The Economist

Trump's war on red tape Battlefield medicine on the streets What the free-speech debate gets wrong Mate selection: mother knows best

OCTOBER 14TH-20TH 2017

The world's most powerful man







WHEN YOUR PASSION INSPIRES THE WORLD, YOU'VE MADE HISTORY.

This watch is a witness to passionate artists, and the most unforgettable performances. Worn on the wrists of those who inspire audiences around the world. It doesn't just tell time. It tells history.



CELLINI MOONPHASE



SAMSUNG

FlexWash™

Ĩ

One machine. Two washers.

(O M

- Indenes, - Inducers - Inducerse - Inducersory - Inducers, - Inducerse - Inducers - Inducers, - Inducerse - Indenes, - Inducerse - Indenes, - Inducerse Carte

Live beautiful

© 2017 Samsung Electronics America, Ir

Contents



On the cover

Xi Jinping now has more clout than Donald Trump. The world should be wary: leader, page 11. China's leader has been good for the Communist Party but not for his country, page 18. A study of China's foreign aid reassesses the country's reputation as a bad donor, page 38. America's politicians try to control Chinese firms abroad. It is a dangerous game: Schumpeter, page 61

The Economist online

Daily analysis and opinion to supplement the print edition, plus audio and video, and a daily chart **Economist.com**

E-mail: newsletters and mobile edition Economist.com/email

Print edition: available online by 7pm London time each Thursday Economist.com/print

Audio edition: available online to download each Friday Economist.com/audioedition

The Economist

Volume 425 Number 9062

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

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

8 The world this week

Leaders

- 11 Chinese politics The world's most powerful man
- **12 British politics** Clear out the cabinet
- Deregulation in America A cost-benefit analysis
 Irag and Islamic State
- Squandering the peace
- 14 Cambodia The man who foiled the UN

Letters

16 On Catalonia, the American constitution, cancer, guns, Tom Petty

Briefing

18 Xi Jinping after five years Life and soul of the party

United States

- **21 Speech on campus** The intolerant fifth
- 22 Campus activists Psyche protection
- 24 Hollywood Wein stain
- 24 Inland waterways Take me to the river
- 26 California wildfires Ablaze
- 26 Drones Buzzed by the fuzz
- 27 Trump and the Senate A Corker of a row
- 28 Lexington Evangelicals divided

The Americas

- **29 Canada** Trudeau's flying unicorn hits a storm
- **30 Brazil** Congress reforms itself
- 30 Reading to Cuban cigar workers Havana lector
- 31 Bello
 - Time to bury Che Guevara for good

Asia

- **32 South Korea** Promising the Moon
- **33 Celebrating Diwali** Smoke and errors
- **34 Politics in Cambodia** The logical step
- 34 Justice in Pakistan More blinkered than blind
- **35 Japan's election** Staying power
- **35 The media in Myanmar** Patriotic to a fault
- **36 Banyan** The magic of land reform

China

- 37 Education Yearning for freedom38 Foreign aid
 - Rogue to vogue?

Middle East and Africa

- **39 South Sudan** Guns, germs and stealing
- **40 Sanctions on Sudan** Not much relief
- **40 Kenya's electoral poker** Going all in
- **41 The storm in Tehran** Raining on Iran's parade
- **42 Reconstruction in Iraq** After Islamic State
- **42 Cleaning up after IS** Rubble trouble

Europe

- **43 Catalonia and Spain** Touching the void
- **44 Austrian politics** The Wunderwuzzi
- **44 Turkey and America** Battle of the strongmen
- **45 France's opposition** Luckier with Wauguiez?
- **46 Who rules Poland?** Duda's defiance
- **46 Communist nostalgia** Iron Curtain kitsch
- **47 Charlemagne** Breakaway blues



Universities and free speech The problem on American campuses is not what it seems, page 21. Putting microaggressions under the microscope, page 22. An academic proposes some solutions, page 76



South Sudan As the world's newest country plunges into the abyss, America reconsiders its support for the regime, page 39



Cambodia The prime minister has consistently undermined a 25-year push for democracy: leader, page 14. The government asks the courts to abolish the opposition, page 34



Deregulation Donald Trump's approach is a strange mix of thoughtful and dangerous: leader, page 12. The White House has found it easy to stop new regulations in their tracks. Repealing old ones will be much harder, page 55



Treating trauma Lessons learned on battlefields are helping civilian doctors save victims of terrorism, page 51



Free exchange Richard Thaler wins the Nobel prize for economic sciences, page 68

Britain

- **48 Brexit and Theresa May** Balls, courts and no deals
- **49 The Scottish National Party** Europe's other separatists
- **50 Bagehot** Tories debate capitalism

International

51 Trauma medicine Damage control

Business

- **55 Deregulation in America** Trump v the rule book
- **57 Manufacturing and skills** Making it in America
- 58 McKinsey under pressure South Africa erupts
- **59 Procter & Gamble** Close shave
- **59 Kobe Steel falsifies data** Base metal
- **60 Smartphone security** Mind the app
- 61 Schumpeter The nuclear option

Finance and economics

- **63 Supply-chain finance** The missing link
- 64 Buttonwood Finance ten vears on
- 65 Brexit and derivatives Standing novations
- 65 China's currency Tricky troika
- 66 Financial technology in Myanmar Passing the buck
- **67 BBVA** Going digital
- 68 Free exchange Richard Thaler

Science and technology

- **71 Glassmaking** Gorilla tactics
- 72 The rules of attraction Best mates
- 73 Better childbirth Bugs for the system
- 73 Clean energy and ecology Flexing the mussels

Books and arts

- **74 Military planning** The other side has a vote
- 75 Myanmar and the Rohingyas At first light the darkness fell
- 75 Marriage What goes down may come up
- **76 Speech on the quad** The talking cure
- 77 Vermeer Answering the riddle

80 Economic and financial indicators

Statistics on 42 economies, plus a closer look at global investment-banking revenue

Obituary

82 Lady Lucan In cold blood



Choosing a mate What the eyes and odours of couples reveal about sexual attraction, page 72

Subscription service

For our latest subscription offers, visit **Economist.com/offers** For subscription service, please contact by telephone, fax, web or mail at the details provided below:

North America

The Economist Subscription Center P.O. Box 46978, St. Louis, M0 63146-6978 Telephone: +1 800 456 6086 Facsimile: +1 866 8075 E-mail: customerhelp@economist.com

Latin America & Mexico

The Economist Subscription Center P.O. Box 46979, St. Louis, MO 63146-6979 Telephone: +1 636 6449 5702 Facsimile: +1 636 6449 5703 E-mail: customerhelp@economist.com

Subscription for 1 year (51 issues)

United States	US \$158.25 (plus tax)
Canada	CA \$158.25 (plus tax)
Latin America	US \$289 (plus tax)

Principal commercial offices:

The Adelphi Building, 1-11 John Adam Street, London wc2N 6HT Tel: +44 (0) 20 7830 7000

Rue de l'Athénée 32 1206 Geneva, Switzerland Tel: +41 22 566 2470

750 3rd Avenue, 5th Floor, New York, NY 10017 Tel: +1 212 541 0500

1301 Cityplaza Four, 12 Taikoo Wan Road, Taikoo Shing, Hong Kong Tel: +852 2585 3888

Other commercial offices: Chicago, Dubai, Frankfurt, Los Angeles, Paris, San Francisco and Singapore

PEFC PEFC/29-31-58

This copy of *The Economist* is printed on paper sourced from sustainably managed forests certified to PEFC www.pefc.org

PFFC certified



© 2017 The Economist Newspaper Limited. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Newspaper Limited. *The Economist* (ISSN 0031-0631) is published every week, except for a year-end double issue, by The Economist Newspaper Limited. *The Economist* (ISSN 0031-0631) is published every week, except for a year-end double issue, by The Economist Newspaper Limited. *Sol* 37 d Newnue, 5th Floor New York, NY 10017. *The Economist* is a registered trademark of The Economist Newspaper Limited. *The Sol* 30 d state paid at New York, NY and additional mailing offices. **Postmasters**: Sol and Adress changes to The Economist Newspaper Limited. *Sol* 37, Sol 30 d Sol 30, Sol 31, Return undeliverable Canadian addresses to The Economist, P.O. Box A6978, S.L. Louis, N.O. 63346-6978, USA. Canada Post publications mail (Canadian distribution) sales agreement no. 40012331. Return undeliverable Canadian addresses to The Economist, P.O. Box 258 STN A, Toronto, ON MSW 1X9. GST R123236267. Printed by Quad/Graphics, Hartford, WI. 53027



He's a fan.



To find out why Adam Scott is a fan visit mandarinoriental.com ATLANTA • BANGKOK • BARCELONA • BODRUM • BOSTON • GENEVA • GUANGZHOU • HONG KONG • JAKARTA • KUALA LUMPUR • LAS VEGAS LONDON • MACAU • MADRID • MARRAKECH • MIAMI • MILAN • MUNICH • NEW YORK • PARIS • PRAGUE • SANYA • SHANGHAI • SINGAPORE • TAIPEI • TOKYO • WASHINGTON D.C.

The world this week

Politics



Catalonia's president, Carles Puigdemont, declared that the Spanish region had voted for a mandate for independence at a referendum on October 1st, but said he intended to delay acting on it pending negotiations. Spain's prime minister, Mariano Rajoy, did not offer talks, asking instead whether Mr Puigdemont was declaring independence or not. A few days earlier, huge pro-Spanishunity rallies took place in Madrid and Barcelona, urging Catalonia not to secede.

Public-sector unions in **France** staged a one-day strike against Emmanuel Macron's labourmarket reforms. Mr Macron has seen his popularity wane since his election as president in May.

America enraged the **Turkish** government by suspending most visa approvals for Turks, in retaliation for the arrest of a Turkish national employed at the American consulate in Istanbul. Turkey then responded in kind.

Running from the outside

Margarita Zavala, a former first lady in **Mexico**, resigned from the conservative National Action Party after clashing with its leader, Ricardo Anaya. Ms Zavala, who is married to Felipe Calderón, president from 2006 to 2012, said she would run as an independent in next year's presidential election.

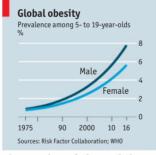
Police in **Colombia** fired into a crowd of farmers protesting against coca eradication efforts in Tumaco, one of the country's poorest areas, killing six. Three days later police shot at

foreign human-rights workers and journalists attempting to investigate the incident. President Juan Manuel Santos called the episode "regrettable". Four police officers were suspended.

Brazil's congress passed a series of electoral reforms that aim to make politics cleaner. A "special campaign-finance fund" will provide taxpayer money to candidates in next year's national elections, while a "barrier clause" prevents the smallest parties from getting public financing and free television and radio time. Supporters hope the latter clause will reduce the number of parties in congress, which stands at 26.

Hurricane Nate triggered mudslides and floods in Nicaragua, Costa Rica and Honduras, killing at least 22 people.

Weighty figures



The number of **obese children** and adolescents in the world has increased tenfold in four decades, according to the World Health Organisation. In the mid-1970s less than 1% of those aged 5-to-19 were obese. By 2016 it was 7%, or 124m. Another 213m were overweight, meaning nearly a fifth of young people were unhealthily fat. The WHO predicts that the number of obese children could surpass undernourished ones by 2022.

Raila Odinga, **Kenya's** main opposition candidate, pulled out of a re-run of the presidential election that was scheduled for October 26th. He said failures by the electoral commission that prompted the courts to annul the results of the presidential election in August had not been rectified. The electoral commission in the **Democratic Republic of Congo** declared that elections cannot be held before April 2019, deepening a constitutional crisis. The president, Joseph Kabila, was supposed to step down in December 2016 at the end of his last term. But he has remained in power because his government has failed to organise elections despite promising to do so this year.

An **Iraqi** court ordered the arrest of **Kurdish** officials who were involved in organising a referendum last month over the region's independence. Most of those who voted in the referendum cast their ballots in support of the Kurdish region breaking away from Iraq.

Dream on

The White House asked Congress to pass its agenda on curtailing illegal immigration, such as building a wall along the border with Mexico, in exchange for a deal on safeguarding the future of young undocumented migrants, or Dreamers. Last month Democratic leaders in Congress surprised their party, and Republicans, by announcing they had reached a compromise with Donald Trump over the Dreamers. Those hopes now seem a bit premature.

Kirstjen Nielsen was tapped to become the head of America's Department of Homeland Security. A cyber-security expert, Ms Nielsen worked under John Kelly when he led the department before his appointment as Mr Trump's chief of staff.



At least 23 people were killed in counties north of San Francisco when they were caught in wildfires that spread across **California's** best-known wine-growing region.

Testing the waters

China accused America of violating Chinese and international law by sending a warship close to the Paracel islands in the **South China Sea**, which are claimed by China, Taiwan and Vietnam. The destroyer kept farther than 12 nautical miles from the islands, the maximum extent from shore of a country's territorial sea.

Immigration officers in **Hong Kong** refused to allow a British human-rights activist, Benedict Rogers, to enter the territory. Mr Rogers said no reason was given for barring him, though he is an outspoken critic of China's restrictions on democracy in Hong Kong.

The Cambodian government pushed to ban the main opposition by asking the Supreme Court to dissolve the Cambodia National Rescue Party ahead of next year's election. Hun Sen, **Cambodia's** prime minister since 1985, has cracked down on dissent, imprisoning opposition leaders, shutting down newspapers and radio stations and kicking several NGOS out of the country.

Amid falling popularity ratings, President Rodrigo Duterte of the **Philippines** removed the police from the front line of his shoot-to-kill campaign against suspected drug dealers. Officers from the national drugs agency will instead lead the operations. Officially, 3,850 people have died during Mr Duterte's campaign. Humanrights groups think the real figure is much higher.

Virtual-will power

A court in Brisbane, Australia, decided that an unsent text found on a dead man's mobile phone constituted his **last will and testament**. The message was discovered in the phone's drafts folder and said it gave "all that I have" to the man's brother and nephew, instead of his wife. The message also stated where he wanted his ashes to be spread, and noted a bit of cash kept behind the TV.

Business

Procter & Gamble declared victory in seeing off a challenge from Nelson Peltz, an activist investor, for a seat on the board. The consumergoods group said a preliminary count showed that all its current directors had been re-elected by shareholders at its annual meeting. Mr Peltz said he would wait for the final tally to be certified before conceding defeat. It was the biggest and costliest proxy fight for a board seat in American corporate history. After Mr Peltz's firm took a \$3.5bn stake in P&G, the company spent tens of millions fighting his campaign for it to boost profits by streamlining its business.

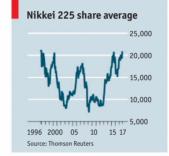
In some good news for Mr Peltz, the chief investment officer at **Trian**, his management fund, won a seat on the board of **General Electric** and will argue for deeper costcutting at the conglomerate. This year has seen a sizeable increase in spending by activist investors overall, as they set their sights on bigger-thanusual corporate targets.

And don't slam the door

The Weinstein Company sacked Harvey Weinstein following claims that he had sexually harassed women in the film industry for decades. The claims bring an ignominious end to the career of one of Hollywood's most influential producers, who helped finance "Pulp Fiction" and other critically acclaimed movies. Mr Weinstein apologised for "the way I've behaved", but denied the more serious allegations. It is the latest sexual-misconduct scandal to rock corporate America, coming on the heels of similar assertions made at Fox News.

BAE Systems said it would shed nearly 2,000 jobs in Britain, or about 6% of its workforce in the country, in a restructuring that will refocus the global defence company around three manufacturing divisions: land, sea and air. The bulk of job losses will be at the factory that assembles the Typhoon jet, for which orders have dwindled.

Kobe Steel's share price swooned after it revealed that the safety-inspection records on some aluminium, copper and steel products it had shipped to customers had been forged. Japan's third-biggest steelmaker provides materials to many companies in heavy industry, including carmakers and aircraft manufacturers.



Despite the plummeting value of Kobe Steel's equity, Japan's **Nikkei 225** stockmarket average hit a 21-year high, buoyed in part by soaring expectations that the weaker yen will produce bumper quarterly profits.

The American economy lost 33,000 **jobs** in September, the first contraction in payrolls for seven years. The hurricanes that battered Texas and Florida were blamed, though there were some bright spots. An extra 11,000 insurance-claims adjusters were hired, and building-supply stores took on another 5,000 staff.

The IMF slightly raised its forecast for **world growth** to 3.6% this year and 3.7% in 2018. The fund estimates a strong rebound for advanced economies, driven by growth in Canada, the euro area and Japan. But it still has nagging worries about an uncertain policy outlook for America, and tricky Brexit talks for Britain.

They've ad it coming

Google said it was investigating "attempts to abuse our systems", after it was reported that it, too, had been targeted by Russian provocateurs during last year's presidential election. Media reports suggest the Russians placed ads or created channels designed to spur political controversy on Gmail, YouTube and other Google services.

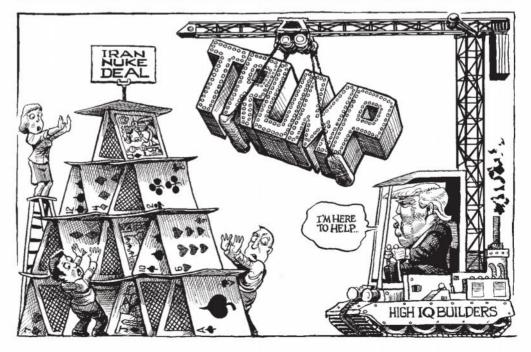
Alibaba decided to establish a research academy with offices in cities around the world and advisers from leading universities. The Chinese e-commerce firm is ramping up its spending on R&D to \$15bn over the next three years, which should help it keep up with the technological prowess of Amazon and Google. Its academy will work on data intelligence, the internet of things, fintech, quantum computing, humanmachine interaction and many other things.

Qualcomm was given a \$774m fine in Taiwan for abusing its commanding position in the market for licensing chips for phones, the biggest such penalty to be handed down in the country. It is the latest antitrust ruling to hit the company following a similar decision in South Korea. America's Federal Trade Commission is also investigating its alleged anti-competitive behaviour.

Lost its fizz

The **sugar-tax** movement received a big setback when Cook County, which covers Chicago, voted to repeal a levy on sugary drinks, just two months after it came into effect. Small businesses complained that they were losing customers, with some even driving across the county line and state line to avoid paying the tax.

Other economic data and news can be found on pages 80-81





CIB "World's Best Bank in the Emerging Markets" by Euromoney









A BANK TO TRUST

Leaders

The world's most powerful man

Xi Jinping now has more clout than Donald Trump. The world should be wary



AMERICAN presidents have a habit of describing their Chinese counterparts in terms of awe. A fawning Richard Nixon said to Mao Zedong that the chairman's writings had "changed the world". To Jimmy Carter, Deng Xiaoping was a

string of flattering adjectives: "smart, tough, intelligent, frank, courageous, personable, self-assured, friendly". Bill Clinton described China's then president, Jiang Zemin, as a "vision-ary" and "a man of extraordinary intellect". Donald Trump is no less wowed. The *Washington Post* quotes him as saying that China's current leader, Xi Jinping, is "probably the most powerful" China has had in a century.

Mr Trump may be right. And were it not political suicide for an American president to say so, he might plausibly have added: "Xi Jinping is the world's most powerful leader." To be sure, China's economy is still second in size to America's and its army, though rapidly gaining muscle, pales in comparison. But economic heft and military hardware are not everything. The leader of the free world has a narrow, transactional approach to foreigners and seems unable to enact his agenda at home. The United States is still the world's most powerful country, but its leader is weaker at home and less effective abroad than any of his recent predecessors, not least because he scorns the values and alliances that underpin American influence.

The president of the world's largest authoritarian state, by contrast, walks with swagger abroad. His grip on China is tighter than any leader's since Mao. And whereas Mao's China was chaotic and miserably poor, Mr Xi's is a dominant engine of global growth. His clout will soon be on full display. On October18th China's ruling Communist Party will convene a fiveyearly congress in Beijing (see Briefing). It will be the first one presided over by Mr Xi. Its 2,300 delegates will sing his praises to the skies. More sceptical observers might ask whether Mr Xi will use his extraordinary power for good or ill.

World, take note

On his numerous foreign tours, Mr Xi presents himself as an apostle of peace and friendship, a voice of reason in a confused and troubled world. Mr Trump's failings have made this much easier. At Davos in January Mr Xi promised the global elite that he would be a champion of globalisation, free trade and the Paris accord on climate change. Members of his audience were delighted and relieved. At least, they thought, one great power was willing to stand up for what was right, even if Mr Trump (then president-elect) would not.

Mr Xi's words are heeded partly because he has the world's largest stockpile of foreign currency to back them up. His "Belt and Road Initiative" may be puzzlingly named, but its message is clear—hundreds of billions of dollars of Chinese money are to be invested abroad in railways, ports, power stations and other infrastructure that will help vast swathes of the world to prosper. That is the kind of leadership America has not shown since the post-war days of the Marshall Plan in western Europe (which was considerably smaller).

Mr Xi is also projecting what for China is unprecedented military power abroad. This year he opened the country's first foreign military base, in Djibouti. He has sent the Chinese navy on manoeuvres ever farther afield, including in July on NATO's doorstep in the Baltic Sea alongside Russia's fleet. China says it would never invade other countries to impose its will (apart from Taiwan, which it does not consider a country). Its base-building efforts are to support peacekeeping, anti-piracy and humanitarian missions, it says. As for the artificial islands with military-grade runways it is building in the South China Sea, these are purely defensive.

Unlike Vladimir Putin, Russia's president, Mr Xi is not a global troublemaker who seeks to subvert democracy and destabilise the West. Still, he is too tolerant of troublemaking by his nuke-brandishing ally, North Korea (see Schumpeter). And some of China's military behaviour alarms its neighbours, not only in South-East Asia but also in India and Japan.

At home, Mr Xi's instincts are at least as illiberal as those of his Russian counterpart. He believes that even a little political permissiveness could prove not only his own undoing, but that of his regime. The fate of the Soviet Union haunts him, and that insecurity has consequences. He mistrusts not only the enemies his purges have created but also China's fastgrowing, smartphone-wielding middle class, and the shoots of civil society that were sprouting when he took over. He seems determined to tighten control over Chinese society, not least by enhancing the state's powers of surveillance, and to keep the commanding heights of the economy firmly under the party's thumb. All this will make China less rich than it should be, and a more stifling place to live. Human-rights abuses have grown worse under Mr Xi, with barely a murmur of complaint from other world leaders.

Liberals once mourned the "ten lost years" of reform under Mr Xi's predecessor, Hu Jintao. Those ten years have become 15, and may exceed 20. Some optimists argue that we have not yet seen the real Mr Xi—that the congress will help him consolidate his power, and after that he will begin social and economic reforms in earnest, building on his relative success in curbing corruption. If he is a closet pluralist, however, he disguises it well. And alarmingly for those who believe that all leaders have a sell-by date, Mr Xi is thought to be reluctant to step down in 2022, when precedent suggests he should.

Reasons to be fearful

Mr Xi may think that concentrating more or less unchecked power over 1.4bn Chinese in the hands of one man is, to borrow one of his favourite terms, the "new normal" of Chinese politics. But it is not normal; it is dangerous. No one should have that much power. One-man rule is ultimately a recipe for instability in China, as it has been in the past—think of Mao and his Cultural Revolution. It is also a recipe for arbitrary behaviour abroad, which is especially worrying at a time when Mr Trump's America is pulling back and creating a power vacuum. The world does not want an isolationist United States or a dictatorship in China. Alas, it may get both.

British politics

Clear out the cabinet

A purge would reanimate Theresa May's weak and stable government

ONLY six months ago Theresa May seemed all-powerful. Yet the snap election that was supposed to deliver a landslide for the Conservatives instead took away their majority, and with it every shred of the prime minister's authority. The

minority government is paralysed: it lacks the numbers to get anything meaningful through Parliament; the cabinet is unable to agree on anything, or to disguise the fact; and the party is terrified of ousting its feeble leader, lest the subsequent civil war let in the newly rampant Labour Party.

Zombie governments like Mrs May's can stagger on for a long time. John Major spent most of his six years in office in the 1990s fighting assassination attempts by his own backbenchers, yet the ship of state chugged on. The difference today is that Britain is steaming towards the Niagara Falls of Brexit. If Mrs May does not take charge, Britain will plunge over without a deal in March 2019. She should start by replacing her mutinous, incompetent cabinet with a new crew.

Take back control

Time is terrifyingly short. The substance of the Brexit talks will be concluded about a year from now. Next week European leaders will decide whether enough progress has been made on Britain's exit bill and the Irish border to move on to discuss trade and transition arrangements, as Britain wants. It is in everyone's interests to do so: a rule of negotiations is that considering everything in the same bundle maximises the scope for deals. Instead, France and Germany seem minded to make Britain wait. As well as reducing the chances of a mutually good outcome, this increases the risk of the talks breaking down altogether. European negotiators are correct to think that the airy talk in London of walking away with "no deal" is a bluff. What they do not realise is that Britain's chaotic political conditions mean that it could happen anyway (see page 48).

That chaos has been encouraged by Boris Johnson, who published his own 4,000-word Brexit manifesto in a newspaper days before a big speech last month by the prime minister, and drew up "red lines" in an interview afterwards which flatly contradicted the government's position. The foreign secretary's disloyalty is hardly offset by his skills as a diplomat. He is ridiculed abroad and disliked in the Foreign Office. Until recently he gave the impression of wanting to be sacked, the better to mount a leadership bid. But now even Brexiteer Tory MPs have tired of him. Mrs May should cut him loose.

She should not stop there. The cabinet is stuffed with hasbeens and never-weres, who achieved little even when the government had a majority. Chris Grayling, Andrea Leadsom and Priti Patel are among those ripe for relegation to the backbenches. Purging ministers who voted for Brexit would provoke calls to even things up by sacking some Remainers. A campaign is being waged to unseat Philip Hammond, the competent chancellor, who favours a softer Brexit. A better idea would be to promote a new generation of Tory MPs, many of whom happen to be enthusiastic Brexiteers. The likes of Rishi Sunak, Kwasi Kwarteng and Nusrat Ghani would bring talent to the cabinet, and diversity—not least in terms of age, the biggest divide in British politics.

Reshuffling her ministers will not solve all Mrs May's problems. The Tories will still be irreparably split on the most important issue facing Britain. But promoting some new faces with new ideas and a dash of competence would give the government a better shot at dealing with it. It would also prepare the ground for Mrs May's eventual handover to a new leader. The next generation of MPs offers an embarrassment of riches. Too many of the current cabinet are just an embarrassment.

Deregulation in America

A cost-benefit analysis

Donald Trump's regulatory policy is a strange mix of thoughtful and dangerous



CONSPIRACY theorists who support President Donald Trump fulminate against the socalled "deep state" that is trying to thwart him. The federal bureaucracy of Washington, they believe, is the main source of resistance. But this claim exagger-

ates the influence of bureaucrats and fails to do justice to Mr Trump's achievements. The president may not have repealed Obamacare or passed tax reform, but he has overseen, as he promised, a historic slowdown in rule-writing by federal agencies. Since Mr Trump's inauguration, the flow of new rules has slowed by about 60% (see page 55).

Is this an achievement to be proud of? The number of rules is a crude gauge of the burden of red tape. But it belies a much deeper shift in regulatory philosophy. The Trump administration claims that it will no longer use regulations as a substitute for legislation; that the effects of new rules will be more rigorously assessed; and that the burden on business will be reduced. Two of these goals are sensible. One is dangerous.

Start with executive overreach. When Congress blocked Barack Obama's proposed laws, he wrote rules instead. The most significant example is the Clean Power Plan (CPP), which aimed to reduce carbon emissions. Mr Obama's Environmental Protection Agency (EPA) penned the plan on dubious legal » authority. This week, Scott Pruitt, Mr Trump's climate-changedenying EPA chief, started the long process of unwinding it.

This newspaper laments Republicans' shameful denial of scientific facts, and despairs at the unwillingness of Congress to act to address climate change. Yet the argument that Mr Obama stretched the boundaries of his legal authority has merit. Neither the CPP nor Mr Obama's other flagship environmental rule, which concerns the regulation of waterways, has ever come into effect, because each was stayed by the courts. Either or both could yet be struck down completely.

Mr Trump, who wants to change Senate rules to force through his agenda, is an unlikely guardian of America's constitution. The true test of whether he is committed to limiting executive rule-making will come when Congress refuses to comply with his agenda on, say, trade policy. After all, Mr Obama came to office determined to pare back the powers of the presidency, but then changed course when Congress frustrated him. And the early signs are not good. Having failed to repeal Obamacare, Mr Trump promised this week to "[use] the power of the pen" to implement health reform.

The second supposed advance is towards more rigorous analysis of the effects of regulations. The Obama administration tended to take too rosy a view of the benefits of government intervention. For example, it tried to boost wages by greatly expanding the number of workers eligible for overtime pay. This defies economic logic; it is a bit like raising the minimum wage, but only on Fridays.

Under Mr Trump, such folly is less likely. That is partly because there is less regulation happening to begin with. It is also because the office in the White House responsible for vetting agencies' analyses, whose career staff are more cautious than It is the third part of Mr Trump's regulatory agenda that is worrying. The administration is measuring its success by how much it can reduce regulatory costs to firms, while seeming to ignore the benefits to consumers and citizens that might be lost along the way. Republicans' use of Congress's right of review to repeal 14 rules issued late in Mr Obama's presidency was not based on a careful consideration of costs and benefits, so much as on an insistence that the rules were too burdensome for businesses. That attitude could wreak havoc with environmental regulation, which imposes the biggest costs but also brings the biggest rewards. Even diehard libertarians should worry when the administration weakens rules governing the leaching of coal ash into groundwater, or permits the use of pesticides that may impair children's brain development.

Rules for regulators

Maximising benefits to society is too lofty a goal for regulators. Yet the goal must not simply be to please firms, either. Instead, regulators should identify and correct obvious market failures, and promote competition.

With that in mind, we propose a litmus test for Mr Trump's regulatory overhaul: his approach to antitrust policy. This is one area in which regulators have been too lax, allowing many firms to gain market power. If Mr Trump beefs up antitrust enforcement, ignoring the complaints of bosses, it will signal that his administration is implementing a considered regulatory philosophy. If, however, he weakens it, it will be a sign that his real goal is to govern in the name of business.

Iraq and Islamic State Squandering the peace

Having been flattened, Mosul has not been rebuilt. It could revolt once again



WHEN Haider al-Abadi, Iraq's prime minister, launched the battle a year ago to retake Mosul from the jihadists of Islamic State (Is, or Daesh in Arabic), he declared: "God willing we will meet in Mosul...all religions united. And together

we shall defeat Daesh and rebuild this dear city."

The first part of his promise, the defeat of IS, is almost done. Mosul was liberated in July by an alliance of Shias, Sunnis and Kurds, supported by America, Iran and other powers. The fight to eject IS from Raqqa, its Syrian capital, is drawing to a close.

Rebuild or rearm

But the second part of Mr Abadi's promise, the reconstruction of Mosul, has been woefully neglected. The fate of Iraq's second city matters—not just to its people, but as a symbol of the reintegration of Iraq's Sunni Arab minority. Unless Sunnis feel they have a stake in the country, another incarnation of Is will surely emerge from the ruins of Sunni cities.

The reconquest of Mosul has been a long and brutal business. Life has swiftly resumed in the newer, eastern half of the city. But the western half, especially the old city, is a dangerous and toxic heap of rubble. Americans who see it are reminded of the Allied bombing of Dresden. Others recall the sack of Nineveh, the ancient Assyrian capital that once stood on modern Mosul's outskirts.

Mr Abadi, a Shia Arab, pays lip service to reconstruction and reconciliation with Sunnis. He has promoted some Sunni generals. But he is showing little haste in making the western part of the city habitable once more (see page 42). Parts of Fallujah, another big Sunni town that was damaged when it was recaptured from jihadists in June 2016, are still in ruins.

Granted, the Iraqi army is still fighting to clear IS from its last enclaves. Of late, it has advanced on the town of Hawija and the pockets of land the jihadists still control along the border with Syria. America's generals have turned their attention to the fight for Raqqa. Its diplomats are consumed by efforts to avert another civil war in Iraq, this time between Shias and the Kurds, who voted last month in favour of independence in a referendum that was opposed by Mr Abadi.

The outside world is not showing much concern about Mosul. A date has yet to be fixed for an international conference in Kuwait on reconstruction. Officials say the government does not have the money to rebuild the city. But the real issue is not **>>** the means—this year Iraq's government will raise some \$70bn in revenue, most of it from oil sales—but the will. Mr Abadi and other politicians, preparing for a general election in April, prefer to direct any money towards their clients and constituents. Moreover, some Shias seem to think that the ruins of Mosul should stand as a reminder to Sunnis, and a warning to Kurds, of the costs of revolt.

Certainly many Sunnis see a deliberate Shia plot to destroy them. Iraq's Shia rulers thus risk repeating the misrule of Saddam Hussein, the late Sunni dictator: his suppression and displacement of Iraq's Kurds fuelled their desire for independence, and his repression of Shias helped fan sectarian hatred. The marginalisation of Sunnis by Shia governments pushed them into the arms of IS—a process encouraged by the jihadists themselves.

Mr Abadi must find effective governors for Sunni areas, pro-

vide them with funds for reconstruction and give them more autonomy in running their affairs, not least in policing. As the war winds down, he should start demobilising Shia militias and absorbing some into Iraqi units. Gulf states, having started to talk to Mr Abadi, should provide aid and help Iraq integrate into the region, thereby encouraging non-sectarian policies.

A concerted effort to rebuild Mosul, an ancient multi-ethnic city, should be a common project to help bind Iraq's wounds. It would signal to Kurds that they have more to gain by staying within Iraq than in breaking away—particularly if they got a share of the contracts. Ultimately IS feeds on Arab Sunnis' sense of dispossession, not just in Iraq but also in Syria, where mostly Sunni cities have been devastated in the civil war. Success in Mosul, and a political settlement that gives Sunnis their proper place, is vital to winning the peace in Iraq, and may set an example to help end the war in Syria.

Cambodia The man who foiled the UN

The prime minister has consistently undermined a 25-year push for democracy



YOU don't get to be the world's longest-serving prime minister by leaving your future up to voters. Instead Hun Sen, who has led Cambodia since 1985, relies on curtailing their options. His government is petitioning the courts to dis-

solve the Cambodia National Rescue Party (CNRP), the only opposition group that threatens his grip (see page 34). As it is, the leader of the CNRP, Kem Sokha, is in jail, on charges of treason. His predecessor, Sam Rainsy, has fled the country, as have about half of the party's 55 MPS.

The head of the only other party bar Mr Hun Sen's Cambodian People's Party (CPP) to win control of any local councils in commune elections this summer is also behind bars. The evisceration of the opposition ensures that the CPP will romp home in next year's parliamentary election. The prime minister recently said that he planned to remain in charge for another ten years.

It is not just politicians who are in Mr Hun Sen's sights. His government has passed laws making it impossible for labour unions and other pressure groups to criticise it without risking closure. It has shut down an independent newspaper and several radio stations. Foreign NGOs have been expelled from the country. The army has threatened political protesters with violence, and has vowed to stand by the CPP "for ever".

This is not the outcome the UN had in mind 25 years ago, when it undertook an ambitious mission to rescue Cambodia from decades of violence and misery. Mr Hun Sen was already prime minister then, but was locked in an inconclusive civil war with monarchist militias and their allies, the remnants of the bloodthirsty Khmer Rouge regime, which the CPP had overthrown in 1979. All these groups agreed to allow the UN to deploy a huge peacekeeping force, hold an election and help establish a new, democratic government.

It was the first time the UN had ever taken over the administration of a whole country. It was supposed to be a demonstration of the great things that the organisation could achieve in the new, post-cold-war world. Sadly, it now looks like a cautionary tale.

Although Mr Hun Sen professed to accept the UN's agenda, in practice he worked to frustrate it. He threatened to reignite the civil war unless he was allowed to stay on as "second prime minister", even though he lost the election that the UN oversaw. He later launched a coup against the "first prime minister". Although he has continued to hold regular elections, every time an opposition party looks strong enough to challenge him, he finds a way to hobble it, not least by telling voters that the choice is him or war.

All this is a terrible waste—most obviously of money. The UN'S 20-month administration in 1992-93 cost \$1.6bn (equivalent to \$2.5bn today and enough to give every Cambodian 66% of the average income per person at the time). Western donors have since spent billions more to help strengthen Cambodia's democracy. Mr Hun Sen has left them little to show for it.

Can-bodia

It is also a missed opportunity. Unlike Afghanistan, say, where international efforts at nation-building have foundered in part because the country is racked by insurgency, Cambodia is at peace. It also has few ethnic or sectarian rifts to polarise national politics. And Cambodia, although poor, has booming garment and tourism industries, which have helped the economy to grow rapidly in recent years. A functioning democracy does not seem like a pipe dream.

Western governments have found it harder to get Mr Hun Sen's attention since he struck up a close friendship with China, which is now both the biggest donor to Cambodia and its biggest source of investment. But Western aid is still important to the government, as are the Western firms that buy much of the output of Cambodia's garment factories and the Western tourists who visit its temples. Mr Hun Sen would be vulnerable, in other words, to a vigorous international campaign to induce him to restore democracy—he just does not expect one. That may be the most depressing development of all.

Are you Transformative Age ready?

We're in a new age.

Where the upside of disruption can create limitless opportunity.

An age where better questions help us find better answers to some of the world's toughest challenges.

How can AI enhance human potential?

Could you execute your strategy better by seeing digital from every angle?

Do you change your people, or change the way your people work?

Does cybersecurity only become a priority once you've been attacked?

The Transformative Age demands answers that only come from better connections.

Our consultants are seamlessly connected to our specialists and key strategic alliances.

A vast ecosystem of experience, ingenuity and diverse perspectives.

Driven by our purpose of building a better working world.

Are you ready to seize opportunity and thrive?

Are you ready for the next next?

We are.

Navigate the Transformative Age with the better-connected consultants.

The better the question. The better the answer. The better the world works.



Letters

The Catalan conundrum

It is the Spanish constitution, and not the government, which prevents a referendum on self-determination in Catalonia ("The Catalan question", September 23rd). Artur Mas, Catalonia's president between 2010 and 2016, whom I had the honour to serve as a consultant, inherited a financial mess from the previous Socialist-led governments. Enticed by radicals and unwilling to practise austerity, he decided to pursue the "right to decide" and a first illegal referendum was held in 2014.

Since 2012, the Spanish government has adopted austerity and structural reforms, which have resulted in booming exports and in 2017 will deliver GDP growth above 3%. It has allocated €66.5bn (\$79bn) to Catalonia out of a total of €217bn for all regions. Today, Carles Puigdemont's coalition government in Catalonia with the Republican Left (ERC) receives parliamentary support from former communists and anarchists. Many Catalans have suffered professional retaliation for opposing independence. Is it surprising that 30,000 companies have left since 2008? Catalonia needs to focus on its role as a big engine in the fourth-largest economy in the euro zone. PROFESSOR ALEXANDRE MUNS RUBTOL **OBS Business School** Washington, DC

As a Spaniard, it is intriguing how the international press views the institutional crisis we are living through. A minority of secessionists lie behind this challenge to Spanish democracy. They belong to a nationalist faction that claims historical rights and think themselves different from the rest of Spain. They promise a richer region with no foreigners (ie, Spanish) stealing their public finances. Similar calls are made by the National Front in France and the Brexiteers in Britain, yet Catalonian nationalism is portrayed as harmless and even righteous by the international media.

Nationalism, however benign it might appear, is the direct opposite of the values of the EU; it is the enemy of liberal democracy and it has bloomed across Europe since the economic crisis. Now is not the time to lower our guard. JAVIER MARTÍN Madrid

For centuries, Spanish institutions have regarded multilingualism as a threat to a uniform state. Spanish remains Spain's only official language. The main Spanish parties block Catalan from becoming an official language of the EU. Catalan speakers are forced to speak Spanish when a judge does not understand their language at a trial. Civil servants in Catalan-speaking areas do not have to engage with the language of the population they purportedly serve, yet Catalan civil servants must know Spanish. Catalan speakers do not have a right to address institutions outside Catalonia in their own language.

Other countries, such as Belgium, Canada, Finland and Switzerland, respect linguistic rights. Why not Spain? OSCAR ESCUDER I DE LA TORRE President Plataforma per la Llengua Barcelona

Checks and balances

I read your briefing on the possibility of calling a convention for proposing constitutional amendments in America ("Conventional follies", September 30th). A "convention for proposing amendments", as prescribed by the constitution, is neither a "constitutional convention", nor is it dangerous. It is a limited-purpose, temporary assembly with no governmental authority. It is subject to law and judicial review. The amendment procedure, including the convention for proposing amendments, is in Article V of the constitution. A long line of legal cases, from 1798 into the 21st century, has fixed the legal principles governing Article V. In general, those principles derived from

historical practice governing legislatures and conventions.

The assertion that "there is absolutely no force that can override what the convention does" is nonsense on stilts. The interpretation you cited of *Coleman v Miller* in 1939 has been rejected repeatedly by state and federal courts.

In addition to judicial review, a convention is subject to further constraint. As a convention of the states, its delegations are subject to state legislative instruction and recall. If the convention makes an unauthorised proposal, Congress can refuse to select a "mode of ratification" for it.

Your characterisation of the 1787 constitutional convention was also partly inaccurate. It was not bound by the Articles of Confederation, because it was called by Virginia and held under the states' reserved powers. By contrast, a convention for proposing amendments would be held, as James Madison observed, "pursuant to the forms of the constitution" and therefore subject to constitutional constraints.

Peddling imaginary fears to persuade Americans to ignore a crucial check on power is like telling the president not to veto an obnoxious bill because his pen might explode. ROBERT NATELSON Director Article V Information Centre Denver

Cancer survival rates

"Closing in on cancer" (September 16th) followed the reasoning that increased survival rates mean better cures. You did not take the lead-time bias into account. This occurs when a disease is diagnosed early or by screening before it becomes apparent. Early diagnosis and screening mean that the patient lives longer with the disease and the survival rate increases, independently of any potential treatment.

In the case of prostate cancer, more screening and earlier diagnosis take place in America than in Britain and explain much of the different survival rates. Cancer mortality is a better measure for improved treatment because it indicates how many people die from a given cancer. DR MARTIN SCHNEIDER *Geneva*

Weaponised reasoning

Polls may well show that most Americans favour universal background checks on gun purchases ("Deathly silence", October 7th). But the mass shooter in Las Vegas passed background checks and had no history of mental illness. Exactly what sort of law would have prevented this massacre besides an outright ban on guns? The underlying cultural obsession with firearms in America is a big problem that doesn't adapt to change easily. Telling Americans to buy fewer guns is like telling Germans to drink less beer. Good luck. OLIVER REIF Seattle

He was, an American guy



I don't know, but I've been told that there's no easy way to decide who should feature in the obituary. While the back page is given over to Hugh Hefner in the October 7th edition, the subtle tribute across the subheadings in the rest of the issue left me workin' on a mystery, goin' wherever it leads. Tom Petty may have gone into the great wide open, but your shout-out offered fans one more time to kill the pain. JIM DI LIBERTO

New York 📕

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London wc2N 6HT E-mail: letters@economist.com More letters are available at: Economist.com/letters

Executive Focus



SHELTER AFRIQUE Financing Affordable Housing for Africa

MANAGING DIRECTOR

SHELTER-AFRIQUE is a leading Pan -African Development Finance Institution that is dedicated to investment in housing and urban development in Africa. The company provides real estate project finance, lines of credit, and trade finance to financial institutions, private sector developers and public institutions in 44 African countries. As part of its transformation and turnaround program, the company seeks to recruit a Managing Director from experienced professionals of its member countries. The job and person specification is outlined below.

A.Overall Purpose and Key Responsibilities

Reporting to the to the Board of Shelter Afrique, the Managing Director has overall leadership responsibility for implementation of the Shelter Afrique mandate of mobilizing resources for housing and related infrastructure development in Africa. Working with Private and Public sector institutions he/she will identify, develop and implement housing and related infrastructure projects, mobilize requisite resources and prudently manage and apply them to enable Shelter Afrique realize its mandate. In addition, he/she will lead a specific strategy for transformation of Shelter Afrique to an Investment Grade Development Finance Institution.

D.2. Applications:

Applicants are invited to send a cover letter illustrating their suitability against the listed qualifications and detailed curriculum vitae as well as names and addresses of the referees to executiveroles@shelterafrique.org. Applicants can visit our web page: http://www.shelterafrique.org for more information on job requirements.

Applicants should indicate the position applied for as the subject line of their email submissions. The deadline for submission is 13th November 2017.

Only short-listed applicants meeting the above requirements will be contacted.



©WSSCC

EXECUTIVE DIRECTOR

THE WATER SUPPLY AND SANITATION COLLABORATIVE COUNCIL (WSSCC) IS HIRING AN EXECUTIVE DIRECTOR AT THE D2 LEVEL IN GENEVA.

WSSCC supports national sanitation and hygiene improvement programmes through its Global Sanitation Fund. It coordinates knowledge platforms, and advocates on behalf of the 2.3 billion people without access to improved sanitation.

Bring your experience and determination to this leadership role and help make the 2017-2020 Strategic Plan a reality.

Deadline: 5 November 2017.

Apply here: https://goo.gl/ZvGBTX

WSSCC is legally and administratively hosted by UNOPS.







Norwegian is the worlds's sixth largest low-cost carrier with over 500 routes to more than 150 destinations in Europe, North Africa, the Middle East, Thailand, the Caribbean and the US. The company, headquartered in Norway, was listed on the Oslo Stock Exchange in 2003. The Norwegian Group has organized its operations and different functions into several entities to ensure competitiveness, global growth and access to markets. Norwegians rapidly growing fleet consists of almost 150 aircrafts, one of the youngest fleets worldwide, and the company still has zoo aircrafts one of the youngest methods been voted the "World's best low-cost long-haul carrier for the third year 'Europe's best low-cost carrier' by passengers for the fifth consecutive years at SkyTrax World Airline Awards.

norwegian



As a key member of the Executive Management team, the Chief Financial Officer (CFO) will report to the CEO and assume a strategic role in the overall management and growth of the company.

For further information, contact our advisor Heidi Wiggen by email heidi.wiggen@visindi.no or phone +47 916 56 103, Renate Skilnand at renate.skilnand@visindi.no or phone +47 936 50 038 or Atle Ronglan at atle.ronglan@visindi.no, phone +47 966 27 089. CV and application can be sent through our application form at www.visindi.no/vacancies

Briefing Xi Jinping after five years



Life and soul of the party

BEIJING

China's leader has been good for the Communist Party but not for his country

****** THE Road to Rejuvenation", a permanent exhibition at the National Museum of China in Beijing's Tiananmen Square, tells the story of China's "century of humiliation". Beginning with the Opium wars, it recounts the rise of the Communist Party and the establishment of the People's Republic in 1949. The display ends with cases of mobile phones and space paraphernalia, the fruits of one-party rule.

In November 2012 Xi Jinping visited the exhibition. He had just become China's fifth leader since Mao Zedong and this was his first public appearance as party boss. At the time, he was seen as an economic reformer. But his speech at the museum was not about the economy. It contained the first statement of a theme that was to become his slogan. Surrounded by the other members of the country's highest-ranking political body, the Politburo Standing Committee, Mr Xi talked about "the greatest Chinese dream [being] the revival of the Chinese nation". A ballad, "Chinese Dream", soon topped the charts. Posters of a chubby ceramic figurine in a red robe, who apparently embodies the dream, were plastered all over the country.

This September, on the eve of one of the most important events of his leadership, Mr Xi did it all again. At another exhibition of communist achievements, again surrounded by his Politburo acolytes, he reiterated that the party's job was to pursue the "dream of national rejuvenation". The message matters. It shows where his priorities lie—not with the economy, but with the power of the Communist Party and China's standing in the world.

Five years after that first visit, Mr Xi faces a form of stocktaking. On October 18th he will open the Communist Party's congress, an event that takes place every five years and is the most important in the country's political calendar. Around 2,300 delegates will descend on the Great Hall of the People, opposite the National Museum, to revise the party's constitution and appoint a new Central Committee, the 205-strong elite that will govern the country for the next five years.

Normally, party bosses serve for ten years, so Mr Xi is at the halfway mark. If he follows recent precedent, he will appoint a successor at the congress (though there is no guarantee that he will do so). It is a good moment to ask: what has he tried to do and how successful has he been? And, regardless of success or failure, is he doing the right things?

Mr Xi sees himself as China's third transformational president, alongside Mao Zedong and Deng Xiaoping. Mao held the country together and established the communist state. Deng set China on the road to riches and (in the official view) saved the party from the lure of democracy. Mr Xi's aim is to give China back its rightful place at the centre of its world and to save the party again, this time from itself.

He Yiting, vice-president of the Central Party School, the institution in charge of training senior officials, recently wrote that the modern history of China can be divided into three periods: Mao's; reform and opening up (ie, Deng's); and the period since 2012 (ie, Mr Xi's). A book published in July called "Xi Jinping's Thoughts" (a collection of essays) says in its introduction that "China needs heroes who can usher in a new generation of thinking and achievement, heroes such as Mao Zedong, Deng Xiaoping and Xi Jinping." Mr Xi presents himself as their true heir.

In command

His personal powers reflect his exalted sense of mission. He is president, head of the party and in July was referred to by state media as "supreme commander", a title last conferred on Deng. He bestrides the bureaucracy like a colossus, having swept away and replaced almost all the party leaders and local governors in China's 31 provinces, as well as much of the top brass of the People's Liberation Army (PLA). More members of the Central Committee are due to retire at the congress than usual so he now has a chance to put even more allies into top jobs. The congress is also likely to accord him a sort of ideological dominance by referring to his writings about communism by name in the party's constitution-something denied to his two predecessors. Doing this would make Mr >>

The Economist October 14th 2017

▶ Xi China's ideological arbiter.

His predecessors, Hu Jintao and Jiang Zemin, were appointed mainly to continue Deng's economic reforms. Mr Xi was appointed to save the party. The notion that the Communist Party might need saving will sound peculiar. Although China experiences tens of thousands of anti-government demonstrations each year, these are local affrays which are mostly reactions to greedy local governments. The party faces no national threat and seems to have bounced back from the traumatic events around Tiananmen Square in 1989.

Yet that is not how Mr Xi saw matters in 2012. To him, and to the elite who chose him as China's leader, the party faced an existential threat. Mr Xi was later to complain that "among party members…even senior cadres, there are those whose conviction isn't strong enough and who are not loyal to the party." Members were corrupt. They did not pay their party dues—2% of salary for those earning more than 10,000 yuan (\$1,520) a month. They no longer believed in communism. Some even talked about moving to a more democratic system of government.

Up the wrong path

To Mr Xi, this was a road to ruin. "If morale is low, organisation loose, discipline and ethics unchecked," he wrote, "[then] in the end we will not only fail but...the tragedy of the Emperor Chu [who was murdered in 202BC] might occur again."

It is not ancient history that frightens Mr Xi, however. It is the disintegration of the Soviet Union. For him, everything begins and ends with the party ("east, west, north or south, the party leads everything," he wrote). If it collapses, so will the country. Chinese leaders attribute the Soviet implosion to a failure of self-confidence by Russian communists and are determined that nothing like that should ever occur in China. Mr Xi has spoken of the Russians "not being man enough" to stand up for their party. From the start, he set out to be man enough.

He is well prepared to shore up the party's beliefs. He was head of the Central

Party School between 2008 and 2013. He was also head of the leading small group on "party building" (leading small groups are influential committees that co-ordinate the work of party and government). He has spent more time on the internal workings of the institution than anyone since Deng.

The best known of his campaigns is aimed at corruption. Since 2012 the main anti-graft body, the Central Commission on Discipline Inspection (CCDI), has begun disciplinary actions against1.4m party members. But it is only part of a broader effort to instil discipline. At a meeting just before the congress, the Politburo reported that "for the party, strict self-governance in every sense will never end."

Discipline requires self-control. Mr Xi has instituted what he calls "democratic life meetings" for members to reflect on their behaviour and learn to set an example. It means attending ideology classes. Party leaders have always run ideological campaigns but Mr Xi has been unusually enthusiastic about them. In 2016 he even started an online campaign encouraging members to write out the party constitution by hand, like naughty schoolchildren. Mr Xi is putting the communist back into communist China.

Discipline requires loyalty. As an article in *Qiushi*, the party's main theoretical journal, put it earlier this year: "there is no 99.9% loyalty. It is 100% pure and absolute loyalty and nothing less." Institutions that fail to reach the required levels of grovelling feel the consequences. Mr Xi has emasculated the Communist Youth League, once an influential group and the road to power for his prime minister, Li Keqiang, and his predecessor as China's leader, Mr Hu. Calling it out of touch, bureaucratic and arrogant, he demoted its chief, jailed one of the top officials and dismantled the league's school.

The party has to be knocked into shape, in Mr Xi's view, because he wants to double down on its control. Party members in companies—including joint ventures with foreigners—have started to claim the right to approve investment decisions. Academics, once permitted a limited freedom of inquiry, now find it impossible to conduct research into sensitive subjects, such as the Cultural Revolution. State-owned newspapers have been told bluntly that their job is to serve the party. It always was, of course, but previous governments had also encouraged them to report unwelcome facts. Mr Xi has also cracked down on anything that might remotely challenge the party's monopoly of power, arresting humanrights lawyers by the score and passing a new law to make life harder for charities.

On manoeuvres

He has increased the party's influence over the PLA by expanding the role of the Central Military Commission, the body through which the party controls the army. In 2015 the commission took on many jobs previously done at military headquarters, such as supervising logistics. This year, its general office was upgraded, its director promoted and instructions from the office given the status of military regulations.

Above all, Mr Xi has shifted the balance of power between party and government. He has sidelined his prime minister, Mr Li, who is head of government. Prime ministers used to be in charge of the economy but the main institution for economic policymaking now seems to be the leading small group on deepening reform, which Mr Xi chairs. Wang Oishan, the head of the CCDI, said earlier this year that "there is no such thing as the separation between the party and the government." Compare that with a speech made by Deng in 1980: "It is time for us to distinguish between the responsibilities of the party and those of the government," the former leader said, "and to stop substituting the former for the latter." In his attempt to bolster the party's fortunes, Mr Xi has turned the clock back almost 40 years.

From his point of view, the campaign has been a success. When Mr Xi took over, the party resembled a company whose employees did not show up, did not believe in the business model and were fiddling their expenses on an epic scale. Now, people are paying their dues. There is no longer any public debate about "the Singa- »



pore model" or anything that implies a future for China without the party.

Mr Xi's personal authority has been enhanced, so far without serious public opposition. This is one of the dangers of his programme. So much depends on him personally that there is a risk everything will collapse when he goes. Or that he will be tempted to stay on and on. As one liberal commentator says, Mr Xi has offended too many people to walk away quietly. For good or ill, he has begun to make the party a more effective instrument of control.

But as he knows, that is only a start. Every leader since Mao has wrestled with questions about the Communist Party's legitimacy, and Mr Xi is no exception. For years, economic growth provided the party's "mandate of heaven". But growth is slowing, inequality is rising, and middleclass concerns about housing, education and health care cannot be allayed by ladling on an extra point of GDP.

He has a dream

The dream of a rejuvenated China, again dominating "everything under heaven", might be popular. And if Mr Xi can make the country respected abroad, that might translate into respect for the party at home. Hence his second concern—China in the world—reinforces his first.

As his visit to the museum showed, the dream of rejuvenation predated the election of Donald Trump. But Mr Trump's America-first nationalism has given Mr Xi a chance to claim global leadership. In January 2017 he told the World Economic Forum in the Swiss resort of Davos that China should "guide economic globalisation". A month later he added that it should "guide international society [towards] a more just and rational new world order."

Vast sums back up the slogans. Mr Xi's "Belt and Road Initiative", his most ambitious foreign policy, involves spending hundred of billions of dollars on infrastructure in 60-odd countries in Asia and Europe. If it works, it could make Eurasian trade, centred on China, a rival to transatlantic trade, focused on America.

Mr Xi has been more assertive in pressing China's claims in the South China Sea. Last year, a UN tribunal rejected those claims. China promptly persuaded the Philippines, which had brought the case, to disavow its legal victory in return for lavish investment. Mr Xi's reform of the PLA has made the armed forces more outwardlooking. They used to be organised mainly for defence and control of the domestic population. Mr Xi has built up the navy, created new "theatre commands" to project force abroad and has opened China's first overseas military base in Djibouti.

And he has greatly expanded China's influence-buying activities abroad. China has long supported instruments of soft power such as the Confucius Institutes, which teach foreigners about the Chinese language and culture. Now, the party is also putting money into media operations in the West and trying to use overseas Chinese people as agents of state policy. In short, Mr Xi has disavowed Deng's advice that, in foreign affairs, China should "keep a low profile and never claim leadership."

It is impossible to say whether he has sprinkled the stardust of legitimacy upon his party, as he wants. An opinion poll in 2016 by the Pew Research Centre in America found that only 60% of Chinese thought their involvement in the global economy a good thing. On the other hand, this year's cinematic smash hit is a "patriotic" film called "Wolf Warriors 2", showing a Chinese soldier killing bad guys round the world. So perhaps bossing foreigners around might prove popular.

At any rate, if Mr Xi's efforts have had mixed results, that is not because they have failed. As with his party reforms, he can congratulate himself on a job well started. China's vast bureaucracy has lumbered into action behind the belt and road project. China is buttressing its claims in the South China Sea with new facts on the ground or, rather, in the ocean, in the form of military construction on artificial islands. The country is now widely regarded as a leader in global climate talks.

Perhaps the only serious setback to Mr Xi's claim to leadership has come in North-East Asia. His unwillingness to rein in Kim Jong Un's pursuit of nuclear weapons is keeping America more involved in Asia than it might otherwise be, and increasing the chances that Japan and South Korea might one day deploy nuclear defences of their own. That would hardly be in anyone's interest, especially China's.

Mr Xi, in short, can look back with some satisfaction on the twin goals he set himself. But there remains a more profound question, whether they are the right aims for his country. During the next decade, a number of slow-burning problems will start to blaze. Water shortages, historically one of China's most severe challenges, will become acute. More poisoned air will be pumped out and more poisoned soil uncovered. The first generation born under the one-child policy are reaching marriageable age, bringing with it the excess of boys over girls that was exacerbated by population control. The vast debts built up by China's local governments and state-owned enterprises will also have to be handled.

Outside the party

What these disparate matters have in common is that many of the best solutions come from outside the party. Environmental groups could put public pressure on polluters. A freer press could shine a light on all sorts of abuses, from corruption to fraud. More competition among firms, as well as harder budget constraints, would reduce the excess debt of state-owned enterprises and local governments.

But Mr Xi is going in the opposite direction. He is limiting the press, closing down civil-society groups and squeezing the space for public discussion. To do him justice, he is not doing this because he is turning his back on China's problems. But he is determined that only the party may be allowed to address them. And if it fails, then the problems will not be addressed.

In 1980 Deng Xiaoping gave a speech to the Politburo in which he called for a clearer separation between party and state, gave warning against concentrating too much authority in one person (it is "liable to give rise to arbitrary rule", he said) and argued in favour of a predictable, orderly succession. Mr Xi is rejecting all of Deng's good advice. He himself might benefit. But China might not.



Mr Xi's place in history



Speech on campus The intolerant fifth

LOS ANGELES AND WASHINGTON, DC

American universities have a free-speech problem. But it is not what it seems

66 TIBERALISM is white supremacy!" shouted the students, as their hapless speaker-Claire Gastañaga of the American Civil Liberties Union (ACLU)looked on. The protesters at the College of William and Mary, the alma mater of Thomas Jefferson, went further still. "The revolution will not uphold the constitution" they chanted on September 27th. "Nazis don't deserve free speech". The ACLU's decision to defend the free-speech rights of white nationalists in Charlottesville, Virginia prompted the students' ire. Because of it, Ms Gastañaga was unable to speak, and the event, called "Students and the First Amendment", was cancelled.

Given their well-publicised antics, it is easy to see why college students can be tarred as blinkered devotees of political correctness run amok. Students at Oberlin, a liberal-arts college in Ohio, revolted over insufficiently authentic Asian cuisine, equating it to "cultural appropriation". After the campus newspaper at Wesleyan University published an article critical of Black Lives Matter, students tried to defund the paper for failing to create a "safe space". Elsewhere, students have launched campaigns against invited speakers, setting their targets on the likes of Joe Biden, Condoleezza Rice and Christine Lagarde. Together, this gives the alarming impression that a whole generation has rejected free speech. That impression is wrong.

Illiberal impulses can be found in many corners of society. But young Americans who have attended college are in fact more accommodating of controversial speakers, like avowed racists, than the general population is (see chart on next page). Nor has tolerance of extreme views among students changed much in recent years according to the General Social Survey, which has been asking questions about attitudes to free speech for decades. Press reports, which understandably focuses on campus discord more than harmony, can create a misleadingly gloomy impression. While Charles Murray, a political scientist made radioactive by his writing on racial differences in intelligence, got into a violent scrape when speaking at Middlebury College, he emerged unscathed from recent talks at Harvard and Columbia.

The problem on campus, which nevertheless is a real one, is different. A survey of 3,000 college students by Gallup for the Knight Foundation and the Newseum Institute finds that 78% favour campuses where offensive and biased speech is permitted. A separate study found that even at Yale, a hotbed of student protest, 72% oppose codes that circumscribe speech, compared with 16% in favour. Truly illiberal tendencies are limited to about 20% of college students. This is the fraction that thinks it is acceptable to use violence to prevent a "very controversial speaker" from speak-

Also in this section

- 22 J.S. Mill goes back to college
- 24 Harvey Weinstein
- 24 Inland waterways
- 26 California's wildfires
- 26 Drones, safety and privacy
- 27 Trump and the Senate
- 28 Lexington: The evangelical divide

For daily analysis and debate on America, visit Economist.com/unitedstates Economist.com/blogs/democracyinamerica

ing, according to recent survey published by the Brookings Institution immediately after the violence in Charlottesville.

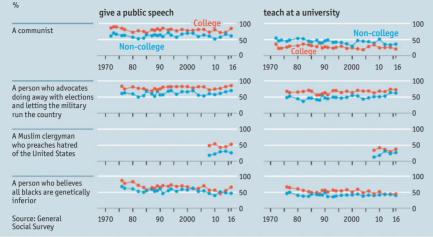
Though outnumbered, this vocal minority can have a chilling effect on what everyone else thinks they can say. At Yale, 42% of students (and 71% of conservatives) say they feel uncomfortable giving their opinions on politics, race, religion and gender. Self-censorship becomes more common as students progress through university: 61% of freshmen feel comfortable gabbing about their views, but the same is true of just 56% of sophomores, 49% of juniors and 30% of seniors.

University administrators, whose job it is to promote harmony and diversity on campus, often find the easiest way to do so is to placate the intolerant fifth. The two groups form an odd alliance. Contentious campus politics have been a constant feature of American life for more than 50 years. But during the Free Speech Movement in the 1960s, students at Berkeley demonstrated to win the right to determine who could say what from administrators. Now the opposite is true. Student activists are demanding that administrators interfere with teaching, asking for mandatory ethnic-studies classes, the hiring of non-white or gay faculty and the ability to lodge complaints against professors for biased conduct in the classroom. This hands more power to administrators.

College administrators at public universities are subject to the full demands of America's capacious First Amendment, which allows, among other things, hate speech and flag burning. Federal courts have struck down every speech code enacted at a public university, and the Supreme Court has declared academic freedom a "transcendent value" of "special concern to the First Amendment". Private **>>**

Say what you like about students

United States, adults aged 18-30 who think people with the following views should be allowed to:



The Economist October 14th 2017

spaces." There have been comparatively fewer clashes between activists and administrators at the university.

In fact, the share of schools with "severely restrictive" speech codes has declined for nine consecutive years, according to the Foundation for Individual Rights in Education, a pressure group. It is now a shade under 40%. The so-called Chicago principles have been adopted or endorsed by 31 other colleges and universities, including Princeton and Johns Hopkins. Purdue, a university in Indiana that was the first public institution to sign on to the Chicago principles, has taken a particularly vigorous approach to teaching students about free speech under the presidency of Mitch Daniels. Cultural-sensitivity trainings have been a mainstay of orientations at universities across the country, but Purdue now includes sessions promoting the value of free expression. "If these other schools choose to embarrass themselves by forcing conformity of thought, allowing diverse opinions to be shouted down or disinvited, that's their problem," says Purdue's Mr Daniels. "However, if they're raising up a generation of graduates with an upside-down version of our constitutional rights, that's everybody's problem."

universities are legally much freer to regulate the speech of their students and affiliates. Many find themselves in an uncomfortable bind. University presidents want racially diverse classes of students, all of whom feel welcome. Trustees and donors, sensitive to the critique of campuses as unthinkingly liberal, want intellectual diversity. Professors want to be left alone.

As principles go, free speech can also be expensive. Security at Berkeley for Ben Shapiro, a conservative speaker, cost the university \$600,000. Expenses to secure "Free Speech Week" at Berkeley, which was due to feature a rogues' gallery of altright speakers, were expected to run to \$1m. The university "hoped for the best but had to plan for the worst", says Janet Napolitano, the president of the University of California system (the event was cancelled due to the incompetence of the organisers). People like Milo Yiannopoulos, who seek out campus speaking gigs less out of a burning desire to say anything meaningful than in the hope of provoking a violent reaction, have worked out a formula for needling administrators. Mr Yiannopoulos has taken to asking student groups at Harvard for an invite, according to Conor Healy, head of the Open Campus Initiative. Some of those currently standing up for free speech are trying to drain university resources while gaining personal notoriety. Berkeley is puzzling over how to cap such spending, without penalising speakers with a particular set of views.

Many other colleges are trying to preempt the protests. Howard Gillman, the chancellor of the University of California, Irvine, gives students an annual pep talk on free speech. Students often come to university with "no frame of reference" on free speech and the importance of academic freedom, he says. The University of Chicago issued a firm statement, since adopted by other institutions which states that its role is not "to attempt to shield individuals from ideas and opinions they find unwelcome, disagreeable, or even deeply offensive". A letter sent to the incoming class went further: "we do not support socalled 'trigger warnings', we do not cancel invited speakers because their topics might prove controversial, and we do not condone the creation of intellectual 'safe

Campus activists Psyche protection

Putting micro-aggressions under the microscope

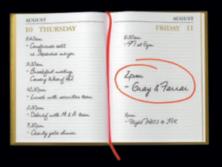
ORE than 150 years ago, John Stuart **IVI** Mill put forward a sensible proposition. "The only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others," he wrote in On Liberty. First Amendment law has hewed closely to Mill's harm principle, permitting all sorts of disreptuable speech and behaviour that do not pose an imminent physical threat. Campus protesters, by contrast, argue that some speech causes psychological harm, and is therefore covered by Mill's dictum. Do those claims withstand academic scrutiny?

Take "micro-aggressions"—a particular concern of activists. Somewhat nebulously defined, they can be thought of as inadvertent slights, like a professor asking a non-white student, "Where are you really from?" The cumulative effect of these slights is said to be psychologically damaging, so activists argue for sensitivity training for students and faculty—and possible sanctions for unrepentant micro-aggressors. "In the moment, you may not be able to register what is happening. But it continues to slowly chip away at you, up to the point that you no longer feel comfortable in your skin," says Jenny Chukwu, a recent graduate of the University of Chicago who is writing a book on the subject.

The claim that micro-aggressions result in mental trauma is supported by "minimal" research, writes Scott Lilienfeld, a psychologist at Emory University. There are other gaps in the theory. And since micro-aggressions are in the eye of the beholder, they are close to impossible to measure in a way that would permit a rigorous evaluation.

Also beloved of campus activists are trigger warnings, when instructors preface potentially upsetting texts, such as a novel with a rape scene, with a note of caution. Here too, rigorous evidence on the mental-health effects is far from established. "Perhaps the most astonishing aspect of the trigger-warning discussion is how little actual empirical work has been done," says Ben Bellet, a graduate student at Harvard leading a first-of-its-kind study assessing their impact. Other psychologists offer a competing hypothesis: by treating students as fragile, trigger warnings may harm those they are intended to protect. Some might find that suggestion upsetting.

YOUR BEST DECISION TO DATE





Global Headquarters: 49 Charles Street • Mayfair • London • W1J 5EN • +44 (0)20 7290 9585 • WORLDWIDE •

www.grayandfarrar.com



Hollywood Wein stain

NEW YORK Will sickening accusations against a studio boss change Hollywood?

STORIES about Harvey Weinstein, the mogul who brought best-picture winners "Shakespeare in Love" and "The King's Speech" to the screen, had been whispered around Hollywood for years. Famous actresses warned others about his behaviour. Powerful men-stars, studio bosses, talent agents-had heard that he mistreated women. So had some journalists. Yet Mr Weinstein reigned among them as a king of independent film, able to make and break the careers of young women.

Until now. On October 5th the New York Times detailed allegations of sexual harassment by Mr Weinstein over decades, including eight settlements with women. On October 10th the New Yorker published an account of multiple allegations of rape and other sexual misconduct by Mr Weinstein. Many of the allegations involved Mr Weinstein scheming to be alone in a hotel room with a young actress while he was dressed only in a bathrobe. Gwyneth Paltrow and Angelina Jolie also went public with accusations of improper advances by Mr Weinstein. Jeffrey Katzenberg, former studio chief at Disney, which once owned Mr Weinstein's studio, wrote to him saying, "You have done terrible things."

Mr Weinstein has denied allegations of sexual assault against him while apologising for other behaviour "in the past". On October 8th the board of the Weinstein Company, which includes his brother Bob, fired him, and has since formally expressed shock at the allegations. Film and television projects that the Weinstein Company has in production with studios and streaming companies are at risk. Mr Weinstein's career is over and his company seems in danger of collapse.

But for Hollywood the scandal raises a deeper question about its culture. Many had heard at least vaguely that Mr Weinstein had behaved inappropriately with women. For decades there was no reckoning. Powerful men of Hollywood say they had no idea just how appalling the accusations were, that allegations of rape make his case an extreme outlier. But the fact that many ignored the whispers, and continued to work with Mr Weinstein, suggests a continued tolerance for abuses of power by men in Hollywood. "The next shoe that's going to drop are all these people who protected him for all these years and had stories squashed," says a top Hollywood executive. "That's going to touch a lot of famous people."

The recriminations have begun, and more stories about mistreatment of women will surface. On October 10th, after the actor Ben Affleck said he was "angry" about Mr Weinstein's behaviour, Rose McGowan, an actress, tweeted that he had long known about it. Another actress, Hilarie Burton, then tweeted that Mr Affleck groped her on a television show in 2003. Mr Affleck tweeted an apology to Ms Burton, admitting he "acted inappropriately".

Journalists are also facing questions for not having got the story years earlier. That they did now is a confluence of several factors. Accusations of sexual misconduct by the comedian Bill Cosby, Roger Ailes and Bill O'Reilly of Fox News, and Donald Trump, have intensified such scrutiny, and made it easier for accusers to speak up.

There were also more documented allegations. The New York Times described an internal Weinstein Company memo, addressed to executives in 2015, that alleged harassment by Mr Weinstein and described a "toxic environment for women". The author of the New Yorker article, Ronan Farrow, obtained an audio tape, recorded by New York police in an investigation, on which Mr Weinstein appears to admit to having molested a young model.

Mr Weinstein survived those episodes, with help. After the police investigation into Mr Weinstein became public in 2015, tabloids published stories portraying the accuser as an opportunist. Cyrus Vance junior, the Manhattan district attorney, did not press charges, citing insufficient evidence. At the Weinstein Company, where the stories described a culture of complicity, the memo changed nothing.

There is another reason the story may have surfaced now. Mr Weinstein's power was on the wane. Still, he was fighting to the end. Mr Farrow says Mr Weinstein threatened to sue. He also intimated that NBC News, where he works as a contributor, did not want to pursue the story (NBC denies this). Until recently too few did.

Take me to the river

PADUCAH, KENTUCKY

The nation's oldest transport network needs some attention

ONE of the murals depicting the history of Paducah on a wall built to keep out the river shows a captain in his pilothouse, looking over a 15-barge tow with 24,000 tonnes of cargo. At the turn of the last century this small city in Kentucky, at the confluence of the Ohio and Tennessee, became a hub of the inland-waterways system and the home of barge and tugboat companies, dry docks and repair shops. Its Centre for Maritime Education still trains river mariners all over the country.

Another mural shows Lock and Dam 52, about 17 miles downstream from Paducah on the Ohio river, which is now an emblem of America's crumbling river infrastructure. Lock and Dam 52 and 53 are the busiest spots on the inland river-system, a bottleneck through which 135m tonnes of grain, coal, steel, iron, cement and other cargo move every year. Built in 1928 and 1929 by the Army Corps of Engineers, which maintains waterways, they should have been replaced in 1988, as locks have an expected lifespan of about 50 years. In 1988 Congress approved a budget of \$775m to replace them within ten years. Almost 30 years later the Olmsted Locks and Dam, which will replace 52 and 53, is still under construction, in part because the Corps, to save money, experimented with building in the wet rather than making the dam in >>



JETSMARTER

EXPERIENCE AVIATION AS IT WAS MEANT TO BE

Create flights on your own time at a fraction of the cost of traditional charters or find seats on flights created by fellow members. Do it all in minutes, right from our app.

DISCOVER A SMARTER WAY TO FLY (866) 560-2130



JetSmarter offers a number of programs including private charters, for which JetSmarter acts solely as your agent in arranging the fight and Public Charters, for which JetSmarter acts as principal in buying and reselling the air transportation. JetSmarter does not own or operate any aircraft. All flights are performed by FAA licensed and DOT registered air carriers. Additional restrictions may apply. Sections on dry land first. Costs have ballooned to more than \$3bn; the project is forecast to be operational by 2024.

"Locks 52 and 53 are a huge headache for the shipping community," says Mike Toohey of the Waterways Council, an advocacy group. On October 9th Lock 52 was closed for the second time since the start of September, leaving 475 vessels stranded in the grain-harvest season (60% of grain exports move by water). Each unscheduled closure of locks costs tens of thousands of dollars as deliveries of goods are delayed and barge captains and other staff are paid for idling on the banks of the Ohio. The total cost of delays at the two locks is an estimated \$640m every year.

The stoppages are also hurting the reputation of inland waterways as the best way to move bulky things around. Roughly 600m tonnes of cargo, or 14% of domestic freight, travels on rivers each year. A single barge has the same dry-cargo capacity as 16 railway goods wagons or 70 lorries, and the liquid-cargo capacity of 46 goods wagons or 144 lorries. A 15-barge tow of dry cargo, as on the mural, is equivalent to 216 goods wagons with six locomotives or 1,050 lorries. Barges emit fewer greenhouses gases, use less fuel and cause far fewer deaths and injuries than lorries or trains. They also tend to be farther from population centres, so that any spills or accidents are likely to cause less damage.

Over the past ten years closures of the 239 locks on America's rivers have increased sevenfold. The infrastructure report card of the American Society of Civil Engineers gave inland waterways a lowly D this year, since half of all vessels had experienced delays across the inland-water ways system. A closure of the Mississippi costs \$300m a day, says Colin Wellenkamp of the Mississippi River Cities and Town Initiative, a non-profit organisation. He thinks most locks need an overhaul and some are close to complete failure.

Advocates of river transport hope it will not take the shutdown of a critical lock for months to focus minds on the investments needed to modernise waterways. President Donald Trump is including locks and dams in his grand plan to invest \$1trn in infrastructure. In early June, standing on the banks of the muddy Ohio river with a coal barge in the background, he noted the massive underfunding of repairs of the waterways system and remarked that "we simply cannot tolerate a five-day shutdown on a major thoroughfare for American coal, American oil and American steel," as happened in December on the Ohio near Pittsburgh. He has not revealed details of his proposal, which will probably rely mostly on cash from public-private partnerships, but at least he seems aware of the problem. "It is the first time we had such presidential attention since FDR," says the Waterways Council's Mr Toohey, hopefully.

Drones

Buzzed by the fuzz

LOS ANGELES

The increasing use of drones by the police and other first-response departments presents a choice between safety and privacy

IN JUNE a search-and-rescue team in Colorado used a drone to spot lost hikers in a pine forest, shaving hours off the time it would have taken to find the hikers using dogs, and thousands of dollars off the cost of doing so with a helicopter. In August police officers in Maine used a drone to snap 81 photos of the aftermath of a collision between a pickup truck and a blueberry lorry. The process took 14 minutes, instead of the hours officers said would usually have been required. Last month, police officers in Illinois used a drone to fly a mobile phone into the hands of a disgruntled man who shot at them when they tried to evict



California's wildfires

At least 23 people have died and hundreds are missing after wildfires devastated large swathes of northern California. The blazes began on October 8th in the lush wine-growing region outside San Francisco. Arid conditions and high winds, reaching speeds of 79mph, caused them to spread quickly. As The Economist went to press they were far from being contained and had already scorched an area four times the size of Washington, DC, making this among the worst wildfire outbreaks in the state's history. him from a foreclosed home. After hours of negotiations via the drone-delivered phone, they coaxed him into surrendering.

Despite such stories, many people are sceptical about the merits of law-enforcement drones. On September 28th Los Angeles's Sherriff Civilian Oversight Commission, a body created a year ago by Los Angeles County officials to increase the accountability of its Sheriff's Department, asked the department permanently to ground its drone, because of worries about privacy and safety. Such concerns have a basis in recent history. In 2012 the Los Angeles County Sheriff's Department (LASD) secretly tested an aerial surveillance programme over Compton, a deprived neighbourhood in Los Angeles-though with a small aeroplane, not a drone.

Anxiety about drones is not confined to southern California: Seattle cancelled its drone programme in 2013 after residents and privacy activists protested, fearful of mass surveillance. A survey conducted in January by Rasmussen Reports, a polling group, found that 39% of American adults opposed the use of police drones compared with 36% who favour them.

Such tensions are set to intensify as an increasing number of law-enforcement agencies, fire departments and emergencyresponse teams start to use drones. A recent report by the Centre for the Study of the Drone at Bard College shows that at least 347 such departments acquired drones between 2009 and 2017. More drones were bought in 2016 than in all previous years combined, says Dan Gettinger, the study's author. The buying spree shows no sign of slowing.

Growing recognition of how useful such machines can be is one reason for the rapid increase; another cause is the prolif-

The Economist October 14th 2017

eration of affordable, easily operated consumer drones. The first police departments to adopt drones, in the mid-2000s, leaned towards buying expensive commercial drones that were produced specifically with law-enforcement and military applications in mind. But today many police, fire and emergency-response departments are opting for drones that are intended for use by photographers and hobbyists. Of the 315 departments for which the Bard College centre has drone-type data, 252 have at least one drone manufactured by DII, a Chinese firm which is the world's largest dronemaker. Its popular Phantom drones start at \$499. Older models can be purchased even more cheaply on thirdparty websites.

The loosening of regulations by the Federal Aviation Administration (FAA) has resulted in more drone use by first responders. Before August 2016, all non-hobbyist drone operators had to hold licences to fly manned aeroplanes, too. Now there is a separate licensing process for operators of remote-controlled vehicles. Like private drone operators, police, fire and emergency-response departments are still bound by other FAA rules. They must register all their drones and are banned from conducting night-time operations (unless they have a special waiver) or missions where the operator loses sight of the drone that he or she is controlling.

On top of these federal rules, states are also putting limits on how drones can be used by law-enforcement agencies. According to the National Conference of State Legislatures, a bipartisan research group, 18 states require such agencies to seek search warrants before using drones for surveillance purposes.

Workers and drones

Some concern about government agencies' use of drones is justified. But overly broad restrictions on their use could stop them from doing useful things such as monitoring crowds at concerts or marathons, which are public anyway. In a paper published in the *George Washington Law Review* in 2016, Gregory McNeal of Pepperdine University argued that, "legislation that requires warrants for drones treats the information from a drone differently from information gathered from a manned aircraft, by a police officer in a patrol car, or even an officer on foot patrol."

Under the Fourth Amendment, he continued, police are not required to ignore wrongdoing until they have a warrant. "Why impose such a requirement on the collection of information by drones?" Instead, legislators might consider extending property owners' rights to a certain altitude above their homes (Mr McNeal suggests 200 feet, or about 60 metres) and requiring that data collected by drones must be deleted after a certain period.



Trump and the Senate A Corker of a row

WASHINGTON, DC

A public spat exposes Republican fears of a failed Trump presidency

DD as it may seem, when Bob Corker, the Republican chairman of the Senate Foreign Relations Committee, said that he worries that Donald Trump approaches his job like a "reality show" and may set America on "the path to World War III", he was not voicing the fear that causes Republican senators to lose most sleep. True, thoughtful Republicans really do worry that the president seems not to care if the world places more weight on his words than he does. Figures close to Mr Trump describe a man more interested in being seen to win, than in picking fights wisely. But most cling to the same hope that Mr Corker has now voiced in public: namely, that such "good guys" as the defence secretary, James Mattis, the White House chief of staff, John Kelly, and the secretary of state, Rex Tillerson, will be "able to talk [Mr Trump] down" if he "gets spun up".

In the short term leading Republicans fear something less apocalyptic but more plausible: that Mr Trump is so thinskinned, vindictive and bored by detail, and his party so divided, that Republicans may pass no substantial laws between now and the mid-term elections of November 2018. Two particular ambitions unite the squabbling factions of the Republican Party: fulfilling a long-standing promise to repeal and replace the Obamacare health law, and passing a comprehensive tax reform. In private, grandees put the chances of a full Obamacare repeal and replacement in the near future at close to zero. The chances of passing tax reform tend to be put at between 50-50 and zero. When asked point-blank what major legislative achievements are possible by November 2018, a surprising number wince and reply: maybe none. If that is the case, Republican bigwigs do not rule out losing the House of Representatives in a midterm wave (the Senate map in 2018 so favours Republicans that few can imagine control falling to Democrats).

House Republicans tend to be more bullish about their chances. In part that reflects electoral mathematics. Most House members come from such conservative seats that they cannot win re-election—and certainly cannot survive the primary election that will choose the Republican candidate for their seat—without strong backing from diehard Trump voters. There are also more alternative-fact-loving blowhards in the House. In contrast, to win statewide races many Republican senators need both Trump loyalists and some Trump sceptics.

The real import of the Corker-Trump spat, carried out via duelling interviews and tweets, is larger than a loss of trust between an important committee chairman and his president, though that breach will itself have consequences. From the chair of the Foreign Relations Committee Mr Corker will have sway over what happens next with Iran, and the possible reimposition of American sanctions on that country. Mr Corker, a deficit-loathing fiscal hawk, also sits on the Budget Committee-a point that the Senate majority leader, Mitch McConnell, made this week, in an implicit warning to Mr Trump that calling Mr Corker a fool and mocking his height might not help pass tax reform. Mr Corker is an unusually liberated man. After two terms representing Tennessee, he is not standing for re-election in 2018.

The larger lesson is that Republicans, especially in the Senate, see a non-trivial chance that Mr Trump's will be a failed presidency. Trump loyalists will scoff that Washington swamp-dwellers are merely thrashing about as their habitat is drained by a populist hero. But Republican leaders do not complain about Mr Trump making them do things that they resent, in the name of the people. Instead it is shockingly normal to hear prominent Republicans compare Mr Trump to a child with attention-deficit disorder, or describe a president who telephones to talk policy but seems not to understand bills being discussed, or wastes ten minutes on gossip. They share tales of Mr Trump losing votes because he bullies senators, or humiliates them in front of their peers. Republicans also know that, for all Mr Trump's boasts about bipartisan dealmaking, it is in Democrats' interests to see him fail. With few exceptions, Senate Republicans dislike Mr Trump. They increasingly worry that he will drag them down.

Lexington | A more moral minority

Young white evangelicals offer a rebuke to Donald Trump-and a glint of a less divisive future



FOR almost 80 years the Princeton Evangelical Fellowship has aspired, in the words of its first president, to take a "definite stand for Christ on the campus." Yet in August the student body dropped the word "evangelical" from its name. It had become "misunderstood" by students, its current boss said. "There might be certain assumptions that all evangelicals are Republicans".

That would not be unreasonable, given that 81% of self-identified white evangelicals voted for Donald Trump and, amid the shambles of his presidency, they remain his most devoted fans. But it is easy to see why some Princetonians might find that hard to stomach. Ever since the founding of Jerry Falwell's Moral Majority in 1979, white evangelicals have justified their pre-eminent role in American politics in part by standing for high moral character in public office. That is not a standard Mr Trump meets. Yet there were also encouraging exceptions to this depressing capitulation by white evangelicals, which could have impressive consequences. Disgusted by Mr Trump, many younger Christians, in particular, are rethinking the nexus between politics and faith. This raises a glimpse of two much-needed renewals–of America's democracy and of its foremost religious tradition.

To explore this, Lexington paid a visit to Wheaton College in Illinois, which illustrates some of the strengths of that tradition. One of America's foremost Christian institutions, it was founded by abolitionists in 1860 and doubled as a stop on the Underground Railway. These days its leafy campus also houses a museum dedicated to a famous alumnus, Billy Graham, "America's pastor", in the admiring phrase of George H.W. Bush. And in the political-science class to which Lexington was welcomed, the students, 14 evangelical sophomores from across America, seemed mindful of that dual legacy.

They were contemptuous of the acquiescence, or worse, of their co-religionists to Mr Trump's racial divisiveness. "Evangelical Christianity is supposed to be about love thy neighbour," said Tim, a uniformed soldier from Ohio. "It gave me a sense of betrayal," said Jessica, a Mexican-American from San Diego. "It was like our own community turned against my family." Like Mr Graham, the students also worried that the church had become too political and too partisan. "We've become over-identified with a political party," said Drew, from Pittsburgh. Only two of the students had voted for Mr Trump (though most of their parents had). Nine said they were now uneasy about being identified as evangelical.

Princeton and Wheaton are rarefied places. Yet polling data suggest many young white evangelicals feel similarly, and also why. It is not because they are better than their parents at spotting a phoney. Older evangelicals also know what Mr Trump is. (Last year they flipped from being the voter group most likely to say personal morality mattered in a president, to being the group least likely to say that.) Yet they are burdened by deep anger and racially tinged resentment at the secular turn America has taken, and Mr Trump vowed to redress that. By comparison, their offspring are more relaxed. Having never experienced majority status, they do not mourn the loss of it. White evangelicals now represent only around 17% of the population; those under the age of 30 represent a mere 8%. Inspired by writers such as Russell Moore, a Southern Baptist leader and scathing critic of Mr Trump, many youngsters even consider their moral minority status a sort of spiritual liberation. "Throughout its history, Christianity has always tended to get into a tangle with power," quips James Forsyth, a 33-year-old pastor in McLean, Virginia.

While not obviously less prayerful than their parents, young evangelicals, semi-freed from the culture wars, are also culturally more in step with the rest of America. This is apparent in a widening generational split on gay rights. A big majority of older white evangelists oppose gay marriage; almost half of younger ones are for it. Among the students at Wheaton, ten said they were comfortable with gay marriage and only one was not.

Thus liberated, young evangelicals are also embracing a far more diverse, and heterodox, set of concerns than their "evil elders", as the Wheaton students, with no hint of irony, referred to their parents' generation. They are more concerned, at Wheaton and everywhere, about the environment, the plight of refugees and immigrants, and criminal justice reform, which are mostly preoccupations of the Democrats. This raises an intriguing question: are young white evangelicals about to turn left?

Don't take liberties with the religious

It seems unlikely. Inheritors of a protestant tradition founded on distrust of central authority, they are still conservative. Polling also suggests young evangelicals are as hostile to abortion as their elders. Another important conclusion from the election, moreover, is that they will not consider a Democratic Party that does not respect them. Where Barack Obama, in 2008 especially, launched a serious and rather successful bid for white evangelical votes, Hillary Clinton's strategists hardly bothered with them in 2016; some framed the contest against Mr Trump as America's "first post-Christian election". With white evangelical numbers in decline, and the Democrats increasingly in hock to groups that consider abortion less a necessary evil than a splendid right, that high-handed attitude may endure.

But this would be a mistake, most obviously because it may be some time before the Democrats' demographic advantages deliver the easy wins their activists seem to expect. Meanwhile they will need every white vote they can get—and at least some young evangelicals look persuadable. Moreover, the deep meaning of the generational divide in Christian America is that the electorate, mercifully, is more dynamic than the lumpen logic of tribal politics suggests. To adapt to it, Republicans plainly need to heed the cultural concerns of today. Yet the Democrats' task, which is to embrace pluralism as well as diversity, is no less pressing.

The Americas



Canada Trudeau's flying unicorn hits a storm

OTTAWA

Canada's Liberal government is suffering from mid-term malaise

TO OPPOSE the government of Justin Trudeau has been no fun. Canada's prime minister has shrugged off controversies that would have hurt a less charismatic politician. Few Canadians seemed to mind when he accepted a helicopter ride from the Aga Khan to holiday on his private island in the Bahamas; most yawned when the government paid C\$10.5m (\$8.4m) to settle a lawsuit brought by a former inmate of Guantánamo. After a flattering cover story on Mr Trudeau appeared in Rolling Stone in July, Michelle Rempel, an MP from the opposition Conservative Party, vented her frustration: the press treat him and his team as "Prince Charmings who can do no wrong, all while flying through a rainbow on a unicorn".

But mistakes and mishaps are starting to hurt Mr Trudeau's Liberal government as it nears the mid-point of its four-year term on October 19th. Among the goofs are a cultural policy that enraged Quebec, the French-speaking province, and a tax-reform proposal that riles doctors, farmers and owners of small businesses. Other problems are outside the Liberals' control. They include the renegotiation of the North American Free-Trade Agreement (a pact with Mexico and the United States that Donald Trump keeps threatening to rip up), and the cancellation of a planned oil pipeline, which angered the western province of Alberta.

Many Canadians think Mr Trudeau has done too little to keep such promises as protecting the environment and improving relations with indigenous groups. He broke a campaign pledge to change the first-past-the-post electoral system.

The opposition was leaderless until May, when Andrew Scheer became head of the Conservatives; Jagmeet Singh took charge of the left-wing New Democrats this month. Although the Liberals are still ahead in the polls, with the support of 37% of voters, compared with 33% for the Conservatives, the gap is narrowing. Mr Trudeau's approval rating is still above 50% but has been trending downwards. The unicorn is flying into heavier weather.

Tax and offend

The issue putting the Liberals on the defensive is tax. The government wants to close loopholes that let rich people lower their bills by paying tax as if they were small businesses. Although the government began its tenure by raising taxes on high earners, its new idea has provoked a backlash. "Conservatives wake up every day trying to think of new ways to lower taxes," Mr Scheer thundered. Liberals just think of "new ways to raise them".

In town-hall meetings Liberal MPs are being lambasted by constituents who say

Also in this section

- 30 Brazil's congress reforms itself
- 30 Reading to Cuban cigar workers
- 31 Bello: Time to bury Che Guevara

the government is painting them as tax cheats. Embarrassingly, Mr Trudeau and Bill Morneau, the finance minister, have used (legal) methods that are not targeted by the reforms to reduce the tax they owe on family wealth. The government thinks two-thirds of Canadians support its proposal and plans to introduce a modified version of it. That is a mistake, says Paul Boothe, a former finance-ministry official. It would be better to present a more comprehensive plan that would include simplifying business taxes.

On the environment, Mr Trudeau has failed to please green activists while alienating voters in oil-producing provinces. Albertans say new environmental rules for pipelines are the reason TransCanada, an Albertan firm, this month cancelled construction of the proposed Energy East pipeline. They allege that Mr Trudeau is trying to "beggar the west" just like his father Pierre, a prime minister who in 1980 proposed a plan to hold down oil prices.

In fact, Energy East was doomed by today's low oil price and by overcapacity. One reason for it is that the government approved another project, an expansion of the capacity of the Trans Mountain pipeline through British Columbia, which alienated environmentalists. They are not mollified by a plan to impose a national carbon price. Parliament's environment commissioner chided the government this month for implementing its climatechange policies too slowly.

A much-touted plan to protect Canadian culture from digital invaders, especially American ones, pleased nobody. Presented by the heritage minister, Mélanie Joly, on September 28th, it turned out to be little more than a deal with Netflix, which agreed to spend C\$100m a year to make >>

30 The Americas

Canadian programmes. Quebeckers had wanted the government to impose a sales tax on non-Canadian media firms. Some English-speakers were disappointed that the was no extra support for the CBC, the state broadcaster, or subsidy for print publications. There is speculation that Ms Joly, once a high flyer, may lose her job.

Another black mark is a malfunctioning inquiry into why many indigenous women and girls were murdered or went missing in recent decades. This is part of Mr Trudeau's promise to improve relations with 1.4m indigenous Canadians. The commission conducting the inquiry has lost much of its staff; its head says the government has not given it administrative support. Indigenous people are angry. An effort at reconciliation is having the opposite effect.

What keeps Mr Trudeau astride the unicorn is the economy. It is expected to grow by 3% this year, the fastest rate among the rich G7 economies; in September the unemployment rate was a non-disastrous 6.2%. A new child-care benefit provided a fiscal boost; infrastructure spending could provide another. Most forecasters expect growth to slow in 2018 but to remain faster than in other G7 countries. Unless, that is, Mr Trump starts a trade war. That could knock Prince Charming off his mount.

Brazil Elections on a shoestring

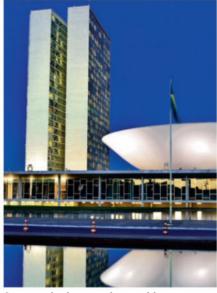
BRASÍLIA

Congress starts to deal with the causes of political sleaze

BRAZILIAN election campaigns are costly affairs, featuring big rallies, glitzy television commercials and lavish leafleting. Presidential candidates criss-cross a country whose territory is bigger than that of the 28 members of the European Union combined. In 2014 candidates for the presidency, governorships, congress and state assemblies spent 5bn reais (\$2bn). Undeclared donations, mostly from companies, may have been twice that.

Brazilians have learned through the Lava Jato (Car Wash) investigations that companies expected favours from politicians in return. In 2015 the supreme court declared corporate contributions unconstitutional. This month Brazil's discredited lawmakers came up with a scheme to replace them. It is part of a broader rewriting of political rules ahead of national elections due in October next year. The changes are worthwhile, but do not finish the job of reforming Brazil's sleazy politics.

On October 5th congress voted to create a "special campaign-finance fund", which will have 1.7bn reais to spend next year.



Congress is clean on the outside

That comes on top of an existing "party fund" to pay administrative costs, which will have 1bn reais. Individuals may contribute up to 10% of their income to candidates. Candidates can spend millions of reais of their own money.

Congress also passed a constitutional amendment aimed at reducing the number of political parties in congress from the current 26. A "barrier clause" will reserve public financing and free television and radio time for parties that win at least 1.5% of the national vote or have deputies elected in at least nine states. The threshold will rise to 3% by 2030. From 2020, the amendment outlaws election alliances among parties that do not share a programme. Such alliances enable smaller parties to enter congress on the coattails of larger ones.

Legislators hope this will strengthen big parties and prompt small ones to merge. It should discourage the formation of the sprawling coalitions that wield power in Brazil, lessening the need for pork and patronage to hold them together.

At first, big parties will suffer most from the loss of corporate donations, says Jairo Nicolau, a political scientist at UFRJ, a university in Rio de Janeiro. Smaller ones could get more money. They lobbied successfully to apply the vote threshold to financing and free media, rather than making it a hurdle for entering congress, and to delay all the changes until after 2018.

People who are already famous will benefit at the expense of candidates who need cash to promote themselves. Evangelical parties, which have a loyal base of supporters, could make gains, says Filipe Gruppelli Carvalho of Eurasia Group, a consultancy. In 2018 presidential candidates with a large following on social media, such as Jair Bolsonaro, a right-wing populist, could do well.

But the new measures hurt more than

The Economist October 14th 2017

they help small parties, and the pressure will grow over time. The deputies of parties that stand to lose access to money and media time may jump to bigger parties as soon as the month-long "party window", the political equivalent of football's transfer window, which starts on March 7th. Rodrigo Maia, the Speaker of the lower house of congress, predicts that the number of parties could eventually fall to six. Thiago Vidal of Prospectiva, a consultancy, expects a less drastic drop, to 13 by 2030.

Congress shied away from bolder measures, which might have made the legislature more representative and accountable to voters. It rejected proposals to divide statewide congressional districts into smaller ones. This would create closer links between congressmen and constituents. The senate has embarked on another attempt.

Congress has also so far failed to correct over-representation of small states in the lower house. São Paulo, the most populous, has one congressman for every 644,000 citizens; Roraima, the least populous, has one for every 65,000. Three-quarters of Brazilians say they have lost confidence in their elected officials. To change their minds, political reform will have to go further.

Reading to Cuban cigar workers Havana lector

HAVANA An old profession is still going strong

VERY morning at 8:30 Gricel Valdés-**L**Lombillo mounts a platform at the H. Upmann cigar factory and starts the first of her 30-minute shifts reading to an audience of 150 torcedores, or cigar rollers. Throughout the day she will divert them with snippets of news, horoscopes, recipes and, most important, dramatic readings of literature. In a career that began in 1992 she has read "The Count of Monte Cristo", a longstanding favourite among torcedores, three times. The popularity of this tale of revenge is the origin of Cuba's Montecristo brand. Another 250 workersdespalilladoras (leaf strippers), rezagadores (wrapper selectors) and escojedores (colour graders)-hear Ms Valdés-Lombillo's readings through the public-address system.

Lectores have been reading at cigar factories since 1865, when Nicolás Azcárate, a leader of a movement for political reform, proposed the practice as a way to educate workers and relieve tedium. Perhaps influenced by the texts they heard, cigar workers helped win Cuba's independence from Spain and later founded trade unions.

••

The Americas 31

Around 200 lectores are still at work in Cuba and, despite television and the internet, they show no signs of disappearing. Cigars are one of the few export industries that is thriving. While Cuba's merchandise exports fell by 33% in 2016, worldwide sales of cigars rose by 5% to \$445m. UNESCO is considering whether to designate *la lectura* as a form of "intangible cultural heritage", which should help keep it going.

The workers themselves choose the lectores. "This is the only job in Cuba that is democratically decided," says an employee. The audience is demanding. *Torcedores* signal approval by tapping chavetas, oyster-shaped knives, on their worktables; slamming them on the floor shows displeasure. They vote on reading material: Ms Valdés-Lombillo recently finished "A Time to Die" by Wilbur Smith, a South African novelist, and "Semana Santa en San Francisco", by Agustín García Marrero, a Cuban. When the readings get steamy, torcedores provide an accompaniment of suggestive sound effects. They laugh when a horoscope suggests that someone might inherit a fortune.

Like many lectores Ms Valdés-Lombillo has moved beyond her official role to become a counsellor, confidante and community leader. She has been an announcer at factory baseball games and a eulogist at funerals. If the cafeteria food is too salty or the tobacco leaves become too damp to roll, she will tell the managers.

But lectores no longer act as spurs to dissent. Granma, the Communist Party's newspaper, is part of Ms Valdés-Lombillo's daily literary fare. She describes the thoughts and deeds of Raúl Castro, Cuba's president, and will do the same for his successor. The opinions of exiles and dissidents will not get a hearing. Unlike the cigar workers and the lectores, the party seldom turns over a new leaf.

Bello | Time to bury Che Guevara for good

The left needs a more democratic icon

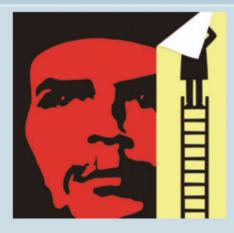
ON OCTOBER 9th 1967 the Bolivian army, with the CIA in attendance, shot Ernesto "Che" Guevara in cold blood, on the orders of Bolivia's president. Thus ended his short-lived attempt to ignite a guerrilla war in the heart of the Andes. Fifty years on, Bolivia's current president, Evo Morales, and several thousand activists assembled there this week to honour Guevara's memory.

In death Che, with his flowing hair and beret, has become one of the world's favourite revolutionary icons. His fans span the globe. Youthful rebels wear Tshirts emblazoned with his image. Ireland this month issued a commemorative stamp. But it is in Latin America where his influence has been greatest, and where his legacy—for the left in particular—has been most damaging.

The ascetic, asthmatic Argentine doctor first fought alongside Fidel Castro in the mountains of Cuba's Sierra Maestra. After the Cuban revolution had imposed communism on the island, Guevara left to try to "liberate" first Congo and then Bolivia. Those who idolise Che do so because they see him as an idealist who laid down his life for a cause. An aura of Christian sacrifice surrounds him.

That cause was "anti-imperialism" and ending exploitation by replacing it with "socialism" (ie, communism), Mr Morales declared this week. In this, Guevara was a man of the 1960s—he fomented revolution as *yanqui* bombers were napalming Vietnamese peasants and when it was still possible for many people to believe that only violence and communism could defeat expansionary American imperialism.

For the Latin American left, that vision has congealed into archaism. In Colombia it contributed to the destructive insurgency of the FARC, which ended only last



year, and that of the ELN, an avowedly guevarist group, which declared a ceasefire last month. Nicolás Maduro, Venezuela's president, justifies the crushing of opposition as an act of anti-imperialism. Mr Morales, who after 11 years in power shows no sign of being prepared to relinquish it, may yet try to do the same.

So occluded is the lens of anti-imperialism that much of the Latin American left has failed to detect that American meddling in the region largely ended with the cold war, and that most younger Latin Americans see the United States as a source of investment, opportunity and technological progress (or at least did so before the arrival of President Donald Trump). But old dogmas die hard. "La Cordillera", a newly released Argentine film, portrays an American diplomat offering a massive bribe to a fictional Argentine president (played by Ricardo Darín of the Oscar-winning "The Secret in Their Eyes"). The inducement is to vote against a regional oil cartel proposed by a left-wing Brazilian leader. The film seems oblivious to the fact that Latin America has just seen something that is almost the reverse: companies close to a left-wing president in Brazil showering money to get friendly candidates elected in other countries and then paying bribes to win public contracts.

In Guevara's view, equality was to be achieved by levelling down. As minister of industries in Cuba, he wanted to expropriate every farm and shop. True, Cuba offers its people reasonable health care and education, and helps them through hurricanes, but those achievements have come at the cost of miserable wages, the denial of opportunity and the brutal suppression of dissent. In Venezuela's pastiche of the Cuban revolution, installed by the late Hugo Chávez, another Che fan, the masses have been impoverished while insiders have become fabulously and corruptly rich.

Guevara's mistake was to deny the possibility of democracy, or the social progress it could bring, in Latin America. Most countries in the region are no longer controlled by a narrow oligarchy, nor under the yangui thumb. Whatever their mistakes and failings, reformist governments in countries like Chile, Brazil and Colombia have shown that inequality, while still high, can be reduced by good policies. When Che first set foot in Cuba, it was one of the most developed countries in Latin America. Despite its investment in health and education, freer countries have now caught up and in some cases surpassed it.

By erecting anti-imperialism and equality as supreme values, too many leftists have been complicit in tyranny and corruption. They have shamefully refused to condemn Mr Maduro's dictatorship in Venezuela. Not only does democracy offer the best hope of progress for the masses, it also protects the left against its own mistakes. It is long past time to bury Che and find a better icon.



South Korea Promising the Moon

SEOUL

The government bets that boosting the minimum wage by half will solve the economy's problems

LOT has changed since Jeon Tae-il Akilled himself. In 1970, when the 22year-old South Korean set himself alight to protest about poor working conditions, his country received millions of dollars of foreign aid. Now it is the world's 11th-biggest economy. The statue that commemorates him in the capital, Seoul, is dwarfed by skyscrapers. Passers-by play games on their smartphones. Yet his memory is often invoked by activists and politicians who argue that ordinary workers do not get their fair share of the national pot of kimchi. "He was a great man," says a market trader, having a cigarette break next to the memorial. "Things have improved a lot but our wages are still poor."

Moon Jae-in, the left-leaning president who took office in May, was elected in part on the promise of changing that. The centrepiece of his economic policy is a bold experiment in raising the minimum wage. The first step is a 16.4% increase set for next year, the biggest rise since 2000. The difference is that in 2000 the economy was growing three times as fast as it is now. Even more ambitious is the sequence of increases planned for coming years, intended to produce a total rise of 55% by 2020.

South Korea's is far from the only government ratcheting up the minimum wage, but the others that have opted for such big increases have typically been those of wealthy cities or regions in rich countries, such as Seattle and Alberta. It is rare for an entire country to move so aggressively, especially one that relies on exports. If South Korea follows through as intended, its minimum wage will be roughly 70% of its median wage by 2020, well above the level in all other big economies (see chart).

On the face of things, the South Korean economy is doing well. Growth has averaged 3% annually over the past six years, a decent outcome for a period when global trade was sluggish. Income per person is about two-thirds of America's, up from a third 25 years ago. The unemployment rate is just 3.6%. South Korea spends more as a share of GDP on research and development than almost any other country.

But it may not be the best time for such a radical economic reform. There are immediate concerns: Donald Trump's threat to



Also in this section

- 33 Celebrating Diwali in India
- 34 Cambodia bans the opposition
- 34 Promoting tribal justice in Pakistan
- 35 The durability of Japan's ruling party
- 35 Myanmar's patriotic media
- 36 Banyan: The magic of land reform

For daily analysis and debate on Asia, visit **Economist.com/asia**

tear up a bilateral free-trade pact, foreign investors' jitters over the nuclear stand-off with North Korea and Chinese economic retaliation in response to South Korea's deployment of an American missile-defence system. There are also more lasting worries: high household debt, a rapidly ageing population and stiffer competition from China in a range of industries.

Nonetheless, poorer Koreans resent rising inequality. The chaebol-sprawling family-run conglomerates such as Samsung and Hyundai-dominate business, as they have for decades. A study by the International Monetary Fund last year found that the top 10% of South Koreans receive 45% of total income-a greater concentration than in other big economies in Asia. The proportion has risen sharply over the past two decades as the wages of the rich have grown faster than those of the poor. A spike in youth unemployment earlier this year highlighted a mismatch between the needs of business and an education system that is geared towards producing stellar test scores. Adjusted for inflation, household incomes fell last year, something that in recent decades had happened only in the wake of financial crises.

In his campaign Mr Moon pledged to take on vested interests and rev up the economy. Nearly six months into his presidency, he has taken several symbolic steps in that direction. He has appointed Kim Sang-jo, known as the "chaebol sniper", to head the Fair Trade Commission, raising expectations that he will try to reduce the big conglomerates' clout. His government is nudging up taxes on companies and high-earners. It has also increased spending, albeit modestly. But most striking of all in its immediate impact is the hefty increase in the minimum wage, the heart of what Mr Moon calls his "income-led growth" strategy.

The bet is that the jump in wages will feed through to stronger consumption, particularly as low-earners tend to spend more of their pay than the rich do. In addition to propping up growth, stronger consumption would make South Korea less reliant on exports and so less beholden to the whims of China and America, Mr Moon predicts. It should also help reduce inequality.

Politically, the push for higher wages is popular. All the main candidates in the presidential election matched Mr Moon's pledge to increase the minimum wage to 10,000 won (\$8.80) per hour. They differed only about how quickly to do so. Two said they would reach the goal by the end of their five-year term; three, including Mr Moon, said they would do it by 2020.

Whether the increase will actually work as planned is, however, in doubt. Nearly 14% of companies ignore the current minimum, according to a governmentrun employment agency; it reckons the share could go up to 20% next year. The vast majority of people on the minimum wage work at smaller businesses, not *chaebol*. Nearly all respondents to a survey by the Korean Federation of Micro Enterprise said they would consider laying off workers to cope with higher wage bills.

Park Kyung-ja, 59, who runs two convenience stores with her son, says the rise will hit them hard. They plan to close their less profitable branch to cut costs and will probably cut two of six part-time staff, who are paid the minimum wage. "What could we sell here to make up that cost?" she says, gesturing to the packs of chewing gum and cigarettes.

Evidence from elsewhere suggests that increases in the minimum wage generally lead to only slight declines in employment as well as to solid rises in income for those on lower salaries. But at a certain point economists use 50% of the median wage as a rule of thumb—employers will begin to cut back on hiring. Misgivings are widespread enough that the government has promised to review the policy next year.

Another concern is that the reform does nothing to diminish the sharp split between permanent employees and those on part-time or temporary contracts. Other economies have similar divisions, but they are particularly pronounced in South Korea, with permanent employees accounting for less than 50% of the workforce. As Sung Taeyoon of Yonsei University puts it, half of workers end up overpaid and overprotected, and the other half underpaid and insecure.

No remedy is straightforward. The government could make it easier for companies to fire permanent workers or expand social spending to provide more of a backstop for those with temporary jobs. However, the former would anger Mr Moon's base and the latter would require a big increase in taxation.

Raising the minimum wage, by contrast, is popular and cheap for the government. But it risks exacerbating the divide in the workforce and further discouraging companies from creating permanent jobs. An executive at a big company says that it will lead to greater polarisation between profitable conglomerates and struggling small businesses—just the opposite of what the government set out to do. Mr Moon's big experiment could soon turn into a big liability.

Celebrating Diwali Smoke and errors

DELHI

The courts take the fun out of a holiday

THERE is a buzz in the air of India's capital, and not just because Diwali, the Hindu festival of lights, is barely a week away. Along with a shopping rush and a welcome dip in temperature, the season augurs a surge in levels of PM2.5, tiny particles of dust that lodge deep in the lungs and cause such diseases as asthma, pulmonary fibrosis and cancer.

Recent mornings in the world's most polluted megacity have already seen measures of toxic dust exceed ten times the World Health Organisation's recommended maximum. They could spike far higher during Diwali, when pyromaniac revellers ignite lakhs and crores (ie, a lot) of sparklers and rockets. Last year's choking festive smog hung for days, with the level of PM2.5 pushing well beyond 30 times what humans can safely breathe. Small wonder: held at arm's length, a popular firework known as a "garland" generates more than 1,000 times more poisonous smoke than the WHO maximum; the even stinkier "snake tablet" is 2,560 times over the limit.

On October 9th India's Supreme Court banned the sale of fireworks in the capital. Considering that one study reckons that eight Delhi-wallahs die every day as a direct result of pollution, and another that they would live an average of nine years longer if their city met the WHO's standards for air quality, one might expect the court order to be met with general relief. But that would be to underestimate the acrimonious polarisation of Indian society.

Fireworks vendors are certainly unhappy. Diwali should be a bonanza, but they will now have to ship unsold stocks out of the city, or pay police heftier-than-usual bribes to sell them under the counter. Libertarians are also angry: Indian courts are as notorious for overreaching as for underperforming. The ban is on the sale but not the use of fireworks, and so is useless for protecting public health, the critics say. Anyhow, they add, such things should be decided by legislators, not judges.

The greatest rancour has come from Hindu nationalists, whose orange-tinted spectacles perceive every issue as the thin end of the wedge of an Islamic conspiracy. On social media, one widely shared trope compared the court's haste to condemn Hindu traditions with an alleged reluctance to denounce Muslim ones, such as animal sacrifice. "Can I just ask on cracker ban?" tweeted Chetan Bhagat, a popular novelist, "Why only guts to do this for Hindu festivals?" Soon they'll be banning Hindu cremations too, chimed the governor of Tripura state, in eastern India.

Yet even as some assailed the court for attacking an ancient tradition, others noted that fireworks were introduced to India from China merely a few centuries ago, a millennium or two after Hindus started celebrating Diwali with lamps and candles. Much as others might abhor animal sacrifice, came another riposte, it cannot be called a menace to public health. "Even your lungs follow a religion?" teased one tweet in response to Mr Bhagat.



High spirits, clogged lungs

SINGAPORE

The government asks the courts to abolish the opposition

THE Cambodia National Rescue Party (CNRP) is nothing if not hardy. The main opposition to the government of Hun Sen, Cambodia's strongman of 32 years, it and its precursors have long been subject to official harassment. Its first leader, Sam Rainsy, has fled the country several times to escape defamation charges brought by Mr Hun Sen, most recently in 2015. His successor, Kem Sokha, was arrested last month on trumped-up treason charges. The courts, the army and other arms of the state openly favour the governing Cambodian People's Party (CPP).

Before local elections in June the defence minister declared that the army would "smash the teeth" of anyone who protested against the outcome, as CNRP supporters did in 2013, a few months after a narrow election loss. Yet the CNRP still managed to win 46% of the popular vote, not far behind the CPP's 51%. That doubtless made the government nervous about parliamentary elections scheduled for July. At any rate, it is taking more radical steps to deal with its pesky opponents.

On October 6th the government asked the Supreme Court to dissolve the CNRP altogether, on the grounds that it was part of a foreign plot to overthrow Mr Hun Sen (pictured). The prime minister has often accused foreign powers of seeking to foment a "colour revolution" against him. But the only evidence anyone has produced to substantiate this idea is a video of Mr Kem Sokha speaking to Cambodians living in Australia in 2013. In it he describes how he has received advice from America on how best to oppose the government-something that does not seem remotely inappropriate for a member of the opposition. One American group that has provided training to the CNRP, the National Democratic Institute, points out that it has also given advice on party politics to the CPP. That did not stop the government from expelling it from Cambodia in August.

Mr Hun Sen, who has vowed to remain prime minister for another decade, says more arrests are coming. The army, a human-rights activist notes, has been using live ammunition in training exercises while shooting at dummies representing protesters. About half the CNRP'S 55 MPS have fled the country, says one of them, Mu Sochua, a deputy leader of the party.

The international response has been muted. Western embassies offer statements and sighs. Two American senators



No hugs for the opposition

have introduced a resolution, yet to be voted on, asking their government to consider barring certain Cambodians from visiting America. Meanwhile China, Cambodia's biggest donor and investor, "supports the Cambodian government's efforts to protect national security and stability".

Justice in Pakistan More blinkered than blind

RAWALPINDI The government decides to "mainstream" misogyny

ONE evening in August Bakht Jan, a 15year-old girl, attempted to elope with her boyfriend. Before she could meet him, relatives found her and brought her home. Although both families agreed on a swift marriage for their children, a *jirga*, or tribal council, demanded blood. Obeying its edict, Ms Bakht's father drugged and then electrocuted her. Her boyfriend was murdered by his own father in the same way the next day, restoring "honour" in the eyes of the *jirga*.

Such barbarism has become synonymous with jirgas, a traditional form of justice that blends tribal and Islamic customs with the whims of participants. Despite a law passed in 2011 that allows police to arrest members of jirgas suspected of "antiwomen" practices, grotesque abuses continue unabated, activists say. Mukhtar Mai, who was gang-raped on the orders of a jirga in 2002 as recompense for a sexual assault supposedly committed by a male relative, recently lamented that her subsequent campaign to curb the use of jirgas had not succeeded. Just three months ago a girl, aged 16, suffered a horrifically similar

The Economist October 14th 2017

"revenge rape" in the same province.

Instead of trying to stamp out jirgas, however, the government has decided to integrate them into the formal justice system. Earlier this year it won parliamentary approval for a law that gives their rulings force, subject to certain reforms. The government will appoint "neutral arbitrators" to each jirga, who must approve their verdicts—a measure it hopes will eliminate misogynist horrors.

MPS seem untroubled by the plan. Just 23 of the 342 members of the lower house bothered to vote on it. The debate centred on whether to use the term *jirga*, given its diabolical reputation, rather than on whether the reform itself was a good idea.

Support for jirgas stems as much from the disrepair of the formal courts as from respect for tradition. The judiciary is smothered by a backlog of 2m cases. Lawsuits take almost a decade to resolve, on average. Lawyers often charge exorbitant fees, in advance. All this puts the formal justice system out of reach for many Pakistanis. This is not just a gross injustice in itself; it is also bad for security, says Syed Ali Akhtar Shah, a former chief of police of the state of Khyber Pakhtunkhwa. Such was the frustration with the courts in the northern district of Swat that the Taliban won local support by promising "speedy justice" when they took control of the area in 2009.

From his seat in a circle of plastic lawn chairs, Mahfooz Waheed, a former bureaucrat who runs a popular jirga in the city of Rawalpindi, close to Islamabad, argues that informal justice does not deserve its grim reputation. Only a sliver of the caseload concerns sexual or marital disputes, he argues, and only jirgas in illiterate backwaters produce the sort of decisions that end up making shocking headlines. Jirgas offer more than speed and economy, he notes: whereas judges in murder cases can only punish, he can offer compensation. Through his mediation, a widow whose husband and son were killed in a land dispute was paid \$60,000-something of far more practical benefit to her than a conviction. Even the well-to-do seek his help. When a group of businessmen embroiled in a commercial dispute start to shout at one another, he snaps: "This is not a mall, or a court, or a police station, it is a jirga-so behave yourselves."

Support is growing in unlikely corners. In 2016 a report commissioned by Britain's Department for International Development (DFID) advocated studying the "merits" of jirgas, given the power they wield. Accordingly, DFID has recently funded gender-sensitivity training for tribal elders in Peshawar, a conservative northern city.

But activists for women's rights tend to snort at such moves. British colonialists, points out Nazish Brohi, a researcher, also tried to preserve *jirgas* while eliminating their most abhorrent practices. But threats **>>** to banish those guilty of "honour killings" merely led to a spike in the number of violent deaths labelled suicides.

Lawyers, too, snarl at the idea of "mainstreaming" jirgas. Whoever drafted the new law "should be shot", says one, since it grants licence to a system totally at odds with Pakistan's constitution at a stroke. Rather than indulging mobs of senescent villagers, another suggests, the government should give the authority to resolve petty disputes to nazims, the lowliest of elected officials. Another option is to produce a proper land register. Given that, by some estimates, 90% of civil cases involve disputes about land, that would drastically reduce the burden on the formal courts. Instead, Pakistan is on the verge of cementing into law a tribal code that considers the term "property" to include women.

Japan's election campaign Staying power

IMABARI

The ruling party's pragmatism helps explain its durability

THE city of Imabari is known for its medieval castle (pictured), overlooking the Inland Sea, which separates Shikoku and Honshu, two of Japan's four main islands. Recently, however, another landmark has attracted attention: an imposing college campus rising from the hills above the city. Built on public land and jolted to life with a government grant of \$9.6bn (\$86m), the half-finished veterinary school has been dogged by claims that its political midwife was Shinzo Abe, the prime minister.

A former official alleges that Mr Abe helped a college chum secure the education ministry's approval for the new school—a claim the prime minister denies. Opposition politicians say he called an election on October 22nd in part to evade further questions on the subject in parliament. Yet the saga does not seem to have turned many in Imabari against the Liberal Democratic Party (LDP), which Mr Abe leads. "I think many people will go with the devil they know," says Yoshiko Takasu, a shopkeeper.

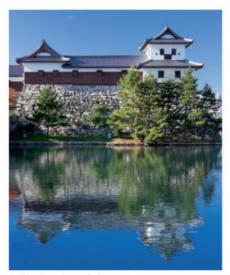
Shikoku has long been a stronghold of the LDP, notes Tsuyoshi Fukuda, a local opposition politician. It and its allies hold 27 of the 32 seats on Imabari's city council, and 26 of the 47 seats in the local assembly. At the previous election for the lower house of the national parliament, in 2014, it won all but one of Shikoku's 11 first-pastthe-post seats, and three of the six allocated by proportional representation. At the election in 2009, when the LDP lost power nationally, it still won eight of 13 first-pastthe-post seats and, two of the PR seats.

Mr Abe's party has now been in power for all but a handful of years since 1955. That is a level of domination unknown in the democracies of America and Europe, says Takashi Inoguchi, a political scientist. A quirk in the electoral system is one reason: conservative rural areas like Shikoku are grossly over-represented. The government has moved to narrow the disparity in votes since the Supreme Court ruled the previous system unconstitutional, but the LDP still benefits, says Kenneth McElwain of the University of Tokyo. Apathy helps the party too. The turnout in 2014 was 52%, the lowest since the second world war.

But the LDP has also maintained its hold on voters by being more pragmatic than ideological. Though often described as conservative, it is in some ways an oldfashioned social democratic outfit. It zealously guards pensions, and routinely taps the public purse to build flashy infrastructure, bringing cash and jobs to places like Shikoku—and driving up the national debt. In 1999, for instance, it presided over the completion of a series of ten graceful bridges connecting Imabari to Honshu. Just the year before, about 170km away, a three-bridge link between Shikoku and Honshu had been inaugurated.

A string of huge stimulus packages under Mr Abe has dulled the impact of a listless economy. In other countries, says Taro Kono, the foreign minister, parties vie to seem the most fiscally responsible. "In Japan, we have a party for big government and a party for bigger government."

Imabari's mainstays used to be shipbuilding and textile firms run by bosses intensely loyal to the LDP. Those industries have long been in decline. The local population is shrinking too. Yet many people still look to the LDP, Mr Fukuda says, partly out of fear for what these trends may bring. After all these years, voters at least know what to expect.



Still a bastion of the LDP

The media in Myanmar Patriotic to a fault

YANGON

The local press takes on the world

EARLIER this month, in a column in a state-owned newspaper entitled "The Truth behind the Northern Rakhine Issue", a retired general decided to rebut the "absolute absurdities" he had read in the international media. He dismissed as slurs the sorts of reports produced by the UN, international NGOS, a host of foreign governments and this newspaper, among others, describing a brutal campaign by the Burmese army that has pushed at least 500,000 members of the Rohingya minority into neighbouring Bangladesh. Aung San Suu Kyi, Myanmar's leader, has also spoken of "a huge iceberg of misinformation". The Burmese media have done little to challenge that view.

The local press dwells on the attacks by Rohingya insurgents on police and army posts, and on the relatively small number of assaults on Buddhists and Hindus, while ignoring or glossing over the persecution of the Rohingyas, who are Muslim. It does not help that many Rakhine, the Buddhist ethnic group with whom the Rohingyas share Rakhine state, are so suspicious of outsiders that they have harassed local journalists visiting the region. What is more, although Myanmar's media law says journalists may "freely criticise" the executive, the legislature and the judiciary, the army is conspicuously omitted.

There is also a debate among Burmese journalists as to what their proper function is. As the vice-chairman of the Myanmar Press Council puts it, "The greatest responsibility of the media today in Myanmar is safeguarding our national image which has been badly tarnished by some unethical international media reports." Others believe their job is to hold the powerful accountable. "We are doing global journalism, not Myanmar journalism," says Aung Htun U of the Yangon Journalism School, one of the few institutions in the country to offer training to reporters. In an apartment turned into a classroom, he explains how decades of military rule have weakened the profession and impaired readers' ability to assess information critically. One of his former students became a journalist after working with foreign correspondents covering Myanmar's elections in 2015. She hopes that exposure to foreign journalism will bring about change. For the moment, however, it just seems to be generating indignation.

Banyan | Land to the tiller

The crucial importance of fair farming to Asian prosperity

N EARLY as striking as Asia's dynamism is how unevenly pros-perity is spread—in contrast to Africa, Latin America or Europe. First-world Japan (with a GDP per person of \$38,900) is in effect part of the same island chain as the Philippines (\$2,950). Rich Singapore (\$53,000) is little more than an hour's flight from Myanmar (\$1,275). On the Korean peninsula, the division is even starker. Two economies that started out in identical circumstances have diverged so wildly that South Koreans are between 3cm and 8cm taller than their North Korean counterparts on average, depending on their age, thanks to better nutrition.

A voluminous literature ponders the causes of the East Asian miracle, in which first Japan, then the four original "Asian tigers"–Hong Kong, Singapore, South Korea and Taiwan–and then China sustained bounding growth for decades. Most studies point to market-friendly policies that encouraged exports of manufactures and the rapid accumulation of capital, including the human sort. Others emphasise the importance of institutions. Yet one crucial factor has been relatively underplayed: restructuring agriculture.

"Land reform" sounds innocuous but involves great upheaval: seizing land from those who have it and giving it to those who do not. Yet radical action may be necessary in countries with big, impoverished, rural populations. As Joe Studwell points out in "How Asia Works", farm yields often stagnate in such places. As populations grow, making land scarce, landlords jack up rents and lend at extortionate rates. That leaves poor tenant farmers mired in debt, with no means to invest.

China provides a stark example. By the 1920s, a tenth of the population owned over seven-tenths of the arable land. Threequarters of farming families had less than a hectare. Mao Zedong's Communists reallocated land in every new territory they seized. After the defeat of the Kuomintang (KMT) in 1949, they rolled out land reform nationwide. Landlords, some with scarcely more land than most, were blamed for everything. In the decade after 1945 millions of them were beaten to death or shot, or left to starve. Revolution, Mao said, was not a dinner party.

The effect was immediate. Grain output leapt by perhaps 70% in the decade after the war. When farmers can capture most of the value of their land, they have a powerful incentive to produce. And while smallholder agriculture is hugely labour-intensive, that makes sense when labour is abundant. (Only a few years later the Communists embarked on the madness of collectivisation. China emerged from that disaster in 1978, after Mao died. North Korea is starting to do so only now.)

China's early success challenged Japan, South Korea and Taiwan. These countries, pressed by America to carry out land reform, showed that it does not require mass murder. By the war, half of Japan's arable land was worked by tenant farmers, and rent was never less than half the crop. After the war, farm size was limited to three hectares. Land committees on which tenants outnumbered landlords oversaw a reapportionment that took land from 2m households and gave it to 4m others. Compensation fell short (and was gobbled up by inflation), but there was little violence among farmers. Perhaps it helped to be able to blame the occupiers when politely taking over someone's paddy field. At any rate, agriculture boomed.

South Korea had the most unequal land ownership in the region, and resistance by the elites was strongest. Some landlords lost as much as 90% of their land. But Taiwan under the KMT shows the clearest benefits from land reform, which started with rent controls and reforms to tenancy. Sales of formerly Japaneseowned land followed. Then, in 1953, came appropriation. The share of land tilled by the owner rose from just over 30% in 1945 to 64% in 1960. Yields on sugar and rice leapt. New markets sprang up for exotic fruits and vegetables. Household farmers dominated early exports. Crucially, income inequality shrank thanks to the new farmer-capitalists. Less spent on imports of food, more money in Taiwanese pockets, a new entrepreneurialism: farming was the start of Taiwan's economic miracle.

Cheap at half the price

Indonesia, Malaysia and Thailand could have followed Taiwan's example, but didn't. Their economies have done far worse. With between 25% (Malaysia) and 48% (Thailand) of their populations still living in the countryside, land distribution matters. The state favours agribusiness and plantations over small farmers. There is a yawning gap in income between countryside and city.

The situation is worse in the Philippines, which had a similar income per person to Taiwan's just after the war. Before independence in 1946, America auctioned off the Catholic church's huge estates. Only the local elites could afford them. These became the hacienda class that thrives today, forming the basis of many political dynasties. Admittedly, after the People Power revolution (led by Cory Aquino, from one landed family, who married into another), political pressure for land redistribution culminated in a reform law passed in 1988. Nearly 30 years on the law, replete with loopholes, is still being implemented. The operations of many big estates have hardly been affected, while household farmers still lack technical and financial support. Many of those given plots have had to lease them back cheaply to the big planters, becoming wage labourers on their own land.

There are political consequences too. In South Korea and Taiwan inclusive agricultural growth prefigured the inclusive politics of today's thriving democracies. In South-East Asia, by contrast, cronyism and inertia are consequences of an economy that is unfair to those at the bottom. The Philippines and Thailand have most clearly paid a price, in the form of insurgencies and rural unrest, for keeping poor people down. When weighed against the costs, land reform, done well, starts to look cheap.



China



Education Salad days

CHENGDU

Yuppies want schools to be more laid-back

WITH a postgraduate degree in literature, Ruby Li has ridden China's education system almost to the top. Now a mother-of-two living in Chengdu, a city in the south-west, she hopes to spare her children the high pressure and long hours of homework that she endured at their age. Some years ago Ms Li and her husband, a businessman, moved their elder son from a conventional kindergarten to another one that uses less formal and rigid methods of teaching. She says that since then he has been happier and healthier, and their home life more harmonious, too.

Ms Li is among the well-heeled parents who send their children to Chengdu Waldorf School, a fee-paying institution inspired by the quirky philosophies of Rudolf Steiner, an early-20th-century Austrian educationalist. The school (pictured) aims to teach in creative ways, says Zhang Li, one of its founders. That means plenty of music, storytelling and play. The campus is scruffy but cheerful, boasting an inkstained calligraphy studio and a wall daubed with stone-age cave paintings (the result of a class art project). At going-hometime three small children clamber around in the branches of a tree.

The stellar performance of children in China's richest cities in international tests of ability in maths, science and reading has lent the country's education system a glossy sheen abroad. But feelings are mixed in China, where parents fret that state schools are too competitive, that the exam culture is too stressful and that curriculums favour cramming over creativity. One result of this is a steady leak of pupils out of the state sector and into private schools that drill for entry into foreign universities. Another trend is the rise of schools that use less structured approaches to teaching than commonly found in mainstream ones. Sun Yifan, a researcher at the University of Cambridge, says such progressive schools are burgeoning "like bamboo shoots in spring".

Waldorf schools are one example. The one in Chengdu opened in 2004, the first in China to use that name. It teaches about 500 pupils from kindergarten through to senior high (between the ages of three and 18). Another 70 or so Waldorfs are sprinkled across China's other big cities. Their free-spirited style of teaching is similar to that of Montessori schools (of which China now has at least 900 at the kindergarten level, and perhaps many more). It is unlikely that many Waldorf parents fully understand Steiner's theories about "spiritual science", let alone his mystical approach to agriculture. But Ms Sun says they hear echoes in them of traditional Chinese philoso-

Also in this section

38 Dissecting China's foreign aid

For daily analysis and debate on China, visit **Economist.com/china**

phy, to which some people in China are far better attuned.

Another fad is for education that is directly inspired by ancient Chinese culture, often delivered by small schools in the countryside that offer instruction in subjects such as archery, traditional medicine and Confucianism. Some have only a handful of full-time students, but also run popular workshops and summer schools. (Not all their patrons want touchy-feely education: at the far fringes of this movement are schools that require students to do little besides memorising classical literary and philosophical texts, as their ancestors might once have done.)

A few parents who want to free their children from the state system's stifling constraints, but who can find no handy alternative, are trying home schooling instead. A survey published this year by the 21st Century Education Research Institute, a think-tank in China, found only about 6,000 families educating their children exclusively at home—still a tiny number, but one that is rising by around one-third each year, the institute reckons.

Rules bent and broken

The national curriculum, which is compulsory for children in the first nine years of school (ie, aged between six and 15), allows some room for experimentation. Primary schools can usually find time to supplement mandatory material with some of their own choosing, says Jiang Xueqin, a researcher and consultant. Motivated teachers can deliver the obligatory stuff in unconventional ways. But some of the progressive schools pay only lip service to the state's curriculum. Some of them obtain government approval to operate as **>>** schools. But others affiliate themselves with licensed schools to avoid the tricky process of having to get their own permits. Many smaller institutions get by without official blessing.

Better-off parents appear unfazed by the lack of proper paperwork for some progressive schools (the Waldorf in Chengdu has licences for its nursery and primary schools, but the authorities want it to find a bigger campus before they will issue a permit for its secondary school). However, some worry about the later years of their children's schooling. Parents who want their offspring to study abroad can safely keep them in progressive schools. Those who want them to cram for the national entrance exam for universities in China, or gaokao, often choose to move them back into conventional schools for that period of study. Few parents want to take risks with a potentially life-changing test.

The government itself sees benefit in having well-educated youngsters who are self-starting and creative—the kind of people needed to build a more innovative economy. In the early 2000s it began encouraging schools to make lessons more lively and textbooks more varied. Yet the

Rogue to vogue?

BEIJING

A study of China's foreign aid reassesses the country's reputation as a bad donor

CHINA is one of the world's largest providers of foreign aid. But it has a reputation as a rogue donor: stories abound of shoddy projects, low environmental standards and mistreatment of workers. A hospital built by the Chinese in Luanda, the capital of Angola, developed alarming cracks and had to be rebuilt. Aid is widely thought to have been diverted for arms purchases by Robert Mugabe's regime in Zimbabwe. The list goes grimly on.

Stories do not abound, however, about who gets China's aid and what it goes on. The government says that it spends about \$5bn a year on assistance to other countries. But it has no aid ministry comparable to, say, Britain's Department for International Development. Most details of the aid programme are kept secret, perhaps because the largesse is unpopular domestically. Many Chinese think that their country is too poor to give handouts and the money ought to be spent at home. When the health ministry tried to investigate whether Chinese projects in Africa made people healthier, the rest of the government flatly refused to co-operate.

The most detailed study so far of Chi-

e country's reputation as a bad donor nese aid, published this week by AidData, a research group at the College of William and Mary in Virginia, shines a light on the murky data. The report looks at 4,400 projects which China has either committed to, is building or has finished, between 2000 and 2014. It finds that the country gave or lent about \$350bn over that period—not much less than the total of American aid, which was \$424bn in those years. But almost all of America's aid is in the form of

gaokao system continues to give schools a

strong incentive to stuff their students with

stodgy facts. Parents deplore the pressure

that the gaokao imposes. But they also dis-

trust less objective types of assessment,

about non-mainstream schooling. It frets

that some unlicensed schools may be ped-

dling unsavoury ideologies or religions,

such as Christianity or Islam. A govern-

ment circular issued in February reminded

parents that taking lessons at home or at-

tending traditional-culture schools was no

substitute for attendance at state-approved

institutions during the period of compul-

sory education. It is highly unlikely that the

government will ban progressive schools.

Too many wealthy parents want them, and

keeping the middle class happy is one of

the party's priorities. But officials are wary

of giving schools too much latitude. This year they imposed limits on the number of

translated children's books by foreign au-

thors that are published in China. They are

also trying harder to ensure that private

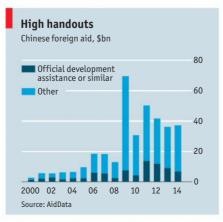
schools have active party committees. If

such efforts discourage experimentation,

Chinese children will be the losers.

The Communist Party has reservations

which may be prone to corruption.



grants, compared with a fifth of China's. The rest is concessional lending at belowmarket interest rates, mostly to Chinese companies working abroad—the kind of aid that used to be common in the West but went out of fashion in the 1990s because it overburdened recipients with debt. The grant component of China's aid was \$75bn, still a lot (about the same as Britain's), but not a tidal wave of money.

Previous AidData studies of Chinese aid have been controversial. In 2013 the researchers reckoned that aid to Africa alone (which accounts for half of China's total foreign aid) was \$75bn between 2000 and 2011. Deborah Brautigam of Johns Hopkins University in Maryland said their calculation was "way off". She criticised what she described as its excessive reliance on unreliable news reports. AidData's new estimate appears to be better grounded. It is based more on official announcements from Chinese commercial offices abroad and from the finance and planning ministries of recipient countries.

The authors use their new numbers to look at whether Chinese aid works-an equally controversial subject. In a study published along with the data set, researchers including Bradlev Parks of the College of William and Mary find that the grant kind does. They reckon a doubling of Chinese grant aid is associated with a 0.4point increase in the rate of GDP growth of the recipients after two years. That is more than can be said for China's no-strings-attached concessional lending, which, according to AidData, has no effect on the receiving country's GDP. It appears to be tantamount to an export subsidy to Chinese firms, with a side order of backhanders for local elites.

On a happier note, the study looks at whether Chinese aid damages Western assistance. The researchers do this by calculating whether aid effectiveness declines in countries that receive Western aid and then get an influx of Chinese cash. It finds no decline, implying Chinese aid does not harm efforts by other donors.

Three conclusions can be drawn from AidData's findings. First, Chinese aid could do more good in poor countries if more of it came in the form of grants, rather than cheap loans. Next, Western aid agencies should not be so wary of co-operating with the Chinese. Co-ordination is important in aid-giving because otherwise you might find, say, three aid agencies each building a hospital in the same city. Because China is regarded as a rogue, it is not roped into the co-ordination efforts among Western donors. That should change. Lastly, the paucity of information about China's aid (despite AidData's efforts) is caused by the opacity of China's government. Perhaps it might consider being more open about a programme that appears, for all its flaws, to be moderately effective.

Middle East and Africa



South Sudan Guns, germs and stealing

JUBA

As the world's newest country plunges into the abyss, America reconsiders its support for the regime

T IS not as bad in South Sudan as people think, insists Ezekiel Lol Gatkuoth, the petroleum minister. The UN may claim that a third of the population have fled their homes, but that is an exaggeration, says the sharp-suited former diplomat.

Why, then, does he think the refugee camps are so full? Some people go there for the services, such as free food, he explains. Others have been scared by fake news, peddled by insurgents. "People are saying: 'The Dinka [the largest ethnic group in South Sudan] are coming to kill you. You must leave!" Seated in his plush office in Juba, the capital, Mr Gatkuoth scoffs that, when he was a rebel during South Sudan's long war to break away from Sudan, his comrades used similar propaganda, telling people that the Arabs were coming to burn their villages and rape their children. "It was very effective," he recalls.

At camps for displaced people near Wau, one of South Sudan's largest cities, no one agrees with Mr Gatkuoth's account of current events. All describe, not rumours of massacres heard on social media, but actual massacres that they saw with their own eyes. The perpetrators, they say, were Dinka marauders wearing blue and Dinka soldiers in uniform.

"I saw my son shot in front of me. He fell and I was holding him. I survived, maybe because the killers thought we were both dead," says Pascalina, a fugitive. "They took my sister and raped her," says Anyor, a mother who hid in the bush with her nine children as the attackers killed the men in her village, looted everything of value ("goats, chickens, sorghum") and kidnapped young women.

The spoils of oil

South Sudan, the world's newest country, is like a jigsaw puzzle that has been broken apart, soaked in petrol and set alight. It will not be easy to put back together. It seceded from Sudan in 2011, after half a century of on-off rebellion and a peace deal in 2005. In a referendum, 99% of South Sudanese (who are mostly black and non-Muslim) voted to separate from the Arab, Muslim north. Sadly, clashes between different ethnic groups within South Sudan began almost immediately after independence.

Full-blown civil war erupted in 2013, after President Salva Kiir (a Dinka) sacked Vice-President Riek Machar (a Nuer). A truce in 2016 lasted less than four months. It ended with gun battles in Juba and Mr Machar fleeing to South Africa, where he remains under house arrest.

The mayhem is now many-sided. The other tribes (of which the country has about 60) accuse Mr Kiir of funnelling government jobs and cash to Dinkas, and of using the national army to assert Dinka supremacy. Terrified non-Dinkas have formed armed groups to defend their homes, land and cows-and sometimes to raid the neighbouring villages. The govern-

The Economist October 14th 2017 39

Also in this section

- 40 American sanctions on Sudan
- 40 Kenya's electoral poker
- 41 Decertifying Iran's nuclear deal
- 42 Reconstruction in Iraq
- 42 Cleaning up rubble

For daily analysis and debate on the Middle East and Africa, visit

Economist.com/world/middle-east-africa

ment sees these groups as rebels to be exterminated, and tacitly encourages the ethnic cleansing of areas thought to support them. All sides slaughter civilians.

In Wau, Dinkas walk in the streets without fear (except at night, when robbers prowl). Meanwhile, tens of thousands of non-Dinkas huddle in tented camps nearby, guarded by UN peacekeepers. The non-Dinkas say they are too scared to return home. Many report being raped if they venture out to collect firewood. "Now it is death for anyone who is not a Dinka. If you can't talk like a Dinka, if you don't have the right [ritual] scars, they shoot you, no questions asked," says Abdullah, a farmer. "They want to clear the other groups and take control of everything. They kill you and take your land to graze their cattle on."

Out of South Sudan's pre-war population of 12m, the UN estimates that 2m have been displaced internally and another 2m have fled abroad. So bad is the violence that some flee into the war-ravaged Central African Republic, or into Sudan's troubled region of Darfur. Though South Sudan is fertile, more than half of its people face hunger. A famine earlier this year was averted by food aid. Diarrhoea, cholera and malaria have spread rapidly, along with kala-azar (a deadly parasitic disease carried by sandflies).

The economy is a disaster. The state depends on oil, which is 95% of exports. Not only has the oil price fallen by more than half since 2011, but output has collapsed in the fighting. The IMF guesses that real income has been cut in half since 2013. Inflation is over 300% a year. The government is short of cash. Unpaid soldiers rob civilians with impunity.

Much of the budget is stolen. Absurdly, half of the government's net oil revenues are spent on petrol subsidies—the government insists that fuel should be sold for far >>

less than it costs. As a result, petrol stations have run dry. Outside each one, black-market traders sell fuel in water bottles for more than ten times the official price. The finance minister says fuel subsidies should be scrapped, but faces resistance from those who pocket them.

The government says it welcomes the foreign aid groups who provide most of South Sudan's public services. In practice officials often obstruct them. Aid workers are regularly barred from delivering food and medicine to rebel-held areas. Dozens have been murdered. Many roads are impassable because gunmen patrol them, stealing aid supplies and killing drivers. Bureaucrats constantly demand new fees and permits. (Your correspondent was barred from an internal flight over a missing piece of paper which, once he had obtained it, no official asked to see again.)

Mr Kiir's government came to office on a wave of international goodwill. Both the Bush and Obama administrations included close personal friends of the plucky rebels who liberated South Sudan from the Islamist tyranny of Khartoum. But Donald Trump's White House has no such senti-

American sanctions on Sudan Not much relief about the relief

KHARTOUM

It will take more than the end of sanctions to fix Sudan

(1) HIS is the best you can find anywhere, and not just in Sudan," says Ali Alsheikh, gesturing at the deep-green field behind him. His farm, which exports animal feed, belongs to DAL Group, Sudan's largest conglomerate. Here, an hour's drive south of the capital, Khartoum, one can glimpse a better economic future for Sudan: high-tech, capital-intensive and outward-looking.

On October 12th, as a reward for "positive actions" by Sudan's government in thwarting terrorism and allowing aid to reach war victims, America lifted sanctions first imposed by Bill Clinton in 1997. These included a trade embargo, a freeze on state assets and curbs on financial institutions dealing with Sudan. Omar al-Bashir, Sudan's president, is still wanted by the International Criminal Court on charges of genocide. But for most Sudanese this is a milestone. "The whole country issued a large sigh of relief," says Ahmed Abdelatif, a businessman.

Sudan's economy has done poorly



since South Sudan seceded in 2011, taking with it 75% of the old nation's oil reserves. Exports have slumped, inflation has soared—it is now nearly 35% (see chart)—and the economy contracted in 2011-2012. Foreign investment has been negligible and the currency is weak. The government says that it will recover without the burden of sanctions. A strengthening of Sudan's pound since the lifting was announced suggests that some share its optimism.

Is this warranted? Sanctions undoubtedly held Sudan back, but for many years their impact was obscured by an oil boom. Growth averaged 5% from 2004 to 2008. "Up to 2010 we literally could not have cared less," shrugs Mr Abdelatif. But in the past few years "America started playing very rough with us," says Abdul-Rahim Hamdi, a former finance minister. Foreign banks stopped dealing with Sudan, locking the country out of the international financial system.

Since the lifting of sanctions was announced, local newspapers have reported a flurry of interest from foreign investors. Sudan Airways, the stateowned carrier, has announced plans to revive its moribund fleet now that it can buy spare parts from Boeing and Airbus.

But it will take much more to spark a real recovery. Investors are wary of Sudan's corruption, multiple exchange rates and the difficulty of repatriating profits. Few foreign banks will return while it sits alongside Iran and Syria on America's list of state sponsors of terrorism. And the government will have to find another scapegoat for the country's poor economic performance. On October 9th the culture minister announced plans for a new museum in the capital. It will be dedicated, he said, to commemorating the damage wrought by 20 years of American sanctions. mental ties, and America is rapidly losing patience with Mr Kiir. Three South Sudanese officials have been sanctioned by America's Treasury for alleged corruption. More may follow.

Last month Mark Green, the head of USAID, America's government aid agency, visited South Sudan. Mr Kiir is said to have told him that there was no systemic insecurity in the country, that what violence did occur was the opposition's fault, and that aid workers could do their jobs unhindered. Mr Green was shocked to be lied to so brazenly. He promised a "complete review" of American policy towards South Sudan. This month America's ambassador to the UN, Nikki Haley, will visit Juba, hoping to revive peace talks. President Trump, however, may be inclined to cut South Sudan loose. That is risky. "If we disengage, people will starve to death," laments an American official.

Kenya's electoral poker Going all in

NAIROBI Raila Odinga takes a gamble

IN THE rickety wooden markets in Nairobi, where traders sell old books, secondhand clothes and kitchenware, walking away is a buyer's last negotiating ploy. If he is lucky, he will be chased down the street and offered a better price. Raila Odinga, Kenya's softly-spoken opposition leader, seems to be hoping a similar strategy may rescue his electoral chances.

On October 10th Mr Odinga withdrew from a re-run of the presidential election scheduled for October 26th, arguing that if it went ahead then it would not be free or fair. Courts had already annulled the presidential part of a wider set of elections held on August 8th, after finding problems with the way it was run. But no reforms have been made to the electoral process since then, he argued.

It had already been clear for several weeks that Mr Odinga did not plan to contest the election. His coalition of parties, the National Super Alliance (NASA), had been running a bare-bones campaign. The candidate himself had made plans to travel to Britain and possibly America two weeks before the vote—prime campaigning time—presumably to drum up international support for his withdrawal.

Yet the announcement still contained a surprise. This is because instead of proposing a straightforward boycott, Mr Odinga seems to be hoping that by standing down he will force the courts to halt the election altogether and order a new one in the fu-

The Economist October 14th 2017

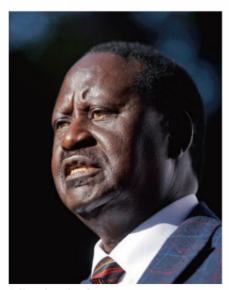
 ture after the parties have nominated new candidates.

Under the original Supreme Court ruling that annulled August's election, the electoral commission has until November 1st to organise a new one. If that deadline is missed, then Kenya will be plunged into a constitutional crisis. It is unclear how that would be resolved. Those in the camp of the incumbent president. Uhuru Kenvatta, want an election to be held no matter what. Some hardliners want him simply to be declared president. In parliament MPS pushed through an amendment to the electoral law that automatically awards victory to the remaining candidate if one of them withdraws from a re-run of a presidential election.

Yet the real crisis is one of legitimacy, not law. Should the courts and electoral commission go ahead with a vote that is not contested by Mr Odinga, his supporters will surely try their best to disrupt it, says Michael Chege of the University of Nairobi. In their strongholds, principally in western Kenya and certain Nairobi slums, they could prevent the electoral commission from holding a vote that would satisfy the courts.

By walking away, Mr Odinga seems to be gambling on his ability to threaten chaos to push Mr Kenyatta to negotiate. But the trouble with that strategy is that Mr Odinga is running out of money. And although opposition protests occasionally gum up the centre of Nairobi, even his most fervent supporters will not stay on the streets indefinitely.

The worst outcome for Mr Odinga is that his bluff is called and the election goes ahead without him. Electoral officials said they plan to do just that. Mr Kenyatta might remain president, but a large proportion of the population would not recognise his right to rule and would feel left out of the political system.



Odinga's poker face



Raining on Iran's parade

KIRKUK

Scrapping the nuclear deal with Iran would set back efforts to contain its hardliners

FOR three years American forces have quietly worked in tandem with Iran's Revolutionary Guard Corps (IRGC) to roll back Islamic State in Iraq. It was as unlikely an alliance as any imaginable. A decade ago IRGC operatives orchestrated attacks on American soldiers in Iraq. Crowds still gather in Iran to chant "Death to America!" Yet as American planes struck from the sky, Iran managed the advance on the ground. All this may be about to change.

As The Economist went to press, President Donald Trump was threatening to list the IRGC as a terrorist organisation and to "decertify" the nuclear deal that America and five other global powers signed with Iran in 2015. The agreement lifted some economic sanctions on Iran in exchange for limitations on its nuclear programme and close scrutiny of it, designed to prevent it from developing nuclear weapons.

Mr Trump's denunciation of the deal—he has warned of a coming "storm" has been met with similar bluster from IRGC commanders, who have all but threatened to shoot at American soldiers. These are echoes of an earlier period of tense relations. After President George W. Bush said Iran was part of an "axis of evil", the IRGC encouraged attacks on American soldiers in Iraq. "Trump has no idea how complex this region is," says an Iranian businessman who deals with America.

Decertifying the nuclear programme need not destroy the deal immediately. Congress would still have to decide whether to reimpose the sanctions and lawmakers, even those who opposed the deal, may not have the appetite for doing that. Nonetheless, decertification would send a signal that could strengthen the very hardliners in Iran that America has struggled for decades to contain.

In his campaign for re-election in May, Hassan Rouhani, Iran's president, repeatedly baited the IRGC, accusing them of denying Iran the economic fruits of the nuclear deal that he had negotiated. The Guards argued, in turn, that Mr Rouhani should never have trusted America. Now their warnings sound prophetic.

Iran's currency has slumped to new lows against the dollar and business confidence is sliding. "Trump is making a buffoon out of Rouhani," says a Guards sympathiser. "The hardliners are mobilising and will paralyse his government."

Some argue that, provided the European signatories continue to hold up their side of it, there is probably enough in the deal to ensure that Iran will abide by its commitments. The country's oil exports have almost doubled since the lifting of UN sanctions in January 2016, to 2.2m barrels a day. Trade with Europe doubled in 2016 and has doubled again in the first six months of this year, taking it close to the level before sanctions were imposed.

There is also enough at stake to keep European countries in the agreement. Big companies such as Total and Airbus have struck deals with Iran since sanctions were lifted. Renault and Volkswagen, two European carmakers, are back. Quercus, a British company, has just announced a €500m investment to build and operate a solar power station in Iran.

Theresa May, Britain's prime minister, has urged Mr Trump to reconsider. But he has called the deal "one of the worst and most one-sided" that America has ever made. He may have made up his mind.

Reconstruction in Iraq After Islamic State

FALLUJAH AND MOSUL

Iraqi rulers are neglecting the Sunni cities recaptured from the jihadists

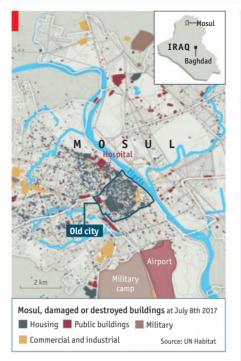
IN THE evening Adil Jumaili and his daughter stand beside the Tigris river in Mosul and stare at the wreckage on the opposite bank. Two twisted cars lie where their home once stood. It was destroyed, along with 8,000 other buildings, when Iraqi forces recaptured the city from the jihadists of Islamic State (IS) in July. The hospital at Mosul's edge, once amongst Iraq's finest, has been flattened. So, too, has the government complex, all the schools and the medieval alleyways lined with madrassas and monasteries.

Precision bombing by Western aircraft spared much of eastern Mosul, which is recovering fast. But western Mosul proved harder to retake. Block-by-block fighting and so-called "annihilation tactics" (a decision to wipe out IS fighters rather than let them flee) destroyed much of the area. Bodies are still being pulled from the ruins and the smell of putrefaction hangs in the air. Nearly 6,000 civilians died in the fighting, says Amnesty International, a humanrights group.

Mosul may be the best known of the cities recaptured from IS. But the sense of neglect is palpable across the areas populated by Sunni Arabs. Fallujah, some 400km to the south, was not as badly damaged in the month-long battle to liberate it. But a year later its residents still complain of mistreatment by the central government. "We are living in a big prison," says one.

The IS "caliphate" has proved a disaster for Iraq's Sunnis. The jihadists will soon be defeated in Iraq. On October 5th the army declared victory in Hawija, leaving IS in control of only a sliver of land along the border with Syria. But beyond providing basic services, the Shia-led government is failing to rebuild the liberated zones, or to reintegrate their populations into its political system. With an election scheduled for April, it is focused on the mainly Shia south, from where it draws support.

Foreign donors have done some patching up. The water is running and the lights are on in Fallujah (most of the time). Kuwait plans to host a conference on reconstruction in Iraq early next year, and the UN has budgeted \$1bn for the "stabilisation" of Mosul. Vastly more will be needed. But low oil prices mean that Iraq and the Gulf states have scant funds. As of late September the UN had spent just \$24m in western Mosul, which suffered most of the damage. "We're probably best off just levelling the old city," says an aid official.



In Mosul and Fallujah, Sunnis tell similar stories. Unemployment is sky high. Men with university degrees sweep streets or shovel debris for \$20 a day. There are echoes of the de-Baathification policies that alienated Sunnis during the American occupation. In Mosul doctors and teachers go unpaid as they wait for the authorities in Baghdad to clear them of ties to IS. In Fallujah some 4,600 policemen were fired when they returned to the city.

To dispel any notion of an occupation, soldiers and militiamen in Mosul have decorated their checkpoints with plastic flowers. Local Sunni soldiers patrol the centre of Fallujah, while Shia militias stay on the city's outskirts. Still, the restrictions at the Suqoor checkpoint, on the road from Fallujah to Baghdad, are so arduous, arbitrary and time-consuming that many avoid attempting the journey. Complaints of government extortion are common. "If I want to bring more than three sheep in I have to pay \$10 for each," says Ibrahim Assad, a butcher in Fallujah's bazaar. "They're strangling the city."

The unemployed in Mosul reminisce about better times under 1s. "Their administration was more honest and organised," says a displaced mother of five. Similarly, an elderly Sunni colonel in Fallujah recalls the "golden age" of the late dictator, Saddam Hussein. Still, Iraqi officials dismiss any notion that Sunni alienation might again lead to trouble. "Like Grozny after Russia's destruction, the Sunni population is psychologically broken," says one. "With or without reconstruction they are not going to rise again." They should beware of hubris. The fall of Mosul and Fallujah to IS in 2014 is a clear warning of how resentment can quickly turn to insurrection.

Cleaning up the Middle East Rubble trouble

BEIRUT It will take years to clear

THE old town of Mosul is a wasteland. So are many other cities and towns that have been mangled by the wars in Iraq and Syria. There is so much broken concrete and twisted metal in Aleppo, the Syrian city pounded by Russian and regime warplanes during the bloodiest battle of its civil war, that the World Bank reckons it will take at least six years to clear the wreckage.

In fact, the Herculean task of cleaning up the detritus of war has become one of the biggest obstacles in the region's struggle to patch up its shattered cities. Part of the problem is that the debris contains unexploded bombs, heavy metals such as mercury and other sorts of toxic waste, all of which need to be dealt with gingerly. The other part is just that there is so much rubble.

Simply trucking the debris 10km from Mosul is expected to cost around \$250m. With few funds available, much of the rubble is just being scooped up and dumped into seasonal waterways, increasing the risk of flooding when the rains return. Some is being used to block up the tunnels that the jihadists of Islamic State (IS) dug beneath the city. The pollutants and toxins in the rubble will pose a risk for decades. "There's just too much concrete and we barely have enough money to pay for a shovel," says Mosul's mayor, Abdul Sattar al-Habbo.

One solution is to recycle some of the rubble into new building materials. That would be far cheaper than carting it away in trucks and could create thousands of jobs in cities that offer few other opportunities for employment.

But that will only address a small part of the environmental catastrophe facing the region as a result of its wars. Oil wells have been bombed or set on fire, coating land, animals and humans in noxious soot. A pile of sulphur set alight by IS south of Mosul spewed as much sulphur dioxide into the atmosphere as a small volcanic eruption.

In Syria, as many as 50,000 makeshift oil refineries stain the country, leaching oil into the water and soil, and ruining the health of the children operating them. The destruction of hospitals, weapons factories, industrial plants and power stations has left behind a toxic cocktail of chemicals, heavy metals and other waste. Cleaning up the mess heaped on top of decades of pollution and environmental damage will take years, possibly decades.

Europe



Catalonia and Spain Touching the void

BARCELONA

The independence dream dissolves on contact with reality

T WAS a case of trying to have your cake and eat it—and the cake's owner may end up with nothing. On October 10th Carles Puigdemont, the president of Catalonia's devolved government, told his parliament that he was "assuming the mandate" of the people to proclaim an independent republic and thus leave Spain. But seconds later he asked the parliament to "suspend the effects of the declaration of independence" to allow for negotiation. All clear?

This baffling manoeuvre followed an unauthorised referendum on independence held on October 1st in which, his administration says, 2.3m (around 43% of the electorate) voted, 90% of them in favour. Those numbers are not verifiable. But for many of the thousands of flag-waving demonstrators who gathered outside the parliament in Barcelona, the Catalan capital, they were enough to declare independence straight away, and the speech left them deflated. Mr Puigdemont's tortuous formulation reflected the conflicting pressures he is now under. Business leaders and opposition politicians in Catalonia, one of Spain's richest regions and home to 7.5m people, warn that he is taking them towards a costly political void. He is trying to play for time.

Mariano Rajoy, Spain's conservative prime minister, swiftly called his bluff. With the support of the opposition Socialists and of Ciudadanos, a centre-right party, he set in motion Article 155 of Spain's democratic constitution. Never previously invoked, this allows the government to "compel" an autonomous region to fulfil its constitutional obligations. The government has given Mr Puigdemont until October 16th formally to clarify whether he has declared independence or not; if he has, then he has until October 19th to revoke it.

Mr Puigdemont must thus choose climbdown or defiance. If he opts for the latter, Spain is heading into the unknown. The government may try to remove the Catalan administration and call a fresh election, as the constitution probably gives it the right to do. But some in Barcelona warn that doing so will require force.

Not so simple

The past few days have delivered a sharp reality check to Mr Puigdemont, contradicting the claims of his ruling coalition that independence would be painless. First, and most damagingly, around 40 of the largest companies in Catalonia moved their legal domicile to other parts of Spain. Companies rushed to withdraw their treasury operations from Catalan banks. They fear the legal uncertainty an independence proclamation entails. Although Mr Puigdemont's people minimised the significance of the moves, over time jobs and tax revenues will go too. Suspending the declaration, rather than withdrawing the unconstitutional laws under which it was issued, merely prolongs the agony for business.

Second, on October 8th some 400,000 people marched in Barcelona for the unity of Spain. It was the first time that the silent majority opposed to independence found

Also in this section

- 44 Austria's wunderwuzzi
- 44 Turkey and America tussle
- 45 France's feeble opposition
- 46 Poland's courts row
- 46 Communist nostalgia
- 47 Charlemagne: Breakaway blues

For daily analysis and debate on Europe, visit Economist.com/europe

its voice. Now there are a few Spanish flags draped on Barcelona balconies, not just the ubiquitous *esteladas*, the starred flag of independence. "People finally believed they would declare independence, and that produced in days a reaction that hadn't happened in years," says a business leader.

Third, no European government has shown the slightest interest in Mr Puigdemont's pleas for mediation (see Charlemagne). The leaders of the independence drive have clung to the belief that if they create enough disruption, "Europe" would step in to support them. "Catalonia is a European issue," Mr Puigdemont insisted this week. But Europe's leaders think it is an internal Spanish one.

The diverse independence coalition is fracturing. Moderates, silent for the past few months, successfully pressed for delay. By contrast, the CUP, an anarchist group that wants immediate independence, did not applaud Mr Puigdemont's speech. At their insistence, representatives of the ruling coalition signed a declaration of independence after the parliamentary session; but it was not formally tabled. The CUP may now boycott parliament for a month, depriving Mr Puigdemont of his majority. "I don't think he can last a month without calling an election" in Catalonia, says a senior politician from his party.

As for Catalan business "the will to declare [independence] is the same as declaring it," says Anton Costas, an economist at the University of Barcelona. Hours after the parliamentary session Planeta, a big Barcelona publishing house, said it, too, is moving its domicile to Madrid.

The cause of independence has never commanded more than a narrow and fleeting majority of Catalans. But more general discontent goes far wider. It began when the Constitutional Tribunal, at the urging of the PP, struck out clauses in a new autonomy statute of 2006 that would have >> recognised Catalonia as a nation and strengthened its power over the teaching and use of the Catalan language.

Polls show that most Catalans want a better deal from Spain. That would probably have to involve a return to the original statute of 2006, as well as keeping more Catalan money in Catalonia and giving locals more control over infrastructure. Mr Rajoy has accepted a Socialist proposal for the Spanish parliament to begin debating constitutional reforms next year.

One way or another, in the coming weeks Catalans are likely to vote, and legally this time, for a new regional government. That would at least allow everyone to draw breath. But there is a risk that before then Catalonia will be plunged into further conflict, civil disobedience and even violence.

Austrian politics The Wunderwuzzi

VIENNA

A scandal-mired election could produce a new right-wing coalition in Austria

AMAN lumbers into a tattoo studio and brandishes a photo of Sebastian Kurz, the young leader of the conservative Austrian People's Party (ÖVP). Then the artist gets to work, eventually showing the man his back in a mirror. Etched onto it is a circle of faces of superannuated ÖVP grandees. The customer is furious: "I wanted Kurz, not the ÖVP!" he yells. "What did you expect?" comes the reply: "Kurz is the ÖVP."

This popular TV advert by the rightwing Freedom Party of Austria (FPÖ) plays on enduring questions about the 31-yearold likely to become Austria's next chancellor. Mr Kurz was made foreign minister in 2013, two years after leaving university, and took over the stuffy, beleaguered ÖVP in May. He has restyled it as the "Kurz List" and propelled it from third to first place in polls ahead of the parliamentary election on October 15th. To his fans he is the *Wunderwuzzi* (whizz kid), a rare chance for national renewal. To his opponents he is a ruthless opportunist.

His success rests on two factors. First, Austria's corporatist industrial and political model is creaking. Since 1945 the ÖVP and the Social Democrats (SPÖ) have been in government for 55 and 61 years respectively, usually (as now) in coalition with each other. Taxes are high, the state clientelistic and growth relatively sluggish. Second, the refugee crisis has pushed Austrian politics further to the right. In 2015 the country took in more people, proportionally, than Germany. That pushed the antiimmigrant FPÖ into first place in polls, where it remained until Mr Kurz emerged as candidate for chancellor this spring.

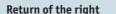
He has succeeded by melding these facts into a new political identity. Mr Kurz pushed to close the migration route through the Balkans (as foreign minister) and imposed tough measures such as a burqa ban (as minister for integration). He has also restyled his party as a force for openness: bringing in candidates from outside politics; promoting a "glass [transparent] state"; tax cuts; and a war on red tape and vested interests. The rebranded ÖVP, now in turquoise rather than its traditional black, is the most popular party even among 14- to 29-year-olds.

It has been a vicious campaign. The ÖVP and the SPÖ have hurled accusations at each other, starting with the claim that a consultant working for the Social Democrats set up Facebook pages with xenophobic and anti-Semitic attacks on Mr Kurz. This has benefited the FPÖ, which has run a strong campaign marked by catchy advertising (like the tattoo clip) and uncharacteristically sober TV performances by Heinz-Christian Strache, its leader. The mud-fighting between the two governing parties has distracted attention from the FPÖ's own scandals; one of its local councillors was accused of shouting "Heil Hitler!" at a meeting last week, for example.

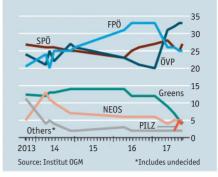
Much depends on Vienna, where the traditionally dominant SPÖ is in chaos and the other two main parties are newly competitive. The capital's middle-class suburbs are Mr Kurz's political hinterland, while the FPÖ is making strides in working-class areas unsettled by immigration.

If, as polls suggest, the SPÖ comes third nationally, Mr Kurz will probably do a deal with the FPÖ. When his party formed such a government back in 2000 it was met, for a time, with international ostracism and sanctions, but recent populist advances elsewhere make such a coalition much less unusual. Still, says Anton Pelinka, a political scientist, a nationalist "black-blue" government in Vienna would create a new





Austria, support for political parties, % polled



headache for Angela Merkel, tilting Austria towards authoritarian central European governments like those of Poland and Hungary.

In any case, governing with the FPÖ would not be easy. Mr Strache has a large ego and more experience than any other front-line Austrian politician. His reasonable manner belies his party's far-right elements and tendency to infighting. Meanwhile, Mr Kurz should expect resistance from his own camp: ÖVP-aligned interest groups and the party's six state governors bridle at some of his talk of reform and transparency. His charm and political agility are not in doubt. But whether the Wunderwuzzi can run a fractious country remains unclear.

Turkey and America Battle of the strongmen

ISTANBUL

Two NATO allies are at loggerheads

AMERICA'S relations with Turkey have sunk to their lowest point in over four decades. On October 8th the American embassy in Ankara announced it was suspending visa services across Turkey to "reassess" its host government's commitment to the security of its diplomatic facilities and staff members. Within hours, Turkey countered by saying it would no longer accept visa applications from American citizens. (About 450,000 Americans visited Turkey last year.)

The Turkish lira plummeted as much as 6.6% against the dollar on the news, the biggest drop since the abortive coup of July 2016. Turkish Airlines, the country's national carrier, saw its shares fall by 8%.

The Economist October 14th 2017

> 50,000 people have been arrested on similar charges over the past year.) The bulk of the evidence against Mr Topuz seemed to consist of conversations four years ago with Turkish officials linked to the Gulen movement, the group accused of spearheading last year's failed coup. The embassy described the allegations against him as "wholly without merit".

The incident is not a first. A translator at another American consulate in Turkey was arrested in March on suspicion of links to an outlawed Kurdish insurgent group. An American pastor, Andrew Brunson, has languished in a Turkish prison for a year for alleged contacts with Gulen sympathisers. More arrests may be on the way. Only a day after the visa suspension, the authorities issued a summons for another Turkish employee at the Istanbul consulate; police detained his wife and two children. On October 11th, a court sentenced a Wall Street Journal reporter to two years in prison on terrorism charges. The journalist, a Finnish-Turkish dual national, was in America at the time of the ruling.

Despite Donald Trump's remark, made during a meeting on September 21st with Turkey's president, Recep Tayyip Erdogan, that the two NATO countries were "as close as we've ever been", relations have been heading south for at least a couple of years. Most Turks continue to believe that America had a hand in the failed coup, a belief compounded by the fact that its suspected ringleader, the Islamic preacher Fethullah Gulen, lives in Pennsylvania. Mr Erdogan has been seeking the imam's extradition for over a year. The evidence against Mr Gulen is mounting, but it remains far from conclusive.

Turkey is also livid with America, its NATO ally, for arming a Kurdish militia it considers a terrorist group in the war against the jihadists of Islamic State (IS) in neighbouring Syria. America, meanwhile, remains angry that Turkey turned a blind eye to IS and other jihadist networks on both sides of the border until about 2015. Mr Erdogan's increasingly toxic reputation in Washington took another hit earlier this spring, after his bodyguards were caught on video beating up non-violent protesters a mile from the White House.

The Turkish strongman initially tried to place the blame for the visa row on the American envoy to Ankara, John Bass. "We do not consider the ambassador a representative of the United States," he said on October 10th. A State Department spokesman has since responded that the decision was taken at the highest levels of the American government, deepening the dispute.

Most analysts agree that officials on both sides will now try hard to stop the situation escalating any further. But with leaders as impulsive and thin-skinned as Mr Trump and Mr Erdogan at the helm, absolutely nothing is certain.

France's feeble opposition Luckier with Wauquiez?

PARIS

The centre-right is offering no serious opposition to Emmanuel Macron

A YEAR ago Les Républicains (LR), the centre-right party in France, looked set to win presidential and parliamentary elections. Today, after many humiliations, they are licking their partly self-inflicted wounds. After François Fillon, an unpopular former prime minister, unexpectedly became its front man thanks to a new primary system, the party doggedly stuck with its failing candidate, long after a scandal about extravagant payments to his wife had obviously doomed his campaign.

That lack of institutional ruthlessness hints at problems beyond a dud candidate who only just avoided coming fourth in the presidential poll. The heart of LR's difficulty is an ideological split that means it is ill-placed to oppose the government of President Emmanuel Macron.

One faction, associated with Nicolas Sarkozy, an ex-president and inveterate party plotter, yearns for a bold rightward turn. In hostility to migrants, Muslims and gay marriage, it spies an opportunity to peel away nationalist voters drawn to Marine Le Pen's National Front, especially in semi-rural areas and small towns.

For moderates close to Alain Juppé, an ex-prime minister, that approach is abhorrent. They instead seek central ground, promote a tentatively smaller state—trimming, not slashing, spending—paired with liberal social policies that urbanites like. The Juppé-ites' headache is that Mr Macron has stolen their best ideas and, indeed, their leaders. Moderates in parliament can hardly oppose Edouard Philippe, the prime minister, and Bruno Le Maire, the finance minister, two ex-colleagues now shepherding a national budget that Mr Juppé might as well have written.

So uncertainty reigns in the main opposition, which currently consists of just 135 centre-right MPs in a lower house of 577. Even this small body is split, with 35 of them grouped separately as Les Constructifs who support the government. The radical left under Jean-Luc Mélenchon lambasts Mr Macron's cautious labour reforms for being too tough, and any other modestly liberalising effort he launches. But LR may feel obliged to back any economic opening up. Meanwhile, the bulk of the party opposed both an anti-terrorism law that will soon replace temporary states of emergency and a law toughening ethics rules for public officeholders.

The chances of the party cohering after it picks a new leader this autumn look slim. A deadline for aspirants, who had to win the support of enough MPs and ordinary members, passed on October 11th, though candidates' names will be listed later. Almost certainly the leader will be Laurent Wauquiez, a 42-year-old ex-minister with a shock of grey hair, famous for his red parka coat. He is drawn from the right-leaning Sarkozy wing. He is bright and, as a graduate of the Ecole Nationale d'Administration, scorned by some as elitist. The left dislike him, not least for saying that welfare dependency is a "cancer" in society.

His public appeal may be limited, especially after a news report suggested that despite being on leave from a public job since 2004, he continued (legally) to accrue pension credits for it. Though he is "no charismatic leader", as an acquaintance says, and hardly thrilling to young voters, he could at least profit from Mr Macron's own lack of popularity. Looming cuts in public spending will soon be felt most in rural areas, a natural constituency for Mr Wauquiez, whose political base is the Auvergne-Rhône-Alpes region.

The probable new leader loses nothing by trying to prove himself while bigger party figures such as Valérie Pécresse, president of the Île-de-France region around Paris, stay aloof. She may yet emerge as a leadership contender in later years—if the party survives until then.



Poland Duda's defiance

WARSAW

The president turns on his former boss

N PAPER, Poland has both a president and a prime minister. In practice, there is a third source of authority: Jaroslaw Kaczynski, the chairman of the ruling Law and Justice Party (Pis), who is widely seen as the country's real leader. Since coming to power in 2015, Pis has tried to assert greater control over the country's courts, its public broadcasters and its staterun enterprises. The European Commission accuses it of undermining the rule of law and has threatened it with the suspension of its voting rights. Yet Pis's most recent problem with its court "reforms" comes not from EU officials or the opposition but from the president, Andrzej Duda.

In July, following widespread protests, Mr Duda unexpectedly used his power of veto on two controversial laws concerning the judiciary. Last month, he submitted alternative versions for parliament to consider. His draft laws, presented last month, tone down some of pis's most troublesome proposals. Rather than giving the government power to remove any judge from the supreme court, the new law sets a retirement age of 65 for them. This does mean that about 40% of the current bench, over 80-strong, would have to stand down by the end of the year. (The government, with some justification, says the judiciary is stuffed with communist-era holdovers, and is bloated and inefficient.)

Members of the National Judiciary Council, which nominates all judges, would themselves have to be approved by a three-fifths majority in parliament, rather than by a straight vote as originally proposed. That would make it hard for Pis, which holds only a bare majority of the Sejm (the lower house), to pack it with loyalists. Mr Kaczynski is trying to force Mr Duda to back down, and has put off voting on any of the drafts.

The vetoes are part of Mr Duda's tentative push for autonomy. A previously unknown 43-year-old member of the European Parliament at the time, he was elected president in 2015 as a moderate conservative. Despite formally leaving Pis, he has, at least until recently, remained loyal to the party. This summer, though, he blocked the appointment of several army generals, a snub to the defence minister, who is close to Mr Kaczynski. Since his vetoes, criticism of him has spiked, notably from the justice minister, who stands to lose from his changes. "Is the president with us?" wondered a recent cover of Sieci Prawdy, a pro-

Communist nostalgia Palace insiders

BUCHAREST

Tourists revel in Iron Curtain kitsch

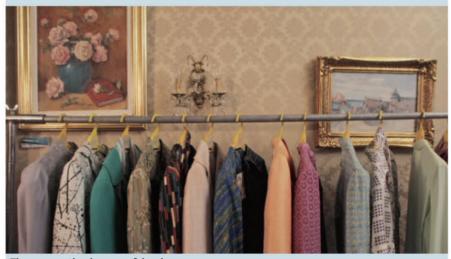
****** OHMY God! We had all of these!" trills Alina Radu, a 43-year-old businesswoman visiting the Romanian Kitsch Museum. She is admiring crochet doilies, a 1980s TV set, decorative glass fish and the scarves and badges of Romania's Pioneers, a communist-era youth organisation. "I loved looking like a general!" The museum, which opened in May, has proved a hit.

You can lie on a bed and fling fake bank notes over yourself for a picture— "though not naked, OK?" chortles a lady buying tickets for herself and her 6osomething friends. You can examine night-light crucifixes, some of the most tasteless clothes of the past quartercentury and pictures of sceptre-wielding Roma (gypsy) "kings". But for many the most interesting items are those which date from before the revolution of 1989.

The grim decades of Romanian communism draw substantial crowds. Across town up to 400 people a day visit the mansion inhabited by the communist dictator, Nicolae Ceausescu, and his family from 1965 to 1989. After the revolution the opulent villa became a government guest-house, but it was preserved unchanged. The house is full of heavy old-fashioned furniture, gloomy bedrooms and plenty of gold mosaics and gold taps—though not real gold, the guide adds hastily: "That was a story spread during the revolution.".

It is not just in Romania that locals and tourists can be persuaded to part with cash in exchange for tickets to survey their past. In Albania plans are afoot to open the house of Enver Hoxha, the communist who ruled the country for 41 years. In Rijeka, in Croatia, local authorities have secured EU funding to restore the *Galeb*, the once-sumptuous yacht on which Josip Broz Tito, the Yugoslav leader, once sailed the seven seas.

Opinion polls in eastern Europe show that many people believe things were better under communism. Gabriela Alexandru, selling tickets at the Kitsch Museum, has another interpretation. She thinks visitors are nostalgic "not for the past, or Ceausescu, but for their youth." In the component countries of the former Yugoslavia they call it "Yugonostalgia". Ms Radu agrees. No one wants to go back to the way it was. But, she says, in those times people "took care of each other".



Those were the days, my friend

Pis weekly. In an interview in that issue, Mr Kaczynski spoke of "wide-reaching differences in opinion" with Mr Duda.

Halfway through its parliamentary term Pis still calls the shots, buoyed by its social policies, including a new subsidy for all children after the first-born, and its refusal to take in refugees from the Middle East as part of the EU's relocation scheme. Support for Pis stands at 40%, compared with 21% for the centre-right Civic Platform and 9% for the liberal Nowoczesna. Yet Mr Duda is even more popular. After his vetoes his approval ratings jumped, to around two-thirds. The fallout over the judiciary is a "dispute for the future of the state", Mr Duda told Do Rzeczy, a rightwing weekly. If he forces the hardliners to compromise, the impact will be felt far beyond Poland's borders.

Charlemagne | **Breakaway blues**

Secessionists thought the European Union helped their cause. They were wrong



SEPARATISM in Europe these days comes draped in a blue flag with yellow stars. "If in Europe you're not a member state, you're nobody," said Josep Huguet i Biosca, a Catalan politician who favours independence, back in 2004. His quote appeared in a now-dusty manifesto for "An Independent Flanders within Europe", published in 2005 by a group seeking liberation from the yoke of the Belgian state. The Scottish bid for independence, in 2014, was similarly shrouded in European aspirations. For some of its more starry-eyed advocates, the European Union was supposed to dissolve atavistic nationalisms. In some places, it seems instead to have encouraged them.

The post-national argument was always overdone. The powers that voters mostly care about—taxation, public services, welfare—remain largely in the hands of national governments. One Catalan grievance, for example, is that the rest of Spain lives high on the hog by spending more of their tax revenues than Catalonia gets back. Indeed the success of the EU may actually have stoked rather than quelled the flames of secession, by potentially reducing its costs. For small states, the EU means access to a large and deep single market, membership of a big trading bloc, and even a dash of foreign and security policy. For Scottish, Catalonian or Flemish voters, such considerations may well make secession look less daunting. "Not only does the EU make independence possible," argues the Flemish manifesto, "it also stimulates it."

Catalonia is plainly a viable EU member. It is rich, for the most part well-governed, and has strong trade links to the rest of Europe, which takes two-thirds of its exports. Like the rest of Spain, it is strongly pro-European. But the EU has no provision for dealing with a region's secession in defiance of a member country. (Scotland's accession bid would probably have been accepted eventually, since the UK accepted its right to seek independence.)

That is why pro-independence Catalans have struggled to win European sympathy. They expected it after footage of riot police bashing Catalan voters circulated on October 1st. The next day the European Commission's turgid daily press briefing was broadcast live on Catalan television. But beyond a call for restraint, the commission had little to offer them: it agreed that the vote was unconstitutional and left the matter to Mariano Rajoy, Spain's prime minister. The main political groups in the European Parliament, courted assiduously by Spanish ministers, were similarly reluctant to stir the pot. What support the Catalans have found comes from friends they would rather avoid: populists like Nigel Farage and Geert Wilders, Greek anarchists (who invaded a Spanish embassy) and the odious Julian Assange.

If regions are legally toothless inside the EU, there are other ways for them to flex their muscles. They establish "embassies" and hire lobbyists; the Catalans have effectively courted the international press. When the Belgian Walloons (French-speakers) threatened to scupper an EU trade deal with Canada last year, they were publicly denounced by their Flemish brethren. And citizens have rights enshrined in the EU's treaties, which could not be ignored if the violence in Spain escalated.

But for all the fuzzy aspirations of its founders, the EU remains firmly a club of its member states. Spain is one; Catalonia is not. Mr Rajoy has taken supportive calls from the likes of Angela Merkel and Emmanuel Macron, and this week Donald Tusk, president of the European Council, publicly urged Carles Puigdemont, the president of the Catalan government, to step back from the brink. European leaders, especially those with separatist stirrings inside their own borders, have each other's back. "No one would risk the EU's cohesion by questioning Spain's right to handle this situation," says one foreign minister. Catalan officials fear that Madrid will understand the EU's approach as an endorsement of its hard line. They are right to.

A still bigger headache for the Catalans is the "Prodi doctrine", named after a former commission president, which states that any region that breaks away from an EU member will automatically leave the club and have to reapply under the usual rules, a lengthy process that leaders will have no incentive to abbreviate. Even if it were to secede with Spain's consent, an independent Catalonia would be cut off from the rest of Europe, possibly facing barriers to the movement of people and goods, perhaps even ejected from the euro zone. This is a far cry from the romantic vision Mr Puigdemont has offered his supporters.

If at first you don't secede

The EU is tricky for both sides in the Catalan debate. The independence movement is a coalition that includes radicals who think the EU is a neoliberal plot from which they seek liberation. The Spanish government is reluctant to debate an independence proposition it considers illegitimate to start with. Yet the prospect of secession from Europe undoubtedly colours the argument. Lluis Orriols, a political scientist at Charles III University in Madrid, argues that independence movements must win their battle on three fronts: emotional, instrumental and international. By depriving the nationalists of the last, and thereby threatening the second, the EU pulls the rug from under their feet.

This tips some Catalans into magical thinking. The Prodi doctrine was a throwaway remark with no legal standing, they argue. Should Catalonia win its freedom, Europe's leaders will put pragmatism before principle and ensure its place in the EU remains unmolested. Independence-minded business groups even suggest that worried German investors in Catalonia would lean on Mrs Merkel to shield it from ejection. (Brexit-watchers will recognise this questionable line of thinking.) It is hard for dreamers to swallow, but the existence of the EU has become the best guarantee of its members' territorial integrity. For separatists, the EU once looked like the net that would guarantee their safety as they leapt into freedom. Instead, it has become their cage.

^B Britain



49 Europe's other separatists

50 Bagehot: The Tories debate capitalism

For daily analysis and debate on Britain, visit **Economist.com/britain**

tional arrangements to avoid a cliff-edge Brexit when the Article 50 deadline expires in March 2019. The commission's negotiator, Michel Barnier, still wants to do this. Yet France and Germany are opposed, showing again that national governments, not the Brussels institutions, are the toughest customers on Brexit. Informal scoping out by the EU 27 of both transitional and trade arrangements is likely to begin after the summit, even so. One risk is that they once again cement in place too rigid a negotiating mandate.

On transition, the reality has always been that nothing will be on offer except a prolongation of the status quo. Mrs May acknowledged this in Florence, when she said that business should not have to adjust twice to a post-Brexit world. This week she conceded that the European Court of Justice would continue to play a role during this period, which she again said would last "around two years". Although she was more ambiguous about remaining in the single market and customs union, in practice Britain will have to stay in both.

That prospect causes jitters among Brexiteers, who worry that a lengthy transition will amount to continuing membership without voting rights. Mujtaba Rahman of the Eurasia Group, a consultancy, notes that the past six months have seen the slow but steady acceptance by Tory Brexiteers of a softening of Mrs May's position on transition, on the basis that a year or two of delay is a price worth paying for the ultimate prize. But that logic may cease to work if transition is prolonged and doubts grow about the final destination.

This has led to the revival of an old favourite among hardliners: a no-deal Brexit. Mrs May's Florence speech dropped her earlier mantra that no deal was better than a bad deal, but her weakening position has >>

Brexit and Theresa May's future Of balls, courts and no deals

A weakened Tory prime minister faces make-or-break European Union talks. Sound familiar?

THE parallels are almost oppressive. Successive Tory leaders, from Margaret Thatcher to David Cameron, have experienced painful party rifts over Europe. The most telling was John Major's battle in the 1990s with anti-EU Tory rebels over the Maastricht treaty, which set up the single currency. Now, as Theresa May fends off coup attempts from her own backbenchers, Tim Bale, a historian of the Conservative Party at Queen Mary University of London, detects a whiff of those days in the air. Indeed, many ardent Brexiteers cut their teeth causing trouble then.

Theresa May's problems are a lot bigger, however. Brexit is a far riskier proposition than arguing over a treaty. The economy is in worse shape now, with sterling weak and growth forecasts being cut. Today's farleft Labour leader, Jeremy Corbyn, is a more disturbing alternative than his predecessors. As Mrs May prepares for an EU summit next week, she might echo Mr Cameron's one-time hope that the party would stop "banging on about Europe".

Sadly, the timetable makes that impossible. The summit had been due to agree that sufficient progress had been made on the Article 50 Brexit divorce (which includes such matters as EU citizens' rights, the border in Ireland and the exit bill) to allow the start of talks about trade. But it is clear this will not happen. Mrs May argued this week that, after her recent speech in Florence, in which she proposed a transitional arrangement and implicitly offered some €20bn (\$24bn) towards Britain's tab in Brussels, the ball was in the EU's court. The European Commission promptly lobbed it back. And Donald Tusk, the European Council's president, spoke only of possible agreement in December.

The delays are partly the EU's fault for over-rigid sequencing. The truth is that neither Ireland nor the exit bill can be settled without some deal on future trade. But more blame attaches to Mrs May. Her fuzziness over what Britain wants the eventual relationship to look like has become grating. More important, her political weakness is making it hard for the EU to engage in serious negotiation.

The fact that her snap election in June backfired is only the starting problem. Her inability to control the cabinet, with Boris Johnson, her foreign secretary, openly contradicting the line of her Florence speech, is more aggravating. Her lack of clout in the party and the desire of many Tory MPs to replace her before the next election in 2022 further undermine her. She could shore up her position by firing Mr Johnson, but at the cost of inflaming Brexiteers' demands for her to sack the pro-Remain chancellor, Philip Hammond, as well.

The hope after the Florence speech was that, even if trade talks could not start, the EU would open negotiations on transiforced her to wheel it out again. This week she talked of the need to plan for the worst outcome. Two new government white papers, on customs and future trade policy, discuss the possibility of a contingency scenario with no agreement. On October 11th Mr Hammond said the Treasury was not yet ready to spend money on such plans, but he also warned of the risk of a "bad-tempered" breakdown of talks.

Some Brexiteers want a walkout because they fear the referendum will be betrayed—a worry amplified when Mrs May this week refused to say she would back Brexit in a referendum held today. Even those who recognise the disruption it might cause believe that the no-deal threat strengthens Mrs May in Brussels. Many reckon Mr Cameron failed to win a better deal in his renegotiation of Britain's membership terms in early 2016 largely because he was not prepared to walk away.

Yet there are two problems with reviving "no deal" talk. The first is the huge potential damage. The risks of airlines ceasing to fly, lorries backing up outside ports and hospitals losing access to radioactive materials may be exaggerated, but they are real even so. A no-deal exit would damage the EU, too, but a lot less. This leads to the second problem, which is that other EU countries do not believe Britain's threats to walk out. They see banks and other businesses already talking of leaving the country, and they doubt there is a parliamentary majority in favour of no deal.

They may well be right. But the danger they overlook is that, even if a Brexit with no deal is unlikely to happen deliberately, it could do so by accident. The clock is ticking and negotiating positions are entrenched. The rational outcome of the Brexit negotiations ought to be a mutually beneficial deal that gets as close as possible to keeping frictionless free trade. But negotiations between an implacably legalistic EU and a politically weakened Mrs May might not always be rational.

Europe's other separatists Lord, make me free—but not yet

GLASGOW

As independence becomes more distant, Scotland's nationalists focus on governing

WHAT kind of country do we want to be?" asked Nicola Sturgeon, Scotland's first minister and the leader of the Scottish National Party, in her closing speech at the SNP's annual conference in Glasgow. A heckler provided an answer: "An independent one!" The crowd cheered. But Ms Sturgeon winced.

The shout was a painful reminder that the party's ultimate aim of independence is some way off. After an aborted push for a second referendum earlier this year (the first such plebiscite was lost by 45% to 55% in 2014), Scotland's nationalist party now hesitates on the topic. Independence will come "as soon as we can", said Angus Robertson, the SNP's deputy leader. Beyond that, details are thin. The newfound reticence is simple: 52% of Scots oppose holding an independence referendum within the next five years, according to polls by YouGov. But not many of this number were in Glasgow. Any mention of a second vote on independence was met with wild enthusiasm by SNP supporters that belied the project's indefinite timeline.

Their zeal clashed with a leadership desperate to use the three-day gathering to portray the SNP as a party of government, rather than just independence. Catalanflag-wielding delegates were treated to a buffet of new policies to compensate for the absence of the one they really want.



¡Viva Escocia!

Scottish parents will benefit from 30 hours of free child-care per week, thanks to an extra £420m (\$550m) in funding by 2021. Bursaries worth £20,000 will be handed to those thinking of becoming teachers. A publicly owned energy company will sell gas and electricity at close to cost price. Some carers will be exempt from council tax. "We can do all these things because we are in government," pleaded Ms Sturgeon. As far as the SNP's leadership is concerned, the route to independence lies through good governance.

This path to freedom will not be easy. The above policies are pricey. Ms Sturgeon has made tentative noises about increasing taxes. Despite having the power to do so, the SNP has been reluctant. Tax rises are always tricky, but especially so for a party that has built its success on popular giveaways such as free university tuition. Any increase would probably not come until next year. By the time any benefit trickled into the public finances, the Scottish parliamentary election of 2021 would be nigh, points out Mark Diffley, an independent pollster. Voters would have less money in their pockets and not much in the way of higher public spending to show for it.

After ten years in power in Scotland, the SNP's support is waning. It lost 21 of its 56 MPS in the general election in June, after half a million voters deserted the party. Its remaining 35 MPs have small majorities: the SNP's safest seat has a cushion of fewer than 7,000 votes, whereas 22 have majorities of under 3,000. In June it was squeezed by both the resurgent Scottish Conservatives, who picked up much of the unionist vote, and by Labour, which outflanked the SNP on its left. Labour's revival in England also weakens the SNP's argument that independence is the only way that Scots can avoid being governed by Tories in Westminster.

In the Scottish Parliament, where the party has 63 out of 129 members, it is on track to lose seats in 2021. Though it is likely to remain comfortably the largest party, it may lose the narrow parliamentary majority in favour of independence.

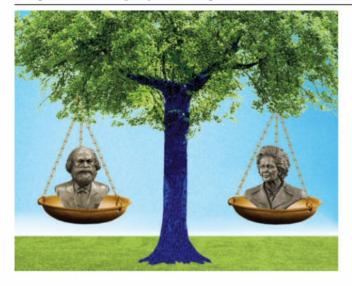
Brexit adds more confusion, providing the SNP with both a rallying cry and a schism. The party's desire for Scotland to remain in the EU, in line with the vote of 62% of Scots last year, has been full-throated. But that sits uneasily with polls showing that about a third of SNP supporters voted to leave. An independent Scotland would face barriers to trade with England, its main trading partner, if one country were inside the EU and the other outside it. Yet some Scottish nationalists are banking on Brexit being such a disaster that clamour for separation grows. Independence, say several MSPS, is a "lifeboat" from the soon-to-be-shipwrecked Britain. "The strategy as such is simply: stay in power, and then hope that someone makes some awful screw-up," says Alex Bell, a former SNP staffer.

Independence is still the aim, but an increasingly distant one. Ms Sturgeon closed her speech with a plea for patience. For now, governing comes first.

Correction: An article about Polish Saturday schools ("Polishing up", September 16th) said that the Polish government disbursed £10m (\$13m) last year to such schools in Britain. In fact the amount was £1.2m.

Bagehot | Popular capitalism, take two

Margaret Thatcher's party is debating the merits of the market



THE most exciting, if also the most troubling, change in British politics in recent years is the rebirth of ideology. During the Blair-Brown-Cameron years, political debate was imprisoned in the gilded cage of economic and social liberalism. Today that cage lies in pieces, smashed by the triple hammer-blows of the financial crisis, Brexit and Jeremy Corbyn, Labour's socialist leader. Britain is consumed by fundamental arguments: about the role of the nation-state in a global economy; about the costs and benefits of immigration; and about the merits of capitalism.

Surprisingly, the most wide-ranging discussion of capitalism is taking place on the right. On the left, Mr Corbyn has imposed strict rules on the debate. On the right, anything goes: Tories have taken to quoting Yanis Varoufakis, a hard-left Greek economist, and Robert Reich, a soft-left American academic who once worked in the Clinton administration and author, most recently, of "Saving Capitalism". Peering through the ideological confusion you can just about discern three groups.

Maggie v Marx

The first consists of unreconstructed Thatcherites who think that all you need to do is replay old vinyl records of Margaret Thatcher's speeches, preferably at top volume, and the electorate will return to the true faith. This group sees Brexit as an opportunity to renew Britain's commitment to tariff-free trade on a global scale. It argues that the solution to the problems that are driving young voters to the left lies in rolling back the state rather than rolling it forward. An article on the housing crisis by Oliver Wiseman on CapX, a news website, captured this group's spirit in a line: "Capitalism isn't the problem. Capitalism is the solution."

In addition to the fact that they seem as dated as vinyl records, the Thatcherites suffer from a couple of big problems. They have played their winning cards: it was easy to win support in the 1980s when you were selling off council houses or shares in public utilities, but much more difficult when you are grappling with the problem of a shortage of affordable housing or high utility prices. And many people voted for Brexit in order to reassert control over the market, not to let it rip.

The second group wants to return to the One Nation Toryism that dominated the party before Thatcher. This group emphasises the creative power of the state to solve pressing social problems such as the shortage of affordable homes or the rise in energy prices. But it frequently comes across as nothing more than Corbyn-lite. By conceding that Mr Corbyn has a point on social housing or university fees but then offering tame solutions, such as freezing fees at £9,250 (\$12,200) or building just 25,000 more social homes, the doctrine is in danger of simply whetting the appetite for Mr Corbyn's Special Brew. The Conservative Party's problems are deepened by the fact that its leadership swings wildly between these two positions. One moment Theresa May is celebrating the free market and condemning Mr Corbyn as a Venezuelan-style socialist and the next she is lamenting the failures of the market and aping his policies.

A third group of (mostly younger) Tories is trying to produce a more sophisticated message: one that recognises that, after several decades of pro-market policies, Britain still suffers from low productivity and social exclusion, but also grasps that the solution to these problems does not lie in going back to the big-government corporatism of the 1970s. These Tories are more open than the Thatcherites to giving the state a bigger role in helping the disadvantaged, but they are also more aware than the One Nation Tories of the creative power of capitalism.

Lots of ideas are floating around, such as giving shareholders a mandatory vote on bosses' pay, encouraging companies to give shares to workers, and making it easier for family firms to go public without sacrificing control, through voting and non-voting shares. The danger is that these ideas become no more than a hotch-potch. To succeed, their proponents must focus on two guiding themes. The first is confronting Britain's new vested interests. Thatcher and her successors took on trade unions and other working-class interest groups. They were much less successful with professional interest groups, which have done a remarkable job of protecting themselves from the downside of the market while enjoying the upside. Public-sector bosses enjoy a combination of private-sector pay and public-sector perks, from graceand-favour flats to guaranteed gongs. The heads of public firms have seen their pay escalate regardless of performance.

The second theme is recognising the power of entrepreneurs. This ought to be obvious. Thatcher's most enduring achievement was not selling off houses or utilities but freeing businesspeople from the serpentine grip of the state. The internet has increased the power of entrepreneurs to start businesses from nothing and to transform idle resources (such as spare rooms) into economic inputs. Britain is a world leader in fintech and artificial intelligence. But the current Tory leadership is blind to all of this. Its election manifesto was silent on wealth creation. Mrs May knows nothing about business. Philip Hammond, the chancellor, is interested in spreadsheets rather than world-transforming ideas. Greg Clark, the secretary of state for business, energy and industrial strategy, makes Spreadsheet Phil look charismatic.

The ideological turmoil that Britain is experiencing is forcing the country to confront long-buried problems. The risk is that it comes up with answers that end up entrenching them. It should not give more power to trade unions, as Mr Corbyn argues. Nor should it apply capitalism with a few cosmetic fixes, as Mrs May seems to think. The answer is a rebooted capitalism for a new economic era, using the power of the state where it is necessary to fix market failures and to break up vested interests, but also recognising the unique power of entrepreneurs to produce abundance out of scarcity and dynamism out of stagnation.

International



Trauma medicine Damage control

Lessons learned on battlefields are helping civilian doctors save victims of terrorism

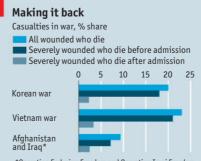
B^Y 11.30pm on October 1st, 90 minutes after Stephen Paddock began firing out of a window at the Mandalay Bay hotel in Las Vegas, the floors of the emergency department at Sunrise Hospital and Medical Centre were awash with blood. The air smelled of iron. Staff slipped and slid as they moved from one patient to another.

Though experienced in treating gunshot wounds, they had never received dozens of patients with multiple injuries from semi-automatic rifles. Bullets from these can travel three times as fast as those from handguns. They not only pierce tissue on impact but produce shock waves that burst arteries and organs. Patients faced death from blood loss, asphyxiation or both. "It was like a war zone," says one surgeon.

After mass-casualty incidents, comparisons to the battlefield typically refer to the scale. Paddock killed at least 58 people and injured more than 500, in America's worst mass shooting of modern times. Since the Vietnam war the only battle with a heavier toll of Americans was in the Iraqi city of Fallujah in 2004. That battle lasted for 48 days, however; Paddock's barrage lasted only ten minutes.

There is another way in which, after major attacks, trauma hospitals such as Sunrise resemble war zones. In recent years, as they prepare for and respond to these events, civilian medical teams have drawn on the experience of their military peers. That has enabled them to save more and more patients with critical injuries.

The best way to measure medics' success in treating victims of mass incidents is "critical mortality", the share of those admitted to hospital with life-threatening injuries who die. This is more meaningful than the ratio of fatalities to injuries, since different modes of attack cause wounds of different types and severity. A paper in 2012 co-authored by Christine Gaarder, a doctor involved in the response to the Oslo attacks, found that between 2001 and 2007 the typical critical-mortality rate after a ter-



^{*}Operation Enduring Freedom and Operation Iraqi Freedom Source: "A National Trauma Care System", by D. Berwick et al, The National Academies Press

rorist attack was between 15% and 37%.

So few of the victims of more recent attacks in rich countries have died in hospital that rates have been much lower. That has been true both for lone gunmen, as perpetrators so often are in America, and for Islamist terrorists using knives, bombs or vehicles, as recently in Europe.

On June 3rd the driver and passengers of a hired van ran over pedestrians on London Bridge, then marauded through Borough Market, wielding knives. King's College Hospital (κ CH) typically admits three or four people with stab wounds on a Saturday night. In the hour after the first victims arrived it received one every five minutes. Eight people died at the scene, but all 14 admitted to κ CH survived. So did all 34 admitted elsewhere. "The number of saves was truly remarkable," says Chris Moran, the clinical director for trauma for England's National Health Service (nHs).

No one died in hospital after the Boston marathon bombings in 2013. There was just one death among the 20 Norwegians admitted to hospital after the attacks by Anders Breivik in 2011. Hospitals in Paris saved all but two of the patients admitted after gunmen and suicide-bombers injured more than 400 people and killed 130 on November 13th 2015. The response to Las Vegas has not yet been audited, but of the 104 admissions to the University Medical Centre of Southern Nevada (UMC), another trauma hospital, just four died.

The improvement in critical mortality reflects the better treatment of trauma, in large part inspired by lessons learned on battlefields. In the second world war about 30% of wounded American soldiers died. In the Korean and Vietnam wars the share was about a fifth (see chart). By Iraq and AfIn the second The decline did not happen by chance, a report by the National Academy of Sciences concluded in 2016. Sturdier armour helped. But so did the "focused empiricism" of military medical teams who made incremental improvements to their treatment of the wounded. Civilian medicine has since embraced both clinical procedures developed in wartime and that way of thinking. Higher survival rates are mostly not about decisions taken by individual doctors, says Malcolm Tunnicliff, the clinical director for emergency and acute medicine at KCH. "It is the whole system that saves people's lives."

That system was, until recently, deeply flawed. In 2010 Britain's National Audit Office (NAO), a government watchdog, published a report into trauma care noting that mortality rates in England had barely improved in two decades. Critically ill patients were brought to their nearest hospital, meaning few hospitals saw enough cases to gain expertise in urgent, complex and multiple injuries.

During major incidents British hospitals were overwhelmed. Joshi George, a neurosurgeon, did his first shift as a junior doctor on August 15th 1998, when Republican terrorists detonated a bomb in Omagh, Northern Ireland, killing 29 people. He remembers the smell of burnt flesh and mortar oil-and that "there was really no set-up." The walking wounded took buses to the local hospital, filling beds needed for the critically ill. Communication between hospitals was poor, a failing also evident after the bombings in London on July 7th 2005. With phone networks jammed, medical students were sent running from site to site with messages on paper.

After the NAO report the NHS restructured its trauma care around 27 expert hospitals. Critically injured patients now travel to expert hospitals even if that means passing a local hospital on the way. That has improved the odds of surviving everyday traumas such as car crashes. (Trauma causes one in ten deaths globally and in many countries is the commonest cause of death for under-45s.) The NHS estimates that the change has saved 300-500 lives a year. The Netherlands and Germany have adopted similar "hub and spoke" systems.

Specialist trauma hospitals help save lives after major incidents. Partly this is because their doctors are more experienced. Between 30% and 50% of the critical injuries seen at KCH are from penetrative injuries, mostly knife attacks, often by gangs who inflict multiple wounds because they have learned how expert the hospital is in keeping their victims alive.

It is also because these hospitals are central to cities' major-incident plans. London's four main trauma hospitals (KCH, Royal London, St George's and St Mary's) must be prepared to receive patients with



Rehearsing for the worst in Paris

"injury severity scores" above 15; that is, on the verge of death. They must be able to clear at least ten beds within two hours and halt elective surgery. On-call staff must be able to turn up within 30-60 minutes. Enough blood for two to four hours, and surgical kit for 12 hours, must always be available.

Paris's *plan blanc* gives the city the power to commandeer 40 hospitals and 100,000 health-care professionals. The scale reflects France's disastrous response to a heatwave in 2003, when 15,000 people died. Israel's hospitals must plan for dealing with 120% of normal bed capacity in case of emergency, and be able to increase that to 150% in times of war.

Emergency responses are regularly rehearsed. Medics at UMC carry out two large drills each year, and were briefed by doctors from Orlando after the Pulse nightclub shooting last year. A week before the attack on Westminster Bridge on March 22nd, in which an Islamist terrorist injured more than 50 pedestrians and killed four by driving into them, as well as stabbing a police officer to death, London's doctors had done a run-through. Hours before the November 2015 Paris attacks the city's doctors had practised their response to a mass shooting. Duncan Bew, the clinical director for trauma and acute surgery at KCH, is fond of the saying about no plan surviving first contact with the enemy. But planning and practice build in a "reflex", he says, aiding medics to improvise when events do not go as rehearsed.

The medical response begins at the scene. The first ambulance arrived at London Bridge three minutes after the van attack was reported, as the stabbings continued in Borough Market. A three-day rampage by gunmen in Mumbai in 2008

The Economist October 14th 2017

had alerted European police forces to the need to plan for cordons to protect paramedics, says Cressida Dick, the head of London's Metropolitan Police. On June 3rd the London Ambulance Service and the Met demarcated unsafe "hot" zones from "cold" zones, where paramedics treated patients and set up casualty-clearing stations to dispatch them to hospitals.

After a mass incident patients must quickly be triaged according to the severity of their injuries: P1, life-threatening; P2, serious; and P3, walking wounded. (P4 is dead.) The priority of medics on the scene is to get P1s to hospital alive. Labelling a P1 patient as P3 is of course dangerous but "over-triage" is also associated with higher mortality, since it can clog up wards.

Stopping heavy bleeding is crucial. Blood loss is the cause of 30-40% of deaths from trauma. Yet until around a decade ago tourniquets were not routinely used. Poorly applied they can destroy nerves or limbs. But going without is usually more dangerous. Between 2005 and 2011 in Iraq and Afghanistan tourniquets, including new versions that clamp big, hard-to-find vessels such as the femoral artery, which is buried deep in the pelvis, saved up to 2.000 American lives, according to the National Academy of Sciences. Simple steps can ensure that tourniquets are not left on too long. British soldiers write "T" on the forehead of anyone receiving one, so doctors are reminded to remove it.

Tourniquets are now commonplace in civilian medicine, as are haemostatic powders that clot blood. But there are not always enough. After Parisian medics used their belts as improvised tourniquets, many arrived at the hospital with their trousers falling down.

Precious moments

Another lesson from military medicine is to do the minimum to keep people alive, then get them to a specialist hospital as soon as possible. In the Vietnam war it took on average 45 days for a critically injured soldier to reach America. From Afghanistan and Iraq it took four. One soldier injured by a mortar attack in Balad, Iraq, was moved from the blast site to a field hospital, then to Germany, and finally to Virginia, all in under 36 hours.

Speed saved lives in Paris and London, too. The first two patients to arrive at hospital from the 2015 Paris attacks did so by taxi. They did not even realise they had been shot. Police officers took two colleagues hit by the van on London Bridge to St Thomas' Hospital nearby using a makeshift stretcher. After they had been stabilised they were taken to KCH. Without this "scoop and »

Editor's note: The Economist is conducting a survey of readers and subscribers. We are keen to find out more about your views of this newspaper. To take part, please visit: economist.com/survey17

run" both would have died.

In the minutes before patients arrive doctors prepare for the surge. As the London Bridge incident unfolded, KCH set up its command structure. Switchboard operators alerted on-call staff, though most found out an attack was under way via Twitter or WhatsApp and set out unprompted. When they arrived at KCH they received a one-page "flash card" explaining their role. Senior doctors check supplies. Whole blood containing plasma. platelets and red blood cells is readied. Recent research has shown that transfusing this mixture rather than individual components improves survival rates. Some incidents require specific equipment. On his drive to KCH as fire engulfed Grenfell Tower in London on June 14th, Dr Tunnicliff told procurement teams to grab kits for cyanide poisoning, since this is caused by inhaling fumes from burnt upholstery.

Once a major incident has been declared, medics may take a moment to steel themselves. An anaesthetist working the night shift on May 22nd, when a homemade bomb placed by an Islamist terrorist in the Manchester Arena injured 250 people and killed 22, many of them children, says he tried to visualise what was coming, like a sportsman before a match. That helped, a little. The extent of the shrapnel injuries meant that several staff were crying as they operated on the injured girls.

Faster than a speeding bullet

As the surge begins doctors perform another triage, usually at the entrance of the resuscitation room. Patients may have deteriorated, especially if they have spent a long time waiting in the hot zone. Others may later decline in hospital. On June 3rd one patient brought to KCH from the London Bridge attack had been assessed as P3; despite being stabbed in the back of the head he was walking around. But soon enough he was reassessed as P1 because of a blood clot and whisked to theatre.

Once inside the resuscitation room Dr Bew started logging patients' details in a notebook. In Paris patients were tagged with barcodes denoting their triage status. But keeping tabs on patients is more rudimentary in the NHS. As it is in Las Vegas: doctors in Sunrise wrote patients' triage status and details of their injuries directly onto them.

Doctors are trying to make sure patients do not need to return to the resuscitation room. That requires senior doctors to treat individual patients at the same time as keeping tabs on what is happening in the rest of the room. At KCH, every 15 minutes the clinical directors shouted out situation reports. Radiology is often a bottleneck en route to the intensive care unit (ICU) or operating room. So hospitals are bringing scanning equipment closer to it. x-rays reveal lungs collapsed from stab wounds; whole-body CT scans pick up the internal injuries from blast wounds. Bullets and shrapnel burrow into odd places.

Twenty years ago trauma doctors would "stay and play", notes John Holcomb, a trauma surgeon and professor at the University of Texas. Now, rather than do everything a patient needs in one go, surgeons will do the minimum necessary to save life and move on to the next case. After the Paris attacks the first patient admitted to Hôpital Saint Louis spent just 30 minutes on the operating table. Surgeons removed two bullets from his abdomen and cut out 60cm of his intestine. They left three less life-threatening bullets to be removed later, and sent him to the ICU. This "damage control" approach is inspired by the armed forces. In emergencies surgeons at Camp Bastion, the British base in Afghanistan, aimed not to operate on any patient for more than an hour.

Most surgery has become highly specialised. "Even brain surgeons can't operate on every part of the brain," says Dr George. But trauma requires surgeons to operate across anatomical boundaries under extreme pressure. After the London Bridge attack doctors at KCH performed more than a dozen chest drains and "clamshell" thoracotomies, where the chest is cut open in an arc beneath the rib cage. Surgeons tied severed bowels and clamped vessels. They cleaned wounds thoroughly, fearful of contamination when the same knife is used on multiple people.

But they did not linger. Trauma medicine is not for perfectionists or mavericks. Teamwork is essential. One surgeon at KCH recalls draining a patient's chest at the same time as cardiac, vascular and facial surgeons were operating. In Las Vegas's hospitals, surgeons rushed to deal with the carnage wrought by semi-automatic weapons. Bodies were littered with bullets. Some had entered at odd, multiple angles as people crouched in an attempt to protect themselves.

After the surge subsides, hospitals try to return to their normal schedule as soon as possible. But a major incident can be declared over too soon. Some hospitals in Manchester restarted elective surgeries a few hours after the bombing. Yet in the following ten days the injured required 139 hours of additional theatre time—about two normal weeks' worth of surgery.

Saving more lives means a greater need for rehabilitation, both physical and psychological. Trauma hospitals are increasingly bringing physiotherapists and rehab doctors onto ICU rounds rather than referring patients later. In Paris a 35-strong team of psychiatrists and psychologists was called up as part of *plan blanc*. In Manchester a dedicated "bereavement service" counselled the parents of victims.

It is not just patients who need psychological support. One doctor involved in the Manchester attacks still hears the voices of injured parents who awoke screaming for lost children. In the resuscitation room after the Grenfell fire staff had allowed critically ill patients to use phones to speak to trapped loved ones for the last time. Hospitals such as KCH are using a peer-to-peer counselling method used by the British army for post-traumatic stress.

Each major incident is followed by efforts to learn lessons from how it played out. Professor Moran has overseen debriefs for the Westminster, Manchester and London Bridge attacks. It is vital, Dr Bew says, for trauma doctors to admit their mistakes and for hospitals to have an open and honest attitude towards error.

All of which will help trauma teams to keep improving. They will need to. The treatment of victims of terrorism has been transformed by lessons learned by trying to save injured soldiers. But as the attack in Las Vegas shows, those seeking to harm civilians will continue to test those who deal with the aftermath.



Heroes run towards danger

NEW **B-SCHOOL** For **A-Players**

IF YOU'RE ACCEPTED, OUR MBA IS FREE.

"The educational framework of the future"

Michael Horn Co-founder, Clayton Christensen Institute

"Coming from taking finance courses at Wharton, I found the content of the courses to be of similar caliber."



asn Jain Business Developement, LSKB Jniversity of Pennsylvania

"Comparable content to that you would find in a \$100,000 program, all integrated into a seamless online platform."



Benjamin Kumar Chowdhury Product Analyst, Havard Brown University *"I loved the Smartly program. I have never experienced interactive learning the way Smartly provides."*



Lindsey Allard **Product Manager, Coffee Labs** Dartmouth College

"The Smartly MBA program was an amazing way for me to broaden my skills and knowledge..."



Daniel Gale-Rosen Strategic Services, HYFN Harvard University

HOW IT'S FREE

With high admission standards, our graduates are in demand. We flip the model of education by charging employers to recruit and hire them.

FREE MBA EXECUTIVE MBA BUSINESS CERTIFICATES Apply by November 5

www.smartly.mba

SMARTLY

Smartly is a licensed Institute of Higher Learning regulated by the Washington DC Office of the State Superintendent of Education Higher Education Licensure Commission



Deregulation in America Trump v the rule book

WASHINGTON, DC

The White House has found it easy to stop new regulations in their tracks. Repealing old ones will be much harder

EREGULATION, along with tax cuts and trade reform, is one of the three pillars of President Donald Trump's economic agenda. Republicans promise that, freed of red tape, American firms will invest more and unleash faster economic growth. And while Mr Trump has yet to unite his party around a major piece of legislation, the White House has plenty of sway over regulatory policy. For a start, the government agencies Mr Trump commands can regulate and deregulate on their own (subject only to the instructions that Congress has given them in the past). How much red tape have they managed to tear down since Mr Trump took office?

Regulation is difficult to measure precisely, but the long-term trend towards excessive rulemaking has been obvious. In 1970 there were about 400,000 prescriptive words such as "shall" or "must" in the code of federal regulations, according to the Mercatus Centre, a libertarian-leaning think-tank. Today there are 1.1m (see chart on next page). Wonks of many stripes agree that this is far too many and that the rule book must be shortened. Agencies have rarely combed over old edicts to see whether they are worth keeping. The problem predated Barack Obama's administration; both Republicans and Democrats have presided over regulatory expansions. That said. Mr Obama was an unusually prolific rule-writer, because for much of his presidency a hostile Congress meant that regulation was often his best tool.

Against this backdrop, the impact of the Trump administration has been dramatic. The flow of new rules is suddenly a dribble. Since Mr Trump was inaugurated the number of regulatory restrictions has grown at about two-fifths of the usual speed. In the last year of the Obama administration, the federal government wrote 527 regulations deemed "significant". Mr Trump's bureaucrats have penned only 118. And even that number is artificially high, because many of those edicts served only to delay or weaken Mr Obama's rules. Examples of genuinely new regulations are few and far between. The White House has acknowledged only one-a rule aimed at reducing the amount of mercury dentists discharge into sewers, which went into effect in July.

Mr Trump has slowed rulemaking in two main ways. First, on coming to office, he ordered government agencies not to impose any net new regulatory costs on companies, regardless of the benefits of doing so, and said that in order to write any new rules they would have to repeal two old ones. Because it takes time to unearth and discard dud rules, the practical effect of this has been to put a brake on new issuance.

Second, Mr Trump has signed 14 bills stopping rules that were issued late in the Obama administration, and were there-

Also in this section

- 57 American factories' skills shortage
- 58 McKinsey's South African troubles
- 59 Procter & Gamble's close shave
- 59 Kobe Steel falsifies data
- 60 Fake smartphone apps
- 61 Schumpeter: The nuclear option

For daily coverage of business, visit **Economist.com/business-finance**

fore still subject to review by Congress, from going into effect. Not only were those regulations blocked (by means of the Congressional Review Act, or CRA); agencies will never again be able to write replacements that are "substantially the same" without lawmakers' express approval. Before 2017, Congress had exercised its power to review regulations only once: in 2001, after George W. Bush came to office, it blocked a set of standards for chairs and desks aimed at stopping office workers getting back pain.

Yet wielding CRA as a deregulatory weapon has its limits, for Congress can review only rules issued during its previous 60 days in session. Tackling the bedrock of regulation is far harder. Three approaches are possible: later implementation of newish rules, looser enforcement of existing ones, and formal rollbacks of others.

Make America wait again

The first tactic, delay, is being used with abandon. For example, the Labour Department is trying to stave off parts of a new "fiduciary rule", which requires investment advisers always to work in the best interests of their clients. (This requirement, like many seemingly simple rules, has somehow spawned hundreds of pages of legalese.) The fiduciary rule came into partial effect in June, but the administration is trying to postpone enactment of the remainder, which would give the edict teeth, by 18 months, to July 2019.

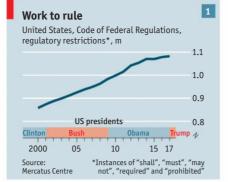
Delays do not always work. When Scott Pruitt, a sceptic on climate change who heads the Environmental Protection Agency (EPA), tried to put off a regulation aimed at curbing emissions of methane, a powerful greenhouse gas, from oil and gas wells, a federal court found the decision to be "unreasonable", and blocked it. "I can't tell **>>** The second method—enforcing rules lightly, if at all—can be implemented through handy budget cuts. For example, Mr Pruitt has proposed slimming the agency's budget by almost a third, though the idea met a frosty reception in Congress.

But it is the final approach, rescinding a regulation altogether, that is the trickiest to pull off. The EPA hopes to repeal the two main Obama-era environmental regulations: the Clean Power Plan, aimed at reducing carbon-dioxide emissions from power plants, and the Waters of the United States (WOTUS) rule, which expanded the scope of federal regulation of waterways. Neither has ever come into effect, because both have been delayed by lawsuits brought by states and affected firms. Some such challenges to Obama-era rules have ended successfully. A court in August struck down a Labour Department rule that greatly expanded the number of workers eligible for overtime pay.

Unless courts invalidate a regulation, though, undoing it is "like turning a battleship around", says Steven Silverman, a lawyer who worked at the EPA for almost four decades. Agencies must start a fresh regulatory process, consult interested parties and show why their old cost-benefit analysis was wrong—a procedure itself vulnerable to legal challenges. While those play out, the Democrats could win back the White House and change course again.

For now, the administration's tactic has been to try to stall the court cases, to keep the rules from taking effect, while they prepare replacements. But the administration may eventually have to convince judges that Mr Obama's numbers were wrong. That will be easier in some cases than in others. Mr Obama's administration often cast around for additional benefits to justify new rules. Sometimes, its methods were unprecedented. For example, the administration included the boon to foreign countries when totting up the value of reducing carbon emissions. The proposal to withdraw the Clean Power Plan, which was released on October 10th, shows that Mr Trump's regulators have ditched that calculation. They have also taken a harder stand on so-called "co-benefits", the positive side-effects of regulations.

The question is how fast the Trump administration will run in the exact opposite direction. The White House is focused on reducing costs to companies; wider benefits barely seem to enter its thinking. This particularly threatens environmental regulations, which tend to have the biggest costs, but also the largest benefits (see chart 2). In reassessing the economic impact of WOTUS, the EPA took just a few short sentences to dispense with at least \$300m in annual benefits to wetlands that had been included in the agency's 2015 analysis. The

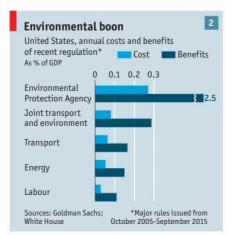


Clean Power Plan replacement disregards entirely the effect that cutting carbon would have on reducing other noxious emissions that cause premature deaths—an omission that will surely invite a legal challenge.

Yet in other areas the administration seems more thoughtful than zealous. Take financial deregulation. In January Mr Trump made a crude promise to "do a big number" on Dodd-Frank, Mr Obama's financial law, which has spawned thousands of pages of associated rules. Yet the two reports the Treasury has published on the subject have been detailed and rigorous. The first, on banking, contained a variety of relatively moderate proposals, such as raising the threshold above which banks must carry out "stress tests" from \$10bn of assets to \$50bn, and excluding cash and Treasury securities when calculating banks' leverage.

The second report, released on October 6th, concerns capital markets. Equity markets do not seem to be doing their job well, it says, as seen by a fall in the number of public companies, possibly because of regulatory complexity. But elsewhere it warns of the risks that Dodd-Frank funnelled towards so-called "clearing houses", such as LCH.Clearnet and Intercontinental Exchange. The Treasury argues that clearing houses should be subject to "heightened regulatory and supervisory scrutiny".

Those are not the words of an administration bent on wanton financial deregula-



The Economist October 14th 2017

tion. Instead, figures such as Jay Clayton, the new chairman of the Securities and Exchange Commission (SEC), and Randal Ouarles, whom the Senate confirmed on October 5th as the Federal Reserve's vicechairman for (bank) supervision, are likely to prune existing regulatory structures. In September the Fed and the Federal Deposit Insurance Corporation (FDIC) gave a taste of what is to come. They said banks may now be allowed to refile their "living wills", which set out how they could be dissolved in a crisis, every two years rather than annually, so long as their business had not changed materially. This is hardly revolutionary, yet it is important to banks.

Some rulemaking is beyond the administration's reach. On October 5th the Consumer Financial Protection Bureau (CFPB) said it would require payday lenders, who offer short-term loans at very high interest rates, to carry out new affordability checks before advancing credit. The agency will also limit lenders' access to borrowers' bank accounts. The CFPB can keep regulating in defiance of Mr Trump because–like the SEC—it is independent, meaning the president cannot dismiss its leadership without good reason.

Alternative facts

There can be little doubt that fewer federal regulations are in place today than would have been were Hillary Clinton president. But until many more rules face the chop, companies are unlikely to benefit all that much. Few mentioned deregulation in their second-quarter earnings calls this summer. When economists at Goldman Sachs, a bank, surveyed their stock-pickers in May, regulation was not considered the key policy issue in a single sector. Analysts emphasised tax reform instead.

The exceptions were watchers of technology, media and telecoms firms, who emphasised the importance of antitrust regulation. The Trump administration's attitude towards consolidation in those industries, most notably a proposed merger between AT&T, a wireless giant, and Time Warner, a content empire, is unclear. Internet service providers (ISPS) would also get a boost if the Federal Communications Commission succeeds in loosening Obama-era rules on "net neutrality" (the principle that different sorts of web traffic should be treated equally).

Despite the lack of much true deregulation, the new approach in Washington does seem to have boosted business confidence. The "tone" of federal regulators has changed, notes one senior Wall Street executive, and slowing the flow of new rules has reduced regulatory uncertainty. Parts of Main Street agree: the percentage of small firms reporting regulation as their biggest concern has fallen slightly, from 20% a year ago to 16% today. Another sign, perhaps, is that the overall optimism of **>>**

Whether deregulation translates into faster economic growth will only become clear over time. The range of estimates regarding how much regulation affects growth is wide, while the quantity of evidence is thin. Economists at the White House point to a study by Mercatus which argues that if regulations had been frozen at their 1980 level, growth would have been 0.8 percentage points higher per year. Critics say that this actually implies a rather small growth effect, given that Mr Trump is taking aim at a relatively small number of Obama-era rules. The study also seems, implausibly, to blame regulation for a fall in investment after the financial crisis.

Ultimately, whether or not such claims are put to the test depends on whether the Republicans keep the White House in 2020. If they do, Mr Trump will have time to overcome the inevitable legal challenges to his agenda. America would probably see a large-scale deregulatory experiment. If they do not, the current period will look more like a regulatory hiatus than the beginning of a reversal.

Manufacturing Making it in America

OAK CREEK, WISCONSIN

American factories could prosper if they find enough skilled workers

WE ARE always short ten to 20 people," says Jack Marshall, the manager of PPG's plant in Oak Creek, Wisconsin. The company makes coatings, paint and speciality materials for customers such as Harley Davidson, a motorcycle manufacturer based in the state, with a palette ranging from black denim to candy orange. His factory employs 550 people, many of whom must work overtime. It is hard to fill jobs, he explains, because many still think factory work involves repetitive assembly-line tasks, as in the candy factory on the old TV sitcom "I Love Lucy".

As part of trying to shed this outdated image, America's manufacturing industry has for the past five years celebrated the first Friday in October as National Manufacturing Day. Some 2,800 events across the country were organised this time round, ranging from factory tours to banquets. Intel, a chip giant, displayed its wafer-fabrication equipment at its enormous semiconductor manufacturing campus outside Portland, Oregon. Toyota showed visitors its robots and other advanced equipment used to make trucks at its factory in San Antonio, Texas.



Another way to see the factory floor

The notion of a fading economic sector arises from a big drop in manufacturing employment over the past two decades (see chart). Some places were hit especially hard. From 1980 to 2005, for example, the number of factory jobs fell by some 45% in Rochester, New York, and in Scranton, Pennsylvania. Many people, including President Donald Trump, reckon that global trade, especially with China, is largely to blame. When Taiwan's Foxconn, the world's largest contract manufacturer, which employs over 1m people in China, said this summer it would build a factory in Wisconsin employing up to 13,000 people in return for \$3bn in various tax breaks and subsidies from the state, Mr Trump called a press conference to celebrate.

However, studies show that the majority of past factory job losses were the result of investments in automation, which continue to pay off. American manufacturing has more than doubled output in real terms since the Reagan era, to over \$2trn today. Productivity is soaring. Output per labour-hour rose by 47% between 2002 and 2015, outpacing gains in Britain, France and Germany. A survey of global chief executives conducted in 2016 by Deloitte, a consultancy, found that bosses expect American manufacturing to become more competitive than China's as soon as the next few years, in part because pay for Chinese workers has risen. A closely followed index of American manufacturing activity hit a 13-year high in September.

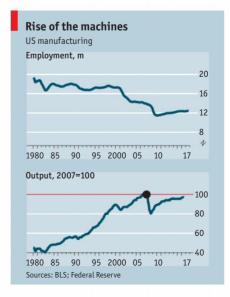
America's most technologically-advanced manufacturers are now expanding confidently. Take, for example, factories in Connecticut, which long ago led the country but which have suffered badly in recent decades (from 1980 to 2005, manufacturing employment in Hartford, the state's capital, collapsed by half). In the 1800s local manufacturers including Eli Whitney, who invented the cotton gin, perfected the use of interchangeable parts. Those grimy workshops made muskets and machine tools. Today the state's manufacturers make the high-tech products of their age.

General Dynamics Electric Boat (EB), a local defence contractor, won a \$5.1bn contract in September to develop a new class of nuclear-powered submarines. It expects to hire between 15,000 and 20,000 workers by 2030. Pratt & Whitney (P&W), a division of United Technologies Corporation that makes jet engines, plans to hire some 8,000 workers in Connecticut (and 25,000 worldwide) over the next decade.

A huge problem is that factories are struggling to find enough skilled workers. The Manufacturing Institute, an industry body, and Deloitte calculate that there will be nearly 3.5m manufacturing job openings in America in the decade to 2025, but that 2m may go unfilled. Scott Peterson, chief human-resources officer at Schwan's, a privately owned food-manufacturing firm based in Minnesota, says he is struggling to find workers. The state is short of around 200,000 employees, he says.

Much is being done to address a national shortage of skills. A coalition of research institutes, manufacturers and federal agencies in 2014 launched the National Network for Manufacturing Innovation. This public-private partnership aims to speed up the development and adoption of such advanced techniques as 3D-printing and digital manufacturing, and to help train workers in these areas.

Policymakers, educators and companies in several states are trying to promote innovative local training schemes. JPMorgan Chase, a bank, recently announced an investment worth \$40m in Chicago's struggling South and West Sides over three years; it is also helping to revitalise Detroit. Some money in Chicago will go on a robotics-technology training programme for jobs in advanced manufacturing.



In Connecticut, too, schools as well as factories are being upgraded. Mary Moran, the principal of Eli Whitney Technical High School near New Haven, says that just five years ago its facilities looked like something out of the 1950s. Its workshops are now equipped with computerised lathes and precision-measurement machines. At Housatonic Community College in Bridgeport, students earn qualifications in metalworking, factory safety and Six Sigma (a statistical method for quality control), and gain experience with local manufacturers.

It will take more than a few enterprising colleges, and local partnerships with companies, to tackle America's yawning skills gap, but these are a start. By encouraging lots of initiatives, policymakers and manufacturers can judge what works best and copy successes elsewhere, and on a larger scale. Continued technological progress will keep manufacturing employment from returning to past heights. But if firms can find enough skilled workers to guide the machines, the sector's output could really take off.

McKinsey in South Africa In the eye of the storm

JOHANNESBURG

The consulting giant is in trouble for working with a firm tied to the Guptas

MCKINSEY, a global management consultancy known for its discreet profile and rarefied air, is unused to the sort of tub-thumping popular revolt it is experiencing in South Africa. Such is public outrage over the Guptas, an Indian-born business dynasty accused of growing rich off their relationship with President Jacob Zuma, that a few professional-services firms linked to the family, including McKinsey—as well as SAP, a German software giant—have become targets of Twitter storms and protest banners.

Anti-corruption groups and the opposition Democratic Alliance (DA) have drawn blood in the case of Bell Pottinger, a British public-relations firm accused of orchestrating a racially divisive public-relations campaign on behalf of the Guptas. A complaint by the DA to a British PR industry association set in motion Bell Pottinger's swift implosion in September. At KPMG, a global audit firm, eight senior executives in South Africa left in the same month because of the firm's work for the Guptas. Such victories have fuelled the mood. On October 5th civil-society groups picketed McKinsey's Johannesburg offices.

At the heart of the affair are allegations of "state capture" by the Guptas, who moved from India to South Africa in the 1990s and turned a computer parts business into a conglomerate with properties in media, mining and professional services. One of Mr Zuma's sons, Duduzane, has worked for the family. A report in 2016 by South Africa's public protector, an independent ombudsman, detailed allegations that the Guptas had meddled in cabinet appointments and used their connections to scoop lucrative government contracts (they and Mr Zuma have repeatedly denied any wrongdoing).

McKinsey did highly-paid work for Eskom, a state-owned electricity monopoly at the centre of several of the "state capture" allegations. Documents show that McKinsey worked with Trillian Capital, a local consultancy that until recently was owned by Salim Essa, a Gupta associate, as part of winning contracts from the utility.

As an international firm requiring a local partner, McKinsey had previously worked with a related company called Regiments. The consulting firm says that after Trillian emerged from Regiments in late 2015, it carried out a due diligence review and cut its ties with Trillian a few months later. McKinsey says it never entered into a formal contract with Trillian or made payments to the company, and there are letters to show that McKinsey warned Eskom about the risks of doing business with Trillian.

But that has not put a stop to questions about the relationship. A former executive of Trillian, Bianca Goodson, has alleged that Trillian acted as a gatekeeper, using Mr Essa's connections to land contracts and then passing the work over to "internationally recognised companies" including McKinsey. The firm stands behind its work for Eskom, says Steve John, global director of communications at McKinsey. Neither the Gupta family nor any company publicly linked to the Guptas has ever been a client of the firm, he notes. It has hired a law firm, Norton Rose Fulbright, to carry out a detailed internal investigation.

It is an embarrassing situation for a group that prides itself on operating as "One Firm" across its local offices, says Tom Rodenhauser of ALM Intelligence, a market-research firm that monitors the consulting industry. McKinsey has weathered damage to its reputation before; in 2010 one of its consultants pleaded guilty to passing inside information to a New York-based hedge fund, Galleon Group. McKinsey's close links with Enron also meant that its reputation was tarnished by the energy company's collapse in 2001.

Politicians' scrutiny may drag on. The DA party says it will push for the firm's executives to appear before a parliamentary inquiry into Eskom this month. The party has also gone to the police to file a complaint of fraud and racketeering against McKinsey, and written to America's Securities and Exchange Commission and Britain's Serious Fraud Office (the firm had no comment about the DA's complaints).

Public anger has also focused on the fees charged by McKinsey to Eskom, a public entity. According to a report by Eskom and G9 Forensic, an anti-corruption consulting firm, McKinsey and Trillian earned 1.6bn rand (\$117m) for work done in 2015 and 2016, and expected to make another 7.8bn rand. A second review commissioned by Eskom from Oliver Wyman, another consulting firm, into its contracts with McKinsey, found a "very unusual" fee structure that resulted in costs above industry norms. On October 5th Eskom demanded that McKinsey pay back 1bn rand. (McKinsey said it would support a high court review of the contract and repay its fees if the deal were found to be illegal). Standard Bank, Africa's biggest lender by assets, is reviewing its relationship with McKinsey. The publicity is likely to test the loyalty of many other African clients.



An unfamiliar sight for McKinseyites



Procter & Gamble Close shave

NEW YORK

A bitterly contested, inconsequential proxy vote

SHAREHOLDER meetings in Ohio are not usually the stuff of high drama, but a recent gathering was a nail-biter. Nelson Peltz of Trian Fund Management, an activist hedge fund, sought a seat on the board of Procter & Gamble (P&G), the world's largest consumer-goods company, in a proxy vote on October 10th. It was the biggest such battle ever. In the weeks leading up to P&G's shareholder meeting, the fight resembled a political contest, complete with carefully crafted videos, lengthy white papers, mass mailings and tens of thousands of phone calls urging shareholders to vote blue (P&G) or white (Trian).

As The Economist went to press, P&G said it had won and Mr Peltz was contesting the tally. "Everybody but [P&G's] current employees voted for us," he said after P&G declared victory. "Maybe that's why they keep so much overhead." So the brawl is not over. Yet the outcome may not matter much. Mr Peltz will push P&G for change regardless of whether he wins a board seat, and it is unclear that he will have much effect, be he on the board or off.

It is not that Mr Peltz lacks heft. He has taken on consumer firms including Heinz and Wendy's in the past. Martin Lipton, a lawyer who has long defended companies from such activists, has noted his "impressive record of success with consumer products companies". Even when Trian technically loses a fight, it often wins. It lost a proxy battle against DuPont, a chemical company, in 2015, but the company went on to make many changes that Mr Peltz had sought. Trian recently won a separate victory, securing a seat on the board of General Electric on October 9th.

At P&G, new thinking is sorely needed. The 180-year-old company sells products in nearly 200 countries and territories. It has America's bestselling razors (Gillette), toothpaste (Crest), detergent (Tide) and toilet paper (Charmin), to name but a few of its products, but has lost share in more than a dozen of its top categories. Total shareholder return in the five years to February 13th 2017, the last trading day before Trian's stake (of 1.5%) was announced, lagged the median of its peers by 55 percentage points and the s&P 500 Consumer Staples Index by 27 percentage points.

P&G has taken steps to become more streamlined. In the past three years it has culled its brands from 170 to 65 and reduced the number of employees by 35,000. But Mr Peltz maintains that the firm remains too insular and slow to adapt to a fast-moving market. His frustrations are shared by many institutional investors. Those recently surveyed by Sanford C. Bernstein, a research firm, were particularly critical of the board, which is packed with other bosses, including Terry Lundgren, the chairman of Macy's, a department store, and Meg Whitman, boss of Hewlett Packard Enterprise, an IT firm.

Institutional Shareholder Services (ISS), an influential proxy-advisory firm, recently noted that the board had presided over bureaucratic tangles and botched acquisitions. Both it and Glass Lewis, another proxy adviser, backed Mr Peltz's appointment. Many small investors, who own about 40% of P&G's shares, appear to have disagreed. Employees may have feared bigger layoffs to come. Mr Peltz says he will continue to push P&G even if he fails to prevail in the proxy's certified vote count.

But his powers may be limited. He is not seeking to sack David Taylor, who became chief executive in 2015 and is thought to be moving P&G in the right direction (albeit too slowly for investors' taste). Nor is he trying to split up P&G. Mr Peltz's most substantive change would be to reorganise its ten business units into three, overseen by a lean holding company, to make the firm nimbler. Reorganisation—if the board supports it—could take years to yield results.

Mr Peltz is also urging P&G to acquire more small and local brands. Yet given the mismanagement of prior deals, it is unclear that it would find suitable targets or sustain their growth. Many of the world's largest consumer firms are strugglingagainst small online brands on the one hand and the expansion of Amazon and the rise of Aldi and Lidl, two German discount chains, on the other. Dealing with such challenges will require ingenuity and speed not yet seen at P&G. It is far from clear if Mr Peltz has the answers either.

Kobe Steel Base metal

токуо

Another Japanese manufacturing scandal hits firms across the world

THE port city of Kobe, on the southern side of Japan's main island, is known for luxury beef from pampered cattle, fine sake and precision engineering. Its reputation for the last of those products took a blow on October 8th when one of its oldest industrial firms, Kobe Steel, admitted that that it had falsified data on many of its aluminium, copper and steel products. By October 1th, the company's shares had fallen by a third, reducing its market value by ¥180bn (\$1.6bn).

Kobe Steel has admitted to falsification over the past year relating to large quantities of four types of material; 19,300 tonnes of aluminium sheets and poles; 19,400 aluminium components; 2,200 tonnes of copper products and an unspecified amount of iron powder that was supplied to over 200 customers. These items were certified as having properties—such as a level of tensile strength, meaning stiffness—that they did not in fact possess.

No deaths or accidents have yet resulted, but the firm's products are used by a long list of household names in Japan and overseas. Companies ranging from Boeing, Ford and GM of America to Hitachi, Nissan, Toyota and Mitsubishi Heavy Industries of Japan are rushing to examine their products' safety. Mitsubishi has already said that affected steel was used in an H-2A rocket that safely launched a global-positioning satellite into orbit on October 10th.

Replacing the faulty metal sold may initially cost Kobe Steel just ¥15bn, according >>



Kobe Steel's bosses bow under pressure

to J.P. Morgan, a bank. Yet taking into account the need to idle and repair any affected cars and planes, the overall cost could soar. More revelations may be on the way, for Kobe Steel admits that its current problems stretch back at least a decade.

The news has come at the worst possible moment. Like the rest of its industry in the rich world, Kobe Steel has been hit by a flood of cheap aluminium and steel imports. In 2016 it lost ¥23bn. In order to compete, mills will have to produce the sort of high-tech steel for cars, planes and trains that still commands premium prices, says Wolfgang Eder of Voestalpine, one of the few steel firms in Europe that is still profitable. Kobe Steel has lately switched its focus to higher-tech metals, but if it cannot guarantee their quality it will be in trouble.

The firm's stumble is the latest in a long list of scandals for Japan's once-bright corporate stars. Earlier this month Nissan was obliged to recall 1.2m cars after finding that unqualified inspectors had been conducting safety checks. In June, Takata, a maker of faulty airbags linked to 18 deaths worldwide, declared bankruptcy after being hit by a whirlwind of lawsuits. Last year, the bosses of Suzuki and Mitsubishi, two Japanese carmakers, resigned after their firms were found to have falsified fuel-consumption data on their vehicles. And between 2009 and 2011, Toyota, another carmaker, recalled 9m cars equipped with dangerous accelerator pedals.

Such scandals are not unique to Japan. Volkswagen, a German carmaker, has been caught falsifying emissions data. Reckitt Benckiser, a British firm, sold cleaning products linked to the deaths of over 90 people in South Korea from 2011 onwards. But it is obvious that Japanese firms have not learned the lessons from recent scandals, says Toshiaki Oguchi of Governance for Owners Japan, a corporate-governance lobby group. A recurring theme is a lack of transparent leadership and a tendency to paper over problems. Japanese workers are ethical, he says, but tend to hide wrongdoing rather than confront management. Kobe Steel ignored at least one whistleblower who sounded the alarm over its substandard metal. Its president and chief executive, Hiroya Kawasaki, has promised to lead an internal probe.

His company's woes add urgency to efforts to improve corporate governance in Japan. Shinzo Abe, the prime minister (who worked at the steel group before going into politics) has introduced a new stewardship code but "has not really had the stomach for a more serious fight over things like holding management more accountable," says Tobias Harris of Teneo Intelligence, a risk consultancy. Scandals leave Japanese companies vulnerable to foreign takeovers. Takata, for instance, was snapped up by Chinese interests soon after it went bust.

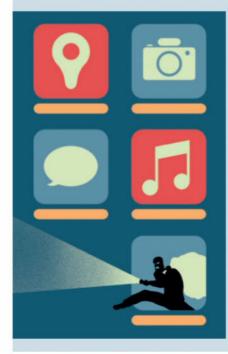
Smartphone security Mind the app

Crafty app developers are making money by ripping off big-name brands

THE new app for an upmarket British department store certainly looks the part. Released on Google Play, a shop for Android software, on September 5th, it has the right logo, the correct vibrant colour and offers fashionable clothes and accessories. But the app is not authorised by the brand, is littered with pop-up ads and is painfully slow (furious users gave it one-star ratings). Its developer, Style Apps, has also launched apps for other clothing brands that are household names in America.

Such fake apps are designed by crafty developers to trick inattentive users. Google and Apple police their app stores but many impostors get through. In third-party app stores, unofficial platforms run by someone other than the two tech giants, the problem is even worse. Users are tricked in two ways. Some apps fill a gap in the market. Selfridges, a chain of British fashion stores. for instance, has a legitimate app for Apple devices but not for Android ones. RadioShack, an American electronics retailer that filed for bankruptcy in February 2015, has a website but not an official app. Three imitation apps have by now sprouted under the shop's name.

Other developers simply copy an existing app and hope users will fail to notice. *The Economist* found that half of the 50 top-selling apps in Google Play had fakes. These included ones with



tweaked names ("MyGoogleTranslate" rather than "Google Translate") and a bogus Netflix app that uses a weird Halloween-themed font for the logo. Google says it is reviewing these apps and will take action where necessary.

Fake apps are often stuffed with malicious code. Academics from a research group, SerVal, at the University of Luxembourg, estimate that around a fifth of all Android app-based malware is hidden in fake apps. The malware facilitates various money-making schemes. The most egregious are designed to steal the passwords that unlock users' bank accounts. But it is more common for scams to profit from ordinary advertising, particularly on Android devices, says Eliran Sapir of Apptopia, a tech firm. Adverts in the smartphone's web browser get quietly replaced by similar ones chosen by the fake-app developer.

Another money-spinner is to mine cryptocurrencies. Analysts at Trend Micro, a cybersecurity firm, in 2014 discovered that copies of Football Manager Handheld, a smartphone game, and TuneIn Radio, an audio app, contained malicious software that mined cryptocurrencies, the proceeds of which were probably funneled to the developers. This still goes on. It does not harm users directly, but researchers warn that such "vampire" apps drain phone batteries.

Developers can make much more money with fake apps than through legitimate means, reckons Mr Sapir. On dark-web forums, hackers and smalltime digital advertisers offer developers around \$1 per user per year to inject their apps with malicious code. In theory, a single app with 15,000 users (about a tenth of all apps have this many) could bring in roughly \$1,250 per month. Most legitimate apps make about \$1,000 per month, according to a survey from In-Mobi, a mobile-advertising company.

Fake-app developers are also quick to catch onto the latest trends. When Pokémon Go, a smartphone app based on a video game, became popular in July 2016, developers released a walk-through guide to the game which flooded smartphones with advertising. The guide was downloaded over 500,000 times. But the pickings are richest in retail, and especially in the autumn when fake-app developers are gearing up for spending binges during sales around Thanksgiving and Christmas, says Chris Mason of Branding Brand, a tech firm. Shoppers, beware.

America's politicians try to control Chinese firms abroad. It is a dangerous game

7 ARS are fought with weapons, but also with money. To un-W derstand the global balance of power in the coming decades, it helps to pay attention to the commercial subplot of the North Korean crisis. For the first time, America is attempting to use its full legal and financial might to change the behaviour of Chinese companies and banks, which it believes are propping up North Korea by breaking UN and American sanctions. Some American politicians have concluded that, as China's firms have integrated with the global economy, they have become more vulnerable to Uncle Sam's wrath. America has potent weapons, but the trouble is that China can retaliate in devastating fashion.

North Korea is highly dependent on China. Some 60-90% of its trade is with its northern neighbour. China's state-run energy giant, CNPC, is thought to have sold it oil in recent years-and is the parent of PetroChina, which has depositary receipts listed in New York. North Korean banks and firms operate in China, and it is likely that Chinese banks have dealt with them or their proxies.

After months of American pressure, on September 21st China's central bank was reported to have told the country's lenders to stop writing new business with North Koreans. But America's Treasury is still on the warpath. On September 26th it blacklisted 19 North Korean bankers working in China and eight North Korean firms. In private it is excoriating China's largest lenders, which own \$125bn of assets in America, equivalent to 14% of their total capital. On September 28th a Senate committee demanded an ever tougher crackdown on Chinese banks.

Such extraterritorial reach by American regulators (and courts) is a feature of international business. Misdeeds anywhere can be punished, if the firm in question issues securities in America, has a subsidiary there or makes electronic transactions in dollars. America has pursued eight of Europe's biggest 50 companies by market value for breaking sanctions in the past decade, and 18 of them for corruption. After the attacks of September 11th 2001 America stepped up efforts to police the global dollar payments system. It aggressively enforced sanctions against Iran. European financial firms faced \$13bn of related fines and France's BNP Paribas and Britain's Standard Chartered almost lost their American licences, which would probably have put them out of business.

Yet until a year ago, big Chinese firms were exempt, at least in-

formally. America probably worried about starting a trade war. Sanctions in 2013 on four small Chinese firms that traded with Iran met a furious response from China's foreign ministry. In some cases Uncle Sam's relaxed attitude was obvious. In 2015 China Construction Bank's New York office was found by the Federal Reserve to have deficient anti-money-laundering processes but was forgiven. In 2014-15 Agricultural Bank of China's New York office processed over \$100bn of payments without adequate controls. It got a token \$215m fine. When PetroChina listed in New York in 2000, it sidestepped sanctions by transferring assets in Sudan to CNPC, according to the memoirs of Hank Paulson, a Goldman Sachs banker who was later treasury secretary.

Now China Inc would appear to be a sitting duck. Hundreds of firms have securities listed in America. There is lots of graft in China and it is a large trading partner not only of North Korea but of Iran, Syria and Cuba, which also face American sanctions. A sharp change of mood was signalled in March when Wilbur Ross, the commerce secretary, announced a \$1.2bn fine on ZTE, an IT company which had done business with Iran and North Korea. Huawei, a rival, is under scrutiny for a possible breach of American trade controls on Iran and Syria. While China may hope that its recent order to its banks may calm things, there is a fever in Washington to punish its firms, both for patriotic reasons and because protectionists are newly influential.

China's banks run large businesses in dollars as well as in yuan, which has made them especially vulnerable to American pressure. The four largest-Agbank, Bank of China, CCB, and ICBC-have \$940bn of dollar liabilities, including debt and deposits raised from international markets. If America excluded them from its financial system, they would face big problems as global investors shied away. China's central bank might need to help fund them. For American lawmakers they are thus a tempting target–especially since America's big banks, with only \$54bn of loans in China and few liabilities in yuan, hardly need China.

Taking it to the brink

Yet China, no stranger to the dark arts of bullying firms for geopolitical ends, has other means of retaliation. In 2009, for example, BP was warned to abandon an offshore oil project near Vietnam. If it did not, the word was, all of its contracts in China would be reconsidered and China would be unable to guarantee the safety of its staff, according to "Asia's Reckoning", a new book by Richard McGregor. Today General Motors and Apple together make \$20bn of profits a year in China. Fining them heavily or prohibiting their operations would hit American interests hard. China could escalate by putting pressure on its autonomous territory of Hong Kong to punish large Americans banks based there.

North Korea is a geopolitical flashpoint and a humanitarian catastrophe. But it also highlights a faultline in the world's business architecture that will cause problems for decades to come. It is almost inconceivable that China will accept the extraterritorial reach of America's legal and financial system in the same way that America's allies in Europe, and Japan, have done.

Perhaps America will later decide to limit its reach. For its part, China is erecting defences to avoid the long arm of Uncle Sam, such as its own cross-border payments system, which it began around a decade ago, but this will take years. Until then, simmering tension and the risk of mutually assured financial destruction are bound to continue. The only consolation is that commercial war does not necessarily come with a mushroom cloud.









-A-NEW-SPACE-AGE-The business case to dream

November 9th 2017 | Seattle

Speakers include:



CARISSA BRYCE CHRISTENSEN Founder and chief executive Bryce Space and Technology



STEVE JURVETSON Partner Draper Fisher Jurvetson



YURI MILNER Founder DST Global



GEORGE WHITESIDES Chief executive Virgin Galactic and The Spaceship Company

New capabilities and an atmosphere of entrepreneurialism have resulted in a wave of terrestrial technology with the potential to turn lofty ambitions into profitable realities.

Join editors of *The Economist* and 200 aerospace engineers, venture capitalists, financiers, astronauts, scientists, telecommunication executives, academics and policymakers at A New Space Age to discuss what makes space a financially viable investment.

Register to attend: 212-641-9865 event-tickets@economist.com

space.economist.com



Comms agency



@EconomistEvents

#EconSpace

Hewlett Packard Enterprise



Gold sponsor

🔰 in 🕇 🔘

Finance and economics



Supply-chain finance The missing link

Technology is reshaping the financing of firms that sell to other firms, and leading banks into new alliances

IN 2015 Kiddyum, a small company from Manchester that provides frozen readymeals for children, won a contract from Sainsbury's, a big British supermarket chain. Jayne Hynes, the founder, was delighted. But sudden success might have choked Kiddyum's cashflow. Sainsbury's pays its suppliers in 60 days; Ms Hynes must pay hers in only 30.

In fact Kiddyum gets its cash within a few days. Once approved by Sainsbury's, its invoices are loaded onto the supermarket's supply-chain finance platform, run by PrimeRevenue, an American company. The Royal Bank of Scotland (RBS) picks up the bills, paying Kiddyum early. Kiddyum pays a fee which, Ms Hynes says, is a small fraction of the cost of a normal loan. Sainsbury's pays RBS when the invoice falls due.

Suppliers, of course, have always needed finance for the gap between production and payment. Traditionally, they could borrow on their own account, or sell their receivables—unpaid invoices—at a discount to businesses known as factors. Modern supply-chain finance, now some 25-years-old, also lets suppliers piggyback on the creditworthiness—and lower borrowing costs—of big corporate customers. Cash replaces receivables on their balancesheets. Buyers can lengthen payment terms (from 60 to 90 days, say), knowing suppliers are less likely to fail for want of cash. Banks acquire good-quality assets.

Definitions of supply-chain finance abound and its scale is hard to pin down. But it is agreed that it is growing fast. BCR Publishing, which reports on the industry annually, estimates that at the end of 2014 banks and factoring operations had €40bn-50bn (\$48bn-60bn) of "funds in use". Thomas Olsen of Bain, a consulting firm, reckons (on a broader definition) that the market is expanding by 15-25% a year in the Americas and by 30-50% in Asia, with food and retailing among the most active industries. Naveed Sultan, who heads Citigroup's trade-finance and treasury divisions, says supply-chain finance is the fastest-growing area of his trade business.

Unmet demand looks enormous. Even domestic supply chains are extensive. A new study by Mercedes Delgado of MIT's Sloan School and Karen Mills of Harvard Business School finds that American firms supplying other firms employ 44m people. Of those, employers of 26.8m are involved in international trade. So far financing programmes have largely focused on big corporations and their first-tier suppliers. Among the obstacles to growth are knowyour-customer and anti-money-laundering rules. The Asian Development Bank estimates the annual global "finance gap" in

Also in this section

- 64 Buttonwood: Finance ten years on
- 65 Brexit and derivatives
- 65 China's currency
- 66 Financial technology in Myanmar
- 67 BBVA's digital aspirations
- 68 Free exchange: Richard Thaler, this year's economics Nobel prizewinner

For daily analysis and debate on economics, visit **Economist.com/economics**

trade finance, a related field, at \$1.5trn. Anand Pande, head of supply-chain finance at iGTB, which provides technology to banks, calls supply-chain finance "a land of unrealised promise".

That is true for both banks and borrowers. Eric Li of Coalition, a research firm, forecasts that this year large banks' revenues from programmes instigated by big buyers will be \$2.8bn, 28% more than in 2010. If supplier-led finance is included, growth has been just 18%, far less than for lending volumes. Margins have been squeezed. The market is fragmented, Mr Li notes. After the financial crisis, many banks cut back their foreign operations.

Only connect

They also face competition. Technology firms are pushing into supply chains. Online lenders have made less impact than third-party platforms that match buyers and suppliers to sources of finance. Prime-Revenue, for instance, connects 70 lenders, including 50-odd banks, to 25,000 suppliers with \$7bn-worth of invoices a month. There is also space for specialists. Innervation Finance, based in New York, manages programmes for buyers offering finance to "diverse" suppliers (eg, run by people from ethnic minorities, women, veterans, the disabled or gay people) in banking, manufacturing and pharmaceuticals. Mark Ferguson, the chief executive, says the cost of capital for such firms may be two or three times that of other small businesses.

More banks are setting up programmes. Bank of Baroda, a public-sector bank that is India's fifth-biggest by assets, began only a few months ago. Litesh Majethia, who runs the supply-chain business, admits that rival banks are already established. • But with small and medium-sized Indian firms facing a funding gap of \$400bn, he says, there is plenty of room; and a spanking new digitised system is a plus.

Banks are not, however, being overthrown by technological upstarts—as, say, high-street retailers have been by Amazon. Symbiosis is the rule. Two big banks, HSBC and Santander, have allied with Tradeshift, an invoicing, finance and procurement network that connects over 15m buyers and suppliers worldwide. HSBC has also joined forces with GT Nexus, a global supply-chain management platform. Banks can tap into a new pool of customers; companies in the tech firms' networks can find finance more easily. Smaller local banks, however, may lose out as the market expands, and suppliers spurn them to borrow more cheaply from larger lenders.

Technology is opening up more possibilities. C2FO, another financial-technology firm, matches suppliers' requests for payment at a date and interest rate of their choosing, with buyers willing to lend. Typical supply-chain finance, says Sandy Kemper, C2FO's boss, is far less flexible. His platform is available to smaller suppliers. Back-to-back deals along the chain are even allowing third- and fourth-tier suppliers to join in. No bank is involved, though the firm has recently teamed up with Citigroup. Citi can lend to more companies; C2FO gains access to the giant's clients.

More is in the pipeline: banks are exploring, for example, how blockchain technology might align the flow of data and money more closely with the flow of goods. Bain's Mr Olsen sees several business models emerging, some led by single banks, some by groups of them, and others by platforms, big companies and e-commerce firms such as Amazon and Alibaba. Not every bank will win. The smaller fry in the world's supply chains just might.

Buttonwood The more things change

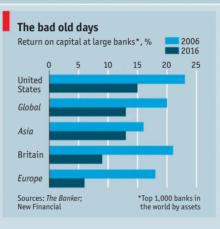
Banks may be safer, but finance is still a big source of risk

MANY people complain that the finance industry has barely suffered any adverse consequences from the crisis that it created, which began around ten years ago. But a report from New Financial, a think-tank, shows that is not completely true.

The additional capital that regulators demanded banks should take on to their balance-sheets has had an effect. Between 2006 and 2016, the return on capital of the world's biggest banks has fallen by a third (by more in Britain and Europe). The balance of power has shifted away from the developed world and towards China, which had four of the largest five banks by assets in 2016; that compares with just one of the biggest 20 in 2006.

The swaggering beasts of the investment-banking industry have also been tamed. The industry's revenues have dropped by 34% in real terms, with profits falling by 46%. Return on equity has declined by two-thirds. Staff are still lavishly remunerated, but pay is down by 52% in real terms. (Perhaps it is time for a charity single: "Buddy, can you spare a Daimler?") The relative importance of different divisions has also shifted, with the revenues of the sales, trading and equity-raising departments shrinking more than the merger-advice or debt-raising divisions.

This last change reflects market developments. In 2016 stockmarkets were smaller, as a proportion of GDP, than they were in 2006, despite the record highs on Wall Street; that was because Europe and Asia have not performed as well. Both government- and corporate-bond markets were bigger than they were a decade earlier. Although the crisis started because of overindebtedness, corporatebond issuance has doubled in real terms over the decade, while the volume of stockmarket flotations has fallen by half.



Meanwhile the game of "pass-the-parcel" of assets around the markets has speeded up; trading volumes in equities, foreign exchange and derivatives have increased in real terms. In the corporatebond market, trading in American securities has grown but trading in European debt has declined.

In the midst of the crisis, central banks stepped in with quantitative-easing programmes to buy financial assets. This has had profound effects, most notably in the bond markets, where yields have fallen to historic lows (and hence prices have risen). In contrast to equities, the value of both corporate and government bonds is significantly higher, relative to GDP, than it was ten years ago.

This has proved to be a pretty decent climate for money managers, who earn fees based on a percentage of the assets they invest. The industry's pre-tax profits rose by 30% between 2006 and 2016, despite the growing market share of low-cost indextracking funds at the expense of actively managed ones. At the other end of the cost spectrum, hedge funds, private equity and venture capital have all increased their assets, relative to GDP. The asset-management industry has become more concentrated. The 20 largest firms control 42% of assets, up from 33% a decade ago.

Overall, the authors of the report remark that "it is perhaps surprising how little has changed". It may be less surprising if you consider that finance has two faces: first, as a driver of the economic cycle via credit expansion; and second, as an instigator of crises when creditors lose confidence. If markets are plunging and banks failing, as they were in 2008, it is understandable that the authorities do all they can to stabilise markets and rescue banks. As Tim Geithner, a former treasury secretary in America, put it: "The truly moral thing to do during a raging financial inferno is to put it out."

By making the banks take on additional capital, the authorities have at least made the system less likely to suffer an exact repeat of the last crisis. But the world is still marked by a combination of high asset prices and high levels of debt. Outside the financial sector, there is even more debt than there was ten years ago; the combined total of government, household and non-financial debt levels are 434% of GDP in America, 428% in the euro zone and 485% in Britain.

In other words, the borrowing has been shifted to other parts of the economy; but that makes the finance industry no less vulnerable. A sudden fall in asset prices, or a sharp rise in interest rates, would reveal the jagged rocks beneath the surface. Central banks know this; that is why they are so cautious about unwinding monetary stimuli. At the heart of the next economic crisis will be the finance business; that is something that has not changed in the past decade.

Economist.com/blogs/buttonwood

Brexit and derivatives Standing novations

Brexit will give the derivatives market a nasty headache

FOR all the talk of banks deserting London as Britain's departure from the EU looms, relatively little attention has been paid to the derivatives market. Yet this is a crucial area of business for British-based banks. The City handles a big chunk of the market, including 39% of the market in interest-rate derivatives alone, where global daily turnover averages \$3trn. The rest of the EU accounts for just 9%. Brexit seems sure to cause significant disruption. Mark Carney, the governor of the Bank of England, recently warned that the very "legal validity" of pre-existing derivatives contracts could be put into question.

Brexit-related discussion of derivatives has tended to focus on the role of clearinghouses, which ensure that a contract can be honoured even if one side goes bust. Since the financial crisis, most countries have made it mandatory to clear derivatives trades. LCH, a clearing-house in London, clears over 50% of interest-rate swaps across all currencies; London houses clear 75% of swaps in euros and 97% of those in dollars. The EU has mooted the idea of forcing euro-denominated derivatives to be cleared within the EU, to ensure the euro zone's financial stability. There is an obvious commercial incentive, too. On October 9th, Eurex, LCH's largest continental competitor, based in Frankfurt, announced that it would allow banks to share in the profits from clearing. This brings its structure closer to LCH's, in the hope banks will shift business away from it to Eurex.

Yet about a quarter of derivatives contracts are not cleared—often because they predated the new rules. Such contracts are a worry. A "hard" Brexit, which more and more firms and even regulators feel they have to prepare for, implies a loss of the "passporting" rights that allow financial firms to do business across the EU. Britishbased banks would no longer automatically be licensed in the EU. They would lose the right to sign new derivatives contracts with European counterparties. And the status of their existing contracts would be thrown into doubt.

To be clear, not even the hardest of Brexits would void contracts at once. But derivatives contracts and portfolios are often adjusted. One method is "compression", where some (or all) offsetting contracts are terminated and replaced with an equivalent derivative. Another is "novation", where an existing contract is transferred to a different legal entity. Under the rules in six large EU member states analysed by the International Swaps and Derivatives Association (ISDA), a global trade body, novations and compressions would be considered regulated activities. Without a "passport" or an equivalence decision, these options would no longer be open to British counterparties. Unable to readjust their "legacy" portfolios left in London, EU firms would struggle to manage the risks.

Another option would be for banks to transfer all their pre-existing contracts to a legal entity within the EU. But Deepak Sitlani of Linklaters, a law firm, says such a step would mean the contracts would lose their "grandfathered" status. They would suddenly be subject to the clearing requirements, as well as new ones governing collateral. Besides being a short-term shock, this would raise costs in the long term.

The sheer logistical hurdles should not be underestimated, either. As Peter Werner of ISDA points out, novation requires the consent of all counterparties on any given contract. This could prove a nightmare: the Bank of England reckons tens of thousands of firms could be affected. And each contract must be rewritten: Allen & Overy, another law firm, has over the past few months been building an automated system to help in this mammoth task.

A simple solution that would avoid all these complications, notes a senior British official, would be a law, passed in Britain and in the rest of the EU, to grandfather preexisting contracts. If broad enough it could encompass other sorts of contract too, such as those in insurance, which face similar problems. Alternatively, all these issues could be incorporated in the Brexit agreement. However, the chances of that seem ever slimmer. In the huge pile of outstanding issues the Brexit negotiations have to wade through, the fate of the derivatives markets is probably not near the top.



China's currency Tricky troika

The yuan's internationalisation stalls and may not pick up soon

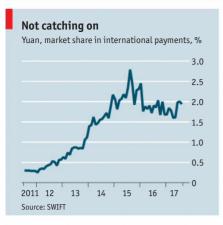
ON OCTOBER 18TH, President Xi Jinping will preside in Beijing over the most important political event in five years. At the Communist Party's 19th congress much will be made of the triumphs achieved in nearly four decades of reform and opening up. So expect a glossing over of one part of that process where progress has largely stalled: the "internationalisation" of China's currency, the yuan.

This seems odd. Just a year ago, the yuan became the fifth currency in the basket that forms the IMF's Special Drawing Right (SDR). This marked, in the words of Zhou Xiaochuan, China's central-bank governor, in a recent interview with *Caijing*, a financial magazine, "historic progress". Symbolically, China's monetary system had been awarded the IMF's seal of approval. A further boost to prestige was the announcement in June this year that some Chinese shares would be included in two stockmarket benchmarks from MSCI.

Yet the yuan's international reach has in fact fallen in the past two years. It has regained its ranking as the world's fifth most active for international payments, after slipping to sixth in 2016. But its share of this market has slipped from 2.8% in August 2015 to 1.9% now (see chart on next page). Use of the yuan in global bond markets over this period has fallen by half, as companies have instead raised funds within China. In Hong Kong, the largest offshore market, yuan deposits have plunged by 47% from their peak in December 2014. Of the foreign-exchange reserves held by the world's governments, just 1.1% are in yuan, compared with 64% for the dollar.

The constraints on the internationalisation of the currency are largely self-imposed—and in many cases predated admission to the SDR. A minor devaluation of the yuan in August 2015, intended to make the currency more flexible, was botched. This led to speculation about further falls in the yuan's value, and forced the central bank to tighten capital controls and spend foreign-exchange reserves to prop it up.

Since January this year, China's reserves have been growing again. But stringent capital controls remain in place. In his interview Mr Zhou called for a renewed drive to free up China's financial system, citing a "troika" of targets: increased foreign trade and investment; a more marketbased exchange rate; and a relaxation of capital controls. He said there was a "time window" for this. If missed, the cost of re-



form would be higher in the future.

Few observers, however, take Mr Zhou's comments as official policy. In office since 2002, he is expected to be replaced next year. He represents one side of a continuing debate. In September two capital-control rules were indeed eased, but foreign traders tended to share the view of Mitul Kotecha of Barclays, that the move was purely cosmetic. In the words of Eswar Prasad, an economist at Cornell University and author of "Gaining Currency", a book about the yuan, "what the government giveth, the government can taketh away." Most foreign investors are all too aware of that.

So the currency's international advance is unlikely to resume soon. More likely is a gradual opening of yuan markets. One avenue is to standardise systems such as the China International Payment System, which processes cross-border payments. Another is to expand the Bond Connect and Stock Connect programmes that link Chinese markets to Hong Kong. A third involves China's intense diplomatic drive to push its "Belt and Road Initiative", involving massive investments in infrastructure to boost transport, trade and investment links between China and Central Asia. Europe and Africa.

However, David Woo of Bank of America Merrill Lynch argues that none of this is likely to lead to a big surge in foreign holdings of Chinese financial assets. That will depend on the liberalising measures Mr Zhou is advocating, as indeed does the future shape of the Chinese economy. "There isn't a single country," Mr Zhou argued, "that can achieve an open economy with strict foreign-exchange controls."

But his apparent belief that measures already taken, such as joining the SDR basket, have set the yuan on a remorseless path towards internationalisation has been contradicted by the experience of the past two years. The party's watchword remains "stability". And whatever the benefits of capital-account liberalisation, it would bring a measure of unpredictability. In a battle between openness and control, Mr Xi is likely to favour control.

Financial technology in Myanmar Passing the buck

YANGON Mobile-money services reach customers where banks cannot

MYANMAR'S democratic transition Sometimes seems marked as much by continuity as by change. Depressingly, the army continues its bloody persecution of Rohingya Muslims in the west, for example (see page 75). But elsewhere moves to open the country's markets, started by the preceding military regimes, have gathered pace. New commercial and financial services are springing up.

Take Khin Hlaing, who owns Global Mobile Shop, a small store surrounded by tarpaulin-covered stalls selling fresh fruit in Hlaing Tharyar, an industrial area outside Yangon, the biggest city. He is one of almost 12,000 agents for Wave Money, Myanmar's largest mobile-money transfer platform. Most days about 20 people use his shop to send funds to friends or family elsewhere in the country. One customer. who walks in wearing a long red longui and delicately beaded top, says she was at first nervous about Wave. A clothesmaker, she now sends earnings through it twice a month at a cost of 500 kyat (\$0.37) a go. She says Wave's appeal is its "convenience".

Globally 2bn people lack savings accounts and access to credit. Cash-dependence leaves them vulnerable to crime. And governments struggle to collect taxes, spend on development and get money to those in need. Economies suffer as small businesses are starved of loans. Digital initiatives could help 1.6bn people obtain access to financial services for the first time, reckons the McKinsey Global Institute, a research wing of the consulting firm. Those providing them could boost their balancesheets by \$4.2trn into the bargain.

In Myanmar cash is king. Fewer than one in ten of its 53m people has a bank account. But an explosion in smartphone use means rudimentary financial offerings are appearing where even roads are rare. After the end of the state's mobile-phone monopoly four years ago, mobile penetration jumped from 7% to 89% now. Billboards line Yangon touting the selfie-taking skills of phones made by Vivo and Oppo, two Chinese handset-makers. Teenagers blithely test them at street-corner noodle stalls. Foreign telecoms firms, notably Norway's Telenor and Qatar's Ooredoo, have entered the market, bringing cash with them: in 2014 and 2015 telecommunications accounted for \$2.8bn in foreign direct investment, almost a third of the total.

Wave Money is Telenor's mobile-money service; Ooredoo's M-Pitesan, which The Economist October 14th 2017

launched last month, is a fledgling rival. Others are emerging too, but Wave is ahead of the pack. It has backing from Yoma Bank, Myanmar's fourth-largest, with a balance-sheet of \$1.3bn. Wave did charge more than banks for transfers, says its boss, Brad Jones. But it lowered its prices last month to undercut most of them. For customers, it may still be an easier option. Rigid business hours mean that people often have to skip work to stand in queues at the bank instead. More than six in ten of Wave's transactions occur in the evenings or at weekends, Mr Jones estimates. Besides, banks are few and far between in Myanmar. Hal Bosher, the Canadian head of Yoma Bank, says it can cost \$500,000 to set up a new branch, and he has just 80. "I've got branches with bullet holes in, and branches which flood," he explains. Wave, by contrast, has a presence in 255 of Myanmar's 330 townships.

Last year Myanmar's central bank introduced tough rules on mobile financial services, inspired by those in countries such as Kenya. Wave was the first company to register under them in October and uses the details associated with a customer's SIM card to satisfy identification requirements, for example. Mr Jones points out that the small sums transferred mean the service is unlikely to attract fraudsters and criminals. Sharmin Sultana of BRAC Myanmar, the Burmese arm of a big Bangladeshi NGO, hopes that the platform can speed up repayments for microloans and eventually be used to develop credit scores. Wave has yet to turn a profit, despite processing almost 100,000 transactions a month. Its focus so far on spreading its name, and raising awareness of what it does, has not been cheap. But Mr Bosher exudes patience: change will come because "the banking sector in Myanmar is so bad".



For chats and kyats

Moving target

MADRID

The Spanish bank is in a hurry to reinvent itself as a digital business. Investors are having to be patient

UTSIDE, a patch of grass affording a spectacular view of the Sierra de Guadarrama is littered with cartridge casings. Inside the Club de Tiro de Madrid (Madrid Shooting Club), on the city's northern edge, over 400 people are fixing their sights for the next three months. Their business is not shooting but banking. Teams sit at 27 tables working on specific projects-to improve the global mobile platform, say, or to share information about job applicants. At another 12 tables are data specialists, inhouse lawyers and others whose expertise the teams will need. The targets are on the walls: white boards that are soon covered in yellow and pink Post-it notes, listing tasks for the weeks ahead.

BBVA, Spain's second-largest bank, began quarterly planning sessions like this three years ago, in its Mexican subsidiary. This is the fourth global gathering. The idea, explains Derek White, head of global customer solutions, is to replicate the nimbleness of financial-technology startups ("fintechs") at large scale. When a project is conceived, a small group is assembled to work on it within three days. A prototype is created in six weeks. The finished article should be "en las manos de los clientes"—in customers' hands-within nine months. The quarterly cycle starts with a planning session to thrash out priorities. It ends with a demo day, startup-style.

Western banks have so far proved largely resilient to the digital disruption that has upended retailing, the taxi and hotel trades, and more. But they know they cannot be complacent. They are spending billions on technology, and are both buying and allying with fintechs.

e-mortality

Francisco González, BBVA's executive chairman since 2000, believes that sooner or later the giants of the internet—Amazon, Facebook, Google—will be his main rivals. Because "the digital world doesn't allow many competitors", in 20 years the ranks of banks worldwide could be thinned from thousands to dozens, which will need scale to survive. Wariness of regulation may delay the e-behemoths, but not for ever. "If you are not prepared for this precise moment, and you are not as efficient as they are, you are dead."

Under Mr González—who began his career as a computer programmer and says "I do not see myself as a banker"—BBVA started early. It began overhauling its computing systems in around 2007, a six-year task Mr González says he would rather have undertaken sooner. Now the bank is focusing on what customers see "above the glass" of their smartphones and on the internal processes below it. "At the end of the day, we won't be a bank any more," he says, but a "digital house".

The planning sessions help to share ideas and cost-savings across BBVA's subsidiaries in different countries. BBVA also looks outside for expertise. In the past few years, it has bought Madiva, a big-data company, Spring Studio, a digital-design specialist, digital banks in America and Finland, and 29.5% of Atom, a British online bank. Through Propel, a venture-capi



tal firm, it invests in young fintechs. As if to infuse the place with the startup spirit, at BBVA's headquarters in Madrid only Mr González has his own office.

Carlos Torres Vila, the chief executive—an engineer by training, promoted by Mr González from running digital operations in 2015—tracks the take-up of technology obsessively. In Spain digital sales (eg, loans, mortgage or insurance policies arranged online) made up 26.3% of the total, by volume, in the first eight months of 2017, up from 17.1% in 2016 and just 8.8% in 2015. The number using the app as their main link to services has risen by 40% in the past 12 months.

The top brass believes that BBVA's growing wealth of information about its customers, plus the trust that comes from tending their money, gives it an advantage over the tech giants. Even if people rarely visit branches, they interact with the bank more often on smartphones, says Mr White. Therein lies a chance to become an

online marketplace for financial services, including those of third parties—and perhaps non-financial services too. Next year the EU's new Payment Services Directive, known as PSD2, will open up customer data, exposing banks to competition from each other and from outsiders; BBVA's bosses insist that, for their bank, PSD2 is more opportunity than threat.

Valora, BBVA's app for Spanish homebuyers, indicates the bank's direction. It tells you the likely price of the house you fancy, how much others nearby were sold for and what your own might fetch—all data pulled in from elsewhere. It assesses the damage to your monthly budget and of course steers you to BBVA for a mortgage. People using BBVA's mortgage simulator are twice as likely to take out a loan if they go through Valora.

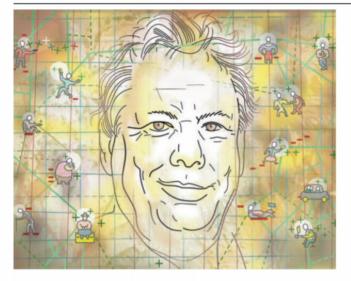
Other ideas are popping up. Tuyyo, an app for sending remittances between America and Mexico, is due to appear on October 16th—and other products, such as insurance, could one day be added to it. For a few cents Colombian customers taking out cash can buy insurance against being robbed during the next few hours, by pressing a button on the automated teller machine; 250,000 did so in July and over 350,000 in August.

So far, however, the grand vision has yielded more promise than profit. Granted, there is much to admire. BBVA's return on tangible equity in the second quarter, at 10.5%, was healthy by Europe's modest standards and 1.6 percentage points higher than a year earlier. Its Mexican bank, BBVA Bancomer, the country's largest, boasts hefty margins and is the biggest contributor to group profit. BBVA's stake of just under half in Garanti, Turkey's second-biggest bank, looks like a good bet on a young, tech-hungry country, despite political turmoil there.

But few clear signs suggest the technological transformation is yet yielding much revenue. Analysts praise BBVA's plans and its early start, but also speak highly of ING, of the Netherlands, Germany's Commerzbank and others. They complain that Mr Torres Vila's indicators of digital progress lack long-term financial targets (except for the ratio of equity to risk-weighted assets, at 11%; it beats that). The stockmarket is not very impressed. Over the past five years, little distinguishes BBVA's share price from those of Santander and CaixaBank, which rank first and third in Spain (see chart). In recent days all three have been dented by the crisis in Catalonia.

"It takes four or five years to have a substantially different business," Mr Torres Vila says. A good flow of digital products will take time to show a return. By then, Mr González will be gone. He is 72 and the bank's rules say he must go at 75. If he is right, the tech giants may by then be parked on BBVA's lawn. At least it will be expecting them.

Free exchange | Reasonable doubt



Richard Thaler wins the Nobel prize for economic sciences

THE credit-card bill arrives. You have enough money in a savings account to pay it off—the sensible thing to do, arithmetically speaking, since the interest rate on the credit-card balance far exceeds that earned on the savings. Yet you leave the savings untouched, and pay only as much of the bill as your current-account balance allows. What looks a daft choice to most economists makes perfect sense to Richard Thaler, who on October 9th was awarded the Nobel prize for economics for his work in behavioural economics. Mr Thaler helped demonstrate how human reasoning diverges from that of the perfectly rational *homo economicus* used in most economic modelling. The world, and the field of economics, is better for his contributions.

Economists mostly recognise that normal people fall short of perfect rationality in day-to-day decision-making. Economic modelling requires simplification, however, and economists generally suppose that theories assuming people are well-informed and rational offer the best available account of economic activity. Over time, however, scholars have built up an imposing list of the ways in which humans systematically refuse to behave as the models predict. Economists such as Herb Simon (who won the Nobel in 1978), Daniel Kahneman (2002) and Robert Shiller (2013) are celebrated for their contributions to this effort. But perhaps more than any other scholar, Mr Thaler lifted behavioural economics to prominence, and helped put its lessons into practice.

Mr Thaler, an American born in New Jersey in 1945, spent most of his early career at Cornell University before moving to the University of Chicago in 1995. Unusually for an economist, he is known for the clarity of his ideas and the quality of his writing. "Nudge", a book co-written with Cass Sunstein, is both an extraordinarily influential work and a bestseller. Its lessons have been adopted by governments across the world; "nudge units" in America and Britain studied how to boost saving and taxpaying, encourage healthy behaviour and reduce energy use.

"Nudge" drew on years of work by Mr Thaler and co-authors identifying oddities in human behaviour. Setting out to explore why people feel losses more keenly than gains, he helped uncover the endowment effect: a tendency to value something more highly just because you own it. To detect it, he distributed coffee mugs at random to half of a group of test subjects, who were then invited to sell the mugs, if they wished, to the other, mugless half. Theory would predict that those with and without mugs should value them the same, on average, and so about half of the mugs should change hands. In fact, those with mugs valued them more than those without. Offers to buy the mugs by the have-nots were usually too low to convince the haves to sell, and relatively few transactions took place. This finding, since replicated many times, suggested that the context of an economic choice matters. That, in turn, means that the way choices are framed, by firms or governments, can influence how people respond.

The importance of context also arose in Mr Thaler's work on "mental accounting". In thinking about money, people tend to compartmentalise, grouping certain types of spending or income together. In some cases this might amount to a strategy for managing imperfect self-control (as in the credit-card debt example). More broadly, it reflects the human tendency to tackle cognitive problems in pieces, rather than as a whole. When petrol prices fall, for example, drivers sometimes switch from regular-grade petrol to premium (rather than use savings out of the "petrol" category somewhere else). Because of this mental pigeonholing, taxi drivers who aim to earn a certain amount each day may stop work early on busy days and later on slow ones, though the opposite approach would maximise earnings per hour.

Mr Thaler, with his colleague Hersh Shefrin, understood choices as battles between two competing cognitive forces: a "doer" part of the brain focused on short-term rewards, and a "planner" focused on the long term. Willpower can help suppress the doer's urges, but exercising restraint is costly. This internal struggle is continuous, so individual preferences are not constant over time (whether you have another beer may depend on the state of the brain at a given moment). It also means that presenting people with a "choice architecture" which favours the planner over the doer can have big effects on behaviour. That insight became the basis for "nudging". Making enrolment in pension plans the default for new employees (ie, they must decide to opt out rather than opt in) dramatically increases the share of employees saving through such programmes, for example.

Mr Thaler, with Mr Kahneman and Jack Knetsch, also worked to understand the role of fairness in judging economic outcomes. They conducted experiments in which a student chosen at random was asked to divide \$20 between himself and another subject. Only rarely would the student keep most of the money, as pure rationality suggests he should. Similarly, the authors used surveys to show that people find practices like price gouging in the wake of disasters unfair. In some multi-round experiments players chose to punish participants who acted selfishly in early rounds, even if that meant accepting a lower payout themselves.

Best laid plans

These insights—that people care about fairness, find self-control hard and hate losing what they already have—may seem trivial outside the strange world of economics. In fact, the greatest contribution of behavioural economics may have been to nudge the field away from attempts to extrapolate grand theories from basic rules of individual behaviour. Today ambitious economists are quite likely to immerse themselves in empirical work focused on specific policy questions. That is a legacy worth treasuring, however you do the mental accounting.

Economist.com/blogs/freeexchange

Property





YOU'LL KNOW YOU'RE HOME THE MOMENT YOU ARRIVE

Set among two championship golf courses, neighbouring Girona and the beaches of Costa Brava. Prices from €410,000 - €4 million.



yourhome@pgacatalunya.com www.pgacatalunya.com

CONCIERGEAUCTIONS AUCTION 19 OCTOBER | SELLING WITHOUT RESERVE



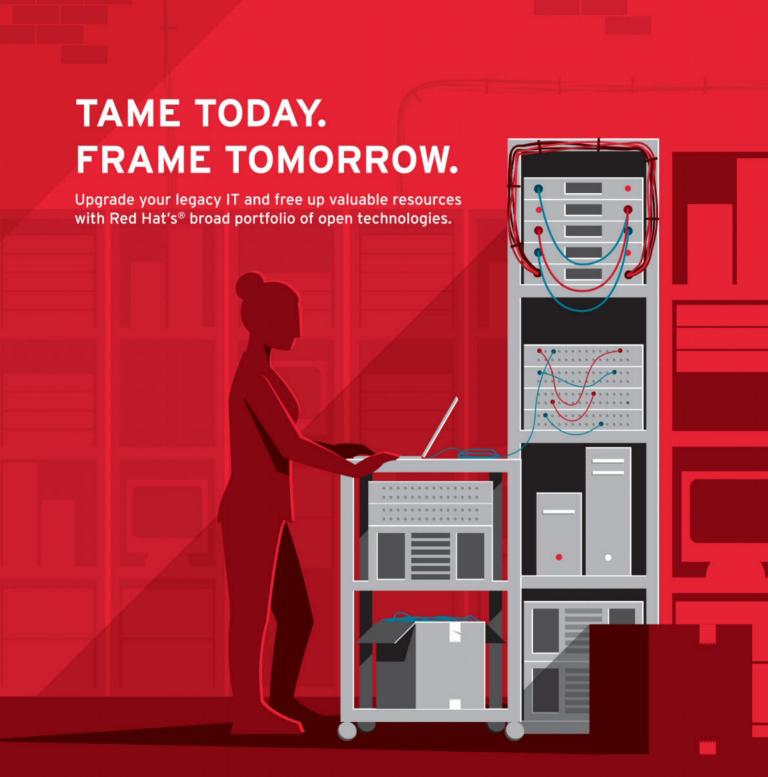
Château Blancafort | Blancafort, France | Previously €4.95M Showings Daily 1–4PM & by Appt | Stop by Without an Appt to Tour

BID AT CONCIERGEAUCTIONS.COM | +33 (0)6 07 42 19 54

Listed by Gina McIntosh of McIntosh International Prestige Property Sales

This property is listed for sole by McIntosh International Prestige Property Sales (broker license #812 973 808) 22 rue de la Republique, 84490 Saint Saturnin Les Apt, France, 33 (0)6 27 30 78 32. Concierge Auctions, LLC is a marketing service provider for auctions only, is not a brokerage, and is not directly involved in selling real property. The Auctioneer is Frank Trunco (AU-1228 L). The services referred to herein are not available to residents of any state where prohibited by applicable state law. Concierge Auctions, LLC, is agents and affiliates, broker partners, auctioneer, and sellers do not warrant or guaranty the accuracy or completeness of any there more and shall have no liability for errors or omissions or inaccuracies under any circumstances in this or any other property listings or advertising, promotional or publicity statements and materials. This is not meant as a solicitation for listings. Brokers are fully protected and encouraged to participate. See Auction Terms & Conditions for full details.

69



HYBRID CLOUD | CONTAINERS | APP DEVELOPMENT & INTEGRATION | MANAGEMENT | DEVOPS





Copyright \oplus 2017. Red Hat, Inc. Red Hat and the Shadowinan logo are trademarks or registered trademarks of Red Hat, Inc. or its subsidiaries in the United States and other countries.

Science and technology



Glassmaking Gorilla tactics

CORNING, NEW YORK STATE

One of the world's oldest products shapes up for a digital future

FTER 4,000 years of development, you A might assume that just about everything there is to be known about glassmaking has already been found out. Not so. Though the basic recipe of sand, soda and lime remains the industry's core, first alchemists and then chemists have tinkered with the ingredients over the centuries to produce specialised products. For clarity and sparkle in tumblers and decanters, they added lead. For heat resistance in ovenware, they added boron. For a beautiful blue colour in drinking vessels and decorative bowls, they added cobalt. To increase the speed at which light traverses it, as may be useful in an optical fibre, they added germanium. To reduce that speed, they added fluorine. And so on.

So when, one day in 2006, Steve Jobs, the founder of Apple, came knocking on the door of Corning, one of the world's biggest glassmakers and based in an upstate New York town from which it took its name, they were ready for him. The request was for a perfectly clear, tough and scratch-resistant glass to cover the screen of Apple's newly designed "iPhone". Jobs, being Jobs, wanted it in six months.

Scientists at Corning's research centre produce thousands of new formulations of glass every year. Some are promising enough to go to a small glassworks within the centre, for trial production—but only a few make it to market. Everything that is learnt, however, is filed away for a rainy day. A search in the archives in light of Jobs' request turned up a project from the 1960s to develop a toughened lightweight glass for industrial use. The new glass had been made in small volumes, but it never took off and was abandoned. Corning reworked the formula to produce a strong, thin glass suitable for touchscreens. They also reworked the name. And thus was born Gorilla Glass.

Touchy feely

Gorilla Glass's unique selling point is not that it is tough, but that it stays tough when formed into sheets thin enough to protect the surfaces of the touchscreens of today's increasingly skinny mobile devices without affecting those screens' function. That means permitting the circuits within a screen to locate the position of a finger placed on the surface. In many portable devices that is done by detecting a tiny change in an electrical charge across the screen at the point where the finger touches. Too thick a screen can make this change harder to detect. Since its launch, Gorilla Glass has been getting thinner and tougher still. According to Corning, a sheet less than 1mm thick, made of the fifth genera-

Also in this section

- 72 How people choose mates
- 73 Caesarean sections and obesity
- 73 Wind farms change ecosystems

For daily analysis and debate on science and technology, visit
Economist.com/science

tion of the stuff (the latest iteration, released last year), can survive four times out of five if dropped facedown from a height of 1.6 metres (63 inches) onto a rough surface. As a consequence, Jobs' job was but the first of many. Gorilla Glass is now found in some 5bn smartphones, tablet computers, laptops and other devices produced by electronics companies around the world. It is beginning to appear in other things, too, including cars—an ironic development, as the motor industry, one putative destination of the original version from the 1960s, had rejected it back then.

Two tricks give Gorilla Glass its strength. One is its composition—or, rather, the way that composition is modified in the middle of the manufacturing process. The other is a detail of this process itself.

The material starts off as a mixture of silica, aluminium oxide (a standard strengthening agent) and sodium oxide. This mix, once molten, is turned into a sheet using the "fusion draw" process, a technique pioneered by Corning. Fusion drawing involves pouring molten glass into a v-shaped trough and letting it overflow down the sides of that trough, clinging to them and running down them as treacle might cling to and run down the outside of a bowl.

As the two streams of glass meet at the bottom of the v their inner surfaces fuse into a single, thin sheet. Because the outside surface of each stream has had no contact with a production surface, those surfaces do not pick up any contamination or other damage, and emerge flat and devoid of defects. Materials break at their weakest point. For a sheet of glass that is often an impurity, crack or scratch on its surface. Fusion drawing eliminates such weakness.

i. 🕨

72 Science and technology

The next stage, modifying the glass's composition to impart strength throughout its volume, involves immersing the fusion-drawn sheet in a hot bath of potassium salts. This results in a process called ion exchange, in which sodium ions within the glass are forced out and replaced by potassium ions from the bathing solution. Sodium and potassium are chemically similar, which is what permits this to happen. But potassium ions have about two-and-ahalf times the volume of sodium ions. When the glass cools, this extra ionic volume compresses the material from the inside. That makes it more resilient to knocks and scrapes.

Gorilla Glass dominates the market for cover glass for electronic equipment, but it faces rivals, including Dragontrail, a chemically toughened glass manufactured by Asahi Glass in Japan. This is made using the float-glass system, in which molten glass is floated onto a bed of molten metal. (The technique was invented in the 1950s by Pilkington, a British glassmaker which is now owned by NSG, a rival Japanese glassmaker.) Another potential competitor is sapphire glass, which is not really a glass at all, but rather a crystalline material that is a synthetic version of the eponymous gemstone. Sapphire glass is extremely hard and is used in some high-end watches, but it can be heavy and is more expensive than Gorilla Glass-though researchers are trying to reduce both its weight and its cost.

Corning, meanwhile, is pushing Gorilla Glass, and other specialist glasses made by fusion drawing, into more areas. According to Jeffrey Evenson, the firm's chief strategy officer, tough, lightweight glass opens up new possibilities for giant display screens and for use as part of the architecture of buildings. Entire walls and tabletops could become displays with touch-sensitive surfaces. Windows, too, will contain electronic layers, allowing their transparency to be tweaked as desired-and perhaps even permitting them to gather solar energy from non-visible frequencies, to generate electricity. Other types of glass will become more flexible, enabling portable devices to be bendable, or even foldable.

One of the biggest areas for growth, Mr Evenson reckons, will be in cars. Already, instruments and switches on the dashboards of new cars are being replaced with touchscreens. As glass can be formed into different shapes, these screens can be curved into the contours of a vehicle's interior. But Gorilla Glass, or something like it, could also be employed to make car windows. These, being thinner than existing windows, would be lighter and thus save fuel (or, in a battery-powered car, electricity). A version of Gorilla Glass is already being used for the windscreen of Ford's GT sports car. Ford reckons the new glass is about 30% lighter than what it is replacing. It is also stronger, and scratch-resistant. Further ahead, electronics could be incorporated into the glass, to project images onto the windscreen, to assist drivers.

Perhaps, one day, one of Gorilla Glass's descendants will be strong and tough enough to abolish the windscreen altogether, and replace it, the other windows and the roof with a single, transparent canopy. For drivers, while drivers there continue to be, that will improve visibility. And, if cars of the future really do become driverless, it will let everyone on board relax and enjoy the scenery.



The rules of attraction Best mates

What the eyes and odours of couples reveal about sexual attraction

D O MEN, in essence, marry their mothers, and women their fathers? And do they also choose mates by smell in a way that is likely to result in healthy offspring? These are both old hypotheses and both have been tested by studies published this week. Only one of them, however, seems to hold up.

Janek Lobmaier of the University of Bern, in Switzerland, and his colleagues, looked at the question of smell. Their work appears in the Proceedings of the Royal Society. Lisa DeBruine of the University of Glasgow, in Britain, and her colleagues looked, in a paper posted to bioRxiv, an online database, at eye colour–specifically, whether the eyes of someone's lover match those of a pertinent parent.

Dr Lobmaier and his team were testing the idea that people literally sniff out partners with appropriate major histocompatibility complex (MHC) genes. Individuals with more diverse sets of MHC genes have stronger immune systems. Mates with different MHC genes are thus likely to have healthier offspring. MHC genes also affect body odour, so it is no surprise that many species of animal choose, on the basis of odour, mates with dissimilar MHC genes.

Whether people follow suit, though, is unclear. Experiments have produced equivocal results. So, to nail things down, Dr Lobmaier recruited 42 female odour donors and 94 male odour raters, all of whom gave blood samples that he analysed to determine which versions of six different мнс genes they possessed. Every man was asked to rate the smell of eight women, collected on a cotton pad held overnight in the armpit of the woman in question. Crucially, which had not been the case in previous work, these samples were all collected at the point in the volunteers' menstrual cycles when their fertility was at its peak. Four of the eight were from women with similar MHCs to the man doing the sniffing, and four were from women with dissimilar MHCs.

Dr DeBruine's experiment, meanwhile, involved 150 men and 150 women, half of whom in each case had long-term lovers of the same sex. She asked participants their own eve colour, that of their lover and that of their parents. She then sorted these colours, for statistical convenience, into two groups: light (hazel, green, blue-green, blue and grey) and dark (black, dark brown and light brown). Her aim was to test three conflicting hypotheses: that people are attracted to mates similar to themselves; that daughters genetically inherit preferences from mothers, and sons from fathers (so they will prefer the eye colour of the other parent); or that preferences are learned by imprinting on a parent.

For heterosexuals, however, the outcome of the second and third hypotheses would be the same. It was by including gay men and women in her sample that Dr De-Bruine thought she might be able to distinguish between them. A gay son, she hypothesised, would imprint on his father, and a gay daughter on her mother.

And so it proved. When she crunched the numbers, she found that gay men and straight women were both twice as likely as chance would predict to have a lover with a similar eye colour to their father's. Likewise, straight men and gay women were two and a half times as likely as chance to have lovers of a similar eye-colour to their mother's. Though eye-colour is but one of many features that may attract romantic interest, in its particular case, that attraction seems likely to be imprinted.

As to Dr Lobmaier, he found that, though the men in his study expressed strong likes and dislikes concerning the odours he asked them to smell, these bore no relation to the MHCs of the women involved. On that hypothesis, then, it is back to the drawing board.

Bugs for the system

More evidence for the connection between Caesareans and obesity

ROUGHLY one human pregnancy in ten presents complications (for example, breech presentation) that might justify the baby being delivered by Caesarean section. In some places that is not possible, and mother and infant have to take their chances with a normal delivery. But the opposite is also true. Elective Caesarean is becoming more and more common. In Brazil, Italy and Iran more than 40% of children are born this way.

That a stressful and expensive procedure is being conducted more often than is strictly necessary has long been a concern. But, more recently, a second worry has emerged. This is that Caesarean section stops infants picking up, from their mother's vaginas and perineums, bacteria that would normally establish themselves in a newborn's gut, and by doing so improve its future health. Accumulating evidence suggests three things, in particular. These are that Caesarean babies are more prone than others to allergies (in which the immune system responds to inappropriate stimuli, such as nut proteins), to autoimmune diseases (in which the immune system attacks body cells, as happens in type-1 diabetes), and that they are also more likely to become fat. A study published in Science Advances this week, by Maria Dominguez-Bello at New York University School of Medicine, speaks to the latter hypothesis.

A connection between obesity and the types of bacteria living in someone's gut is well established, and thus seems the likely explanation for the link between Caesareans and obesity. But this could come about in one of two ways. Either the procedure itself keeps baby and bacteria apart or the large amounts of antibiotics which usually accompany the surgery are responsible. Since testing the distinction on people, though easy, would be unethical, Dr Dominguez-Bello turned instead to mice. She permitted some pregnant rodents to give birth naturally, while performing antibiotic-free Caesareans on others. She then raised the pups in identical conditions.

Her sample was not large—a mere 13 pregnant females produced 69 offspring, of which 35 were born naturally and 34 were delivered by Caesarean. But her results were conclusive. At 15 weeks of age, pups that had been delivered naturally weighed an average of 39 grams. Their Caesarean-delivered kin averaged 45 grams. The probability of this difference resulting from chance is less than one in 1,000.

Clean energy and ecology Flexing the mussels

Offshore wind farms are spreading. That will change life in the sea

TN THE North Sea, wind power is booming. At the moment the world's biggest offshore wind farm, with a capacity of 630MW, sits in the Thames Estuary. But the London Array, as this farm is known. will not hold the record for long. Another farm, over twice the size, is under construction off the coast of Yorkshire. Of the six countries with the most installed offshore capacity, five are part of the North Sea's littoral. (The exception is China.) Bloomberg New Energy Finance, a research firm that keeps a close eye on the industry, reckons the world's offshore wind-generation capacity will quadruple by 2025.

Given the need to cut carbon emissions, that is welcome news. But, just because wind turbines produce little carbon dioxide does not mean they have no environmental impact. In a study posted on the *arXiv*, an online repository of scientific papers, Kaela Slavik and her colleagues at the Helmholtz Centre for Materials and Coastal Research, in Geesthacht, Germany, explore the effects that the turbines might have on local wildlife.

As every sailor will tell you, almost anything immersed in seawater for long enough will be settled by living creatures. Wind turbines—or, rather, the concrete



Fresh from the wind farm

Moreover, when Dr Dominguez-Bello examined the gut bacteria of her mice she found that those born naturally had a normal mixture while those born via Caesarean lacked Bacteroides, Ruminococcaceae and Clostridiales. These are all groups associated with lean bodies.

It seems, then, that in mice—and by extension presumably in women—it is the operation itself rather than the associated pilings upon which they sit—are no different. Turbines in the North Sea provide a particularly enticing home for a type of tasty, edible mollusc called the blue mussel. FINO 1, a German research platform, for instance, was found to have an average of 4.3 tonnes of mussels clinging to each of its four piles. Dr Slavik and her colleagues wondered what might happen as more and more turbines proliferate across the North Sea.

One thing seems certain: there will be plenty more mussels. The team calculate that, if all the wind farms currently planned for the North Sea are built, they will provide extra habitat equal to about a fifth of the naturally occurring mussel beds along that sea's coasts.

This will have consequences. Mussels eat plankton that they filter from the surrounding water. Dr Slavik's computer modelling suggests plankton numbers around wind farms could fall by as much as 10%. Since plankton are at the start of most marine food chains, that will mean less of them for other animals, such as anemones, scallops and jellyfish, and thus less of those species and others that in turn depend on them. It will, however, mean more food for species that eat mussels, of which there are many-starfish, seagulls, seals and, not least, people, especially Belgians, who have already set up an experimental mussel farm on one of their wind farms.

Wind-farm piles may even increase the North Sea's biodiversity, by providing homes for species that do not currently live there. One such is the marine splash midge, a fly originally from Australia. After hitching a ride to Europe on ship hulls, it has been found flourishing just above sea level on the piles of Danish and Swedish wind farms.

Whether local ecosystems will benefit from a new midge joining them remains to be seen. People, though, are unlikely to be inconvenienced. Unlike the midges that terrorise the Scottish Highlands, marine splash midges do not bite.

antibiotics that are promoting bacteriamediated obesity. Fortunately, as Dr Dominguez-Bello points out, this should be an easy problem to fix. She is now experimenting with taking a swab of the mother's vagina and wiping it on an infant's face shortly after a birth by Caesarean, to try to pass on the relevant bugs. It might sound distasteful. But if it works it will give Caesarean babies a better start in life.

Books and arts



Military planning The other side has a vote

Illusions about the future of warfare have a lot to answer for

"HIS is not really a book about the future L of warfare, with all that might imply in terms of exotic technologies that will transform not only the character of war, but, some believe, even its very nature. Lawrence Freedman does indeed discuss the impact of cyber-attacks, artificial intelligence and machine learning on the conflicts of the future. But that is not his main purpose. The clue is in the title. The author, arguably Britain's leading academic strategist, examines how ideas about how future wars could be fought have shaped the reality, with usually baleful results.

In the middle of the 19th century, a generation after Waterloo, the classical ideal of warfare, seemingly epitomised by Napoleon but derived from the ancient Greeks and the Romans, still held sway. Wars would be short and victors would achieve their (usually) limited political aims. Maximum effect with the first blow was crucial, preferably achieved by forcing an adversary into a "battle of annihilation".

Prussia's defeat of France at the battle of Sedan in 1870 and the surrender of Napoleon III showed how it should be done. Prussian military organisation and tactical genius, embodied by Helmuth von Moltke, had demonstrated the classical ideal in a context. Prussia's modern success spawned imaginative works, such as the fictional tale of "The Battle of Dorking". published in England the following year, The Future of War: A History. By Lawrence Freedman. PublicAffairs; 400 pages; \$30. Allen Lane; £25

depicting a successful invasion. Almost equally imaginative war plans drawn up by general staffs across Europe warned how a nation lacking in preparedness could be quickly defeated by a competent aggressor (usually expected to be Prussia/ Germany). Little attention was paid to the problem the Prussians had after Sedan of subduing a population that did not accept the verdict of the battlefield.

Even as people's wars were replacing the "cabinet" wars of the past, the belief in swift, clean victories became ever more baked into concepts of future war. In particular, the German general staff before the first world war, led by the victor of Sedan's nephew, Helmuth von Moltke the younger, was in the grip of short-war illusion. This was not for lack of evidence to the contrary: the history books available to them could have shown how rare it was for single battles or brilliant generals to be decisive. Most wars have been wars of attrition, settled by which side had more staying power through the ability to apply men and materiel. Nearly all the belligerents in 1914 believed they would be fighting a short war, until they found they weren't.

Even after that experience, belief in the

The Economist October 14th 2017

Also in this section

- 75 Myanmar and the Rohingyas
- 75 Marriage and infidelity
- 76 Speech on the guad
- 77 Vermeer

For daily analysis and debate on books, arts and culture. visit

Economist.com/culture

possibility that wars between great powers could be decisive and quick endured. By restoring mobility and manoeuvre to the battlefield, tanks and planes would revive the classical ideal. National resistance movements fighting on after defeat would be ruthlessly crushed. Once again, an idea about the future of war made a real war not just imaginable but attractive. And just as before, despite the early successes of the Germans in Russia and the Japanese at Pearl Harbour, the near-inevitable defeat of both by more powerful coalitions demonstrated the folly of those ideas.

Today, the same wishful thinking is as stubborn as ever. The so-called revolution in military affairs (RMA), begun in the 1980s, brought together a cluster of new technologies that, as the author puts it, "collected, processed, fused and communicated information with those that applied military force". These included digital networks, fast data links, sensors and precision guidance using GPS or lasers.

Initially developed to give NATO commanders the ability to destroy numerically superior Warsaw Pact tank formations without having to resort to nuclear weapons, their devastating effectiveness was not fully understood until the first Gulf war in 1991. Cruise missiles snaked through Baghdad streets on their way to their targets, and videos showed laser-guided bombs exploding with pin-point accuracy. This seemed to announce the advent of a form of warfare that combined the best of the classical ideal with the promise of minimal casualties (even of the adversary, whose forces could be destroyed without the mass killing of civilians).

But once again, the future of war defied those who had come to believe that wars could be quick and relatively painless for those with superior technology and doc-

The Economist October 14th 2017

trine. The Iraq war and its aftermath came as another salutary shock. Although Iraq's army quickly succumbed to "shock and awe", the RMA was little help against a brutal insurgency in which the main battleground was cities and the enemy's weapons were suicide-bombers and improvised explosive devices.

Today, advocates believe that another technological advance could fundamentally change the character of war. Unmanned systems equipped with artificial intelligence and varying degrees of autonomy suggest a future of war in which machines take the brunt of the fighting and make decisions at hyper-speed. Cyberweapons that blind and disable the enemy's own systems could become more important than physical violence in determining outcomes.

Will these technologies make war more likely by making it more acceptable? Sir Lawrence is sceptical. The bar for interstate wars between major powers will, mercifully, remain high thanks to the deterrent of nuclear weapons. On current trends, most wars will be civil wars in weak states, or "hybrid" wars in which cyber-disruption, false information and infiltration are the weapons of choice. Fighting is more likely to be in big cities than in open terrain, because that is where most people live. The battle of Mosul is a reminder of how lethal and destructive urban warfare remains for both fighters and civilians.

But even this is uncertain: the one thing that Sir Lawrence is sure of is that predictions of future war rarely get it right. His message to policymakers is to beware those who tout "the ease and speed with which victory can be achieved while underestimating the resourcefulness of adversaries". Anybody who thinks otherwise should read this book.

Myanmar and the Rohingyas At first light the darkness fell

Myanmar's Enemy Within: Buddhist Violence and the Making of a Muslim "Other". By Francis Wade. Zed Books; 280 pages, \$24.95 and £14.99

THE gradual implosion of an autocracy can open up a dangerous void. In Myanmar, on a fragile path of democratisation after nearly half a century of military rule, the power of the forces that filled that void-nationalism and religion-is only now becoming clear.

"Myanmar's Enemy Within", by Francis Wade, explores the outbreak of violence between Buddhists and Muslims in Myanmar's Rakhine state in 2012, and how it



Personae non gratae in Myanmar

went nationwide in the years that followed. Mr Wade, a journalist who has reported on the country for nearly a decade, looks at nationalism, the pitfalls of the democratic experiment in Myanmar and how the military's manipulation of ethnic and religious identities laid the foundation for conflict between the two communities. Published ten days before attacks by Muslim-minority Rohingya insurgents triggered a state-led campaign of ethnic cleansing that has pushed more than 500,000 stateless Rohingyas across the border to Bangladesh, Mr Wade's book is exceptionally timely.

His most intriguing passages come when telling the stories of ordinary people caught up in this vicious ethno-nationalism. There is a young Buddhist nationalist who speaks of the necessity to build a "fence of bones" to defend Buddhism; a young Mon woman who sheds her ethnic identity to become registered as a Bamar-a member of the country's ethnic majority-in order to get jobs and education available only to Bamars; and a Rohingya man who also gives up his religious and ethnic identity to enter the army, ending up as an enforcer of an apartheid system directed at his own people.

Mr Wade exposes a bizarre narrative promoted by the Buddhist and Bamar majority-that Islam, with only a few million adherents in a country of 53m, has become the new threat to Myanmar. The book explores the tangled roots of Myanmar's ethno-nationalism: a toxic mix of the burden of colonial rule, the army's Burmanisation project and hate speech by radical monks, all left unchecked by a weak state and enabling politicians. It describes the deep-rooted fears of Rakhine Buddhists of losing resources and status to the Rohingyas, the collapse of social cohesion in Rakhine and the systematic dehumanisation of the Rohingvas, whom most Burmese regard as Bengali immigrants. But the author also finds communities—away from the camps and ghettos—where Buddhists and Muslims had not withdrawn "into their collective shells" and "the project of segregation wasn't viable." It would, Mr Wade writes, "have taken a pogrom of unimaginable intensity to drive Rohingya out of Buthidaung", a town in northern Rakhine. Sadly, after Mr Wade's book was written, just such a pogrom came: Buthidaung, like much of the surrounding area, is now all but empty of Muslims.

Mr Wade offers a lucid account of what all of this means for Myanmar's political future. The Burmese nationalist movement—traditionally a domain of the ruling elite—is now mainstream. And it has become the chief threat to the democratic transition, "for its hostility towards calls for inclusivity played into the hands of regressive forces that had no desire to see the democratic opening come to fruition."

Unless something extraordinary happens, the Rohingyas' future now lies outside Myanmar. The army has radicalised its western districts, stoked anti-Western sentiment and created a new fault line in Asia between Buddhism and Islam. Mr Wade's book is vital to understanding how things could go so disastrously wrong.

Marriage What goes down may come up

The All-or-Nothing Marriage: How the Best Marriages Work. By Eli Finkel. *Dutton; 352 pages; \$28*

The State of Affairs: Rethinking Infidelity. By Esther Perel. *Harper; 336 pages; \$26.99. Yellow Kite; £14.99*

FOR Eli Finkel, the rise of speed dating was almost too good to be true. A psychologist at Northwestern University who studies relationships, he found that hooking up recording equipment at the tables where singles have brief chats with multiple prospective dates offered an extravaganza of data. The ability to follow up with participants for years afterwards helped make Mr Finkel one of the leading lights in the realm of relationship psychology.

Then, after his wife suffered two difficult pregnancies and post-partum depression, his own marriage, rewarding up until that point, was suddenly struggling for life. Love, intimacy and sex were all but gone. In his candid first book, "The All-or-Nothing Marriage", Mr Finkel examines both how he and his wife survived the worst, and how other couples might do the same.

He argues that high expectations for a marriage greatly benefit a couple when >>

times are good, but are counterproductive when times are tough. Mr Finkel and his wife made it through their own emotional rough weather by lowering expectations for a few years. It was instinctive at the time, but he later discovered the research of James McNulty at Florida State University which finds that couples with high expectations are almost twice as happy during easier times as couples with lower expectations—but they are also almost twice as unhappy during hard times.

Mr Finkel describes other strategies that couples can use to heal damaged marriages. Some of these are minor "lovehacks" like cultivating gratitude. Research shows that when couples regularly spend time thinking about the investments in the relationship that their partner has made, they end up feeling more committed to the marriage. And in ongoing work with his colleague Elaine Cheung, Mr Finkel is finding quantifiable value in outsourcing marital needs: seeking friends who provide something the spouse cannot, like a love of dancing or debate. Overall, he concludes that people today want their marriages to provide everything, but this unrealistic goal is often the enemy of making a marriage good enough to last.

Inevitably, some marriages face the hardest test: infidelity. Most books are prescriptive, with tips on how to prevent the crisis in the first place, or how to dump the bum and weather the trauma. As most are written for the loyal spouse, the philanderers are often cast as villains. Such moralising, suggests Esther Perel, is not helpful. With "The State of Affairs", she hopes to inspire "a more productive conversation" about cheating.

Since publishing "Mating in Captivity" in 2006, Ms Perel has become a globe-trotting guru on sex and relationships. She has noticed that no subject fascinates and unnerves people more than infidelity—"universally forbidden yet universally practised". People assume that affairs are symptoms of relationships gone awry; that the adulterer is always the selfish one; and that affairs are always harmful to a marriage. Ms Perel uses this sensible book to dispel these myths and to show that affairs can sometimes even fortify relationships, so long as they spur a couple to discuss what has long been left unsaid.

Just how many people stray is anyone's guess, as few can agree on what counts as infidelity (sexting? a lap-dance?), and there are few incentives for honesty. But everyone seems to agree that the numbers are rising, largely because female philanderers are gaining on men. This may seem like a consequence of a sexually permissive age, yet views of infidelity are actually harsher than just a few generations ago. Ms Perel thinks that this is because couples who marry for love invest more of their selfworth in their relationships. When a marriage is built on emotion, rather than pragmatism or duty, it is more vulnerable to the vagaries of the heart and the temptations of Tinder. When a lover is also a best friend and confidant, betrayal cuts more deeply.

Sometimes an affair is a signal that a relationship should end. But plenty of adulterers are content with their home lives. Prising out the stories of happy people who cheat, Ms Perel learns that many adulterers are most excited to discover a new self—one that is creative, erotic and very much unlike the devoted mum who spends her days chauffeuring her children.

Ms Perel's critics say she is soft on those who cheat, but she acknowledges the grim effects of infidelity. A betrayal can not only hijack a couple's hopes and plans, but also destroy their sense of history. There are good reasons why discovering an affair can make someone crazy, not least because transgressions nowadays tend to leave an extensive digital trace.

How do couples move past an affair? Once the initial crisis is over, Ms Perel recommends conversations rooted in curiosity. Partners who probe the meaning of an affair are better able to bring into their relationship what might have been missing, be it candour, eroticism or an awareness of a partner's allure to others. Although "our creative imagination seems to be richer when it comes to our transgressions than to our commitments," Ms Perel notes that quite a few people manage to bring their new-found selves back to their partners.

Ms Perel is not suggesting that couples in a rut indulge in a bit of infidelity. "I would no more recommend having an affair than I would recommend getting cancer," she says. But just as many people who survive life-threatening illnesses come to appreciate the pleasures of life anew, so too can couples who brave the turmoil of an affair emerge feeling invigorated.



Speech on the quad The talking cure

Free Speech on Campus. By Sigal Ben-Porath. University of Pennsylvania Press. 128 pages; \$19.96 and £15.99

INCITEMENT to violence is one of few exceptions the Supreme Court has carved out from America's most celebrated constitutional right: the right to free speech. But on today's college campuses, struggles over speech extend well beyond expression that encourages physical harm. In 2015 a lecturer at Yale was excoriated-and felt compelled to resign-after she raised questions about the college's plea that students avoid culturally insensitive Halloween costumes. The next year the dean of students at the University of Chicago caused a stir by coming out against "intellectual 'safe spaces'" where students "retreat from ideas and perspectives at odds with their own". Students have repeatedly succeeded in having invitations to controversial speakers cancelled, and even made tenured faculty fear provocative comments.

These students think they are sticking up for the vulnerable, practising a kind of self-defence. Others wonder what happened to the spirit of inquiry that is meant to be the point of a university. Nearly half of students advocate some curbs on expression, and nearly a fifth think it acceptable to shut down unacceptable speech with violence. On October 9th, the president of Texas Southern University got in on the act, cancelling a speech by a Republican legislator in mid-stream after student protesters tried to disrupt it. The talk hadn't been scheduled through proper "university procedures", he said.

These developments are alarming, but it is a mistake, argues Sigal Ben-Porath of the University of Pennsylvania, to conclude that today's student activists have no serious concerns. In "Free Speech on Campus", a reflection on her time as chairman of her university's committee on open expression, Ms Ben-Porath urges a re-thinking of the battles over campus speech. Her book begins with a broad defence of free inquiry: "Speech, including controversial speech, is central to teaching and learning" and to campus life. She rejects speech codes, mandatory sensitivity training and systems whereby students report episodes of professor bias to administrators. She criticises the president of Williams College for stepping in last year to cancel a talk by a lecturer with racist views who had been invited by a student group. It is wrong, Ms Ben-Porath argues, "to forgo free speech for the sake of administrative order".

Still, she says, the activists have a point. ▶

The Economist October 14th 2017

As colleges become more diverse, the students they teach often find campus life stifling or unwelcoming. Any university effort to protect freedom of speech, Ms Ben-Porath suggests, is incomplete without genuine attempts to include all students in the speaking. She calls this combination of robust speech protection and harnessing all voices "inclusive freedom".

Though she disdains speaker disinvitations and other limits on speech, Ms Ben-Porath has no trouble with trigger warnings to alert students to a potentially troubling reading. These are "good pedagogy", not a "surrender to weakness and laziness of thought". She also speaks up for muchmaligned safe spaces where students can find comfort in the company of others who share an aspect of their identity. But the university itself should not be one big intellectual safe space; protecting students' dignity is not the same as protecting them from challenges to their ideas.

That is a sound analytical distinction. but it is not clear how it should work out in practice. Consider the mêlée in March at Middlebury College, where Charles Murray, best known for his 1994 book arguing that 10 variation between racial groups is a cause of inequality, was invited to speak about his book from 2012 on divisions between American whites. Hundreds of alumni signed a letter calling Mr Murray's invitation "unacceptable and unethical", and the students were never going to listen to him. After jeers made holding the public lecture impossible, he gave his talk in an improvised video studio. Afterwards, chaos erupted and Mr Murray's host, a Middlebury professor, suffered a concussion.

Violently disrupting a speech is antithetical to intellectual openness. But the protesters felt that Mr Murray's presence itself was an assault—in Ms Ben-Porath's words, a "dignitary harm" on minority students. Administrators often plead for civility at times like these, but Ms Ben-Porath argues that civility can mean privileging peace and quiet over vigorous challenges.

How can colleges manage a sea of strident voices while neither suppressing inquiry nor sanctioning hecklers like those who shut down a "white supremacist" humanities class at Reed College? (The class in question featured, for the objecting students, too many white men on the reading list.) Ms Ben-Porath thinks that volunteer monitors at public events, to step in when anyone's right to speak is disrupted, might help, and that students should be encouraged to seek out and talk to people with whom they disagree. Administrators should aim for a more democratic campus culture. She admits, though, that there are no "quick fixes". That is putting it mildly. Her suggestions are rather gauzy in the face of a new wing of America's left that no longer esteems freedom of speech as a value worth fighting for.



Answering the riddle

Though seen as a lone genius, Vermeer borrowed liberally from others

JOHANNES VERMEER'S depictions of contemplative moments in serene Dutch interiors have made viewers lean in and gasp for centuries. Only 34 paintings out of a total of no more than 50 have survived, and there are no extant diaries or letters to reveal the intimate chambers of his own life. He was nicknamed "the Sphinx of Delft" by a 19th-century art historian, and thus was born the image of a lone genius working in isolation.

"Vermeer and the Masters of Genre Painting: Inspiration and Rivalry", which attracted record crowds during stays in Paris and Dublin, and which comes to the National Gallery of Art in Washington on October 22nd, was designed to shatter that myth. Presenting ten of his masterpieces alongside comparable pieces by artists of his era, the curators seek to present Vermeer as a painter in an artistic milieu, engaged in an active exchange of ideas.

All artists trade ideas with others, says Adriaan Waiboer of the National Gallery of Ireland, and the exhibition's lead curator. "What is interesting is which ideas does Vermeer take from other people and how does he change them?" One of the attributes often associated with Vermeer, for example, is a focus on a solitary figure standing alone in a room near a window, engaged in a household task like sewing, pouring milk or writing a letter. Although Vermeer excelled at these genre scenes, they were pioneered by an older artist, Gerard ter Borch.

In the 17th century, Ter Borch was the

most influential of all the artists in the show, says Arthur Wheelock of Washington's National Gallery, a co-curator. He "established a new framework for subject matter, taking people into the sanctum of the home", showing the figures' uncertainties and expertly hinting at their inner lives. "That is transformative in terms of what that genre was all about. The question is 'why has Vermeer overtaken Ter Borch as a painter?""

A painter's son himself, Ter Borch was encouraged to study in London and travel to Spain, where he observed the work of Velázquez, and to paint in what was considered the "modern style". He brought these ideas back to Holland, where his paintings influenced Gabriel Metsu, Gerrit Dou, Eglon van der Neer and Vermeer.

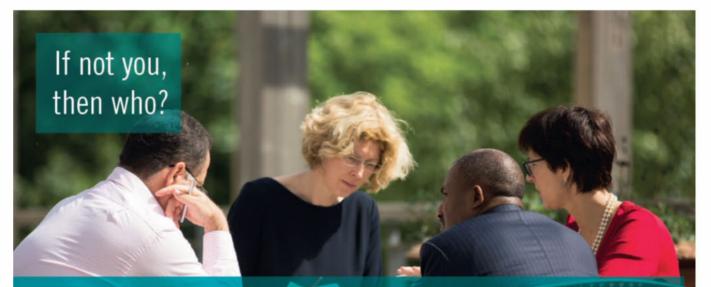
The exchange of love letters between men and women, for example, was one of the major themes of Dutch genre painting in the years from 1650 to 1675. The first known portrayal of the subject was in 1655-56 by Ter Borch, using his half-sister, Gesina, as a model, with an inked quill in hand. Metsu painted two stunning paintings of the same subject in the early 1660s, using both male and female subjects. Frans van Mieris depicted a woman sealing a letter by candlelight in 1667. Vermeer painted his famous "Lady Writing" (pictured) in 1665-66, and the lovely "Woman Writing a Letter with her Maid" in 1670-71.

Seeing these side-by-side, it is easy enough to pick out shared elements: a table covered with a cloth or rug; a window opened for daylight; an attendant waiting to convey the letter; the moment before sending, pregnant with expectation. It is thus easy to make the link between artists that the curators want to demonstrate, observing what each subsequent painter borrowed from the previous one, and also what he (all the artists in the show are male) chose to jettison along the way.

It is seductive to engage in rating them by their various stylistic achievements: Metsu's fabric textures are rendered in a superior fashion, for example. Vermeer's facial features are sometimes inferior, but his sense of colour and light is leagues beyond that of his contemporaries.

The notion that Vermeer may not have been a true originator, but rather a follower or even—gulp—a copycat, would be heresy to fans who have a cult-like love of his genius. But viewers of the two previous iterations of the exhibition in Paris and Dublin seem to be unruffled by the suggestion.

"People keep saying to me that 'I always liked Vermeer most,' and I say 'that was the whole point of the show,'" said Mr Waiboer. "I don't believe that we need to tell people that Vermeer was an exceptional artist, because people can see that for themselves." Instead, the show reveals how a genre painter, in dialogue with contemporaries, can still tower above them.



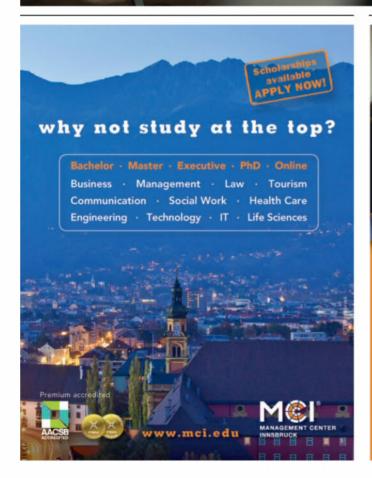
Oxford Leadership Programmes

Oxford Advanced Management and Leadership Programme – 3-23 Jun or 7-27 Oct 2018 Oxford High Performance Leadership Programme – 13-18 May or 11-16 Nov 2018 Oxford Strategic Leadership Programme – 20-25 May or 18-23 Nov 2018 Women Transforming Leadership Programme – 8-12 October 2018

For more information please visit: www.sbs.oxford.edu/openleadership

#1 UK since 2015 #4 Worldwide Financial Times Ranklings 2017







GLOBAL MASTER OF ARTS PROGRAM (GMAP)

- One-year master's degree in international affairs without interrupting your career or relocating
- Hybrid program structure of 3 two-week residencies and 33 weeks of internet-mediated learning
- Diverse cohort of approximately 50 mid-career and senior-level professionals working around the globe in the public, private, and non-profit sectors

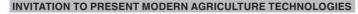
CLASSES START JANUARY 3, 2018 AND JULY 30, 2018

fletcher.tufts.edu/GMAP + fletcher-gmap@tufts.edu + +1.617.627.2429

Tenders



Ministry of Agriculture



COUNTRY: SRI LANKA NAME OF THE PROJECT: AGRICULTURE SECTOR MODERNIZATION PROJECT (ASMP) CREDIT NO: LK-5873

Invitation to interested International/ National Services Providers and Consulting Companies to present technology innovations, development approaches and implementation experiences relevant to the modernization of the Agriculture Sector in Sri Lanka.

The Ministry of Agriculture with funding from the International Development Association (IDA) of the World Bank, is implementing an Agriculture Sector Modernization Project (ASMP) in seven Districts (Jaffna, Mullaitivu, Batticaloa, Monaragala, Anuradhapura, Pollonnaruwa and Matale).

The Project aims to support smallholder farmers to produce competitive high-value agricultural products, improve their ability to respond to market needs and access domestic and international markets, and become efficient and sustainable market participants.

To achieve these objectives, the Project intends to assist farmer communities to develop innovative modern agriculture value chains in form of Agriculture Technology Demonstration Parks/Agriculture Clusters in the selected Districts. For more information on the project please visit:

http://projects.worldbank.org/P156019?lang=en

The Ministry of Agriculture seeks interested international and domestic private sector service providers and consulting companies to present their experiences and capabilities in innovative integrated agriculture development, covering modern technologies and technology applications, farmer organization and training, productivity enhancements and processing, market exploration and product marketing, and other elements of small-holder based agriculture value chain development.

Interested service providers and consulting companies are invited to make a presentation (about 45-60 minutes) to a selected audience of experts from the Ministry of Agriculture on November 16th or 17th 2017 (9.00 a.m. - 5.00 p.m.) at Cinnamon Lakeside, Colombo, Sri Lanka. The Ministry of Agriculture will ensure the full confidentiality of the individual presentations.

This is a market scoping exercise for the Ministry of Agriculture and does no entail any commitment for later contracting. Participation in this exercise is voluntary and at the expense of the individual Service Provider or Company. The Ministry of Agriculture is providing the meeting venue only.

Service Providers or Companies that choose not to participate or are not able to participate in this exercise at this point of time will still be eligible to submit an Expression of Interest later on. It is expected that the Ministry of Agriculture will publish such a separate Expression of Interest for an international competitive bidding process for the development of Agriculture Technology Demonstration Parks/ Agriculture Clusters in the selected Districts later this year.

Method of Application

Interested agencies/companies are requested to forward an Expression of Interest, Company or Agency Portfolio along with the below mentioned details as an Application Form to:

Secretary, Ministry of Agriculture, Agriculture Sector Modernization Project, No: 288, Sri Jayawardenapura Mawatha, Rajagiriya, Sri Lanka.

Email: agriculturesectormodernizationproject@hotmail.com & T.P: 0094 112 872 093/97 Ext. 1122 - Mr. Wijesekara / Ext. 1127 - Mr. Tilakaratne (Working Hours: 9.00 a.m. - 4.00 p.m.)

Details to be included in the Application Form:- Name of Company or Agency/Address/Contact Person with a Contact number, Fax, Email/Company or Agency's website/Registration Number of the Company or Agency/List of Innovative, Integrated agriculture developments, covering modern technologies and technology applications, Farmer Organizations and training, Productivity enhancements and processing, Market explorations & Product marketing by the Company or Agency/Confirmation of your Participation/Authorized Signatory.

Deadline for the Submission of Application is 21 days from the advertisement.

Supportive documents can be provided for the immigration purpose and all costs must be borne by agencies. The project will only provide meeting facilities.

Conferences





Republic of Kosovo, Government, Ministry of Infrastructure Invitation for Pre-qualification of Contractors Project Description: Upgrading of the Milloshevě -Mitrovicě M2 Main Road Project Contract/Bid No. Mol/ICB/Works/2017-18/020/02

The Republic of Kosova has received financing from the Saudi Fund for Development (SFD) and OPEC Fund for International Development (OFID) (hereinafter called "the Funds") toward the cost of **"Upgrading of the Milloshevë - Mitrovicë M2 Main Road Project"**, and it intends to apply part of the proceeds toward payments under the following contracts:

Lot 1: Upgrading Milloshevë - Mitrovicë M2 Main Road Project, section from 7.165km to 16.95km - Civil Works

Lot 2: Upgrading Milloshevë - Mitrovicë M2 Main Road Project, section from 21.50km to 26.7km - Civil Works

The Ministry of Infrastructure intends to pre-qualify contractors and/or firms for construction works. It is expected that invitations for bid will be made in December 2017.

Pre-qualification will be conducted through pre-qualification procedures specified in the Guidelines for the Procurement of Goods and Contracting for the Execution of Works issued by the Development Institutions Members of the Coordination Group (First Edition 2001), and is open to all eligible applicants as defined in the guidelines.

Interested eligible applicants may obtain further information from and inspect the Prequalification Document at the email address indicated below during working hours (09:00 to 16:00) from Mondays to Fridays.

A complete set of the Pre-qualification Document in the English language may be obtained by interested applicants through submission of a written application to the address or an email indicated below. The Pre-qualification Document could be obtained by the authorized person or through suggested emails.

Applications for Pre-qualification should be submitted in sealed envelopes, and be delivered to the address below by **29 November 2017 at 12:00hrs (Local time)**, and be clearly marked "Pre-qualification for Civil Works for the Upgrading of Milloshevë - Mitrovicë M2 Main Road Project LOT 1 or LOT 2 or Both; Ref. No. Mol/ICB/Works/2017-18/020/02".

	icob, morne	
Attention:		Project Management Unit (PMU)
		The Ministry of Infrastructure
Address:		Bregu i Diellit II, Lam: 4/3, Off.no. 3; Pristina 10000, Kosova
		Tel: +381 38 555 934
		E-mail: PMUprocurement@rks-gov.net
		Website: http://mi-ks.net/sq/tendere

The Economist October 14th 2017

⁸⁰ Economic and financial indicators

Economic da % change on ye				Industrial				Current-accou	nt balance	Budget balance	Interest rates, %		
	Gross dom latest	Gross domestic product latest qtr* 2017 [†]		production latest	Consumer prices latest 2017 [†]			latest 12 months, \$bn	% of GDP 2017†	% of GDP 2017†	10-year gov't bonds, latest	Currency Oct 11th	u nits, per \$ year ago
United States	+2.2 02	+3.1	+2.2	+1.5 Aug	+1.9 Aug	+2.0	4.2 Sep	-460.9 02	-2.5	-3.4	2.33	-	-
China	+6.9 02	+7.0	+6.8	+6.0 Aug	+1.8 Aug	+1.7	4.0 Q28	+155.3 Q2	+1.4	-3.9	3.6655	6.59	6.71
Japan	+1.4 Q2	+2.5	+1.5	+5.4 Aug	+0.6 Aug	+0.5	2.8 Aug	+192.2 Aug	+3.6	-4.5	0.06	112	104
Britain	+1.5 Q2	+1.2	+1.5	+1.6 Aug	+2.9 Aug	+2.7	4.3 Jun ^{††}	-128.9 Q2	-3.6	-3.6	1.39	0.76	0.82
Canada	+3.7 Q2	+4.5	+2.8	+7.4 Jul	+1.4 Aug	+1.7	6.2 Sep	-45.0 Q2	-2.6	-2.0	2.12	1.25	1.32
Euro area	+2.3 Q2	+2.6	+2.1	+3.2 Jul	+1.5 Sep	+1.5	9.1 Aug	+362.1 Jul	+3.1	-1.3	0.46	0.85	0.90
Austria	+2.6 Q2	+0.4	+2.3	+5.7 Jul	+2.1 Aug	+2.1	5.6 Aug	+6.1 02	+2.1	-1.2	0.62	0.85	0.90
Belgium	+1.5 Q2	+1.7	+1.6	+3.9 Jul	+2.0 Sep	+2.1	7.3 Aug	-4.2 Mar	+0.6	-2.0	0.78	0.85	0.90
France	+1.8 Q2	+2.2	+1.7	+1.1 Aug	+1.0 Sep	+1.1	9.8 Aug	-26.0 Aug	-1.3	-3.1	0.87	0.85	0.90
Germany	+2.1 Q2	+2.5	+2.1	+4.5 Aug	+1.8 Sep	+1.7	3.6 Aug [‡]	+276.0 Aug	+8.0	+0.7	0.46	0.85	0.90
Greece	+0.7 Q2	+2.2	+1.0	+5.7 Aug	+1.0 Sep	+1.2	21.0 Jul	-0.7 Jul	-1.3	-1.4	5.58	0.85	0.90
Italy	+1.5 Q2	+1.4	+1.4	+5.7 Aug	+1.1 Sep	+1.3	11.2 Aug	+51.2 Jul	+2.5	-2.3	2.17	0.85	0.90
Netherlands	+3.3 Q2	+6.3	+2.7	+3.9 Aug	+1.5 Sep	+1.3	5.9 Aug	+76.0 Q2	+10.0	+0.6	0.56	0.85	0.90
Spain	+3.1 Q2	+3.5	+3.1	+2.2 Aug	+1.8 Sep	+2.0	17.1 Aug	+23.1 Jul	+1.4	-3.3	1.69	0.85	0.90
Czech Republic	+3.4 Q2	+10.3	+4.5	+5.8 Aug	+2.7 Sep	+2.4	2.9 Aug [‡]	+1.7 Q2	+0.9	-0.1	1.37	21.9	24.4
Denmark	+1.9 Q2	+2.8	+2.2	+2.1 Aug	+1.6 Sep	+1.0	4.5 Jul	+25.8 Aug	+8.2	-0.4	0.58	6.30	6.73
Norway	+0.2 Q2	+4.7	+1.9	+5.7 Aug	+1.6 Sep	+2.0	4.2 Jul ^{‡‡}	+16.6 Q2	+5.4	+4.2	1.65	7.94	8.18
Poland	+4.6 Q2	+4.5	+4.3	+8.7 Aug	+2.2 Sep	+1.8	6.9 Sep [§]	-2.5 Jul	-0.6	-2.0	3.42	3.63	3.88
Russia	+2.5 Q2	na	+1.8	+1.5 Aug	+3.0 Sep	+4.0	4.9 Aug [§]	+36.9 Q3	+2.5	-2.1	8.13	57.9	62.6
Sweden	+3.0 Q2	+5.2	+3.1	+7.3 Aug	+2.1 Aug	+1.9	6.0 Aug§	+22.5 Q2	+4.4	+0.9	0.91	8.07	8.82
Switzerland	+0.3 Q2	+1.1	+0.9	+2.9 Q2	+0.7 Sep	+0.5	3.1 Sep	+68.9 Q2	+9.9	+0.7	0.01	0.97	0.99
Turkey	+5.1 Q2	na	+4.9	+3.8 Aug	+11.2 Sep	+10.7	10.2 Jun§	-37.0 Aug	-4.5	-2.0	11.34	3.68	3.09
Australia	+1.8 Q2	+3.3	+2.4	+0.8 Q2	+1.9 Q2	+2.1	5.6 Aug	-21.8 Q2	-1.5	-1.8	2.82	1.28	1.32
Hong Kong	+3.8 Q2	+4.1	+3.1	+0.4 Q2	+1.9 Aug	+1.6	3.1 Aug ^{‡‡}	+15.0 Q2	+4.2	+0.9	1.77	7.80	7.76
India	+5.7 Q2	+4.1	+6.7	+1.2 Jul	+3.4 Aug	+3.5	5.0 2015	-29.2 Q2	-1.4	-3.5	6.74	65.3	66.6
Indonesia	+5.0 Q2	na	+5.2	+2.3 Aug	+3.7 Sep	+3.9	5.3 Q1§	-14.2 Q2	-1.7	-2.6	6.47	13,510	13,013
Malaysia	+5.8 Q2	na	+5.4	+6.0 Jul	+3.7 Aug	+3.9	3.5 Jul [§]	+8.1 Q2	+2.3	-3.0	3.91	4.22	4.17
Pakistan	+5.7 2017**	na	+5.7	+13.0 Jul	+3.9 Sep	+3.9	5.9 2015	-12.1 Q2	-4.5	-5.9	8.20***	105	105
Philippines	+6.5 Q2	+7.0	+6.6	+2.7 Aug	+3.4 Sep	+3.2	5.6 Q3§	-0.8 Jun	+0.3	-2.7	4.66	51.5	48.5
Singapore	+2.9 Q2	+2.2	+2.9	+19.1 Aug	+0.4 Aug	+0.7	2.2 Q2	+59.0 Q2	+19.7	-1.0	2.09	1.36	1.38
South Korea	+2.7 Q2	+2.4	+2.8	+2.7 Aug	+2.1 Sep	+2.0	3.6 Aug [§]	+83.1 Aug	+5.6	+0.9	2.42	1,135	1,120
Taiwan	+2.1 Q2	+0.5	+2.2	+3.2 Aug	+0.5 Sep	+0.6	3.8 Aug	+70.7 Q2	+13.2	-0.1	1.04	30.4	31.6
Thailand	+3.7 Q2	+5.4	+3.5	+3.7 Aug	+0.9 Sep	+0.7	1.1 Aug [§]	+44.9 Q2	+11.4	-2.5	2.20	33.3	35.3
Argentina	+2.7 Q2	+2.8	+2.7	-2.5 Oct	+23.1 Aug [‡]	+25.2	8.7 Q2§	-19.7 Q2	-3.4	-6.2	5.24	17.4	15.2
Brazil	+0.3 Q2	+1.0	+0.7	+4.0 Aug	+2.5 Sep	+3.5	12.6 Aug§	-13.5 Aug	-0.8	-8.0	8.83	3.16	3.22
Chile	+0.9 Q2	+3.0	+1.3	+5.1 Aug	+1.4 Sep	+2.2	6.6 Aug ^{§‡‡}	-5.6 Q2	-1.7	-3.0	4.51	628	668
Colombia	+1.3 Q2	+3.0	+1.7	+6.2 Jul	+4.0 Sep	+4.0	9.1 Aug [§]	-12.4 Q2	-3.7	-3.3	6.45	2,944	2,917
Mexico	+1.8 Q2	+2.3	+2.2	-1.6 Jul	+6.3 Sep	+5.9	3.3 Aug	-17.6 Q2	-1.8	-1.9	7.15	18.6	19.0
Venezuela	-8.8 Q4~	-6.2	-9.3	+0.8 Sep	na	+720	7.3 Apr§	-17.8 Q3~	-1.2	-19.5	9.58	10.2	9.99
Egypt	+4.9 Q2	na	+3.8	+40.0 Jul	+31.6 Sep	+26.9	12.0 Q2§	-15.6 Q2	-6.0	-10.8	na	17.7	8.88
Israel	+3.9 Q2	+2.4	+3.6	+2.6 Jul	-0.1 Aug	+0.4	4.1 Aug	+10.7 Q2	+3.5	-2.5	1.75	3.49	3.81
Saudi Arabia	+1.7 2016	na	-0.5	na	-0.1 Aug	+1.1	5.6 2016	+7.6 Q2	+0.5	-7.5	3.68	3.75	3.75
South Africa	+1.1 Q2	+2.5	+0.7	+1.4 Aug	+4.8 Aug	+5.3	27.7 Q2§	-7.9 Q2	-2.9	-3.2	8.71	13.6	14.4

Source: Haver Analytics. *% change on previous quarter, annual rate. [†]*The Economist* poll or Economist Intelligence Unit estimate/forecast. [§]Not seasonally adjusted. [‡]New series. ~2014 **Year ending June. ^{††}Latest 3 months. [#]3-month moving average. [§]S-year yield. ^{††}Dollar-denominated bonds.



Markets

		% change on		
		Dec 30th 2016		
	Index Oct 11th	one week	in local currency	in \$ terms
United States (DJIA)	22,872.9	+0.9	+15.7	+15.7
China (SSEA)	3,548.0	+1.2	+9.2	+15.2
Japan (Nikkei 225)	20,881.3	+1.2	+9.2	+13.5
Britain (FTSE 100)	7,533.8	+0.9	+5.5	+12.6
Canada (S&P TSX)	15,800.4	+0.5	+3.4	+10.7
Euro area (FTSE Euro 100	ten sente bases bases be	+0.4	+11.0	+24.6
Euro area (EURO STOXX 5	0) 3,607.4	+0.3	+9.6	+23.1
Austria (ATX)	3,335.3	+0.8	+27.4	+43.0
Belgium (Bel 20)	4,059.0	+0.4	+12.6	+26.4
France (CAC 40)	5,362.4	nil	+10.3	+23.8
Germany (DAX)*	12,970.7	nil	+13.0	+26.9
Greece (Athex Comp)	748.6	-0.3	+16.3	+30.6
Italy (FTSE/MIB)	22,552.2	+0.4	+17.2	+31.7
Netherlands (AEX)	541.8	nil	+12.1	+25.9
Spain (Madrid SE)	1,036.3	+3.1	+9.8	+23.3
Czech Republic (PX)	1,054.4	+0.2	+14.4	+34.0
Denmark (OMXCB)	943.6	+0.2	+18.2	+32.5
Hungary (BUX)	38,453.1	+1.4	+20.2	+34.6
Norway (OSEAX)	866.9	+0.7	+13.4	+23.3
Poland (WIG)	65,733.8	+3.0	+27.0	+46.8
Russia (RTS, \$ terms)	1,143.3	+0.5	-0.8	-0.8
Sweden (OMXS30)	1,641.7	-0.6	+8.2	+22.0
Switzerland (SMI)	9,265.3	-0.2	+12.7	+17.8
Turkey (BIST)	103,816.0	-0.7	+32.9	+27.2
Australia (All Ord.)	5,840.8	+2.1	+2.1	+10.1
Hong Kong (Hang Seng)	28,389.6	nil	+29.0	+28.2
India (BSE)	31,834.0	+0.5	+19.6	+24.5
Indonesia (JSX)	5,882.8	-1.2	+11.1	+10.6
Malaysia (KLSE)	1,757.2	-0.3	+7.0	+13.7
Pakistan (KSE)	40,503.7	+0.1	-15.3	-16.1
Singapore (STI)	3,280.3	+1.3	+13.9	+21.4
South Korea (KOSPI)	2,458.2	+2.7	+21.3	+29.1
Taiwan (TWI)	10,641.2	+1.6	+15.0	+22.6
Thailand (SET)	1,714.1	+1.6	+11.1	+19.8
Argentina (MERV)	26,933.5	+1.7	+59.2	+44.5
Brazil (BVSP)	76,659.8	+0.1	+27.3	+30.9
Chile (IGPA)	27,359.6	+0.4	+32.0	+40.9
Colombia (IGBC)	11,050.6	-0.3	+9.3	+11.0
Mexico (IPC)	50,139.7	-0.8	+9.9	+20.8
Venezuela (IBC)	532.1	-1.3	-98.3	na
Egypt (EGX 30)	13,816.1	-0.5	+11.9	+15.1
Israel (TA-125)	1,312.1	+0.5	+2.8	+13.2
Saudi Arabia (Tadawul)	6,890.0	-5.4	-4.8	-4.8
South Africa (JSE AS)	57,770.7	+1.8	+14.1	+14.9

Global investment-banking revenue

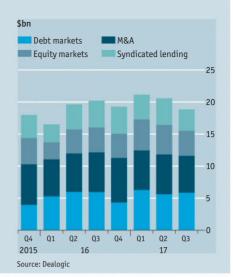
In the first nine months of this year worldwide revenues from investment banking were \$60.5bn, 7% higher than in the same period in 2016, according to Dealogic, a financial-data provider. Although banking fees were high in the first half of the year, third-guarter revenues fell to \$18.9bn. Equity-market revenues may have fallen in the last quarter, but they grew by 29% year-onyear from January to September. The Uni-Credit rights issue in February is the biggest deal of the year, worth \$13.7bn. Japan Post Holdings boosted thirdguarter fees for the banks with a \$10.8bn equity sale last month. J.P. Morgan is the top bank for equity-market deals: so far this year it has handled 319 transactions.

Other markets

	% change on			
			Dec 30	th 2016
	Index Oct 11th	one week	in loca currenc	
United States (S&P 500)	2,555.2	+0.7	+14.1	+14.1
United States (NAScomp)	6,603.5	+1.1	+22.7	+22.7
China (SSEB, \$ terms)	362.9	+0.3	+6.2	+6.2
Japan (Topix)	1,696.8	+0.7	+11.7	+16.1
Europe (FTSEurofirst 300)	1,533.7	nil	+7.4	+20.6
World, dev'd (MSCI)	2,021.6	+0.5	+15.4	+15.4
Emerging markets (MSCI)	1,112.5	+1.0	+29.0	+29.0
World, all (MSCI)	493.0	+0.6	+16.9	+16.9
World bonds (Citigroup)	939.7	+0.3	+6.3	+6.3
EMBI+ (JPMorgan)	837.8	-0.2	+8.5	+8.5
Hedge funds (HFRX)	1,260.0§	-0.2	+4.7	+4.7
Volatility, US (VIX)	10.2	+9.6	+14.0	(levels)
CDSs, Eur (iTRAXX)†	55.3	+1.8	-23.4	-14.0
CDSs, N Am (CDX) [†]	54.7	-1.4	-19.3	-19.3
Carbon trading (EU ETS) €	7.4	+6.5	+11.9	+25.6

0/ change on

Indicators for more countries and additional series, go to: Economist.com/indicators



The Economist commodity-price index 2005=100

			% change on			
	Oct 3rd	Oct 10th*	one month	one year		
Dollar Index						
All Items	145.5	146.5	+0.5	+7.6		
Food	149.4	149.8	+1.3	-2.4		
Industrials						
All	141.5	143.1	-0.3	+20.9		
Nfa†	129.2	128.7	-6.4	+1.7		
Metals	146.8	149.3	+2.1	+30.0		
Sterling Index	x					
All items	199.8	201.6	+0.9	-0.5		
Euro Index						
All items	153.9	154.2	+1.7	+0.7		
Gold						
\$ per oz	1,274.2	1,292.9	-2.5	+2.9		
West Texas In	termediate					
\$ per barrel	50.4	50.9	+5.6	+0.3		
Sources: Bloom ICO; ISO; Live Ri Ewart; Thomson	ce Index; LME;	NZ Wool Services	; Thompson			

[†]Non-food agriculturals.

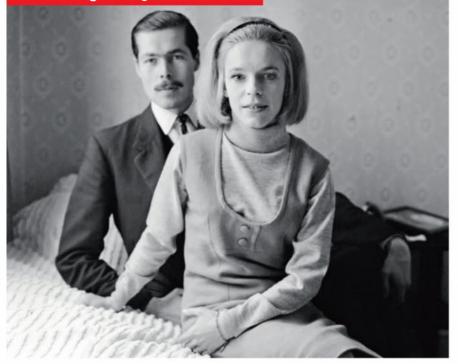
This series is supported by



THE CIRCUS AT 250

WATCH NOW: Films.economist.com/the-world-in-2018

² Obituary Lady Lucan



In cold blood

The Dowager Countess of Lucan, née Veronica Duncan, was found dead on September 26th, aged 80

You could always spot a thoroughbred. Veronica Duncan knew at once what to look for in a pony or a horse, after all those gymkhanas and point-to-points. And she could spot it in this man: the imposing height, the military moustache, the cavalry twills and tweed cap. This was John, Lord Bingham, ex-Eton and Coldstream Guards, the heir to a fortune and to the title of 7th Earl of Lucan. She was 26, still dreaming of a god, or at least the coup of marrying a peer of the realm. And there he was.

Her sister warned her off. He was a professional gambler, his parents were socialists, and he was said to be queer. Very "not so". She didn't care. He drove her round in his green Aston Martin, took her out in his power boat, and after a while simply carried her into his bedroom, thereby putting paid to sisterly warning number three. In a few months, they were married. Within a year she, a middle-class country girl, petite and with no confidence, was the Countess of Lucan, and her husband the most handsome man in the House of Lords.

To be a peeress of the realm was important. It did not imply the high life, though she and John did honeymoon on the Orient Express and take holidays in Gstaad and Monte Carlo. But a good bloodline imposed a code of honourable behaviour and civilised manners. It was fitting that, when she later set up a website, she put her coat of arms at the top. And quite correct, too, given her rank, that she wore a hat at the inquest into the killing of poor Mrs Sandra Rivett, her children's nanny, who had been battered to death by her husband on November 7th 1974; after which he had turned his fury on her, and then vanished from the face of the Earth.

The story seemed to grip the world from that moment on. She preferred not to speak of it but, when asked, her memory was clear. On that evening, Mrs Rivett had offered to make her a cup of tea. It was not part of her normal duties; but, though they were on formal terms, they also chatted informally. When the tea did not arrive from the basement kitchen, she went in search. On the dark stairs, someone hit her hard on the head four times, then forced three gloved fingers down her throat, snapping "Shut up!" It was her husband.

With measured blows

Of course, she did shut up. She had done that all through their marriage. The point of being married, he said once, was that you did not have to talk to the person. He seldom did, after the first few years, except to say he was displeased with her. The Clermont Club had become his home, where he gambled his fortune away while she sat white with stress in the shadows. Nothing she could say would stop him. When she got depressed he would beat out her mad ideas with ten steady, measured blows on her bare bottom; after which they would have intercourse, and he would kiss the injuries tenderly.

She knew this was weak of her, but she always wanted to placate him, to try to do her best. How great was her relief when she bore him a son! She would also do her best when he was trying to strangle her, and she felt a metal bar beside her clotted with a great deal of her own hair. "Please don't kill me, John," she gasped. She did not omit the "please". As they tried to sort themselves out, politely, in the upstairs bedroom afterwards, and to wash off the blood, she made a dash to the nearest pub and raised the alarm. Meanwhile, he fled.

There was never any doubt in her mind that he was the murderer of Mrs Rivett, and the near-murderer of her. They had been separated for over a year, and he had lost custody of the children, despite telling everyone that she was an unfit mother. He had seized them once (by court order) as they walked with the nanny in Green Park; she was sure he was stalking her, though that might have been the effect of the super-strong pills the doctors forced on her. He tried several times to commit her to the loony bin. That she did manage to refuse.

She also felt sure she had solved the mystery of his disappearance. Though he had behaved badly, he was an honourable man. Indeed, she had always hoped they could be reconciled. When he fled, apparently taking the cross-Channel ferry from Newhaven, he had therefore jumped from the boat in mid-voyage, deliberately onto the propellers, so that his remains would never be found. In that case death duties would not be immediately payable, and the children's education could be secured.

This thought was some comfort in her old age. She spent it in the mews cottage in Belgravia where he had lived after their separation and from which he had come to kill her. His portrait in his Lords ermine still hung on the wall; the blinds were kept down. Her children were lost to her, finding it more congenial to live with her sister and refusing to think their father guilty. From 1982 they never spoke. When her younger daughter married she watched through the railings in the rain, on her way to buy a cardigan from Marks & Spencer. All her relationships had been cold.

In old age she wrote a memoir and gave a television interview, her voice cool and emphatic. Her account of the night of November 7th 1974 did not vary, except in one particular. She preferred to say that she had cried out, or simply spoken loudly, when she ran bloodied into the pub. She had not let the side down by screaming; or, if so, only with measured breaths.





GUONI TH. JÓHANNESSON President Iceland



MICHAEL ECKHART Managing director and head of environmental finance, power **Citigroup**



DARIAN MCBAIN Global director of sustainable development Thai Union



JOHN HALEY Chief executive officer Willis Towers Watson

What role will you play?

Since 2012 the World Ocean Summit has sought to harmonise the sometimes dissonant perspectives of business, government and civil society on how we use our troubled seas. The World Ocean Summit 2018 will expand into a wider, more ambitious World Ocean Initiative focused on five pillars: sustainable fisheries, pollution, climate change, finance and technology. The vision of the World Ocean Initiative is an ocean in robust health and with a vital economy; the initiative's purpose is to accelerate the transition to sustainable use of the ocean.

If 2017 was the year of big promises, 2018 must be about delivery. Join us.

Register to attend: +44(0)2075768118 oceansummit@economist.com





Silver sponsors







Begin your own tradition.

You never actually own a Patek Philippe.

() di

You merely look after it for the next generation.

Twenty-4® Ref. 4910/11R patek.com