made national champions of their sometime victims, imbuing them with all-American virtues. That is not merely chutzpah. It stands for America's relentless ability to synthesise its disparate parts in an uplifting national story. Even in the current quarrelsome time, that contrary movement is evident—including among real-life native Americans, who are, though still deprived, becoming less impoverished and more confident. The admiration of popular culture has played a part in that. "It's the country saying to Indians, imaginary and real, past and present," suggests Mr Smith, "without you there is no us."

This article appeared in the United States section of the print edition under the headline "Honest Injun"

Venezuela
Lights out for democracy

Power cut

Lights out for Venezuela's democracy

After the collapse of talks with the opposition, Nicolás Maduro plans for victory in a rigged election

Print edition | The Americas Feb 10th 2018

ON THE evening of February 6th the lights went out across most of Caracas, Venezuela's capital, just as the city's rush hour was beginning. Unable to take the metro, tens of thousands of workers were forced to walk the crime-ridden streets. Many took the power cut as a metaphor for the country's snuffed-out democracy and lost prosperity.

At precisely the same time, Jorge Rodríguez, Venezuela's expensively dressed communications minister, was arriving at a meeting in the Dominican Republic. He has been the chief negotiator for the country's leftist regime in sporadic talks with the opposition that have taken place over the past 16 months. Brandishing a bright yellow pen he declared that a deal had been reached. Signing it, he said, was a mere "formality".

Anyone credulous enough to believe him was soon disabused. On February 7th the opposition delegation, led by Julio Borges, the former head of Venezuela's parliament, made a counter-proposal. It repeated a long-standing demand that the president, Nicolás Maduro, restore the democratic institutions that he has subverted since taking office in 2013. It called for establishing an independent electoral council to replace the current one, which does the bidding of the "Bolivarian" regime. The opposition also sought the reinstatement of banned political parties, the freeing of some 200 political prisoners and access to the media.

Mr Rodríguez refused to look at the document. So there was no deal. The talks were suspended indefinitely. Hours later the electoral commission announced that a presidential election will be held on April 22nd. Together, the breakdown of the talks and the setting of the date seem to dash any lingering hope that the election will be anything other than a fraud.

Perhaps, as the government's most radical opponents have long argued, the talks were doomed from the start. The government was never going to allow a fair presidential election. This year the economy will be a third smaller than it was in 2013, the year Mr Maduro took over from Hugo Chávez, the regime's charismatic founder. The IMF expects inflation to be 13,000%.

Food is scarce. The president blames this mess on malevolent outside powers, such as the United States. Most Venezuelans rightly blame him and his government. His approval rating is around 25%.

With foes like these

Mr Maduro now plans to fight the elections on the basis of the document his negotiators offered in the Dominican Republic. That will allow for the presence of UN electoral observers and a modest reform of the electoral authority. He will then no doubt proclaim that he has arranged for the election, which will give him a fresh six-year term in office, to be a fair one.

He can count on weak opposition. That is partly because he has dealt with anyone who might threaten him by putting them out of action. Some of the opposition's most prominent leaders are under house arrest, barred from office or in exile. In January, the electoral authority banned the Democratic Unity roundtable, the coalition of opposition parties, from nominating a candidate. It also declared that the two biggest opposition parties had failed to register correctly, which disqualifies them from fielding candidates.

Mr Maduro may nonetheless face a rival or two. Henry Ramos Allup, a veteran politician, and Henri Falcón, a former ally of Chávez, have talked of running against the president. Mr Maduro might not mind. Some show of opposition would give the election a gloss of legitimacy. It would further split the opposition, which has failed to choose a single leader in 18 years of *chavista* rule. If more than one rival takes Mr Maduro on, all the better. They would split the anti-government vote, making it easier for him to win the one-round election.

He has rushed the election in part to deny the opposition time to prepare (it need not be held before December). He may also be calculating that the economy will be in even worse shape by then. Underinvestment and corruption have brought PDVSA, the state oil firm, which provides nearly all of Venezuela's foreign income, close to collapse. Its production is at its lowest level in nearly 30 years. Rating agencies have declared the company to be in technical default after it repeatedly paid late interest on its bonds. Both PDVSA and Venezuela itself are scheduled to make $9.5bn in principal and interest payments this year. An outright default would make it far more difficult to export oil, and thus to feed Venezuelans even at today's subsistence level.

Outside powers may be on the point of inflicting damage on the economy as a way to push Mr Maduro out. Rex Tillerson, the American secretary of state, has just completed a six-day tour of several Latin American countries. He spent much of it trying to build a regional response to Venezuela's crisis. He said that the United States had established a working group with Canada and Mexico to study the possibility of restricting its oil exports. The administration's aim is to bring the disaster in Venezuela "to an end", Mr Tillerson says. There is little doubt that it would welcome the same fate for Mr Maduro's rule. President Donald Trump is said to be "energised" by the idea. But Mr Maduro has proven himself to be wilier than many of his foes had thought. A blackout in Caracas may not portend a loss of power for the regime.

This article appeared in the The Americas section of the print edition under the headline "Lights out for democracy"

Toil and trouble

Tim Hortons and the saga of Ontario's minimum wage

A popular chain of coffee shops makes itself less appealing

Print edition | The Americas Feb 8th 2018

TIM HORTONS, Canada's largest coffee-and-doughnut chain, is so beloved that politicians campaigning for office rarely fail to visit one. Its "double-double", a coffee with two splashes of cream and two sugars, has an entry in the Canadian Oxford Dictionary. But in January trade-union activists held demonstrations outside Tim Hortons restaurants in Ontario, the country's most populous province. Those have died down, but angry letters and phone calls keep coming.

The activists' gripe is about the way the chain handled a sharp increase in Ontario's minimum wage. On January 1st the province's Liberal government raised it from C$11.60 ($9.25) to C$14. That makes it the highest in Canada. Another rise to C$15 is scheduled for next year.

Tim Hortons' workers have no complaint about that. But they are dismayed by many franchisees' plans for covering the cost. Barred from raising prices by Tim Hortons' owner, a company controlled by 3G Capital, a Brazilian private-equity firm, some franchisees cut benefits, including paid breaks. From the brand's point of view, such tactics are "hall-of-fame stupid", tweeted Frank Graves, a pollster—though the money has to come from somewhere, and price rises are seldom popular, either.

Kathleen Wynne, Ontario's premier, faces a difficult election in June. Raising the minimum wage looked like a good way to lift her approval rating, which stood at 20% in December. The pay boost has the support of 60% of voters. Demand for labour is strong, which makes it less risky. Ontario's unemployment rate, now 5.5%, has been lower than the national average for nearly three years. Just 7% of the province's workers earned the previous minimum wage.

But the abrupt rise has hammered firms with lots of low-wage workers, such as restaurants, hotels and farms. Marijuana growers say they may raise prices (after the stuff is legalised, which is supposed to happen by July 1st). Metro, a supermarket chain, says it will replace more checkout staff with machines. Ontario's independent "financial-accountability officer", who reports to the Speaker of the legislature, warned in September that the wage increase could cause a net loss of 50,000 jobs. Ontario is already an expensive place to do business, especially because of its high energy costs, firms grumble.

The government should have helped low-paid workers in other ways, says Julie Kwiecinski of the Canadian Federation of Independent Business. She suggests tax credits, a higher personal income-tax exemption and more training. But the provincial government would have to pay for these. Having promised to balance the budget this year for the first time in a decade, it preferred to shift the burden to businesses and workers who will lose their jobs. There is no such thing as a free lunch, or even a free doughnut.

Tim Hortons' owner belatedly allowed franchisees to raise prices, but not before blaming a "reckless few" for sullying the brand's image. On the campaign trail, Ms Wynne may skip the customary visit.

This article appeared in the The Americas section of the print edition under the headline "Toil and trouble"

Senior señoras and señores

Loving Trump and living in Mexico

A haven for Americans attracts a new sort of immigrant

Print edition | The Americas Feb 8th 2018

IN 1960 Tom Keane voted for John Kennedy in the United States' presidential election ("because he was Irish and Catholic"). The only candidate since then to fire him up is Donald Trump, for whom he voted in 2016. Mr Keane revels in Mr Trump's mischief-making. What about Mr Trump's notorious assertion that some Mexican immigrants are rapists? He "shoots from the hip", Mr Keane responds. Such enthusiasm is common among supporters of the American president. But unlike most, Mr Keane lives in Mexico.

His home is in Ajijic, a village on Lake Chapala, Mexico's largest lake. He volunteers at the Lake Chapala Society, which helps expatriates find friends and hobbies. He will go back to California "in a box with my feet first", he says.

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Mr Keane is one of 10,000 or so retired Americans near Lake Chapala, perhaps the biggest non-urban cluster of expatriate Americans outside an army base. The number doubles in winter. At 1,500 metres (5,000 feet) above sea level, Ajijic has Florida's sunshine but not its humidity. Mr Keane is glad to be far away from California's hordes of skateboarding youngsters. "That's what I like about the cobblestone streets around here," he says.

The village offers American comforts. Clergymen preach in English. A supermarket on the main street sells organic minestrone soup and gluten-free muesli. Prices are lower than in the United States.

Lake Chapala has long attracted cultivated foreigners. D.H. Lawrence wrote a draft of his novel, "The Plumed Serpent", on its shores nearly a century ago. American intellectuals took refuge there from McCarthyism during the 1950s. Nowadays blogs that promote Mexico as a cheap place to retire are "attracting a different type of person", says David Truly, a sociologist who lives in the area.

The newcomers are neither as highbrow nor as reliably liberal as earlier settlers, which causes tension. A Walmart that opened in Ajijic a decade ago still upsets longtime residents, who think it detracts from the village's charm. Some recent arrivals have brought the United States' polarised politics with them. Mr Truly detects "a real animosity" between Mr Trump's opponents and fans.

No one knows how many American pensioners live in Mexico. In 2016 nearly 29,000 received American social-security cheques there, a rise of 24% from 2005. That probably understates the number. A lot of Americans are illegal immigrants, having overstayed their visas, but the authorities usually turn a blind eye.

With 10,000 Americans a day reaching the age of 65, the influx is likely to continue. Membership of the Lake Chapala society surged last year. Ajijic is not the only destination. In the nearby town of Chapala sun-seeking seniors stroll through a renovated lakefront park. Puerto Vallarta teems with aged foreigners. International Living, an American website, last year rated Mexico the world's best place to retire abroad.

Though some Mexicans grumble about pensioners pushing up house prices, many welcome the trade they bring. Francisco García, a farmer from Veracruz, drives 12 hours a dozen times a year to Ajijic to sell coffee from the back of his truck. Occasionally, cultures confuse each other. An offer by a local charity manned by American volunteers to neuter stray dogs in Ajijic was boycotted by a church, which deems any contraception a sin.

One deterrent to mass migration is health care. Ajijic is cluttered with advertisements for dentists and plastic surgeons. A check-up with an English-speaking doctor costs 250 pesos ($13). But Medicare, the United States' publicly financed medical scheme for people over 65, does not pay out south of the border.

Mexico's government wants to attract more American pensioners and their dollars despite its tetchy relationship with Mr Trump. Although the constitution bizarrely bans foreigners from buying beachfront property, the government has left open a legal loophole that lets them do it. It has streamlined the issuing of residency visas. Javier Degollado, Chapala's mayor, has commissioned a 28-page plan for tennis courts, golf courses and museums. Most Mexicans loathe Mr Trump. American visitors, of all stripes, are another matter.

This article appeared in the The Americas section of the print edition under the headline "Trump supporters welcome"

Bello

The ills of Latin American democracy

Political decay is as big a threat as authoritarianism

Print edition | The Americas Feb 8th 2018

THIS year marks the 40th anniversary of the start of the democratic wave that swept over Latin America and turned military dictators into political flotsam. It is an anniversary tinged with gloom. Democracy is in retreat worldwide, with scholars identifying more than two dozen countries that have reverted to authoritarianism in this century. Many worry for its future in Latin America, too.

In fact, democracy has held up surprisingly well in the region. There are only two clear cases of regress. Venezuela and Nicaragua have abolished term limits and their elected presidents now rule as dictators. Two other countries are questionmarks. In both Honduras and Bolivia, incumbent presidents have got the courts to set aside term limits. Both rule as autocrats. Even so, in Bolivia Evo Morales, a successful president since 2006, may struggle to win an election due in 2019.

Ecuador, where Rafael Correa ruled in a similar fashion for a decade until 2017, might have been on that list. Mr Correa's successor, Lenín Moreno, seemed at first to be a placeholder. But he has proved to be his own man. On February 4th Ecuadoreans approved in a referendum, by 64% to 36%, the reimposition of a two-term limit for all elected officials. This blocked Mr Correa's future return.

A bigger worry than regress in Latin America is political decay—"when political systems fail to adjust to changing circumstances" because of opposition from entrenched stakeholders, as Francis Fukuyama, a political scientist, puts it. Worryingly, that is the case in Costa Rica, the region's oldest and seemingly one of its strongest democracies.

Neither of the two parties that forged this democracy and ruled from 1948 until 2014—the National Liberation Party (PLN) and the Social Christians—has candidates in the run-off election for the country's presidency, scheduled for April 1st. Rather, the contest will feature Fabricio Alvarado, an evangelical pastor and gospel singer whose main proposal is opposition to gay marriage, and Carlos Alvarado (no relation), whose Citizens' Action Party (PAC) has been in power since 2014. It won only ten of the 57 seats in the new legislative assembly in the elections on February 4th.

Fabricio, who was his party's sole legislator until those elections, starts the run-off as the favourite. His rise is circumstantial: it owes everything to an opinion by the Inter-American Court of Human Rights last month that Costa Rica should legalise gay marriage. Only 32% of Costa Ricans agree (though that is up from 17% in 2012), according to LAPOP, a regionwide poll based at Vanderbilt University in Tennessee.

But the political malaise in Costa Rica goes much deeper. Support for the political system, measured on a composite index drawn up by LAPOP, has fallen from 87% in 1983 to 62% in 2016. Corruption is one reason. But this was far worse in the 1970s, observes Kevin Casas Zamora, a political scientist and former vice-president of Costa Rica. “It’s a very easy explanation for very complex ills,” he says.

Costa Rica is in many ways a successful country. It has opened up to globalisation, diversifying its economy with new industries, such as medical devices, ecotourism and renewable power. But politicians have failed to deal with rising crime, income inequality and poverty. That is partly because they have failed for many years to approve an increase in tax revenues, which at 14% of GDP are low for the country’s level of development. And that in turn is because of the fragmentation of politics (there are now seven parties in the assembly). There are simply too many veto-wielders.

In Latin America, even as the new is born the old tends not to die. The social-democratic PAC wars with the PLN but has failed to kill it off: with 17 seats, the PLN will be the largest party in the new assembly. Costa Rica suffers a vicious circle in which the voters seek new political actors who fare as badly as the old ones, says Mr Casas. The current president, Luis Guillermo Solís, was a once-fresh face who failed to fix the budget or reform taxes.

Costa Rica’s problems are a sign of the times in the region. Evangelical Protestants are a rising political force in several countries, as “culture wars” open up a new policy cleavage. That applies in Brazil, Guatemala and Peru and bodes ill for the rights of women and gay people. Political fragmentation is on the rise, especially in Brazil and Colombia. Old-style parties have become empty shells but in many countries have yet to be replaced.

Yet electorates are much more demanding because Latin American societies have changed dramatically. Political systems are struggling to evolve in tandem. Democracy is very much alive in the region. But it is not wholly well.

Islamic insurgency in the Philippines
Peace without dignity

Peace without dignity

The Philippines is struggling to rebuild after a fight with IS

Half the population of the city of Marawi is still living in tents and sheds

Print edition | Asia Feb 8th 2018

THE silence is startling. The only sound is the slight creaking of the metal strips peeling off bombed buildings like bandages. A fancy light fixture hangs askance in what might have been a dining room. Elsewhere dirty toys lie in piles defecated on by dogs. The animals are healthier here than elsewhere in Marawi, says one local, because they ate the bodies of those killed in the fighting last year.

The conflict between fighters linked with Islamic State (IS) and the Philippine armed forces ended in October, after five months of destruction. More than 800 jihadists died alongside 163 soldiers and at least 47 civilians. The rebuilding, especially of the heavily damaged eastern half of the city, has barely begun.

Marawi is a troubled spot on a troubled island. Mindanao is home to most of the Philippines' 6m or so Muslims, a minority that often feels discriminated against by the country's 97m-odd Christians. Conflicts abound—between the state and groups wanting autonomy, or religious militants, or restive clans, or communist insurgents, or bandits and pirates.

Few realised the danger when one crew of Muslim insurgents-cum-kidnappers, Abu Sayyaf, pledged allegiance to IS in 2015. A botched attempt to detain one of its leaders in May unleashed the violence in Marawi. The Maute group, another violent outfit that was once considered a mere local mafia, joined the fray, too, after aligning with IS. Romeo Omet Brawner, a colonel who helped lead operations to retake the city, says the government's victory required its forces to advance on the insurgents from the rear. The offensive took months, because attempts to cross the three bridges over the Agus river proved deadly. He believes the "decisiveness" of Rodrigo Duterte, the president, and the resulting declaration of martial law in July, led to the army's victory.

From tents to sheds

Miles from the city, small clusters of yellow tents line the road. Some 200,000 people, almost the entirety of Marawi's population, were displaced by the conflict. Fewer than half of them have been able to return. Felix Castro of the Task Force Bangon

Marawi, which co-ordinates government agencies working in the area, worries about sanitation and how to move families into temporary, shed-like shelters newly built for them. The displaced say they are tired of eating handouts of rice and want to go home. One woman explains that when the fighting broke out, she told her mother to pack only three changes of clothes because they thought they would not be away for long.

Financial and legal complications are stalling homecomings. On Marawi's western side the mayor, Majul Usman Gandamra, sits in a meeting room just metres from where a mortar landed during the conflict. The municipal building smells of fresh paint. He believes it will cost 49bn pesos ($956m) to pay for reconstruction. Water and electricity are still unavailable in swathes of the city. He laments the war's toll on the economy, especially because poverty helped drive youngsters to the jihadists' cause in the first place, he says. (Some recruits received payments of 300,000 pesos on joining and salaries of a sort.) Disputes over property, created by a lack of formal land titles, are preventing families from returning to the city, too. "But we cannot allow our enemies to use that against the government," Mr Gandamra insists. Local, regional and national officials meet often to discuss what to do.

Many doubt the politicians' claims that the city can be rebuilt better than before. Amid the piles of rubble such pessimism is understandable. Colonel Brawner says just clearing unexploded bombs and hidden devices will take until August. One local academic reckons it would be cheaper to abandon efforts to revive the eastern side of the city altogether and just build new homes elsewhere instead. But the national government's commitment to reconstruction seems steadfast. A new military camp is to be built where the ruined town hall stands. Mr Duterte himself appeared, albeit briefly, at a ground-breaking ceremony on January 30th.

Other efforts to restore the city are less tangible. "If there ever is a rebuilding it also has to involve a sense of rebuilding people's values," says Datumanong Sarangani, a professor at Mindanao State University. Muslim leaders are working with different branches of government to develop tactics for discouraging the spread of extremism. The curriculum at local Islamic schools is being scrutinised. More practically, almost 3,000 displaced residents have taken part in government-run training programmes, which offer instruction in everything from baking to welding, in an effort to improve livelihoods and so reduce the allure of jihadists' cash.

Mr Duterte, for decades the mayor of Mindanao's biggest city, Davao, made bringing peace to the island a centrepiece of his election campaign. He is currently pushing for changes to the constitution to allow greater autonomy for Muslim areas, in keeping with a peace deal a previous government signed with the Moro Islamic Liberation Front (MILF), an insurgency which has fought for independence for Mindanao since the 1980s. This matters because any resumption of hostilities with MILF, which has thousands of fighters, could lead to even greater destruction than the rag-tag rebels in Marawi managed.

The Philippines' allies also want peace in the region. After the eruption of violence in Marawi, Indonesia, Malaysia and Singapore all offered military assistance. America and Australia provided technological support. And international anti-piracy patrols stepped up a gear. The emergence of IS in South-East Asia—first signalled in January 2016 by a bombing in Jakarta—has scared leaders already wrestling with home-grown terrorism. Jihadists seem to have converged on Marawi from Indonesia and Malaysia as well as Chechnya and Saudi Arabia, testifying to the strength and reach of IS's propaganda. Securing, supporting and restoring Marawi could provide a more lasting victory over such extremism in the Philippines. But it may prove even harder to achieve than the military advance.

This article appeared in the Asia section of the print edition under the headline "Peace without dignity"

#TechSavvyPols

Asian leaders are in the vanguard of social media

Many of the pictures of cute cats on Instagram were posted by Malaysia's prime minister

Print edition | Asia Feb 8th 2018

Instagram/Najib_Razak

WHEN he is not lifting minuscule weights or catering to the whims of his cats, Najib Razak somehow finds time to be Malaysia's prime minister—or so his feed on Instagram, a photo-sharing app, implies. Hun Sen, Cambodia's strongman, apparently dedicates most of his time to posing for selfies with adoring young Cambodians, if his Facebook page is to be believed. And then there is Narendra Modi, India's prime minister, who assures his followers on Instagram: "Every moment of my life is devoted to the welfare of India." That cannot be quite true, as quite a lot of it is devoted to social media, most notably Twitter. He has tweeted more than five times a day, on average, since joining the microblogging service in 2009. He has more than 40m followers, just 7.5m behind Donald Trump, and over 33m more than the combined following of Emmanuel Macron, France's president, and Justin Trudeau, Canada's prime minister.

Like Mr Trump, Asian leaders have discovered that social-media platforms are very useful for communicating with voters and seizing the attention of the press. As smartphones proliferate, so does the potential audience. Thailand, with a population of 69m, has 47m Facebook users. Malaysia, with 31m people, has 22m.

Different platforms suit different purposes. Facebook is the top choice for pushing policies, says Terrence Ngu of StarNgage, a Singaporean company which runs social-media campaigns; Instagram is now the main way "to promote personalities". Singapore's prime minister, Lee Hsien Loong, shares dreamy panoramic photos from his holidays on Instagram. His government recently got locals with lots of followers, such as emcees and bloggers, to hype #SGBudget in a desperate bid to spark youthful excitement about its fiscal plans.

Joko Widodo, the president of Indonesia, is deft across many platforms, but his true love is YouTube. His selfie-style "vlogging", tagged #JKWVLOG, delights hundreds of thousands. At a recent summit in Germany, he got both Mr Trudeau and Mr Macron to record a quick hello to the people of Indonesia, an arm draped over his shoulder.

It is hard to beat Mr Modi for innovation, however. He has created an app that bundles all his social-media offerings. It can be downloaded in 12 Indian languages and offers snazzy infographics on government policy as well as titillating articles on the prime minister's fashion choices ("When simplicity becomes style: the story behind the Modi Kurta").

Of course, all this sharing can backfire. Hun Sen, who has run Cambodia for more than 30 years, was mocked in 2016 when it became obvious he was buying "likes" for his Facebook page. And not all those who peruse Mr Najib's Instagram account are converted. "Stupidest PM yet," declares one commentator. "Fuck you fatty," says another.

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

In the dock and on the ropes

The conviction of Khaleda Zia hobbles Bangladesh's opposition

Just in time for elections at the end of the year

Print edition | Asia Feb 8th 2018

KHALEDA ZIA has been in and out of the courts for over a decade. She has been charged in 37 different cases, most concerning corruption or abuse of power during her two stints as prime minister, in 1991-96 and 2001-06. But the verdict reached on February 8th was momentous.

It was Mrs Zia's first conviction, for stealing cash in 1991 from a trust for orphans founded in memory of her late husband, Ziaur Rahman, a coup leader who became president before being killed in a coup himself. Mrs Zia, who leads the Bangladesh Nationalist Party (BNP), currently in opposition, was sentenced to five years in jail. Although she may yet be freed pending appeals to the High Court and the Supreme Court, her fate appears sealed.

The verdict formalises the collapse of Bangladesh's two-party system and the demise of the Zia dynasty. The BNP and the Awami League (AL), the party currently in power, used to alternate in government. Mrs Zia and Sheikh Hasina Wajed, the prime minister and leader of the AL, were known as the two begums—the two powerful women who towered over Bangladeshi politics. But Mrs Zia's power has been waning for the past decade, as first an army-backed government and then two AL ones bombarded her with lawsuits. The BNP's boycott of the most recent election, in 2014, in protest at the AL's alteration of the constitution to avoid handing power to a politically neutral caretaker government during the vote, left it without a single MP.

The BNP's slogan used to run, "Khaleda Zia is our leader. Ziaur Rahman is our philosophy. Tarique Rahman is our future." But Mrs Zia is 72, is in ill health and, as a result of the verdict, may not be able to contest future elections. And Tarique Rahman, her son and political heir, is in exile. He, too, faces multiple criminal charges related to his mother's second term, which saw Bangladesh ranked as the world's most corrupt country five years running.

The verdict comes just a week after Sheikh Hasina announced that a parliamentary election would be held in December. No one imagines she has any intention of losing. In 2014 she put Mrs Zia under house arrest and confined Mohammad Ershad, an ageing former dictator and leader of the third-biggest party, to an army hospital. The courts barred Jamaat-e-Islami, a religious party allied to the BNP, from taking part since the constitution defines Bangladesh as a secular state—another change the AL had pushed through parliament.

Yet the government would like the BNP to take part this time to prevent the election from looking as farcical as that of 2014, when less than half the seats were contested. The Election Commission says the BNP's participation is needed to hold a meaningful vote. Even the AL's otherwise silent backer, India, has publicly called for "participatory" polls.

In theory Mrs Zia has no choice: the law stipulates that her party must participate or be deregistered. The ruling party can also offer inducements such as plum government jobs and the dropping of lawsuits. The BNP, or parts of it, Dhaka's chattering classes assume, may prefer a respectable block in parliament to political oblivion.

For the moment, however, the BNP is unyielding. On February 3rd its top brass affirmed that it will boycott the election unless it is held under a neutral government. As if to prove their point, the government arrested more than 1,100 BNP leaders and activists this week. It also put up checkpoints to keep opposition protesters out of the capital, Dhaka. BNP grandees have warned that the crackdown and conviction are weakening moderates in the party and emboldening those who advocate violence against the government.

That won't scare Sheikh Hasina much. She faced down bombings and arson at polling stations in 2014. And she has been careful to butter up the army, doubling its size over the past ten years and building it lots of new bases. It is hard to see how she might be dislodged.

This article appeared in the Asia section of the print edition under the headline "In the dock and on the ropes"

A mob of mobsters

New Zealand has more gangsters than soldiers

But they swear they're turning over a new leaf

Print edition | Asia Feb 8th 2018

THE picturesque wine country of Hawkes Bay is hardly a classic gangland. Tourists come here to ogle art deco buildings or slurp merlot. But its less affluent suburbs are divided between bitter rivals: Black Power and the Mongrel Mob, New Zealand's biggest gangs. This underworld occasionally rears its head, with, say, gunfire at a rugby game, or an assault outside a winery.

For a sleepy country, New Zealand has a peculiar problem with gangs. Police count over 5,300 members or "prospects" lining up to join one of its 25 listed groups, which together makes them a bigger force than the army. Unlike counterparts in other countries, they thrive in rural areas as well as cities. Almost a quarter of people living in the shabby bungalows of Flaxmere, a suburb in Hawkes Bay, are said to be linked to Black Power.

Bikers such as the Hell's Angels have a presence in New Zealand, but Black Power and the Mongrel Mob have ruled the roost for almost half a century. Their members "stick out like dogs' balls", one admits, because they sew patches onto their clothes and brand themselves with dense tattoos. A clenched fist is the symbol of Black Power; a bulldog or the Nazi salute "*Sieg Heil*" are the marks of the Mongrels. Both gangs are predominantly Maori. In all, police say three-quarters of the country's mobsters are Maori (they make up just 15% of the population as a whole).

For decades the groups fought ruthlessly for turf, beat and raped women, and pushed wannabe members into violent crime to earn their stripes. When the economy slumped in the 1990s, mobsters sold drugs from houses known as "tinnies" and demanded protection money from other criminals. Today prison officers say that "ethnic gangs" work as methamphetamine distributors for more organised biker groups and foreign syndicates. They keep the prisons in business, filling about a third of cells and accounting for over 14% of all murder charges, according to police.

Locking gang members up has arguably exacerbated the problem, by turning jails into recruitment grounds. Gang colours and insignia are banned behind bars, but "nine times out of ten" inmates will "turn to a gang just for protection", explains Mane Adams, a heavily inked boss of Black Power, who has served two sentences himself. Some leaders have taken to tattooing the faces of prison recruits, to guarantee fealty when they are free.

But if the authorities have not done gangs much harm, methamphetamines have. Mr Adams began campaigning against the drug after a comrade disembowelled himself in meth-induced psychosis. A smattering of gang leaders have tried to ban members from using them, after seeing paranoid henchmen turn against each other. Yet when officials conduct tests in gang-members' homes, they are still more likely to find traces of the substance than not.

Reform-minded gangsters swear that they are cleaning up in other ways. Black Power prohibits the lurid gang rapes that once occurred on an almost weekly basis. Leaders say they now criticise, rather than joke about, domestic violence. Women linked to the gangs claim their lives are vastly improved. Street battles, too, have grown less frequent.

By almost every measure, life is still worse for Maoris than other New Zealanders, but gangsters insist that, thanks to a strong economy, criminality is no longer a prerequisite for survival. Many Maoris claim to join as much for *whanau*, or family, as for money, power or thrills. “People have this idea we are all rapists and murderers and methamphetamine cooks. But not all gang members are criminals,” laments Eugene Ryder, a leader of Black Power in Wellington. He requires his underlings to study or take full-time jobs.

Jarrod Gilbert, an academic, believes that gang life has “fundamentally changed from what it was”. Neil Campbell, who heads the Maori division of the Corrections Department, agrees that some “pro-social” gang members really “do want better for their children”. Perhaps the best proof of the gangs’ rehabilitation is the rise of new, more destructive rivals. The bling-obsessed teenage members of the new outfits are unpredictable and violent—just as the mellowing members of the Mongrel Mob and Black Power used to be.

This article appeared in the Asia section of the print edition under the headline ”Bigger than the army”

On thin ice

South Koreans want the North at the Olympics, but not on their team

The generation that cherishes the idea of reunification is dying

Print edition | Asia Feb 9th 2018

AFP

WHEN Moon Jae-in, South Korea's president, agreed to allow North Korean athletes not only to attend the Winter Olympics in Pyeongchang, but also to march alongside South Korea's team at the opening ceremony on February 9th, and to form a unified women's ice-hockey team with the South, he knew not all South Koreans would be happy. The outcry from conservatives who see the northern regime as an implacable foe was predictable.

Protesters set fire to North Korean flags and photos of Kim Jong Un, the North's blood-drenched despot. One conservative MP accused the government of hosting the "Pyongyang Olympics", single-handedly undermining South Korea's long campaign to distinguish between the Olympic city and the North Korean capital. The hawks railed at the exemptions that had to be made to local and American laws to allow a plane from the South to take skiers to the North for training, and to permit a ship from the North to ferry the 140-piece Samjiyon orchestra to the South. When it ran out of fuel on arrival, they fumed that getting it moving again would amount to a violation of UN sanctions. Not unreasonably, they questioned the propriety of welcoming delegates such as Kim Yo Jong, the younger sister of Kim Jong Un, and Kim Yong Nam, the North's ceremonial head of state, especially after Mr Moon announced that he would have breakfast with the pair on February 10th.

What Mr Moon did not expect was the hostile response of young, liberal voters, whose support had carried him to the presidency last year. Following the announcement of the Olympic rapprochement, his approval ratings slipped to their lowest level yet, with respondents in their 20s and 30s especially negative. "I feel like sports has been manipulated for political ends," grumbles Kim Ju-hee, a 23-year-old living in Seoul. Almost four-fifths of South Koreans, including Ms Kim, support North Korea's attendance at Pyeongchang as a way to thaw the ice between the two countries. More than 150,000 people have applied for tickets to see the Samjiyon orchestra perform during the games. But over 60% of people in their 20s draw the line at the idea of a joint ice-hockey team. Many on social media took issue with the "parachuting in" of the 12 North Korean athletes at the last minute. "It's unfair for our players. They weren't consulted," Ms Kim insists.

When Mr Moon was last in government in 2002, as an aide to the late president Roh Moo-hyun, over 80% of South Koreans supported a joint North-South entrance to the Asian Games in the South Korean city of Busan. The two countries were enjoying a detente, with Roh even visiting Pyongyang for a summit. All told, northern and southern teams marched together at seven different events between 2000 and 2007.

But South Koreans in their 20s and 30s grew up at a time of worsening relations as the North developed missiles and nuclear bombs. The generation that remembers an undivided Korea is dying out. Of the 130,000 South Koreans who registered as having been separated from family members in the North after the Korean war, only 60,000 remain alive today—and 60% of them are over the age of 80.

The frosty reaction to the joint hockey team is a reflection of these changes, argues Kang Won-taek of Seoul National University. Studies show that young South Koreans with no personal connection to the North are less willing than older generations to contemplate personal sacrifices for the sake of unification. As Mr Kang puts it, "North Koreans can come to the party, but they should do their own thing."

Correction (February 9th 2017): *An earlier version of this article misstated the date that Mr Moon would meet the North Korean delegation. This has been updated*

This article appeared in the Asia section of the print edition under the headline "On thin ice"

Ink stink

Tattooed foreigners are putting Japanese bath houses in a quandary

A rule intended to exclude gangsters is also snaring hipsters

Print edition | Asia Feb 8th 2018

A WARM aroma of citrus bath salts wafts through the lobby of the Thermae-yu spa in Tokyo's Kabukicho district. The instructions at the entrance are chillier: drunks and people with tattoos should stay out. The sign, says Yuichi Ohama, the spa's manager, is directed mainly at the gangsters who haunt the local area, a dense warren of brothels, cabaret bars and striptease clubs. Yet the staff increasingly find themselves turning away tourists, too, he laments: "We're surprised by how many have body art."

In Japan tattoos are associated with criminals. Many *yakuza* mobsters spend hundreds of hours under an inky gun having their entire bodies painted, as a sign of gang membership and to show they can endure pain. It is hard to keep these artworks out of sight, naturally, when wandering naked around a bath house. Yet the mere sight of a tattooed thug is enough to frighten other customers away, so many gyms, pools and *onsen* (hot springs) ban tattoos or at least insist they be covered up. Japan's growing army of foreign visitors has inadvertently stumbled into this cultural minefield.

Nearly 29m tourists came to Japan last year—triple the number in 2013—drawn partly by the cheaper yen and relaxed visa rules. The government wants to reach 40m by the time Tokyo hosts the Olympics in 2020. That has created a dilemma for the industry, says Yuya Ota of the Japan Tourism Agency (JTA). More than a third of tourists take a dip in an *onsen* and a growing number of them are tattooed. "Some businesses are at a loss about what to do with all these foreigners," says Mr Ota.

Onsen sometimes provide plasters to cover up the offending bits. But visitors with more elaborate decorations have to abstain. In 2013 a Maori woman taking part in a conference on indigenous languages was barred from entering a bath house in Hokkaido because of her traditional facial tattoo. The JTA has since begun asking bathhouse owners to "give consideration" to tattooed foreigners, with mixed results: a survey in 2015 found that over half of hot springs still refuse them.

Foreign tourists have helped offset the long-term decline of the *onsen* industry, admits Masao Oyama of the Japan Spa Association. But government pleading cannot remove the deep taboo on tattoos, he says. "There are still many more Japanese customers than foreigners and their feelings must come first," he says.

Mr Ohama says he is struggling to decide what to do. Bend the rules too far for foreigners and the *yakuza* may complain about discrimination, he frets. And choosing between unhappy foreigners and fuming mobsters is not hard.

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

Banyan

The president of the Maldives has lost all legitimacy but kept his job

He only had to sack two Supreme Court justices and two police chiefs to do so

Print edition | Asia Feb 8th 2018


Michael Morgenstern

FIRST soldiers and police surrounded the Supreme Court in Malé, the claustrophobic, sea-girt capital of the Maldives. Then, earlier this week, they hauled off the chief justice and two associates in the dead of night. Abdulla Yameen has racked up many accomplishments since becoming president of the strategic archipelago in 2013, from befriending China and Saudi Arabia to hounding both the opposition and leaders of his own coalition, intimidating the remains of a free press and, earlier this month, shutting parliament. Now he has suspended much of the constitution and declared a 15-day state of emergency.

Mr Yameen may have become a full-blown dictator, but he seems to see himself as the victim of a monstrous injustice. The court, he claims, was paving the way for a coup by nefarious forces. How else to explain its actions on February 1st, when it ordered the release of political prisoners and the reinstatement of MPs who had crossed over to the opposition? The chief justice must have been bribed, he says. To make matters worse, two police chiefs had to be fired before a third could be found who would ignore the court's orders. (He is said to be so unpopular that underlings shout at him in the canteen.)

Grievance and paranoia come naturally to the president. A former ally, Ahmed Adeeb, is one of those whom the court ordered released. Talk about ingratitude. Mr Yameen gave him his leg-up. He even changed the constitution to give him the vice-presidency, reducing the minimum age to hold the state's top posts. Mr Adeeb repaid him by getting caught pilfering $79m from the tourism board. He was duly sacked—as a fall guy, the president's critics say; as a lone bad apple, he insists. It must be galling that few believe Mr Yameen's claim that an explosion on the presidential speedboat was an assassination attempt by Mr Adeeb.

It is also unfair that Mr Yameen—stiff, macho and prone to referring to himself in the third person—lacks the charisma of the previous dictator, Maumoon Abdul Gayoom. He ruled for 30 years, during which the Maldives won its image with tourists as a coral-island Eden, but his wiliness failed him when he was ousted in the islands' first democratic election, in 2008. Later he backed Mr Yameen's rise to power. He is his half-brother, after all.

In families, however, gratitude can taste like vinegar—especially when the rest of the clan know that your mother first entered the household as a maid. Mr Yameen intended the same constitutional change that elevated Mr Adeeb to bar Mr Gayoom from returning to power, by setting an upper age limit of 65. Yet far from retiring, the octogenarian Mr Gayoom has infuriatingly rebranded himself as a liberal democrat. On the night the court was purged, Mr Gayoom was also arrested and dispatched to the prison island of Dhoonidhoo (even as his son was released). That the police arresting Mr Gayoom saluted him might, to a sensitive president, count as one more grievance.

A population of about 400,000—a third crammed onto Malé's six square kilometres—makes the Maldives a tiny place, even if its 1,200 islands are spread across a vast expanse of the Indian Ocean. All politics is personal, and odd combinations can form.

Just one example is that one person calling for Mr Gayoom's release from Dhoonidhoo is his nemesis in 2008, Mohamed Nasheed (whom the former dictator had once had tortured in the very same place). Mr Nasheed's tumultuous four years in power before a murky coup were, however imperfect, the Maldives' first attempt at representative government. His conviction on trumped-up charges of terrorism was one of those that the Supreme Court overturned.

From Sri Lanka, Mr Nasheed remains a thorn in Mr Yameen's side—though hopes a week ago of an early return were dashed with the suspension of constitutional government. Mr Nasheed urges America to sanction Mr Yameen's cronies. He has called upon India, for centuries the regional power, to intervene. So far, both countries have merely deplored developments.

For now Mr Yameen has the advantage. He looks determined to hang on through elections later this year—if he holds them at all. Crucially, he holds the money. As the sun sets over Malé, the 1.5km bridge under construction between the capital and the airport island lights up with clear red lettering: "CHINA MALDIVES EVERLASTING FRIENDSHIP". It is the biggest of several Chinese projects, backed by Chinese loans, that include a hospital and a big expansion of the airport. There is no public tendering, and no budgets have been published. Diplomats and NGOs suspect costs have been wildly inflated.

Not even the monetary authority has any handle on the debts the Maldives is amassing, but thinks three-fifths are owed to China. Any default, and China can extract concessions, such as a base on the Indian Ocean. Meanwhile, everyone assumes Chinese cash is lining politicians' pockets and paying for political largesse.

The isle is full of noises

A tiny part of that largesse was going this week to young gang members being flown to Malé from distant atolls to add to the numbers showing support for Mr Yameen, even as he breaks up opposition rallies. The gangs embody a strange confluence of street politics, criminality and Islamist fervour, the latter introduced by Saudi Arabian charities in the wake of the Indian Ocean tsunami of 2004. They have brought dramatic change to islands that have traditionally nurtured a very tolerant form of Islam.

Mr Yameen is happy to identify with this new form, painting his critics at home and abroad as enemies of Islam. He is thought to be mulling "In the name of God" as a campaign slogan. But Mr Yameen knows he cannot rely on God alone. "Maldivian Idol", a hugely popular televised singing competition, was abruptly put on hold during last week's political tensions. The rumour is that it will soon be back on again—proof of normality amid the swirling political currents of this most peculiar of island republics.

This article appeared in the Asia section of the print edition under the headline "A tropical tempest"

Gilding the cradle

China is in a muddle over population policy

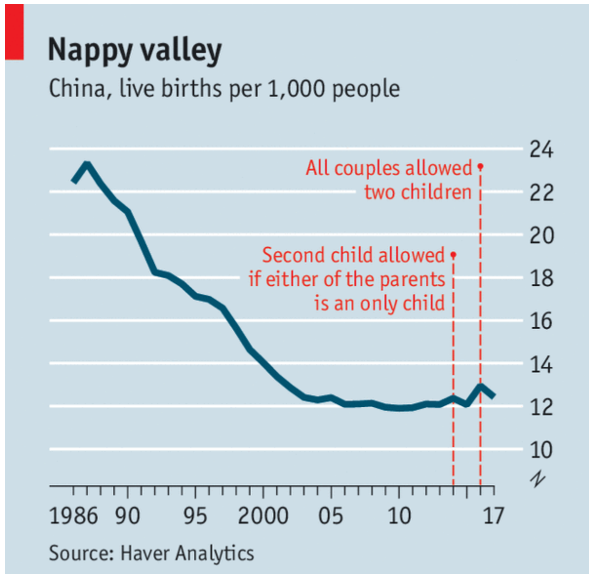
A two-child rule still applies, but officials know more babies are needed, not fewer

Print edition | China Feb 8th 2018

WHEN Li Dongxia was a baby, her parents sent her to be raised by her grandparents and other family members half an hour from their home in the northern Chinese province of Shandong. That was not a choice but a necessity: they already had a daughter, and risked incurring a fine or losing their jobs for breaking a law that prevented many couples from having more than one child. Hidden away from the authorities, and at first kept in the dark herself, Ms Li says she was just starting primary school when she found out that the kindly aunt and uncle who often visited were in fact her biological parents. She was a young teenager before she was able to move back to her parents' home.

Ms Li is now 26 and runs her own private tutoring business. The era that produced her unconventional childhood feels like a long time ago. The policy responsible for it is gone, swapped in late 2015 for a looser regulation that permits all families to have two kids. These days the worry among policymakers is not that babies are too numerous, but that Chinese born in the 1980s and 1990s are procreating too little. Last month state media applauded parents in Shandong for producing more children than any other province in 2017. It called their fecundity "daring".

At the root of this reversal is growing anxiety about China's stark demographic transition. Although the birth rate has recovered slightly from a trough in 2010, women still have less than two children on average, meaning that the population will soon begin to decline. The government predicts it will peak at a little over 1.4bn in 2030, but many demographers think it will start shrinking sooner. The working-age population, defined as those between 16 and 59 years old, has been falling since 2012, and is projected to contract by 23% by 2050. An ageing population will strain the social-security system and constrict the labour market. James Liang of Peking University argues that having an older workforce could also end up making Chinese firms less innovative than those in places such as America which have a more favourable demographic outlook.



Economist.com

Unwinding the one-child policy was supposed to help. But figures released in January confirm that after briefly boosting birth rates, its effect is petering out (see chart). Chinese mothers bore 17.2m babies last year, more than before the rules were relaxed but 3.5% down on 2016. Wang Feng of the University of California, Irvine, says the number of births was 3m-5m lower than the projections from the family-planning agency when the authorities were debating whether to change the policy, and below even sceptical analysts' estimates.

The reason is that as China grows wealthier—and after years of being told that one child is ideal—the population's desire for larger families has waned. Would-be parents frequently tell pollsters that they balk at the cost of raising children. As well as fretting about rising house prices and limited day care, many young couples know that they may eventually have to find money to support all four of their parents in old age. Lots conclude that it is wiser to spend their time and income giving a single sprog the best possible start in life than to spread their resources across two.

Meanwhile, more education and opportunity are pushing up the average age of marriage (that is a drag on fertility everywhere, but particularly so in societies such as China's where child-bearing outside wedlock is taboo). Women thinking about starting or expanding a family still have to weigh the risks of discrimination at work. Since the one-child policy was relaxed, many provinces have extended maternity and paternity leave, but are not always ready to enforce the rules when employers break them.

The Communist Party appears to recognise that it needs to do more to lower these barriers. A population-planning document released last year acknowledged that the low birth rate was problematic and referred to a vague package of pronatalist measures that it would consider in response. The following month *China Daily* quoted a senior official who said that the government might introduce "birth rewards and subsidies" to overcome the reluctance of many couples to multiply.

Yet the lacklustre performance of pronatalist policies elsewhere in the world suggests that it would take vast investments to raise fertility, and that making child care cheaper should be a priority. At present it is difficult to imagine the party doing enough to make a difference—not least because it has yet to abandon its official position that some population-control measures remain essential. Leaders may be hesitating to ditch the two-child rule completely while they work out what to do with the army of bureaucrats charged with keeping birth rates low. They are probably also nervous that making too swift a U-turn will be seen as an admission that the party's draconian policies, which led to forced abortions and sterilisations, were misguided.

Without a clear strategy, efforts to push procreation will remain piecemeal and ineffectual. Eagerness to raise birth rates is probably one reason why party organs seem ever keener to talk up the joys of marriage. The other reasons are creeping social conservatism among party leaders—due in part to a desire to promote "traditional" Chinese culture over the insidious foreign kind—and the worry that a surfeit of unmarried men may pose a threat to social order. For some years the Communist Youth League has been inviting patriotic singletons to matchmaking events.

One big concern is that officials may end up trying to nudge busy and ambitious women into accepting more domestic roles. Leta Hong Fincher, an author and academic, argues that state media have helped popularise the concept of "leftover women"—a pejorative term for unmarried females in their mid-20s and later—in an effort to panic educated, urban Chinese into settling down sooner than they otherwise would. She thinks such propaganda is growing more aggressive. If that is indeed the kind of solution that is gestating within the bureaucracy, the hoped-for baby boom will be stillborn.

This article appeared in the China section of the print edition under the headline "Gilding the cradle"

Three men and a vote

Officials in Hong Kong find new ways to stop separatists getting elected

A candidate who espouses "self-determination" for the territory is barred from standing for its assembly

Print edition | China Feb 9th 2018

THEY have become a familiar sight standing on courtroom steps. Since their pro-democracy protests in 2014, the young leaders of the Umbrella Movement—Joshua Wong, Nathan Law and Alex Chow—have bobbed in and out of court, and sometimes into prison. This week they appeared again, after an appeal overturned controversial custodial sentences handed down last year. But their mood was sombre. "Our hearts are heavy," said Mr Law. "We walk free but Hong Kong's democracy has lost a battle."

In July 2016 the trio was found guilty of breaking into a government compound and of inciting others to follow suit. A magistrate sentenced Mr Wong and Mr Law to community service and Mr Chow to a three-week stint in prison, suspended for a year. The government objected that these punishments were too lenient to deter others. Last year, after a review, the Court of Appeal upped the punishment to between six and eight months in prison and outlined stricter guidelines for such cases. The men were jailed but then released on bail, awaiting appeal.

On February 6th Hong Kong's Court of Final Appeal found no precedent for custodial sentences and so quashed them. But the judges nonetheless said that they agreed with the lower court's stricter sentencing guidelines in principle, even though they should not have been applied retroactively. And they disagreed with the defendants' plea for leniency on the grounds of civil disobedience. Hence Mr Law's despondency.

Concern that Hong Kong's enthusiastic culture of protest may be dampened by the court's ruling is real. But activists espousing looser ties with China face a more immediate challenge. On March 11th by-elections will be fought to fill four seats left vacant by the disqualification of members of the territory's Legislative Council, known as Legco, who had expressed such views. (Two more seats remain empty while the ousted politicians appeal.)

The three men's custodial sentences would have made them ineligible to run for public office for five years. Though nominations for this round of elections have closed, the overturning of the sentences should allow them to run in future elections. (For Mr Wong, who was jailed and bailed for a different crime in January, the ban will stand.) Whether Mr Law, who was elected as a legislator in 2016, would in practice be allowed to run again is unclear, since he was one of the six legislators elected in 2016 but disqualified in 2017. Precedent suggests he may be able to, since Edward Yiu, a legislator disqualified at the same time as Mr Law, has been cleared to stand again.

But another ruling a few days earlier may have a greater bearing. Agnes Chow, a 21-year-old member of Demosisto, the political party founded by Mr Wong and Mr Law, was nominated to contest the seat left empty by Mr Law. But on January 27th her nomination was found by a civil servant to be invalid, since her association with that party, which advocates "self-determination", meant that she could not fulfil a required promise to uphold the territory's mini-constitution, known as the Basic Law, which defines Hong Kong as an "inalienable part of China".

In the past, candidates calling for independence have been disqualified, but "self-determination" is a much woollier concept that could involve China retaining sovereignty over Hong Kong. Both Hong Kong's and China's governments, however, were furious in 2016 when pro-independence politicians were elected to Legco, and seem ill-inclined to delve into the nuance of the dissenters' views.

Ms Chow's disqualification drew criticism from Britain, Canada and the European Union. Most damningly, two heavyweight backers of the government in Beijing ventured that the rules are unclear. One of them, Jasper Tsang Yok-sing, a former Legco president, said that by banning the candidates the returning officers may have "exceeded the expected scope of their duties", which are mainly administrative. And Hong Kong's chief executive, Carrie Lam, a Beijing loyalist, said the government would clarify the "very clear" rules if necessary. Speculation about how unwelcome candidates may be disqualified in future is rife, as ideology wrestles with constitutionality.

Correction (February 12th 2018): *A previous version of this article stated that it was the Supreme Court that sentenced the three men to prison in 2017; in fact it was the Court of Appeal. This has been corrected*

This article appeared in the China section of the print edition under the headline "Three men and a vote"

Egypt
The price is wrong

The price is wrong

What fuel, bread and water reveal about how Egypt is mismanaged

Egyptians are addicted to subsidies that make them poorer

Print edition | Middle East and Africa Feb 10th 2018

Reuters

WITH less than two months to go before Egypt's presidential election, no one is talking about the choice of candidates, because there is no choice. All serious rivals to President Abdel-Fattah al-Sisi, who seized power in a coup in 2013, have been scared off. A single challenger, Moussa Mustafa Moussa, who until recently was an ardent fan of the president, announced his candidacy on January 28th and registered it 15 minutes before the deadline the next day, having somehow gathered 47,000 signatures in record time. Many suspect that Mr Moussa is only running to create the illusion of a real contest.

Instead of talking about the joke election, Egyptians are talking about inflation, which they do not find funny. Since the government allowed the overvalued Egyptian pound to float in 2016, it has halved in value. Many imports are unaffordable. "Three years ago you could buy all the electric appliances you needed for 50,000 pounds. Now it costs 150,000," says a waiter in Qaha, a city north of Cairo.

People who criticise the regime are loth to give their names, especially since it massacred protesters in 2013. But voters are plainly disgruntled. One says he gave up driving a tuk-tuk when the price of petrol jumped last year. "I was fed up of haggling over fares," he recalls. He now works in a bakery, making flat bread to sell at heavily subsidised prices. "People can't live without subsidised bread," he says.

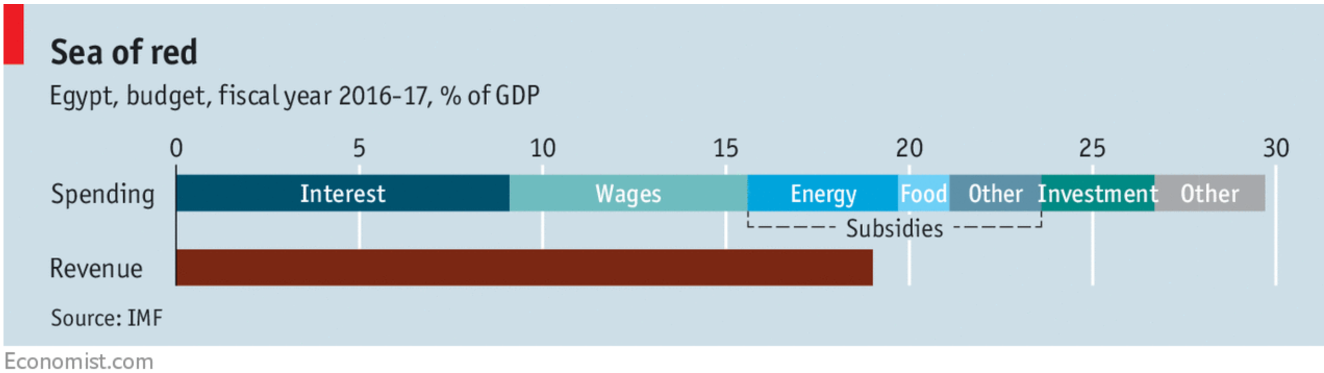
This is a common belief in Egypt, and one reason why the economy is so hard to fix. People have grown used to price controls and subsidies, which have existed since the 1920s. They are costly, inefficient and have unintended consequences.

Three commodities—fuel, bread and water—illustrate the problem. Start with fuel. Whereas greener countries slap hefty taxes on petrol and diesel, Egypt does the opposite. Motorists pay only 59% of what it costs to fill their cars. Since driving is cheap, more people do it, aggravating congestion and making urban air eye-wateringly foul. The World Bank estimates that traffic jams in Cairo alone cost Egypt 3.6% of GDP. Egyptian cities are the fifth dirtiest in the world, says the World Health

Organisation. And since the truly poor cannot afford cars, most petrol subsidies are captured by the better-off. The top 20% of urbanites receive eight times as much as the bottom fifth.

Similarly, bread subsidies are a waste of dough. Egyptians buy up to five loaves a day for a tenth of their cost. The state also subsidises sugar, cooking oil and other calorific staples. This is one reason why Egypt has one of the world's highest rates of adult obesity. And despite the introduction of smart cards to limit how much subsidised food an individual can take, the subsidies are often stolen.

A simpler system would distort the economy less while helping the poor far more. A study in 2013 by the Cato Institute, a free-market think-tank in Washington, estimated that if all food and energy subsidies were stopped and half of the savings used to pay for cash transfers to the poorest 60% of households, each of those households would receive $622 a year, more than doubling incomes for the bottom 25%.



Spending on subsidies is so colossal that the state has little left for health care and education (see chart). The military budget, which is secret, is probably unaffected. The government is also splurging on a new capital city. The budget deficit is expected to exceed 9% of GDP this year.

Pressed by the IMF, the Sisi government is curbing some subsidies and shifting towards cash transfers. Fuel subsidies were 3.3% of GDP in the 2016/17 financial year, down from 5.9% when Mr Sisi took office—a big shift. But food subsidies are expected to rise from 1.4% of GDP in the past financial year to 1.9% in this one. On the plus side, the increase is mostly in cash for foodstuffs that are not price-controlled.

Previous governments have tried to cut subsidies but backed down at the first bread riot. Gradual reforms are easier to reverse, argues Dalibor Rohac, the author of the Cato study. He recommends abolishing all commodity subsidies quickly, along with the bureaucracies that administer them, and replacing them with cash transfers. Mr Sisi will surely not do anything so radical before the election. Afterwards, his commitment to reform may depend partly on how much he needs IMF cash.

Water is probably the most sensitive commodity of all. Ever larger numbers of Egyptians cluster around the Nile, tapping its waters for their crops, factories and homes. The country's population is expected to grow from 99m to 120m by 2030. Pricing water properly would encourage conservation. Instead, Egypt allows farmers to take water for nothing, paying only the cost of pumping it. Urbanites are supposed to pay small fees, but these often go uncollected. As a result, Egyptians waste torrents of water growing rice, hosing down pavements and failing to recycle. "We have to dig deeper and deeper to get water," says Abdel-Fattah, a farmer. "I'm worried, and anyone who says he's not worried about water is lying."

More dam problems

Climate change could make Egypt even drier. More immediately, Ethiopia is building a huge dam on the Blue Nile, upstream from Egypt. Ethiopia, Egypt and Sudan have yet to agree how much water each should take. Mr Sisi met the other two countries' leaders on January 29th and insisted that there was no crisis. Others are not so sure. "There's a real possibility Egypt may seriously escalate over the dam," says H.A. Hellyer of the Royal United Services Institute, a think-tank in London. He does not think military options are off the table. Others doubt that Egypt would be so rash as to bomb the dam. Still, a strongman like Mr Sisi cannot afford to appear weak, especially since it emerged this week that his regime has been relying on Israel to bomb jihadists on Egyptian soil.

Tough economic reforms might be easier if the government enjoyed the legitimacy of having been freely elected. That clearly will not happen this year. Although Mr Sisi deserves credit for floating the pound and starting to tackle subsidies, Egypt will struggle to prosper so long as it is run by soldiers. Their instinct is to give orders and expect market forces to salute. Some turn power into rents. For example: the army is building lots of new roads, often without open tenders. For 21 of them, it has claimed the land for 2km on either side. Anyone who wants to open a shop by a new highway will have to pay the men in khaki.

This article appeared in the Middle East and Africa section of the print edition under the headline "The price is wrong"

The guns of February

There is increasing talk of war all around Israel

No one wants to ignite the next conflict, but potential sparks abound

Print edition | Middle East and Africa Feb 10th 2018

THINGS are eerily quiet outside the caged walkway that cuts through the no-man's-land separating Israel from Gaza. But there is increasing talk of war on both sides of the expanse, and elsewhere around Israel. "Everyday there is aggression and terror [by Israel]," says Daoud Shihab of Islamic Jihad, a Palestinian armed group that has fired rockets into Israel. "The situation could explode at any moment." Some of Gaza's leaders believe Israel will use a coming military exercise with America as cover for an attack. They put the chances of a new war at 95%, according to *Al Hayat*, an Arabic newspaper.

The Israelis see things differently. Gadi Eisenkot, the chief of staff of the Israel Defence Forces (IDF), reportedly told the cabinet that Hamas, the Islamist group that runs Gaza, might start a war if life in the coastal enclave does not improve. It has been under siege by Israel and Egypt for over a decade. Tensions increased after Donald Trump, America's president, recognised Jerusalem as Israel's capital on December 6th. The IDF has responded to rocket fire from Gaza with air strikes.

There is talk of impending conflicts on Israel's northern borders, too. On January 28th the IDF's spokesman, Ronen Manelis, wrote an op-ed, published by Lebanese websites, in which he warned Lebanon not to allow Iran to produce precision missiles in the country. Israel has repeatedly struck Iranian arms convoys bound for Lebanon. The IDF has been training on the northern front. "As we have proven in recent years...our security red lines are clearly demarcated," wrote General Manelis. "The choice is yours, people of Lebanon."

The Lebanese government opposes Israeli plans to build a wall along the border, claiming it will encroach on Lebanese territory. It says it will pursue the issue in international forums, but Hizbullah, which is part of the government, has reportedly threatened to attack Israeli soldiers on the frontier. All of Lebanon will pay if Hizbullah goes to war with Israel, warns Avigdor Lieberman, the Israeli defence minister.

Economist.com

The winds blowing across Mount Avital, in the Golan Heights, carry yet more talk of war. Israeli soldiers look down into Syria, where Bashar al-Assad's forces sit one town away from rebels in old Quneitra. Bled by seven years of fighting, the Syrian army is not seen as a threat, but Israel is concerned that the forces which propped up the Assad regime are establishing strongholds in Syria. It has told Hizbullah and Iran to stay out of the area. On February 6th Binyamin Netanyahu, the Israeli prime minister, toured Mount Avital, warning Israel's enemies "not to test us".

For all the bluster, no one seems eager to start shooting. Israel and Hamas have fought three wars since the group took over Gaza in 2006. To avoid a fourth, General Eisenkot is said to have told the cabinet to do more to ease the suffering in Gaza.

Hamas may merely be using its war talk to draw attention to Gaza's misery. The siege and sanctions imposed by the Palestinian Authority (PA), which runs the West Bank, has left the enclave short of electricity, drinking water and food. A deal between Hamas and the PA was meant to hand administrative control of Gaza to the PA, which in turn would lift the sanctions. But officials in Gaza say Mahmoud Abbas, who heads the PA, is dragging his feet. (The PA sees it the other way around.)

In the north Hizbullah would probably like to regroup, after nearly seven years of fighting in Syria. Lebanon was so badly damaged during the group's previous war with Israel, in 2006, that Hizbullah's leaders regret provoking it. Hizbullah is not ready for another conflict, but it is adding to its arsenal of guided missiles. The IDF may feel forced to forestall this build-up.

Mr Assad also seems more interested in consolidating his position at home than starting a new war (which he would lose). And the Iranian public is already pressing the regime in Tehran to end its foreign adventures. Israel says it will hit Iranian bases if Iran tries to entrench itself in Syria.

However, with everyone on edge, it may not take much to start a conflict. A rocket from Gaza, an air strike by Israel, a bullet from Hizbullah—any of these could ignite the next one. Bismarck famously predicted that "some damned foolish thing in the Balkans" would start a European war (he was eventually proved right in 1914). In the Levant it may be some damned foolish thing on the border.

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

An unenriching debate

How a Saudi nuclear reactor could accelerate an arms race

The kingdom's nuclear ambitions make little economic sense

Print edition | Middle East and Africa Feb 8th 2018

IN THE desert 220km (137 miles) from Abu Dhabi, the capital of the United Arab Emirates (UAE), a South Korean firm is close to finishing the Arab world's first operational nuclear-power reactor. The project started ten years ago in Washington, where the Emiratis negotiated a "123 agreement". Such deals, named after a clause in America's export-control laws, impose tough safeguards in return for American nuclear technology. When the UAE signed one in 2009, it also pledged not to enrich uranium or reprocess spent fuel into plutonium. Both can be used to make nuclear weapons. Arms-control wonks called it the gold standard of 123 deals.

Saudi Arabia only wants bronze. The kingdom has its own ambitious nuclear plans: 16 reactors, at a cost of up to $80bn. But, unlike the UAE, it wants to do its own enrichment. Iran, its regional rival, is already a step ahead. The most controversial provision of the nuclear deal it signed with world powers in 2015 allows it to enrich uranium. Iran did agree to mothball most of the centrifuges used for enrichment, and to process the stuff only to a level far below what is required for a bomb. Still, it kept the technology. The Saudis want to have it, too.

Lawmakers in Washington are worried. Granting the Saudis such a deal could prompt other countries, such as the UAE, to ask for similar terms. It may undermine global efforts at non-proliferation. Indeed, critics of the Iran deal fear that a Saudi enrichment programme would compromise their effort to impose tighter restrictions on Iran. But Donald Trump, America's president, is less concerned. He has close ties with the Saudis. He has also pledged to revitalise America's ailing nuclear industry. Among the five firms bidding for the Saudi project is Westinghouse, an American company that filed for bankruptcy last year. It would not be able to join the project without a 123 agreement.

Even some critics of the proposed deal concede that it may be the least bad option, because it would give America influence over the Saudi programme. The kingdom has other suitors. One is Rosatom, Russia's state-owned nuclear-power company, which is pursuing a frenetic sort of nuclear diplomacy in the Middle East. In December it signed a $21.3bn contract to build Egypt's first power reactor. Jordan inked a $10bn deal with the Russians in 2015. Despite their differences, particularly over Syria, the Saudis are keen to have closer ties with the region's resurgent power. King Salman spent four days in Moscow in October, the first such visit by a Saudi ruler.

Yet nuclear energy does not make much economic sense for the kingdom. Saudi Arabia burns 465,000 barrels of oil per day for electricity, forgoing $11bn in annual revenue. But the last nuclear reactors will not go online until the 2030s. They will generate less than one-sixth of the 120 gigawatts needed during periods of peak demand. In a country with vast deserts, it would make more sense to use gas and invest in solar energy. Today the kingdom generates almost none: its largest solar farm, at the headquarters of the state oil company, powers an office building.

The government is building a solar-panel factory near Riyadh, the capital. On February 6th ACWA Power, a Saudi firm, announced that it had won the contract for a new 300-megawatt solar farm in the northern desert. ACWA promises to produce electricity for 2.3 cents per kilowatt-hour, a record-low tariff. Though costs for nuclear power vary with reactor design, even the most efficient ones are more expensive. And whereas nuclear is a mature technology, costs for solar fall each year.

For the Saudis, though, a nuclear programme is a way to keep pace with Iran. It is also a step towards nuclear proliferation in the world's most volatile region.

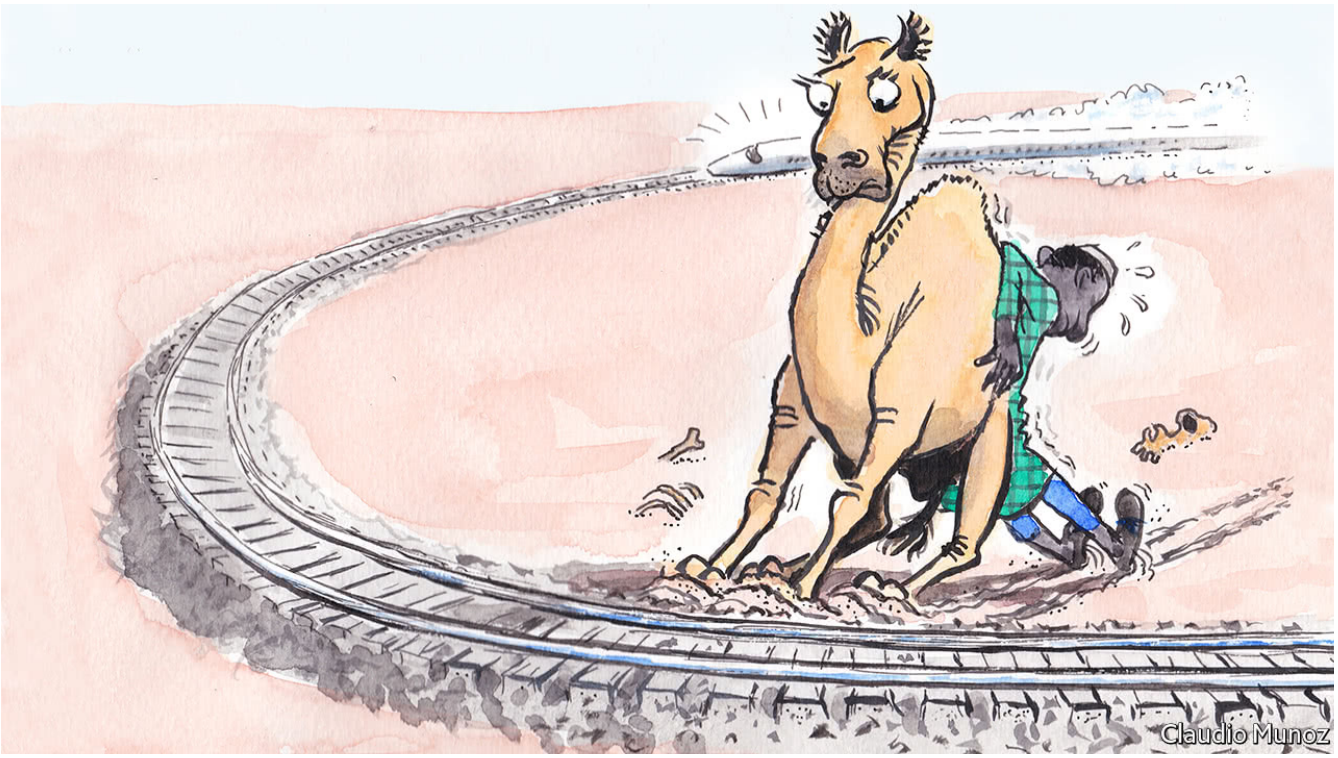
This article appeared in the Middle East and Africa section of the print edition under the headline "An unenriching debate"

Danger, camels crossing

Camel trains are holding up Ethiopia's new railway line

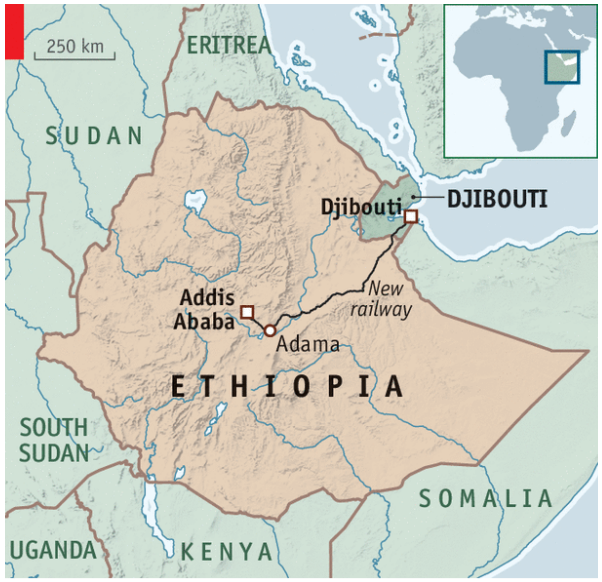
Compensating the owners of camels killed by trains with twice their market value creates perverse incentives

Print edition | Middle East and Africa Feb 10th 2018



"MORE than any other technical design or social institution," wrote the late British historian, Tony Judt, "the railway stands for modernity." But the road to modernity can be a bumpy one. So it was at the opening of the world's first steam passenger railway in 1830, when a dignitary in Liverpool was crushed by a train. So too in Saudi Arabia today, where construction of a high-speed railway was almost derailed by advancing sand dunes. And also in Ethiopia, where Africa's newest major railroad has been frustrated by one of civilisation's earliest forms of transport, the camel.

Since the start of commercial operations last month, at least 50 animals have been killed crossing the new Chinese-built line connecting Addis Ababa, the capital of landlocked Ethiopia, with the port of neighbouring Djibouti. Of these, 15 were camels flattened in a single collision, according to Tilahun Farka, the head of the jointly state-owned Ethio-Djibouti Railways, which manages the locomotives.



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Camel herders in the arid scrubland east of Addis Ababa report many more such incidents over the previous year of trial operations. Nado, a 21-year-old nomad on the outskirts of Adama, says his family lost 35 camels in an especially bloody collision. “Some of my brothers lost all the camels they have,” he complains. And it is not just camels. Donkeys, cows, sheep and goats have also been hit, though it is the ungainly camels that are most at risk. “The train never stops,” says Nado. “It just hits and passes on.”

For the Ethiopian government this is a headache. The train, which is supposed to slash transportation times to the coast from two days to ten hours, is operating at around half speed. Mr Tilahun says his company pays out 30,000 Ethiopian birr ($1,089) for each camel, twice the market price. So a profit-maximising camel-owner would chivvy the whole herd onto the tracks. This is perhaps why there have been so many collisions.

The problem is also technical. It was deemed too expensive to build an elevated track, such as the one that runs through Tsavo National Park in neighbouring Kenya, allowing wildlife to cross freely. Ethiopia opted instead for level crossings and some tunnels. But herders complain that there are too few of these, or that their camels refuse to use them. Some say they do not know where to go for compensation, and often do not get paid what is owed.

In most parts of the world fencing is used to prevent dangerous crossings. But for eastern Ethiopia’s large nomadic population, mobility matters. Fences built along some sections of track have been torn down by nomads who regard distant officials with suspicion. Mr Tilahun hopes all Ethiopians will eventually view the railway as a “national resource”. Nomads may be the last to feel this way.

This article appeared in the Middle East and Africa section of the print edition under the headline ”Danger, camels crossing”

Bacchus goes bananas

What is cheaper than beer and “gives you energy”?

African businesses are putting traditional wines into new bottles

Print edition | Middle East and Africa Feb 8th 2018

STRONG, smooth, with notes of melon and a hint of a buttery aftertaste. Leopord Lema’s banana wine may not delight the critics, but it is a hit in northern Tanzania, where it sells for 500 shillings ($0.23) a bottle. It’s cheaper than beer, says Samuel Juma, a security guard, and “brings more energy”. Locals glug their way through 12,000 litres a day.

“I come from a family where we used to brew,” says Mr Lema, his office thick with the pungent smell of baked bananas. His wine keeps longer than homemade *mbege*, a banana beer, and is safer than local moonshine, which sometimes contains methanol. He has also devised a pineapple version, using up fruit which quickly rots after the harvest.

Mr Lema is not the first to bottle traditional African booze. In the 1950s Max Heinrich, a German, recorded the process of making sorghum beer in present-day Zambia; his *chibuku* (“by the book”) is now churned out by corporate brewers. Fruity firms are bubbling up elsewhere. Palm Nectar, in Nigeria, sells palm wine in bars and supermarkets, with plans to export to America and Europe. “It’s the same drink that comes out of the tree,” boasts Maraizu Uche, its boss.

In Mr Lema’s factory women funnel amber wine into recycled bottles. He employs more than 60 people. Mr Lema made 200m shillings ($90,000) in profit last year and is expanding into a new 8-acre site. His success shows that industrialisation is not just about vast sweatshops or belching chimneys. In much of Africa it is more likely to mean small businesses, processing agricultural products for local tastes. Bananas can also be turned into flour, crisps and jam. Yoweri Museveni, the Ugandan president, wants to use oil revenues to finance banana-juice projects, among other things.

Mr Lema hopes to win middle-class customers with his pricier pineapple drink. But the main buyers of his banana brew are poorer folk, unable to afford branded lagers. “It helps you live more days on this earth,” shouts one connoisseur, staggering joyously in the street.

This article appeared in the Middle East and Africa section of the print edition under the headline ”Bacchus goes bananas”

Long waltz to freedom in South Africa

The delicate dance to depose Jacob Zuma

Cyril Ramaphosa, the new ruling-party leader, is easing his old boss towards the exit

Print edition | Middle East and Africa Feb 8th 2018

THE new era began brightly. Since becoming leader of the ruling African National Congress (ANC) in December, Cyril Ramaphosa has moved swiftly to stop Jacob Zuma, South Africa's president, from wrecking the place more than he already has. It is an immense task. Yet a burst of movement across several areas of government suggests that Mr Ramaphosa is wasting no time in tackling the corruption that has hollowed out South Africa.

Start with the police and prosecutor's office, which were paralysed for the best part of a decade under Mr Zuma, who faces 783 charges of corruption. Within weeks of Mr Ramaphosa's elevation to president-in-waiting (parliament picks the president, and the ANC controls parliament), police and prosecutors had opened investigations into several of Mr Zuma's friends.

A commission of inquiry into allegations of "state capture" by the Gupta family, business associates of Mr Zuma's son, is about to start its probe. Separately, prosecutors have identified some $4bn in assets that they believe are the proceeds of crime and that they hope to recover.

Mr Ramaphosa is moving quickly on the economy too, installing a new board of Eskom, the state power monopoly that was run into the ground by Mr Zuma's appointees. At the World Economic Forum in Davos, the business-savvy Mr Ramaphosa won over investors with his market-friendly talk. The rand is the strongest it has been against the dollar in nearly three years.

But if Mr Ramaphosa really wants to halt the rot he will have to push Mr Zuma from the presidency before the end of his term next year. He (and many more in the ANC) would like to do so, not least because they fear that the party will fare badly in national elections if it is not seen to have made progress against corruption. This week the party delivered an unprecedented humiliation when it postponed the annual state-of-the-nation address that Mr Zuma was due to have given at the opening of parliament on February 8th. Yet the president has a thick skin. Unlike Thabo Mbeki, who resigned from the presidency in 2008 when "recalled" by the party, Mr Zuma has refused to go quietly. When reportedly asked to step down by party bigwigs at the weekend, he said no.

If Mr Zuma does not step down voluntarily, Mr Ramaphosa may try to increase the pressure by getting the party's national executive committee, its highest decision-making body, to "recall" him. Yet such a declaration has no force under the constitution and he can legally ignore it.

Moreover, Mr Ramaphosa seems unwilling to test his own support in a direct conflict with the president, particularly given the deep divisions within the ANC. A recent street fight outside Luthuli House, the ANC headquarters in downtown Johannesburg, pitted supporters of Mr Ramaphosa against a group of rival protesters supporting Mr Zuma.

Mr Ramaphosa was only narrowly elected leader of the ANC in December and is hemmed in by allies of Mr Zuma at the top of the party. These include powerful figures such as Ace Magashule, the premier of the Free State and recently appointed secretary-general of the ANC.

Even so, the tide seems to be turning in Mr Ramaphosa's favour as allies of the president defect or see their influence diminish. In January an elite police unit raided Mr Magashule's office as part of a probe into allegations of corruption. As the commission into "state capture" gets under way it is likely to sweep up people who have benefited from Mr Zuma's rule (and who have fought to keep him in power).

The clock is ticking. On February 22nd (and possibly sooner if opposition parties have their way) Mr Zuma faces a vote of no confidence sponsored by the Economic Freedom Fighters, a firebrand party. The ANC will not want to let it claim victory for kicking out Mr Zuma, but it can hardly ask its members to vote against the motion only to propose its own soon after. The end of the Zuma era is nigh.

This article appeared in the Middle East and Africa section of the print edition under the headline "Long waltz to freedom"

Spanish politics
On the march

Young man Rivera keeps rolling along

Spain's centrist Ciudadanos are on the march

A would-be Macron makes ground

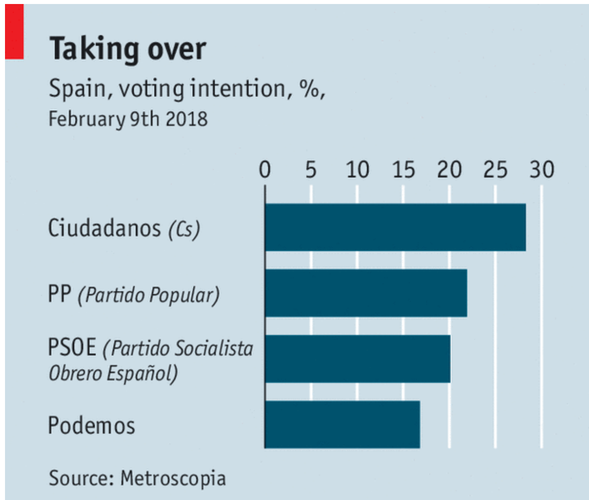
Print edition | Europe Feb 10th 2018

WHEN Albert Rivera gave a talk at a regular breakfast meeting for business folk at the Ritz Hotel in Madrid last month, more than 600 people turned up, a record for the event. He has suddenly become Spain's hottest ticket, almost three years after he leapt into national politics at the head of Ciudadanos ("Citizens"), a newish liberal party. In December Ciudadanos became the biggest single force in Catalonia at a regional election. Now it is jostling the ruling conservative People's Party (PP) at the top of the national opinion polls. That has made the government of Mariano Rajoy, the long-serving prime minister, palpably nervous.

"The big question is whether it will be like France," Mr Rivera told *The Economist* this week. There Emmanuel Macron, to whom he feels politically close, swept aside an ossified two-party system last year. In Spain, Socialist and PP governments have alternated since the 1980s. This cosy duopoly was weakened by the long recession that followed the bursting of Spain's housing bubble in 2007. At first the Socialist vote looked the more vulnerable to a takeover by Podemos, a far-left upstart. Ciudadanos surged in the opinion polls in 2015 but managed only 14% and 13% in elections that year and in 2016. The PP clung on, albeit as a minority government. Ciudadanos has facilitated this but has not joined it.

Mr Rivera (pictured) admits that his party's success in Catalonia, where it won 25% (the PP got just 4%) thanks to its resolute opposition to separatism, helped its recent poll bounce. But he also thinks a structural political shift is under way. Many in Madrid's political world agree.

Mr Rajoy does not have to call a fresh election until 2020, but there will be municipal and regional polls in May 2019. Ciudadanos now looks more likely than in 2015 to displace the PP as the main party of the centre-right, just as Mr Rajoy's party in the 1980s replaced the short-lived Union of the Democratic Centre of Adolfo Suárez that presided over the transition from dictatorship to democracy. Some PP activists (as well as some Socialists) have recently sought to join Ciudadanos, according to Mr Rivera. Not all are admitted.



Economist.com

The PP looks tired and old (most of its voters are over 55). Mr Rajoy has governed since 2011 and has led his party for 14 years. He can claim credit for an economic recovery which has seen three consecutive years of growth of over 3% and a big fall in unemployment (though at 16.5% it remains high). But his government has struggled with Catalonia, where the separatist administration of Carles Puigdemont unilaterally declared independence after an unconstitutional independence referendum in October. Mr Rajoy, with the backing of the Socialists and Ciudadanos, deployed emergency powers to dismiss Mr Puigdemont, but too late to prevent a crisis.

The PP has also suffered from a string of corruption scandals. Many are fairly small-scale and occurred years ago. Nevertheless, corruption acts like "a fine rain that could erode the capacity of the PP to resist", says Sandra León, a Spanish political scientist at York University.

By contrast, Ciudadanos looks young and energetic. Mr Rivera is 38, a fast-talking lawyer who already has a dozen years' experience in politics. His party was formed by disillusioned Catalan Socialists who disliked temporising with nationalists. Last year Mr Rivera repositioned it as a centrist, progressive liberal party. "We have to move away from the old left-right axis," he says, echoing Mr Macron. "The big battle of the 21st century is between liberalism and the open society, and populism-nationalism and the closed society." Ciudadanos is keen on fighting monopolies and on vigorous Scandinavian-style labour reforms to help the unemployed retrain and find jobs. It wants to shake up the political and electoral systems, and education, to tackle Spain's still-high rate of school dropouts. It is fiercely pro-European. But Mr Rivera says his party is part of a "world-wide movement". As well as Mr Macron, he cites Italy's Matteo Renzi, Canada's Justin Trudeau and Liberal parties in Benelux countries and Scandinavia as soulmates.

"For the first time PP voters have an alternative," says Cayetana Álvarez de Toledo, a former congresswoman for the party. Since the separatists won a narrow majority of seats in the Catalan parliament, the next election is likely to be played out on the question of Spanish unity. "That's very favourable for Ciudadanos," she adds.

Mr Rivera argues robustly against separatism. "Either we take nationalism seriously as a threat to Europe or they carry on winning," he says. He would not claw back powers from Catalonia but says he would use the constitution to prevent indoctrination in schools and the promotion of independence by Catalan public television. Beating separatists requires "a strong national project" that "inspires". This requires constitutional reform—something the PP is cool about—but for its own sake, not just to defeat separatism.

The Catalan conflict seems to have shifted Spanish public opinion to the right, hurting Podemos and becalming the Socialists. That leaves a broad space for Mr Rivera, but it may also help Mr Rajoy. Mr Rivera says that Ciudadanos is more prepared and better organised than in 2015. But the PP is no pushover. It has the strongest organisation of any party. "We have to get the message [of the polls] and act," says Pablo Casado, a PP official.

The party is organising meetings to brush up its policies and to try to fire up its base ahead of the local elections next year. Mr Casado says it will also push initiatives in parliament even at the risk of having them voted down, starting with a measure to lengthen prison sentences for some crimes. Mr Rajoy, who often ignores Ciudadanos, recently seemed to acknowledge its challenge by criticising it for flip-flops on this and other policies. If Luis de Guindos, the economy minister, wins his bid to join the board of the European Central Bank, Mr Rajoy may use his departure for a wider government reshuffle.

Mr Rajoy has often been underestimated. His stolid manner hides a quick brain and sharp political instincts. He offers the voters stability and experience. Clearly, Mr Rivera still has a lot of work to do. But battle has been joined.

Update (February 9th): *The chart in this piece has been updated to reflect a new poll.*

This article appeared in the Europe section of the print edition under the headline "On the march"

A loveless marriage

Germany's main parties conclude a coalition deal

But SPD members must still vote to approve it

Print edition | Europe Feb 10th 2018


Getty Images

"GRAND coalitions have the feel of perverse sex acts," Willy Brandt is said to have opined. The great Social Democratic (SPD) chancellor's point was that broad alliances of the centre-right and centre-left are unnatural and best avoided. With one short exception, that is what post-war German politicians did until 2005. But since then, thanks to a fragmenting party landscape, Angela Merkel has led two grand coalitions. On February 7th her centre-right Christian Democrats (CDU), their Bavarian allies, the Christian Social Union (CSU), and the SPD announced that they had agreed to form yet another.

It was not the chancellor's first choice. All three parties lost ground in last September's election and the CDU/CSU had initially negotiated with the pro-business Free Democrats and the Greens. But those talks collapsed in November. With some coaxing from Frank-Walter Steinmeier, Germany's president, the SPD agreed to talks, though only reluctantly.

The resulting 177-page agreement speaks to Brandt's scepticism. It offers continuity, not renewal. Chunks of Germany's budget surplus (€45bn, or $55bn) are parcelled out among favoured causes: child benefit, pensions, modest tax cuts and infrastructure investment. For the CDU/CSU it includes an annual (though still hefty) cap of 180,000 to 220,000 refugees to prevent a repeat of the surge in 2015. It limits family-reunification immigration to 1,000 per month, plus "hardship cases". For the SPD there are restrictions on short-term job contracts and a review of disparities between public and private health insurance.

Many were disappointed. Taking aim at Mrs Merkel, the editor of *Bild*, Germany's most-read newspaper, called the deal "historically the worst negotiating result ever obtained by an election winner". The Young Socialists, the youth wing of the SPD, called it "a hodgepodge of trial runs". They will play a major role in the coming weeks, as the leading voice for a "no" vote from SPD members in their upcoming vote on joining a new government, the result of which is expected on March 4th. If they win—only slightly less than likely—Mrs Merkel will be forced to form a minority government or, if Mr Steinmeier approves, contest a new election.

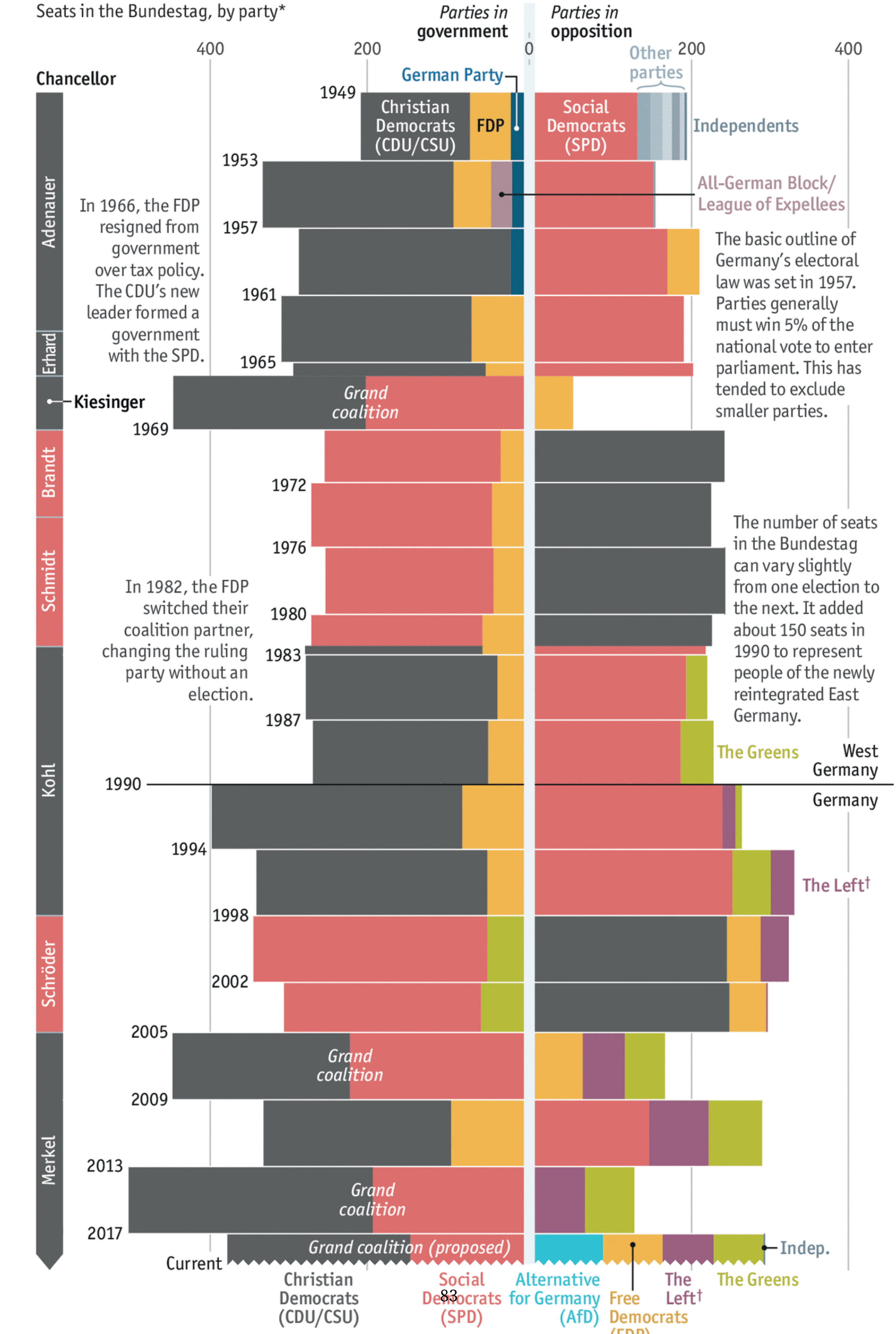
The SPD leadership has two hopes. The first is that members will be attracted by "A new departure for Europe!", the deal's opening chapter. It pledges close co-operation with Emmanuel Macron on defence and migration, an increased German contribution to the EU budget, progress towards increased powers for the European Parliament and the transformation of the European Stability Mechanism (a crisis firewall set up in 2012) into a permanent "European Monetary Fund". Still, the text is vague and misses out important subjects like completing banking union. The proposals are an opening to Mr Macron, but at this stage little more.

The second overture to the SPD base is the proposed distribution of cabinet jobs. The party takes both the powerful finance ministry—essential for influence over EU policy—and keeps the foreign and labour ministries. That is a big concession from the CDU, which also cedes the interior ministry to the CSU's Horst Seehofer. But anyone hoping to see a fiery federalist in Wolfgang Schäuble's old job will be disappointed. Olaf Scholz, the mayor of Hamburg and the likely pick, is a cautious centrist close in instinct to Mrs Merkel. Meanwhile Martin Schulz, who on February 7th announced his resignation as SPD leader, is tipped for the foreign ministry.

If the SPD votes "yes", the new government should be in place before Easter. But the sense of a transition will linger. There will be more open disagreement between the ruling parties and a review of progress two years in (perhaps the moment for an early election). The far-right Alternative for Germany will be the largest opposition party in the Bundestag. Ambitious rivals are breathing down the necks of party leaders. As much as it points to Germany's next steps, the coalition deal is the artefact of a passing political era.

All together, again

Seats in the Bundestag, by party*



This article appeared in the Europe section of the print edition under the headline "A loveless marriage"

The communist cage

The Berlin Wall has now been down for longer than it was up

Germans reflect on reunification

Print edition | Europe Feb 8th 2018

For 10,315 days, from 1961 to 1989, the wall splitting Berlin into communist east and capitalist west was a symbol of Germany's and Europe's division. February 6th marked the 10,316th day since its fall, the point when Germany's post-wall period had lasted longer than the wall itself. Germans on social media shared reflections of what their lives would have been like #ohneMauerfall (without the fall of the wall): opportunities not taken, partners not met, freedoms not enjoyed. It was also a chance to reflect on the successes and failures of reunification. Germany is booming, the east has been expensively modernised. Yet at last September's election populist parties of left and right took 40% of the vote in the "new", eastern states, compared with 18% in the west. Building new railways and autobahns is one thing; other fractures take longer to heal.

This article appeared in the Europe section of the print edition under the headline "Still healing"

The approved challenger

Russian TV star Ksenia Sobchak's presidential campaign

An unintended puff for Mr Putin

Print edition | Europe Feb 10th 2018

THE TOPIC was "A Future Russia". The location, a modest House of Youth in Vladimir, a provincial city some 190km east of Moscow. The lecturer was Ksenia Sobchak, a 36-year-old presidential candidate who made her fortune as an "it" girl and a TV reality-show star. Wearing a sharp suit and gold-heeled stilettos, Ms Sobchak presented a rich and glamorous model of that future. The local university, she told the audience, was lagging behind even the lowliest in California. Russia should compete in biotech rather than missiles. Slipping into management-speak, she said the government should be judged on "key performance indicators".

The audience seemed unconvinced, but this is the role the Kremlin has scripted for Ms Sobchak as an approved sparring partner for Vladimir Putin, Russia's president, at the election due on March 18th. More importantly, she is a spoiler for Alexei Navalny, the only viable challenger, but banned from the contest. Mr Navalny built his campaign on a personal and generational confrontation with Mr Putin and has now called for a boycott of the election. Ms Sobchak's campaign "against everyone" subverts his message and directs young people to the ballot box.

As an opposition figure, she represents no threat. Her recognition rating is 95% (because of her starring role in a raunchy reality show called Dom-2), but few view her favourably. She seems to tick all the boxes of popular prejudice about Russia's liberal opposition—aloof, out of touch and spoiled. Even her election headquarters in a fashionable loft behind Moscow's Soho Rooms, an exclusive nightclub of the 2000s, fits the stereotype. By encouraging Ms Sobchak to run, the Kremlin hoped to caricature the liberal opposition while making the election look legitimate.

Like any caricature, this contains some truth. The daughter of the late Anatoly Sobchak, St Petersburg's first democratically elected mayor, who was once Mr Putin's mentor and boss, Ms Sobchak personifies the post-Soviet elite. As a child, she played with Mr Putin's daughters and was guarded by Viktor Zolotov, later Mr Putin's bodyguard and now the chief of the Russian National Guard, an anti-riot force.

She published books on "how to marry a millionaire" and turned her own life into a reality show called "A Blonde in Chocolate" (ie, living in luxury). "We had a chance to live as in the West, we had beautiful cars, beautiful offices, good jobs. We dressed like Europeans, spoke languages and travelled," she says. Like many of the Russian elite, she benefited from the slosh of oil money, and voted for Mr Putin.

But in December 2011, as protests broke out across Russia, she climbed onto a different stage in Moscow. “I am Ksenia Sobchak, and I have something to lose,” she said. Hard-core protesters booed her, but she stayed the course, displaying brains and guts. Her participation made protests fashionable and broadened her appeal.

Losses were not long in coming. State TV channels froze her out. Masked police burst into her flat in the small hours of the morning, seizing cash worth €1.5m. Mr Putin soon turned his back on the Westernised elite. They cared about Ferraris and holidays in Monaco; he gave Russia wars and international isolation.

Now Ms Sobchak’s aim, she says, is not to win the election (she knows that is impossible) but to use it as an entry point into politics to push the boundaries from within. While the Kremlin is surely using her, she is also using the Kremlin. Her access to state airwaves has allowed her to talk about Mr Navalny, criticise Mr Putin’s foreign policy and speak up for human rights. On the day when Mr Navalny was detained in Moscow for rallying supporters to boycott the elections, she was in Chechnya, demanding the release of Oyub Titiev, a human-rights activist who has been arrested on dubious drug charges.

“In an authoritarian and repressive system, you have to find a win-win situation to get into politics,” she says. “A true politician needs to use any opportunity and in the short term can negotiate with the devil himself.” But though Ms Sobchak’s participation in the protests of 2011 and 2012 made them fashionable and helped amplify their message, her involvement in the coming election seems to be having the opposite effect. The hope that Ms Sobchak would boost the liberal agenda has so far been in vain. Instead, she has simply created division.

Ms Sobchak may be a genuine liberal, but by campaigning for unpopular causes, such as being nice to gay people, reversing the annexation of Crimea and evicting Lenin’s corpse from its mausoleum on Red Square, she actually risks marginalising liberalism. And by helping the Kremlin legitimise the election, the danger is that she may strengthen Mr Putin’s grip on power—and make her version of Russia’s future ever more fanciful.

This article appeared in the Europe section of the print edition under the headline ”The approved challenger”

Back to bac

Emmanuel Macron wants to change the beloved baccalauréat

Reforming French education will not be easy

Print edition | Europe Feb 8th 2018

IT WAS by imperial decree that Napoleon founded the French *baccalauréat*, the country's school-leaving exam, in 1808. To this day, some 700,000 pupils still take the *bac*, the great majority of the annual age cohort. It has become the badge of excellence for a French *lycée* system that offers a model of globally standardised education, including to over 900 *lycées* with a total of 330,000 pupils abroad. Yet President Emmanuel Macron is now about to announce the most radical overhaul of the exam for over half a century. Why?

Despite spending as much on secondary schooling as other OECD countries, France no longer achieves corresponding results. Between 2003 and 2012, performance in international maths tests fell compared with other countries. The real shock was an international study of reading known as PIRLS, published in 2017, in which French pupils lagged in 34th position, behind those in Spain, Portugal and Italy. Their level had dropped by 14 points since 2001. The *bac* is an entrance ticket to university, yet too many students drop out once they get there. Fully 70% of undergraduates, says the ministry, fail to complete their degree in three years.

On February 14th Jean-Michel Blanquer, the education minister and a former director of ESSEC, a top French business school, is due to unveil his reform plans for the *bac*. The broad contours emerged in a report he commissioned last month. The *bac*, it said, is too complex, too focused on a single series of exams in the final school year, covers too many subjects and does not allow for enough specialisation. Pupils must study an impressively wide range of subjects: science buffs have to study French literature and philosophy, and even the most poetically minded must grapple with science. The flipside is that this precludes depth, of the sort that arguably better prepares pupils for higher education.

Instead, the diploma will be reorganised around a "major" of four big exams in the final year, down from between ten and 15 currently. Two choices will be specialisms that go into far greater depth, counting for a quarter of the final *bac* grade, and to be examined earlier in the final year. Two other exams will remain compulsory for all: a written philosophy paper, naturally, and—probably—an oral presentation of a school project. French literature will remain a compulsory exam in the penultimate year of the *bac*, as it is today. Fully 40% of the final grade is expected to depend on continuous assessment during the last two years of school.

The new French *bac*, which will be awarded for the first time in 2021, will look more like the school-leaving exam in other European countries, where continuous assessment represents a big chunk of the final grade, and subject specialism, such as for

British A-levels, is common. In France, though, the shake-up may well create an uproar. Many in the teaching profession fear that continuous assessment will kill the prized national standard, and in effect bring in a two-tier *bac*, with more prestigious grades being awarded by top teachers in top schools, rather than by national markers. Teachers of subjects that may become optional are worried about their future. Unions are threatening strikes. So far, Mr Macron has largely avoided big street protests as he has set about modernising France. Education reform, not to mention a looming battle over civil-service numbers, could be the beginning of a much trickier period for him.

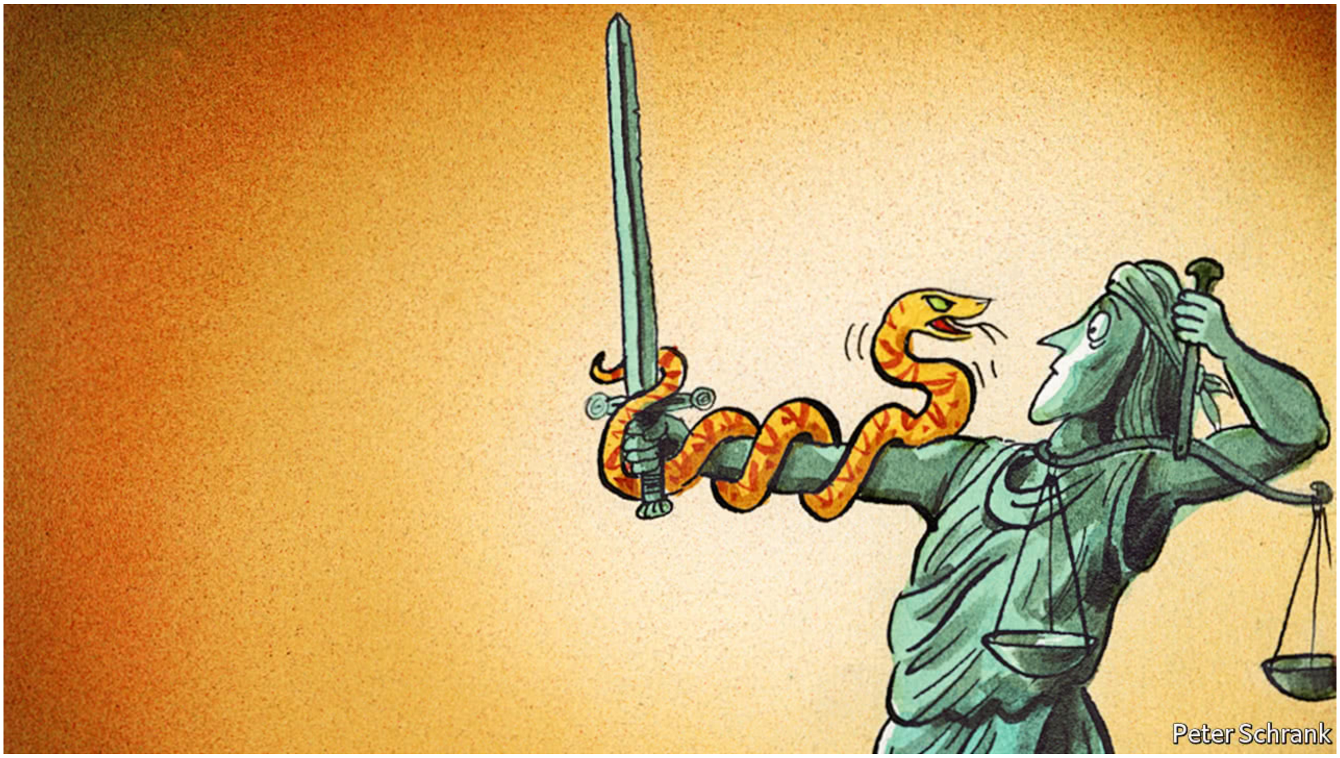
This article appeared in the Europe section of the print edition under the headline "Back to bac"

Nobbling the nobblers

Alarming attempts to undermine Romanian democracy

An anti-corruption watchdog is under attack

Print edition | Europe Feb 8th 2018



"WHO?" was the reaction of many Romanians when Viorica Dancila became their third prime minister in just seven months, on January 29th. That she is the first woman to run the country's government might have been cause for celebration, if anyone thought she would really be doing the job. Few do. As soon as she had been elected, she vanished into the office of Liviu Dragnea, the leader of her party, the ruling Social Democrats (PSD). It is Mr Dragnea who calls the shots. If Ms Dancila proves unwilling or unable to do what he wants, she will be dumped.

There is only one reason why Ms Dancila is prime minister. A conviction for electoral fraud prevents Mr Dragnea from taking the job himself. He is on trial for abuse of office, and last November Romania's powerful National Anti-Corruption Directorate (DNA) indicted him for forming an "organised criminal group" with the aim of stealing EU funds. Mr Dragnea says he is innocent, but if found guilty he is likely to go to jail. That is, unless Ms Dancila can push through a proposed package of judicial reforms which would decriminalise certain categories of abuse of power and, according to the weak and divided opposition, bring Romanian justice under political control.

"Romania is starting to look like Poland and Hungary," says Dan Barna, the leader of the Save Romania Union, an opposition party. "It is not a matter of ideology, but a bunch of guys with problems with the law, so they want to change the law for themselves." Five of Ms Dancila's cabinet have been or are being investigated for corruption. The former PSD mayor of Constanta, charged by the DNA with corruption, says he is applying for political asylum in Madagascar. Mr Dragnea is one of a group of Romanian politicians and businessmen who regularly holiday together in a Brazilian resort. In 2015 Costel Comana, another of the group and a former business partner of Mr Dragnea, committed suicide in an aeroplane toilet when two of his associates were arrested.

The EU backed the creation of independent instruments to tackle Romania's corruption problem. One result was the DNA. Few, though, expected that it would be so successful. It has dispatched hundreds of high-profile people to jail. In the past five years they have included a prime minister, five ministers and 25 members of parliament. Many more are on trial. But now proposals for "justice reform" include banning the use of recordings at trials, which would, says Vlad Voiculescu, a former minister, mean "the end of the DNA as we know it".

Before he came to lead the PSD Mr Dragnea was a local baron, in charge of his party in his native province of Teleorman. Now he is king of the barons and must keep them happy. In Alexandria, Teleorman's capital, the PSD mayor, Victor Dragusin, says his leader is doing a fine job. It is just a shame, he thinks, that the party has made such a hash of explaining its proposed justice reforms. They will improve the delivery of justice, he reckons—and points to the case of Adrian Nastase, a former prime minister jailed "without evidence" to make an "example of him". Politicians from the PSD frequently complain that the DNA is politically motivated, and part of a "parallel state" that includes elements of the intelligence services.

In Alexandria, Mr Dragusin shows off a new sports hall and work on university buildings. He says he wants more money from Bucharest and from the EU. Ms Dancila needs to deliver, or she could swiftly follow her predecessors into oblivion.

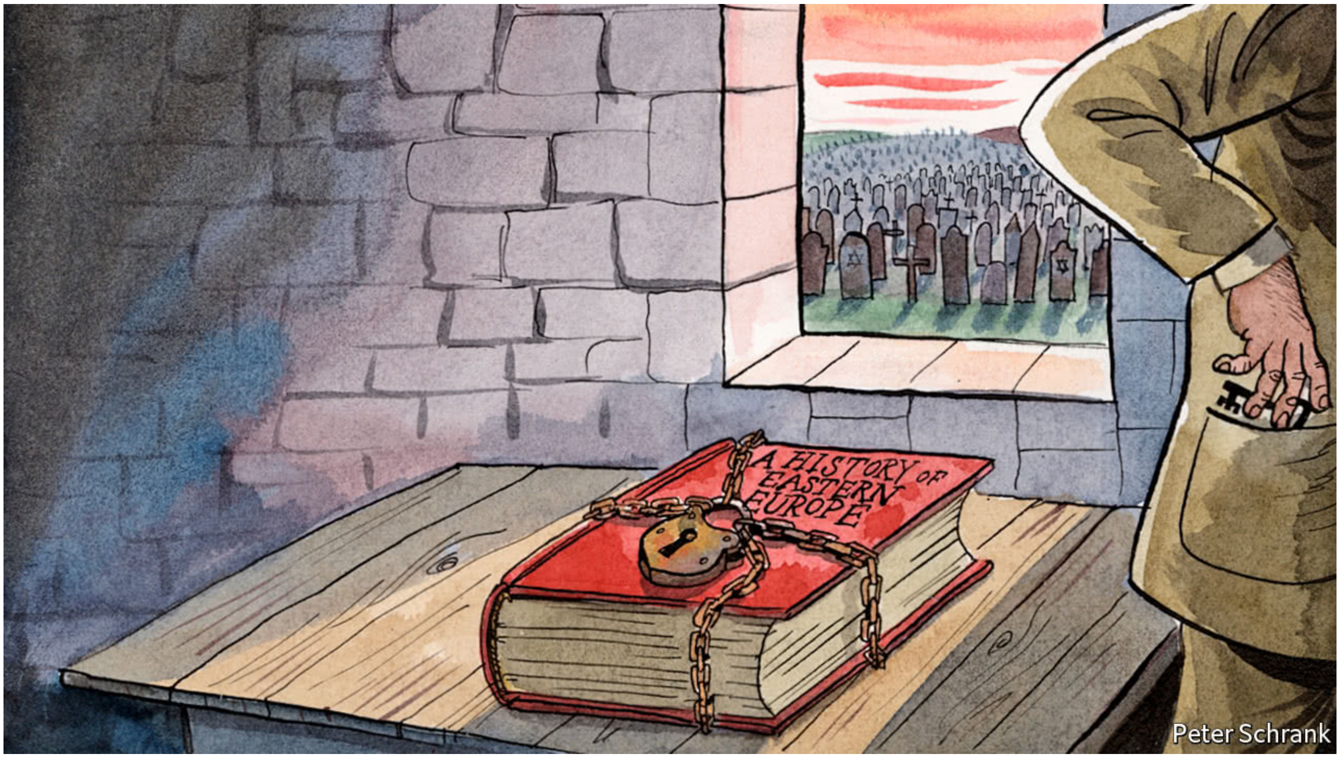
This article appeared in the Europe section of the print edition under the headline "Nobbling the nobblers"

Charlemagne

Poland's new law on death camps is divisive. That's the point

The ruling Law and Justice Party wants to rewrite history so Poles were only victims, never perpetrators

Print edition | Europe Feb 10th 2018



ON FEBRUARY 6th 1943 Auschwitz received 2,000 Polish Jews from a ghetto in Bialystok, in north-east Poland. Almost all of them were murdered in the death camp's gas chambers; just one grisly episode in the six-year saga of Nazi barbarity in Poland. Six million Poles were killed in the second world war, most of them victims of the Third Reich. This week, exactly 75 years after that routine day in Auschwitz, Poland passed a law that threatens fines and imprisonment upon anyone who attributes those crimes to the "Polish nation".

Poles have long railed against the phrase "Polish death camps", as Barack Obama learned when he thoughtlessly deployed it in 2012. But the term reflects clumsiness, not historical revisionism: no one argues that Poles ran Auschwitz or any of the other camps in Poland. As he prepared to sign the law Andrzej Duda, Poland's president, said no Holocaust survivor should feel scared to give personal testimony. Academics and artists are exempt from its provisions. But Polish teachers or journalists may now hesitate before bringing up, for instance, the Jedwabne massacre of 1941, in which hundreds of Jews were locked in a barn and burned alive by Poles under Nazi occupation.

In that case, why legislate? A closer reading of the law provides a clue. Its writ extends beyond the Holocaust to cover the denial of crimes committed by "Ukrainian nationalists" against Poles during the war. Poles and Ukrainians are bound together by a history of occupation, pogroms and deportation, sometimes as allies, more often as foes. Poles shudder when Ukrainian towns devote statues or streets to Stepan Bandera, a nationalist hero whose independence movement spawned an insurgent army that killed tens of thousands of Poles in Nazi-occupied regions in 1943. But Ukrainians believe their actions are part of a broader history of Polish oppression and colonisation. Such disputes are best litigated by academics, not politicians. Yet Poland's government, run since 2015 by the populist Law and Justice (PiS) party, wants history pressed into partisan political service.

Eastern Europe is criss-crossed by scars of war and occupation to a degree that many westerners struggle to understand. In a region of competing narratives, latent grievances and weak states, leaders with a taste for demagoguery will always be tempted to draw from an ample arsenal of historical memory. Ukraine's controversial "decommunisation" laws enshrine one particular historical narrative in statute. Viktor Orban's populist nationalism in Hungary is undergirded by an old grudge against the treaty of Trianon, which dismembered Hungarian territory after the first world war. Russia and Lithuania have passed laws on the interpretation of history. Nor is this solely an ex-communist phenomenon. In Greece, politicians who should know better have been encouraging nationalists' resistance to a resolution of the "name problem" of Macedonia, their former Yugoslav neighbour (they believe it implies territorial ambitions over an identically named province in northern Greece). This pointless row has held up Macedonia's membership of the EU and NATO for years, though it could soon be resolved if Greece permits.

But disturbing the earth of history can exhume all manner of nasties. Fearful that Mr Duda would veto the history law, a bunch of thugs demonstrated outside the presidential palace urging him to "tear off his yarmulke" (he is not Jewish). Skinheads calling for a "Pure Poland" are a common sight on Polish marches, and there are even signs of xenophobia against the country's 1m or so Ukrainians. Relations with allies have suffered, too. If the Israeli attack on the Polish law grabbed headlines, the reaction from Ukraine was equally hostile. The Rada (parliament) called it "distorted", and a group of Ukrainian historians said they would no longer visit Poland to work. PiS seems to be legislating its way towards the cynical definition of a nation offered by Karl Deutsch, a Czech political scientist: "A group of people united by a mistaken view about the past and a hatred of their neighbours".

It need not be like this. In the 1990s Polish leaders were guided by the "Giedroyc doctrine" of friendly relations with ex-Soviet neighbours. More recently Poland has championed Ukraine's integration with the EU. Ukraine's motives are more complicated; the mythologising of Bandera reflects a need for national heroes at a time when the country has been undermined by Russian invasion and occupation. Few Ukrainians know about the atrocities their forefathers visited upon Poles, though that might have changed in 2016 had the government not banned screenings of "Wolyn", a Polish film that documented the 1943 massacres.

No one likes us, we don't care

If Poland's new law was designed to deflect attention from Polish wrongdoing, it backfired. For weeks foreign media have been recounting the details of Polish wartime atrocities. An own goal, then? Hardly. PiS thrives on this sort of opprobrium. Its political assault on Poland's institutions, especially the judiciary, and its diplomatic missteps have left it ostracised inside Europe and alienated from allies, including America. Yet while many voters hate this, a growing number do not: PiS commands almost 50% support in polls. The international reaction to the law cements the government's narrative that only it can be relied on to preserve historical truth and defend the honour of the Polish nation.

Hours after Mr Duda signed the bill, Mateusz Morawiecki, the prime minister, said Poland was only now beginning to emerge from the dependence on outsiders that had marked the decades after communism. His government's law is less about correcting the record than twisting Poland's national story into one of historical victimhood—and casting sceptics as traitors. Amid the recent burst of optimism surrounding Macedonia's name, Nikola Dimitrov, its foreign minister, says he spots an "opportunity to step out from the trenches of history". With luck, it will be taken. But other countries are digging further in.

This article appeared in the Europe section of the print edition under the headline "History wars"

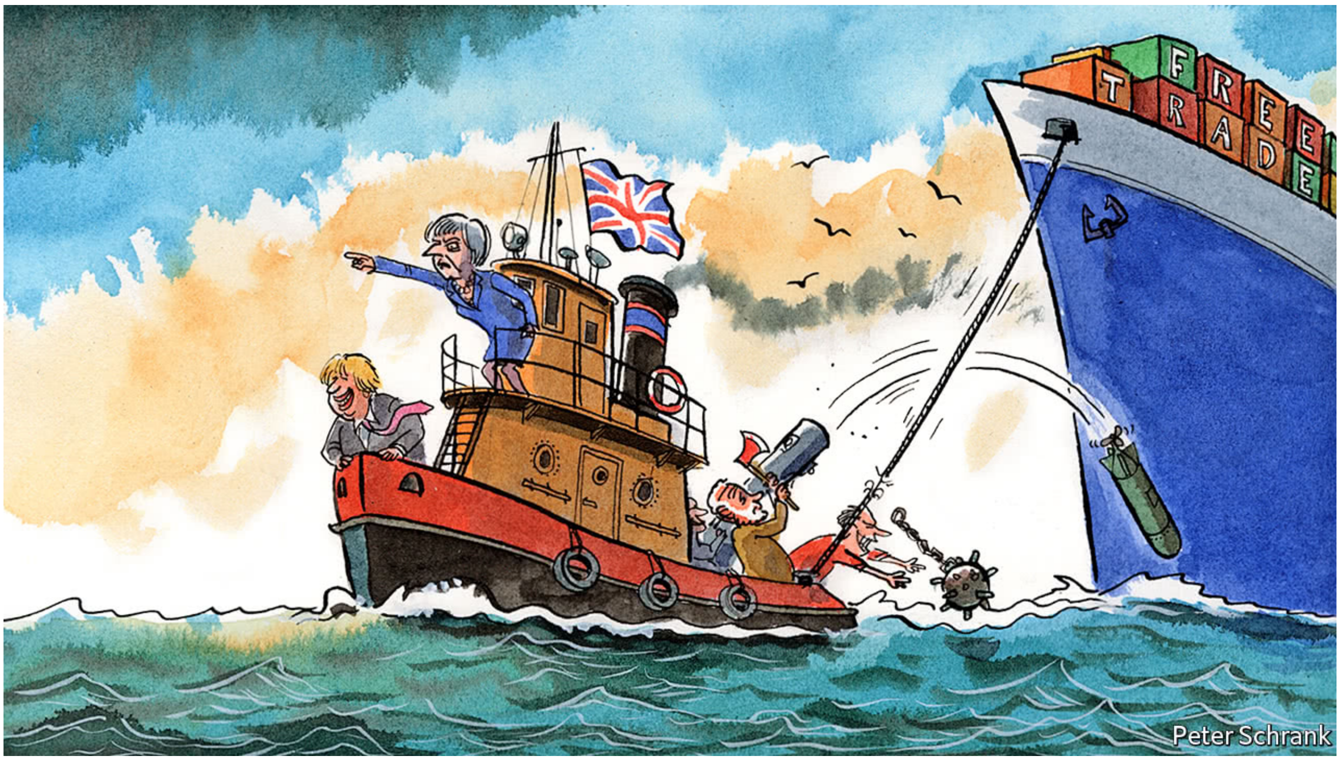
The politics of trade deals
Not so global Britain

Not so global Britain

Muddled attitudes towards free trade

Public views of trade deals are more complicated than politicians allow

Print edition | Britain Feb 8th 2018



STANDING eight metres tall, the inflatable Trojan horse outside the European Commission office a couple of years ago was difficult to miss. It was erected by campaigners bearing 3m signatures from Europeans who wanted to scupper the Transatlantic Trade and Investment Partnership (TTIP), a sprawling free-trade deal between the European Union and America. For Brexiteers, such a scene seems ideal to help explain why Britain has to strike out on its own; outside the EU, Britain would no longer be held back by continental trade luddites. Except this anti-TTIP protest took place outside the Commission's London office. A full 500,000 signatories were British.

Britain's attitude to free trade is more complex than it seems. In a meeting of the Brexit "war cabinet" taking place as *The Economist* went to press, ministers were due to thrash out a proposed customs relationship with the EU. At stake is Britain's ability to strike free-trade deals across the globe. But amid the cabinet in-fighting, what voters think is often overlooked.

At first glance Brits love free trade, or at least say they do. Given the choice, nearly half of voters would opt for the ability to do free-trade deals globally—even if it meant customs controls between Britain and the EU, according to YouGov. Jacob Rees-Mogg, the leader of the Conservatives' hard-Brexit caucus, can be confident of the support of party members: 70% of them want out of the customs union, according to research from Queen Mary University of London.

But this zealotry is not shared by typical Leave voters. They tend not to like free trade: 50% of them think that Britain should limit imports to protect the British economy, according to data from NatCen Social Research, which gauges public opinion. Barely a fifth believe otherwise. "Better trade opportunities with the wider world" was chosen by only 9% of Leave voters as the main reason for voting for Brexit, far behind legal independence and cutting immigration, according to ICM, a pollster. The buccaneering Brexit put forward by Liam Fox, the international-trade secretary, is opposed—or ignored—by those who supposedly voted for it. In practice, Britons are among Europe's keenest wreckers of free-trade deals. They were at the forefront of scuppering the planned trade deal with America. More people signed an anti-TTIP campaign in supposedly free-trade-loving Britain than in traditionally protectionist France.

For trade-deal boosters, this makes new and awkward political alliances necessary. Liberal Brexiteers must win over those who voted Remain, who tend to be more open when it comes to trade. Only a quarter of Remain voters support a protectionist approach, with 41% opposed, according to NatCen. But within the Department for International Trade (DIT) officials worry that Brexit and trade are mashed together in minds of Remain voters, turning potential allies into sceptics. "When you say 'trade' they hear 'Brexit'," says one.

In Westminster, Labour are well-armed to cause trouble. During the EU referendum Jeremy Corbyn, the Labour leader, promised to veto TTIP if elected. Nor was John McDonnell, the shadow chancellor, a fan. He said TTIP was aimed at "reinforcing...corporate global kleptocracy". Rebellious Conservative MPs have backed Labour-led amendments on trade policy. Outside Westminster, campaigners know how to raise mischief. In Britain, linking TTIP and the idea of American firms eventually gaining access to the NHS was enough to infuriate Middle Englanders, say campaigners. And that was before Donald Trump arrived in the White House.

It was not pure anti-Americanism that drove protests. A deal with Canada—the Comprehensive Economic and Trade Agreement—attracted similar howls, due to the inclusion of measures that let companies sue governments. Campaigners managed to fill town halls even when discussing such trade arcana, says Mark Dearn from War on Want, a charity. The result was stark: Britain delivered a third of the 150,000 responses to a European Commission consultation on these investor-state dispute-settlement clauses—more than any other EU country.

The worry for officials in the DIT is that negotiations this time round will be more visible, risking bigger public protests. In the EU, negotiations took place in Washington, Ottawa and Brussels, faraway lands of which British voters knew little and cared less. British trade deals will be hammered out in Whitehall. "It's Liam Fox, not some faceless bureaucrat," says a campaigner.

To his credit Mr Fox is aware of the potential backlash. He wants to avoid a repeat of TTIP, "where a huge amount of work is done only to find the public won't accept it." Plus, Mr Fox benefits from an ideological tailwind: overall Brits are increasingly liberal on trade. Although a plurality (36%) still demand a protectionist approach, this number is down from over half since 2003, according to NatCen's research. Amending unpopular parts of trade deals and guaranteeing stronger protection for the NHS, for instance, would allay concerns.

But there will be other flashpoints. A row last summer over the prospect of importing chicken doused in chlorine from America was an aperitif. After 45 years without an independent British trade policy, political price discovery must be done. British farmers have not had to flex their political muscles domestically for decades, instead relying on their more militant continental peers. But that may change if groups like the National Farmers' Union feel that farmers' interests are being sacrificed in favour of industries that are more valuable to the exchequer, such as banking. When it comes to trade, the government is yet to understand fully what voters and business will bear. It must look beyond its internal fight.

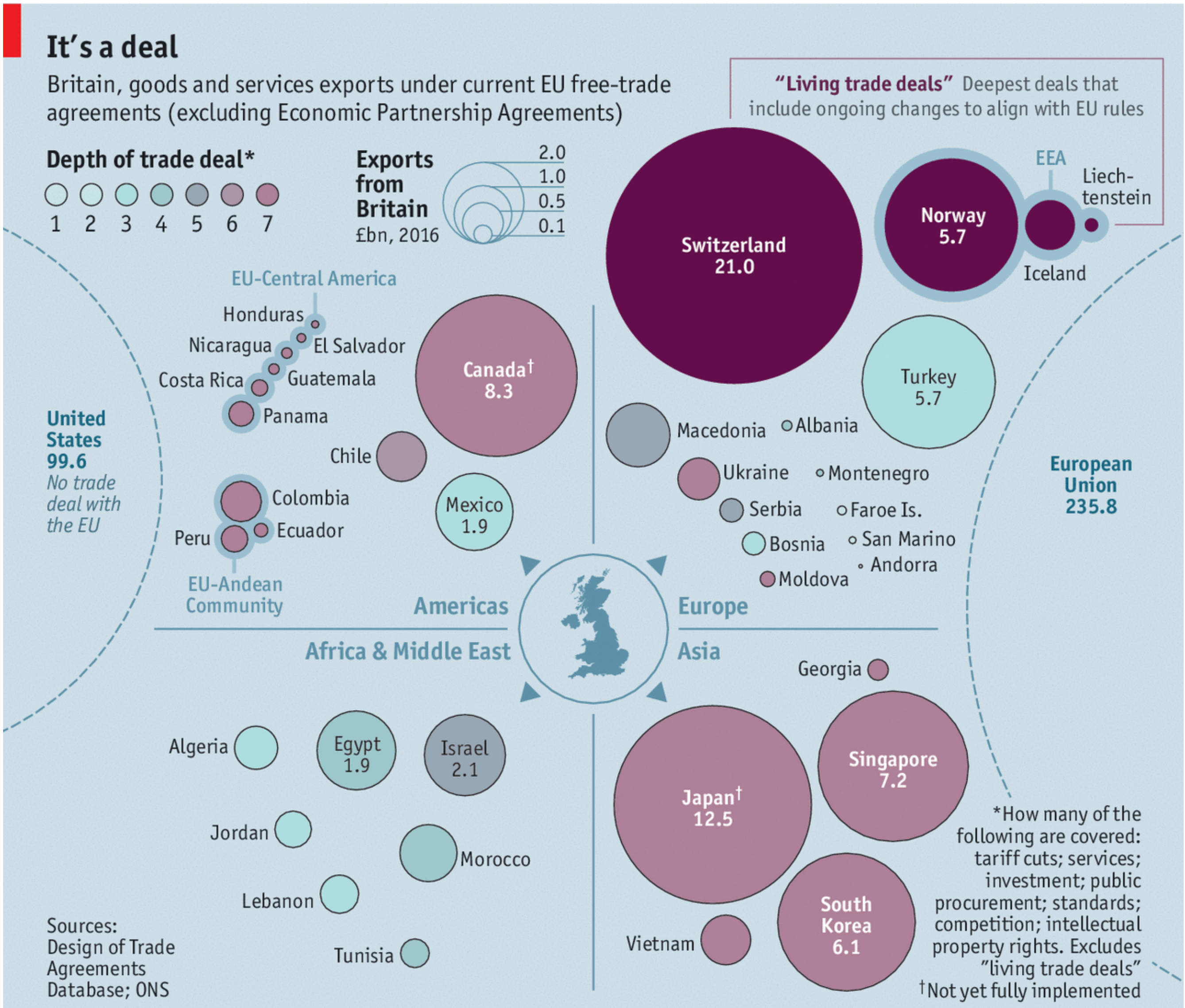
This article appeared in the Britain section of the print edition under the headline "Not so global Britain"

Britain's best trade deals

After Brexit, which trade deals should negotiators prioritise?

More urgent than signing new deals is protecting old ones

Print edition | Britain Feb 8th 2018



Economist.com

BREXITEERS dream of freedom from the European Union's shackles, imagining plucky British negotiators forging new trade deals with America, China and India. Reality dictates a different set of priorities. Britain already has around 40 free-trade agreements through its membership of the EU. None will survive Brexit automatically. Deal preservation lacks the glamour of deal creation, but it is a more urgent task.

Together, these deals cover countries that receive around 16% of Britain's exports and send 6% of its imports. The British government wants to keep all of them, and insists that doing so is no more than a technical exercise. But rolling over deals that together took more than 75 years to negotiate will not be easy. As the clock ticks, the government may be forced to prioritise.

Size matters, and after the EU, Britain's top five export partners with which it has trade deals are Switzerland, Japan, Canada, Singapore and South Korea (see chart). Agreements with economic tiddlers like Algeria, Georgia or Tunisia might be of political importance, but their lapsing would only squeeze a few British exporters.

Large trade flows could be the result of a deep, trade-boosting deal. Alternatively, they could arise from a shallow deal with a big country that would trade a lot with Britain even without it. Michael Gasiorek and Peter Holmes of the UK Trade Policy Observatory at Sussex University have calculated that only four of Norway's top 100 goods imported from Britain would face tariffs in the absence of a deal, compared with 67 of Turkey's. On that crude measure, the latter would seem more important.

However, researchers have constructed a broader measure of depth, as part of the Design of Trade Agreements project attached to the World Trade Institute, based in Bern. They tot up a maximum of seven key features of a trade deal, including whether it contains tariff cuts; services liberalisation; investment rules; recognition of standards; liberalisation of public procurement; rules on competition; and intellectual-property rights. Based on that metric, deeper deals with Canada, South Korea and Vietnam would be worse to lose than shallower ones such as that with Turkey, whose deal with the EU excludes services.

If British businesses are not exactly banging down the door to preserve these deals, says Allie Renison of the Institute of Directors, a business lobby group, it is partly because they think that the British government should prioritise its deal with the EU. Some sectors are concerned about particular deals beyond that. Carmakers, for example, rely on sending car parts to and from Turkey under the customs union, and saw their exports to South Korea more than triple in value in the five years after the deal was applied in 2011. Chemicals exporters, which account for a little under 10% of exports to the EU's partners, are keen to keep Britain's arrangements with Switzerland and South Korea.

No process will be as straightforward as simply replacing references to the EU with ones to Britain. The arrangements Britain wants to translate refer to European law and European content requirements. Negotiating partners will justifiably grumble if they find themselves having to adhere to two sets of standards, or if their car parts get hit with new tariffs because finished cars no longer contain enough content from the deal's co-signatories.

Britain's trade negotiators may choose to prioritise deals that are easier to agree. All will be difficult without knowing what Britain's final relationship with the EU will be. Depending on what that is, the trickiest set to inherit may be the ones with the EU's closest trading partners, like Switzerland and Norway. Their arrangements are "living deals", which secure access to many areas of the EU's market by sticking tightly to its rules. Keeping close trade ties with them will mean sticking close to the EU too.

For now, the British government seems confident that it will not have to choose. On January 24th Greg Hands, the international-trade minister, reassured the trade select committee that of the 70 nations with which the government had held discussions, none had any interest in erecting new trade barriers. But between now and March 2019, plenty could go wrong.

This article appeared in the Britain section of the print edition under the headline "Sorting the wheat from the chaff"

A rate rise without a rate rise

The Bank of England holds fire on interest rates, yet higher borrowing costs are on the way

The opening act in a year of tighter monetary policy

Print edition | Britain Feb 8th 2018

AFTER the Brexit vote of 2016 the Bank of England unveiled a package of emergency measures. That August the monetary-policy committee (MPC) launched extra quantitative easing and cut Bank Rate, the benchmark interest rate, from 0.5% to 0.25%. It also introduced the “term funding scheme” (TFS), which channels ultra-cheap credit to banks.

As *The Economist* went to press on February 8th the MPC was expected to keep interest rates on hold. Yet it was also expected to confirm the end of the TFS, possibly as soon as this month. Some analysts worry that the move will damage Britain’s shaky economic growth.

The TFS was designed to alleviate problems that can emerge when monetary policy is already very loose. Cutting to 0.25% risked squeezing the margin between what banks paid savers and what they charged borrowers. Banks are loth to offer savers a negative interest rate, lest their disgruntled customers pull out their money and stick it under the mattress. So it is difficult for them to pass on lower rates to borrowers and remain profitable.

Under the TFS, therefore, banks were able to borrow an amount equal to up to 5% of their existing loan books, at a rate near Bank Rate. Depending on how much extra lending was done, they were entitled to additional funds. Banks have drawn around £100bn ($140bn) from the scheme.

The introduction of the TFS coincided with falling lending rates. Since August 2016 the rate on the average new mortgage has dropped from 2.3% to 2%. Some say this is because of heightened competition in the banking industry, including from small “challenger” banks. Yet Mark Carney, the bank’s governor, has argued that the TFS has been “effective at ensuring that the low level of Bank Rate has been passed through to real-economy lending rates.” The IMF seems to be cautiously positive about the scheme’s impact.

Lately, however, the scheme may have run its course. Banks are less in need of help than they were in mid-2016. The trend has been towards lower usage of the TFS, having more than halved last month relative to a year earlier. George Buckley of Nomura, a bank, suggests that as banks’ creditworthiness has continued to improve in the past year, their funding costs in private markets have fallen relative to Bank Rate.

Perhaps more important is that the MPC has begun tightening monetary policy for the first time in a decade. In November it raised rates from 0.25% to 0.5%. With rates back to their pre-referendum level, there is less of a squeeze on banks’ margins.

Still, the end of the TFS worries some, especially as Britain's economy remains fragile. Some banks have drawn heavily on the scheme to fund their lending growth. Samuel Tombs of Pantheon Macroeconomics, a consultancy, sees average rates on new mortgages jumping by 0.25 percentage points as a consequence of its withdrawal. And with inflation still above the bank's 2% target, two or three more rate rises are likely to follow soon. The end of the TFS is the opening act in a year of tighter monetary policy.

This article appeared in the Britain section of the print edition under the headline "A rate rise without a rate rise"

Signs of life

Britain's long-suffering makers are enjoying a once-in-a-generation boom

Bosses in manufacturing firms seem not to be too worried about Brexit

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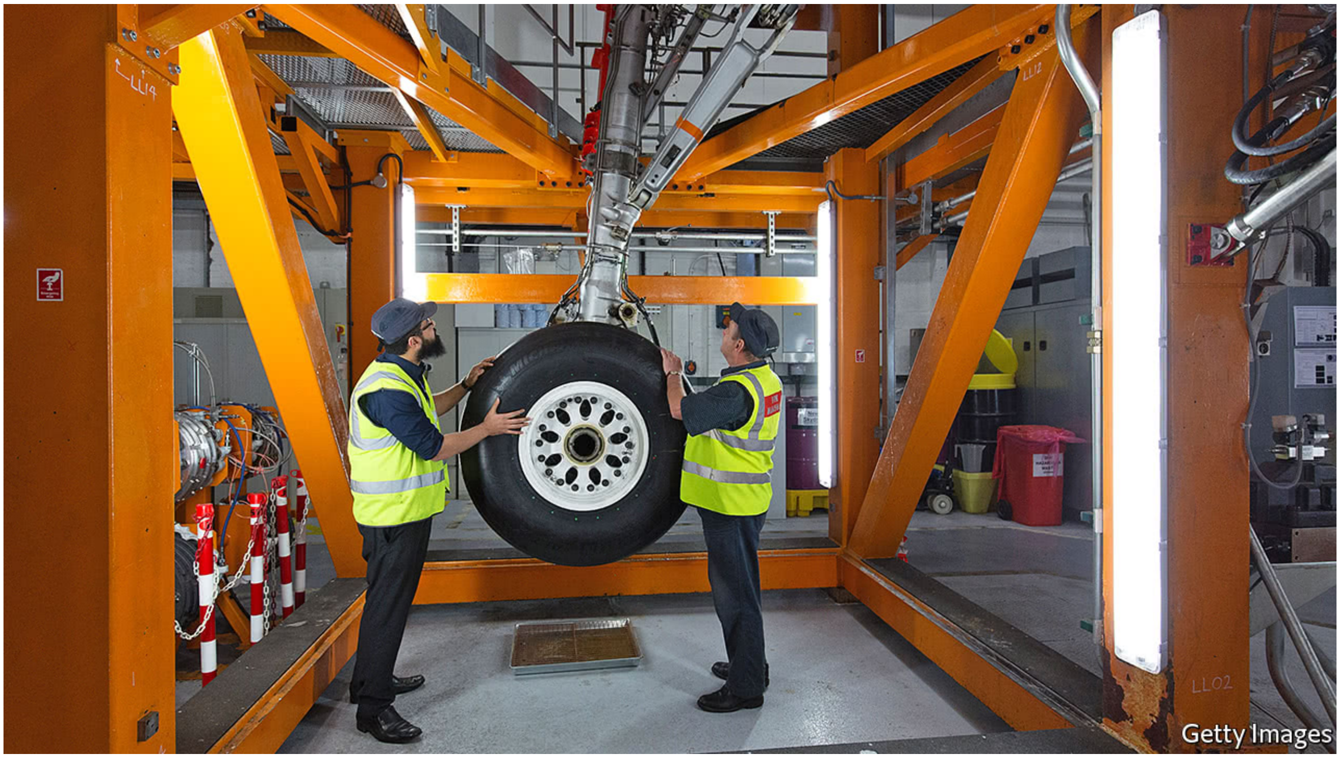


FOR at least half a century, politicians of all stripes have talked of the need for Britain's economy to "rebalance" towards the manufacturing sector. Relying less on boom-and-bust financial services will put the economy on a surer footing, the thinking goes. More important, though, is the hope that extra manufacturing jobs will benefit Britons who have been left behind by globalisation. For years rebalancing has been an elusive goal. Yet recently the makers have been on the march.

Britain's manufacturing sector was once so big that the country was known as "the workshop of the world". Mid-Victorian Britain accounted for over 40% of the entire world's manufacturing exports. In the past century, however, the sector's output has steadily fallen as a share of the overall economy. Employment in industry has tumbled, especially in the past 20 years. Competition from Chinese imports has destroyed jobs in once-thriving parts of the country such as Blackburn.

Lately, however, things have been looking up again. Manufacturers large and small are bullish. Boeing, an American aerospace company, recently broke ground on a new facility in Sheffield, to be its first in Europe. Alpkit is an outdoor-clothing company which makes 15-20% of its wares in-house. In November it opened a new factory in Nottingham, customising boulder pads, backpacks and bags for its discerning customers.

Not everything is going well. British car production fell by 3% in 2017. But the stories of Boeing and Alpkit hint at a wider positive trend. In the fourth quarter of 2017 manufacturing output rose by 1.3%, the second strong quarter in a row. (The dominant services sector is growing less than half as fast.) Exclude data around the financial crisis of 2008-09, which see-saw, and manufacturing is seeing its strongest growth since the late 1990s. Employment is rising. Manufacturing's strength helped push GDP growth in the fourth quarter to 0.5%, above expectations.

What explains the turnaround? The coalition government of 2010-15 was keen on getting universities and manufacturers to work closely together. Those efforts are paying off. The Boeing facility will take on 19 apprentices, who are being trained at the Advanced Manufacturing Research Centre in Rotherham, a joint initiative between the company and Sheffield University.

Yet external factors play a bigger role. Manufacturing is an export-intensive business. The world economy is enjoying its first synchronised upswing since 2010. The pound's fall since the Brexit referendum of 2016 is an added bonus, making firms' wares cheaper in foreign markets. Alpkit's exports, to everywhere from Australia to America, are growing at 50% a year, says David Hanney, its chief executive.

Politicians hope that the revival in manufacturing will benefit Britain's "left behind". But a small currency fall does not suddenly make labour-intensive, unskilled work competitive again. Manufacturers have continued a long-standing trend of employing relatively fewer workers with low or no qualifications. Instead it is firms that employ skilled workers that are on the up. The share of manufacturing workers with postgraduate degrees rose from 15% to 18% in the past year alone.

Rebalancing may continue. Despite Brexit, bosses are investing heavily: in 2016 purchases of industrial robots rose for the first time in five years. Surveys suggest that firms' order books are full up. But if politicians believe that the spoils will be shared equally, they will be disappointed.

This article appeared in the Britain section of the print edition under the headline "Signs of life"

Baby steps

Growing numbers of Northern Irish children learn alongside those of other faiths

But progress is slow

Print edition | Britain Feb 8th 2018

Glengormley Integrated Primary School

NIGEL ARNOLD'S breakthrough came at a Christmas party. It was 2008 and he was the head teacher of a newly integrated primary school in Glengormley, a village just north of Belfast. But he was struggling to attract Catholic children to the formerly Protestant school. As he looked around the gathering held by his Polish in-laws he was struck by the tightness of the immigrant community. Then came the realisation: if he could recruit a few Polish Catholic children, more would follow. "It was a Field of Dreams moment," he laughs.

Today around one-third of the school's pupils are Catholic, which makes it unusual in Northern Ireland. Two decades after the Good Friday Agreement brought peace and promised "to facilitate and encourage integrated education", schools are still divided by religion. It "is one of the pillars that holds up our divided society", laments Koulla Yiasouma, the Northern Ireland Commissioner for Children and Young People.

Yet although the current system shows few signs of weakness, increasing numbers of children are now being educated alongside peers from other religions, both at integrated schools and in programmes run between Catholic and Protestant ones. In 2001, 5.6% of Northern Irish post-primary pupils attended an integrated school. By 2007, 7.2% did. Now 8.6% do. There has been similar growth in primary schools.

For many children, though, an integrated school is not an option. After a group of parents opened the first one in 1981, their numbers grew fast. In 1989 the government amended a law in order to make it easier for parents to push existing schools to transform. But more recently growth has slowed. Falling pupil numbers mean there is little need for new schools of any kind, and parents have found it difficult to convince schools that they should transform. Today just 65 of Northern Ireland's 1,153 schools are integrated.

That means they cannot respond to parental demand, says Ms Yiasouma. Some 81% of those polled by Ipsos MORI in 2011 said they supported mixed education. Integrated schools are required to ensure that at least 30% of pupils come from the minority community in their local area (although more than half of them fail to meet the target, partly because of the demographics of the country). Each child can celebrate their own faith, while the schools retain a general Christian ethos.

Beyond that, they take different approaches. Some schools push their pupils to mix; others think it is enough to bring them together under one roof. Either way, it is impossible to avoid awkward topics altogether. At Drumragh Integrated College in Omagh the teachers "don't promote this false ideology that everyone is the same", says Nigel Frith, the school's head. Instead, they explain differences clearly and openly, taking particular care with history and religion classes. The results indicate the effort is worthwhile. Studies suggest pupils are more likely to have moderate political views and positive opinions about the other community.

But, as politics has become more sectarian over the past decade or so, the push for schools to integrate has slackened. Attention has instead turned to “shared education”, which ranges from schools sharing classes to establishing a joint campus. The first pilot partnerships began only in 2007, but they have spread fast. A government-run programme now involves more than 300 schools. The approach has the advantage, for politicians, of not requiring fundamental reform of institutions, notes Alan Smith of Ulster University.

That upsets ardent backers of integrated education. “We’re incredibly frustrated that we have only captured 8% of children,” says Mr Frith. The Integrated Education Fund, a charity set up to promote integrated education, has launched a campaign to raise awareness among parents that they can vote for their child’s school to become integrated. Nevertheless, most backers welcome the fact that growing numbers of children are being educated alongside peers from different religious backgrounds. At a time of political polarisation, it presents a glimmer of hope for the future.

This article appeared in the Britain section of the print edition under the headline ”Baby steps”

The John Worboys case prompts calls to reform the parole system

Let daylight in on justice

The secrecy of parole-board decisions comes under attack

Print edition | Britain Feb 8th 2018

FEW parole-board decisions have been as closely scrutinised as the proposed release of John Worboys in January. The announcement sparked fury. MPs demanded an explanation. David Gauke, the justice secretary, considered an unprecedented legal challenge but settled for a review of the whole system of how prisoners are released.

On February 7th a high-court judge duly allowed a judicial review of the decision, at the request of two victims. In 2009 Mr Worboys, a taxi driver, was jailed for sexually assaulting 12 women. He is believed to have attacked about 90 more. It is unclear whether he will be freed, but the case may lead to a reform of the parole system.

One of the main concerns of Mr Gauke's inquiry, to be conducted by the House of Commons justice select committee, is transparency. The parole board acts like a court, deciding whether to release convicts, many of them on life or open-ended sentences. The rulings are based on testimonies from experts, like psychotherapists. Many involve oral hearings held by parole-board members. Public safety is paramount—and their record is impressive. In 2016, 3,800 convicts were freed, but those released committed only 22 serious offences.

However, the thinking behind the board's decisions is not made public. That leaves victims in the dark and undermines public confidence in the system, as Mr Worboys's case shows. The victims seeking to block his release do not know the parole board's reasons. Many, including Nick Hardwick, the parole-board chair, advocate a more open system. In Canada anyone can attend a hearing; in New Zealand the gist of decisions is published.

Yet too much transparency poses problems of its own. More media attention on prisoners' cases may force victims to relive past horrors. Parole-board decisions are about assessing the risk of reoffending, says Laura Janes of the Howard League, a penal-reform charity. The judgments can seem counter-intuitive. For instance, research shows that remorse is not an accurate indicator of whether a prisoner will reoffend.

Convicts may also be reluctant to talk openly at hearings. And, once released, their safety may be harder to ensure. As Mr Hardwick told the justice select committee this week, reforms ought to be radical but carefully thought through.

This article appeared in the Britain section of the print edition under the headline "Time for reform"

Running out of track

Virgin East Coast is close to financial collapse

A franchise's financial woes raises questions over rail privatisation

Print edition | Britain Feb 8th 2018

THE East Coast mainline is Britain's most scenic long-distance railway. Connecting London to Edinburgh and the Scottish highlands, the view of Durham's medieval castle from the line's tall viaduct running through the city is one of Europe's best. The business of running the line's finances is less pretty, however.

On February 5th Chris Grayling, the transport secretary, announced that Virgin East Coast, the franchisee that operates trains on the line for the government, is near collapse. Passenger numbers and revenues have undershot forecasts since the eight-year contract began in 2015. As a result, the firm is running out of money. Virgin East Coast is not the only franchisee that has faced financial ruin running the line. Previous operators forfeited their contracts in 2007 and 2009 after revenues failed to meet forecasts. But this time the crisis comes at an awkward moment for the government. Rising rail fares and poor service quality on some lines have dented public support for rail privatisation. Some 60% of Britons now support a return to state ownership, according to a poll published last month by Sky, a broadcaster. The Labour Party will use any sign of a bail-out as ammunition for its campaign to renationalise the railways.

In the past, the state has often helped struggling franchisees, allowing them to renegotiate terms midway through their contracts. But Andrew Adonis, a former chairman of the National Infrastructure Commission, claims that this encourages other operators to seek similar treatment, blowing a hole in the government's rail budget. When National Express East Coast defaulted when he was a Labour transport secretary in 2009, he renationalised the line. He says that Virgin East Coast's franchise should also be taken back by the government and its owners, Stagecoach and Virgin Group, banned from future bids.

The government is not keen on that. There is already a shortage of competition for rail franchises. The two awarded last year only attracted two bidders each. Instead it wants to push Stagecoach and Virgin hard enough to show others it will not reward failure, without pushing them out of the industry. The two firms will lose £165m ($230m) in parent-company guarantees for ending the contract. Stagecoach may lose another £94m in performance payments and assets in the subsidiary.

Neither is the government convinced about the benefits of state ownership. Since the East Coast mainline was reprivatised in 2015, it has produced 30% more in payments to the government than its nationalised predecessor did. Returning it to state ownership would have significant startup costs. Mr Grayling has not ruled this out, but he hopes that a new not-for-profit contract with Virgin, whereby the company could keep some of the assets that it might forfeit if it loses the present deal, could offer taxpayers better value.

Last year Virgin East Coast was one of only two franchisees that paid more money to the government than it received. The problem is that the way franchises are awarded incentivises overbidding and the subsequent collapse of the contracts. Fiddly changes to this process, such as using less optimistic passenger forecasts, could help. But given the mind-boggling complexity of these deals, simple solutions such as nationalisation have captured the public mood.

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

Alms and the imam

Charities eye a Muslim wealth tax

Zakat could be a hefty new source of charitable funding

Print edition | Britain Feb 8th 2018

Alamy

HADEEL MAHMOOD used to be rich. Back in Iraq, she was a pharmacist, her husband was a businessman and they sent their children to private school. But when the family claimed asylum in Nottingham last year after falling out with the Iraqi government, they burned through their savings in three months. Her husband cannot find work. "We lost everything," she says. Now a charity has agreed to pay for Dr Mahmood to convert her qualifications so she can get a job here. She is thrilled.

The money comes from *zakat*, a wealth tax which requires observant Muslims to give the poor 2.5% of the total value of their financial assets each year. In some Muslim countries, it is collected by the state. British Muslims give it to mosques and charities, and to family members overseas. Yet clerics and charities have begun to argue about how it should be spent, and non-Muslim charities are eyeing up the cash for the first time. Experts reckon it could run to hundreds of millions of pounds; seven of the biggest Muslim charities in Britain collected just over £20m ($28m) in *zakat* in 2017.

Dr Mahmood's training will be paid for by the National Zakat Foundation (NZF), which was founded in 2011 to encourage British Muslims to spend their *zakat* at home. Iqbal Nasim, head of the NZF, reckons increasing domestic giving would help British Muslims tackle poverty. Mr Nasim claims it could also "rebrand Islam", by using the scale of its charity to combat negative perceptions of the faith. A survey by ICM, a pollster, in 2012 found that British Muslims give an average of £371 each year to charity, compared with £202 for Protestants and £116 for atheists. Mr Nasim reckons that while recent immigrants are keener to send their cash to their native countries, their children and grandchildren will want to give locally.

Others argue that poverty is graver elsewhere. Seven of the ten countries that received the most aid in 2016 were majority-Muslim. Saleh Saeed, a Muslim who runs the Disasters Emergency Committee, a co-ordination group for charity appeals, prefers to give his *zakat* abroad because he wants it to go to "the very poorest of the poor".

Muslims also disagree about who should collect it. Non-Muslim charities have begun to solicit *zakat* to top up aid budgets. Oxfam is passing the begging bowl to rich British Muslims, Save the Children has started holding collections at mosques and Water Aid pays for a Google advert for the search term "*zakat*".

But the newcomers will have to tread carefully. Many Muslims believe *zakat* should only be given to other Muslims, which risks compromising the humanitarian commitment to impartiality. Most thorny is the risk of offending Muslims who see the practice as a religious duty, not a charitable donation. Duncan Green of Oxfam says this is one reason for the charity's "gently gently" approach. "The last thing you want is to be seen to be jumping on the bandwagon."

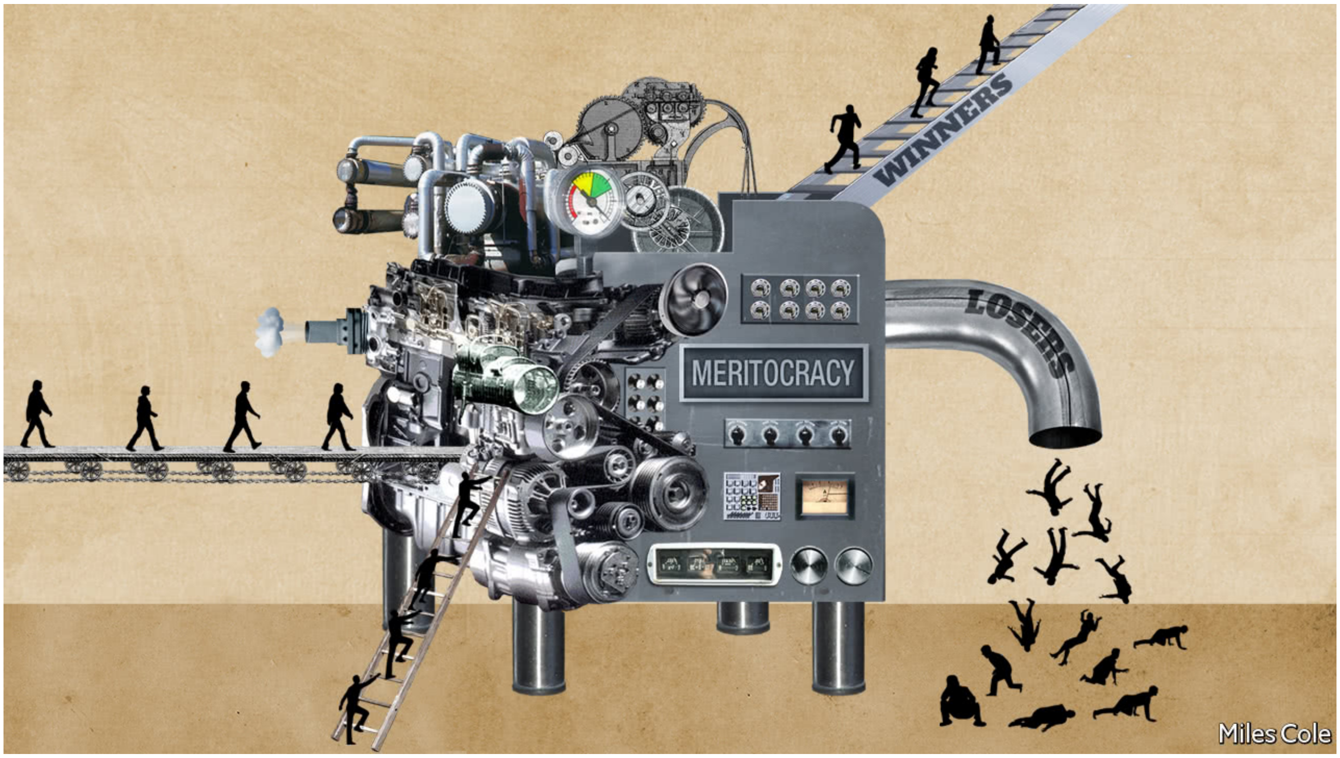
This article appeared in the Britain section of the print edition under the headline "Alms and the imam"

Bagehot

The merits of revisiting Michael Young

A book published 60 years ago predicted most of the tensions tearing contemporary Britain apart

Print edition | Britain Feb 10th 2018



AFTER much searching, Bagehot has found a book that at last explains what is going on in British politics. This wonderful volume not only reveals the deeper reasons for all the bizarre convulsions. It also explains why things are not likely to get better any time soon. The book is Michael Young's "The Rise of the Meritocracy"—and it was published 60 years ago this year.

Young argued that the most significant fact of modern society is not the rise of democracy, or indeed capitalism, but the rise of the meritocracy, a term he invented. In a knowledge society the most important influence on your life-chances is not your relationship with the means of production but your relationship with the machinery of educational and occupational selection. This is because such machinery determines not just how much you earn but also your sense of self-worth. For Young, the greatest milestones in recent British history were not the Great Reform Act of 1832 or the granting of votes to all women in 1928. They were the 1854 Northcote-Trevelyan report, which opened civil-service jobs to competitive examinations, and the Education Act of 1944, which decreed that children should be educated according to their "age, ability and aptitude".

Young was a Labour Party grandee whose extraordinary CV included co-writing his party's 1945 election manifesto and co-founding the Open University. But he was only half-successful when it came to launching the debate about "meritocracy". Young used the term pejoratively on the grounds that meritocracy was dividing society into two polarised groups: exam-passers, who would become intolerably smug because they knew that they were the authors of their success, and exam-flunkers, who would become dangerously embittered because they had nobody to blame for their failure but themselves. The book is as odd as it is brilliant. It purports to be a government report written by a sociologist in 2033. It is also a product of its time. Young was preoccupied by the 11-plus exam which divided British state-school pupils on the basis of IQ tests. Today the 11-plus exam survives only in pockets of the country. Young believed that IQ would supplant other determinants of life chances like wealth.

Today, the top 10% of households own 44% of the wealth. That said, however, it is impossible to look at the country without seeing Young's dystopian meritocracy everywhere. Parents agonise about getting their children into the right schools and universities. The public sector is run by manager-despots who treat their workers as "human resources". The number of MPs with working-class origins has shrunk to about 30. The penalty for failing exams is rising inexorably. The proportion of working-age men without qualifications who are "not active in the labour force" is more than 40% today compared with 4% two decades ago.

Some of the biggest changes in recent decades have made the meritocracy even more intolerable than it was in the glory days of the 11-plus. One is the marriage of merit and money. The plutocracy has learned the importance of merit: British public schools have turned themselves into exam factories and the children of oligarchs study for MBAs. At the same time the meritocracy has acquired a voracious appetite for money. The cleverest computer scientists dream of IPOs, and senior politicians and civil servants cash in when they retire with private-sector jobs. A second is supersized smugness. Today's meritocrats are not only smug because they think they are intellectually superior. They are smug because they also think that they are morally superior, convinced that people who don't share their cosmopolitan values are simple-minded bigots. The third is incompetence. The only reason people tolerate the rule of swots is that they get results. But what if they give you the invasion of Iraq and the financial crisis?

The brains went to their heads

It is also impossible to read Young's book without being struck by how prescient it is. This imagined revolution begins in the north as people become sick of the arrogance of London and the south. The revolution is led by a "dissident minority" from the elite who, by striking up an alliance with the lower orders, rouse them from their traditional docility. The tension between the meritocrats and the masses that Young described is driving almost all the most important events in British politics. It drove Brexit: 75% of those with no educational qualifications voted to leave while a similar proportion of those with university degrees voted to stay. It is driving Corbynism, which is, among other things, a protest against identikit politicians who promised to turn Britain into a business-friendly technocracy and ended up with stagnant wages. Older Brexiteers bristle at the cosmopolitan elites who sneer at traditional values. Young Corbynistas are frustrated by the logic of meritocracy. They cannot join the knowledge economy unless they go to university and move to a big city, but universities cost money and big cities are expensive.

The tension also lies behind the growing culture wars. The most effective way to rile the meritocrats is to attack their faith in expertise: Lord Turnbull, a former Cabinet secretary, has said that Brexiteers' willingness to question current Treasury forecasts of the impact of Brexit was reminiscent of pre-war Nazi Germany. The easiest way to rile the populists is to imply that their attachment to symbols of national identity, such as blue passports or the Cross of St George, is a sign of low intelligence.

The conflict between the meritocracy and the masses also explains the most depressing fact about modern politics: why voting intentions over Brexit remain so fixed despite mounting evidence that the Brexit negotiations are a shambles and that leaving the European Union will damage the economy. Changing your mind doesn't just mean admitting that you're wrong. It means admitting that the other side was right. The likelihood that the losers in the meritocratic race are going to give the other side yet another reason to feel smug is vanishingly small.

This article appeared in the Britain section of the print edition under the headline "Meritocracy and its discontents"

Doping in sport
Whatever it takes

Winning at any price

The use of banned drugs is rife in sport

No one seems to want to do much about it

Print edition | International Feb 10th 2018

SKIERS, skaters, ice hockey players and other snow-loving athletes have travelled to Pyeongchang for this year's Winter Olympics to vie for supremacy. But the South Korean city is also the venue for another contest—one between the bodies responsible for anti-doping rules.

Last year, after tip-offs and suspicious test results in previous events, the International Olympic Committee (IOC) banned 43 Russian athletes from future Olympic competitions, stripping ten of them of medals they had won in the 2014 Winter Games in Sochi. In December, after an investigation into drug-screening records leaked by the former head of the Moscow Anti-Doping Laboratory, it accused Russia of state-sponsored doping. It barred the country from competing in Pyeongchang, condemning the "systematic manipulation of the anti-doping rules and system".

That conspiracy's existence could hardly have come as a surprise to the IOC. The World Anti-Doping Agency (WADA), set up in 1999 to standardise rules across sports and regions, had already investigated Russia on suspicion of widespread doping. It had called for Russia to be barred from the Summer Olympics in Rio de Janeiro in 2016. But instead, the IOC disqualified a third of the team and allowed the rest to compete under the Russian flag.

This time round, no sooner had the IOC decided to bar Russia than it partially backtracked, inviting 169 of the country's athletes to Pyeongchang as "Olympic athletes from Russia". Then, a week before the games, a third international sporting body stepped into the fray. The Court of Arbitration for Sport, to which some Russian athletes had appealed, overturned bans on 28 and shortened penalties for 11 others. The IOC refused to accept its decision. As the opening ceremony approached, appeals and counter-appeals continued.

Banned practice

The row is symptomatic of a wider problem. As prize money and sponsorship deals get bigger, so do the incentives for coaches and athletes to find ingenious ways to cheat. But the agencies charged with stopping doping lack independence and money. The rules they are supposed to enforce are riddled with loopholes. The result is a system that looks tough on doping, without uncovering much of it.

There would be a lot to find. Though Russia's institutionalised doping is probably an outlier, individual doping is rife throughout elite sport. In 2015, the most recent year for which data are available, WADA found nearly 2,000 violations, across 85 sports or disciplines and 122 nationalities. Athletics, cross-country skiing, cycling and weightlifting have all suffered repeated scandals. Sports less dependent on simple brawn and endurance, such as baseball, cricket and football, were once thought to be at little risk from doping; no longer. Even animals are at it. Last year four dogs who ran in the Iditarod, an annual long-distance sled-dog race in Alaska, tested positive for a banned opioid painkiller.

The number of banned performance-enhancers, now around 300, rises whenever another is discovered to be in use. They variously lessen pain, increase alertness, speed up recovery and encourage the production of muscle mass or oxygen-carrying red blood cells. Anabolic steroids, synthetic versions of testosterone that were the mainstay of state doping programmes in the Soviet bloc, remain popular. A newer development is blood doping—transfusing blood or taking a synthetic version of erythropoietin (EPO), a hormone produced in the kidneys, to increase levels of red blood cells. Last week a database of more than 10,000 blood tests from 2,000 winter-sports athletes was leaked to the *Sunday Times*, a British newspaper, and ARD, a German broadcaster. Hundreds of skiers' tests suggested they had used EPO. Some had blood so thick that they should have been in hospital.

Much of the doper's skill lies in judging quantities and timing. The "Duchess Cocktail", a mix of steroids created in Russia, is absorbed by swilling it in the mouth without swallowing. That shortens the period during which it can be detected by a blood or urine test. For some drugs micro-dosing—taking an amount too small to detect—can still give an edge. Or doping may happen before an athlete's career starts in earnest, and thus before she falls under anti-doping rules. A study in 2013 by Kristian Gundersen of the University of Oslo found that the performance-enhancing benefits of some drugs can last a lifetime.

The use of diuretics, which increase urination and can mask performance-enhancers as a side-effect, is becoming more sophisticated. The development of "designer drugs"—compounds with similar effects to known performance-enhancers but undetectable in testing—means that the authorities are constantly running to stay still. Some athletes may already be using experimental gene therapies, says Paul Dimeo, one of the authors of a forthcoming book, "The Anti-Doping Crisis in Sport".

On top of all that, anti-doping rules and enforcement are easy to get around. Exemptions for medical purposes are believed to be widely abused. Some athletes claim to be severely asthmatic, for example, to get permission to inject corticosteroids. Athletes can miss three tests in a year before facing suspension. Sometimes the testers seem incompetent or overwhelmed. On some days during the 2016 Summer Olympics in Rio de Janeiro, almost half of all drugs tests were aborted because they could not find the athletes.

Medal peddling

Occasionally, athletes may not know they have doped. Last July ten blind Russian powerlifters were banned for using methandienone, a steroid, although WADA accepted they might have been given it without their knowledge. But most know full well what they are doing, says Olivier Niggli, WADA's director-general.

Not a tenth are ever caught, estimates Don Catlin, an anti-doping scientist. A study in 2014 estimated that 14-39% of elite athletes were doping intentionally. But only 1-2% ever test positive. At the Athletics World Championships in 2011, 0.5% of competitors failed tests. But in an anonymous survey by WADA, only recently published, 30% admitted to using illegal drugs in the year before the competition.

The failings of the drug-testing system mean whistleblowers are particularly valuable. But they are taking a big risk. Two former employees of Russia's national anti-doping agency have died in suspicious circumstances, and two more are in hiding in America. The former director of the Jamaican Anti-Doping Commission, who exposed weaknesses in the country's anti-doping agency before the 2012 Olympics, said she was called a "traitor" and had to move house after receiving threats.

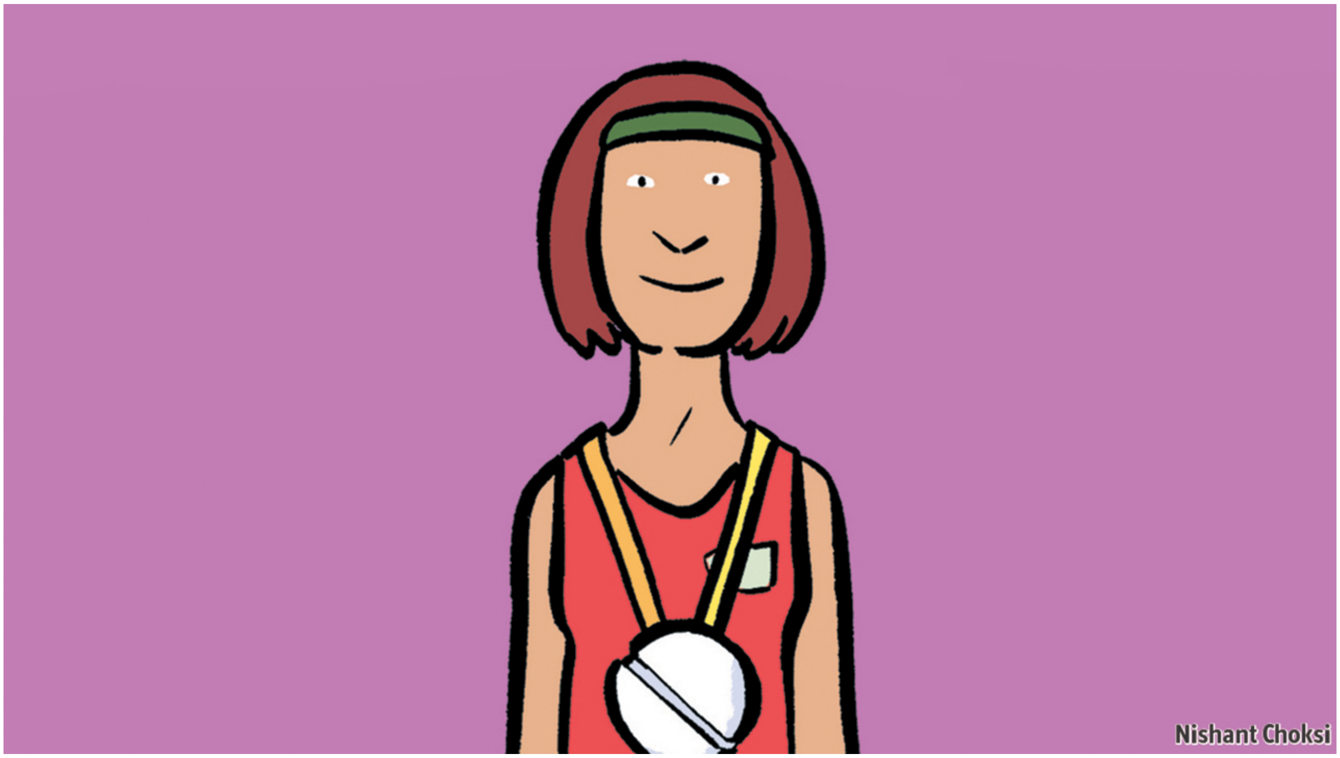
Given the many difficulties, anti-doping authorities need formidable resources. They do not receive them. Their total annual budget, worldwide, is around $300m. For comparison, the total income of the world's sporting federations and leagues is more than $50bn a year. WADA's budget in 2016 was only $28.3m. "The answer is no, clearly no," says Mr Niggli, when asked if WADA has enough cash.

WADA does few tests itself, instead co-ordinating national and regional anti-doping agencies, and international federations such as the IOC and FIFA, football's governing body. Their standards vary from excellent to hopelessly compromised. WADA's investigation found that Russia's anti-doping authority colluded with government agencies—including the intelligence services—to "lose" dodgy results and substitute fake blood and urine samples for real, incriminating ones. It worked out how to open "tamper-proof" sample bottles with the aid of dentistry tools.

Even when governments or sports authorities are not corrupt, they may not be keen to uncover wrongdoing, says Mr Niggli. "There's sometimes a lack of appetite for scandals when it comes to their own sport or their own country."

WADA's governance structure means that it struggles to act independently. Half of its funding comes from national governments, and half from the IOC. Its main committees are split in the same way. Since two-thirds majorities are required for decisions such as banning a country from events, either the IOC or a group of like-minded countries can stop it from setting a tough line, whether out of national pride, fear of putting off fans or sponsors—or simply the wish for a quiet life.

With doping so common and so rarely punished, athletes face an unappealing choice. They may not want to dope, but knowing that many of their competitors do, they may feel that they must, too. Tim Montgomery, an American sprinter who broke the 100-metre world record in 2002 in a time that was later ruled void because he had doped, described performance-enhancing drugs as necessary "to secure a real contract" and "worth the risk".



That risk can be large. Between 1987 and 1990, 20 Belgian and Dutch cyclists suspected of using EPO died of heart attacks. Eight more died of heart attacks across Europe in 2003-04. A study published in 2007 of 52 East German athletes who had been given anabolic steroids in the 1970s and 1980s concluded they had suffered serious health problems as a result. A third reported considering or attempting suicide. The women suffered miscarriages and stillbirths at a rate 32 times that of the national population. Of their 69 surviving children, seven have physical deformities and four are mentally handicapped.

Cheat's charter

Some hope that sponsors' desire to stay clear of tainted names, and fans' desire to see clean competition, could act as a check on doping. And indeed a sport may become less popular after a scandal—at least if broadcasters take fright. "Doping can have a large negative impact on coverage arrangements, and hence viewing figures," says Kevin Alavy of Futures Sport + Entertainment, a consultancy. German free-to-air television stations stopped covering the scandal-hit Tour de France for several years, in part because of allegations against Patrik Sinkewitz, a German cyclist.

Yet when fans do learn about doping, they do not always seem to care much. One study found that a publicised doping violation in baseball led to a brief fall-off in attendance, but had no impact a fortnight later. When doping is common but has not yet come to light, it can make a sport more exciting and thus more profitable. In 1998 Mark McGwire broke baseball's home-run record, boosting interest in the sport. He later admitted he had been on steroids.

The risk of sponsors or broadcasters pulling out if doping is revealed can even add an incentive to those with a financial interest in a sporting event to turn a blind eye. "Potentially you have a conflict of interest when policing sport and trying to get sponsors at the same time," says Mr Niggli. Dick Pound, a former president of WADA, puts it more bluntly. Doping in sport, he says, is an "inconvenient truth that is denied, ignored, tolerated or encouraged".

Some pin their hopes on "athlete biological passports", which were launched in 2008. These record physiological trends, establishing baselines for an athlete against which suspicious changes can be spotted, even if testing picks up no banned substance. They could be far more effective than urine tests, says Andrea Petroczi of Kingston University in London.

But biological passports are expensive. So far they are barely used outside cycling, which has suffered a series of scandals. Only 28,000 passport samples were analysed across all sports in 2016. As long as the risks of being caught are low and the potential rewards of doping high, athletes who stay clean risk being outclassed.

Correction (February 16th 2018): *A previous version of this article used the acronym "EPA" to refer to the synthetic hormone erythropoietin. The correct acronym is "EPO". Sorry.*

This article appeared in the International section of the print edition under the headline "Whatever it takes"

Defence correspondent

Print edition | International Feb 8th 2018

We are looking for a senior writer to cover global defence and security. Applicants should send a CV and an original 600-word article, suitable for publication in *The Economist*, to defencejob@economist.com by March 5th. No journalistic experience is required, but a knowledge of military and geopolitical affairs is essential.

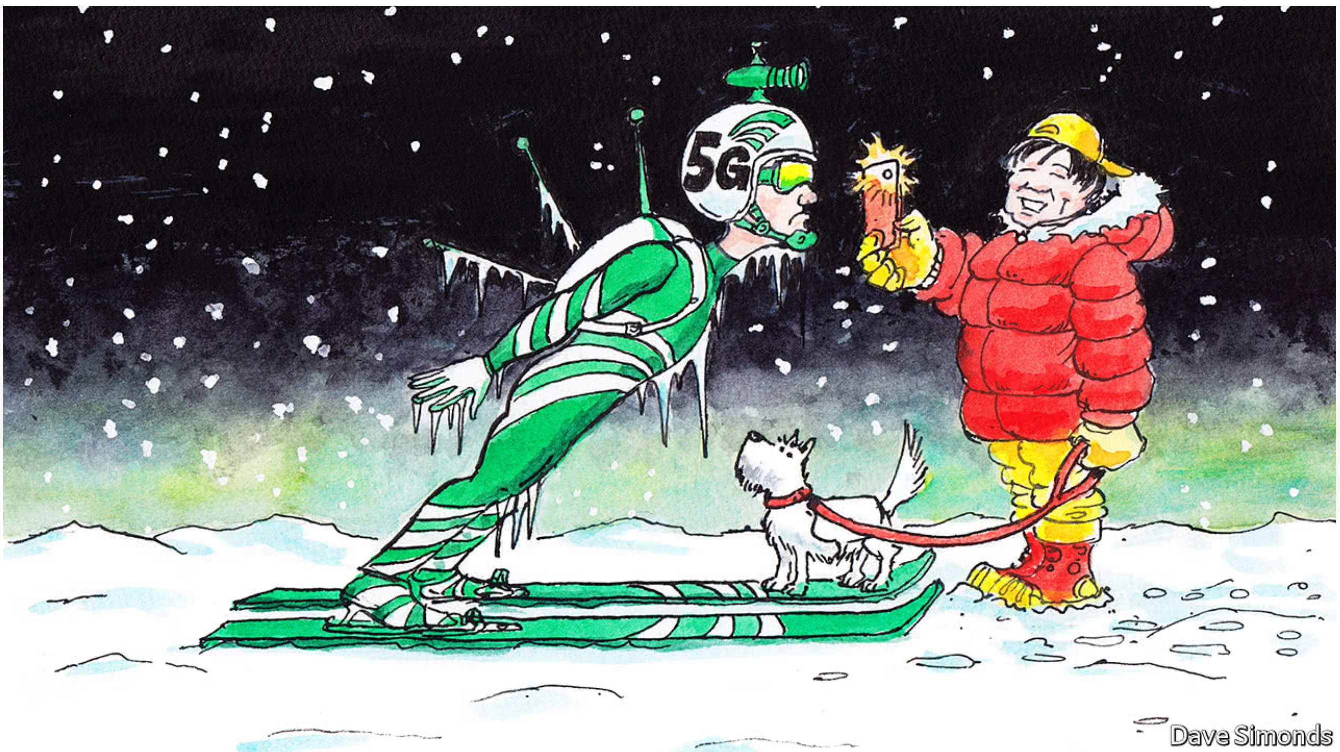
Mobile telecoms
The forces of 5G

The forces of 5G

The next generation of wireless technology is ready for take-off

Whizzy 5G tech has everything going for it barring a strong business case

Print edition | Business Feb 8th 2018



NORTH KOREAN athletes will not be the only unusual participants at the winter Olympics in Pyeongchang in South Korea, which begin on February 9th. Anyone can take part, at least virtually. Many contestants will be watched by 360-degree video cameras, able to stream footage via a wireless network. At certain venues around the country sports fans will be able to don virtual-reality, head-mounted displays to get right into the action. Flying alongside a ski jumper, for instance, will offer an adrenalin rush without any risk of a hard landing.

These virtual experiences will be offered by KT, South Korea's largest telecoms firm. They are meant to showcase the latest generation of wireless technology, known as "5G". But just as ski jumpers never know exactly how far they will leap after leaving the ramp, it is unclear where 5G will land.

On paper, the new technology should go far. The International Telecommunication Union (ITU), a UN body which helps develop technical standards, has agreed on an ambitious set of requirements for the technology. It should offer download speeds of at least 20 gigabits per second, response times or "latency" of less than 1 millisecond and the ability to connect at least 1m devices in one square kilometre. So 5G networks are supposed to be able to transfer a full-length, high-resolution film in two seconds, respond to requests in less than a hundredth of the time it takes to blink an eye and effortlessly serve cities that are densely packed with connected humans and devices.

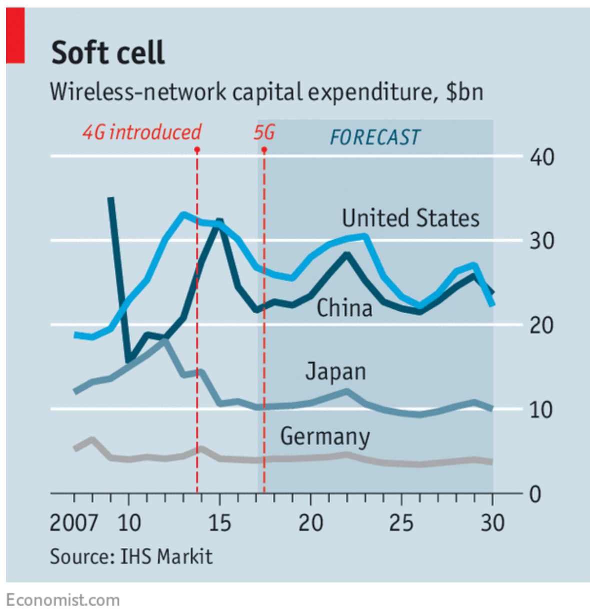
When 5G is properly rolled out, wireless bandwidth may seem infinite, says Alex Choi, until recently the chief technology officer of SK Telecom, South Korea's second biggest carrier, who is now at Deutsche Telekom, a German operator. That will enable all kinds of data-ravenous services, which SK is testing at its "5G Playground" near Seoul. One such is a virtual-reality offering that allows people to beam themselves into shared digital spaces such as a virtual sports stadium.

Another piece of 5G ingenuity is on view at Ericsson, a maker of network equipment. In what was once a factory building next to its headquarters near Stockholm, it is demonstrating "network slicing", a technique to create bespoke networks. The antennae on display are able to create separate wireless networks, to serve anything from smartphones and wireless sensors to industrial robots and self-driving cars. "Each set of devices will get exactly the connectivity they need," says Nishant Batra, who runs wireless-network products at the Swedish firm.

This versatility, along with the ITU requirements, could make 5G the connective tissue for the internet of things (IoT), as connected devices are collectively called, says Pierre Ferragu of Bernstein Research. Networks based on it could connect and control robots, medical devices, industrial equipment and agricultural machinery. They could also enable "edge computing", the idea that more and more number-crunching will not happen in centralised data centres but at the fringe of networks.

The telecoms industry has a lot riding on 5G. Mature network-equipment makers such as Ericsson and Nokia want it to revive demand for their wares, which has declined markedly since investment in 4G peaked a couple of years ago. Makers of radio chips, such as Qualcomm, are keen too. Countries are also boosters of 5G. Having lagged in the previous wireless generation, Asian countries want to lead the way on the next one. Using the Olympic Games to showcase and launch 5G is not unique to South Korea. Japan will do so in 2020, when Tokyo hosts the summer Olympics and NTT DoCoMo, the country's largest operator, wants to start offering 5G services commercially. In China the government, operators and local equipment makers such as Huawei and ZTE are about to launch big 5G trials.

In America, where competition between AT&T, Sprint, T-Mobile and Verizon has already speeded 5G development, industrial policy may further accelerate its roll-out: a leaked memo written for the White House by an official of the National Security Council went so far as to call for a nationalised 5G network. Such a project, it argued, would allow America "to leap ahead of global competitors and provide the American people with a secure and reliable infrastructure". The memo was dismissed, but the idea could crop up again.



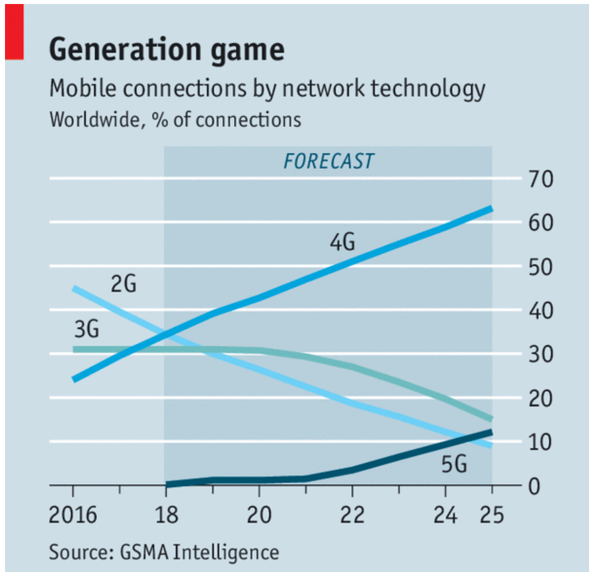
In spite of all this backing for 5G, hurdles exist. One of these is radio spectrum, which is increasingly saturated in the lower frequency bands usually used by mobile networks. Free spectrum abounds in the higher bands—in particular where the length of radio waves is counted in millimetres. But the higher the frequency, the more difficult things get, explains Stéphane Téral of IHS Markit, a research firm. Millimetre waves provide a lot of bandwidth, but even foliage can block them. They either need direct line-of-sight to work or must be bounced around obstacles, which requires lots of computing power.

Hardware is another headwind. Some equipment vendors have been touting their wares as "5G-ready", needing only software upgrades to work with the new standards. In fact, even if equipment is easily upgradeable, most operators will have to rejig their networks. High-frequency radio waves do not travel far, so firms have to erect more base stations (computers that power a network's antennae). As for mobile devices, big changes must be made for these to be able to use millimetre waves; with current technology, the computing power to process the signals would drain batteries in a twinkling.

But the biggest brake on 5G will be economic. When the GSMA, an industry group, last year asked 750 telecoms bosses about the main risk to delivering 5G, over half cited the "lack of a clear business case". Some of this pessimism is tactical: if operators were more enthusiastic, equipment vendors would raise their prices. But as things stand, 5G is unlikely to be a big moneymaker, says Chetan Sharma, a telecoms consultant.

That is because, although people want more bandwidth, they are often not willing to pay for it—an attitude even the fanciest virtual-reality offerings may not shift. Revenue per gigabyte of data has already plunged by over 50% between 2012 and 2015, estimates Mr Sharma. Costs per gigabyte have not gone down nearly as much and building 5G will not be cheap. Because of the higher frequencies, 5G will require more antennae, base stations and fibre-optic cables to connect them. And before firms can take full advantage of "network slicing", for instance, they have to upgrade the computers at the core of their networks. "We will have to work harder to give 5G a push," admits Lauri Oksanen, who oversees network research at Nokia, a Finnish equipment maker.

Operators are unlikely to ramp up their 5G investments quickly, predicts Bengt Nordstrom of Northstream, a telecoms consultancy. Instead, he says, they will roll it out gradually where the numbers add up. Some will first use the technology to provide superfast "fixed" wireless links (ie, between two stationary antennae), which is less tricky to do. Both AT&T and Verizon have said they will start offering such a service in America this year. Other carriers may use 5G to get more out of the spectrum they own. Others will weave 5G networks to serve densely populated cities, most probably in Asia. And some will launch private systems, for instance to provide connectivity in mines and ports.



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In other words, 5G's trajectory is likely to differ from that of a ski jumper: it may fly low for years before it takes off. If this is the case, it would develop much like 3G, a mobile technology introduced in the early 2000s. It disappointed until it found a "killer application" with the smartphone late in the decade. And it was only with 4G that mobile networks lived up to the promises made of 3G, such as being able to watch video streams (see chart). "The odd-numbered generations do not seem to do too well," quips Dean Bubley, a telecoms expert. "We may have to wait for 6G to get what 5G promises."

This article appeared in the Business section of the print edition under the headline "The forces of 5G"

Get out of jail free

The release of Samsung's boss leaves South Koreans exasperated

An appeal court agreed that a former president coerced him into paying a bribe

Print edition | Business Feb 8th 2018

"INNOCENT if rich, guilty if poor" is a well-known adage in South Korea. It has been trending anew on social media since February 5th, when Lee Jae-yong, the vice-chairman of Samsung Electronics, was released from prison. The 49-year-old heir to South Korea's biggest *chaebol*, or family-run conglomerate, had been found guilty of bribing a former president, Park Geun-hye, and her confidante, Choi Soon-sil. But Mr Lee's initial five-year prison sentence was cut in half and suspended by an appeals court, allowing him to walk free after 353 days in jail. Other executives were also released on suspended sentences.

The ruling largely upheld Mr Lee's insistence that he had been coerced by Ms Park into handing over the bribe. Prosecutors had charged him with paying 43bn won ($38m), which included buying horses for Ms Choi's daughter and various donations to her sports foundations. In the end, only use of the horses was recognised as bribery, slashing the sum to 3.6bn won. Although Mr Lee had benefited generally from giving the money, the judge said, there was insufficient evidence to prove an exchange of favours. Mr Lee's supporters say the public should consider the lack of evidence, and note that those with means have no less right to fair treatment.

Nevertheless, Korea-watchers say the sentencing looks familiar. "It's déjà-vu," says Chung Sun-sup of Chaebul.com, a *chaebol* watchdog. Five-year prison terms that are reduced by appeal courts to a roughly three-year suspended sentence are so common in *chaebol* cases that they are called the "3.5 rule". Beneficiaries have included executives from Hyundai and Korean Air, and Mr Lee's father, Lee Kun-hee, chairman of Samsung, who was incapacitated by a heart attack in 2014. In 2009 he was pardoned while serving time for evading taxes and embezzlement. (This week South Korean police said the elder Lee would face new charges of tax evasion.)

New sentencing guidelines had helped to mitigate the courts' seeming soft spot for the *chaebol* in recent years, notes Choi Han-soo of the Korea Institute of Public Finance, a government-sponsored think-tank. Like many others, he had hoped that the Samsung trial would finally end the "too big to jail" mentality. The suspended sentence surprised even some legal experts. "It's definitely a lenient ruling," says Kim Kwang-sam of The Ssam, a South Korean law firm. Mr Choi calculates that between 2000 and 2014, 77% of *chaebol* plaintiffs were released on suspended sentences at the appeals stage, compared with only 64% of ordinary corporate criminals.

In the past, kinder treatment has often been justified by pointing to the economic might of the *chaebol* (Samsung alone accounts for one-fifth of South Korea's exports). That defence is wearing thin. Samsung has been thriving without Mr Lee. A global semiconductor boom led it to post record profits in 2017, and last month the company announced its first stock split.

Outside the courts, the mood is unforgiving. An online petition calling for an investigation into the bias of the judge gained 212,000 signatures in three days. That would threaten the independence of the judiciary, says Mr Choi, "but you can see why citizens are angry". They must now trust Moon Jae-in, the left-leaning president, who has vowed to stop collusion between corporates and politicians.

A final judgment is still to be made at the Supreme Court, where Mr Lee's fate could take yet another turn. But his release leaves many convinced that the old ways persist. In 2009 the elder Lee got his pardon to help secure South Korea's bid for the Winter Olympics. Less than a decade later, in the very week that the Games start, his son has also walked free.

Correction (February 15th 2018): *In the original version of this article we wrote thatLee Kun-hee had received a pardon in 2009 while serving time for evading taxes. In fact Mr Lee did not serve time as he had been given a suspended sentence to begin with. Sorry.*

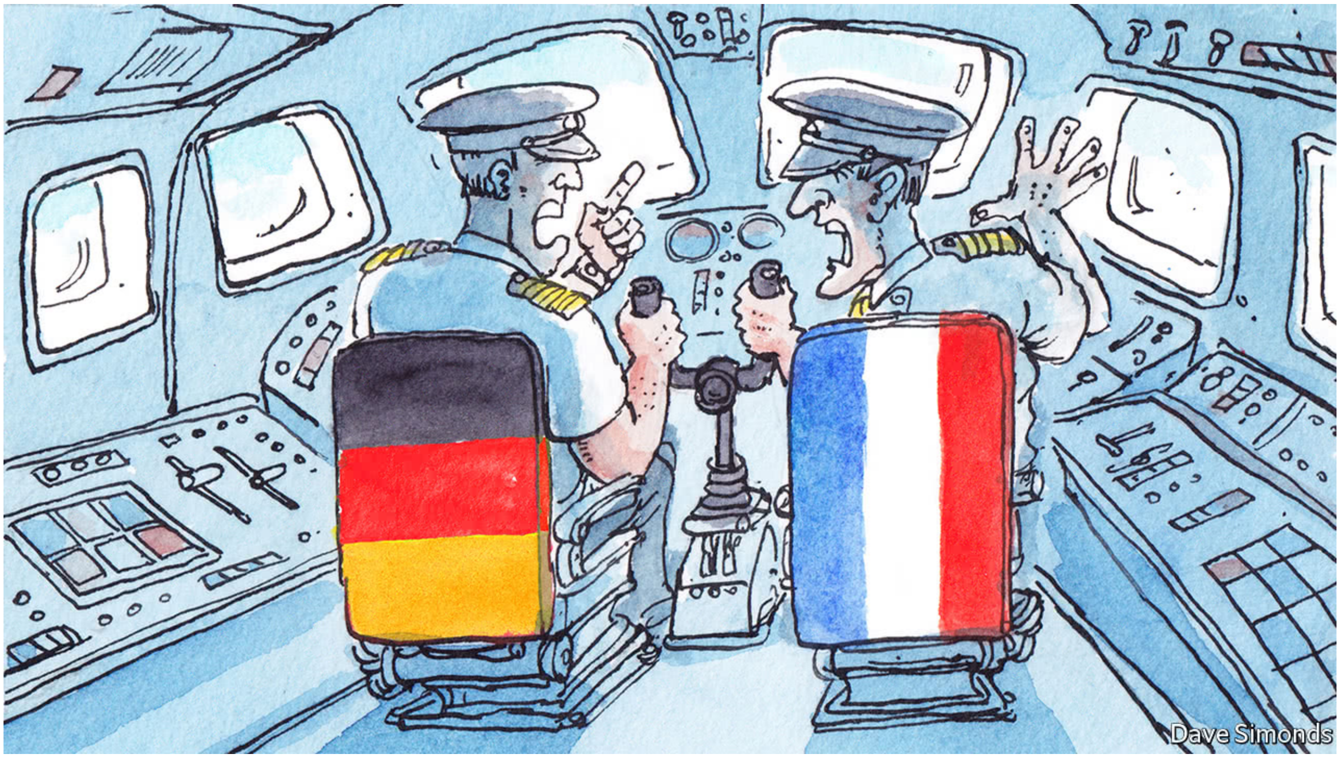
This article appeared in the Business section of the print edition under the headline "Get out of jail free"

Changing the pilots

Airbus executives get swept away by a corruption investigation

A management shake-out may reawaken national rivalries at the European aerospace giant

Print edition | Business Feb 8th 2018



"THE success of Airbus is intimately linked to the success of John," says Eric Schulz, successor to John Leahy, who has been chief salesman for the planemaker since 1994. Mr Leahy's aggressive strategy to gain orders expanded Airbus's market share for civil jets from 18% in 1994 to over 50%. Salesmen at Boeing, Airbus's rival, say they wish their bosses were as good. But this year's Singapore Airshow, which began on February 6th, will be Mr Leahy's last before retirement.

That is in itself a big change for Airbus, but staff turnover does not stop there. In December the firm said Tom Enders, its German-born chief executive, would step down in 2019; his French second-in-command, Fabrice Brégier, will leave this month. These changes follow the news that several countries, including Britain, France and America, are investigating allegations that in the past Airbus bribed officials to win contracts. That created divisions between French and German executives over how to respond.

The recent troubles began in 2014, when an internal review of supplier payments at Airbus exposed irregularities. It ended up reporting itself to Britain's Serious Fraud Office and to France's equivalent body for lying to export-credit agencies about bribes given by third-party consultants to secure sales. In October Airbus said it may have violated American rules on arms exports because of fees paid to sales agents to secure deals. Austrian and German authorities are also investigating bribery claims tied to the sale of $2.1bn-worth of Eurofighter jets back in 2003 (Mr Leahy is not implicated in any scandals).

Analysts at Kepler Cheuvreux, a broker, estimate that Airbus may face fines of up to $3bn as a result of the investigations. That is not so unusual in the aerospace business. Last year Rolls-Royce, an engine-maker, agreed to cough up £671m ($809m) to settle regulators' allegations that it had used third-party consultants to secure sales with bribes. In 2006 Boeing was fined $615m for using corruption to win military contracts from the Pentagon.

Mr Enders reckons the answer is to emulate Rolls's response—co-operate with investigators, excise corruption and oblige top bosses to take responsibility. In 2016 Mr Enders closed the sales unit in Paris that had hired the external sales consultants who got Airbus into trouble, calling it "bullshit castle". He has tightened compliance and is not seeking another term himself.

That has reportedly irked Airbus's French staff as well as some civil servants at France's defence ministry (the French and German governments each own 11% of the firm). They say Mr Enders is going too far in making cultural changes at its headquarters in Toulouse. A perception that Mr Brégier may have been connected with those in the French business establishment making such complaints turned Airbus's board against his bid to succeed Mr Enders. Instead, the board is firmly behind Mr Enders's approach. The firm needs to secure a settlement with investigators, for which a sweeping change in management is needed. Prosecution, after all, could lead to a ban on public contracts, damaging its defence arm.

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The search is on for a new generation of top executives. Investigations aside, they will inherit a mixed bag. Airbus's A320neo short-haul aircraft are flying off the shelves and have a market share of 59% in the fight against Boeing's rival 737 MAX. Its acquisition of half of Bombardier of Canada's C-Series programme for one dollar last autumn will strengthen its position in the market for smaller jets. But Airbus is struggling to shift the rest of its range. Its larger wide-bodies were outsold almost 4:1 by Boeing in 2017. It is also running out of orders for the A380. Although Emirates ordered a further 36 last month, keeping production going until 2030, some analysts think that producing a trickle of superjumbos could lose Airbus up to €250m a year. Production problems on its A320neo and A350 jets and cost overruns on its A400M military transporter are still hurting profits.

That will not help Airbus's margins, which have been lower than Boeing's. In 2012-16 the American planemaker had an average margin of 7.5% and Airbus just 4.3%. Airbus's shares have underperformed, too; in 2017 they rose by a third as much as Boeing's. The European group's operational problems alone do not explain this, says Adam Pilarski, an economist who worked for McDonnell-Douglas, now part of Boeing. The risk of political interference at Airbus—which can raise costs by forcing it to keep unprofitable factories and aircraft programmes—worries investors.

With Mr Enders's departure, that factor may loom larger. He fought in recent years to reduce governmental influence and make Airbus more normal. As Allan McArtor, a former chairman of Airbus North America, puts it, the firm no longer wants to be seen as a European planemaker in America or China but as a local one. In 2013 the French and German governments lost their right to appoint directors to the board. Yet President Emmanuel Macron of France recently hinted that he sees Airbus as a European champion against the Americans and Chinese.

So investors now want a strong new boss, able to push back against national stakeholders. Many think the real test of Mr Enders's transformation of Airbus into a normal company is whether the board can avoid appointing a Frenchman or German to the top job. "As half their business now comes from Asia, it should be natural to look further afield," says Sandy Morris of Jefferies, a bank. The job of sales chief used to be reserved for a Briton. In the 1990s Mr Leahy, an American import, broke that tradition, and did rather well.

This article appeared in the Business section of the print edition under the headline "Changing the pilots"

They don't dig it

Mining firms are dismayed by a new Congolese mining law

But they have more to lose if President Joseph Kabila falls from power

Print edition | Business Feb 10th 2018

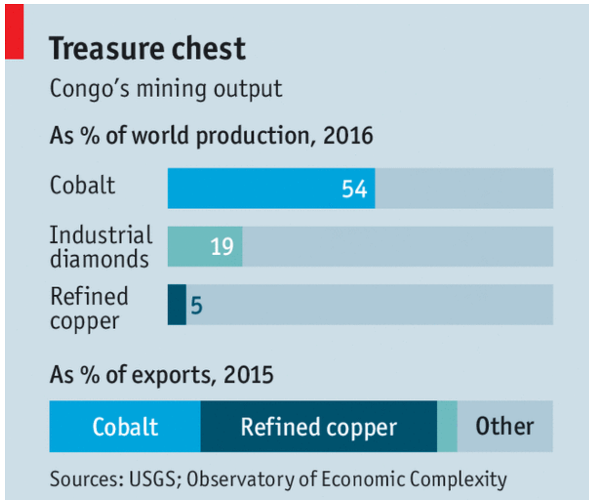
Getty Images

ROBERT Friedland, the boss of Ivanhoe Mines, a large Canadian firm that digs out copper and zinc in Africa, is not one for pessimism. In his speech to an annual mining industry jamboree, Mining Indaba, in Cape Town, his promises about the potential of the business were as copious as the ore bodies his firm mines. But amid the hyperbole about electric cars, Chinese consumers and the "most disruptive copper discovery in the world" there was a note of panic. Money, he warned, is "a coward", and may be about to flee.

The cause of fear is a new mining code that was passed by parliament in the Democratic Republic of Congo on January 24th. Congo is Africa's biggest copper producer; its reserves, mostly in the southern copper belt, are among the world's richest. As important, it has emerged recently as the world's leading producer of cobalt, a by-product of copper smelting that is used in batteries for electric cars. It also produces gold, zinc, tin and diamonds.

The new law, which has yet to be signed by Joseph Kabila, the country's embattled president, drastically raises royalty rates paid to the government on most of the minerals extracted in the country. If signed, it will, unlike most revisions to mining codes, go into effect immediately. Such rates will rise from around 2% to around 3.5% on most metals. But they could go up to as much as 10% on cobalt, under a clause allowing the government to designate certain metals as "strategic".

Miners are livid. "This is bad for the continent, as well as for the industry," says Mark Bristow, boss of Randgold, a London-listed firm with a large gold mine in the north-east of the country. He says higher royalties and tax hikes could eat up his firm's profits and stifle future investment.



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Yet Congo has had a new mining law in the works since 2012. The current code was introduced in 2002, when large tracts of the country were still occupied by rebels. Many analysts think it is too generous to miners. Congo "has not done as well from its minerals as it would have liked," says Amir Shafaie of the Natural Resource Governance Initiative, a London-based NGO. If there is a surprise, it ought to be that the royalty increases came only now.

Miners seem confident that the law could yet change, but that may be wishful thinking. The Congolese government faces a growing crisis of legitimacy. Mr Kabila's second, and supposedly final, term as president finished in December 2016 and yet he remains in office. Protests since then have led to hundreds of deaths at the hands of police; new armed rebellions have broken out both in the east and south-west of the country. Squeezing miners may be Mr Kabila's only chance of raising the funds he desperately needs to stay in power.

Perhaps the real worry should be that he might fall. Although Congo's wealth has been exploited by Westerners since the Victorian era, most of the current industry dates back only as far as 1997, when Mr Kabila's father, Laurent Desire, came to power. Many of the most profitable mineral rights were bought through Dan Gertler, an Israeli billionaire who is a close friend of the president. In December Mr Gertler was added by America's Treasury to a sanctions list; it said he had "amassed his fortune through hundreds of millions of dollars' worth of opaque and corrupt mining and oil deals" in Congo. If Mr Kabila is replaced, everything could be up for grabs.

This article appeared in the Business section of the print edition under the headline "They don't dig it"

Flight of fancy

Creditors call time on China's HNA

For five years the acquisitive group has been able to service its debts only by taking on new ones

Print edition | Business Feb 8th 2018

REX/Shutterstock/HNA

THE ascent of HNA, an aviation-to-financing giant, began on six wings and a prayer. It started out as Hainan Airlines, set up on China's southern palm-fringed island in 1993 with three planes, in a joint venture between a Buddhist businessman, Chen Feng, and the local government of Hainan. In 2000 the firm became HNA Group and, from a Buddha-shaped headquarters, Mr Chen built his enterprise into an empire with more than $150bn in assets. Foreign trophies came next. The firm borrowed heavily to finance deals worth $50bn since 2015 over six continents, including a 25% stake in the Hilton hotel group and 9.92% of Deutsche Bank.

In recent weeks it has become clear that its gorging—which had continued apace even after HNA was among those firms singled out for scrutiny by China's banking regulator last June for their risky debt-fuelled purchases—is over. In January HNA told creditors that it would face a probable cash shortfall of at least 15bn yuan ($2.4bn) in the first quarter of this year.

HNA has assured investors that this is a routine year-end squeeze. But more worrying reports have trickled out, such as of banks briefly suspending unused credit lines to HNA affiliates after missed payments. In the past two months, nearly half of HNA's 16 units listed in China have suspended their shares from trading after steep falls. In four cases, more than 50% of the shares are pledged to lenders.

The group has an estimated 43bn yuan in bond repayments due this year and next. Partly to meet this obligation it is reportedly hoping to sell around 100bn yuan of assets over the next six months, including offices in New York and London and resorts in French Polynesia. It will list Swissport, the world's biggest airport-servicing company, which it bought in 2015. But shedding assets will not necessarily mean a cash windfall. It snapped up many of its assets abroad by pledging shares in target companies as collateral, meaning that most sale proceeds would go to creditors.

Analysts had foreseen an unravelling for some time, before even the regulatory wrist-slapping. A Chinese business expert calls HNA's empire-building "a classic case of overextending". For five years it has only been able to service its debts by taking on new ones. Returns on its investments have not exceeded 2% in almost a decade, according to calculations by Bloomberg, a data provider. As a result, HNA's ratio of debt to earnings before interest, depreciation and amortisation is around a lofty ten, estimates Standard & Poor's, a ratings agency. Bond investors have grown nervous, and the firm's financing costs have soared.

HNA is not alone in facing severe headwinds. Several peers were also chastised for their own spree of foreign purchases, as regulators clamped down on outflows. Dalian Wanda, a property developer that is building an entertainment business, was forced to dispose of most of its tourism and theme-park assets to rivals in a 63bn-yuan fire sale, the biggest property deal in China's modern corporate history. This week it agreed to sell shares worth 7.8bn yuan in its domestic cinema and film-production business to Alibaba. That swift divestment has given it more of a cushion than HNA, which has so far announced only one big property sale in Australia, two months after a promise to shed investments.

Still, few think the firm will be left to flounder. Political connections are thought to help explain why HNA dodged the more severe restraints placed on its peers: its founder has not been called in for questioning, unlike those of both Fosun, an industrial conglomerate, and Anbang, an insurance firm (whose boss has not reappeared since his detention in June). Last year an allegation surfaced that one of its shareholders was a relative of Wang Qishan, who led an anti-corruption campaign until last year (HNA denies this).

As recently as December, eight big state-owned banks publicly pledged their support for HNA. A longtime observer of China says that the lenders must trust that the company still has some worthwhile ties to the Communist Party to do so. Mr Chen was invited to attend a promotional event for Hainan province last week, alongside China's foreign minister.

Some muse on the possibility of a more profound restructuring—a government-sponsored decision to hand its aviation empire to one of China's national carriers, perhaps. The most likely outcome for now is that HNA is forced to sell a string of easy-to-offload assets to domestic buyers, in areas such as transport and logistics, as Wanda did last year. Mr Chen's ambition, to propel HNA into the ten biggest firms in the ranking of Fortune 500 companies by 2025, seems a faint prospect.

This article appeared in the Business section of the print edition under the headline "Flight of fancy"

Everything's bigger in Nevada

How a brothel owner created the world's biggest industrial park

Google, eBay, Tesla and dozens of other tech firms have bought nearly all of the Tahoe Reno Industrial Centre's vast tract of land

Print edition | Business Feb 10th 2018

PAST the neon lights of Reno and the cookie-cutter homes of neighbouring Sparks, the I-80 highway winds through a thinly populated expanse of arid hills and lunar valleys in Storey County. On one side of the road flows the Truckee River; on the other bands of wild horses forage for parched grass. Signs of civilisation are restricted to electricity pylons and the odd rundown farmhouse. The Wild Horse Saloon, a dark and smoky room connected to a legal brothel, is the only sit-down restaurant for miles. It is not an area that immediately seems conducive to hosting a business park. Yet Storey County in Nevada is home to the world's largest by some measures: the Reno Tahoe Industrial Centre (TRI). The park spans 104,000 acres in total—three times the size of San Francisco.

Near its eastern border hulks Tesla's "gigafactory", a gargantuan white structure where the company hopes to produce batteries for 500,000 electric cars a year. It already has nearly 5m square feet of operational space; when complete, the firm's founder, Elon Musk, expects it to be the world's largest building. In February 2017 Switch, a provider of data centres, opened the biggest in existence on its "Citadel Campus" in TRI. A few months later, Google snapped up 1,210 acres of land—enough to fit nearly 100 American football pitches. One executive whose company owns land in the park muses that no other bit of industrial America has a higher level of investment per square foot.

Demand for industrial property is rising nationally thanks to the strength of the economy and the boom in e-commerce. Long the ugly duckling of commercial property, warehouses and distribution centres are now emerging as "beautiful swans", according to a recent report by Jones Lang LaSalle (JLL), a commercial real-estate firm. The proportion of industrial property in America that is vacant has plunged from 10.2% at the start of 2010 to an all-time low of 5% at the end of 2017, notes Craig Meyer of JLL. Almost all new space is being built in parks that are pre-planned and pre-zoned, he says. Companies can get up and running quickly—standalone sites are rare. One of TRI's anchor tenants calls TRI an "industrial wonderland" for the speed at which firms can move.

Yet the park might have served a rather different purpose. Along with a partner, Lance Gilman, an affable businessman whose uniform consists of cowboy hats, crocodile-skin boots and turquoise jewellery, purchased the land that now forms the TRI for $20m from Gulf Oil in 1998. The oil company had planned to stuff it with big game and use it as a luxury hunting reserve before the price of oil plummeted and such indulgences were judged inappropriate. Mr Gilman's idea was to pre-approve the land for industrial uses and sell tracts of it to firms wishing to build swiftly.

He recalls looking out at the park after the purchase, and thinking that it would take three generations to sell it all. He sold plots to small firms and some big ones, like Walmart, but during the Great Recession of 2007-09 sales dropped precipitously. During the lean years TRI relied in part on cash from another of Mr Gilman's businesses: the brothel, called Mustang Ranch, that houses the Wild Horse Saloon. "Without Mustang Ranch, there might not be TRI," Mr Gilman says from a red, faux crocodile-skin chair in an office at the bordello.

Things turned around in 2013. Representatives from Tesla flew in for a meeting. They had been scouring the country for a site for their battery plant but had not found anywhere that would allow them to build fast enough. How long would it take to get a grading permit (required when topography is significantly altered), they asked? In jest, Storey County's community development director pushed a permit across the table and told the visitors to fill it out. The reality was not much slower: Tesla got its permit within a few days.

That initial deal raised TRI's profile. Switch, Google and eBay soon followed. Not long afterwards Mr Gilman began receiving cheques from companies wanting to buy land in the park without even touring it. They are often technology firms; a quarter of leasing demand for American industrial space comes from e-commerce companies wanting to expand operations. In January a firm deploying blockchain technology purchased 67,125 acres of TRI land. Out of the 104,000 acres, only a few hundred acres are still available. Gazing out at a cluster of busy warehouses from a hilltop in the park, Mr Gilman chuckles: "I guess I sold myself out of a job."

Correction (February 9th): *An earlier version of this piece said that the land at TRI was leased, rather than sold. This has been corrected.*

This article appeared in the Business section of the print edition under the headline "Everything's bigger in Nevada"

Schumpeter

What Natarajan Chandrasekaran must do next at Tata

India's largest business is best run as a holding company, not a national monument

Print edition | Business Feb 8th 2018

Brett Ryder

FACED with complexity humans often resort to a heuristic, a rough mental template that gets the job done. That could come in handy at Tata Group, India's largest business, whose dizzying mix of scale, palace politics and sense of moral purpose defy any categorisation. Tata's boss, Natarajan Chandrasekaran, known as Chandra, has been in the job for a year. He spent 2017 pepping up morale and extinguishing fires. Now he must squeeze Tata into a new strategic framework that clarifies its structure and purpose.

Is it a 150-year-old national monument, a philanthropic vehicle or a conglomerate? In Schumpeter's view Tata should instead be positioned as a holding company—like Berkshire Hathaway but minus the personality cult and with Indian characteristics.

Tata is a handful. It has 695,000 staff and is active in 17 industries. Its family of firms has a market value of $155bn. It mixes virtue with profits; Tata's leaders are expected to exude decency and probity. The group was an early supporter of Mahatma Gandhi, led India's industrialisation drive in the 1940s and played a big part in the IT-outsourcing revolution in the 1990s.

A structure with three layers, largely an accident of history, magnifies the complexity. At the bottom are 289 operating companies, a dozen of which are big and listed. In the middle is Tata Sons, a holding firm that owns stakes of varying size in the operating businesses (Chandra is chairman of Tata Sons). It is in turn majority-owned by the Tata family trusts, charities led by Ratan Tata, the group's 80-year-old-patriarch, who has no direct heirs.

The resulting ambiguity has led Tata to be too tolerant of weak businesses and to a complicated succession. Mr Tata, who was chairman between 1991 and 2012, led a bold globalisation drive, which included the acquisitions of Jaguar Land Rover (JLR) and Corus, a British steel firm. But he neglected profits and roamed over all three layers. His successor, Cyrus Mistry, tried to cull bad businesses but suffered from paralysis-by-analysis and fell out with Mr Tata (he was ousted in 2016 and is now suing Tata Group).

Chandra created $60bn of value when he was boss of TCS, Tata's IT services arm, in 2009-17, and is known for metronomic consistency. His superb record gives him a licence to ask hard questions and makes it hard for Mr Tata to object.

A few romantics want the group to be a vehicle for building up the nation, a goal with which the trusts may sympathise. But Tata is not a state-owned firm or a charity, and outside shareholders have $85bn tied up in Tata firms. They expect profit, not glory. Alternatively, Tata could be run as a conglomerate, like General Electric in its prime. But it has legal control of only 62%

of its empire, based on the value of firms in which it has a majority stake. Its gems—TCS, JLR and Titan, a jeweller—are largely autonomous.

The best path is to be a holding company that makes strategic investments but does not normally exercise operational control, like Berkshire or Investor AB in Sweden. After all, Tata Sons does not have an equal interest in all Tata-branded firms. Chandra is a director of some operating firms but derives his authority from being chairman of Tata Sons. Once Ratan Tata retires, the trusts will probably be run by arm's length boards focused on their fiduciary duty to hold Tata Sons accountable for its performance.

Viewed as a holding company, Tata Sons has a net asset value (the market or book value of its stakes, less its debts) of $84bn. Its NAV has risen by 547% since 2007, beating India's stockmarket, which made a total return of 151%–a strong performance but one mostly due to its 74% stake in TCS, which comprises 84% of NAV. Of Tata Sons' 289 affiliated businesses, 126 are lossmaking. Valued at book, 66% of Tata Sons' investments over the years sit in underperforming units with a return on capital of less than 10%.

Tata Sons should set clear targets. It should aim to continue to grow its NAV faster than India's stockmarket and its profits faster than nominal GDP. By 2030 that would allow the trusts to have a budget to match the present budget of the Gates Foundation.

It may sound easy, but there probably will not be another triumph like TCS to prop up performance. So Tata Sons must be ruthless. It must ensure that the stars, TCS, JLR and Titan, continue to thrive, which means leaving them alone. And it needs new growth businesses. Buried within it are promising operations, including its retail, defence and financial-services arms. To grow big these will require piles of capital. For example, Tata's financial business, which should be a big beneficiary of its trusted brand, has a book value of $2bn and ranks only 27th in India's industry.

Dealing with the underperformers is critical. Surprisingly, Chandra has given a second chance to two serial offenders. He has approved a capacity expansion at Tata's domestic steel operation. And he has supported a new strategy at Tata's domestic trucks and cars unit, which has lost market share. Over 25 years these two have generated acceptable returns on equity only about half the time. It is unlikely that they will do much better.

Time for Sons to grow up

Elsewhere, though, Chandra has shown backbone. He has sold Tata's toxic mobile-telecoms arm and is folding Corus into a joint venture with Germany's ThyssenKrupp. Although these deals eliminate the risk of giant losses, they have not released much capital. To do that Chandra should grit his teeth and sell off all the peripheral stakes and businesses. That could raise $8bn, making Tata simpler to run and fortifying its balance-sheet. To succeed, holding companies need to be a source of brains and money rather than dependents of firms they invest in. Tata Sons' debt has risen to $10bn, shrinking its kitty. It may need to buy out Mr Mistry's family, which has an 18% stake in Tata Sons, worth $15bn.

Under Chandra, Tata Sons should aim to be a muscular holding firm that invests in competitive businesses and produces strong returns for its owners. That description cannot possibly capture the epic scale of human endeavour within Tata. But as a way to position the group for the next 150 years, it does the job.

This article appeared in the Business section of the print edition under the headline "Tata's next chapter"

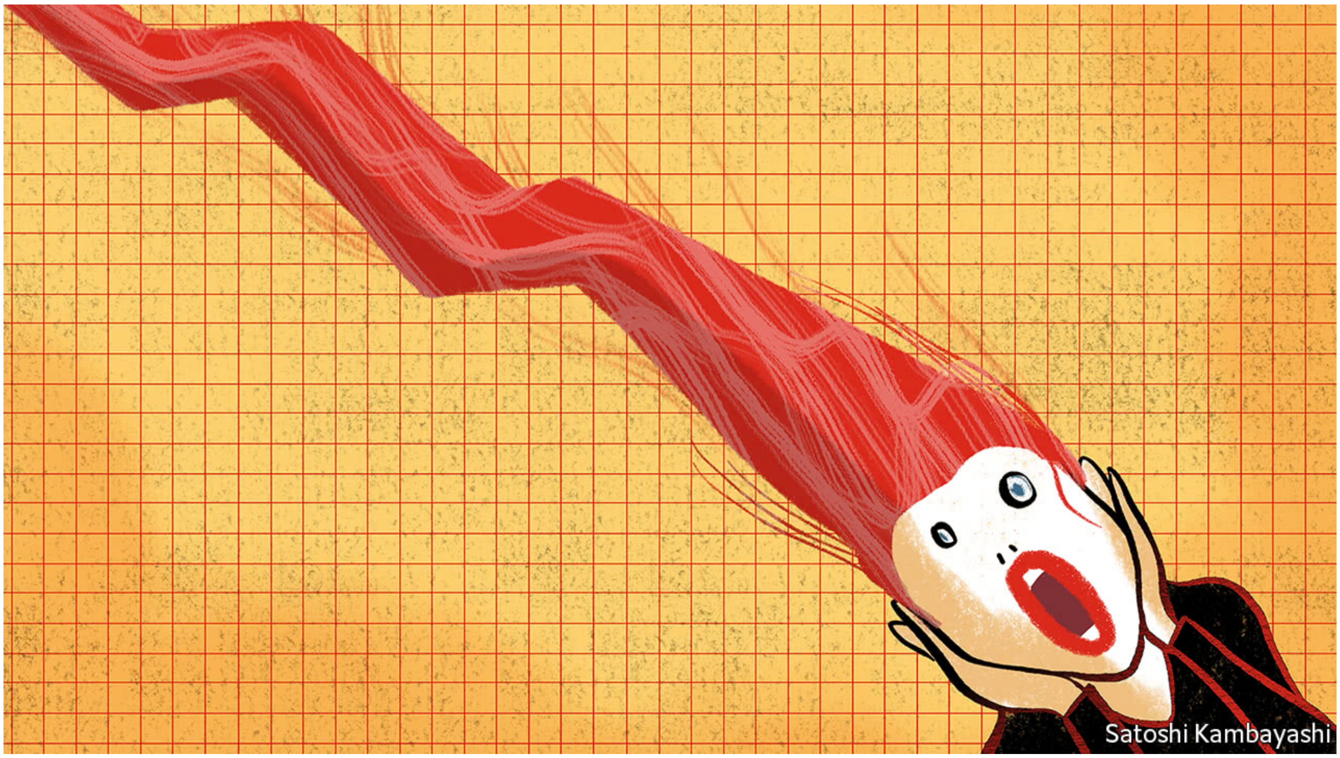
Markets
Boo!

Boo!

The markets deliver a shock to complacent investors

Out of a clear blue economic sky, volatility returns and may linger

Print edition | Finance and economics Feb 8th 2018



Satoshi Kambayashi

EVERY good horror-film director knows the secret of the "jump scare". Just when the hero or heroine feels safe, the monster appears from nowhere to startle them. The latest stockmarket shock could have been directed by Alfred Hitchcock. The sharp falls that took place on February 2nd and 5th followed a long period where the only direction for share prices appeared to be upwards.

In fact the American market had risen so far, so fast that the decline only took share prices back to where they were at the start of the year (see chart). And although a 1,175-point fall in the Dow Jones Industrial Average on February 5th was the biggest ever in absolute terms, it was still smallish beer in proportionate terms, at just 4.6%. The 508-point fall in the Dow in October 1987 knocked nearly 23% off the market.

Economist.com

Still, surprise rippled round the world. Between January 29th and early trading on February 7th, the MSCI Emerging Markets Index dropped by 7.5%. The FTSE 100 index fell by 8.2% from its record high, set in January. A late recovery on February 6th, in which the Dow rebounded by 2.3% (or 567 points), restored some calm.

What explains the sudden turmoil? Perhaps investors had been used to good news for so long that they had become complacent. In a recent survey investors reported their highest exposure to equities in two years and their lowest holdings of cash in five. Another sign of potential complacency was the unwillingness of investors to pay for insurance against a market decline, something that showed up in the volatility, or Vix, index. Funds that bet on the continuation of low volatility lost heavily (see article).

The wobble may also reflect a decision by investors to rethink the economic and financial outlook. Ever since 2009 central banks have been highly supportive of financial markets through low interest rates and quantitative easing (bond purchases with newly created money). There was much talk of an era of "secular stagnation", in which growth, inflation and interest rates would stay permanently low.

But the Federal Reserve and the Bank of England are now pushing up interest rates, and the European Central Bank is cutting its bond purchases. Future central-bank policy seems much less certain. A pickup in global economic growth may naturally lead to fears of higher inflation. The World Bank warned last month that financial markets could be vulnerable on this front.

Bond yields have been moving higher since the autumn; the yield on the ten-year Treasury bond, 2.05% on September 8th, reached 2.84% on February 2nd. On that day American employment numbers were released, showing that the annual rate of wage growth had climbed to 2.9%. That suggested inflation may be about to move higher. Furthermore, the recent tax-cutting package means that the federal deficit may be over $1trn in the year ending September 2019, according to the Committee for a Responsible Federal Budget, a bipartisan group. Making such a large amount of bonds attractive to buyers might require higher yields.

Higher bond yields are a challenge to the markets in a couple of ways. First, by raising the cost of borrowing for companies and consumers, they may slow economic growth. Second, American equity valuations are very high. The cyclically adjusted price-earnings ratio (which averages profits over ten years) is 33.4, compared with the historical average of 16.8. Equity bulls have justified high stock valuations on the ground that the returns on government bonds, the main alternative asset class, have been so low; higher yields weaken that argument.

Most analysts seem to think that the latest equity decline is a temporary setback. BlackRock, the world's largest asset-management group, has called it "an opportunity to add risk to portfolios". Economic-growth forecasts are still strong. Fourth-quarter results for companies in the S&P 500 index have so far shown profits up by 13% and sales 8% higher than the previous year. Tax cuts will give profits a further lift and companies may return cash to shareholders via share buy-backs. All this will provide support for share prices.

Meanwhile inflation worries seem premature. Core inflation in America (excluding food and energy) is just 1.5%. Despite a higher oil price, Bloomberg's commodity index is nearly where it was a year ago. The same goes for American inflation expectations, as measured in the bond market.

Two issues will determine whether analysts are right to be sanguine. The first is whether the recent gyrations in the stock-market were reactive, responding to the recent rise in bond yields, or predictive, in the sense of spotting future trouble.

The second relates to the theories of Hyman Minsky, an economist who argued that when growth has been strong for a while, investors tend to take more risk. This risk eventually rebounds on them, just as in 2007, when subprime mortgage loans proved worthless. Perhaps the slump in volatility-based funds or even crypto-currencies could cause a crisis at some financial institution, inflicting a dent in confidence more generally.

For the moment such dangers seem possibilities rather than probabilities. But like a horror-movie audience, once investors have been scared once, they may prove twitchy for a while.

This article appeared in the Finance and economics section of the print edition under the headline "Boo!"

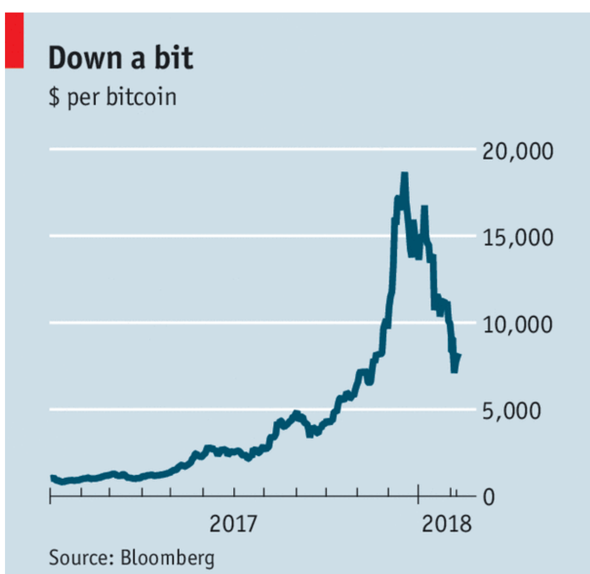
Crypto-correction

Bitcoin and its rivals offer no shelter from the storm

Indeed, crypto-plunges make other asset prices look tame

Print edition | Finance and economics Feb 10th 2018

THE "biggest bubble in human history comes down crashing," tweeted Nouriel Roubini, an economist, gleefully. After an exhilarating ride skywards in 2017, investors in crypto-currencies have been rudely reminded that prices can plunge earthwards, too. In mid-December the price of bitcoin was just shy of $20,000; by February 6th, it had fallen to $6,000, before recovering a little (see chart).



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And bitcoin is not the only digital currency to have fallen. Figures from CoinMarketCap, a website, show that the total market capitalisation of crypto-currencies has fallen by more than half this year, to under $400bn. This slide has taken place amid a flurry of hacks, fraud allegations and a growing regulatory backlash.

Perhaps the most damaging allegations surround Tether, a company that issues a virtual currency of the same name. Tether allows users to move money across exchanges and crypto-currencies without converting it back into "fiat" (central-bank-backed) money first. In theory, each Tether is worth one dollar, and the company has enough greenbacks to redeem them all. But critics allege that the currency may simply have been used to prop up bitcoin. They say that suspiciously large quantities of Tether were issued whenever the bitcoin price was low, and were allegedly traded for bitcoin on Bitfinex, a large currency exchange. It is not known if Tether has the $2.2bn needed to back its outstanding tokens. Its relationship with its auditor appears to have ended in recent months.

The company itself has been silent (including in responding to *The Economist*). Both Tether and Bitfinex—which are reported to have the same boss—are under investigation by regulators in America. Should the suspicions prove true, a further rush out of crypto-currencies might follow.

Recent weeks have seen other bad news. In Japan authorities raided the offices of Coincheck, a virtual-currency exchange, after $530m was stolen in the largest ever crypto-theft. In America regulators shut down an "initial coin offering" (which raises funds by selling digital "tokens") by AriseBank, alleging an investor scam. And BitConnect, a platform that borrowed customers' crypto-currency in exchange for monthly returns, folded in mid-January following allegations that it was running a Ponzi scheme. At its peak the company was valued at around $2.5bn.

Regulators continue to weigh in. Bitcoin "has become a combination of a bubble, a Ponzi scheme and an environmental disaster", Agustín Carstens, the head of the Bank for International Settlements, warned this week, calling for more oversight. National authorities are obliging. Chinese regulators have banned crypto-currency trading on both domestic and foreign platforms, and the Indian finance minister has promised to crack down on their use for illicit activities. In America the heads of the Commodities Futures Trading Commission and the Securities and Exchange Commission, two regulators, testified to a Senate Committee this week; they agreed on the need to protect investors, albeit without stifling innovation.

Banks, too, are alert to trouble—from potential losses, particularly on unsecured lending, or from falling foul of anti-money-laundering rules. Several, including Citigroup and JPMorgan Chase in America, and Lloyds in Britain, took the unusual step of banning customers from buying crypto-currencies with their credit cards.

Diehard believers—dubbed "crypto-crazies" by Mr Roubini, who is the opposite—see such restrictions as a typical backlash designed to sow fear about a disruptive technology. But more moderate crypto-proponents concede that regulation can help. Albert Wenger of Union Square Ventures, a venture-capital firm, says that rules making it easier for investors to distinguish between good and bad projects will take time to design, but should ultimately support the market. And greater regulatory certainty could convince even conservative institutional investors to dive in, argues Matthew Goetz of BlockTower Capital, an investment firm. After all, concerns about exchanges and scams are hardly new. Bitcoin weathered a fall of 85% between 2013 and 2015 after Mt Gox, then the largest virtual-currency exchange, was hacked and collapsed.

The price falls, however, may have scared off some investors. Sarit Markovich of Northwestern University's Kellogg School of Management says that many retail investors bought crypto-currencies not out of rational calculations but for fear of missing out. They have learned they are not a one-way bet. That stockmarkets and crypto-currencies fell in tandem on February 5th may also have scotched another notion: that bitcoin, a sort of "digital gold", would benefit from a flight to safety.

This article appeared in the Finance and economics section of the print edition under the headline "Crypto-correction"

Vexed about Vix

Bets on low market volatility went spectacularly wrong

And contributed hugely to the markets' giddy plunges

Print edition | Finance and economics Feb 8th 2018

THE Cboe Volatility Index, or Vix, known as the "fear gauge", spikes when markets are most jittery. When Sandy Rattray, now at Man Group, an asset manager, worked on the Vix in the early 2000s, he and his team considered launching an exchange-traded product (ETP) linked to it, but concluded that it would be a "horror show" because of poor returns. Now, however, Vix-linked ETPs are a big industry, with around $8bn in assets. Formerly niche investments, they served vastly to exacerbate this week's market turmoil, which saw the Vix's largest ever one-day move, when it more than doubled on February 5th.

The Vix was always intended as a basis for financial products as well as a gauge. Vix futures were launched in 2004 and options in 2006. "Long" Vix products, which Mr Rattray looked into, seek to mirror the index . The problem is that this means buying futures contracts, with buyers having to pay a constant premium over spot prices. So these ETPs tend to lose money over time, punctuated (but not fully made up for) by gains when the Vix spikes. The largest "long" fund, VXX, issued by Barclays, has lost over 99.9% since its launch in 2009.

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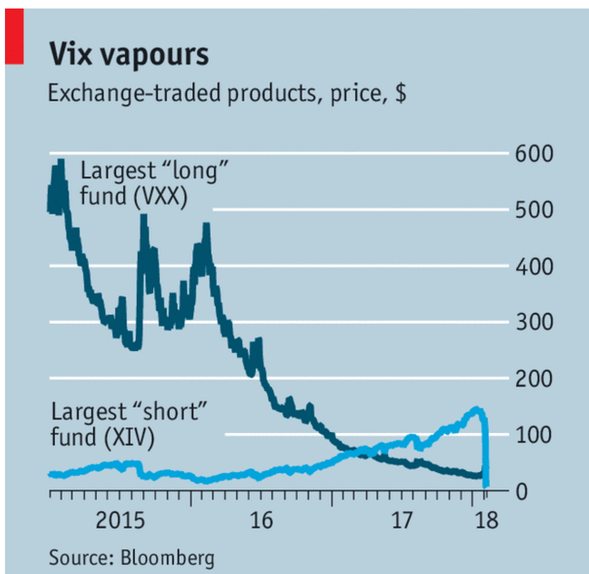
So other ETPs were developed to "short"—ie, bet against—the Vix index. Until this week, they were doing handsomely. Amid a long spell of subdued volatility, investors piled in. In January, assets in short-Vix funds hit a record of $3.7bn. Credit Suisse issued the largest, cutely known as XIV (reverse-Vix), which alone held over $1.9bn. Banks and hedge funds were the largest holders, but retail investors may have bought some, too.



Economist.com

As February 5th showed, however, short-Vix ETPs can collapse spectacularly when things go wrong (see chart). A bearish twinge sent the index up; as short-Vix funds lost money, they had frantically to hedge their exposure in the futures markets. This led to a feedback loop that drove up the Vix itself and affected broader markets. Credit Suisse's XIV lost over 92% of its value on February 6th. The bank promptly said it would redeem the product and close the fund.

That is unlikely to be the end of the saga. Mis-selling claims by private investors in short-Vix products are in prospect. Yet if such products fall out of fashion, new ones are sure to take their place. Investors are, it seems, ever happy to pick up pennies in the road, unaware of the approaching steamroller.

This article appeared in the Finance and economics section of the print edition under the headline "Vexed about Vix"

Buttonwood

Passive funds tracking an index lose out when its make-up changes

Maybe there is hope for active fund managers after all

Print edition | Finance and economics Feb 8th 2018

IS THERE hope for fund managers after all? Conventional "active" managers, who try to pick stocks that will beat the market, have been losing ground to "passive" funds, which simply own all assets in a given sector in proportion to their market value. The main advantage of the latter group is that they charge a lot less.

William Sharpe, a Nobel prizewinning economist, argued in 1991 that the "arithmetic of active management" means that the average fund manager is doomed to underperform. To understand why, assume that there are equal numbers of active and passive managers and, between them, they own all the market. The market returns 10%. How much will the passive managers earn? The answer must be 10%, before costs. The active managers own that bit of the market the passive managers don't. But that proportion of the market must, thanks to simple arithmetic, also return 10%, before costs. Since the costs of active investors are higher, the average active manager must underperform. These numbers hold true, regardless of the proportion of the market owned by the two groups.

But Lasse Heje Pedersen, in a new paper* in the *Financial Analysts Journal*, takes issue with Mr Sharpe's argument. Mr Pedersen, who is an academic and a principal at AQR, a fund-management firm, says that Mr Sharpe's reasoning only holds true if the composition of the market remains unchanged.

In practice, new companies float on the market; others are relegated from—or promoted to—indices such as the S&P 500; and some firms buy back their own shares. The holdings of those investors that were truly passive (ie, did nothing at all) would cease to resemble the market. Someone who bought all listed American stocks in 1986 and did nothing would by now own less than half the market.

So passive investors have to trade to keep their portfolios in line with the index. That gives active managers the chance to outperform. Shares in new issues tend to rise when they float. If passive investors do not take part in the flotations (because the stocks are not yet in the index), they will miss out on those gains. But suppose they do take part. A popular new issue will be oversubscribed and passive investors will get fewer shares than they desire. They will have to top up their holdings after the flotation when the issue has risen in price. Conversely, passive investors will get their full allocation of shares in unpopular flotations, which will probably fall in price.

These points are valid. But how significant are they? The average annual change in the composition of securities in the S&P 500 index is around 7.6%. On that basis, the annual trading costs for a passive investor might be about a quarter of a percentage point. Even including the index manager's fee, the total cost is still well below the charges made by most active managers.

When it comes to bond indices, however, the market changes a lot more frequently. That is because, whereas equities are permanent capital, bonds have shorter maturities (and some issuers default). For an investment-grade index, the turnover is 49% a year and for high-yield, or "junk", securities, it is 93%. So trading costs will be markedly higher.

Another flaw in tracking corporate-bond indices, weighted by market value, is that investors end up with the biggest exposure to the most indebted companies. All this suggests that fund managers might have more scope to beat benchmarks in bond markets than they do in equity markets. Another paper by Mr Pedersen's colleagues at AQR ("The illusion of active fixed-income diversification") shows that fixed-income managers did indeed outperform their benchmarks, after fees, over the 20 years from 1997 to 2017.

But there is a catch. AQR finds that the reason active managers outperformed the indices is that their holdings were highly correlated with junk-bond returns. These performed very well over the period as a whole. But they exposed the managers to more risk. Their decision might not have turned out so well.

Indeed, if investors were buying bond funds in order to diversify from equities, then the managers were actually undercutting their strategy. Economic scenarios that are bad for equities (recessions, rising interest rates, falling profits) tend to be bad for junk bonds as well.

It is one thing to discover a theoretical way for active managers to outperform. It is another to identify individual managers who can reliably do so.

*"Sharpening the arithmetic of active management", by Lasse Heje Pedersen, Financial Analysts Journal, January 2018.

This article appeared in the Finance and economics section of the print edition under the headline "Breaking the bonds"

In the know

Insider trading has been rife on Wall Street, academics conclude

One study suggests insiders profited even from the global financial crisis; another that the whole share-trading system is rigged

Print edition | Finance and economics Feb 10th 2018

INSIDER-TRADING prosecutions have netted plenty of small fry. But many grumble that the big fish swim off unharmed. That nagging fear has some new academic backing, from three studies. One argues that well-connected insiders profited even from the financial crisis.* The others go further still, suggesting the entire share-trading system is rigged.**

What is known about insider trading tends to come from prosecutions. But these require fortuitous tip-offs and extensive, expensive investigations, involving the examination of complex evidence from phone calls, e-mails or informants wired with recorders. The resulting haze of numbers may befuddle a jury unless they are leavened with a few spicy details—exotic code words, say, or (even better) suitcases filled with cash.

The papers make imaginative use of pattern analysis from data to find that insider trading is probably pervasive. The approach reflects a new way of analysing conduct in the financial markets. It also raises questions about how to treat behaviour if it is systemic rather than limited to the occasional rogue trader.

The first paper starts from the private meetings American government officials held during the crisis with financial institutions. Not made public at the time were critical details about what came to be called the Troubled Asset Relief Programme (TARP), notably how much money would be involved and how it would be allocated. This mattered hugely. The very survival of some institutions was at stake; in the end, hundreds of billions of dollars were pledged. Knowing the structure and scope of the bail-out in advance would have been a vitally important piece of information for investors during this period.

The paper examines conduct at 497 financial institutions between 2005 and 2011, paying particular attention to individuals who had previously worked in the federal government, in institutions including the Federal Reserve. In the two years prior to the TARP, these people's trading gave no evidence of unusual insight. But in the nine months after the TARP was announced, they achieved particularly good results. The paper concludes that "politically connected insiders had a significant information advantage during the crisis and traded to exploit this advantage."

The other papers use data from 1999 to 2014 from Abel Noser, a firm used by institutional investors to track trading transaction costs. The data covered 300 brokers but the papers focus on the 30 biggest, through which 80-85% of the trading volume flowed. They find evidence that large investors tend to trade more in periods ahead of important announcements, say, which is hard to explain unless they have access to unusually good information.

They could acquire such information in several ways. The most innocent is that brokers “spread the news” of a particular client’s desire to buy or sell large amounts of shares in order to create a market, much as an auction house might do for a painting. But it is also possible, the papers suggest, that they give this information to favoured clients to boost their own business. Strengthening this argument is the finding that large asset managers which use their own affiliated brokers do not lose out.

Large institutions can be both beneficiaries and victims of this sort of information leakage. But in general they are net gainers. The real losers, the papers conclude, are retail customers and smaller asset managers. Common to all the papers is the recognition that the public markets are, as conspiracy theorists have long argued, not truly public at all. Changing the law to fix that may not even be feasible. But at least, in large-scale data-crunching, a new type of corporate sleuth is on the case.

* ”Political connections and the informativeness of insider trades” by Alan D. Jagolinzer, Judge Business School, University of Cambridge; David F. Larcker, Graduate School of Business, Rock Center for Corporate Governance, Stanford University; Gaizka Ormazabal, IESE Business School, University of Navarra; Daniel J. Taylor, the Wharton School, University of Pennsylvania. Rock Center for Corporate Governance at Stanford University, Working Paper No. 222.

** ”Brokers and order flow leakage: evidence from fire sales” by Andrea Barbon, Marco Di Maggio, Francesco Franzoni, Augustin Landler. National Bureau of Economist Research, Working Paper 24089, December, 2017; and ”The Relevance of Broker Networks for Information Diffusion in the Stock Market” by Marco Di Maggio, Francesco Franzoni, Amir Kermani and Carlo Sommavilla. NBER Working Paper, No 23522, June, 2017.

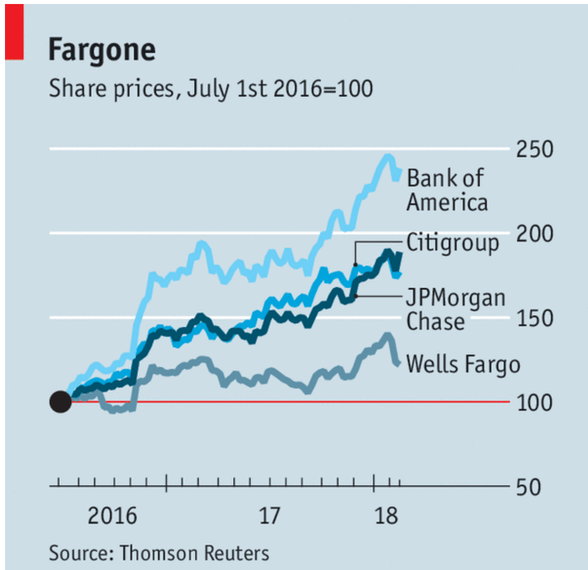
This article appeared in the Finance and economics section of the print edition under the headline ”In the know”

If the cap fits

Wells Fargo suffers a rare punishment—a cap on assets

The fallout from a mis-selling scandal in 2016 batters its share price

Print edition | Finance and economics Feb 8th 2018



Economist.com

ON HER way out, Janet Yellen, who stood down as the Federal Reserve's chair on February 2nd, paused to add yet another sanction to those already imposed on Wells Fargo for foisting unwanted insurance and banking products on clients. The latest punishment is a highly unusual one. Wells will be blocked from adding assets to the $2trn held on its balance-sheet at the end of 2017. Two other regulators had already imposed fines and penalties soon after the shenanigans began emerging in 2016. The bank has gone through a big reorganisation. The Fed's belated response presumably took into account not only the errant conduct but also the political fallout. The government, as well as the bank, had been embarrassed.

At first glance, Wells is an odd target for such treatment. During the financial crisis it proved itself the best of the big banks, with relatively high underwriting standards and manageable losses. The scandal was huge—millions of clients were pushed into unwanted products. But the financial costs were small and the bank's contrition (and readiness to pay compensation) high.

On the other hand, its malfeasance was blatant, which is rare in finance. Also, it was able to bear tough sanctions. And the Fed needed to make a statement about the sharpness of its regulatory steel. In doing so, it has made Wells, not long ago the model of a well-run bank, a model for experimental punishment.

One aspect of the bank's punishment (although the bank plausibly denies this formed part of the agreement with the Fed) involves managerial change. The Fed's announcement noted that four Wells directors will leave by the end of 2018.

A purge of directors had long been urged by the bank's critics, such as Senator Elizabeth Warren. The board has already seen heavy turnover and nearly 6,000 employees have been laid off, including a former chief executive, John Stumpf, and the head of the division where most of the transgressions took place. Other departures continue quietly; the long-serving head of risk announced his resignation last month. The Fed is keen to avoid the impression given by past efforts to punish banks—such as levying fines—that the perpetrators of misdeeds had been spared and that shareholders had borne the cost. Wells's travails are sending a blunt warning to directors at other banks.

The explicit component of the sanctions, the cap on growth, will continue for at least 60 days, while a new risk plan is drawn up for the Fed. After that it will stay in place for an open-ended period, subject to reviews. Unable to expand its balance-sheet, Wells will be unable to take advantage of a growing economy that seems likely to crave credit and investment. Instead, to maintain returns, it may well be forced into gruelling cost cuts.

Wells reckons that its profits in 2018 will drop by less than $400m—just a blip compared with the $22bn it made in 2017. But the market seemed to differ. The Fed's announcement came just before the weekend. When trading reopened on February 5th, Wells's share price dropped by 9%, slashing $30bn from its valuation, a bad result even on a terrible day for the stockmarket more broadly.

This suggests that the largest constraints on Wells's future activities may be behavioural. The bank says it can continue to serve its customers and maintain returns. But its priorities will surely lie in not getting into any more trouble. The only area in which it is likely to embark on a hiring spree will be in regulatory compliance, where it has already added more than 2,000 people in the past two years. Since the crisis, banks have not needed an excuse to be bureaucratic or timid. In Wells's case, it may find it has little choice.

This article appeared in the Finance and economics section of the print edition under the headline "If the cap fits"

Going South

South-to-South investment is rising sharply

An encouraging trend would be even more marked if governments got out of the way

Print edition | Finance and economics Feb 8th 2018

AT A meeting in Namibia last month Zimbabwe's finance minister, Patrick Chinamasa, made a pitch to lure African investors to an economy ruined by Robert Mugabe. That he did so first in Windhoek, not London or New York, is telling. Although flows through tax havens muddy the data, 28% of new foreign direct investment (FDI) globally in 2016 was from firms in emerging markets—up from just 8% in 2000.

Chinese FDI, a big chunk of this, shrank in 2017 as Beijing restricted outflows and America and Europe screened acquisitions by foreigners more closely. But the trend of outbound investment is widespread. Almost all developing countries have companies with overseas affiliates. Most of their investment goes to the West. But in two-fifths of developing countries they make up at least half of incoming FDI. In 2015-16 the ten leading foreign investors in Africa, by number of new projects, included China, India, Kenya and South Africa.

A World Bank survey of more than 750 firms with FDI in developing countries found that those from developing countries themselves were more willing to set up shop in smaller and higher-risk countries. And they were just as likely as rich-country firms to reinvest profits in their foreign affiliates. Peter Kusek from the bank says that globally ambitious firms often start affiliates in neighbouring countries first, to cut their teeth in a relatively familiar foreign market.

The trend toward South-to-South investment is particularly beneficial for the world's poorest countries, and would be even bigger if governments got out of the way. According to the World Bank, 60% of poor countries curb outward FDI, through cumbersome reporting requirements, foreign-exchange controls or ceilings for specific destinations or industries. Restrictions on inward FDI are also common. Foreign banks in the Philippines can open no more than six local branches. In Ethiopia foreigners cannot own bakeries, hair salons, travel agencies, sawmills or much else. In 2013 Ghana more than tripled its capital requirements for foreign-owned trading companies, bowing to local retailers irked by a proliferation of Nigerian shops.

Still, there are reasons for optimism. Kevin Ibeh of Birkbeck University in London says that the rise of African multinationals is a sign of the maturing of private enterprise in the region. Some employ hundreds of thousands of workers. So they have clout in lobbying for better regulation and infrastructure, or for their governments to intervene when another country mulls protectionist rules. All of this, says Mr Ibeh, may even usher in better implementation of various regional free-trade agreements, which so far exist largely on paper.

This article appeared in the Finance and economics section of the print edition under the headline "Developing ties"

Free exchange

Central banks should gamble on productivity-improving technology

The benefits may not appear yet in the data

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IN 1996 Alan Greenspan began asking why the flashy information technology spreading across America seemed not to be lifting productivity. He was not the first to wonder. A decade earlier Robert Solow, a Nobel prizewinner, famously remarked that computers were everywhere but in the statistics. But Mr Greenspan was uniquely positioned, as the chairman of the Federal Reserve, to experiment on the American economy. As the unemployment rate dropped to levels that might normally trigger a phalanx of interest-rate rises, Mr Greenspan's Fed moved cautiously, betting that efficiencies from new IT would keep price pressures in check. The result was the longest period of rapid growth since the early 1960s. Despite his success, few central bankers seem eager to repeat the experiment and many remain blinkered to issues other than inflation and employment. That is unfortunate. A little faith in technology could go a long way.

Central bankers are not known to be a visionary bunch. Turning new ideas into more efficient ways of doing things is the job of firms. The capacity of an economy to produce—the supply side—is primarily shaped by things such as technological progress, population growth and the skill level of the workforce. Monetary policy is typically thought not to influence this process. Its responsibility is the demand side of the economy, or people's willingness to spend. Central bankers typically see themselves as drivers who press on a vehicle's accelerator and brakes. The state of the engine is someone else's bailiwick.

Not all economists have seen so sharp a delineation between supply and demand. In 1973 Arthur Okun mused that in an economy with very low unemployment firms would coax more output out of their workers. More efficient firms would outbid less efficient ones for scarce labour, boosting productivity. By letting spending grow rapidly and unemployment tumble, a central bank might induce productivity to grow faster. In the 1980s Olivier Blanchard and Larry Summers further developed this notion in their work on "hysteresis". They reasoned that, if weak demand led to a long period of joblessness, workers might find their skills becoming obsolete and their connections to the labour market eroding. A short-run monetary failure could create a long-run drop in supply. Correspondingly, a central bank that responded to recession by allowing unemployment to fall to inflation-stoking levels might find that this overheating lures discouraged workers back into the labour force, and pushes firms to give them the training and equipment they need to thrive. Demand, in such cases, might create its own supply.

In fact, the role of a central bank in managing productivity is even more fundamental than these theories suggest. Good monetary policy is essential to capturing the full benefits of new technologies. Suppose, for example, that a tech firm creates a cheap, AI-powered, wearable doodah as good in monitoring health and diagnosing ailments as going to the GP. Deploying it takes some capital investment and hiring, but also leads to much larger reductions in spending on conventional practices. In other words, this magical innovation leads to a rise in the productivity of health services. Hurrah for that! But the need to shift resources around in response to this disruptive new technology creates some difficulties. Spending on health care is a reliable source of growth in employment and in demand. A sudden drop in such growth might push an economy into a slump. The cost savings that consumers, health insurers and governments enjoy thanks to the new technology would help; perhaps some people would plough their newly saved cash into elective procedures like plastic surgery, at clinics which might then have to expand and hire new workers. But there is no guarantee that lost spending on doctors and related equipment will be offset by increases elsewhere.

Indeed, in a paper published in 2006, Susantu Basu, John Fernald and Miles Kimball concluded that advances in technology are usually contractionary, tending to nudge economies towards slump conditions. They estimated that technological improvements tend to depress the use of capital and labour (think, in this example, stethoscopes and doctors) and business investment (new clinics) for up to two years. To those living through such periods, this depressing effect would show up in lower inflation and wage rises. That, in turn, suggests that an alert central bank with an inflation target ought to swing into action to provide more monetary stimulus and keep price and wage growth on track. That stimulus should spur more investment in growing parts of the economy, helping them to absorb quickly the resources freed up by the new, doctor-displacing technology and thus averting a slump.

Two obstacles usually get in the way of such a benign outcome. First, these steps unfold with a lag. The slowdown in price and wage growth will be gradual, as displaced workers tighten their belts and compete with other jobseekers for new employment. Central banks might then wait to see whether low inflation reflects a genuine economic trend or is merely a statistical blip. Even after they act, their tools take time to have an effect.

What is not seen

The greater difficulty may be the trouble that central bankers have in imagining that dizzying technological change is possible, let alone imminent. And the risks they face are asymmetric. Had Mr Greenspan been wrong, the high inflation that resulted would have been there for all to see; had he played it safe, no one would have known that a boom had been achievable. Such possibilities can only be guessed at; they are not found in the data. Sober technocrats are not given to leaps of faith. But to risk a bit of inflation for a chance at a productivity-powered windfall is a wager more central bankers should make.

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This article appeared in the Finance and economics section of the print edition under the headline "Great good to come"

Drones and guerrilla warfare
Buzz, buzz, you're dead

Drones and guerrilla warfare

Home-made drones now threaten conventional armed forces

Their small size and large numbers can overwhelm defences

Print edition | Science and technology Feb 8th 2018

Sputnik/Russian Defence Ministry

AN ATTACK on Russian forces in Syria on January 5th by 13 home-made drones is a good example of "asymmetric" warfare. On one side, exquisite high-tech weapons. On the other, cheap-as-chips disposable robot aircraft. Ten of the drones involved attacked a Russian airbase at Khmeimim. The other three went for a nearby naval base at Tartus. Rather than being quadcopters, the most popular design for commercial drones, the craft involved in these attacks (some of which are pictured above) resembled hobbyists' model aircraft. They had three-metre wingspans, were built crudely of wood and plastic, and were powered by lawnmower engines. Each carried ten home-made shrapnel grenades under its wings.

According to the Russian Ministry of Defence, which has so far refused to say who it thinks was responsible for the attack, the drones were guided by GPS and had a range of 100km. The electronics involved were off-the-shelf components, and the total cost of each drone was perhaps a couple of thousand dollars. The airframes bore a resemblance to those of Russian Orlan-10 drones, several of which have been shot down by rebel forces in Syria. The craft may thus have been a cheap, garage-built copy of captured kit.

These particular drones, the Russians claim, were intercepted before they could cause any damage. However, several Russian aircraft were apparently damaged in an attack in Syria four days earlier, which was also, according to some accounts, carried out by drones. And there will certainly be other assaults of this sort. Guerrillas have been using commercial drones since 2015. Islamic State (IS), one of the groups active in Syria, makes extensive use of quadcopters to drop grenades. In 2017 alone the group posted videos of over 200 attacks. IS has also deployed fixed-wing aircraft based on the popular Skywalker X8 hobby drone. These have longer ranges than quadcopters and can carry bigger payloads. Other groups in Syria, and in Iraq as well, employ similar devices. Their use has spread, too, to non-politically-motivated criminals. In October, four Mexicans allegedly linked to a drug cartel were arrested with a bomb-carrying drone.

Cheap shots

Compared with military hardware, drone technology is both readily available and cheap. In 2014 a team at MITRE, a security think-tank based in Virginia, made a military-grade drone using commercial electronics, a 3D-printed airframe and open-source software. It cost $2,000. A whole squadron of such craft could thus be assembled for less than the cost of a single shoulder-fired missile, let alone a modern combat aircraft. America's F-22 fighter, for example, costs over $300m. A B-2 bomber is even more expensive.

Even a lone drone can do plenty of damage. In Ukraine last year, drones operated by Russian separatists (or perhaps by Russian special forces) attacked several ammunition dumps with incendiary grenades. They destroyed a number of these dumps, in one case setting off explosions which blew up a staggering 70,000 tonnes of munitions.

A growing appreciation of the threat from small drones has led to a rush for protection. Lieutenant-General Stephen Townsend, a former commander of Operation Inherent Resolve, America's anti-IS campaign, has called weaponised drones "the number one threat facing soldiers fighting IS". An American navy budget document describes the navy as "scrambling to improve defences against the rapidly evolving capabilities of remote-controlled devices". Existing defences are not geared up to cope with small drones, which are difficult to spot, identify and track, and which may be too numerous to stop. Jamming might be thought an obvious solution. Breaking the radio links between the operator and the drone, or confusing its GPS navigation, would make a drone crash or send it off course. Many jammers, with names like Dedrone, DroneDefender and DroneShield, have already been employed by various countries. Six of the drones in the Syrian attack were brought down by such jammers, the others by guns and missiles.

Drones are, however, becoming increasingly autonomous. This means there is no operator link to jam. The Syrian drones were vulnerable to jamming because they relied on GPS and so crashed when their link to it was blocked. But new technologies such as optical navigation (which permits a drone to compare its surroundings with an on-board electronic map, and thus to know where it is) will make even GPS jammers useless. Hence the need for "kinetic solutions", to shoot drones down.

Small drones are surprisingly hard targets, however. Iraqi forces in Mosul used to joke that trying to deal with an IS drone attack was like being at a wedding celebration: everyone fired their Kalashnikovs into the air with no effect. A recent American army manual describes small drones as "very difficult to defeat using direct fire weapons". A single rifle bullet is likely to miss. A shotgun would work, but only at close range, and would mean that squaddies had to carry around an extra weapon all the time on the off chance of a drone attack. Also, since drones are not of standard sizes, the range to one is hard to estimate. The manual therefore suggests that rather than aiming directly at a drone, the entire squad should fire their weapons at a fixed point ahead of it, hoping to bring the craft down with a curtain of fire. The manual also advises commanders that the best course of action may be "immediate relocation of the unit to a safer location".

A numbers game

Among other projects, the American army is hurriedly upgrading its shoulder-launched Stinger missiles, which are used to attack low-flying aeroplanes and helicopters. Stingers were not designed to hit small drones, though, so the upgrade adds a proximity fuse which detonates when the missile is close enough to destroy a drone without actually having to make contact with it. Up to 600 "Manoeuvre Short Range Air Defence" teams equipped with these upgraded missiles will join American infantry units around the world. But the upgrades cost about $55,000 each (on top of the basic $120,000 cost of a Stinger), so only 1,147 are being purchased—about two per team, which is hardly enough to tackle a swarm of drones.

Another approach being tried out by the American army is a system called BLADE (Ballistic Low-Altitude Drone Engagement). This fits armoured vehicles' existing machine-gun turrets with radar guidance and computer control. That should provide some protection, but may still be impotent against a mass attack.

A similar problem applies at sea, where billion-dollar ships might have their defences overwhelmed by squadrons of cheap, jerry-built drones. The mainstay of American naval air defence is Aegis, an orchestrated arrangement of radars, computers, missiles and cannons. The short-range element of Aegis is a Dalek-like, rapid-fire cannon called Phalanx, which spits out 75 rounds a second and can shoot down incoming cruise missiles. This will not cope well with lots of small drones, though. The navy is now upgrading Aegis's software to handle multiple simultaneous incoming targets by scheduling bursts of fire to destroy as many members of a swarm as possible. It is doubtful, however, whether one gun could account for more than a handful of attackers coming in from all directions at once. An unclassified study suggests that it could be overwhelmed by as few as eight.

Developers of drone-countering measures hope to overcome that by using laser weapons. Lasers hit their targets at the speed of light, have an unlimited supply of ammunition and cost less than a dollar a shot. Though such weapons have yet to achieve their designers' intentions of being able to shoot down crewed aircraft, they have been tested extensively and successfully against target drones. A variety of specifically anti-drone laser systems are now being developed, including Lockheed Martin's Athena, Raytheon's dune-buggy-mounted anti-drone laser, and LaWS, a creation of the American navy itself.

The crucial question is how rapidly such a laser system can spot, track and aim at its target, and how long the beam must play on the target in order to destroy it. The whole process is likely to take several seconds, and until it is complete, the laser cannot move on to repeat the procedure on another target. As with Phalanx, a simple calculation suggests individual anti-drone lasers would be able to deal with only a small number of attackers. If even one drone got through, the laser would probably be the priority target—for destroying it would leave the way open for a subsequent, unchallenged attack.

An American army document from 2016 thus emphasises the importance of stopping drones "left of launch"—that is, before they can take off. IS drone workshops and operators have been attacked to stop the drone threat. The Russians say they destroyed the unnamed group responsible for the mass drone attack in January, along with their drone-assembly and storage facility in Idlib, using laser-guided artillery. But when there are no runways or hangars, and drones can be operated from houses and garages, finding bases to attack is far from easy. Until adequate defences are in place, then, guerrilla drone swarms will be a real danger.

This article appeared in the Science and technology section of the print edition under the headline ”Buzz, buzz, you’re dead”

Phylogeny and palaeontology

A strange fossil spider. Or maybe not

It all depends which palaeontologist you ask

Print edition | Science and technology Feb 8th 2018

THE picture above is of one of the five known specimens of *Chimerarachne yingi*, a newly discovered arthropod that lived 100m years ago, during the Cretaceous period. It is preserved in amber and was found in the Hukawng Valley amber mines in northern Myanmar. It, and one of the other specimens, are described in a paper that has just been published in *Nature Ecology and Evolution* by Wang Bo of the Nanjing Institute of Geology and Palaeontology, in China, and his colleagues.

Dr Wang thinks *Chimerarachne yingi* is a spider, albeit an unusual one in that it has a tail. Two further specimens are reported simultaneously in a different paper in the same journal, by a team led by Huang Diying, a colleague of Dr Wang in Nanjing, and Gonzalo Giribet of Harvard University. They think the critter is part of an extinct group, related to but different from spiders, called the Uraraneida, of which tails are characteristic.

Dr Wang points to the well-defined spinnerets for handling silk that *Chimerarachne yingi* possesses (a feature of spiders, but not of Uraraneids), and also to certain of its mouthparts, called pedipalps. These have been modified in a way that makes them look like the pedipalps of male spiders, which are used to transfer sperm to a female's genital orifice during mating. This would imply that, by chance, all four reported specimens are male, an assumption that worried the authors of both papers. But a fifth specimen has now turned up, without the modified pedipalps, so presumably she is a female.

Dr Huang and Dr Giribet acknowledge these spiderlike features, but think that a wider statistical analysis, which takes account of other body parts as well as spinnerets and pedipalps, shows that *Chimerarachne yingi* is actually a Uraraneid. In their view the features Dr Wang sets store by must have evolved in species not yet found, which predate the split between spiders and Uraraneids.

Whoever is right, *Chimerarachne yingi* is clearly descended, more or less unmodified, from something that existed near the point of that split, which happened more than 200m years before these specimens were alive, during the Carboniferous period. The fossil record of the Uraraneida peters out in rocks laid down 275m years ago, during the Permian period, leaving a 175m-year gap before the appearance of *Chimerarachne yingi*. Whatever label modern palaeontologists finally decide to apply to the species, that gap is a timely reminder of just how patchy the fossil record is, and how hard it is to reconstruct what was really going on in the past.

This article appeared in the Science and technology section of the print edition under the headline "When doctors disagree"

Diet and health

How too much fructose may cause liver damage

It is not supposed to leave the small intestine

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FRUCTOSE is the sweetest of the natural sugars. As its name suggests, it is found mainly in fruits. Its job seems to be to appeal to the sweet tooths of the vertebrates these fruit have evolved to be eaten by, the better to scatter their seeds far and wide. Fructose is also, however, often added by manufacturers of food and drink, to sweeten their products and make them appeal to one species of vertebrate in particular, namely *Homo sapiens*. And that may be a problem, because too much fructose in the diet seems to be associated with liver disease and type 2 diabetes.

The nature of this association has been debated for years. Some argue that the effect is indirect. They suggest that, because sweet tastes suppress the feeling of being full (the reason why desserts, which come at the end of a meal, are sweet), consuming foods rich in fructose encourages overeating and the diseases consequent upon that. Others think the effect is more direct. They suspect that the cause is the way fructose is metabolised. Evidence clearly supporting either hypothesis has, though, been hard to come by.

This week, however, the metabolic hypothesis has received a boost from a study published in *Cell Metabolism* by Josh Rabinowitz of Princeton University and his colleagues. Specifically, Dr Rabinowitz's work suggests that fructose, when consumed in large enough quantities, overwhelms the mechanism in the small intestine that has evolved to handle it. This enables it to get into the bloodstream along with other digested molecules and travel to the liver, where some of it is converted into fat. And that is a process which has the potential to cause long-term damage.

Dr Rabinowitz and his associates came to this conclusion by tracking fructose, and also glucose, the most common natural sugar, through the bodies of mice. They did this by making sugar molecules that included a rare but non-radioactive isotope of carbon, 13C. Some animals were fed fructose doped with this isotope. Others were fed glucose doped with it. By looking at where the 13C went in each case the researchers could follow the fates of the two sorts of sugar.

The liver is the prime metabolic processing centre in the body, so they expected to see fructose dealt with there. But the isotopes told a different story. When glucose was the doped sugar molecule, 13C was carried rapidly to the liver from the small intestine through the hepatic portal vein. This is a direct connection between the two organs that exists to make such transfers of digested food molecules. It was then distributed to the rest of the body through the general blood circulation. When fructose was doped, though, and administered in small quantities, the isotope gathered in the small intestine instead of being transported to the liver. It seems that the intestine itself has the job of dealing with fructose, thus making sure that this substance never even reaches the liver.

Having established that the two sorts of sugar are handled differently, Dr Rabinowitz and his colleagues then upped the doses. Their intention was to mimic in their mice the proportionate amount of each sugar that a human being would ingest when consuming a small fructose-enhanced soft drink. As they expected, all of the glucose in the dose was transported efficiently to the liver, whence it was released into the wider bloodstream for use in the rest of the body. Also as expected, the fructose remained in the small intestine for processing. But not forever. About 30% of it escaped, and was carried unprocessed to the liver. Here, a part of it was converted into fat.

That is not a problem in the short term. Livers can store a certain amount of fat without fuss. And Dr Rabinowitz's experiments are only short-term trials. But in the longer term chronic fat production in the liver often leads to disease—and is something to be avoided, if possible.

This article appeared in the Science and technology section of the print edition under the headline "Bitter fruits"

Prospecting from space

Searching for lithium deposits with satellites

There's lithium in them hills

Print edition | Science and technology Feb 8th 2018

CORNWALL, a rugged peninsula that forms Britain's south-western extremity, has a history of mining going back thousands of years. Its landscape is dotted with the ruins of long-closed tin and copper mines, along with mountains of spoil from the extraction of china clay (also known as kaolin), a business that still clings to life today. Now, though, prospectors are back on the ground. Or, rather, they aren't. Instead, they are peering down from space. And what they are searching for is not tin, nor copper nor kaolin, but a material that has come into demand only recently: lithium.

The high-flying prospectors in question are a group led by Cristian Rossi, an expert on remote sensing, which has been organised under the auspices of the curiously named Satellite Applications Catapult, an innovation centre backed by the British government. The plan is to use satellites already in orbit to detect and map geological and botanical features that might betray the presence of subterranean lithium. Though satellite prospecting of this sort has been employed before, to look for metals such as gold and copper, using it to search for lithium is new.

The searchers are not searching blind. They know, from mining records dating from the mid-1800s, that there is lithium in Cornwall's rocks. Those records tell of underground springs containing salts of lithium—at that time quite a recently discovered element. Back then these springs were seen, at best, as curiosities, and at worst as flooding risks, because there was then no market for the metal. Today, there is. In particular, lithium is the eponymous component of lithium-ion batteries. These power products ranging from smartphones to electric cars, and are being tested as a means of grid-scale electricity storage which could make the spread of renewable energy much easier. No surprise, then, that prices have been rising. In 2008 a tonne of lithium carbonate cost around $6,000. Now it would set you back more than $12,000.

This price is less a reflection of lithium's overall scarcity than of the rarity of good, mineable deposits of lithium compounds. (Like most metals, it does not occur naturally in its elemental form.) At the moment, the best workable supplies are in Australia, South America and China. But mining companies are eager to discover others. Dr Rossi's team intend to use satellite cameras, both optical and infra-red, and also satellite-borne radar, to look for mineral formations caused by hot liquids reacting with existing rock, and for rock fractures that could act as channels for lithium-bearing brine. They will, as well, record anomalies in vegetation that might be the result of lithium-rich soils, or of hot springs that might contain the element.

The acid test, though, will be to drill where the map thus generated suggests. One group member is ready for that. Cornish Lithium is a newly created firm that has already secured various mineral rights to explore for lithium, and to extract it.

This extraction would not, however, be carried out in the way that it is in the Atacama Desert of Chile, where one of the largest lithium mines in the world prepares lithium salts by drying out vast lakes of brine in the sun. As tourists to Cornwall know all too well, the sun is not to be relied on there. Instead, Cornish Lithium says it will use special filtration techniques called reverse osmosis and ion-exchange to extract and purify lithium compounds from any brine that it finds.

If the experiment in Cornwall proves a success the system could, Dr Rossi reckons, be used to search for lithium in other places. One target would be Chile's neighbour, Bolivia, which is reckoned to have some of the biggest but still largely untapped deposits of lithium in the world. Any find in Cornwall is likely to be tiny by comparison. But if such a find were made there would be a nice symmetry to it, as one of the world's oldest mining centres became also one of its newest.

This article appeared in the Science and technology section of the print edition under the headline "There's lithium in them hills"

A mystery solved?

New evidence in the search for Amelia Earhart

Bones found in 1940 may have been those of the lost aviatrix

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JULY 2nd of last year marked the 80th anniversary of the disappearance of Amelia Earhart, a pioneering aviatrix (pictured above), and her navigator Fred Noonan over the Pacific Ocean, as they attempted a circumnavigation of the globe in a twin-engined Lockheed Electra monoplane. The many theories about the pair's demise, aired once more on that occasion, fall into two broad groups: they crashed into the sea and drowned, or they crashed onto Nikumaroro, a remote island, where they perished from hunger. An American forensic anthropologist has new evidence that greatly increases the likelihood of their having suffered the second fate.

Nikumaroro, one of the Phoenix Islands, is an inhospitable place and was uninhabited at the time of the Electra's disappearance in 1937. Three years later, though, a working party found a human skull and partial skeleton there. Nearby was a part of a shoe they judged to be a woman's, and a box manufactured in around 1918 that was designed to contain a sextant. The bones were removed to a medical school in Fiji where David Hoodless, a British doctor and anatomy teacher, measured them and concluded that they had belonged to a stocky, middle-aged male.

At some point the bones went missing, so the mystery of the Nikumaroro castaway rests on Hoodless's measurements and on the state of forensic anthropology in 1941. Without the bones themselves it is hard to assess the reliability of the measurements. But Richard Jantz, a former director of the University of Tennessee's Forensic Anthropology Centre, points out in an article reviewing the evidence, just published in *Forensic Anthropology*, how primitive the discipline was at the time.

Hoodless used formulae developed by a 19th-century statistician, Karl Pearson, for calculating stature from bone length, and concluded that the castaway was five feet five-and-a-half inches (1.66 metres) tall. Pearson's formulae are now, though, widely acknowledged to underestimate height. Hoodless also used three indicators of sex: the ratio of the circumference of the femur to its length; the angle between the femur and the pelvis; and the subpubic angle, between two bones in the pelvis, which is larger in women than in men.

Of those three indicators, only the subpubic angle is still considered valid, and in his notes Hoodless did not divulge the relative weight he gave to each. Even today, says Dr Jantz, an experienced forensic anthropologist making a sex assessment on the basis of this angle alone will not get it right all of the time—and is obliged to express his conclusion in terms of probabilities. Hoodless observed that the bones were "weather-beaten", damage Dr Jantz thinks was more likely to have been caused by scavenging crabs, and which might also have thrown Hoodless's measurements off.

If Hoodless was right, the remains could not have been those of the slender Earhart, whose driving and pilot's licences gave her height as five foot seven and five foot eight respectively. Nor could they have been Noonan's, since he was a quarter of an inch over six feet tall. But Dr Jantz concludes that in 1941, with the tools at his disposal, right is something Dr Hoodless was unlikely to have been.

Dr Jantz also describes some new research into the matter. Americans of that era differed morphologically from their modern counterparts, so he compared Hoodless's measurements to those of the skeletons of 2,700 white Americans who died between the 19th and mid-20th centuries. He included measurements of Earhart's own bones calculated from photographs of her. He concludes that her bones more closely resembled the castaway's than do 99% of the reference sample.

That finding might be enough to convince those who have until now supported Hoodless's conclusion. But it is unlikely to silence the conspiracy theorists who continue to circle Earhart's disappearance. The truth may never be known fully. But even if those who claim she drowned succeed in explaining away the resemblance Dr Jantz has unearthed, another mystery awaits an answer. If the castaway was not Earhart, who was it?

This article appeared in the Science and technology section of the print edition under the headline "Mystery solved?"

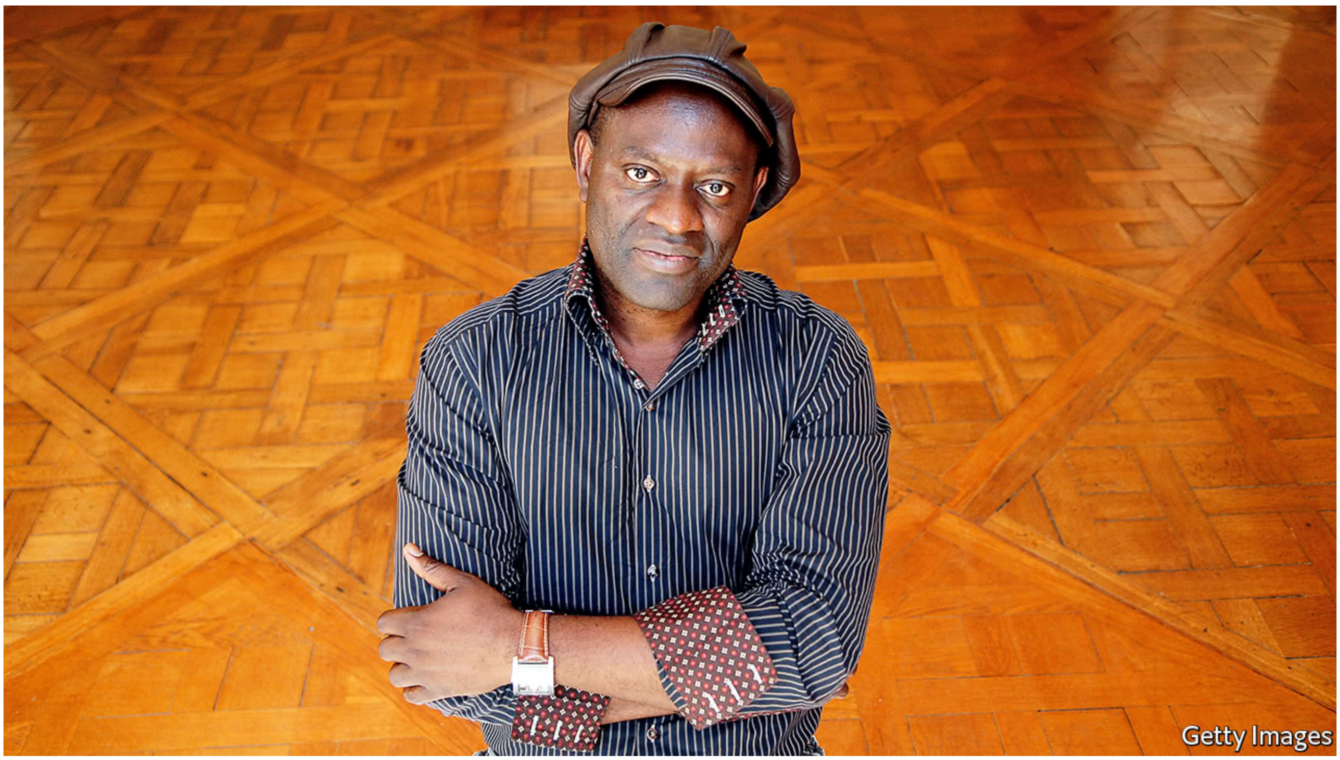
French culture wars
The river and the sea

The river and the sea

Emmanuel Macron wants to redefine French culture

But some Francophone writers are not impressed

Print edition | Books and arts Feb 8th 2018



A PHILOSOPHY graduate and unpublished novelist, Emmanuel Macron treats French culture like a national treasure, and the French language as a jewel. "French is the language of reason, it's the language of light," the president declared when inaugurating the Louvre in Abu Dhabi, a silver-domed gallery on a sandy shore that he called a museum "of the desert and light". Mr Macron has vowed to make French the first language in Africa, and "perhaps" the world; he named a young bestselling Franco-Moroccan novelist, Leïla Slimani, to lead this mission. Yet his campaign to rejuvenate French, and to open the country up to writers who share the language around the world, has inadvertently revived a French culture war.

Today more people speak French in Kinshasa, capital of the Democratic Republic of Congo, than in Paris. By 2050, thanks to population growth in Africa, some 85% of the world's French-speakers will live on the continent. Mr Macron has been promoting French on his recent travels to the Gulf, China and, pointedly, Ghana, an English-speaking west African country surrounded by French-speaking ones. Visiting Tunisia, he said he wanted to double the number learning French there by 2020.

Mr Macron, who is 40, does this in a decidedly less defensive way than his predecessors (Jacques Chirac once walked out of a summit when a Frenchman spoke in English). He is unapologetic about breaking into English, even on home soil. Nor does he side with purists in seeking to protect the language from mutation. Cardinal Richelieu founded the Académie Française in 1635 to render French "pure"; to this day it devises French neologisms for invasive English terms, such as *mot-dièse* for hashtag or *mégadonnées* for big data. Mr Macron argues that "French is not a closed language" and should be fluid. Read Rabelais, he says, to see that French itself was built on patois and vernacular tongues.

He has no hang-ups about redefining French culture, either. While campaigning for the presidency, he appalled traditionalists by declaring that a single "French culture does not exist". It is not a rigid object, in his view, to be left to gather dust and display in a glass cabinet. Rather, French culture is "a river nourished by numerous confluences", as much by Marie NDiaye, a part-Senegalese author, as by Victor Hugo.

Merci, mais non merci

It came as something of a surprise to fans of his capacious approach to find it rejected by some of the very writers he seeks to embrace. In January Alain Mabanckou (pictured), a Congolese writer who in 2006 won the Prix Renaudot, a literary prize, for “Memoirs of a Porcupine”, said he would not take part in the president’s project to renovate La Francophonie, a grouping of French-speaking countries. The institution, he said, was merely “a continuation of French foreign policy towards its former colonies”, which props up African despots and treats Francophone writers as the exotic “other”. Writing in *Le Monde*, Abdourahman Waberi, a Djiboutian professor at Georgetown University, urged France to turn the page on an “outdated vision” based on an “artificial hierarchy” between French and Francophone artists.

La Francophonie “cannot just be an institution for saving the French language; that is not what Francophone countries are worried about,” explains Mr Mabanckou. “Africans don’t need the French language to exist.” He asks how many universities in France teach Francophone African literature, and complains that American students are more likely to study such writers than are French ones. The French literary world clings to a Paris-centric vision, Mr Mabanckou says, too often failing to consider writers from former colonies as part of mainstream literature, as British publishers and universities now do.

The underlying grievance is that Paris-based publishers and academics, by treating non-French writers as “Francophone”, are perpetuating a form of neo-colonial arrogance towards them, and clinging to ownership of the French language. Some such writers cannot believe they are still fighting the battle waged by Salman Rushdie 30 years ago against the concept of “Commonwealth literature” in writing in English. Mr Mabanckou, who prefers to consider his work part of “world literature”, looks back at a figure such as Léopold Senghor, the Senegalese poet who was elected to the Académie Française, as ultimately a defender of French interests.

For some African writers whose maternal language is a local tongue, the very process of writing in French, the language of the former colonial power, still awakens complex feelings. They aim to assert an independent claim to write in French. “Literature written in French does not need to call itself French literature in order to exist,” commented Véronique Tadjo, a Franco-Ivorian writer.

Ms Slimani is mindful of the controversy. She criticises publishers in Paris for not investing enough in French-language writing outside France. “Francophone literature is a world literature, but publishing is very Parisian,” she says. “We need to decentralise, to stop always going through Paris.” A dual citizen who grew up in Morocco, then moved to France to study, she feels at ease in both cultures. She wants to correct the vision of “France at the centre and, around it, in a sort of periphery, what one would call ‘the Francophone world’.” The point, she says, is to “encourage movement, sharing and to value diversity”.

Ms Slimani’s own writing—“Chanson Douce”, published in Britain as “Lullaby” and in America as “The Perfect Nanny”, won the Prix Goncourt in 2016—may help to break down such perceptions. So might the emergence of other new, and often female, voices. For the moment, the best intentions of a well-meaning French president are colliding with the radical critique of writers in French who seek neither the consent nor the approbation of France.

This article appeared in the Books and arts section of the print edition under the headline ”The river and the sea”

Only disconnect

A celebrated Russian director widens his lens

Andrei Zvyagintsev's new film—like his last one—is up for an Oscar

Print edition | Books and arts Feb 8th 2018

IN THE opening frames of "Loveless", Andrei Zvyagintsev's new film, the camera looks up at a denuded tree against a wintry sky. After this barren view come shots of a lifeless, snow-bound park. Yet when the action begins it is autumn, not winter; not on the outside, at least.

The freeze seems symbolic. In fact, says Mr Zvyagintsev, it was an accident. "Winter played a tragic role in our film," he says impishly—because the snow fell earlier than expected, disrupting the production schedule. As for the chilling opening shots, he took them on a whim, without knowing what to do with them. Still, he acknowledges, offering up interpretations even as he disavows them, others might infer that "political winter has dawned" or that the snows "cover over the traces" of wrongdoing. "We don't just watch the films," he says; "the films watch us."

"Loveless" has been nominated for an Academy Award for best foreign-language film, as was "Leviathan", Mr Zvyagintsev's previous feature. Adapting the Book of Job to the Russian Arctic, "Leviathan" told the story of an ordinary man clinging to his home, in the face of a land-grab by corrupt local officials and the Orthodox church; resistance only worsens his plight. The church features in "Loveless", too. Boris, one of the main characters, has a boss who is an Orthodox fundamentalist. Here, though, religion is a marginal theme. The state is more absent than corrupt. All the same, "Loveless" is as much an exposé as its predecessor.

Boris and his soon-to-be ex-wife, Zhenya, hate each other. They are selling their flat on the outskirts of Moscow, but cannot agree on how to dispose of their other joint asset: their 12-year-old son Alyosha, of whom neither wants custody. Alyosha overhears their bickering and runs away. It is a while before they notice. The searing sequence recalls "The Return", Mr Zvyagintsev's first film, in which children calamitously eavesdrop on the adult world.

In "Loveless" the police do next to nothing. Instead a search is launched by a group of volunteers. They are based on a real-life organisation, one of many that try to compensate for the Russian state's callousness; Mr Zvyagintsev says the leader of the charity told him that the film's main police officer seems a good man (he has the decency to admit that the coppers won't help). The volunteers fan out across a beautiful, appalling landscape that evokes the work of Andrei Tarkovsky, one of Mr Zvyagintsev's influences. But this is not a whodunnit. Alyosha is not the real quarry, nor are his parents the only culprits. A scene at the end hints at a wider scale. Wearing a Russian Olympic sweatshirt, Zhenya runs on a treadmill outside her new lover's apartment, while inside he watches a report on the war in the Donbas.

To be or to show?

To viewers in the West, it might seem odd that the Russian authorities tolerate such an ultra-bleak view of their country. On the face of it Mr Zvyagintsev's oeuvre is more subversive than "The Death of Stalin", a British-made historical satire whose distribution licence was recently revoked. "Full-throttle censorship", Mr Zvyagintsev comments, adding fatalistically that speaking out about politics "is not going to make a difference". Despite receiving state funding, "Leviathan" was indeed denounced by posturing officials, especially for its portrayal of the church. But, says Alexander Rodnyansky, Mr Zvyagintsev's producer, the only censorship imposed on his films has been the bleeping of swear words.

In Russia, though, his critiques are in some ways less risky than they seem in the West. The dysfunction he depicts is too commonplace to deny—and nobody does, not even Vladimir Putin, though he vows to deal with it. Direct censorship of the arts is rare; in any case Mr Zvyagintsev's films are not popular enough to be threatening. Russian audiences, says Mr Rodnyansky, "don't want you to tell them the truth". He compares the director to a doctor bearing unwanted bad news.

In "Loveless" his diagnosis goes beyond Russia. Mr Zvyagintsev's films each have dominant visual motifs. "Leviathan" has a skeleton of a beached whale. In "Elena"—which asks how far a grandmother will go to raise the cash needed to bribe her grandson out of military conscription—mirrors are the main image, suggesting a society in which the only real moral constraint is conscience. In "Loveless" the motif is mobile phones. People are constantly checking them, or taking selfies to post online. "To show your life, or to live your life?" Mr Zvyagintsev summarises. "That's really the huge question." Mobile phones, he thinks, have "revealed" human nature rather than changing it.

What emerges in "Loveless" is an emotional void, an atomised desolation not tritely attributable to Mr Putin or the Soviet legacy. The search for Alyosha leads to a crumbling Soviet sanatorium, the sort of Ozymandian ruin that litters the Russian countryside, monuments to a dead civilisation. But the answer isn't there.

This article appeared in the Books and arts section of the print edition under the headline "Only disconnect"

Walking the line

A border patrolman's harrowing memoir

Francisco Cantú describes boundaries and tries to break them down

Print edition | Books and arts Feb 8th 2018

The Line Becomes a River. By Francisco Cantú. *Riverhead Books; 256 pages; $26. Bodley Head; £14.99.*

FRANCISCO CANTÚ signed up for the United States Border Patrol hoping that his experiences would "unlock" the puzzle of the border. But policing the 2,000-mile Mexican frontier, scanning mountain trails for footprints and sniffing the air for rotten corpses, left him only with more questions. "I don't know how to put it into context, I don't know where I fit in it all," he confides one day to a fellow agent. "Damn," says the other patrolman. "That shit is deep."

Mr Cantú's four years on the border provide stories from this no-man's-land that mix compassion with quiet anger at the cruelty of man and nature. It is wild, untamed country where by night agents douse cacti in hand sanitiser and set them alight for the hell of it. But there is beauty in the desolation. Satellites drift across the clear, starry sky. Mr Cantú has an eye for the flora and fauna of the desert, perhaps because his mother—a second-generation Mexican-American who disapproves of his work—was a park ranger.

His time in the patrol exposes the futility of many of its rules. After discovering a cache of drugs, Mr Cantú suggests following the tracks of the traffickers. "Hell no," comes the reply of his supervisor. "Suspects mean you have a smuggling case on your hands, and that's a hell of a lot of paperwork." Agents sit around smoking cigarettes abandoned by migrants and urinate on their discarded belongings.

Most of the migrants just want to work. One asks to take out the rubbish at the station when he is arrested, just to show willing. A pair from Oaxaca share their packed lunch of grasshoppers, dried fish and mezcal with the agents. The migrants are the subjects of the many moral dilemmas of the border. Making it harder to cross means fewer people will risk their lives to do it; agents slash bottles of water left out in the desert for the desperate. Yet this contributes to unimaginable suffering. A man is discovered curled up, almost dead after drinking his own urine for four days.

The *narcotraficantes* are a constant, sinister presence. Mr Cantú finds their trucks in the desert and hears their shots ring out across the border by night. Although El Paso, in Texas, is one of America's safest cities, its neighbour Juárez has one of the highest murder rates in the world. Border Patrol agents are shown images of the narcos' victims: beheaded, dismembered, faces peeled from skulls. Fortifying the border has driven up smuggling fees, making the business more attractive to organised crime, which now runs it.

Living so close to violence sends people mad, Mr Cantú writes. He is referring to the long-suffering citizens of Juárez. But as he immerses himself in the horror of the border, his own sanity frays. A wolf stalks his dreams. The focus gradually shifts from the vastness of the desert to the claustrophobia of Mr Cantú's troubled mind.

This is really a book about many borders. One is the line in the sand from the Pacific to the Gulf of Mexico. Another is the psychological divide that sees Americans screen out the carnage occurring a stone's throw from their own country, "just as one sets aside images from a nightmare in order to move steadily through a new day".

Finally it is about the divide between the people patrolling the border and those trying to cross it. For Mr Cantú, this wall is broken down when an undocumented friend is detained by the Border Patrol and subjected to its casual cruelties. His compelling, tragic account may help to break down the wall for others, too.

This article appeared in the Books and arts section of the print edition under the headline "Walking the line"

Strike a pose

The lives and loves of New York divas

Joseph Cassara vividly brings to life a lost Manhattan

Print edition | Books and arts Feb 8th 2018

The House of Impossible Beauties: A Novel. By Joseph Cassara. *Ecco; 416 pages; $26.99. Oneworld Publications; £14.99.*

BEFORE the High Line and the new Whitney, the astronomical rents and gastropubs, Chelsea was a playground for queer misfits. The Christopher Street Pier was where they gathered, sauntered and made a quick buck. Diva elders taught fresh-faced runaways the art of turning a trick: how to spot the white men cruising for a taste; how to kneel on cement without cutting their knees; and, most important, how, in extremis, to "just bite it"—after getting the money up front.

This is the New York of Joseph Cassara's vivid and engaging debut novel, "The House of Impossible Beauties". It is a city of hustlers and mad men, strip clubs and graffiti, big rats and bigger dreams. Gritty yet glamorous, Manhattan from the late 1970s to the early 1990s was a rare place where "even the most outrageous people could have a home."

That is what draws in Mr Cassara's characters, "little flaco Boricua" (ie, skinny Puerto Rican) boys fleeing abusive single mothers in Jersey and the Bronx to become the perfumed women they were always meant to be, with marquee-ready names like Angel and Venus. But this is also a city haunted by death, where lifeless bums line the Bowery, murdered "trannies" crop up in hotel rooms and a mysterious virus terrorises gay men.

In search of love and acceptance, Mr Cassara's Boricua castaways make homes with new cherry-picked families, live on rice and beans, learn how to sew, and aspire one day to afford a Chanel suit at Saks. They strut their stuff at drag balls in Harlem, where dark-skinned queens parade like peacocks. Jennie Livingston chronicled this subculture in her acclaimed documentary "Paris is Burning", released in 1990. Mr Cassara takes some of her real-life subjects and imagines their fleshed-out stories, mapping their romances and addictions, their nightmarish pasts and fantastical plans for the future. For example, one "pre-op trans-sexual woman" daydreams of being whisked away by a rich, white husband to a house in Westchester.

The novel feels like an anthropological plunge into another era, enhanced by rhythmic, urban prose littered with slang and Spanglish. Some observations are unsubtle and the metaphors are occasionally overcooked. But these are forgivable blips in a book with the compassion to capture the loneliness of a trans woman with AIDS who rides the subway at rush hour to feel the warmth of "human bodies all against her", and the sensuousness to convey the beauty of young gay lovers mimicking Fred and Ginger on a hot rooftop as the sun sets. The New York of "The House of Impossible Beauties" may not warrant much nostalgia, but it is a moving place to visit.

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

Digging a hole in the ocean

A gripping account of America's longest war

Steve Coll explains why successive presidents have failed in Afghanistan

Print edition | Books and arts Feb 8th 2018

Directorate S: The CIA and America's Secret Wars in Afghanistan and Pakistan, 2001-2016. By Steve Coll. *Penguin Press; 748 pages; $35. Allen Lane; £25.*

HOW to account for America's failure in its longest war? For Steve Coll, the conflict in Afghanistan has proved to be a "humbling case study in the limits of American power". Sixteen years after the invasion, and despite military or aid efforts from 59 countries, Afghanistan is unstable, violent and poor. Afghans remain vulnerable to a resurgent Taliban army.

Few writers are better placed than Mr Coll, a journalist and former head of the New America Foundation, a think-tank, to explain why. In "Ghost Wars", published in 2004, he assessed the years before the attacks of September 11th 2001; it won a Pulitzer prize and is required reading on the region, especially on the foibles of America's spies. "Directorate S" is the sequel. In it Mr Coll sets out an impressively detailed, stylishly crafted and authoritative chronicle of America's post-invasion efforts in Afghanistan and Pakistan.

He has remarkably good sources and sprinkles his text with vivid descriptions. The Taliban leader, Mullah Omar, sits with his legs drawn up, picking at his bare toes and chatting to a Pakistani spy chief. An anxious Taliban negotiator vomits copiously during talks at a safe house in Munich. Conveying the views of Pakistan's double-dealing generals and spooks, Mr Coll draws from private conversations recorded by American eavesdroppers.

These details enliven strong analysis. America's primary goals after 9/11, he argues, were twofold. Unfortunately they required contradictory methods. Preventing Pakistani nuclear weapons going astray depended on close co-operation with the Pakistani state, notably its army and spy service, the Inter-Services Intelligence (ISI). But achieving a second goal—destroying al-Qaeda and other violent Islamist groups—has proved far harder. In that, Pakistan has more often been a hindrance than a help.

Despite the killing of Osama bin Laden in 2011, al-Qaeda and its jihadist offshoots remain "active, lethal and adaptive", notes Mr Coll. As for America's lesser goals, his recurrent theme is failure (he uses the term over 100 times). Stable, civilian rule is a long way off in both countries. The Taliban are undefeated, despite negotiations, drone assassinations and conventional fighting. That is mostly because Pakistan gives them support and sanctuary. Afghan opium cultivation continues in place of legal crops. The author captures well a sense of futility among Western forces. "This is a never-ending war," CIA officers lament. A Canadian commander complains that he is "digging a hole in the ocean".

Rightly, Mr Coll spreads the blame for all this disappointment. America's spies and soldiers failed to kill bin Laden early in the Tora Bora mountains. Their use of torture and excessive aggression strengthened their opponents. American political leaders, allergic to "nation-building", would not fund peace efforts and were distracted by Iraq. Anyway, they could never agree on exactly what they hoped to achieve in Afghanistan. Hamid Karzai, the former Afghan president, proved unreliable and too fond of warlord allies.

Friends like these

Meanwhile American diplomats and spies were generally too slow to grasp how Pakistan backs the Taliban and promotes violence over its border. Compounding that problem, American politicians, above all Barack Obama, signalled that they would withdraw early even as they boosted their forces in Afghanistan. That encouraged Pakistan to plan for a new civil war, with the Taliban as proxies. Mr Coll concludes that there was "chronic triangular mistrust" between America and the two Asian countries. That persists.

The title suggests Mr Coll especially blames the destructive behaviour of Pakistan's spies. Directorate S, equivalent to the CIA's special-activities division, is a particularly dark corner of the notorious ISI. It oversees relations with the Taliban and undermines civilian politicians in Pakistan. More generally, the army promotes *jihadi* terror attacks in India and Afghanistan, stoking tension, the better to justify its outsized claims on state resources.

Mr Coll points the finger at ISI officers for causing bloodshed and taking risks that might provoke another war. He concludes, for example, that it was "fully evident that ISI officers had cooked up" the horrific terrorist attack in Mumbai in 2008, which did much to isolate Pakistan internationally and spurred better relations between India and America. He is more cautious than some writers, however, on whether the ISI also helped bin Laden find shelter in Abbottabad, an army town. He calls the idea "plausible" but not proven.

Oddly, for an otherwise exhaustive book, Mr Coll neglects some notable episodes. He omits the murder of a Pakistani investigative journalist, Syed Saleem Shahzad (widely blamed on the ISI, though it denies involvement). Nor does he mention al-Qaeda's unnervingly successful, large-scale attack in 2011 on Mehran, a military base in Karachi, which Shahzad was investigating. That raid, and the killing of bin Laden, humiliated the ISI. Mr Coll also passes over al-Qaeda's attack on an American base in Khost, on the Afghan-Pakistani border, which killed eight CIA staff in 2009, the agency's biggest human loss in over a quarter of a century.

These flaws are small. Mr Coll's overall judgment is as gloomy as it is compelling. The fighting since 2001 led directly to at least 140,000 deaths, including 50,000 civilians, but has achieved painfully little. Throughout, America lacked a "coherent geopolitical vision". Most glaringly, it could never decide if Pakistan was an ally or an enemy. Despite recent, tough-sounding talk from President Donald Trump about Pakistan, that fatal ambiguity endures.

This article appeared in the Books and arts section of the print edition under the headline "Digging a hole in the ocean"

Output, prices and jobs

Print edition | Economic and financial indicators Feb 8th 2018

Output, prices and jobs

% change on year ago

	Gross domestic product				Industrial production	Consumer prices			Unemployment rate, %
	latest	qtr*	2017†	2018†	latest	latest	year ago	2017†	
United States	+2.5 Q4	+2.6	+2.3	+2.7	+3.6 Dec	+2.1 Dec	+2.1	+2.1	4.1 Jan
China	+6.8 Q4	+6.6	+6.8	+6.5	+6.2 Dec	+1.8 Dec	+2.1	+1.6	3.9 Q4§
Japan	+2.1 Q3	+2.5	+1.7	+1.5	+4.2 Dec	+1.1 Dec	+0.3	+0.5	2.8 Dec
Britain	+1.5 Q4	+2.0	+1.7	+1.5	+2.5 Nov	+3.0 Dec	+1.6	+2.7	4.3 Oct††
Canada	+3.0 Q3	+1.7	+3.1	+2.3	+4.7 Nov	+1.9 Dec	+1.5	+1.6	5.8 Dec
Euro area	+2.7 Q4	+2.3	+2.4	+2.4	+3.2 Nov	+1.3 Jan	+1.8	+1.5	8.7 Dec
Austria	+3.2 Q3	+1.4	+2.9	+2.5	+3.4 Nov	+2.2 Dec	+1.4	+2.2	5.3 Dec
Belgium	+1.9 Q4	+2.0	+1.7	+1.9	+6.2 Nov	+1.7 Jan	+2.6	+2.2	6.6 Dec
France	+2.4 Q4	+2.5	+1.9	+2.1	+2.5 Nov	+1.4 Jan	+1.3	+1.1	9.2 Dec
Germany	+2.8 Q3	+3.3	+2.5	+2.6	+6.7 Dec	+1.6 Jan	+1.9	+1.7	3.6 Dec‡
Greece	+1.3 Q3	+1.2	+1.3	+1.6	+0.9 Nov	+0.7 Dec	nil	+1.1	20.7 Oct
Italy	+1.7 Q3	+1.4	+1.5	+1.5	+2.2 Nov	+0.8 Jan	+1.0	+1.3	10.8 Dec
Netherlands	+3.0 Q3	+1.6	+3.2	+2.8	+4.4 Nov	+1.3 Dec	+1.0	+1.3	5.4 Dec
Spain	+3.1 Q4	+2.8	+3.1	+2.7	+4.7 Nov	+0.6 Jan	+3.0	+2.0	16.4 Dec
Czech Republic	+4.7 Q3	+1.9	+4.5	+3.3	+2.7 Dec	+2.4 Dec	+2.0	+2.5	2.4 Dec‡
Denmark	+1.4 Q3	-1.9	+2.0	+2.0	-3.1 Dec	+1.0 Dec	+0.5	+1.1	4.2 Dec
Hungary	+3.9 Q3	+3.8	+3.8	+3.5	+4.5 Dec	+2.1 Dec	+1.8	+2.4	3.8 Dec§††
Norway	+3.2 Q3	+3.0	+2.1	+2.5	-3.2 Dec	+1.6 Dec	+3.5	+1.9	4.1 Nov‡‡
Poland	+5.1 Q3	+4.9	+4.6	+3.8	+2.7 Dec	+2.1 Dec	+0.8	+2.0	6.9 Jan§
Russia	+1.8 Q3	na	+1.7	+2.0	-1.6 Dec	+2.2 Jan	+5.0	+3.5	5.1 Dec§
Sweden	+2.9 Q3	+3.1	+2.7	+2.7	+8.1 Dec	+1.7 Dec	+1.7	+1.8	6.0 Dec§
Switzerland	+1.2 Q3	+2.5	+1.0	+2.0	+8.7 Q3	+0.8 Dec	nil	+0.5	3.0 Dec
Turkey	+11.1 Q3	na	+6.7	+3.8	+6.9 Nov	+10.3 Jan	+9.2	+11.1	10.3 Oct§
Australia	+2.8 Q3	+2.4	+2.3	+2.8	+3.5 Q3	+1.9 Q4	+1.5	+1.9	5.5 Dec
Hong Kong	+3.6 Q3	+2.0	+3.7	+2.6	+0.4 Q3	+1.7 Dec	+1.2	+1.5	2.9 Dec‡‡
India	+6.3 Q3	+8.7	+6.4	+7.2	+8.4 Nov	+5.2 Dec	+3.4	+3.5	5.0 Jan
Indonesia	+5.2 Q4	na	+5.1	+5.4	+5.0 Nov	+3.3 Jan	+3.5	+3.8	5.5 Q3§
Malaysia	+6.2 Q3	na	+5.8	+5.3	+5.0 Nov	+3.5 Dec	+1.7	+3.9	3.3 Nov§
Pakistan	+5.7 2017**	na	+5.7	+5.3	-1.9 Nov	+4.4 Jan	+3.7	+4.1	5.9 2015
Singapore	+3.1 Q4	+2.8	+3.5	+2.6	-3.9 Dec	+0.4 Dec	+0.2	+0.6	2.1 Q4
South Korea	+3.0 Q4	-0.9	+3.1	+3.0	-6.0 Dec	+1.0 Jan	+2.0	+2.0	3.3 Dec§
Taiwan	+3.3 Q4	+4.2	+2.4	+1.7	+1.2 Dec	+0.9 Jan	+2.2	+0.6	3.7 Dec
Thailand	+4.3 Q3	+4.0	+3.6	+3.0	+2.3 Dec	+0.7 Jan	+1.6	+0.7	1.0 Dec§
Argentina	+4.2 Q3	+3.6	+2.9	+3.2	+0.8 Nov	+25.0 Dec	na	+25.2	8.3 Q3§
Brazil	+1.4 Q3	+0.6	+1.0	+2.7	+4.4 Dec	+2.9 Dec	+6.3	+3.3	11.8 Dec§
Chile	+2.2 Q3	+6.0	+1.4	+3.0	+0.2 Dec	+2.3 Dec	+2.7	+2.2	6.4 Dec§‡‡
Colombia	+2.0 Q3	+3.2	+1.6	+2.5	+0.3 Nov	+3.7 Jan	+5.5	+4.3	8.6 Dec§
Mexico	+1.8 Q4	+4.1	+2.1	+2.1	-1.5 Nov	+6.8 Dec	+3.4	+6.0	3.4 Dec
Venezuela	-8.8 Q4~	-6.2	-14.0	-11.9	na	na	na	1,050.0	7.3 Apr§
Egypt	na	na	+4.2	+4.9	+27.1 Nov	+21.9 Dec	+23.3	+26.8	11.9 Q3§
Israel	+1.9 Q3	+3.5	+3.0	+3.7	+1.6 Nov	+0.4 Dec	-0.2	+0.2	4.0 Dec
Saudi Arabia	-0.7 2017	na	-0.7	+1.0	na	+0.4 Dec	+1.7	-0.2	5.8 Q3
South Africa	+0.8 Q3	+2.0	+0.9	+1.4	+2.1 Nov	+4.7 Dec	+6.7	+5.3	27.7 Q3§
Estonia	+4.2 Q3	+1.4	+4.6	+3.4	+7.1 Dec	+3.5 Jan	+2.7	+3.5	5.2 Q3§
Finland	+2.8 Q3	+1.5	+3.1	+2.3	+3.4 Nov	+0.5 Dec	+1.0	+0.9	8.4 Dec§
Iceland	+3.1 Q3	+9.2	+3.6	+4.1	na	+2.4 Jan	+1.9	+1.8	2.2 Dec§
Ireland	+10.5 Q3	+18.1	+6.5	+4.0	+3.4 Dec	+0.4 Dec	nil	+0.3	6.1 Jan
Latvia	+4.2 Q4	-2.3	+5.1	+3.1	+5.5 Dec	+2.2 Dec	+2.2	+2.9	8.5 Q3§
Lithuania	+3.9 Q4	+6.0	+3.5	+3.4	+5.3 Dec	+3.9 Dec	+1.7	+3.6	9.0 Jan§
Luxembourg	+3.2 Q3	+6.8	+2.7	+3.2	+5.3 Nov	+1.4 Dec	+1.1	+2.1	6.2 Dec§
New Zealand	+3.0 Q3	+3.8	+2.6	+2.9	+1.6 Q3	+1.6 Q4	+1.3	+1.9	4.5 Q4
Peru	+2.5 Q3	+5.5	+2.7	+3.7	-2.5 Sep	+1.3 Jan	+3.1	+2.8	6.9 Dec§

Markets

Print edition | Economic and financial indicators Feb 8th 2018

Markets

	Index Feb 7th	% change on: one week	% change on Dec 30th 2016: in local currency	% change on Dec 30th 2016: in $ terms
United States (DJIA)	24,893.4	-4.8	+26.0	+26.0
United States (S&P 500)	2,681.7	-5.0	+19.8	+19.8
United States (NAScomp)	7,052.0	-4.9	+31.0	+31.0
China (SSEA)	3,466.1	-4.9	+6.7	+18.4
China (SSEB, $ terms)	326.7	-5.2	-4.4	-4.4
Japan (Nikkei 225)	21,645.4	-6.3	+13.2	+20.9
Japan (Topix)	1,749.9	-4.7	+15.2	+23.0
Britain (FTSE 100)	7,279.4	-3.4	+1.9	+14.5
Canada (S&P TSX)	15,330.6	-3.9	+0.3	+7.2
Euro area (FTSE Euro 100)	1,200.5	-4.0	+8.0	+25.8
Euro area (EURO STOXX 50)	3,454.5	-4.3	+5.0	+22.4
Austria (ATX)	3,508.4	-2.4	+34.0	+56.2
Belgium (Bel 20)	3,991.9	-2.9	+10.7	+29.0
France (CAC 40)	5,255.9	-4.1	+8.1	+26.0
Germany (DAX)*	12,590.4	-4.5	+9.7	+27.8
Greece (Athex Comp)	849.9	-3.3	+32.1	+53.9
Italy (FTSE/MIB)	22,986.2	-2.2	+19.5	+39.3
Netherlands (AEX)	536.4	-4.3	+11.0	+29.4
Spain (IBEX 35)	9,976.9	-4.5	+6.7	+24.3
Czech Republic (PX)	1,116.7	-1.3	+21.2	+51.2
Denmark (OMXCB)	879.6	-4.5	+10.1	+28.3
Hungary (BUX)	39,698.1	-1.2	+24.0	+44.0
Norway (OSEAX)	897.4	-1.3	+17.4	+28.5
Poland (WIG)	63,262.1	-4.2	+22.2	+50.7
Russia (RTS, $ terms)	1,242.5	-3.1	+7.8	+7.8
Sweden (OMXS30)	1,551.2	-2.6	+2.2	+15.7
Switzerland (SMI)	8,975.0	-3.9	+9.2	+17.5
Turkey (BIST)	115,570.2	-3.3	+47.9	+37.5
Australia (All Ord.)	5,981.5	-2.7	+4.6	+13.4
Hong Kong (Hang Seng)	30,323.2	-7.8	+37.8	+36.7
India (BSE)	34,082.7	-5.2	+28.0	+35.1
Indonesia (JSX)	6,534.9	-1.1	+23.4	+22.6
Malaysia (KLSE)	1,836.7	-1.7	+11.9	+28.4
Pakistan (KSE)	44,096.5	+0.1	-7.8	-12.9
Singapore (STI)	3,383.8	-4.3	+17.5	+28.4
South Korea (KOSPI)	2,396.6	-6.6	+18.3	+31.5
Taiwan (TWI)	10,551.5	-5.0	+14.0	+25.7
Thailand (SET)	1,785.4	-2.3	+15.7	+31.3
Argentina (MERV)	31,626.7	-9.5	+86.9	+50.7
Brazil (BVSP)	82,766.7	-2.5	+37.4	+37.3
Chile (IGPA)	28,954.0	-1.6	+39.6	+57.3
Colombia (IGBC)	11,726.2	-3.2	+16.0	+22.9
Mexico (IPC)	48,976.5	-2.9	+7.3	+18.4
Venezuela (IBC)	3,200.1	-12.8	9,991.9	na
Egypt (EGX 30)	15,037.1	nil	+21.8	+25.2
Israel (TA-125)	1,358.2	-3.6	+6.4	+17.2
Saudi Arabia (Tadawul)	7,417.2	-3.0	+2.5	+2.5
South Africa (JSE AS)	56,886.5	-4.4	+12.3	+28.4
Europe (FTSEurofirst 300)	1,492.2	-4.0	+4.5	+21.8
World, dev'd (MSCI)	2,101.1	-5.1	+20.0	+20.0
Emerging markets (MSCI)	1,173.4	-6.5	+36.1	+36.1
World, all (MSCI)	513.3	-5.2	+21.7	+21.7
World bonds (Citigroup)	956.7	-0.9	+8.2	+8.2
EMBI+ (JPMorgan)	823.0	-1.1	+6.6	+6.6
Hedge funds (HFRX)	1,2[illegible].8§	-1.5	+6.9	+6.9
Volatility, US (VIX)	27.7	+13.5	+14.0	(levels)

The Economist commodity-price index

Print edition | Economic and financial indicators Feb 8th 2018

The Economist commodity-price index

2005=100

	Jan 30th	Feb 6th*	% change on one month	% change on one year
Dollar Index				
All Items	153.4	152.0	+1.6	+2.5
Food	153.7	152.2	+2.1	-4.9
Industrials				
All	153.1	151.8	+1.0	+11.6
Nfa†	138.8	137.1	-1.1	-8.9
Metals	159.3	158.0	+1.8	+21.8
Sterling Index				
All items	197.7	198.8	-1.2	-8.4
Euro Index				
All items	153.7	153.1	-1.8	-9.6
Gold				
$ per oz	1,340.4	1,327.4	+1.2	+7.6
West Texas Intermediate				
$ per barrel	64.5	63.4	+0.7	+21.5

Sources: Bloomberg; CME Group; Cotlook; Darmenn & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional
†Non-food agriculturals.

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The Economist poll of forecasters, February averages

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The Economist poll of forecasters, February averages (previous month's, if changed)

	Real GDP, % change: Low/high range		Real GDP, % change: average		Consumer prices % change		Current account % of GDP	
	2017	2018	2017	2018	2017	2018	2017	2018
Argentina	2.8/3.0	2.5/3.6	2.9	3.2 (3.3)	25.2	20.6 (18.7)	-4.2 (-4.1)	-4.6 (-4.3)
Australia	2.2/2.5	2.2/3.2	2.3	2.8	1.9 (2.0)	2.2 (2.1)	-1.7	-1.8 (-2.1)
Austria	2.4/3.2	2.2/2.8	2.9 (2.8)	2.5 (2.4)	2.2 (2.1)	2.1 (2.0)	2.2 (2.1)	2.3 (2.4)
Belgium	1.7/1.8	1.5/2.3	1.7	1.9 (1.8)	2.2	1.9 (1.8)	-0.7 (-0.3)	-0.6 (nil)
Brazil	0.6/1.2	2.0/3.3	1.0 (0.9)	2.7 (2.6)	3.3 (3.4)	3.7 (3.6)	-0.6 (-0.7)	-1.3 (-1.6)
Britain	1.5/1.8	1.2/2.0	1.7 (1.6)	1.5 (1.4)	2.7	2.6 (2.5)	-4.5	-4.0 (-4.1)
Canada	2.9/3.6	1.9/3.2	3.1	2.3 (2.2)	1.6 (1.5)	1.9	-2.9 (-3.0)	-2.7
China	6.6/6.9	5.8/6.9	6.8	6.5	1.6	2.3	1.2	1.2
Denmark	1.8/2.3	1.4/2.5	2.0 (2.2)	2.0 (2.2)	1.1	1.5	8.3 (8.4)	7.7 (7.9)
France	1.8/1.9	1.7/2.5	1.9 (1.8)	2.1 (2.0)	1.1 (1.2)	1.5 (1.4)	-1.3 (-1.4)	-0.8 (-1.2)
Germany	2.2/2.6	2.2/3.0	2.5	2.6 (2.5)	1.7	1.8 (1.7)	7.9	7.8
India	6.2/6.7	6.6/7.7	6.4 (6.6)	7.2 (7.3)	3.5	4.9 (4.6)	-1.6 (-1.5)	-1.8
Indonesia	5.0/5.2	5.1/5.8	5.1	5.4 (5.3)	3.8	3.6 (3.5)	-1.6	-1.8 (-1.9)
Italy	1.5/1.6	1.1/1.9	1.5	1.5	1.3	1.2 (1.0)	2.7	2.4
Japan	1.5/1.8	1.1/1.8	1.7	1.5	0.5	1.0 (0.9)	3.9 (4.0)	3.9
Mexico	2.0/2.3	1.5/2.5	2.1 (2.0)	2.1	6.0	4.2	-1.7	-1.9 (-1.8)
Netherlands	3.2/3.2	2.6/3.0	3.2	2.8 (2.7)	1.3	1.5	9.6	9.5 (9.3)
Russia	1.4/2.1	1.5/3.3	1.7 (1.8)	2.0 (2.1)	3.5 (3.7)	3.4 (3.5)	2.4 (2.5)	2.8 (2.5)
South Africa	0.7/1.0	1.0/2.3	0.9 (0.8)	1.4	5.3 (5.4)	4.9 (5.1)	-2.2 (-2.5)	-2.9
South Korea	2.9/3.3	2.5/3.3	3.1	3.0	2.0	1.9	5.3 (5.5)	5.1 (5.2)
Spain	2.9/3.1	2.3/3.2	3.1	2.7 (2.6)	2.0 (2.1)	1.6 (1.5)	1.6 (1.7)	1.6 (1.7)
Sweden	2.5/3.2	2.1/3.1	2.7	2.7	1.8 (1.9)	1.9	4.7 (4.5)	4.5 (4.3)
Switzerland	0.9/1.0	1.7/2.3	1.0 (0.9)	2.0 (1.8)	0.5	0.7	9.3 (9.6)	9.2 (9.4)
Turkey	6.1/7.0	2.9/4.4	6.7 (6.3)	3.8 (3.7)	11.1 (11.0)	10.0 (9.7)	-5.0	-5.0 (-4.9)
United States	2.1/2.6	2.3/3.1	2.3	2.7 (2.6)	2.1	2.2 (2.1)	-2.4	-2.6 (-2.5)
Euro area	2.3/2.5	1.8/2.9	2.4 (2.3)	2.4 (2.3)	1.5	1.5 (1.4)	3.2	3.2 (3.1)

Sources: Bank of America, Barclays, BNP Paribas, Citigroup, Commerzbank, Credit Suisse, Decision Economics, Deutsche Bank, EIU, Goldman Sachs, HSBC Securities, ING, Itaú BBA, JPMorgan, Morgan Stanley, RBS, Royal Bank of Canada, Schroders, Scotiabank, Société Générale, Standard Chartered, UBS

Economist.com

Trade, exchange rates, budget balances and interest rates

Print edition | Economic and financial indicators Feb 8th 2018

Trade, exchange rates, budget balances and interest rates

	Trade balance latest 12 months, $bn	Current-account balance latest 12 months, $bn	Current-account balance % of GDP 2017†	Currency units, per $ Feb 6th	Currency units, per $ year ago	Budget balance % of GDP 2017†	Interest rates 3-month latest	Interest rates 10-year gov't bonds, latest
United States	-810.0 Dec	-452.5 Q3	-2.4	-	-	-3.5	1.79	2.79
China	+422.5 Dec	+121.6 Q3	+1.2	6.28	6.86	-4.3	4.71	3.85§§
Japan	+46.5 Nov	+198.0 Nov	+3.9	109	112	-4.4	-0.06	0.07
Britain	-173.9 Nov	-118.1 Q3	-4.5	0.72	0.80	-2.9	0.52	1.59
Canada	-18.7 Dec	-45.8 Q3	-2.9	1.25	1.31	-1.7	1.61	2.36
Euro area	+266.7 Nov	+438.7 Nov	+3.2	0.81	0.93	-1.2	-0.33	0.70
Austria	-6.0 Nov	+8.5 Q3	+2.2	0.81	0.93	-1.0	-0.33	0.84
Belgium	+24.1 Nov	-3.9 Sep	-0.7	0.81	0.93	-1.7	-0.33	0.91
France	-70.2 Dec	-28.5 Dec	-1.3	0.81	0.93	-2.9	-0.33	1.00
Germany	+274.9 Nov	+282.8 Nov	+7.9	0.81	0.93	+0.6	-0.33	0.70
Greece	-21.8 Nov	-1.0 Nov	-0.5	0.81	0.93	-0.7	-0.33	3.73
Italy	+53.9 Nov	+56.1 Nov	+2.7	0.81	0.93	-2.3	-0.33	1.99
Netherlands	+66.8 Nov	+80.7 Q3	+9.6	0.81	0.93	+0.7	-0.33	0.74
Spain	-27.9 Nov	+23.0 Nov	+1.6	0.81	0.93	-3.0	-0.33	1.47
Czech Republic	+18.4 Dec	+0.9 Q3	+0.7	20.4	25.2	+0.7	0.91	1.77
Denmark	+9.8 Nov	+26.2 Nov	+8.3	6.03	6.92	-0.3	-0.30	0.75
Hungary	+9.2 Nov	+5.2 Q3	+3.6	252	288	-2.5	0.02	2.63
Norway	+19.2 Dec	+21.1 Q3	+4.9	7.84	8.26	+5.2	0.84	1.92
Poland	+2.4 Nov	+1.5 Nov	-0.1	3.38	3.99	-2.2	1.52	3.52
Russia	+113.4 Nov	+40.2 Q4	+2.4	57.1	58.9	-1.5	5.64	8.13
Sweden	-0.5 Dec	+21.1 Q3	+4.7	7.97	8.83	+1.0	-0.44	0.94
Switzerland	+35.4 Dec	+66.4 Q3	+9.3	0.94	0.99	+0.8	-0.75	0.15
Turkey	-81.4 Jan	-43.8 Nov	-5.0	3.78	3.69	-1.9	13.9	11.9
Australia	+9.4 Dec	-22.2 Q3	-1.7	1.27	1.31	-1.5	1.99	2.82
Hong Kong	-61.9 Dec	+14.8 Q3	+4.3	7.82	7.76	+4.2	1.19	2.02
India	-148.4 Dec	-33.6 Q3	-1.6	64.2	67.2	-3.3	6.42	7.57
Indonesia	+11.9 Dec	-13.3 Q3	-1.6	13,555	13,323	-2.8	5.30	6.34
Malaysia	+22.7 Dec	+9.2 Q3	+2.6	3.92	4.43	-2.9	3.68	3.96
Pakistan	-36.2 Dec	-15.2 Q4	-4.8	111	105	-5.9	6.35	8.50†††
Singapore	+45.6 Dec	+57.4 Q3	+18.5	1.32	1.41	-1.0	na	2.25
South Korea	+96.4 Jan	+78.5 Dec	+5.3	1,092	1,138	+0.9	1.64	2.75
Taiwan	+17.2 Jan	+74.1 Q3	+13.2	29.4	30.9	-0.1	0.66	1.02
Thailand	+13.9 Dec	+49.3 Q4	+11.7	31.5	35.0	-2.4	0.81	2.43
Argentina	-8.5 Dec	-26.6 Q3	-4.2	19.7	15.6	-5.8	21.6	3.68
Brazil	+67.1 Jan	-9.8 Dec	-0.6	3.26	3.12	-8.0	6.62	8.74
Chile	+7.4 Jan	-4.6 Q3	-1.3	600	640	-2.7	0.50	4.59
Colombia	-9.2 Nov	-11.1 Q3	-3.4	2,839	2,860	-2.3	5.10	6.48
Mexico	-10.9 Dec	-16.1 Q3	-1.7	18.8	20.6	-1.1	7.68	7.63
Venezuela	-36.2 Oct~	-17.8 Q3~	-0.2	10.1	9.99	-19.4	14.5	8.24
Egypt	-31.3 Nov	-12.2 Q3	-6.9	17.6	18.4	-10.9	18.8	na
Israel	-15.0 Dec	+10.5 Q3	+3.4	3.48	3.74	-2.0	0.07	1.82
Saudi Arabia	+43.4 2016	+12.4 Q3	+2.7	3.75	3.75	-8.9	1.89	na
South Africa	+6.1 Dec	-7.3 Q3	-2.2	12.1	13.4	-3.9	7.13	8.48
Estonia	-2.1 Nov	+0.7 Nov	+1.9	0.81	0.93	-0.7	-0.33	na
Finland	-2.8 Dec	+1.6 Nov	+1.1	0.81	0.93	-1.3	-0.33	0.81
Iceland	-1.7 Jan	+1.2 Q3	+6.4	101	113	+1.0	4.65	na
Ireland	+50.7 Nov	+27.7 Q3	+5.7	0.81	0.93	-0.5	-0.33	1.12
Latvia	-2.9 Nov	-0.2 Nov	-0.8	0.81	0.93	+0.2	-0.33	na
Lithuania	-2.8 Nov	nil Q3	-0.8	0.81	0.93	+0.1	-0.33	1.25
Luxembourg	-6.8 Nov	+2.4 Q3	+4.3	0.81	0.93	+0.8	-0.33	na
New Zealand	-2.0 Dec	-5.1 Q3	-2.9	1.37	1.37	+1.6	1.89	3.00
Peru	+6.2 Nov	-1.8 Q3	-1.8	3.25	3.28	-3.0	2.64	na

Ingvar Kamprad
Self-made man

Self-made man

Obituary: Ingvar Kamprad died on January 27th

The founder of the IKEA furniture empire was 91

Print edition | Obituary Feb 8th 2018


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LIGHT and bright, cheap and cheerful: IKEA's 400-plus outlets in 49 countries all run on the same central principle. Customers do as much of the work as possible, in the belief they are having fun and saving money. You drive to a distant warehouse, built on cheap out-of-town land. Inside, you enter a maze—no shortcuts allowed—where every twist reveals new furniture, in pale softwood or white chipboard, artfully arranged with cheerfully coloured accessories to exude a chic, relaxed Scandinavian lifestyle.

The low prices make other outlets seem extortionate, so you load up your trolley with impulse buys—a clock, a bin, storage boxes, tools, lampshades and more tea lights than you will ever use. You lug cardboard boxes holding flat-packed shelves, cupboards and tables into your car and reward yourself for your thrift and good taste with meatballs slathered with lingonberry jam. Then you drive home and assemble your prizes. You rejoice in the bargains. IKEA rejoices in your money.

The company's name was a do-it-yourself job, too. It stands for Ingvar Kamprad, from Elmtaryd—his family's farm—in Agunnaryd. That village is in the Smaland region of southern Sweden, known for the resourcefulness, stinginess and stubbornness of its inhabitants. Mr Kamprad founded IKEA aged 17. Well before that, he spotted a principle which would make him one of the richest men in the world: that customers like buying retail goods at wholesale prices. First he bought matches in bulk and sold them by the box. Aged ten, he plied the same trade with pens and trinkets, delivered by bicycle.

Setbacks inspired him. Facing a price war against his low-cost mail-order furniture business, he flummoxed rivals by opening a showroom. Dealers tried to crush the upstart retailer, banning Mr Kamprad from their trade fairs. He sneaked in, hiding in a friend's car. When they tried to intimidate his suppliers, he turned to in-house design, and secretly outsourced production to communist Poland. Decades later, east Europeans freed from the shoddy scarcity of the planned economy drove hundreds of miles to newly opened outlets in Moscow and Warsaw.

His self-discipline was legendary. As a child, he removed the "off" button from his alarm clock to stop himself oversleeping. He shunned first-class travel. The champagne didn't get you there any earlier, he sniffed; having lots of money was no reason to waste it. He bought his clothes in flea markets, and for years drove an elderly Volvo until he had to sell it on safety grounds. He had his hair cut in poor countries to save money. Even his tax exile in Switzerland was parsimonious. Visitors admired the views, but were surprised that his villa was so run-down. He worked well into his eighties.

His austerity and diligence set a good example to his 194,000 "co-workers", (never "employees"). But he was no skinflint. The point of cutting costs was to make goods affordable, not to compromise quality. The real enemies were arrogance, cowardice, distraction and above all waste. He urged his staff to reflect constantly on ways of saving money, time and space. A tweaked design that allows easier stacking means shipping less air—and more profit.

Culture trumped strategy. He despised "exaggerated planning", along with financial markets and banks. Better to make mistakes and learn from them. And use time wisely: "You can do so much in ten minutes. But ten minutes once gone are gone for good." This did not apply to customers. The longer they tarried, the better.

Mr Kamprad's impact on modern life rivalled that of Henry Ford and the mass-produced motor car. Furniture used to be costly, clunky, dark and heavy. For the cash-strapped and newly nesting, fitting out a home could cost many months' salary. IKEA made domesticity not just affordable and functional, but fun. Out went the hand-me-downs and junk-shop monstrosities. In came the cool, tasteful, egalitarian look and feel of modern Sweden. Airy, sparse, uncluttered—a little bland, perhaps, but hard to dislike. The mission was civilisational, he felt, changing how people lived and thought, and boosting democracy more than anything politicians did.

His approach drew some fire. The intensity of company values struck some as creepy. At IKEA's Corporate Culture Centre, ubiquitous pictures of Mr Kamprad accompany his mottos about humility, willpower and renewal. Some parts of the supply chain seemed whiffy; so did the empire's extreme tax efficiency. The self-assembly, aided only by an Allen key and diagrams, could be infuriating, but piecing together IKEA's accounts, this paper wrote in 2006, was even more exasperating.

Design flaw

His greatest mistake was a youthful but lingering flirtation with fascism. Though his best friend for years was a Jewish refugee, Mr Kamprad never disavowed his ties with Sweden's leading far-right politician, Per Engdahl, nor his Hitler-loving German grandmother. Drip-fed excuses fuelled critics' suspicion. In response, IKEA made a colossal charitable donation. "Why did I not reveal this past foolishness myself?" Mr Kamprad explained. "Simple. I was afraid it would hurt my business." Frugality may be admirable, but not when it comes to telling the truth.

This article appeared in the Obituary section of the print edition under the headline "Self-made man"