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MAY 13TH–19TH 2017

The firing of James Comey

Trumponomics

What it is, and why it is dangerous

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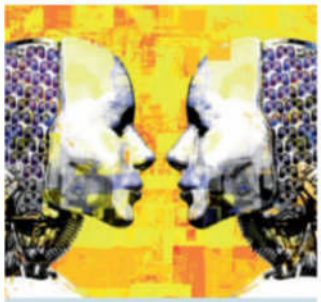

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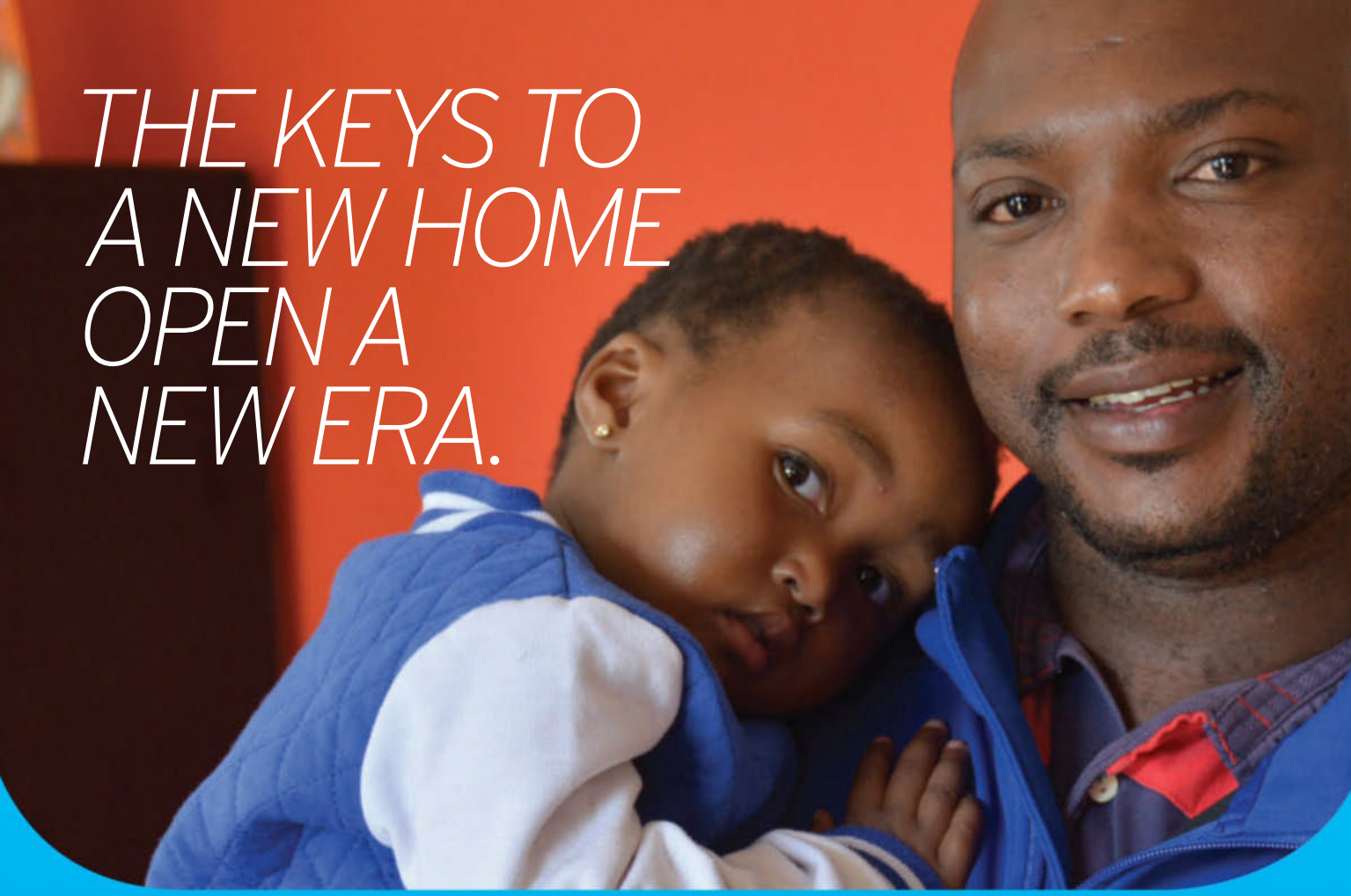

THE KEYS TO A NEW HOME OPEN A NEW ERA.

Twenty years after the end of apartheid, the path to wealth through property ownership is still closed to many South Africans. International Housing Solutions, a global private equity firm, is determined to change that. Their idea: a fund to build safe, affordable housing for rising middle class families. Citi's early support and expertise has helped the fund grow to finance 27,000 housing units across South Africa. Its success is being used as a model throughout the continent.

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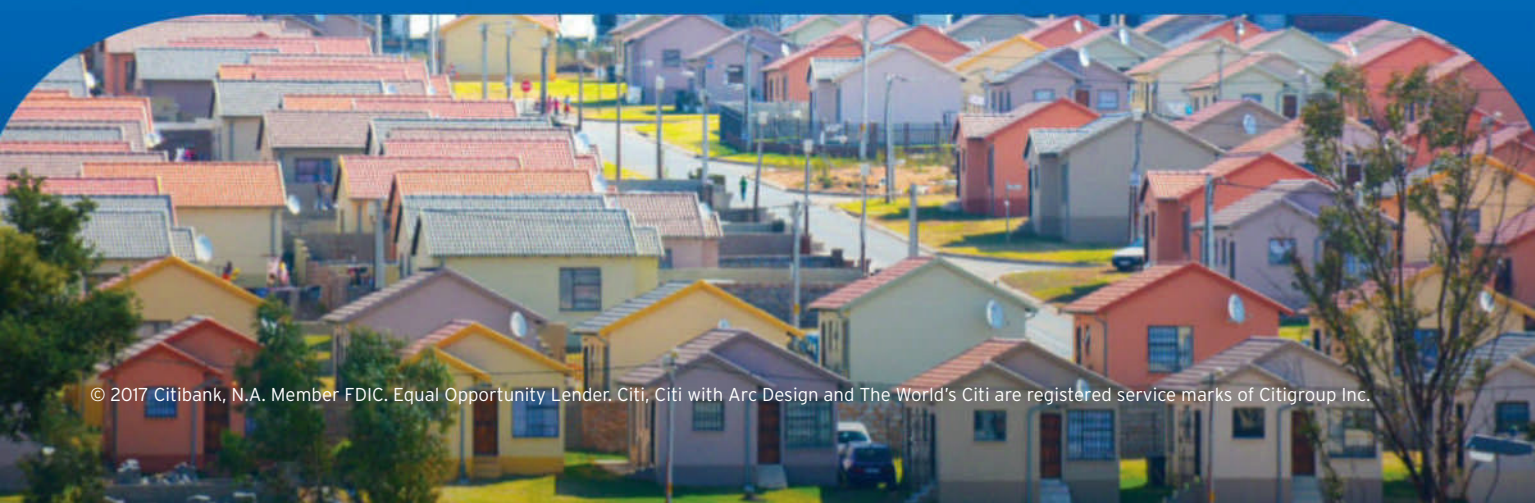

Politics

James Comey was sacked as director of the **FBI** by Donald Trump, taking Washington, and Mr Comey, completely by surprise. Mr Trump acted on the advice of the attorney-general, Jeff Sessions, who decided that Mr Comey had botched the FBI's probe into Hillary Clinton's private e-mails last year. At the time Mr Trump had praised Mr Comey, but that was before he started investigating links between the Trump campaign and Russia. Democrats, and others, called for the appointment of a special prosecutor.

Sergey Lavrov, Russia's foreign minister, visited the **White House** for the first time since Mr Trump's election. Their meeting in the Oval Office was private, except for the presence of a photographer from TASS, the Russian news agency.

Mr Trump urged the Senate not to "let the American people down", after the House of Representatives passed a **health-care bill** that dismantles large parts of Obamacare. Fearful of a potential public backlash about the removal of some of the popular elements of Obamacare, such as insurance for pre-existing conditions, senators are in no hurry to pass the bill and may end up drafting their own legislation.

Friends and enemies

America said it would send arms to the YPG, a **Kurdish** militia group operating in northern Syria, so it could fight more effectively against Islamic State. **Turkey** denounced the move, because it considers the group to be an offshoot of the Turkish Kurdish party, the PKK, which both it and America regard as a terrorist organisation.

A Russian plan for four "de-escalation zones" in **Syria** came into effect. Fighting has continued in the areas, but at a lower level. Rebels seeking to topple the regime of President Bashar al-Assad refused to sign the agreement.

Tunisia's president sent the army to protect the country's phosphate, gas and oil facilities after protests that threatened to disrupt them broke out in the south of the country.

In **Nigeria** 82 of the 276 girls kidnapped three years ago by Boko Haram, a jihadist group, were released. Several imprisoned militants were handed over in exchange. More than 113 of the girls are still thought to be missing.

Moon shines

South Koreans elected Moon Jae-in as president by a wide margin in a crowded field. Mr Moon, a former leader of the liberal Minjoo party, has promised a more emollient approach to North Korea, putting him at odds with America's policy under Donald Trump.

Mr Trump's advisers submitted a plan to deploy an extra 5,000 soldiers in **Afghanistan**. Afghan government forces have been losing ground to Taliban insurgents since NATO began scaling back its mission in the country in 2011.

A court in **Indonesia** sentenced Basuki Tjahaja Purnama, the outgoing governor of Jakarta, to two years' imprisonment for blasphemy. He had criticised people who invoke the Koran to argue that Muslims should never vote for a Christian like him. In Aceh, a semi-autonomous region, a *sharia* court sentenced two gay men to 100 lashes.

A **Chinese** human-rights lawyer, Xie Yang, pleaded guilty to inciting subversion. At his trial, he also denied reports that he had been tortured by police. Mr Xie was arrested in 2015 during a sweeping crackdown on legal activists.

Socialist realism

Venezuela's health ministry reported that maternal mortality jumped by 65% in 2016 and that the number of infant deaths rose by 30%. It also said that the number of cases of malaria was up by 76%. The ministry had not reported health data in two years. Venezuela is suffering from shortages of food and medicines.

The ELN, a guerrilla group, kidnapped eight people in Chocó Department in western **Colombia** but later released them. Juan Manuel Santos, the president, attributed their release to pressure from the security forces. The government has been negotiating a peace agreement with the ELN since February.

Perry Christie lost his bid for re-election as prime minister of the **Bahamas** in a surprising landslide victory for the opposition Free National Movement party. Hubert Minnis, the new prime minister, campaigned against alleged corruption in Mr Christie's Progressive Liberals.

Christy Clark was re-elected as premier of British Columbia, a province in western **Canada**, but initial results suggest that her Liberal Party may not have won a majority and will need the support of the Green Party.

A harbinger

Britain's local elections, held on May 4th, delivered a sizeable increase in the number of council seats held by the ruling Conservative Party. Gaining 563 seats and taking control of 11 councils, the Tories romped home at the expense of the opposition Labour Party and Liberal Democrats. Now that it has achieved its aim of Brexit the UK Independence Party was almost wiped out, as its supporters switched to the Tories. It was a thumping result for the party, but projections based on the results imply that the Tories' current opinion-poll lead may be overstated when it comes to the general election on June 8th.

The youth of today

Emmanuel Macron won the run-off in the **French** presidential election with 66% of the vote, beating the nationalist, Marine Le Pen. The 39-year-old former economy minister had never run for office before and was not regarded as a contender a year ago. His victory was a particular relief to the EU. Yet Ms Le Pen nearly doubled the share of the vote that her father achieved in 2002.

More than 200 **migrants** drowned off the coast of Libya, adding to the 1,300 people who had already died or disappeared in the Mediterranean this year. Meanwhile, the European Court of Justice began hearing a case brought by Hungary and Slovakia against the EU's relocation of migrants based on quotas.

Angela Merkel, the **German** chancellor, received a further, and unexpected, boost, when her Christian Democratic Union party won decisively in a state election in Schleswig-Holstein. It was the second consecutive loss for Mrs Merkel's current coalition partners, the Social Democrats, after another state, Saarland, voted for the CDU in March.

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Business

AkzoNobel, a Dutch maker of paints and coatings, rejected a third informal takeover offer, worth €26.9bn ($28.8bn), from PPG, an American rival. That prompted **Elliott Advisors**, a hedge fund with a 3% stake in Akzo, to start legal proceedings to force the company to call an extraordinary meeting of shareholders, at which Elliott will try to oust Akzo's chairman. Elliott wants Akzo at least to talk to PPG, arguing that its decision not to is a "flagrant breach" of its fiduciary duties. But Akzo is governed by a foundation that makes it almost impossible for shareholders to turf out the board.

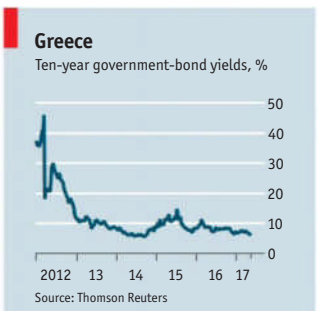
Whole Foods replaced its chairman and chief financial officer, a month after an activist hedge-fund revealed that it had accumulated a 9% stake in the retailer and called for a shake-up in management. The company named several new people to the board, including the founder of Panera Breads, a rising bakery chain.

Rapped on the knuckles

Jes Staley, the chief executive of **Barclays**, was confronted by angry shareholders at the British bank's annual general meeting over his attempt to unmask an internal whistleblower. Mr Staley has been reprimanded by the board over his lapse of judgment, but the chairman, John McFarlane, gave him his full support at the AGM, promising that Mr Staley has learned his lesson.

Commerzbank reported net income of €217m ($231m) for the first quarter. That was better than the profit it made in the equivalent period last year, mostly because of an improvement in the division that handles unwanted assets. Germany's second-biggest lender described Europe's negative interest rates as a "burden" that hampers its fortunes.

Mario Draghi defended negative rates in a speech to the legislative assembly in the Netherlands. It was a rare trip to a national parliament by the president of the European Central Bank. Along with their German counterparts, Dutch politicians have been the most vocal critics of the ECB's monetary stimulus, which, they say, helps profligate countries in the euro zone at the expense of banks and savers in more frugal ones.



A rally in **Greek government debt** continued, with the yield on the benchmark ten-year bond falling to 5.5%, the lowest since its debt restructuring in 2012. The government recently agreed to a series of reforms in order to unlock the latest tranche of loans under the rescue package agreed with international creditors.

The **European Bank for Reconstruction and Development** flatly rejected a plea by **Russia** to end its freeze on investment in the country, which was introduced as a result of the conflict in Ukraine in 2014. The EBRD was created in 1991 to help post-Soviet countries make the transition to democracy. Russia claims the ban on investment is affecting the whole economy and breaches EBRD rules.

Oil prices recouped some of their recent losses. After falling by 6% in the space of a week to a five-month low, Brent crude rose to over $50 a barrel. Prices were boosted in part by comments from the Russian and Saudi energy ministers about the possibility of extending a deal that cuts oil production.

Appealing Apple

Apple's market capitalisation rose to over $800bn for the first time. The company's share price is up by 32% since the start of the year, buoyed in part by renewed investor interest in the tech industry amid doubts that boosts to the banking and manufacturing sectors promised by Donald Trump will come to fruition. The tech-heavy NASDAQ stockmarket index reached another high this week.

The first quarterly earnings report from **Snap** since it became a publicly listed company failed to impress. The social network made a net loss of $2.2bn, but investors homed in on signs that the rate at which new users sign up is slowing: it had 166m daily users in the first quarter, up by 5% from the previous quarter.

In a deal that consolidates its already tight grip on local broadcasting in America, **Sinclair**, which owns 173 television stations, agreed to buy **Tribune Media**, which owns 42, including WGN America, a national network based in Chicago. The Federal Communications Commission recently relaxed the rules on the ownership of local stations. Some think the $3.9bn deal will concentrate too much power in one broadcaster.

You couldn't make it up

Bill Clinton is to make a foray into fiction by writing a novel with the help of James Patterson, a bestselling author. Unusually, the book will be sold by the two **publishers** that represent Messrs Clinton and Patterson. Titled "The President is Missing" it is due in the shops next year. Whether it will be as wild as the real-life intrigue in the White House remains to be seen.

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

Courting trouble

The impulsiveness and shallowness of America's president threaten the economy as well as the rule of law

DONALD TRUMP rules over Washington as if he were a king and the White House his court. His displays of dominance, his need to be the centre of attention and his impetuousness have a whiff of Henry VIII about them. Fortified by his belief that his extraordinary route to power is proof of the collective mediocrity of Congress, the bureaucracy and the media, he attacks any person and any idea standing in his way.

Just how much trouble that can cause was on sensational display this week, with his sacking of James Comey—only the second director of the FBI to have been kicked out. Mr Comey has made mistakes and Mr Trump was within his rights. But the president has succeeded only in drawing attention to questions about his links to Russia and his contempt for the norms designed to hold would-be kings in check (see next leader).

Just as dangerous, and no less important to ordinary Americans, however, is Mr Trump's plan for the economy. It treats orthodoxy, accuracy and consistency as if they were simply to be negotiated away in a series of earth-shattering deals. Although Trumponomics could stoke a mini-boom, it, too, poses dangers to America and the world.

Trumponomics 101

In an interview with this newspaper, the president gave his most extensive description yet of what he wants for the economy (see page 18). His target is to ensure that more Americans have well-paid jobs by raising the growth rate. His advisers talk of 3% GDP growth—a full percentage point higher than what most economists believe is today's sustainable pace.

In Mr Trump's mind the most important path to better jobs and faster growth is through fairer trade deals. Though he claims he is a free-trader, provided the rules are fair, his outlook is squarely that of an economic nationalist. Trade is fair when trade flows are balanced. Firms should be rewarded for investing at home and punished for investing abroad.

The second and third strands of Trumponomics, tax cuts and deregulation, will encourage that domestic investment. Lower taxes and fewer rules will fire up entrepreneurs, leading to faster growth and better jobs. This is standard supply-side economics, but to see Trumponomics as a rehash of Republican orthodoxy is a mistake—and not only because its economic nationalism is a departure for a party that has championed free trade.

The real difference is that Trumponomics (unlike, say, Reaganomics) is not an economic doctrine at all. It is best seen as a set of proposals put together by businessmen courtiers for their king. Mr Trump has listened to scores of executives, but there are barely any economists in the White House. His approach to the economy is born of a mindset where deals have winners and losers and where canny negotiators confound abstract principles. Call it boardroom capitalism.

That Trumponomics is a business wishlist helps explain why critics on the left have laid into its poor distributional consequences, fiscal indiscipline and potential cronyism. And it makes clear why businessmen and investors have been enthusiastic, seeing it as a shot in the arm for those who take risks and seek profits. Stockmarkets are close to record highs and indices of business confidence have soared.

In the short term that confidence could prove self-fulfilling. America can bully Canada and Mexico, into renegotiating NAFTA. For all their sermons about fiscal prudence, Republicans in Congress are unlikely to deny Mr Trump a tax cut. Stimulus and rule-slashing may lead to faster growth. And with inflation still quiescent, the Federal Reserve might not choke that growth with sharply higher interest rates.

Unleashing pent-up energy would be welcome, but Mr Trump's agenda comes with two dangers. The economic assumptions implicit in it are internally inconsistent. And they are based on a picture of America's economy that is decades out of date.

Contrary to the Trump team's assertions, there is little evidence that either the global trading system or individual trade deals have been systematically biased against America (see page 22). Instead, America's trade deficit—Mr Trump's main gauge of the unfairness of trade deals—is better understood as the gap between how much Americans save and how much they invest (see page 20). The fine print of trade deals is all but irrelevant. Textbooks predict that Mr Trump's plans to boost domestic investment will probably lead to larger trade deficits, as it did in the Reagan boom of the 1980s. If so, Mr Trump will either need to abandon his measure of fair trade or, more damagingly, try to curb deficits by using protectionist tariffs that will hurt growth and sow mistrust around the world.

A deeper problem is that Trumponomics draws on a blinkered view of America's economy. Mr Trump and his advisers are obsessed with the effect of trade on manufacturing jobs, even though manufacturing employs only 8.5% of America's workers and accounts for only 12% of GDP. Service industries barely seem to register. This blinds Trumponomics to today's biggest economic worry: the turbulence being created by new technologies. Yet technology, not trade, is ravaging American retailing, an industry that employs more people than manufacturing (see page 61). And economic nationalism will speed automation: firms unable to outsource jobs to Mexico will stay competitive by investing in machines at home. Productivity and profits may rise, but this may not help the less-skilled factory workers who Mr Trump claims are his priority.

The bite behind the bark

Trumponomics is a poor recipe for long-term prosperity. America will end up more indebted and more unequal. It will neglect the real issues, such as how to retrain hardworking people whose skills are becoming redundant. Worse, when the contradictions become apparent, Mr Trump's economic nationalism may become fiercer, leading to backlashes in other countries—further stoking anger in America. Even if it produces a short-lived burst of growth, Trumponomics offers no lasting remedy for America's economic ills. It may yet pave the way for something worse. ■

The sacking of James Comey

You're fired!

Links between the Trump campaign and Russia should be investigated by an independent commission

IT MUST have seemed like a good idea at the time. Why not get rid of an irksomely independent FBI director, who was making trouble for Donald Trump's White House, by exploiting his mishandling of Hillary Clinton's e-mails? After all, Mrs Clinton believes that James Comey cost her the presidency with a letter informing Congress in October that he was reopening the investigation into her use of a private e-mail server. Surely Democrats would be glad to see the back of him.

Mr Trump has the power to sack Mr Comey. But nobody will be fooled by the quasi-prosecutorial memo drawn up by the deputy attorney-general, Rod Rosenstein, at the president's request. If the trouble were Mr Comey's handling of Mrs Clinton's e-mails, he could have been sacked four months ago. Indeed, Mr Trump had praised Mr Comey's October letter, saying it had taken "a lot of guts".

That leaves two interpretations (see page 23). Either Mr Comey was dismissed in an effort to undermine an investigation into collusion between members of Mr Trump's campaign and Russians trying to subvert the election. Or Mr Trump got rid of him in a fit of pique. Maybe Mr Comey was just too big for his boots, too unwilling to take the president's paranoid notions seriously—say, by failing to credit his idea that Barack Obama had ordered a wiretap of Trump Tower. Either way, the sacking of Mr Comey reflects terribly on Mr Trump.

There is as yet no proof that aides close to Mr Trump were conspiring with Russian intelligence agents. But officials and the president's toadies in Congress, such as Devin Nunes, chairman of the House Intelligence Committee, have behaved as if there was something to hide. Mr Nunes had to withdraw from his committee's investigation after appearing desperate to do the bidding of the White House. The attorney-general, Jeff Sessions, who gave misleading testimony about his contacts with Russia's ambassador, has similarly recused himself. Mike Flynn had to quit as national security adviser after lying about his dealings with the Russians. Mr Comey's defenestration just as he was asking Mr Rosenstein for more resources to look into Russia only fuels suspicions of a cover-up.

If Mr Trump is lashing out at an uppity underling, that too is a bad sign. It suggests the president does not respect the vital principle of an independent, non-political FBI—which, for all his faults, Mr Comey represented. Taken with the contempt Mr Trump has shown for judges who challenge his executive orders, America's system of checks and balances is under stress.

Some, including Chuck Schumer, the Senate's top Democrat, have called for an independent counsel to continue the investigation. But there is a problem. It would be the now-compromised Mr Rosenstein who would be responsible for making the appointment and for oversight of what followed.

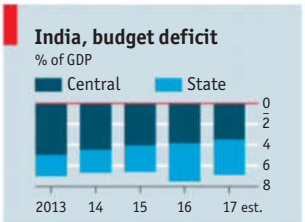
Country first

Congress must now uphold constitutional norms. Any successor to Mr Comey nominated by the president must face the most rigorous examination of their impartiality. But that will not be enough. What is needed is either an independent commission, along the lines of the one set up to inquire into the events leading up to September 11th 2001, or a bipartisan select committee to investigate the Russia allegations. Neither would have prosecutorial powers, but they could have substantial investigatory resources and be able to subpoena witnesses. There is no reason why prosecutions could not follow once they had reported. Principled Senate Republicans, such as Richard Burr, Ben Sasse and John McCain, are troubled by what the removal of Mr Comey portends. It is high time for them and others to put their country before their party. ■

India's economy

State of disrepair

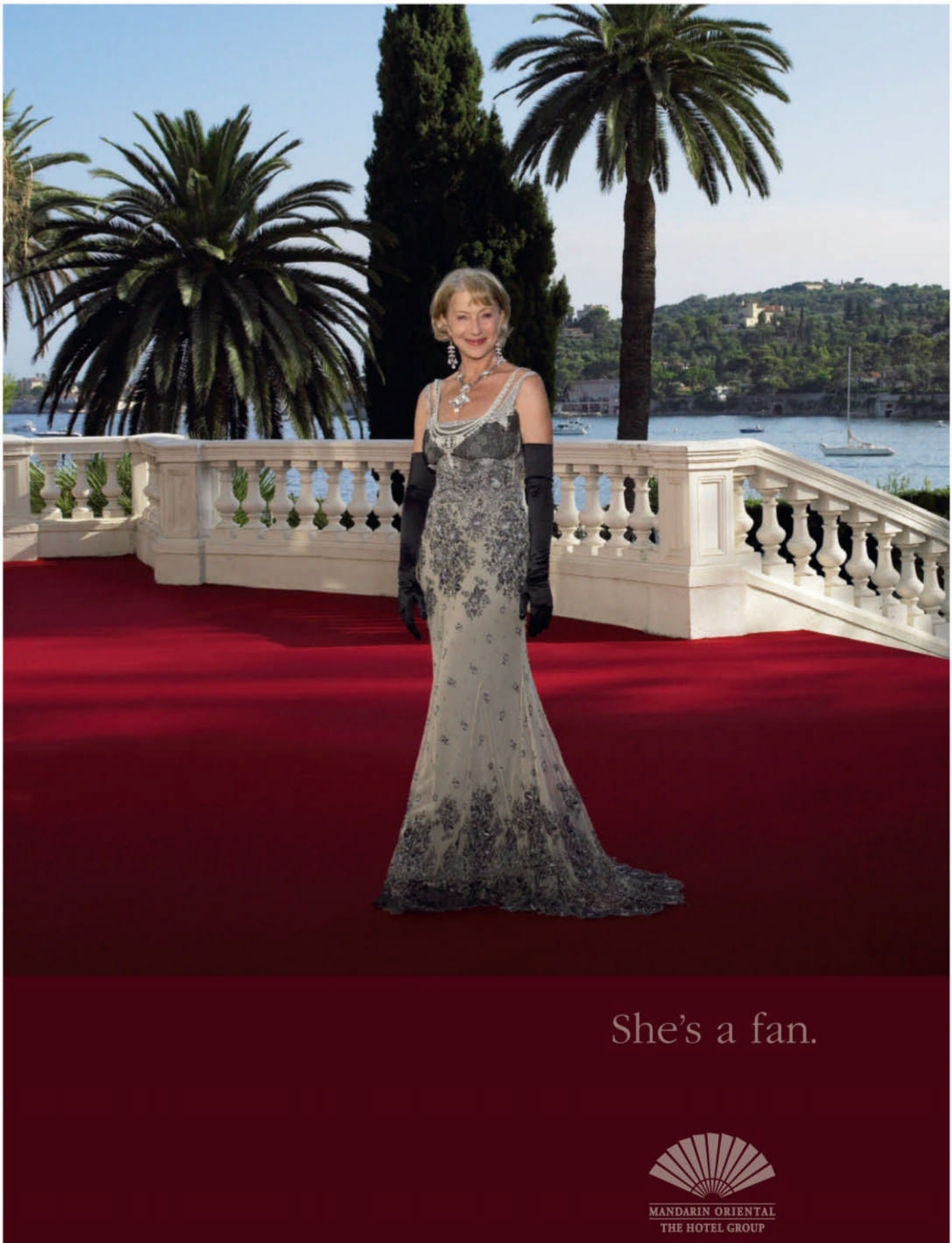
Unless India reins in its spendthrift states, it will eventually suffer a fiscal crisis



ANY amount of parental scrimping and saving is futile if the children run amok with the family credit card. For years, the government of India has tightened its belt, cutting its annual budget deficit from 5% of GDP in 2013 to nearer 3% now. But its parsimony has been matched by the profligacy of India's 29 states. They have spent nearly all the money saved, leaving the country's public finances no better off.

The central government has only itself to blame. By implicitly guaranteeing bonds issued by states, and forcing banks to invest their depositors' money in them, it has unwittingly created the conditions for a future fiscal debacle (see page 65). India can change course cheaply now—or expensively later.

India's states used to be the epitome of fiscal rectitude. It was the central government that wrecked India's credit score—its bonds are rated BBB-, one notch above "junk". But stagnating revenues and higher spending have pushed the states' combined deficits to their highest in 13 years. They now spend more than the central government—and not always wisely. Civil servants are in line for whopping pay rises. The new chief minister of Uttar Pradesh, a state with some 220m people, wants to waive the repayment of loans to farmers, a ruinous policy, which if copied elsewhere, would increase the com- ▸▸



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bined federal and state deficit by 2% of GDP.

Usually, politicians would be deterred from such largesse by bond-market vigilantes, who would make wild borrowing unaffordable. But in India state bonds are issued by the central bank and carry an implicit central-government guarantee. Much as Portugal or Greece overborrowed a decade ago, when they were paying almost the same interest rate as Germany (it did not end well), so Indian states have access to the same cheap financing regardless of the condition of their books.

Indian states are meant to keep their budget deficits below 3% of GDP. But this rule is often trumped by political expediency. Worse, states have a captive market for their debt: Indian banks have to redirect a fifth of their deposits into buying central- or state-government bonds. Authorities also lean on public pension funds and insurance companies to buy state bonds. With financing so abundant, why balance the books?

Financial crises often start with borrowers who have overextended themselves because their lenders assume someone will bail them out. India should act now to prevent a future crash by imposing more discipline on state borrowing, and by pressing markets to discriminate between states with sustainable finances and those on the path to bankruptcy.

Once a central-government guarantee is assumed, however, persuading investors that it does not exist is never easy. One option would be to say explicitly that state bond issues are not guaranteed. Unfortunately, the political costs of not bailing out a struggling state are such that a promise never to intervene lacks credibility. Another tack would be to make the guarantee explicit but limited, up to an authorised threshold; that might inject enough political plausibility to make any additional borrowing more expensive. Simpler still, states could be forced to pay the central government for a guarantee, with the least creditworthy paying most.

Crowding out

More fundamentally, India's banks and pension funds should have much greater freedom to pick investments. As well as the deposit requirements, the authorities routinely nudge public pension funds and insurers to invest in specific bonds. Giving investors more choice over where to put their cash, and forcing states to borrow on the strength of their own balance-sheets, would cause some fiscal tightening. But the reckoning will be bigger and messier if states keep living beyond their means. It is time to signal that they bear responsibility for their own borrowing, and to end the perverse incentives that encourage them to dig themselves ever deeper into debt. ■

Surrogacy

The gift of life

Carrying a child for someone else should be celebrated—and paid for

THE earliest known description of surrogacy is an ugly biblical story: in Genesis, the childless Sara sends her husband to bed with her maidservant, Hagar, and takes the child as her own. It is this exploitative version of surrogacy that still shapes attitudes and laws today. Many countries ban it outright, convinced that the surrogate is bound to be harmed, no matter whether she consents. Others allow it, but ban payment. Except in a few places, including Greece, Ukraine and a few American states, the commissioning parents have no legal standing before the birth; even if the child is genetically theirs, the surrogate can change her mind and keep the baby. Several developing countries popular with foreigners in need of a surrogate have started to turn them away.

These restrictions are harmful. By pushing surrogacy to the legal fringes, they make it both more dangerous and more costly, and create legal uncertainty for all, especially the newborn baby who may be deemed parentless and taken into care. Instead, giving the gift of parenthood to those who cannot have it should be celebrated—and regulated sensibly.

Getting surrogacy right matters more than ever, since demand is rising (see page 53). That is partly because fewer children are available for adoption, and partly because ideas about what constitutes a family have become more liberal. Surrogates used to be sought out only by heterosexual couples, and only when the woman had a medical problem that meant she could not carry a baby. But the spread of gay marriage has been followed by a rise in male couples turning to surrogates to complete their newly recognised families. And just as more women are becoming single parents with the help of sperm donation, more men are seeking to do so through surrogates.

The modern version of surrogacy is nothing like the tale of Sara and Hagar. Nowadays, surrogates rarely carry babies who are genetically related to them, instead using embryos created *in vitro* with eggs and sperm from the commissioning parents, or from donors. They almost never change their minds about handing over the baby. On the rare occasions that a deal fails, it is because the commissioning parents pull out.

A modern surrogacy law should recognise those intending to form a family as the legal parents. To protect the surrogate, it should demand that she obtain a doctor's all-clear and enjoy good medical care. And to avoid disputes, both parties should sign a detailed contract that can be enforced in the courts, setting out in advance what they will do if the fetus is disabled, the surrogate falls ill or the commissioning parents break up.

Emotional labour

Laws should also let the surrogate be paid. Women who become surrogates generally take great satisfaction in helping someone become a parent. But plenty of jobs offer rewards beyond money, and no one suggests they should therefore be done for nothing. The fact that a surrogate in India or Nepal can earn the equivalent of ten years' wages by carrying a child for a rich foreigner is a consequence of global inequality, not its cause. Banning commercial surrogacy will not change that.

Better to regulate it properly, and insist that parents returning home with a child born to a surrogate abroad can prove that their babies have been obtained legally and fairly. Becoming a parent should be a joy, not an offence. ■

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Governing France

Macron's mission

The new president promises reform from the centre. The challenge is immense, but he deserves to succeed

ON MAY 14th, as Emmanuel Macron takes up his duties in the Elysée Palace, spare a thought for what he has already achieved. To become head of state he created a new political movement and bested five former prime ministers and presidents. His victory saved France and Europe from the catastrophe of Marine Le Pen and her far-right National Front. At a time when democracies are being dragged to the extremes by doubt and pessimism, he has argued from the centre that his country must be open to change, because change brings progress.

But spare a thought also for the difficult road ahead (see page 44). Mr Macron has started well, with a sober acceptance speech that evoked unity rather than triumphalism. Yet this is the first time he has been elected to public office. He begins alone in the Elysée, without the backing of any of the established parties. He trounced Ms Le Pen. But if you count abstentions, blank ballots and votes cast chiefly to keep her out, only a fifth of the electorate positively embraced his brand of new politics. Each of the past three French presidents has promised reform—and then crumpled in the face of popular resistance. Left-wing demonstrations against the new president in Paris this week hint at the struggle to come.

Much is at stake. The challenge from Ms Le Pen did not begin with this election and it will not end with her defeat. If Mr Macron now presides over five more years of slow growth and high unemployment, it will strengthen the far right and the hard left, which together got almost half the first-round vote. To put France beyond their reach, he needs to carry through vigorous economic reform. And for that, he needs first to impose his vision on French politics.

Best foot forward

The next few weeks will be crucial. As president, Mr Macron can force through a certain amount of change by decree. But to secure thoroughgoing, lasting and legitimate reform he needs the backing of the legislature. Hence in the elections for the National Assembly in a little over a month's time his party, renamed this week as La République en Marche! (LRM), or "The Republic on the Move!", needs to win a big block of seats.

That is a tall order. The party is just over a year old. This is its first election. Half its candidates for the assembly's 577 seats have, like Mr Macron, never held elected office. Its local knowledge and tactical nous are untested. There is only a slim chance of LRM winning an overall majority.

More probably, Mr Macron will have to preside over a minority government, or form a coalition, dragging him and his party into horse-trading. Having set himself up as a new sort of leader, above party politics, this could tarnish him in the eyes of his supporters, distort his priorities and limit his achievements. To minimise that, this newspaper urges French voters to complete their rejection of Ms Le Pen by backing LRM and giving Mr Macron a chance to put his programme into action.

Even if he controls the assembly, Mr Macron will face France's most potent source of resistance—street protests and strikes. That is what happened in 1995, when Jacques Chirac, at the beginning of his first term as president, waged a battle to reform the economy. After he failed, Mr Chirac abandoned reform for his remaining decade in office. France is still living with the consequences.

If Mr Macron too has only one chance at reform, his focus should be on the joblessness that has robbed the French of hope and which feeds Ms Le Pen's arguments that citizens are being failed by a greedy, ineffectual elite. The unemployment rate is close to 10%; for those under 25, it has been above 20% since 2009. Firms are reluctant to hire new employees because firing them is time-consuming and expensive. The 35-hour week, a thick wedge of taxes on employment and union-dominated sectoral bargaining all put firms off creating jobs. Reform needs to loosen these knots.

However, although the economics is straightforward, the politics is toxic. Each reform, much as it benefits a jobseeker, makes someone already in work less secure.

Mr Macron therefore needs to be ambitious and swift. Ambitious because you can be sure that the left and the unions will fight even small reforms as hard as large ones: if Mr Macron is to rally ordinary citizens against organised labour, he needs to make the fight worthwhile. And swift because, if reform is to succeed, now is as good a time as he will ever get. He is flush with victory. His party will start with the benefit of novelty. He can offer stimulus through apprenticeships and tax cuts. Most of all, he will be acting at a point in the cycle when France's economy is growing—faster, indeed, than at any time since a brief post-crisis rebound in 2010. Labour-market reform takes years to bear fruit. Growth will buy him time.

Speed and ambition have the further advantage of changing the country's position in Europe. France has lost the trust of Germany, which has taken to treating it as the junior partner in the EU. Germany is unwilling to relax further the fiscal rules governing the single currency or to strengthen its governance because, understandably, it fears that it will end up paying the bill (see Charlemagne). Yet failure in France would be a deeper threat to Germany, and to Europe as a whole. France is hindered both by austerity and by the euro's shaky foundations. For Germany to begin to think differently, and cut France some slack, Mr Macron must first convince the government in Berlin that he is in control and determined to reform his country.

Macron prudential

Over the past two decades, France has become used to being the butt of criticism—for its economy, its racial divisions and its resistance to change. Suddenly, under Mr Macron, it is in the limelight. And it is enjoying it.

There is a real danger that he fails—how could there not be when he is so untested? But, as the remarkable Mr Macron takes office, another future is visible: one in which he unleashes the creativity and ingenuity of the French, and sets an example for drawbridge-down democrats across the EU and lays to rest the drawbridge-up fears of his nativist opponents. That is a future this newspaper would welcome. ■


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The SeLFIES model

"Taking the ultra-long view" (May 6th) overlooked other critical reasons for governments to issue ultra-long debt beyond locking-in their financing costs. With life expectancy increasing, pension funds and annuity-writing insurance companies require longer-maturing bonds to hedge their obligations. The looming crisis in defined-contribution pension plans, and the need to fund infrastructure, requires novel alternatives to traditional debt models.

Currently, there is no truly safe, low-cost, liquid instrument tailored for retirees. But governments could issue an innovative, "safe" ultra-long bond instrument, which we call "SeLFIES" (Standard of Living indexed, Forward-starting, Income-only Securities). These proposed bonds start paying investors upon retirement, and pay coupons-only for a period equal to the average life expectancy at retirement (for example, American bonds would pay for 20 years). Unlike Treasury-Inflation Protected Securities that are solely focused on inflation, SeLFIES are indexed to aggregate consumption per person, covering both the risk of inflation and the risk of standard-of-living improvements. SeLFIES are designed to pay people when they need it and how they need it, and they greatly simplify retirement investing. They also give governments a natural hedge of revenues against the bonds (through VATs) and allow this to be a vehicle to fund infrastructure.

The looming global retirement crisis needs to be addressed. The longer governments wait, the higher the cost to them and the taxpayer. SeLFIES ensure retirement security, and the government is a natural issuer.

ROBERT MERTON
Professor of finance
MIT Sloan School of Management
Cambridge, Massachusetts
ARUN MURALIDHAR
Adjunct professor of finance
George Washington University
Washington, DC

On a wing, and a prayer

Banyan is right to bemoan the collapse in the numbers of migratory shorebirds using the East Asian-Australasian Flyway because of reclamation around the shores of the Yellow Sea (April 22nd). But there have recently been some extremely positive signs. The Chinese government has created several new reserves and has just started the process of getting the UN to declare 14 important roosting areas along the Yellow Sea as World Heritage sites. South Korea is working to do the same for the tidal flats of its south-west region. And North Korea is also showing increased interest in conservation. In an age when international co-operation is waning, it is worth celebrating the fact that so many countries are working together to save the amazing birds that link us.

By the way, bar-tailed godwits fly to New Zealand directly from Alaska. That is a non-stop flight of 12,000km in around nine days, the longest recorded flight by any bird, during which they lose half their body-weight. That's a feat that surely merits a bit of help.

JIM EAGLES
Editor
Pukorokoro Miranda Naturalists' Trust News
Auckland

Water, water everywhere

What happens in the Arctic doesn't stay in the Arctic, as you recognise ("Polar bare", April 29th). What we have seen to date is just the tip of the iceberg. The rising sea level, centimetre by centimetre, is inexorably moving shorelines, laying waste to infrastructure and wreaking havoc on property values. Around the world, too many are failing to plan for the foreseeable consequences.

The sea is rising, at least a metre within the lifetime of today's youth and perhaps over three metres if climate mitigation is not pursued aggressively. After 5,000 years of stability, we need to develop long-term pragmatic plans to cope with the disruption. This means investing to adapt our infrastructure, from bridge heights to water treatment facilities to public transport.

The cold reality is that adapting to a rising sea is now largely decoupled from reducing greenhouse gases. Decreasing the heat input will eventually slow the ice melting and the sea rising, but even a switch to 100% renewable energy won't stop it. We have passed the tipping point.

ROBERT CORELL
Chair
International Sea Level Institute
Berkeley, California

A pioneering central bank

Your leader on central bank independence referred to "the British model, in which the government sets an inflation target for the central bank to follow" ("The wars of independence", April 29th). It should be more accurately termed "the New Zealand model".

New Zealand's central bank was not only the first to adopt formally an inflation target in 1988, it was also the first to combine explicit political involvement in the choice of the inflation target with complete instrument independence in delivering that target.

This model, of explicit political involvement in setting the target with full independence over the monetary policy needed to deliver it, was initiated in 1990 in New Zealand, and subsequently copied in Canada, Australia, Sweden and Britain.

Allowing explicit and public political involvement in the choice of the target inflation rate, while leaving the central bank totally independent about how to deliver it, would reduce a lot of the strain between politicians and central banks. It is very hard for the government to criticise a central bank for having policy too tight if inflation is within the inflation target, and is projected to remain so.

DON BRASH
Governor of the Reserve Bank of New Zealand from 1988 to 2002
Auckland

Quantum leaps

You attributed the theoretical idea of a quantum computer to Richard Feynman and you called David Deutsch the father of quantum computing (Technology Quarterly, March 11th). Both made very valuable fundamental contributions, but the founder of quantum computing is Paul Benioff of Argonne National Laboratory, whom you did not mention. Starting in 1980, Dr Benioff published three papers which showed that quantum computing is possible in principle and gave an example of how that could be done. Feynman's variant came later, and it advanced the field enormously because of its greater simplicity and practicality. Dr Deutsch's contribution introduced a way in which certain problems could be solved incomparably faster by a quantum computer than by a classical one. But both were enhancements of Dr Benioff's pioneering work.

MURRAY PESHKIN
Emeritus senior physicist
Argonne National Laboratory
Argonne, Illinois

Infinitive jest

The Economist seems increasingly to prefer actively to write in a way destined consistently to irritate and jar; presumably, so as clearly to demonstrate its commitment consistently to avoid splitting the infinitive (*The Economist* 2017, *passim*).

PAUL DOXEY
London ■

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World Agroforestry Centre

Country Representative - Mali

The World Agroforestry Centre (ICRAF) is looking for a Country Representative for Mali to work under the overall guidance of the Regional Coordinator for West and Central Africa and in effective partnership with appropriate institutions in the Sahel. S/he will in general spend around 30% of time on research, 20% on project leadership and 50% of time on coordination.

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S/he will be a point of contact for national and international partners seeking to work with ICRAF in agroforestry R4D in the Sahel, including wide scale dissemination of agroforestry-based innovations.

S/he will lead ICRAF's Agroforestry research agenda in Mali and supervise the team of seconded, nationally and international -recruited staff based in Bamako and as appropriate.

S/he will develop and promote use of assessment tools and models promoting the role of agroforestry in addressing agroforestry systems issues.

For the full Job description please visit:
http://worldagroforestry.org/working-for-icraf/vacancies

Applications will be considered until **29 May 2017.**

Chief Executive Officer

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Applicants are now sought from candidates who can demonstrate the qualities implied by the description above. These should be directed, in confidence, to Ashley Stephenson at Egon Zehnder via CBH@egonzehnder.com. The deadline for applications is 5pm on May 26, 2017.

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President & CEO

London, Ontario, Canada

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WASHINGTON, DC

The administration's economic strategy is good in parts, but unimaginative, incoherent and insufficient

"IF YOU want to test a man's character, give him power." To those sitting across the *Resolute* desk from Donald Trump, Abraham Lincoln's dictum was less than reassuring. In his first interview with *The Economist* since taking office, which was dedicated to economic policy and took place five days before the sacking of FBI director James Comey (see page 23), Mr Trump already seemed altered by the world's most powerful job. The easy charm he displayed in his comfortable den on the 26th floor of Trump Tower when interviewed during last year's campaign had acquired a harder edge. The contrast then visible between solicitous private Trump and public Trump, the intolerant demagogue of his rallies, was a bit less dramatic. Perhaps his advisers—including Gary Cohn and Steve Mnuchin, both of whom were in attendance in the Oval Office, and Jared Kushner, Reince Priebus, and Vice-President Mike Pence, who drifted in for parts of the interview—are succeeding in their effort to keep the freewheeling president to a more precise schedule. When it comes to the president's economic policy agenda, however, it seems only one voice counts: Mr Trump's.

Is there such a thing, we asked the president at the outset, as "Trumponomics?" He nodded. "It really has to do with self-respect as a nation. It has to do with trade deals that have to be fair."

That is an unusual priority for a Republican president, but not for Mr Trump. The president has argued opposing sides of most issues over the years. But in his belief that America's trade arrangements favour the rest of the world he has shown rare constancy. That makes Mr Trump's apparent lack of interest in the details of the trade arrangements he fulminates against all the more astonishing. At one point he ascribed the faults he finds with the North American Free-Trade Agreement (NAFTA) to American officials being in a perpetual minority on its five-member arbitration panel: "The judges are three Canadian and two American. We always lose!" But an American majority on any given panel is as likely as a Canadian one.

His feelings about the failure of America's trade regime (see subsequent article) show how opportunism and gut feeling tend to guide Mr Trump's thinking. For almost half a century, he has sold himself a master negotiator. Rubbishing the government's dealmaking record (which he, disdainful of geopolitics, reduces to the zero-sum terms of a property transaction) is part of that shtick. He is not merely cynical, however. An outsider who clung to memories of his father's building sites in New York's outer boroughs long after he made it in Manhattan, Mr Trump appears not merely to understand, but to share, the unfocused resentment of globalisation, and its hoity-toity champions, harboured by many working-class Americans.

The result is an emotional and self-regarding critique of America's imperfect but precious trade architecture that appears largely waterproofed against economic reality. Having been recently persuaded not to withdraw America from NAFTA—a bombshell he had planned to drop on the 100th day of his presidency, April 29th—Mr Trump now promises a dramatic renegotiation of its terms: "Big isn't a good enough word. Massive!"

Among Mr Trump's economic advisers, perhaps only Peter Navarro, an economist with oddball views, and Stephen Bannon, the chief strategist, are outright protectionists. Most are nothing of the sort. Mr Mnuchin, the treasury secretary, and Mr Cohn, the chief economic adviser, are former investment bankers and members of a White House faction led by Mr Kushner, the president's son-in-law, known as the globalists. So it is a sign of the issue's importance to Mr Trump that all his advisers nonetheless speak of trade in Trumpian terms. "I used to be all for free trade and globalisation," says an ostensible globalist. ▸▸

"I've undergone a metamorphosis." Kafka, eat your heart out.

Notwithstanding the president's concern for national pride, the main aim of Trumponomics is to boost economic growth. On the trail, Mr Trump sometimes promised an annual growth rate of 5%; his administration has embraced a more modest, though perhaps almost as unachievable, target of 3%. This makes Mr Trump's ambition to mess with America's trade arrangements all the more obviously self-defeating. A restrictive revision of NAFTA, an agreement that has boosted trade between America and Mexico tenfold, would dampen growth.

Toothsome morsels

Trumponomics' other main elements are familiar supply-side tools. The most important, deregulation and tax reform, have been Republican staples since the Reagan era (see timeline). They are much needed; but they also need to be done well. There are reckoned to be 1.1m federal rules, up from 400,000 in 1970. Mr Trump has signed an order decreeing that federal agencies must scrap two for every new one they issue, which is laudable. He has also appointed as director of the Environmental Protection Agency a climate-change sceptic, Scott Pruitt, who appears not to believe in regulating industrial pollution, which is not. "I've cut massive regulations, and we've just started," Mr Trump says.

The tax code, similarly, is so tangled that America has more tax preparers—over 1m, according to a project at George Washington University—than it has police and firefighters combined. The president promises to restore sanity by reducing income-tax rates and cutting corporate-tax rates to 15% while scrapping some of the myriad deductions to help pay for it. "We want to keep it as simple as possible," he says.

A fourth element, infrastructure investment, is more associated with the Democrats, and equally desirable. Mr Trump and his advisers have promised anywhere between $550m and a trillion dollars to make America's "roads, bridges, airports, transit systems and ports…the envy of the world". A fifth ambition, to enforce or reform immigration rules, is rarely spoken of by him or his team as an economic policy. But if Mr Trump's promises in this area are credible, it should be. He has launched a crackdown on illegal border crossings and also made it easier to deport undocumented workers without criminal records—a category that describes around half of America's farm workers. Again, Mr Trump's economic nationalism and his promises of redoubled growth are at odds.

Trumponomics, despite some tasty ingredients, is guilty of worse than incoherence. It also suggests a dismal lack of attention to the real causes of the economic disruption imposing itself on Mr Trump's unhappy supporters. Automation has cost many more manufacturing jobs than competition with China. The winds of change blowing through retailing will remove far more relatively low-skilled jobs than threats aimed at Mexico could ever bring back (see page 61).

Mr Trump never mentions the retraining that millions of mid-career Americans will soon need. He appears to have given no thought to which new industries might replace those lost jobs. Nowhere in his programme is there consideration of the changes to welfare that a more fitfully employed workforce may require. Eyeing the past, not the future, he fetishises manufacturing jobs, which employ only 8.5% of American workers, and coal mining, though the solar industry employs two-and-a-half times as many people. Growth is good; but Trumponomics is otherwise a threadbare, retrograde and unbalanced response to America's economic needs.

Where is this heading? The S&P500 has gained 12% since Mr Trump's election, suggesting that investors believe his promises of growth and discount his crazier rhetoric. In recent weeks he has seemed to vindicate that confidence, preferring to moderate his views than pay a price for them. He was persuaded not to withdraw from NAFTA after his agriculture secretary, Sonny Perdue, presented him with a map showing that many of the resultant job losses would be in states that voted for him. Where once he railed against legal, as well as illegal, immigration, he appears to have been persuaded of the economic damage restricting the influx would do. Asked whether he still meant to curb legal immigration, he protested: "No, no, no, no!...I want people to come in legally...We also want farm workers to be able to come in...We like those people a lot."

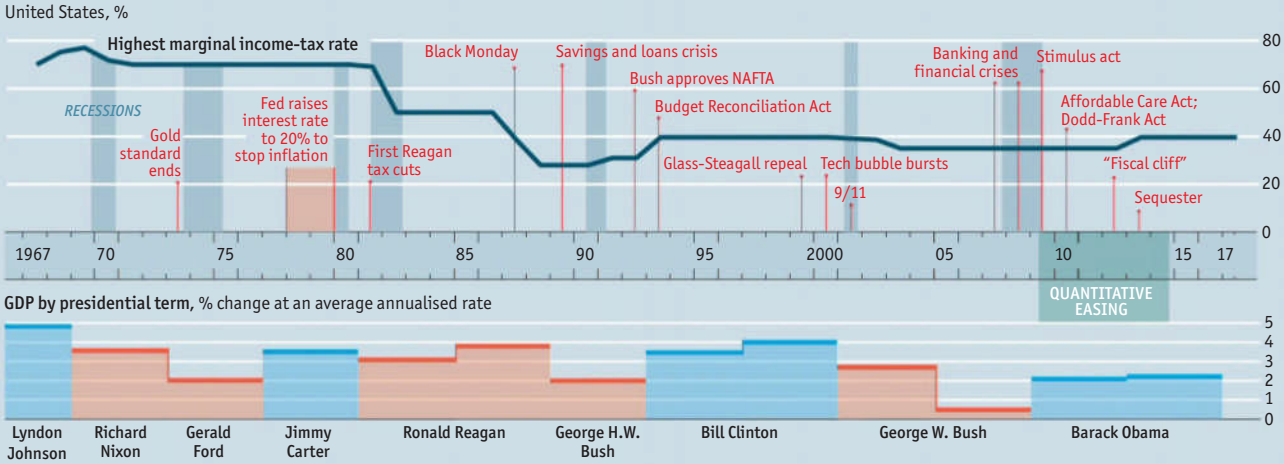
Bitter aftertaste

Yet this drift to pragmatism should not be relied on. On trade, especially, Mr Trump has deeply held views, sweeping powers, a history of intemperance and a portfolio of promises he thinks he should keep. The fact that he has not yet fired the self-styled custodian of those campaign promises, Mr Bannon, who is at war with the president's treasured son-in-law, Mr Kushner, is emblematic of that bind.

Another reason for caution is that Mr Trump is losing control over those parts of his economic agenda, including tax reform and infrastructure spending, where he is largely reliant on Congress. Given how little of anything gets done on the Hill these days, this looks like another check on the president—one for which his own behaviour is additionally to blame. To pass ambitious tax or infrastructure bills would require support from the Democrats. Yet the president rarely misses an opportunity to insult the opposition party, including his predecessor, Barack Obama, whose health-care reform and regulatory legacy he is trying to dismantle. It is thus hard to

Presidents and precedents

United States, %



Sources: Tax Policy Centre; "Presidents and the US Economy", by A.S. Blinder and M.W. Watson; *The Economist*

imagine the Democrats voting for anything in Mr Trump's agenda—and there are limits, the president concedes, to his willingness to persuade them to. Would he, for example, release his tax returns, as the Democrats have demanded, if they made that the price of their support for tax reform? He would not: "I think that would be unfair to the deal. It would be disrespectful of the importance of this deal."

The result looks likely to be no serious infrastructure plan and tax cuts which will be temporary and unfunded—the sort that Republicans, when in power, tend to settle for, and to which Mr Trump already appears resigned. Where once he claimed to see bubbles in the economy, he now says that a dose of stimulus is what it needs. If Mr Trump's past brittleness under pressure is a guide, such setbacks, far from cowing him, could spur him to bolder action in fields where he sees less constraint.

The extent of his rule-cutting already looks unprecedented. If Mr Bannon has his way, it will put paid not merely to outworn regulations, but to whole arms of the federal bureaucracy, perhaps including the EPA. Whether he succeeds in that will probably be determined by the courts. How far the administration acts on Mr Trump's trade agenda is harder to predict, though likelier to define it.

Perhaps Mr Trump will continue to restrain himself in this regard. As the pressures of office mount, so the reasons to avoid a damaging trade war will multiply. China might offer more help against North Korea; or Mexico some sort of face-saving distraction from the border-wall Mr Trump has promised but is struggling to build. Don't bet on it, though. Mr Trump is a showman as well as a pragmatist. His hostility to trade is unfeigned. And his administration, as the sacking of Mr Comey might suggest, could yet find itself in such a hole that a trade war looks like a welcome distraction. ■

In his own words

What he wants

WASHINGTON, DC

Excerpts from our interview

Trump: We have nations where…they'll get as much as 100% of a tax or a tariff for a certain product and for the same product we get nothing, okay? It's very unfair.

***

Trump: I have a very good relationship with Justin [Trudeau, the Canadian prime minister] and a very good relationship with the president of Mexico. And I was going to terminate NAFTA last week, I was all set, meaning the six-month termination. I was going to send them a letter, then after six months, it's gone. But the word got out, they called [...] it was an amazing thing.

***

The Economist: It sounds like you're imagining a pretty big renegotiation of NAFTA. What would a fair NAFTA look like?

Trump: "Big" isn't a good enough word. Massive.

***

The Economist: What about legal immigration? Do you want to cut the number of immigrants?

Trump: [...] I want to go to a merit-based system. Actually two countries that have very strong systems are Australia and Canada. And I like those systems very much.

The Economist: The biggest winners from this tax cut, right now, look as though they will be the very wealthiest Americans.

Trump: Well, I don't believe that. Because they're losing all of their deductions, I can tell you.

***

The Economist: But beyond that it's okay if the tax plan increases the deficit?

Trump: It is okay, because it won't increase it for long. You may have two years where you'll… you understand the expression "prime the pump"? [...] We're the highest-taxed nation in the world. Have you heard that expression before, for this particular type of an event?

The Economist: "Priming the pump?"

Trump: Yeah, have you heard it?

The Economist: Yes.

Trump: Have you heard that expression used before? Because I haven't heard it. I mean, I just…I came up with it a couple of days ago and I thought it was good.

***

Full transcript at Economist.com/Trumptranscript

The Trump trilemma

You can't always get what you want

WASHINGTON, DC

Donald Trump promises expensive tax cuts, an investment boom and a smaller trade deficit. He can't have all three

THE currents of trade, President Donald Trump accepts, will ebb and flow: "Sometimes they can be up and sometimes we can be up," he said in an interview with *The Economist* on May 4th. A long-term trade deficit, though—such as that between America and Mexico, which ran to $56bn in 2016—is bad. Bad because it shows that a poor trade deal has been made (see next story); bad because money is being thrown away. Achieving more balanced trade, Mr Trump and his team say, will, along with cutting taxes and encouraging more business investment, create jobs and boost growth.

Unfortunately the three proposed pillars of this new prosperity are incompatible. When Americans import more than they sell abroad, foreigners accumulate dollars. Rather than sit on that cash, they invest it in dollar-denominated assets. It is as if container ships arrived at American ports to deliver furniture, computers and cars, and departed filled with American stocks and bonds. Over time, those assets yield returns in the form of interest, dividends and capital gains. For instance, American taxpayers must pay interest to Japanese holders of Treasury bonds.

To the extent that trade deficits thus represent borrowing from abroad, there is some truth to the idea that they could

erode American wealth. But that is to ignore a crucial point about the debt incurred: it comes cheap. America has run current-account deficits—which are substantially driven by the balance of trade—almost every year since 1982. As a result, foreigners own American assets worth $8.1trn more than the assets Americans own overseas, a difference equivalent to 43% of America's GDP.

Despite this, America still takes in more income from its investments abroad than it pays out. In 2016 the balance totalled 1% of GDP. This unlikely profit partly results from the "exorbitant privilege" that comes with issuing the dollar, the world's principal reserve currency. Foreigners, particularly banks and governments, have a large appetite for dollar-denominated assets (they want those returning container ships full). That in turn makes it cheaper for Americans to raise funds.

Viewing the trade deficit as cheap borrowing exposes the tension at the heart of Trumponomics. If they are to do without the foreign capital they currently import, thus closing the trade deficit, Americans must save more. Yet rather than squirrelling away its money, Mr Trump wants the private sector to go on a spending-and-investment spree, spurred on by deficit-financed tax cuts. "We have to prime the pump," he says, quite the Keynesian.

It is by no means certain that the thus-primed pump will provide growth on the scale he wants. But history illustrates the likely effect on the trade deficit. In 1981 Ronald Reagan's tax cuts sent the federal government's deficit soaring, from 2.5% of GDP in 1981 to 4.9% in 1986. The current account lurched into deficit almost simultaneously. Following this experience, the notion of "twin deficits"—in government borrowing and trade—became popular.

The next decade showed that there was a third factor to consider: firms and households matter, too. As the economy grew rapidly in the late 1990s, the government budget approached balance, yet the current-account deficit grew. This time, it was the private sector, giddy with fast growth and a booming stockmarket, running up debts (see chart 1). In 2000 firms' net borrowing reached almost 5% of GDP; households barely saved at all.

Total net borrowing by the government, firms and consumers will determine the current account under Mr Trump, too. If the administration increases the budget deficit or sparks more private investment—such as the $1trn spending on infrastructure that it hopes to unleash—the trade deficit will almost certainly rise.

Who is lending to whom does not much matter for long-term economic growth. Far more important is that the funds are invested productively. To that end, the administration wants to grease the supply side of the economy, thereby increasing the rate of productivity growth, which has been slow since the mid-2000s. This is the motivation behind Mr Trump's deregulatory agenda.

The 3% economic growth targeted by Steve Mnuchin, the treasury secretary, would be ambitious under any circumstances. It is particularly so now because it must be achieved as the population ages and growth in the labour force slows. Between 2014 and 2024, the adult population will grow by nearly 9%, but the ranks of the over-65s will swell by almost 38%.

A two-legged stool

The Committee for a Responsible Federal Budget, a think-tank, reckons that total-factor-productivity growth of 2.3% is needed for growth to hit 3% in the face of this demographic headwind. Such rapid productivity growth has not been achieved over any ten-year period since at least 1949 (see chart 2). A productivity boom on this scale would also probably widen the trade deficit, at least temporarily, for two reasons.

First, it would make America a stark outlier, because the productivity slowdown is global. From 2005 to 2015, GDP per hour worked grew by an average of just 0.9% a year in the OECD, a group of mostly rich countries, compared with 1% in America. Were American capital and workers suddenly to become much more productive than those elsewhere, foreign investors would covet American assets even more than they do today. Their purchases would push up the value of the dollar, encouraging imports and squeezing exports. If productivity gains were concentrated in sectors benefiting from deregulation, such as financial services or energy production, the dollar appreciation would disproportionately hurt manufacturing workers.

The second reason why productivity gains might widen the trade deficit is that consumers, anticipating strong wage growth, would probably reduce their saving for a while, in effect spending some of their fatter pay-packets before the relevant paydays dawn. Such a drop in saving associated with an increase in productivity contributed to the current-account deficit in the late 1990s.

There is a possible escape from the Trump trilemma. American firms have an estimated $2.5trn of cash parked abroad—money that the president wants them to bring home and invest. One survey from 2011 found that 54% of this cash was held in foreign currencies. Repatriating it would probably cause the dollar to rise, worsening the trade deficit.

Yet if the president removes the underlying incentive to book profits overseas in the first place—America's high corporate-tax rate—the deficit might appear to improve. Firms would no longer try to make it seem as if production happened abroad through dodges like moving intellectual property around. With lower taxes in America accountants might shift "production" back home, improving the trade balance. Economists at Bank of America Merrill Lynch have calculated that this could improve the reported trade deficit by as much as half. Such an improvement, though, would be mainly cosmetic.

The world economy has endless moving parts, many of which could conspire to make Trumponomics seem like a success or a failure. But economic logic and past experience dictate that government deficits and investment booms drive trade deficits up. Sooner or later, Mr Trump must confront this fact. ■

Zero-sum game 1

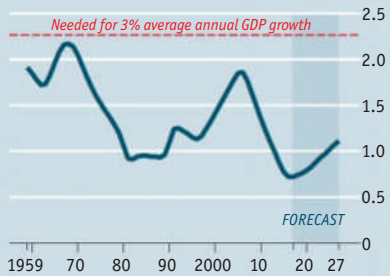
United States, net lending by sector, % of GDP

Source: Bureau of Economic Analysis

Hard target 2

United States, total factor productivity

Ten-year rolling average, % increase on a year earlier



Sources: Committee for a Responsible Budget; CBO

Reassessing global trade

Make his day

There could be a new art to America's trade deals

DONALD TRUMP claims to like free, fair and smart trade. It is precisely for that reason, he says, that he doesn't like the rules under which America trades: "I'm not sure that we have any good trade deals." The current dispensation allows imports to eviscerate American employment and unfair barriers abroad to stymie American exporters. Time to even things up; time to move towards reciprocity.

Mr Trump is hardly the first president to complain about trade deals. Barack Obama criticised the North American Free-Trade Agreement (NAFTA) during his campaign to be president, then negotiated an upgrade while in office, the doomed Trans-Pacific Partnership. Mr Trump's plans for a huge renegotiation of NAFTA are arguably an escalation rather than an absolute departure. The depth of his suspicions of the World Trade Organisation (WTO) looks like a fundamental shift.

The WTO is a pact with 163 other countries, setting out tariff commitments and offering a forum to settle trade disputes. There are three discernible reasons for the Trump administration's dislike of it. The first is that 77% of America's trade deficit stems from trade with countries that trade with America under WTO rules. The second is that America's tariff commitments under the WTO are indeed lower than other countries'. In 2015 America applied an average tariff of 3.5%, compared with 4.0% for Japan, 5.1% for the EU and 9.9% for China. (The highest average, 34%, belongs to the Bahamas.) That sort of thing is pretty hard to square with Mr Trump's vision of reciprocity. And the third is a suspicion that WTO rules prevent America from cutting "good" deals with other countries.

America's trade deficit is a poor indicator of the success of the WTO. In June 2016 the United States International Trade Commission, an independent American agency, assessed current and past research on the benefits of membership; the evidence suggested that it boosts trade flows between 50% and 100%. That means bigger markets for American exporters and cheaper stuff for shoppers, as well as healthy competition.

The issue of non-reciprocal access is more complex. The WTO works according to the "most-favoured nation" principle introduced to American trade policy by Franklin Roosevelt in 1934. The idea is that if a country reduces a tariff imposed on goods from another country, it will do the same for all the other partners in the trade deal. The principle was supposed to make cutting deals easier: when signing a deal, trade partners could feel safe that they were not about to be undercut by a slightly lower tariff elsewhere. It was also meant to avoid the resurgence of anything like Britain's exclusionary policy of "Imperial preference", which had been used to carve out trade blocs in a way that kept America out.

When Roosevelt was crafting this policy, tariffs were eye-wateringly high. In the second half of the 20th century, tariffs were reduced with the aim of luring other countries away from the influence of communism. The most-favoured-nation principle meant that, as the WTO expanded, some new entrants could benefit from trade liberalisation without doing much tariff-cutting themselves—what trade economists call the latecomer's advantage. When China formally entered the WTO in 2001, it could benefit from tariffs between the EU and America that had been haggled downwards for decades.

The WTO's most-favoured-nation principle means that America cannot raise its tariffs against countries that impose high tariffs on it, as Wilbur Ross, Mr Trump's commerce secretary, has suggested it logically should. And it does indeed leave America with fewer concessions to offer when striking new deals.

There are real drawbacks to the current multilateral trading system. The WTO system of settling disputes is slow; getting new rounds of tariff cuts through seems practically impossible. But these drawbacks are quite unlike the restraints it places on the sort of muscular reciprocation Mr Trump's team contemplates. Those restraints are not failures: they are part of the point of the pact.

In the best case, the threat of a reciprocal tax or tariff might force another country or countries to lower their tariffs. Perhaps Mr Trump could squeeze the tariff on car imports to China, currently 25%, down to the level on car imports in America, currently 2.5%, on the back of a credible threat to abandon the WTO. It could work to clamp down on common gripes about, for example, China's habit of dumping its excess capacity on global markets. The Trump administration is currently mulling over whether imports of steel and aluminium are a threat to national security, for example.

Over the edge

But there is a limit to the stress that the WTO can take. The system is designed to put up with disputes; if one country breaks the rules, then others can retaliate, but only by enough to compensate them for the damage. It is not designed to deal with disregard for the norms on which it is based, including the most-favoured-nation principle, spreading from one very big economy to the world at large. If other countries interpret Mr Trump's trade policy as abandonment of the WTO, all hell could break loose. By trashing such norms, the world could descend into the sort of tit-for-tat trade war that Roosevelt was trying to fix. If Mr Trump's foreign relations degenerate into acrimonious protectionism, then American shoppers and workers will lose. What constrains America now constrains other countries, too. ■

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The sacking of James Comey

Biting the hand that made him

WASHINGTON, DC

Donald Trump's move against the FBI director was either incompetent or malign

WHEN the FBI director first learned of his sacking by Donald Trump, after news of it flashed up on television screens at an event he happened to be attending in Los Angeles, he thought it was a joke. That sentence can be confidently bequeathed to future historians of the 45th president. It points to the central, crazy conundrum of Mr Trump's administration, the answer to which could determine either the future of the republic, or something much less than that. Is the administration chaotic and unworthy of its place in a mighty tradition, but more farcical than corrupting—a madcap approximation of government by a reality-television star? Or is Mr Trump, who has just become the first president since Richard Nixon to fire a man who was leading a formal investigation into his associates, and perhaps himself, a threat to American democracy?

The Democrats naturally suspect the worst. Even before Mr Comey's sacking, they were demanding that Congress's Republican leaders should launch a special investigation into the subject of his probe—Russia's efforts to swing last year's election for Mr Trump—to safeguard it against political meddling. It emerged that Mr Comey's inquiries had led him to the peculiar closeness to Russia of two of Mr Trump's sometime advisers, Roger Stone, a libertarian gadfly, and Paul Manafort, formerly the president's campaign chief. The FBI director was also said to have requested more resources for the investigation. His firing therefore "raises profound questions about whether the White House is brazenly interfering in a criminal matter", said Adam Schiff, a Democratic congressman and leading light in a separate investigation into the Russia allegations in the House of Representatives.

A handful of Republican senators, including Richard Burr (who is leading a separate Senate investigation into Russian meddling), John McCain and Ben Sasse, appear to sympathise. Sacking Mr Comey—who now has no party registration, but was a Republican when Barack Obama appointed him—in the thick of such an important investigation seemed hard to justify, they said. Unless, they might have added, Mr Trump had something to hide from him. Mr Comey, noted Mr Burr, had been "more forthcoming with information" than any of his predecessors.

If the president nominates one of his stooges, such as Rudy Giuliani or Chris Christie, to replace Mr Comey, that opposition will grow. Such a nominee would struggle to win Senate confirmation. Alternatively, the president will have to name a worthier replacement—and risk that new director taking up where Mr Comey left off with redoubled gusto. Either way, if Mr Trump's intention was to shut down the Russian intrigue, he has probably failed.

To give the president the benefit of the doubt, it is just about conceivable that he failed to appreciate what a big deal sacking Mr Comey would be. Seemingly immune to the norms that have constrained most of his predecessors—including Nixon, who took far greater pains to hide his ethical shortcomings—Mr Trump is steadily redefining the extent to which politics is the art of getting away with it. And Mr Comey, four years into a ten-year term, was so hated by Democrats that the president perhaps banked on his removal stirring little serious opposition. He had already fired as many senior figures as most presidents get through in a term, including the acting attorney-general, Sally Yates, and his first national security adviser, Mike Flynn. The former, among several affronts to the administration, had noted that Mr Flynn was secretly in cahoots with the Russian ambassador; the latter was sacked after journalists rumbled that story.

Mr Comey's unpopularity on the left stemmed from his decision to inform Congress, 11 days before the general election last November, that he was reopening an investigation into an already raked-over and, as it turned out, overblown scandal concerning Hillary Clinton's e-mail arrangements as secretary of state. He did not, it later transpired, at the same time see fit to inform Congress of the FBI's concurrent counter-espionage investigation into members of the Trump campaign.

This intervention may have cost Mrs Clinton the presidency. Her five-point lead in the polls promptly tumbled to two points—the margin of her eventual victory in the popular vote. That did not to prevent Mr Trump, thanks to electoral-college arithmetic, squeaking to victory. The unconvincing defence of his actions Mr Comey has since offered, including in testimony to Congress on May 3rd, has only highlighted how misjudged they were. A recent admission that, despite his clear ▸▸

conscience, a notion that he might have influenced the election made him feel "mildly nauseous" was additionally irritating.

Mr Trump claims to have axed Mr Comey in part because of this error. That is incredible. Never one to look a gift-horse in the mouth, the president had formerly praised Mr Comey's "guts" in going after Mrs Clinton (though he criticised him for not pressing charges against her). The least-troubling alternative interpretation is that he had simply wearied of an FBI director whose independent-mindedness he has seemed increasingly to resent, including, but not only, over his dogged pursuit of the Russia investigation.

Alternatively Mr Trump's doubters are right, and he is in real fear of the FBI probe. His notice letter to Mr Comey—hand-delivered to the FBI director's desk, in a nice Trumpian touch, by the president's former bodyguard—strained to allay that impression. "While I greatly appreciate you informing me, on three separate occasions, that I am not under investigation, I nevertheless concur with the judgment of the Department of Justice that you are not able to effectively lead the bureau," Mr Trump wrote. It read almost like a cry for help. ■

Special prosecutors

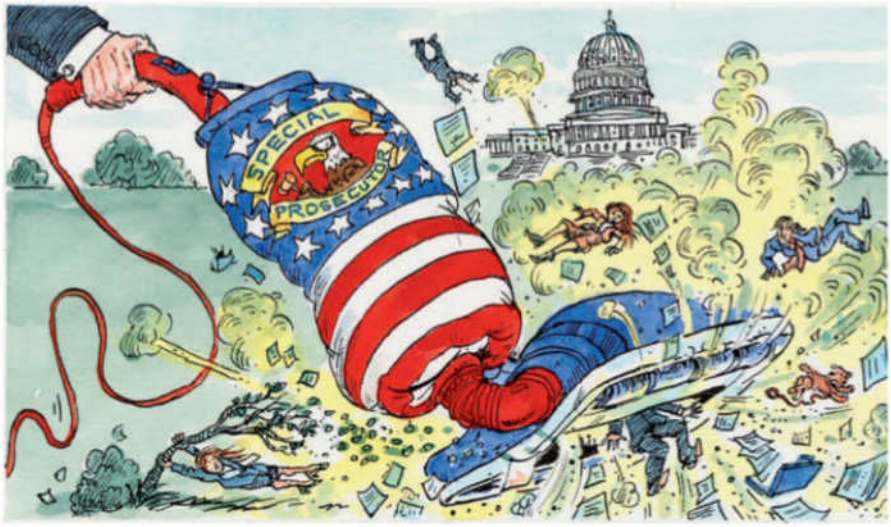
Starry night

ATLANTA

There is no neat way of investigating high-level misbehaviour

FOR many Americans, the term "special prosecutor" invokes the spectre of Kenneth Starr, whose long pursuit of the Clintons led eventually to Bill's impeachment. The analogy points to two big objections faced by those who urge the appointment of a similar figure now. First, such inquiries can seem interminable, punitive and biased; second, the office that Mr Starr once occupied no longer exists.

Even before the dismissal of James Comey, who oversaw the FBI's probe into links between Donald Trump's campaign and Russia, many Democrats were dissatisfied with the various inquiries already in train. Since Mr Comey went, two solutions have been energetically pressed. One is a special or independent prosecutor. Under a law passed after the Watergate scandal, to boost the credibility of those scrutinising the executive, appointments such as Mr Starr's were made by a panel of judges; the prosecutors had the authority to bring charges. Quite often they did not. Nevertheless, both political parties came to believe that the arrangement invested too much power in one person, who could use it to wage a remorseless campaign. "People have short memories," observes Josh Blackman, of South Texas College of Law, of the yen for a similar fix today.



The relevant law expired in 1999. The option now is for a special counsel to be appointed by the attorney-general, or, in this case, his deputy—since Jeff Sessions has recused himself from all Russia-related decisions after misleading senators about his contacts with the Russian ambassador. Unhappily, Rod Rosenstein, Mr Sessions's deputy and so the man who would take charge of such an appointment, was also involved in Mr Comey's removal. Having installed a special counsel, Mr Rosenstein could fire him. Moreover, after Mr Comey's dismissal, supposedly at Mr Sessions's recommendation, the attorney-general's own recusal seems less convincing.

John Barrett of St John's University in New York, who worked for the independent counsel in the Iran-Contra affair of the 1980s, points out that the terms of an appointment could give a prosecutor broad investigative clout. There would be an almighty stink if he were dismissed without good cause, as there was when Richard Nixon ordered the firing of Archibald Cox, the special counsel looking into Watergate. That said, Mr Trump's brutal treatment of Mr Comey suggests that the president might be willing to hold his nose.

The alternative is for Congress to establish either a bipartisan committee comprised of its members—a variant favoured by Senator John McCain—or an independent commission made up of outside experts. The Church Committee, which looked into intelligence skulduggery in the 1970s, was in the former category; the commission that examined the terrorist attacks of September 11th 2001 fell into the latter.

The danger is that partisanship might forestall either idea entirely. It has already undermined the House Intelligence Committee's inquiry, which was almost capsized by the antics of Devin Nunes, its chairman. He has recused himself too, but a hearing of a Senate judiciary subcommittee this week underscored the problem. Told that the White House ignored warnings about the (now former) national security adviser, Mike Flynn, being vulnerable to blackmail, Ted Cruz chose to ask about Hillary Clinton's e-mails.

Still, there are signs that some Republicans are coming round. A congressional panel would be fraught and slow but, especially if the FBI's work is now shelved, it might be the best way to unearth the truth. Otherwise, hope rests on a combination of two things Mr Trump hates: a robust press, and leaks. ■

Opioids

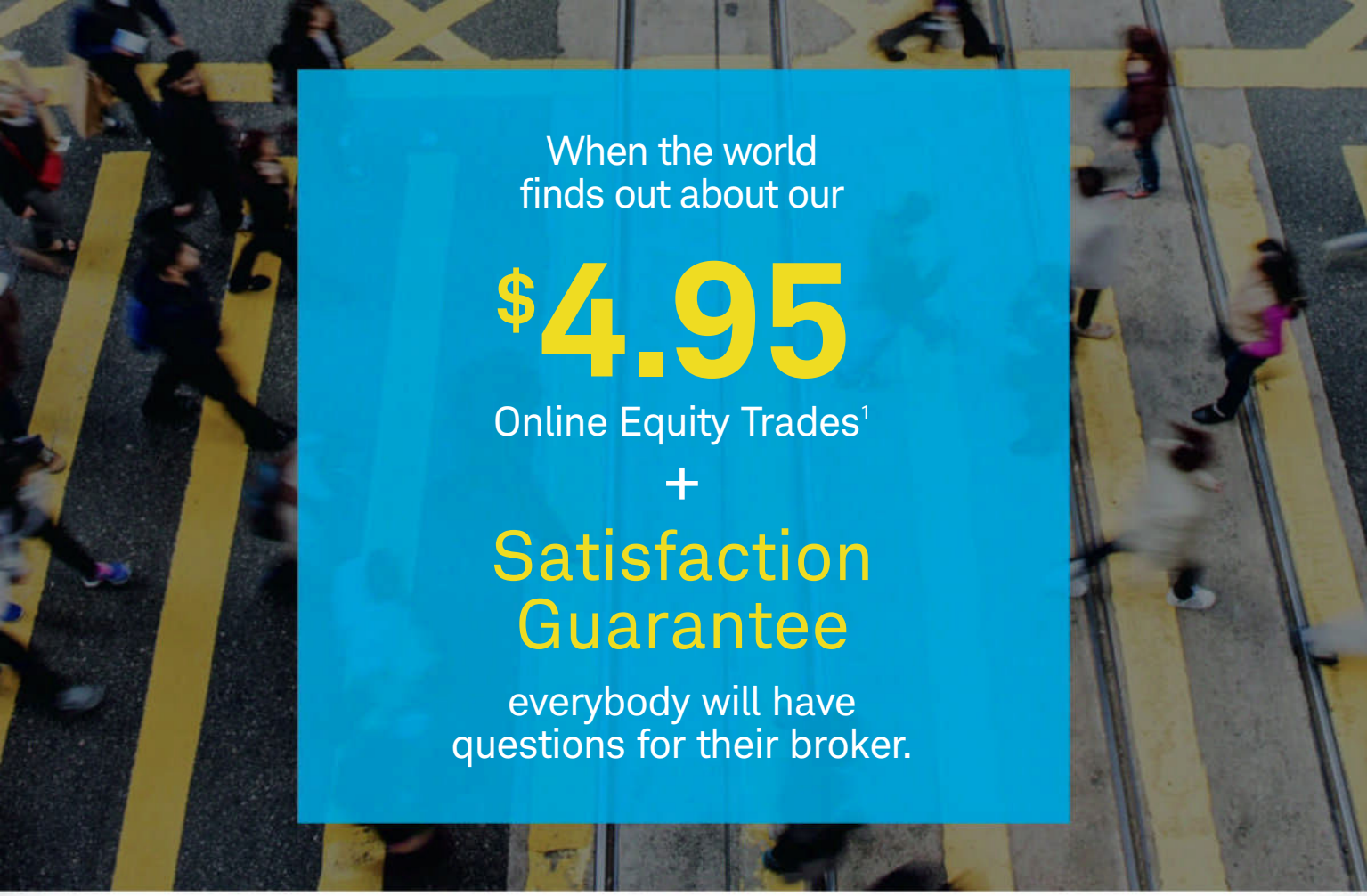
A selective scourge

LOS ANGELES

Opioid deaths say more about drug markets than about white despair

THEY have America in a deadly grip. In 2015, the most recent year for which full statistics are available, 33,091 Americans died from opioid overdoses, according to the Centres for Disease Control—almost three times the number who perished in 2002. Nearly as many Americans were killed by opioids in 2015 as were killed by guns (36,132) or in car crashes (35,092). In the state of Maryland, which releases more timely figures, drug-overdose deaths were 62% higher in the first nine months of 2016 than a year earlier.

The opioid epidemic is quite unlike past drug plagues. Deaths are highest in the Midwest and north-east, among middle-aged men, and among whites. Some of the worst-affected counties are rural. In 2013 a 40-year-old woman walked into a chemist's shop in the tiny settlement of Pineville, West Virginia, pulled out a gun, and



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demanded pills. Don Cook, a captain in the local sheriff's department, says he continues to nab many people for illegally trading prescription painkillers.

The epidemic is, in short, concentrated in Donald Trump's America. (Commendably, Mr Trump raised the danger of opioids on the campaign trail; sadly, he has done little since becoming president beyond setting up a commission.) It has even been argued that the opioid epidemic and the Trump vote in 2016 are branches of the same tree. Anne Case and Angus Deaton, both economists at Princeton University, roll opioid deaths together with alcohol poisonings and suicides into a measure they call "deaths of despair". White working-class folk feel particular anguish, they explain, having suffered wrenching economic and social change.

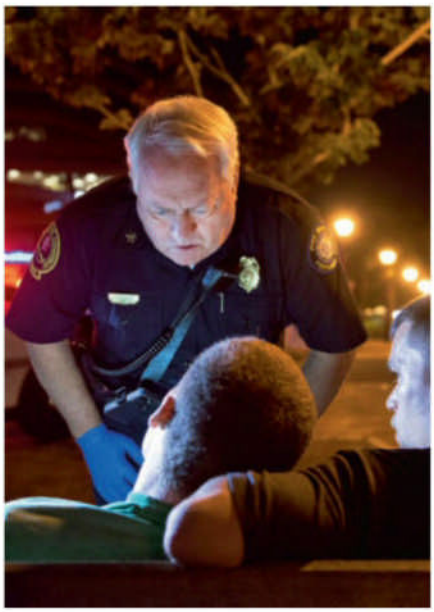
As an explanation for the broad trend, that might be right. Looked at more closely, though, the terrifying rise in opioid deaths in the past few years seems to have less to do with white working-class despair and more to do with changing drug markets. Distinct criminal networks and local drug cultures largely explain why some parts of America are suffering more than others.

Opioids can be divided into three broad groups. First, and most notorious, are legitimate painkillers such as OxyContin. Heavily prescribed from the 1990s, some of these pills were abused by people who defeated their slow-release mechanisms by crushing and then snorting or injecting them. The second group consists of powerful synthetic opioids such as fentanyl and carfentanil. These have legitimate medical uses, but are often manufactured illicitly and smuggled into America. The third opioid is heroin, derived from opium poppies, almost all of it illegally.

Until about 2010 the rise in opioid deaths was driven by the abuse of legitimate painkillers, which are sometimes called "semi-synthetic" because they are derived from plants. In the past few years, though, heroin and synthetic opioids have become bigger threats (see chart 1). Some addicts have moved from one class of opioid to another. The Drug Enforcement Administration (DEA) estimates that almost four out of five new heroin users previously abused prescription drugs.

OxyContin pills can no longer be crushed as easily, and doctors have become more wary of prescribing powerful painkillers. As a result, between 2012 and 2016 opioid prescriptions fell by 12%. Heroin can be cheaper and easier to obtain. According to one narcotics officer in New Hampshire, a 30-milligram prescription pain pill sells for $30 on the street. A whole gram of heroin can be had for $60-80.

Fentanyl is cheaper still. It is often made in Chinese laboratories and smuggled into America; some traffickers obtain it through the dark web, an obscure corner of the internet. Fentanyl is usually added to heroin to make it more potent or is made into pills, which can resemble prescription painkillers. Because it is such a powerful drug—at least 50 times stronger than heroin—the smuggling is easy and the potential profits are huge. One DEA official has explained that a kilogram of fentanyl from China costs about $3,000-5,000 and can be stretched into $1.5m in revenue in America. By comparison, a kilogram of heroin purchased for $6,000 translates to $80,000 on the street.



The cops can't save everyone

Yet not all addicts make the switch from one kind of opioid to another. In West Virginia, Mr Cook hardly ever encounters heroin—perhaps, he suggests, because no major highway runs through his patch. Whereas the death rate from prescription painkillers is more or less the same in America's four regions, deaths from heroin and synthetic opioids are high in the Midwest and north-east, middling in the South and low in the West (see chart 2). All eight states where police agencies reported 500 or more encounters with fentanyl in 2015 are east of the Mississippi river.

"Once a drug gets into a population, it's very hard to get it out," explains Peter Reuter, a drugs specialist at the University of Maryland. "But if it doesn't get started, it doesn't get started." It is never entirely clear why a drug catches on in one place but not another. There is, however, a possible explanation for why heroin and synthetic opioids have not yet taken off in western states: the heroin market is different.

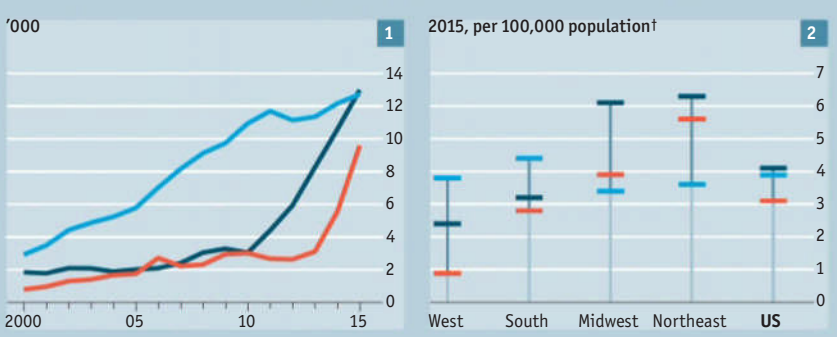
Although most heroin enters America from Mexico, there are really two trafficking routes. Addicts west of the Mississippi mostly use Mexican brown-powder or black-tar heroin, which is sticky and viscous, whereas eastern users favour Colombian white-powder heroin. According to the DEA, in 2014 over 90% of samples classified as South American heroin were seized east of the Mississippi, while 97% of Mexican heroin was purchased to the west. The line is blurring—Mexicans are pushing into the white-powder trade, and black tar is creeping east—but it still exists.

White-powder heroin looks much like a crushed pain pill, making it comparatively easy to switch from one to the other. It is also fairly easy to mix white-powder heroin with a powder such as fentanyl. Black tar is more distinct and harder to lace with other substances because of its stickiness and colour; mixing in white powder can put buyers off. "The lore on the street is: the lighter in colour brown-powder or black-tar heroin is, the less heroin it has," says Jane Maxwell, a researcher at the University of Texas at Austin.

The West's distinctive heroin market has probably deterred many painkiller addicts from trying the drug, and has kept synthetic opioids at bay. Outbreaks have occurred, though. In just two weeks in 2016, 52 people overdosed and 14 ultimately died near Sacramento, in California, after taking counterfeit hydrocodone pills laced with fentanyl. In New Mexico, fentanyl disguised as black-market oxycodone is thought to have killed 20 people last year. This is a rare case where one should pray that America stays divided. ■

Quieter on the western front

United States, drug-overdose deaths — Heroin — Natural and semi-synthetic opioids — Synthetic opioids*



Source: Centres for Disease Control and Prevention *Including fentanyl and tramadol, excluding methadone †Age-adjusted

Lexington | Palace whispers

Even Republican senators look at Donald Trump and despair

IT IS too soon to know whether Donald Trump's sudden, regal dismissal of the FBI director—"Off with his head!"—will trigger a constitutional crisis. Much depends on who is appointed to succeed James Comey, and on the fate of FBI probes into Russian meddling in the election of 2016.

It is not too soon to make a more general observation. Less than four months into the reign of King Donald, his impetuous ways are making it more likely that his presidency will be a failure, with few large achievements to its name. That is not journalistic snark but a statement of fact, based on warnings from prominent Republicans and Democrats, notably in the Senate.

The 100 members of the Senate have a touchy relationship with every president. They are grandees, with a keen sense of superiority over the toiling hacks who serve in the House of Representatives and the here-today-gone-tomorrow political appointees who run the executive branch. Senators are treated as princes when they travel overseas, briefed by grizzled American generals and treated to tea by local potentates. In their dreams, election campaigns might still involve addressing crowds from the flag-draped caboose of a private train. Small wonder, then, that senators often resent the still-grander life of a president. Yet their dismay over Mr Trump sounds different.

As the Trump era began, Democratic senators recalled how this populist president had scorned both parties on the campaign trail, and wondered whether he might seek new, bipartisan coalitions to help hard-pressed working Americans. Democrats would muse, off the record, about the terms they would demand for supporting policies like a vast infrastructure programme. Perhaps, for example, they might seek union wage rates for workers building Mr Trump's new airports and bridges. Republican senators worried, privately, about the same thing from the other side. They fretted that their new president would strike bargains with the new Democratic leader in the Senate, the canny, deal-cutting Charles Schumer of New York. To comfort themselves, Republicans imagined Mr Trump as a sort of salesman-CEO, selling comprehensive tax reform and deregulation to the masses while delegating day-to-day government to conventional conservatives such as his vice-president, Mike Pence.

Not any more. Increasingly the mood among Senate Republicans is a mixture of incredulity and gloom, as each political success (the confirmation of Neil Gorsuch as a Supreme Court justice, deftly handled cruise-missile strikes on Syria) is followed by a momentum-killing outburst from the president.

Some cast Mr Trump's woes as a crisis of messaging and of White House staff discipline. At a recent lunch for Senate Republicans, Senator Mitch McConnell of Kentucky, the owl-like majority leader, scolded Mr Pence over a Trump tweet that suggested a government shutdown might be a nifty idea. You don't believe that, we don't believe that, and that sort of tweet only makes our lives harder, Mr McConnell reportedly told the vice-president. Prominent Republicans and Democrats have offered Mr Trump the same advice: find a chief of staff in the ferocious mould of James Baker, chief enforcer in the White Houses of Ronald Reagan and George H.W. Bush. Some senators have still more specific counsel to offer. They urge Mr Trump to create a domestic policy team that apes the professionalism of his national security team. They praise his second national security adviser, Lieutenant-General H.R. McMaster, for turning around a group left in chaos by his ill-starred predecessor, Mike Flynn, and hail the way that his defence secretary, James Mattis, works with the secretary of state, Rex Tillerson. Not only do the chieftains of the Pentagon and State Department meet on their own at least once a week for breakfast to share their thinking, when recommending policies they try to present the president with a single option.

In their darker moments, though, some grandees on Capitol Hill wonder if what ails this presidency goes beyond unwise tweeting or the lack of a gatekeeper who can shield Mr Trump from what one Republican describes as "people filling his head with stupid". It has become a commonplace, especially on the right, to accuse the press of exaggerating palace intrigues in Trump World. If only that were true. In fact, powerful folk in Washington routinely describe Mr Trump in shockingly dismissive terms. He is compared to an easily distracted child who must be kept "on task". Foreign allies talk of a president on a learning curve. Senior Republicans call him out of his depth. Bigwigs call the president a surprisingly good listener. But they also call him easily flattered. They think him capable of doing "cheap deals" with such powers as China, after a summit at which President Xi Jinping dazzled Mr Trump with talk of how, to an ancient power like his, 1776 feels like yesterday.

The royal touch

Official Washington is realising that the real problem is not that Mr Trump hears competing advice from warring White House factions—a fierily nationalist camp led by his chief strategist, Stephen Bannon, and a pragmatic group led by his son-in-law, Jared Kushner. Those factions persist because they each represent an authentic part of Mr Trump's worldview. He is by deep conviction a nationalist with a grievance, convinced that America has let others take advantage for too long. If he is sometimes more or less confrontational, it is a matter of tactics, not belief.

At the root of each fresh crisis lies Mr Trump's character. If he were a king in velvet and ermine that would matter less. But he is an American president. To get his appointees confirmed, budgets passed, and reforms agreed, Mr Trump needs Congress, and notably a Senate in which his party enjoys the slimmest of majorities, and he has ever-fewer admirers. Party loyalty may save him from a revolution. But, startlingly early on, his own colleagues are starting to wonder what King Donald is for. ■

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Gangs in Mexico

Crime's new geography

SAN SALVADOR HUIXCOLOTLA

Gangs are more fragmented, but no less lethal

ON A Monday afternoon cars queue up to enter the wholesale market outside San Salvador Huixcolotla, a town in the state of Puebla, in south-central Mexico. Two shabbily dressed young men warily eye the number plates and drivers. When your correspondent identified himself as a journalist, they lifted their T-shirts over their faces and brusquely ordered him to leave. They do not want inquisitive outsiders. That is because, alongside produce from nearby farms, the market sells stolen petrol. One of the sentries sported a length of petrol-siphoning hose as a hatband.

Fuel theft is increasing in Mexico, and Puebla is its focal point. Thieves drill into the pipeline that passes through the state—where it is more accessible than in neighbouring states—install a tap and drain the liquid. They sell it off the backs of trucks on roadsides and in markets like the one near San Salvador Huixcolotla. The price is around seven pesos (37 cents) a litre, less than half what it costs in petrol stations.

This enterprise is the most important new form of organised crime in Mexico, says Eduardo Guerrero, a security consultant. Though it does not match drug-trafficking for violence and cashflow, it is growing fast and unsettling investors in energy, one of the country's most important industries. In 2006 the pipeline network operated by Pemex, the national oil company, had 213 illegal taps. Last year that number jumped to more than 6,800. The thefts cost the company 30bn pesos in lost sales and repair bills last year.

The rise is caused in part by the government's decision late last year to raise the price of petrol, which had been subsidised. It has transformed Puebla, where a quarter of the thefts took place, and Guanajuato from relatively peaceful states into moderately violent ones (see map). In the first three months of 2017 Puebla had 185 murders, 50% more than during the same period in 2011, the last peak of killings. On May 3rd this year at least ten people, including four soldiers, died in the town of Palmarito, 20km (12 miles) from San Salvador Huixcolotla, in a clash between the army and illegal tappers. Since then, more soldiers have arrived. "Today we have a problem that is out of control," says Carlos Ignacio Mier Bañuelos, a state congressman whose district has many petrol thefts.

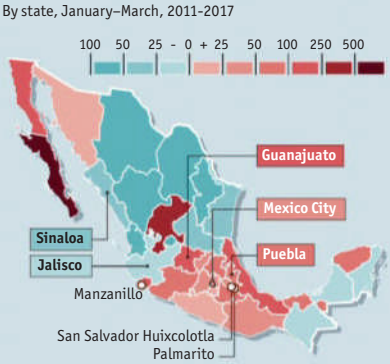
Fuel thievery is emblematic of a new pattern of crime. Mexico's most violent year of recent times was 2011, at the height of a war on drugs waged by the then-president, Felipe Calderón. As drug gangs battled security forces—and each other for control of trafficking routes into the United States—the northern states were Mexico's killing fields. That year Mexico had 22,852 murders. The number subsided under Mr Calderón's successor, Enrique Peña Nieto, who de-escalated the drug war.

But the killing is now back to its worst levels. If the year continues as it has begun, the number of murders in 2017 will be the highest yet. There were 6% more homicides in the first three months of 2017 than during the same period in 2011. But the distribution of violence is changing. As northern gang wars wind down, smaller-scale battles are erupting in the south.

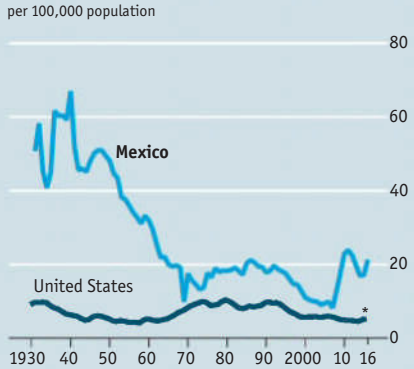
One reason for this is the change in the way gangs operate, brought about by the drugs war. Police targeted their bosses, often successfully. Leaderless gangs do not ▸▸

Murder moves south

Mexico, % change in murders
By state, January–March, 2011-2017



Murder rate
per 100,000 population



Sources: Mexican Interior Ministry; INEGI; FBI; Manuel Aguirre Botello; Megan Sasinoski *Estimate

disappear. Instead, lower-level gangsters fight for control or leave to form their own groups, leading to a violent reordering of the organised-crime hierarchy. The re-arrest last year of Joaquín "El Chapo" Guzmán, the boss of the Sinaloa gang, six months after his escape from prison, triggered conflicts within the group. The gang also clashed with rivals seeking to exploit its weakness, notably the Jalisco New Generation gang, with which it fought in the port of Manzanillo and elsewhere.

The smaller gangs lack the manpower and management skills to run full-scale drug operations. They concentrate on distributing drugs locally and on such crimes as kidnapping and extortion. Both have increased by around 20% Mexico-wide between the first three months of 2016 and the same period this year. Fuel theft also suits downsized gangs. Mr Mier says that in his area of Puebla the business is run by three gangs in two towns just 20km apart.

Other reasons for the spike in murders include a rise in opium production to feed growing American demand and the election last year of 12 new state governors, who brought in new and less experienced police chiefs. A new criminal-justice system is supposed to make trials fairer, but in its early stages it has freed many suspects who should have been jailed, says Alejandro Hope, a security analyst. The violence feeds on itself: killings lead to vendettas.

The show of military force in Palmarito, ordered by the federal government, suggests that neither the state nor the federal law-enforcement authorities know how to deal with the new sort of violence. "The army doesn't act with intelligence or strategy," says Mr Mier, "only violence." It will soon leave, he predicts, letting the pipe-tappers return to work.

The odds are that the upsurge of violence will not soon be contained. The fed-

Bello | Venezuela is not an island

Latin America wakes up to its biggest headache

YOU find them driving taxis in Buenos Aires, working as waiters in Panama or selling *arepas* (corn bread) in Madrid. The number of Venezuelans fleeing hunger, repression and crime in their ruptured country grows by the day. For years, Latin American governments kept quiet as first Hugo Chávez and then his successor, Nicolás Maduro, hollowed out Venezuela's democracy. Now their economic bungling and Mr Maduro's increasingly harsh rule are causing a humanitarian crisis that the region can no longer ignore. At last, it is not.

Colombia and Brazil bear the brunt of the Venezuelan exodus. By one unofficial estimate, more than 1m Venezuelans now live in Colombia, though many have dual nationality. Colombian mayors have started blaming the migrants for unemployment and crime. Last year more than 7,600 Venezuelans sought care at hospitals in the Brazilian state of Roraima, straining facilities and supplies of medicine, according to Human Rights Watch, a pressure group. This week the mayor of Manaus in the state of Amazonas declared an emergency after hundreds of Venezuelans turned up.

The flood of refugees is one factor galvanising the region's governments. The other is Mr Maduro's descent into dictatorship. This accelerated in March when the puppet supreme court decreed, in effect, the abolition of the opposition-controlled legislature. Although partially reversed, this sparked continuing protests. Mr Maduro announced plans to arm a militia and, this month, to convoke a hand-picked assembly to rewrite Chávez's constitution of 1999. He is using military courts against protesters.

In response, 14 governments, including those of Argentina, Brazil and Mexico, have united to demand a timetable for

elections, the recognition of the legislature and the freeing of political prisoners. On April 26th, 19 of the 34 members of the Organisation of American States (OAS), a regional body, voted to convene a meeting of foreign ministers to discuss Venezuela. Getting his retaliation in first, Mr Maduro said that Venezuela would leave the OAS.

He retains the support of 25% of the population and of the security forces (some from ideological conviction, others because of perks or corruption). His recent actions suggest that he plans to turn Venezuela into an autarkic dictatorship in the mould of Fidel Castro's Cuba.

That would not be easy. Unlike Cuba, Venezuela is not an impregnable island and it has a democratic culture. Mr Maduro's actions are opening up fissures in his *chavista* movement. Three army lieutenants have sought asylum in Colombia. The attorney-general, several retired generals and former ministers criticised the judicial coup against the legislature. "The government is losing control," Miguel Rodríguez Torres, who was Mr Maduro's interior minister, told the *Wall Street Journal* this week. He warned of "anarchy on the streets".

This opens up scope—and a need—for diplomacy to help broker a return to democracy. But who could lead that effort? "Dialogue" became a dirty word for the opposition after Mr Maduro last year exploited talks organised by the South American Union (Unasur) and the Vatican to gain time.

Behind the scenes, several overlapping initiatives are under way. Argentina has replaced Venezuela in chairing Unasur. The tenure of Ernesto Samper, a *chavista* sympathiser, as its secretary-general has ended. At a meeting in Quito on May 23rd, Unasur's foreign ministers may choose as his replacement José Octavio Bordón, a well-connected Argentine diplomat and former politician.

Several presidents are talking about setting up an ad hoc group of countries of the kind that negotiated an end to the Central American civil wars of the 1980s. They would like to get the UN involved, but António Guterres, its new secretary-general, has been cautious. The group might have to include Cuba and the United States, which both have interests in Venezuela. Although Donald Trump's administration may impose unilateral sanctions on Venezuelan officials (it has already done so against the vice-president, Tareck El Aissami), it would be wiser to join a co-ordinated regional effort.

Any negotiation would have to involve an amnesty. That would be anathema to many in the opposition, who want to see the regime's leaders on trial for murder and corruption. But the opposition lacks the strength to bring Mr Maduro down. Perhaps the army will do that job, but this is neither certain nor necessarily desirable. Sooner or later, both sides may have to return to the negotiating table—or watch as ever more Venezuelans take the road to exile.

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eral government has found no strategy to replace Mr Calderón's discredited war on drugs, apart from sporadic military deployments. Many state and local police forces lack the professionalism to curb violent crime. Municipal police, some of whom collaborate with criminals, are not trusted. Law-enforcement officials at all levels need more data and a better understanding of why violence happens where it does, says Ernesto López Portillo of the Institute for Security and Democracy, a think-tank.

With 18 months left in office, Mr Peña is unlikely to begin any bold crime-fighting programmes. But petrol thievery is not the hardest problem to solve. "Pemex knows where it is happening," notes Mr Guerrero. That gives the police a place to start. ■

Cuba

Cash for clunkers

HAVANA

Why the used-car market behaves like the prime-property market

MULTIMARCAS, a car dealership on the outskirts of Havana, is not a conventional showroom. On a recent visit it contained one salesman and, despite the promise of variety in its name, just one car: a 2014-model Kia Picanto with no miles on its odometer. The price would cause the most spendthrift American or European to blanch: 68,000 Cuban convertible pesos (or CUC, each of which is worth a dollar). That is seven times what a Kia Rio, a similar car, of that age would cost in the United States, though you would be hard-pressed to find one that had not been driven.

It is not just virgin vehicles that are startlingly expensive. A Chinese Geely, listed in Revolico, a Cuban version of Craigslist, with "only 93,000km" (58,000 miles) on the clock, goes for 43,000 CUC. A used 2012 Hyundai Accent costs 67,000 CUC.

Cuba is famous for classic Cadillacs and Chevys that whisk tourists around, but Cubans would rather drive such banal automobiles as Korean Kias and French Peugeots, which are more comfortable and burn less fuel. Cuba may be the only country where the value of ordinary cars rises over time, even though they age quickly on the potholed roads. That is because demand is soaring while the supply is not.

Cuba's communists have a complicated history with personal transport. After the revolution in 1959 they banned almost all purchases of cars (but let existing owners keep theirs). The government gave cars to artists, athletes and star workers. High-ranking employees could use the official fleet and buy vehicles upon retirement at a discount. Petrol was almost free.

Cuba's hesitant opening of its economy allowed the car market a bit more freedom. Since 2013 individuals have been able to buy and sell used cars without official permission. New cars can only be sold in government-owned dealerships like Multimarcas. The island's spotty internet access makes it hard for buyers to compare prices. Many find vehicles by word of mouth and through Revolico, used by individual sellers and wildcat dealers. Cubans download it via the *paquete*, a portable hard drive delivered by courier weekly to their houses.

The rate of car ownership, 20 per 1,000 people, is one of the world's lowest. The government keeps a lid on imports. It has allowed in 2,000 cars a year for the past five years. But its cautious economic liberalisation has stoked demand. A new class of entrepreneurs, called *cuentapropistas*, is eager to buy, as are Cubans with cash from relatives abroad. So in the market cars behave more like prime property, whose supply is restricted, than depreciating machines. One dealer says he has bought and sold two cars in the past year for a profit of 20,000 CUC, far more than his 25 CUC-a-month salary from the state. He prefers not to know much about the buyers: they probably do not declare their money.

A *cuentapropista* couple in Havana bought a 2011-model European saloon for 30,000 CUC four years ago and sold it for 45,000 CUC; they traded up to a used SUV for 100,000 CUC. "We could have got many BMWs for the same price in the United States," says the wife. Another *habanero* sold a house to buy a 25-year-old VW Golf for 10,000 CUC. In ten years its value has doubled. "I could sell it for a couple of thousand more if it had air conditioning," he says. A retired engineer bought a 1980s-model Russian Lada from his state company in 2000 for 160 CUC, and sold it last year for nearly 100 times the price.

Cubans realise how crazy the market is. Prices are so high, jokes Pánfilo, a comedian, on government-controlled television, that the Peugeot lion "covers its face with its paws". ■

Argentina's dirty war

Short sentences

BUENOS AIRES

A fight over how to punish the servants of a brutal dictatorship

MORE than 40 years have passed since Argentina's generals seized power. They kidnapped, tortured and killed thousands of Argentines whom they saw as a threat to western civilisation. Democracy was restored in 1983, but many perpetrators of those crimes have never been punished. Of the 2,780 people who have been charged with human-rights violations since 2006, just 750 have been found guilty.

Now, some Argentines fear, even that incomplete justice is being weakened. On May 3rd the country's supreme court made a decision that could free as many as 248 prisoners. The case relates to Luis Muiña, who in 2011 was sentenced to 13 years in prison for the kidnap and torture of five people in 1976. The court ruled that, under Argentina's "two-for-one" law, some of the time he had spent on remand should reduce his sentence by double that amount of time. This cut it by eight years. His release on parole in April was thus legal.

Since democracy was restored, politics has dictated how the crimes of Argentina's "dirty war" are treated. A truth commission established that at least 8,960 people had been murdered. After military uprisings against the democratic government of Raúl Alfonsín in the late 1980s, the government introduced amnesty laws and pardons to placate the army. Under the populist presidencies of Néstor Kirchner and his wife, Cristina Fernández de Kirchner, from 2003 to 2015, the state threw its weight behind trial and punishment.

The government of Mauricio Macri, Argentina's president since December 2015, says it is returning to the principle that independent courts, not politicians, should administer justice. Its critics doubt that. They see the centre-right president as soft on dictatorship. In December he suggested that Remembrance Day, which commemorates the coup every March 24th, could be observed on the nearest Monday to raise productivity. Human-rights activists point out that Mr Macri appointed two of the three judges who set Mr Muiña free.

Stung by the criticism, his coalition joined forces with the opposition in the senate on May 10th to pass, unanimously, a law stating that two-for-one should not apply to crimes against humanity. That may prompt the supreme court to rule differently on similar cases. How it decides matters as much as what it decides. Judicial independence is as important as punishing the dictators' henchmen. ■

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South Korean politics

From dissident to president

SEOUL

Moon Jae-in clinches an easy victory, but governing will be tough

HE WAS imprisoned for months for protesting, as a student, against the dictatorship of Park Chung-hee in the 1970s. But it was mass demonstrations against the late strongman's daughter, Park Geun-hye, that brought Moon Jae-in to the presidency. On May 9th South Koreans chose the former dissident as their new president, after the constitutional court prompted a snap election by removing Ms Park from office. Mr Moon, who was sworn in as soon as the votes had been counted, is South Korea's first left-of-centre president in almost a decade. He won 41% of the vote in a field of 13 candidates. His 17 percentage-point lead over the runner-up, a conservative, is the biggest winning margin ever in a South Korean presidential election.

Mr Moon's victory was no surprise: he had led the polls for four months. Support for his liberal Minjoo party hit a record during the campaign, which reaped the benefits of South Koreans' bitter disappointment with Ms Park, a conservative, who was elected in 2012. Parliament impeached her in December, following revelations that she had divulged state secrets to a friend, let her meddle in policy and colluded with her to extort bribes from big companies. Ms Park is now in jail, while a trial related to those charges proceeds. Over 77% of citizens voted in the election, the highest turnout in 20 years. (Ms Park, in her cell, chose not to.)

Kim Hyung-jun, a young father who took his toddler to a polling station in central Seoul on May 9th, said that he was voting to create a better society for his daughter: one "where everyone begins at the same line", not where "the rich and powerful have a head start". Expectations are high for Mr Moon, who can serve only a single five-year term, to see through the reforms that he has promised. One is to root out the corruption that results from close links between government and big business, in order to make society fairer. That has struck a chord with disenchanted young people in particular: over half of voters in their 20s and 30s cast their ballot for him, according to exit polls.

Committees to the rescue

Mr Moon plans to set up a "truth committee" on the presidential scandal. Another promise is to help youngsters get jobs, which many think are unobtainable without the right connections. He has established a job-creation committee, and says he will generate more than 800,000 jobs, mainly in the public sector, a third of which will be reserved for the young.

The new president grew up poor. His parents are refugees from Hungnam, a North Korean port evacuated in 1950 shortly after the start of the Korean war. He began his political career as chief-of-staff to the late Roh Moo-hyun, a liberal president in office from 2003 to 2008, with whom he had set up a law firm in the 1980s to take on human-rights cases. Mr Moon then ran for the presidency himself in 2012, and narrowly lost to Ms Park in a two-way race.

The challenges he faces are formidable. Donald Trump has stoked tensions with the North, even as he has said that the South should pay for an American missile-defence system, known as THAAD, intended to thwart a northern attack. Mr Moon says he wants to review the deal that led to THAAD's deployment. He has also said he would go to Pyongyang to seek better ties with the North if the circumstances were right, suggesting that he will revive the old liberal policy of "sunshine" towards the North, which involved great emollience and lashings of aid.

But since those days North Korea has tested five nuclear devices and scores of missiles, while ramping up its threats. Scott Snyder of the Council on Foreign Relations, an American think-tank, says that resolutions passed by the UN Security Council prevent the sort of economic deals struck when Mr Moon worked under Roh. Mr Moon has adopted a less doveish tone than his liberal predecessors. And Mr Trump has said that he too would consider meeting Kim Jong Un, the North's dictatorial leader.

Relations with China and Japan are also fraught. The Chinese government is unhappy about the deployment of THAAD, and has encouraged a boycott of South Korean goods. Japan, meanwhile, resents the apparent rekindling of anti-Japanese protests tied to its conduct during the second world war. But simply having a president at all, after five rudderless months, may help dampen these rows.

At home, Mr Moon also faces difficult negotiations: Minjoo does not hold a majority in parliament, and the next elections do not take place until 2020. It may rejoin forces with the People's Party, a centrist ▸▸

group that split from it last year. But the splittists support THAAD and oppose Mr Moon's plan to reopen the Kaesong industrial complex on the border with North Korea, a sunshine initiative that Ms Park shut.

In his inaugural speech, Mr Moon said that opposition parties were "his partners in running the country". He wants every region to be represented in his government, and says he will share more power with his cabinet. He also has woolly plans to set up an appointment system that takes public opinion into account in some way.

Nor are voters of one mind, despite Mr Moon's resounding win. Hong Joon-pyo, the candidate of Ms Park's former party, had a remarkably strong showing, winning 24%. A "resentful pocket" of conservatives, says Shin Gi-wook of Stanford University, has formed around Mr Hong. He has referred to civic organisations, many of which led protests against Ms Park, as "thieving bastards"; his campaign slogan promised a South Korea free of "pro-North leftists". This old-school conservatism still resonates, particularly in Gyeongsang—an eastern region that has long been a conservative stronghold—and with the elderly: half of those over 60 voted for Mr Hong.

On his first day in office, Mr Moon spoke to the heads of all four opposition parties. In his victory speech, he promised to be a "president for all". Fulfilling that ambition is likely to be his hardest task. ■

The war in Afghanistan

About-face

America is on the verge of sending more troops to fight the Taliban

IN FEBRUARY the commander of the 15,000 American and NATO forces in Afghanistan, General John Nicholson, asked for reinforcements. Within a few days Donald Trump is expected to provide them. His military and foreign-policy advisers have come up with a plan to send up to 5,000 more troops, both special forces and trainers to advise the Afghan army. The rest of NATO, too, will be expected to come up with additional troops.

All this marks a reversal of Barack Obama's policy, which was to pull nearly all the remaining American troops out of Afghanistan. In the end, faced with a rapidly deteriorating security situation, he backed off a bit, leaving 8,400 American soldiers and around 6,500 from other NATO countries. It was not enough, General Nicholson told Congress. The Taliban insurgency is making steady territorial gains and the Afghan army and police are suffering an unsustainable number of casualties. Sounding as upbeat as he could, he described it as a "stalemate".

That was generous. The proportion of the country reckoned to be under uncontested government control fell from 72% to 57% during the 12 months to November last year. Since then, as part of a review of the administration's Afghan strategy, Mr Trump's national security adviser, H.R. McMaster, and his defence secretary, Jim Mattis, have travelled to Afghanistan. So too, it is believed, has the director of the CIA, Mike Pompeo. Both General McMaster and Mr Mattis (a former general who served as head of the regional command encompassing both Afghanistan and Iraq until being pushed into early retirement by Mr Obama in 2013) know Afghanistan well. Neither would have been comfortable with Mr Obama's habit of setting rigid timetables for troop withdrawals unrelated to conditions on the ground, or with the speed with which the NATO force, which had over 130,000 troops in 2011, was cut.

As well as calling for an increase in troop levels, the review also recommends allowing trainers to work at the sharp end with Afghan combat troops, rather than at the command level. Such trainers are far more useful than those restricted to barracks, but the risk of casualties rises. The generals also want to give American commanders in Afghanistan more flexibility in the way they provide air support for their Afghan allies. Mr Obama relaxed the rules last year, but not enough to allow the use of air power for offensive operations. One reason for the increase in special forces is that they will be needed to spot targets from forward positions. The new plan will not set any deadlines for force reductions and may also give commanders some latitude to call on additional resources if they prove necessary.

There is no doubt that the new plan is needed to check the Taliban's momentum. But on its own, it is unlikely to be enough to force the Taliban to the negotiating table. Getting the divided and dysfunctional Afghan government to do more to fight corruption is another crucial step. Most important, argues Bruce Riedel, a former CIA officer now at the Brookings Institution, a think-tank in Washington, will be a concerted attempt to change neighbouring Pakistan's behaviour. As long as Pakistan's "deep state" continues to see the Taliban as a strategic asset and to provide it with sanctuary and material support, it will have no incentive to negotiate. Given the failure of Mr Obama's policy of bribing and cajoling Pakistan into becoming more co-operative, it would not be surprising if the new administration tries something different.

General McMaster has recruited Lisa Curtis from the Heritage Foundation, another think-tank, to be the White House's adviser on South and Central Asia. In February Ms Curtis co-wrote a report calling for a range of measures aimed at ending Pakistan's ambivalence towards terrorism. These would include ending its status as a "major non-NATO ally"; making military aid contingent on the strength of its action against all terrorist groups and stepping up unilateral military action, such as drone strikes, against the Taliban on Pakistani territory. It may not just be America's policy towards Afghanistan that is on the brink of a big revision. ■

He needs backup

Pluralism in Indonesia

Sent down

JAKARTA

An unfair trial leaves Chinese Indonesians feeling vulnerable

OUTSIDE the courthouse there were cries of "Allahu akbar". Inside, a panel of five judges had just handed Basuki Tjahaja Purnama, the governor of Jakarta, a two-year prison sentence for blasphemy. The verdict delighted the Muslim activists who have rallied against Mr Basuki for months, derailing his campaign for another term. But for his fellow Indonesians of Chinese descent, it is an all too predictable injustice. As Maggie Tiojakin, a 37-year-old Chinese-Indonesian writer, puts it, "For most of us minorities this was expected. And it further confirms our fears that for as long as we live here, we will have to look over our shoulders."

Chinese began settling in the islands that today make up Indonesia centuries ago. Many worked as merchants or traders, placing them in a position similar to that of Jews in medieval Europe: necessary, but often resented and persecuted. But others were miners or indentured labourers. Suharto, Indonesia's longtime dictator, reportedly helped spread the canard that they comprised 3% of the country's population, but controlled 70% of its economy—a wild overstatement on both counts. A recent study estimates that Chinese-Indonesians rank 18th among Indonesia's 600-odd ethnic groups, with 2.8m people; they make up around 1.2% of the population. And although they account for a disproportionate share of the country's billionaires, most Chinese-Indonesians are not rich.

Chinese-Indonesians, suspected as a group of having communist sympathies, were the victims of pogroms in the 1960s. Suharto, who rose to power at the time, adopted a policy of forced assimilation, obliging them to adopt Indonesian names, withdrawing Confucianism's status as one of the country's officially recognised religions and forbidding the teaching of Chinese. Ironically, he also boosted Chinese-Indonesians' economic standing by barring them from government service, thereby pushing them into the private sector. The riots that triggered his resignation in 1998 targeted Chinese-Indonesians, killing around 1,100 people and destroying Chinese businesses.

Since Suharto's downfall, things have improved. Confucianism's status has been restored, teaching Chinese is now legal and Chinese New Year is a national holiday. The cabinets of successive presidents have featured Chinese-Indonesian ministers, often in prominent economic jobs. And a few Chinese-Indonesian politicians have emerged. Mr Basuki, better known as Ahok, first won election in 2005 as regent (district chief) in his home district of East Belitung, where roughly a tenth of the population is Chinese. He also served in Indonesia's house of representatives before winning the post of deputy governor of Jakarta as the running-mate of Joko Widodo, or Jokowi, who is now Indonesia's president. (Ahok became governor without an election when Jokowi was elected president.) His rise seemed to suggest that being a Chinese Christian was not a political handicap in a country where 90% of the population is Muslim and 95% of indigenous descent.

They're not as keen on the lantern-makers

But Ahok's failed campaign for a fresh term as governor tested that premise. It was hard to detect any insult to Islam in the speech for which he was taken to task by Islamist agitators, yet prosecutors charged him and the court convicted him. Indeed, the judges gave him a harsher sentence than prosecutors had requested.

His political rivals, meanwhile, showed no compunction about taking advantage of this travesty: the victorious candidate for governor, Anies Baswedan, took to campaigning in the white shirt and black skullcap of a pious Javanese Muslim. On election day two elderly Chinese voters in Glodok, Jakarta's Chinatown, admitted that they feared once again becoming the target of rioters. Another prominent Chinese-Indonesian said he worried that Mr Baswedan's victory heralded the first step toward imposing Islamic law.

Ahok's sentence has reinforced such fears. Some worry Chinese will withdraw again from politics. Ms Tiojakin says she does not know "a single Chinese-Indonesian who does not in some way believe that 1998 [could] repeat itself". ■

House prices in Australia

Shuttered dreams

SYDNEY

The budget offers little comfort for the "smashed avocado" generation

ABOUT 100 people gathered recently for the auction of a semi-detached bungalow in Dulwich Hill, a formerly working-class suburb about 10km from the centre of Sydney, Australia's biggest city. The run-down property was 100 years old, with two bedrooms, peeling paint and no inside toilet. Bidding started at A$1.1m ($810,000). About seven minutes later, it sold for almost A$1.5m to a man who expects to spend even more on it: one of his adult children will live in it "after improvements". Shad Hassen, the auctioneer, calls the sale a "cracking result". A few hours earlier he had sold a converted community hall nearby with "work-live possibilities" for an even more eye-watering A$2.7m.

House prices in Sydney have soared by almost a fifth in the past year alone; the median is now about A$1.1m. One recent study ranks it the second-most expensive housing market in the world relative to local incomes, after Hong Kong. In Australia as a whole prices have quadrupled in nominal terms over the past 20 years, and risen by two-and-a-half times after accounting for inflation—on a par with Britain, and far more than in America. As a result, the former Australian norm of home-ownership is fading. The share of 35- to 44-year-olds who own a home has fallen from three-quarters 26 years ago to less than two-thirds.

Prices are rising in part because borrowing is so cheap. The Reserve Bank of Australia (RBA), the central bank, has kept its interest rate at 1.5%, a record low, since August. But a bigger cause is the steady rise in Australia's population, which is growing by 350,000 a year. Immigration accounts for half of that. New dwellings are not being built fast enough to meet the extra demand. The relentless price rises, in turn, have lured speculators, whose enthusiasm ▸▸

Up, up and dismay

Australia, ratio to household disposable income

Source: Reserve Bank of Australia

compounds the problem. About 40% of new mortgages go to investors, rather than owner-occupiers. Philip Lowe, the head of the RBA, calls such loans a "financial amplifier", further boosting prices.

Millennials are outraged by how unaffordable houses have become. When Bernard Salt, a partner with KPMG, an accounting firm, suggested in a newspaper column last year that young buyers simply needed to cut back on breakfasts at fancy cafés to afford their deposit, he was pilloried. Would-be homeowners, it was pointed out, would have to forgo 5,000 servings of "smashed avocado with crumbled feta on five-grain toasted bread"—48 years' worth of overpriced weekend breakfasts—simply to raise a 10% deposit on a typical house in Sydney.

Malcolm Turnbull's conservative federal government made "housing affordability" a feature of its budget on May 9th. It ignored calls to abolish "negative gearing", a tax break that allows investors to deduct from their overall income any losses they make letting out a mortgaged property. This makes investing in property in expectation of capital gains all the more alluring. Fear of annoying such investors may have played a part in the government's decision, but self-interest may have, too. A recent analysis by the Australian Broadcasting Corporation found that about half of Australia's 226 federal parliamentarians own investment properties.

Instead the government says it will seek to boost supply. It announced plans to work with the states to make more land available for housing, starting with some surplus army land in Melbourne. It will fine foreign investors who leave dwellings empty for more than six months. And it will spend billions on urban transport, arguing that this will put more homes within plausible reach of city-centre jobs.

In one respect, the property boom has been a huge economic boon, helping to perk up investment despite an abrupt crash in commodity prices which has caused new oil and mining projects to dry up. But the property market could succumb to problems of its own. The heads of both the Treasury in Canberra and the Australian Securities and Investments Commission, a corporate regulator, have warned of a housing bubble. The Grattan Institute, a think-tank, says household debt has reached a record 190% of annual after-tax income, a rise of 12 percentage points since 2015 (see chart). The Australian Prudential Regulation Authority, a financial supervisor, has sought to cool things down. It wants banks to make no more than 10% of their housing loans to investors, and to cut back on "interest-only" mortgages, which do not require any principal to be repaid until the end of the borrowing period.

The central bank frets about an "environment of heightened risks" caused by the surge in debt linked to housing. Mr Lowe worries that debt is rendering Australia's economy "less resilient to future shocks". He is quick to note that there is little sign of stress at the moment, and other economists maintain that Australians are culturally averse to defaulting on their mortgages. But a rise in interest rates or unemployment, or a fall in housing prices, could nonetheless prove disastrous. ■

Commemorating Shivaji

The highest praise

MUMBAI

A swashbuckling prince gets a budget-busting memorial

IT MAY have named the airport, the main railway station, a big road, a park, a museum, a theatre and at least six traffic intersections after him, but Mumbai has not done enough to commemorate Shivaji, a swashbuckling warrior prince who founded a local kingdom in the 17th century. The obvious solution, according to all the big political parties in the state of Maharashtra, of which Mumbai is the capital, is to build an absolutely enormous statue of him on an artificial island in the ocean near the city.

When this idea was first cooked up, in 2004, the statue was planned to be 98 metres tall, to top the Statue of Liberty, which is a mere 93 metres. But then the neighbouring state of Gujarat decided to build a 182-metre figure of Vallabhbhai Patel, an independence hero. Maharashtra's government resolved to make the statue of Shivaji the tallest in the world, at 192 metres. Alas, it turns out there is a Buddha in China that is 208 metres high. So now Maharashtra's government is aiming for 210 metres (see chart).

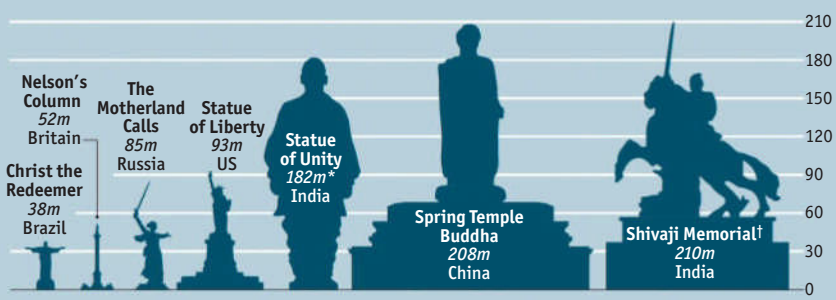
The budget for the project is growing, too. It has risen from 1bn rupees ($16m) to 36bn—or so the government hopes. But when it recently issued a tender for the first phase of the project (excluding an amphitheatre and a few other bits and bobs), with a projected budget of 25bn rupees, the lowest bid came in at 38bn.

The state's debt, meanwhile, is 3.7trn rupees. The sum budgeted for the statue is seven times what Maharashtra spends on building and maintaining rural roads each year, or, for the historically minded, enough to restore 300 forts around the state, including several built by Shivaji, according to IndiaSpend, a data-journalism website. Environmentalists and fishermen, meanwhile, complain that the project will harm local fish stocks.

But resisting a tribute to Shivaji in Maharashtra is the political equivalent of spitting on babies. If there are opponents of the scheme in the state assembly, they are keeping quiet. Narendra Modi, the prime minister, is a fan. He laid an underwater foundation stone in December. Earlier this year he unveiled a giant statue of the god Shiva in the southern state of Tamil Nadu. It was he, in fact, who broke ground for the statue in Gujarat, when he was chief minister of the state. It may not be long before someone—a stonemason, perhaps—decides to erect a gargantuan statue of him.

The height of folly

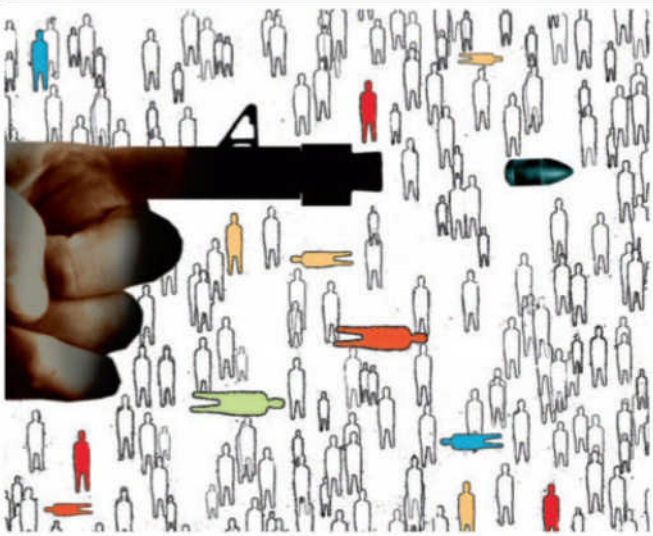
Height, metres



Sources: Press reports; *The Economist* *Excluding pedestal, under construction †Proposed, artist's impression

Banyan | The still small voice

Even the Catholic church offers only muted resistance to the Philippines' violent war on drugs



DORO SUASIN was cheerful and couldn't hurt a fly, say his neighbours in Pil-homes, a slum near Manila's airport. He also occasionally used *shabu* (methamphetamine). Late one night two masked men, presumably policemen, barged into his shack and shot Mr Suasin in the head in front of his wife and children. On another night men burst in on a single mother and *shabu*-user living nearby as she breast-fed her baby. They told her to put the baby down. Then they shot her too.

In the neighbouring slum of Seaside Coast, in the shadow of the elevated expressway to the airport (upscale property developers do not have the lock on boosterish names), Carlo Robante, with his thick shock of hair, was a fixture at the jeepney stop outside the KFC branch. He worked as a "barker", loading passengers on to the jeepneys, the Filipino answer to a minibus. He was also a small-time *shabu* dealer. On a recent evening, two men on motorcycles pulled up. One of them shot Mr Robante in the head, then both drove off. Crime-scene officers drew a chalk line around the body, but no one bothered to interview his family.

President Rodrigo Duterte's war on drugs has killed perhaps 9,000 Filipinos. About 2,000 were alleged drug users or dealers shot while supposedly resisting arrest. Most of the rest were murdered by unknown assailants, often assumed to be policemen or their lackeys, and rumoured to be paid $100 or more a hit. Extra-judicial killings are so common they are referred to by a jaunty acronym—EJKs. Mr Duterte often appears to condone or even encourage them, painting addicts and dealers as vermin. He lashes out at anyone who criticises his stance and sees no hypocrisy in his admission that he himself has abused painkillers. To put things in context, extra-judicial killings during Mr Duterte's ten months in office have been three times more numerous than they were during Ferdinand Marcos's nine years of martial law.

Mr Duterte remains wildly popular. On the streets the strong perception is that drugs are becoming much less of a problem. But Social Weather Stations, a research institute, reports that 78% of Filipinos say they are "very worried" or "somewhat worried" that they or someone they know will fall victim to an extra-judicial killing. A gap appears to be opening between the top of Philippine society and the hardscrabble bottom. The lower the social stratum, the greater the concern over the killings, despite the president's claim to govern on behalf of the poor. That is because the poor are more likely to be victims.

In Pil-homes and Seaside Coast, fear has replaced a previously reflexive optimism as families are shattered and communities feel under siege. Mr Suasin's widow sent her children to relatives in the countryside before vanishing in search of work. Mr Robante's 12-year-old son watched the motorcyclists as they pulled up to his father. Now mute and emaciated, he is ill and traumatised—giving up his course of antibiotics for pneumonia because the family had no money. "I voted for Duterte," says a resident, "but now it's time for regrets."

A couple of miles north is the National Shrine of Our Mother of Perpetual Help, a large and teeming Catholic church run by the Redemptorists, an order ministering to the poor. Father Bonifacio Flordeliza reads from John's gospel, chapter 10: "He that entereth not by the door into the sheepfold, but climbeth up some other way, the same is a thief and a robber…" In his sermon he lays into Mr Duterte: "Do we see compassion, do we see respect? He has no concern for life. 'I will kill you if you do not do what I want', he says…Do we see the good shepherd? That is the challenge for us all. What are we doing? What are we doing to protect? No more victims. No more extra-judicial killings."

The Redemptorists have emerged as a point of opposition to Mr Duterte. One priest, Amado Picardal, has been trying to call the president to account for extra-judicial killings since the 1990s, during his long tenure as mayor of the city of Davao. During Lent the order mounted a photographic exhibition of recent murders, earning abuse from Mr Duterte. It gives sanctuary both to those who fear they might be the assassins' next target, and to members of death squads who worry about the repercussions of bowing out. The order also helps victims' families to pay for funerals.

The church hierarchy has been slower to speak out, but is finding its voice at last. In February the Catholic Bishops' Conference of the Philippines condemned Mr Duterte's "reign of terror". At the end of April the Archbishop of Manila, Cardinal Luis Antonio Tagle, of whom the Redemptorist priests are critical, broke his silence about the violence.

A Catholic "Caravan for Life" is making its way from Mr Duterte's home turf, on the southern island of Mindanao, to Manila. It aims to rally opposition not just to the killings, but also to the death penalty, which Mr Duterte wants to reintroduce. The church also opposes the president's unconscionable bid to lower the legal age of criminal responsibility from 15 to nine.

There's nothing like Cardinal Sin

That is all admirable. Yet at a time when the political opposition is divided and self-serving, few expect the church to fill the breach. Not even its own leaders think it has the moral authority it had in 1986, during the People Power Revolution, when Cardinal Jaime Sin was able to call upon Filipinos to take to the streets to protect the leaders of the army, who had broken with Marcos.

Catholic Filipinos still worship in droves. But the church is not their first stop for political or moral guidance. It is often at odds with ordinary folk, such as in its dogged opposition in 2012 to a law which guaranteed universal access to contraception and sex education. And when Cardinal Tagle spoke out against vigilante killings, he took pains to say abortion was equally repugnant. As for Mr Duterte, he says the church is "full of shit", accusing priests of womanising and leading indulgent lives. "He knows", Father Picardal admits, "how to hit us below the belt." ■

Also in this section

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Health care

Shod, but still shoddy

BEIJING

China is trying to rebuild its shattered primary health-care system. Patients and doctors are putting up resistance

QUEUES at Chinese hospitals are legendary. The acutely sick jostle with the elderly and frail even before gates open, desperate for a coveted appointment to see a doctor. Scalpers hawk waiting tickets to those rich or desperate enough to jump the line. The ordeal that patients often endure is partly the result of a shortage of staff and medical facilities. But it is also due to a bigger problem. Many people who seek medical help in China bypass general practitioners and go straight to hospital-based specialists. In a country once famed for its readily accessible "barefoot doctors", primary care is in tatters.

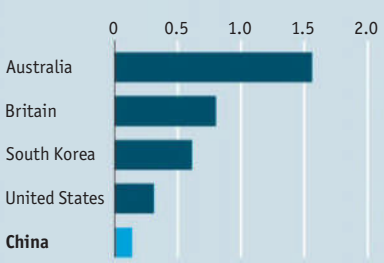
Even in its heyday under Mao Zedong, such care was rudimentary—the barefoot variety were not doctors at all, just farmers with a modicum of training. Economic reforms launched in the late 1970s caused the system to collapse. Money dried up for rural services. In the cities, many state-owned enterprises were closed, and with them the medical services on which urban residents often relied for basic treatment. It was not until 2009, amid rising public anger over the soaring cost of seeing a doctor and the difficulty of arranging consultations, that the government began sweeping reforms. Goals included making health care cheaper for patients, and reviving local clinics as their first port of call.

The reforms succeeded in boosting the amount that patients could claim on their medical-insurance policies (some 95% of Chinese are enrolled in government-subsidised schemes). They have also resulted in greater funding for community health centres. In 2015 there were around 189,000 general practitioners (GPs). The government aims to have 300,000 by 2020. But there would still be only 0.2 family doctors for every 1,000 people (compared with 0.14 today—see chart). That is far fewer than in many Western countries.

It is not just long waiting-times at hospitals that necessitate more clinics. People are living far longer now than they did when the Communists took over in 1949: life expectancy at birth is 76 today, compared with 36 then. People from Shanghai live as long as the average person in Japan and Switzerland. Since 1991, maternal mortality has fallen by over 70%. A growing share of medical cases involve chronic conditions rather than acute illnesses or injuries. GPs are often better able to provide basic and regular treatment for chronic ailments. The country is also ageing rapidly. By 2030 nearly a quarter of the population will be aged 60 or over, compared with less than one-seventh today. More family doctors will be needed to manage their routine needs and visit the housebound.

Who's got a doctor?

General medical practitioners per 1,000 people
2015 or latest available



Sources: OECD; Wind Info

But setting up a GP system is proving a huge challenge, for two main reasons. The first is the way the health-care system works financially. Hospitals and clinics rely heavily on revenue they generate from patients through markups on medicine and other treatments. The government has curbed a once-common practice of overcharging patients for medicines. But doctors still commission needless scans and other tests in order to make more money.

Community health centres are unable to offer the range of cash-generating treatments that are available at hospitals. So they struggle to make enough money to attract and retain good staff. Most medical students prefer jobs in hospitals, where a doctor earns about 80,000 yuan ($11,600) a year on average—a paltry sum for someone so qualified, but better than the 50,000 yuan earned by the average GP. Hospital doctors have far more opportunities to earn substantial kickbacks—try seeing a good specialist in China without offering a fat "red envelope".

As a result, many of those who train as GPs never work as one. Most medical degrees do not even bother teaching general practice. That leaves 650m Chinese without access to a GP, reckon Dan Wu and Tai Pong Lam of the University of Hong Kong. The shortage is particularly acute in poor and rural areas. The number of family doctors per 1,000 people is nearly twice as high on the wealthy coast as it is in western and ▸▸

central China.

The second main difficulty is that many ordinary Chinese are disdainful of primary-care facilities, even those with fully qualified GPs. This is partly because GPs are not authorised to prescribe as wide a range of drugs as hospitals can, so patients prefer to go straight to what they regard as the best source. There is also a deep mistrust of local clinics. The facilities often lack fully qualified physicians, reminding many people of barefoot-doctor days. Chinese prefer to see university-educated experts in facilities with all the mod cons.

Patients have few financial incentives to consult GPs. Even those who have insurance still have to meet 30-40% of their outpatient costs with their own money. Many prefer to pay for a single appointment with a specialist rather than see a GP and risk being referred to a second person, doubling their expenditure. Since the cost of hospital appointments and procedures is similar to charges levied at community centres, seeing a GP offers little price advantage.

The government's efforts to improve the system have been piecemeal and half-hearted. Primary-care workers are now guaranteed a higher basic income, but are given less freedom to make extra money by charging patients for services and prescriptions. This has helped clinicians in poor areas, but in richer ones, where prescribing treatments had been more lucrative, it has left many staff worse off—particularly when they have to see more patients for no extra pay.

It would help if the government were to further reduce the pay gap between GPs and specialists. It is encouraging GPs to earn more money by seeing more patients and thus increase revenue from consultation fees. In big cities such as Beijing and Shanghai patients are being urged to sign contracts with their clinics in which they pledge to use them for referrals to specialists. In April the capital's government raised consultation fees at hospitals, hoping to encourage people to go to community centres instead. Fearing a backlash, it has also pledged to reduce the cost to patients of drugs and tests.

Despite the government's reforms, underuse of primary care has actually worsened. In 2013, the latest year for which data are available, GPs saw a third more patients than in 2009. But use of health-care facilities increased so much during that time that the share of visits to primary-care doctors fell from 63% of cases to 59% (the World Health Organisation says it should be higher than 80%, ideally). For poor rural households, health care has become even less affordable. And public anger has shown no sign of abating. Every year thousands of doctors are attacked in China—despite the police stations that have been opened in 85% of large-scale hospitals. It is not a healthy system. ■

Internal migration

A sorry tale

PICUN

A migrant worker's account of her travails creates an unusual stir

NATIVES of China's capital find it all too easy to ignore the millions of people who have moved to the city from the countryside. The newcomers live on building sites, or in windowless rooms in the basements of apartment blocks. Many of them rent cramped accommodation in ramshackle "migrant villages" on the city's edges. Beijing-born residents often treat the outsiders with scorn, blaming them for much of the city's crime and its pockets of squalor. It is usually only when the "peasant workers" flock back to their home towns to celebrate the lunar new year that Beijingers grudgingly admit the migrants are essential—for a grim few weeks the city is bereft of delivery boys, street vendors and domestic helpers.

Recently, however, one such worker has caused a national stir with an autobiographical work circulated online. The 7,000-character essay, titled "I am Fan Yusu", describes the hardships of Ms Fan (pictured): the deprivations of her rural childhood; her hand-to-mouth urban existence after she left home at the age of 20; and her marriage to an abusive and alcoholic man whom she eventually abandoned. Since then, she has looked after their two daughters alone.

Few city-born Chinese would be surprised by such a story. What has captured their imagination is Ms Fan's ambition and determination, as well as her literary passion and flair—migrants from the countryside are often regarded as uncultured bumpkins. Within days, her essay had been viewed millions of times. She has become such a celebrity in China that she appears to have gone into hiding to escape local reporters who have been searching for her.

Migrants aren't supposed to look like this

As a girl, Ms Fan devoured Chinese literature as well as novels in translation such as "Oliver Twist" and "Robinson Crusoe". For the past few years she has lived in Picun, a migrant settlement on the outskirts of Beijing. There she has used the little time off she has from her job as a nanny to write essays and poetry. The widely held stereotype has it that China's migrants leave their rural lives behind for one reason only: to earn more money than they could in their villages. Readers of Ms Fan's account discovered that some have a bigger dream—of intellectual improvement. "I couldn't bear to stay in the countryside viewing the sky from the bottom of a well, so I went to Beijing," wrote Ms Fan, who is 44.

That this could be a surprise is a sign of pervasive urban snobbery. Tens of thousands of people have posted comments on Ms Fan's essay, many expressing sympathy with her travails and praising her writing. Many others, however, have not been able to resist nitpicking over her style, as if trying to prove that someone from the countryside who did not complete high school could ever write truly polished prose. One blogger called the essay "a bowl of coarse rice".

Urbanites' usual disregard for rural migrants is evident in Picun, which is home not only to Ms Fan and more than 20,000 other people from the countryside, but also to the capital's only museum that pays tribute to the migrants' contributions to city life. The privately run institution is small and receives very few visitors—a pity, given how it reinforces Ms Fan's story (she has taken part in a writers' workshop there). The exhibits make clear that the migrants routinely suffer from dangerous work conditions, the withholding of wages and state-imposed barriers in their access to housing, education and health care.

Migrants from the countryside numbered 282m at the end of last year, 4m more than in 2015 (an increase in just one year equivalent to the population of Los Angeles). The hardships portrayed in the museum and in Ms Fan's writings are shared by nearly all of them.

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Iran

Rouhani under fire

A tightly controlled election is becoming a battle between the clergy's isolationists and globalists

EVERY four years, Iran's theocracy plays at electing a president. Pre-approved candidates take part in a process designed to give the system a mandate while, at the same time, preventing anyone acquiring a power base that might challenge Ayatollah Ali Khamenei, Iran's supreme leader for the past 28 years. At the most recent election, in 2013, Mr Khamenei's men barred Akbar Hashemi Rafsanjani from competing for a third term. This time, Mahmoud Ahmadinejad, another would-be third-timer, was disqualified, along with 1,629 other candidates, including all 137 women.

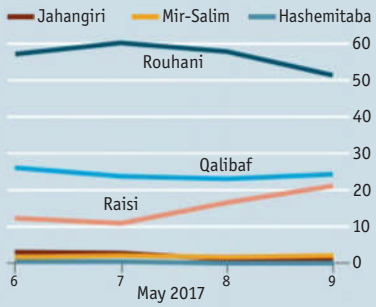
That leaves six competing in the election, with the first round taking place on May 19th. Hassan Rouhani, a clergyman and the incumbent, is the predictable, if plodding, front-runner. Since 1981 all Iran's presidents have served two terms, and in last year's parliamentary elections his allies did well. His rivals hardly look threatening. Eshaq Jahangiri, the vice-president, and Mostafa Hashemitaba, a former Olympic Committee head, are reckoned to be on the ballot only so that the reformists can have equal airtime with their three conservative rivals. Both are expected to drop out before election day.

Of the conservatives, Muhammad Baqer Qalibaf is a gruff former general and current mayor of Tehran whom Mr Rouhani soundly defeated in 2013. Mostafa Mir-Salim is a former culture minister who never left much of a mark. The third, a cleric, Ebrahim Raisi, looks robotic in front of the cameras.

But the month-long campaign is not running as expected. Although he has stopped short of an endorsement, Mr Khamenei increasingly voices the hardliners' agenda. In public addresses, he attacks Mr Rouhani's government for disregarding the plight of the poor and seeking to build bridges with the old enemy, America. Simultaneously he has helped Mr Raisi, a protégé, to build his base. Last year he appointed him to head the country's largest shrine and biggest *bonyad*, or clerical conglomerate, and has turned a blind eye as Mr Raisi uses its funds on his campaign. The country's main clerical body has endorsed him, though he has no ministerial experience. His black turban, betokening descent from the Prophet Muhammad, wins him traditionalist support.

Tighter than it looks

Iran, presidential election, voting intention*, %



Source: IPPO *Six official candidates

The conservatives have successfully attacked on the economy, too, where Mr Rouhani has looked weak. Instead of the $50bn of foreign investment Mr Rouhani promised it would arrive in the first year after signing Iran's nuclear deal with global powers, he has so far brought in next to nothing. Although he succeeded in lifting UN sanctions, American ones remain, in effect blocking any international bank that trades in dollars from financing business with Iran. The big oil firms still steer clear of a country with one of the world's largest reserves of oil and gas combined. Without American waivers, explains Patrick Pouyanne, chief executive of Total, a French oil giant, "we'll not be able to work in Iran." Under President Donald Trump, these are far from a given.

Starved of foreign financing, Mr Rouhani's modernisation programme has floundered. Unemployment has actually risen since the nuclear deal. Almost twice as many students graduate from university each year as the country has jobs to offer. Mr Rouhani can point to GDP growth last year of 6.5%, as oil sales, freed from UN sanctions, almost doubled. But to balance past excesses he has been obliged to restrict government cash subsidies.

Capitalising on a popular longing for the years of plenty a decade ago, the hardliners mock Mr Rouhani's neo-liberals as the government of the *ashraf*, or elite, which, as under the former shah, lords it over the *mostazafin*, or downtrodden. De- ▸▸

spite his huge *bonyad*, Mr Raisi describes himself as a fellow victim. Like the Prophet Muhammad, he was an orphan, and, he says, "felt the pain of poverty". His campaign video contrasts the squalor of Iran's slums with the luxurious malls frequented by Mr Rouhani's supporters. The hardliners promise the unemployed new monthly benefits and mass public works to create jobs. The election, say Iran's commentators, is turning into a class war, pitting pre-revolutionary values against revolutionary ones.

A bruised Mr Rouhani has finally started to fight back. He accuses hardliners of planning to segregate pavements, forcing men to walk on one side, women on the other. He chastises Mr Raisi as an executioner, harking back to his past as a revolutionary judge who sentenced hundreds to death. But his enemies' attacks have taken their toll. In 2013 Mr Rouhani narrowly avoided a run-off, scraping 50.7% of the vote. This time he could be forced into a humiliating second round on May 26th. The last time that happened, in 2005, hardliners united to bring Mr Ahmadinejad to power. "If there's a run-off," says a seasoned foreign observer in Tehran, "Mr Rouhani will lose."

His supporters say doomsday would result. Isolationists would celebrate by closing what investors had hyped as the biggest market opening since the collapse of the Berlin Wall. The reformers who entered Mr Rouhani's administration would be purged. Mr Qalibaf, who as head of Tehran's police at the turn of the millennium crushed student protests, could lead the charge. "Sanctions and confrontation", says Mr Rouhani, "would come back."

The hardliners are no less alarmist. A victory by Mr Rouhani would unleash America's economic power on Iran, together with its "defective, destructive, and corrupt Western lifestyle", in Mr Khamenei's words. Mr Trump's rhetoric helps make the hardliners' case. On the day Iran goes to the polls, Mr Trump begins the first foreign trip of his presidency in Saudi Arabia, whose de facto leader, Muhammad bin Salman, this month vowed to start "the battle in Iran".

Both sides exaggerate. After all, the supreme leader has the final say on all government policy. And all candidates have vowed to honour the nuclear deal. Though he may take issue with them, Mr Rouhani did nothing to reduce the clout of the *bonyads*, the Revolutionary Guards or the judges who recently ordered his campaign headquarters in Mashhad, Iran's second city, to close. But Mr Khamenei would rather avoid another showdown with an emboldened and combative man, as Iranian presidents in their second term tend to be. If Mr Rouhani is to win, the supreme leader would prefer him to emerge chastened from a campaign pummelling. ■

Egypt's economy

Opening for business

CAIRO

A long-promised investment law is no cure-all for economic ills

EVERY week thousands of Egyptians cram past a narrow, tightly guarded doorway at Uber's offices a few blocks from Tahrir Square and wait in a small room. Nearly 2,000 of them are signing up as new drivers every week 40% of them previously unemployed. Nearby, Uber's growing customer-service centre employs 250 locals. The company is earmarking more than $50m to expand operations in Cairo alone.

For Egypt, whose economy relies on aid to stay afloat, such influxes of foreign investment ought to be welcomed. But it does not always seem so. It took six months for Uber's licensing paperwork to come through, even with a lot of string-pulling. After a year of haggling with nine government ministries, a proper ride-sharing law is unlikely to emerge from parliament any time soon. But Egypt, which ranks a dismal 122nd place on the World Bank's ease-of-doing-business index, hopes to reform its ways. On May 7th it finally passed an investment law, more than two years overdue, designed to lure foreign investors back. But don't cheer too soon.

The new law pledges to reduce red tape and offers enticing tax incentives. Instead of a hellish process to obtain permits, often requiring the blessing of more than 70 government agencies, a one-stop shop will manage all the paperwork. Any requests not dealt with within 60 days will be automatically approved. Companies setting up in underdeveloped areas or special sectors can get between 30% and 70% off their tax bills for seven years. The new law also brings back private-sector "free zones", areas exempt from taxes and customs duties.

But reform in Egypt tends to be easy to promise and much harder to deliver. Once the bill becomes law, the administrative details are expected to take many more months to iron out. Duelling ministries will have to settle competing claims on the land that will be made available at discounted rates to investing firms. Low-level bureaucrats, eager to preserve both their importance and, sadly, their bribes, could also gum up the works. Past incarnations of the one-stop shop issued only some of the required permits, often leaving companies in a state of semi-legality, says Amr Adly of the Carnegie Middle East Centre, a think-tank.

The bill's lavish tax breaks may not play well politically when the government is facing a budget deficit of 10% of GDP. It has been forced to impose spending cuts, notably to fuel and bread subsidies.

To be sure, Egypt is, in other ways, making the right noises to show it is open for business. The cabinet approved the country's first-ever bankruptcy law in January. Recent improvements to industrial licensing are supposed to reduce waiting times from a lethargic average of 634 days to a brisk month.

The most important reforms needed to attract investors were made six months ago, when the government, as part of a $12bn deal with the IMF, finally floated the pound. With Egypt released from artificially inflated exchange rates, foreign cash is starting to come back. The relaxation of constraints on capital movement have assuaged the fears of companies looking to repatriate profits. The risk of large-scale political unrest, which spooked investors during the country's tumultuous years, now appears much lower.

But until now, clogged-up bureaucracy has remained a significant problem for investors keen to profit from Egypt's cheap labour and large customer base. Big multinational companies like AXA, a French insurance company, and Kellogg's, an American food giant, have taken to sidestepping licensing requirements by buying domestic firms and expanding them.

Abdel-Fattah al-Sisi, the country's president, first announced his investment reforms at a glitzy conference on economic development at Sharm el-Sheikh in March 2015. Little has gone well since then. Many of the deals pledged at the conference never materialised. An IMF bail-out was needed to rescue the economy. Egypt hopes that its new investment law will be something to shout about after all that hooplah. ■

Israel

The generals retreat

JERUSALEM

Might high-tech entrepreneurs be the new political heroes?

UNDER the slogan "The Leftists are coming back", Erel Margalit, a member of parliament, last month launched his campaign to lead Israel's Labour Party. The message focused on security: how Israel's "leftists" had built the Jewish state, its security forces and its nuclear capabilities.

But Mr Margalit is not a former member of the security establishment, one of the generations of retired Israeli generals who once made the easy transition to politics. As the founder of Jerusalem Venture Partners, he was a central figure in the Israeli venture-capital sector, which helped to finance the thousands of tech startups that have revolutionised the country's economy over the past two decades.

He is one of a handful of high-tech entrepreneurs now vying for national leadership. The group includes Jerusalem's mayor, Nir Barkat, who entered local politics after a successful career as an investor in technology companies and is planning his own bid for the leadership of the ruling Likud Party. Another tech man with prime-ministerial ambitions is the leader of Jewish Home, Naftali Bennett, who founded one successful software firm and ran another before entering politics.

For over half a century, the Israel Defence Forces' high command was a breeding-ground for political leaders. The first of dozens of retired generals to enter politics was Moshe Dayan, less than two years out of uniform, in 1959: he went on to serve as defence minister and foreign minister.

Dayan led the way

Since then, 11 of the 20 former chiefs of staff of the Israeli army have gone on to serve in the Knesset. Most reached senior cabinet positions; two, Yitzhak Rabin and Ehud Barak, became prime ministers.

But Israeli politics has changed dramatically. The main parties' leaders and candidate lists are no longer decided in smoke-filled rooms, but in party-wide primaries. Senior officers, used to commanding soldiers who carry out their orders unquestioningly, are ill-equipped for the media circus and patient lobbying that these days accompany political advancement. A number of popular generals who have left military service in recent years and were expected to become political stars have remained outside the fray. For a year now, and for the first time in nearly six decades, not a single ex-chief of staff sits in the Knesset. Only one retired general serves in cabinet; just two more sit on the back benches.

"The army is still an admired institution in today's Israeli society, but it's no longer immune from public scrutiny," says Yagil Levy, an expert on Israel's military-political relationship at the Open University. "This has scratched the generals' image," Mr Levy adds, "and the high-tech entrepreneurs are now the shining Israeli success story. It could be their moment." They have independent sources of income to finance glitzy primary campaigns. But they also have a lot to lose. "We succeeded in business by detaching ourselves from the old establishment and learning a new way of doing things. Going into politics means taking on that establishment again," says Mr Margalit. Only a few have braved the waters so far. If more did, it might promote new thinking about economic problems, such as poor labour-participation rates; and political problems, such as the deadlock over the occupied territories. ■

Egypt's zoos

No place for animals

GIZA ZOO

In the zoos and on the streets, animals in Egypt have it tough

CAN giraffes commit suicide? The Giza zoo found itself facing that unusual question in 2013, when a baby giraffe called Roqa reportedly took its own life after being harassed by visitors. Officials denied the story, claiming that Roqa inadvertently hanged herself after getting tangled in wire. Still, the state of Egyptian zoos is such that reports of suicidal ungulates do not seem too far-fetched.

Shortly before Roqa died, three bears were killed at the same zoo in what officials called an ursine "riot". It was later discovered that the bears had been sedated by keepers and had fallen to their deaths. At Alexandria's zoo, two men entered the monkey enclosure in 2015 and beat the animals with sticks, as a crowd of onlookers laughed. The men then ate the monkeys' bananas and left.

Such stories abound, but much of the bad press is nonsense, says Hamed Abdul Dayem, a spokesman for the ministry of agriculture, which oversees the zoos. He claims that they have improved their infrastructure and increased their animal populations by 40% in the past few years.

To be sure, some improvements have been made. But the zoos are underfunded and often rely on private donations. Moreover, what Mr Dayem cites as progress, others see as a problem. Critics have long complained that there are too many animals in too little space at the Giza zoo, considered world-class when it opened in 1891. Some enclosures have hardly changed since then. Overbred lions sit in Victorian-era cages, with little

space to roam. Poorly paid keepers poke them until they roar. If still not entertained, visitors can hold the cubs, for a small fee. Critics say the conditions at other Egyptian zoos are worse. "The good thing is that you will not find many animals there," says Dina Zulfikar, a member of the committee that supervises the zoos. Ms Zulfikar says officials do not know how to treat wild animals. She notes that some have locked up migratory birds, which are often fitted with tracking devices, on suspicion of spying.

Outside the zoos, the situation is little better. Stray cats and dogs roam the streets and are often subject to abuse: the care of animals, it seems, is just not a priority. According to its website, the Giza zoo is meant to "stimulate love" for animals. But there is little proof it is working.

Namibia and Germany

Salt in old wounds

OTAVI AND WINDHOEK

Saying sorry for atrocities a century ago has so far made matters worse

ON OCTOBER 2nd 1904 General Lothar von Trotha issued what is now notorious as "the extermination order" to wipe out the Herero tribe in what was then German South West Africa, now Namibia. "Within the German borders every Herero, with or without a gun, with or without cattle, will be shot," his edict read. During the next few months it was just about carried out. Probably four-fifths of the Herero people, women and children included, perished one way or another, though the survivors' descendants now number 200,000-plus in a total Namibian population, scattered across a vast and mainly arid land, of 2.3m. The smaller Nama tribe, which also rose up against the Germans, was sorely afflicted too, losing perhaps a third of its people, in prison camps or in the desert into which they had been chased.

A variety of German politicians have since acknowledged their country's burden of guilt, even uttering the dread word "genocide", especially in the wake of the centenary in 2004. But recent negotiations between the two countries' governments over how to settle the matter, the wording of an apology and material compensation are becoming fraught. Namibia's 16,000 or so ethnic Germans, still prominent if not as dominant as they once were in business and farming, are twitchy.

The matter is becoming even more messy because, while the German and Namibian governments set about negotiation, some prominent Herero and Nama figures say they should be directly and separately involved—and have embarked on a class-action case in New York under the Alien Tort Statute, which lets a person of any nationality sue in an American court for violations of international law, such as genocide and expropriation of property without compensation.

The main force behind the New York case, Vekuii Rukoro, a former Namibian attorney-general, demands that any compensation should go directly to the Herero and Nama peoples, whereas the Namibian government, dominated by the far more numerous Ovambo people in northern Namibia, who were barely touched by the wars of 1904-07 and lost no land, says it should be handled by the government on behalf of all Namibians. The Namibian government's amiable chief negotiator, Zedekia Ngavirue, himself a Nama, has been castigated by some of Mr Rukoro's team as a sell-out. "Tribalism is rearing its ugly head," says the finance minister, who happens to be an ethnic German.

The German government says it cannot be sued in court for crimes committed more than a century ago because the UN's genocide convention was signed only in 1948. "Bullshit," says Jürgen Zimmerer, a Hamburg historian who backs the genocide claim and says the German government is making a mess of things. "They think only like lawyers, not about the moral and political question."

"None of the then existing laws was broken," says a senior German official. "Maybe that's morally unsatisfactory but it's the legal position," he adds. Indeed, German officialdom still makes elaborate semantic contortions to avoid a flat-out acceptance of the G-word, presumably pending a final accord between the two governments. Above all, Germany is determined to avert legal liability for reparations of the sort it accepted for the Jewish Holocaust in an agreement in 1952, while stressing that it is ready to raise the level of every sort of development aid to Namibia, to which it already gives far more per head than it does to any other country in the world.

Our African Heimat

Meanwhile, Namibia's ethnic Germans are keeping their heads down, wary of recrimination over the distant past. "The German government does not represent us; we are Namibians," says a local businessman. Very few of today's German-speakers are, in any event, descended from the *Schutztruppe* (literally, "protection force"), the colonial soldiers who slaughtered the Herero and Nama in 1904-07.

All the same, few are happy to use the G-word, let alone accept its accuracy. "We grew up with talk of the colonial wars, the Herero uprising," says a veteran writer on the *Allgemeine Zeitung*, Namibia's German-language daily. "We don't use the blanket term genocide."

Namibian Germans often echo Hinrich Schneider-Waterberg, an 85-year-old farmer who has made a second career as a historian bent on rejecting the genocide charge (and who owns the land where a crucial battle between the Germans and the Herero took place). He contends that the Herero started the killing; that German civilians suffered atrocities, too; that the extermination order was soon rescinded in Berlin; that the number of Herero deaths is exaggerated; and that those of the Nama in prison camps were not intentional, thus not genocidal. These points are dismissed by most historians in Germany as "denialist".

Burgert Brand, the jovial bishop of the branch of the Lutheran church to which most white Namibian German-speakers belong, acknowledges a German burden of guilt but shrinks at comparison with the Holocaust; some historians in Mr Zimmerer's camp trace a direct link back to the earlier crimes and racial attitudes of 1904. "It is very frustrating for us bridge-builders, who must start again from scratch," says the bishop.

Many Namibian Germans are nervous lest the argument over reparations spill over into calls for their farms to be confiscated, as Robert Mugabe has done in Zimbabwe. Werner von Maltzahn, a 69-year-old farmer, recalls how his grandfather, a Prussian baron who settled in the same arid spot in 1913, had to start all over again when the British army requisitioned his cattle in 1915. "Maybe I should ask the English for compensation," he jokes. ■

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President Macron

Marchons, marchons!

PARIS

The improbable, inescapable quest to reform France

THIRTEEN months ago, a young government minister climbed on to a platform in a small meeting hall in his home town of Amiens, in northern France. There was no bass beat to pump up the audience, no spotlights or flags. Alone with his microphone, Emmanuel Macron announced that he was launching a new political movement, to be called En Marche! ("On the Move!"). He wanted it to put an end to the stale political divide between left and right, repair confidence and unblock France. The idea was "a bit mad", he admitted: "I don't know if it will succeed."

At the time, says an aide, the idea was mainly to shape public debate. No poll then even tested Mr Macron's presidential chances. He had never run for office. His hopes of building a political movement capable of taking on the existing party machines looked like a fantasy. Two months later, François Hollande, the Socialist president, told two reporters dismissively that his economy minister's project was "an adventure with no future".

Yet on May 7th, a mere six months after Mr Macron formally declared that he would run for office, the French elected the 39-year-old liberal to be their next president, with a resounding 66% of the vote. His victory over his run-off opponent, the far-right nationalist Marine Le Pen, was unambiguous, and carried a message that resonated well beyond France. It was an emphatic demonstration that it is possible to fashion a pro-European centrist response to populism and nationalism, and win.

On election night, framed by an arch of the historic Louvre Palace, Mr Macron took his first solitary steps as president-elect, accompanied by Beethoven's "Ode to Joy", the European Union's adopted anthem. He told a crowd of flag-waving supporters that the task was "immense", but that he would restore "hope and confidence" to France. In a melancholic country, battered by recent terrorist attacks, Mr Macron seemed to embody the triumph of optimism. "Everybody told us it was impossible," he declared. "But they didn't know France."

To understand how Mr Macron might confront the challenges in his path, it is useful to trace his route to power and the ideas that shaped him along the way. His ascent to the Elysée Palace has defied all the rules of France's Fifth Republic, established by Charles de Gaulle in 1958 after the chronic instability of the previous regime. Since then, the French have preferred presidents who bear serial electoral battle scars. François Mitterrand, a Socialist, and Jacques Chirac, a Gaullist, were both elected at their third try. Mr Hollande and his predecessor, Nicolas Sarkozy, spent many years as parliamentary deputies.

Mr Macron, by contrast, has bypassed all the usual routes, leaving former presidents and prime ministers in his wake. He was helped by a good dose of luck, deciding to run at a time when the Socialists and Republicans both adopted party primaries. Each threw up a candidate more in tune with his party's extreme than the centre, thus opening up space in between. The Republicans' nominee, François Fillon, who was at first favoured to win the presidency, tumbled in the polls after a parliamentary-payroll scandal broke. In some ways, Mr Macron's audacious bid for the top job was in tune with de Gaulle, who conceived the directly elected presidency in 1965 as a way to return politics from the parties to the people.

Yet Mr Macron was not simply lucky; he created his own opportunities. He quit government last summer in time to put distance between himself and the unpopular Mr Hollande. He announced his presidential bid before the sitting president had decided whether to seek re-election, thus squeezing Mr Hollande's options. Mr Macron displayed fearsome self-belief, a good grasp of the prevailing mood of disillusion, and a canny understanding of both the political forces in France and the disruptive possibilities of the internet. "There are moments of great acceleration of history," he said earlier this year, "and I think that we are living through one of them."

The thinking

Shortly before dawn on February 15th 2015, the National Assembly wrapped up an all-night sitting. As economy minister, Mr Macron had spent the previous two weeks in the chamber trying to convince deputies of the merits of his draft bill to deregulate shopping hours and protected professions. In total, he devoted 18 hours to pleading his case. It might have worked, a number of deputies from both major parties told him, had party bosses not tied their hands. This was the moment, says Benjamin Griveaux, a co-founder of En Marche!, that he realised that "internal party tensions were unsustainable." To get France moving, a political realignment was needed.

As Mr Macron was increasingly side- ▸▸

lined within government for his outspokenness, he began to work out how to do it. "He doesn't come to politics through power structures, but through ideas," says Jacques Delpla, an economist at the Toulouse School of Economics who worked with him on an economic committee in 2007. A philosophy graduate who spent much time as minister hanging out with the tech startup crowd, Mr Macron thought hard about how the state needs to adapt to the future world of work, and how the party system needs to change to make this happen.

Mr Macron's underlying thesis is that the European welfare state's model of collective rights, grounded in unions and permanent employees, is an anachronism in an increasingly freelance workplace. Such rights apply to ever-fewer workers; those who enjoy them tend to "job-squat" for fear of losing benefits, and they discourage companies from hiring. The model needs to shift to one based on individual rights, so as to protect workers rather than jobs and encourage job creation. The French left, with its romanticised history of collective struggle, is particularly ill-suited to this fight. But on both sides, party machines exist mainly to defend vested interests. "The biggest challenges facing this country and Europe—geopolitical threats and terrorism, the digital economy, the environment—are not those that have structured the left and the right," he told *The Economist* last year.

Tired confrontational politics, Mr Macron argued, was also hampering the project of shaping a "progressive" political bulwark against populism. Born in a provincial family of doctors, the young Mr Macron was on an internship in Nigeria in 2002, while studying at the elite Ecole Nationale d'Administration (ENA), when Ms Le Pen's father, Jean-Marie Le Pen, took the far-right National Front (FN) into the presidential election's run-off round (he lost to Mr Chirac). French parties failed to draw the lessons from that shock, he wrote in "Révolution", a book published last year, and have been "sleepwalking" ever since.

Instead of trying to combat the FN's ideas, Mr Macron concluded, politicians had focused on shutting them out of power. In 2007 Mr Sarkozy kept Mr Le Pen out of the run-off, but only by seizing hold of identity politics to court FN voters. For its part, the left resorted to scaremongering. Instead, the French needed to hear the unfashionable case for something positive: an open, tolerant, pro-European society, based on supporting private enterprise rather than crushing it, and creating paths out of poverty for globalisation's victims.

During the campaign, Mr Macron hammered this point home, refusing to make facile promises he knew he could not keep. At one tense point, the candidate took his argument to a hostile, FN-supporting picket line at a factory in Amiens. He achieved the improbable exploit of getting supporters to wave European flags, as they did at his last rally, in the medieval town of Albi, in the south-west. "We don't want France to be shut off," said Pauline, a law student there: "We want to be part of Europe." In an explosive televised debate that exposed her weakness, Ms Le Pen accused Mr Macron of being the candidate of "savage globalisation"; he retorted that she was the "high priestess of fear".

Nobody doubted Mr Macron's intellectual capacities. His penchant for theoretical abstraction and erudite vocabulary was mocked during the campaign; one phrase he used during the TV debate, *poudre de perlimpinpin* ("snake oil"), was comically remixed as a YouTube video. It was far less obvious, though, that Mr Macron would be able to convert his thinking into an electoral war machine able to torpedo French party politics. His presidential bid resembled a political version of the startups he got to know so well: high-risk, low-budget, capable of total disruption but also total failure. The chaotic culture at En Marche! often felt like a startup, too. Out went the ministerial limousine, neckties and French bureaucratese; in came second-class train travel, sweatshirts and irritating Franglais terms like "*un helper*".

The doing

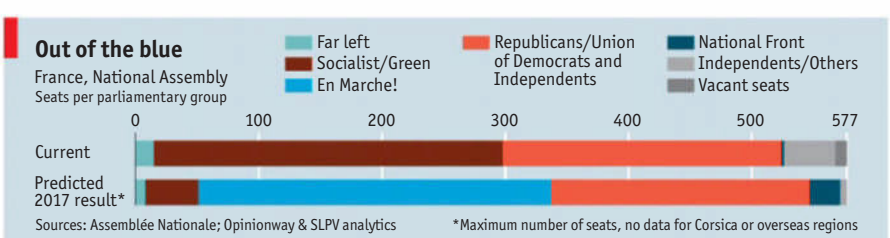
Many political veterans sneered. But En Marche! benefited from an unusual combination of a forceful personality at the top, around whom all decisions turned, and a decentralised and enthusiastic grass-roots organisation, trusted to dream up events, and get on with leafleting and door-knocking. Sporting T-shirts emblazoned with the handwritten En Marche! logo, these volunteers became the fresh local faces of a new movement that nobody could quite believe was taking off. In 13 months, it signed up over 300,000 members, more than twice as many as the entire Socialist Party.

If Mr Macron sought to blast apart the political structures blocking France, his assault was, all the same, not that of a pure outsider. After graduating from ENA, which has trained three of the past five presidents, he shed his provincialism and used his charm to gain access to the networks of the Paris elite. After a spell as an investment banker, he was a staffer to Mr Hollande for two years. With little need for sleep, and a habit of lingering late with dinner guests, he has an uncommon flair for making people feel he is interested in them. "Macron", says one former colleague, "is a networking machine."

Joie de Louvre

Such links helped to open wallets as well as doors. With strict French rules capping individual donations at €7,500 ($8,200) per donor, and no advance public subsidy, Mr Macron cast his net wide, collecting donations of €10 online as well as bigger cheques at parquet-floored dinner parties in Paris. Today, those backing him come from overlapping circles. Many on Mr Macron's campaign team are young former advisers from the economy ministry. Thinkers include Jean Pisani-Ferry, an economist who co-ordinated his campaign programme, and Marc Ferracci, a liberal labour-market economist. Business supporters include Xavier Niel, a start-up billionaire, and Stéphane Boujnah, head of Euronext, a securities exchange.

The incoming president has some parliamentary support, too, mostly from early Socialist defectors such as Richard Ferrand, a deputy from Brittany, and Gérard Collomb, a senator and mayor of Lyon. He has also attracted centrists such as François Bayrou, Jean-Louis Borloo and Sylvie Goulard, a member of the European Parliament. The question is whether, at legislative elections in June, he can build this thin base into a stable governing majority. The French constitution grants the president huge power, but he still needs the backing of parliament to pass laws.



This support is crucial to Mr Macron's programme. Some of his plans are reformist: lowering corporate tax over five years from 33% to 25%; unifying the country's 35 public pension systems; cutting public spending from 57% of GDP to 52%; and trimming 120,000 civil-service jobs. Others are costly but uncontroversial, such as shrinking primary-school classes in underperforming schools. Yet his flagship legislation, to loosen the labour market, could be explosive.

Its objective is to give firms far greater say in organising working time and pay, granting employees the right to hold a referendum if their unions resist. He wants to cap redundancy payments awarded in labour courts. And he plans to take the unemployment-benefit system and the €30bn training budget, both financed and jointly run by unions and employers, out of their hands. This would let the government tighten benefit rules, and focus training on those out of work rather than the system's insiders. Mr Macron knows that with the unemployment rate at 10% (and 25% for those under 25), the economy must create jobs, or populism will prosper.

Assembly needed

Mr Macron's team insists that the élan of his presidential victory will help to secure him a majority, and refuses to talk about coalitions. En Marche! will field candidates in each of the 577 constituencies, under a new name, La République en Marche! (The Republic on the Move!). Half of these, to be unveiled on May 11th, will be newcomers to politics: businessmen, teachers, sports organisers and the like. Other politicians could defect to the new grouping. The Socialist Party is starting to bleed deputies. Manuel Valls, until recently prime minister, described his party as "dead", and announced that he would stand instead for En Marche!—it would have him. One projection suggests the Socialists could lose 75% of their seats.

Matters are more complicated for the Republicans. Many deputies feel that they were robbed of their "turn" at the presidency, after five years under a Socialist, and are in no mood to co-operate. "Macron was primarily elected by default," huffs one. François Baroin, a former finance minister leading the Republicans' parliamentary campaign, wants to build a strong opposition in order to curb Mr Macron's power. Others are less sure. Bruno Le Maire, a former Europe minister, says that he could back a majority under Mr Macron.

The greatest coup would be to peel away a symbolic Republican figure as prime minister, as a way of balancing Mr Macron's big ex-Socialist contingent. Targets include Xavier Bertrand, a regional president, or even Edouard Philippe, a young deputy close to Alain Juppé, a centre-right former prime minister. Each would have to take a huge political gamble, but could unlock further defections from the centre-right. An alternative would be an existing supporter, such as Ms Goulard, a fluent English- and German-speaker who has a reputation as a smart negotiator. An announcement is expected on May 15th, the day after Mr Macron's inauguration.

In the coming days, Mr Macron will begin to take in what he has achieved, but also the burden of the task ahead. He has won a historic victory, but some voters on the far left and the centre-right backed him only to keep out Ms Le Pen. He will need to speak to the 11m voters who backed her, as well as the record 4m who cast blank or spoiled votes in protest at both. Many of these angry voters are from small towns and rural parts that have lost jobs and services, and see no benign side to the forces of globalisation that Mr Macron defends. Ms Le Pen's FN currently has only two parliamentary deputies, one of them her niece, Marion Maréchal-Le Pen, who announced this week that she was stepping down from politics; but it will have many more in June. The far-left party headed by Jean-Luc Mélenchon's will also try to make life difficult for the president they regard as the spokesman of global finance.

The management of change in France, though, is usually less about parliamentary arithmetic than public order. The street is the theatre of choice for French protest, and it has repeatedly defeated efforts by governments of the left and the right to loosen labour laws over the past 20 years. Only last year, Mr Valls had to force through by decree an enfeebled version of his labour reforms, after trade unions, notably the Confédération Générale du Travail (CGT), organised blockades of oil depots, refineries and transport, and demonstrators took to the streets.

In Albi last week, outside a bottle factory, a muscular group of unionists loitering in the car park awaiting Mr Macron's visit were sceptical. "If he tries to bring in flexibility, we'll be in the street," declared Cyril Cereza, wearing the CGT's red-and-yellow jacket. These were supporters of Mr Mélenchon, with no sympathy for the banker from Paris. But when Mr Macron arrived and spoke with them, he was firm. "It's not the CGT that's going to run the country," he declared afterwards. The president-elect is "ready for his Thatcher moment", argues Mathieu Laine, a liberal intellectual and businessman, and friend of Mr Macron's. Mr Ferracci, who was best man at Mr Macron's wedding, says that he has "an incredible capacity to resist, including physical". Less generous pundits worry that he is a novice with no idea of what is about to hit him.

Mr Macron has already entered history. He inherits not only a divided country, but the heavy weight of expectations. The French at times seem to indulge their ennui as an emblem of national identity. Philosophical doubt, and the impossibility of the ideal, form part of the national character. But in recent years pessimism and negativity have taken on a destructive edge. Michel Houellebecq, a French novelist known for his own nihilism, put it well this week when he said that Mr Macron represented "group therapy" for the nation: a sort of collective self-medicated optimism. France, which is still living under a state of emergency, badly needs such a dose. The task is demanding, and the chances of instant recovery do not look too promising. Then again, neither did the election of the remarkable Mr Macron. ■

Polling errors

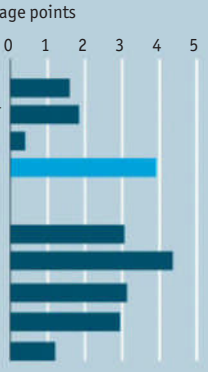
Hit or miss

Why did polls sell Macron short?

MARINE LE PEN trailed Emmanuel Macron in run-off polls by around 20 percentage points for the entire campaign. Nonetheless, punters and pundits, humbled by populist surprises in Britain and America, gave her a meaningful chance of winning. At first glance, Mr Macron's landslide seems a win for pollsters. In fact, they underestimated his support by four points—a larger error than in Britain's Brexit vote or Donald Trump's election. Because the error reinforced the expected result rather than upending it, it has drawn less attention. It may reflect voters who abandoned Ms Le Pen the day before the election, when polls were banned, following her weak debate and a plagiarism scandal. But the French run-off further undermines the notion that pollsters miss "shy populists". Nate Silver, a data journalist, notes that nationalists have fallen short of polling averages in the last six European elections. Shy globalists, anyone?

Miss underestimated

Polling errors, percentage points



Sources: National polls; Will Jennings and Christopher Wlezien; *The Economist*

*Average of two largest parties
†1969-2012

Muckraking in Malta

Shady island

ROME

Corruption allegations in the EU's smallest country

EVERY six months, one of the European Union's member countries gets to take its turn as president of its council of ministers, chairing meetings in Brussels, negotiating with the European Parliament and so on. For the union's smaller members, this is both an honour and an onerous obligation, requiring the government's full attention. So it is surprising to find the EU's tiniest state, Malta, which is in the middle of its stint as president, plunged into an early election campaign. "Suddenly, it's panic stations and they seem to have completely forgotten the European presidency," says Daphne Caruana Galizia, an anti-government blogger.

Malta's prime minister, Joseph Muscat, has given his island steady economic growth (5% last year), record-low unemployment and its first budget surplus in 35 years. Small wonder that his Labour Party is favoured to win. However, Mr Muscat called the vote, scheduled for June 3rd, after a stream of corruption allegations stemming from the release last year of the so-called Panama Papers: more than 11m files belonging to one of the world's biggest offshore law firms, Mossack Fonseca.

None of the claims—many of them made by Ms Caruana Galizia—directly involves Mr Muscat. But the most recent concerns his wife, Michelle Muscat, allegedly the beneficial owner of a company which was paid more than $1m by a firm belonging to Leyla Aliyeva, the daughter of the president of Azerbaijan. Mr Muscat's spokesman calls this "an outright lie". Azerbaijan has important links to Malta, including a long-term agreement to supply gas, and the Aliyev family is said to have used Malta for financial transactions. Azerbaijan's links to European institutions are already under scrutiny in Milan, where a prosecutor is investigating allegations that it paid a €2m ($2.2m) bribe to an Italian member of the parliamentary assembly of the Council of Europe, which is a separate body from the EU.

Mr Muscat has asked the courts to appoint a magistrate to investigate the accusation against his wife. "My duty, however, is not just to protect myself but also to safeguard my country," he said while announcing the election, "and I will not tolerate a situation where jobs are lost because of uncertainty." He also vowed to sue Ms Caruana Galizia, who says she has already received more than 20 writs issued by various members of the government or people close to it.

The government's reaction has arguably been every bit as worrying as the claims made against it. In February, a minister secured a warrant to freeze Ms Caruana Galizia's bank account after she claimed that he had been seen in a German brothel. He denies it. Days later, the government tabled a bill to force Maltese news websites like Ms Caruana Galizia's to register with the authorities; after protests, that provision was withdrawn.

Ken Mifsud Bonnici, a legal adviser to the European Commission, wrote that Malta was facing a "veritable collapse of the rule of law". At the root of the problem, he argued, was a constitution (bequeathed by Britain, Malta's former colonial ruler) that hands vast powers to the executive, without the checks normal in a democracy. For example, only the police, who answer to political authorities, have the power to initiate investigations, "so police investigations against the government or without its consent are impossible". On May 7th, the *Sunday Times of Malta* reported that the island's financial watchdog had told the police it had a "reasonable suspicion" that the prime minister's right-hand man, Keith Schembri, had been involved in money-laundering. Yet the claim, which Mr Schembri denies, was not investigated, the paper said.

Does any of this matter beyond little Malta? If Mr Mifsud Bonnici is right, it does: whichever party is in office, the island could be used by dubious interests as a private back door into the EU. ■

English in the EU

Lingua franca

Britain is leaving. Its language is staying

"SLOWLY but surely, English is losing importance," quipped Jean-Claude Juncker, the president of the European Commission, before switching to French for a speech on May 5th. Is this true? Not really, and it seems not to have been intended as seriously as easily offended British headline-writers took it. After all, Mr Juncker, who is known for going off-script in speeches, delivered his barb in English, and the audience laughed.

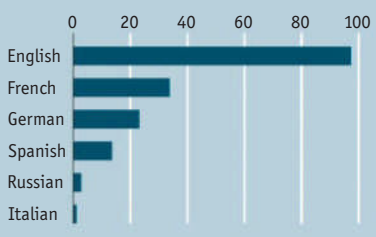
In any case, speakers of *la langue de Shakespeare* have little to worry about. The European Union has 24 official languages, three of them considered "working languages": French, German and English. Eurocrats are polyglots, often able to speak all three tongues, plus another of their own. Mr Juncker may be right that in the halls of the EU's institutions, English will be heard somewhat less after Brexit, simply because of the exodus of a big group of Anglophones. But English is not just British: it is also an official language in Ireland and Malta. More important, the three enlargements of the EU since 2004 have decisively shifted the balance in Brussels from French towards English. There is no consensus for going back, still less for switching to German.

Besides, English is putting down deep roots among ordinary people on the continent. For all of France's notorious linguistic nationalism, it is telling that François Hollande, the outgoing president, was mocked on *Le Petit Journal*, a news and entertainment show, for his ropey English. Emmanuel Macron, a generation younger, is fluent. Fully 66% of EU citizens speak another language, a number that is growing steadily. Eurostat, the EU's statistics agency, does not break those figures down by language spoken, but it is easy to extrapolate from what is studied in schools. Among students at lower secondary level outside Britain, 97% are learning English. Only 34% are studying French and 23% German. In primary school 79% of students are already learning English, against just 4% for French. Some countries, such as Denmark, begin English in the very first year.

A language increases in value with the number of people able to speak it, so tongues that are valuable tend to become more so over time. And language knowledge takes a long time to acquire; societies do not quickly change the languages they speak. The trend of English in Europe began well before the vote for Brexit and is unlikely to dissipate, even "slowly but surely". Mr Juncker might better have said that although Britain, unfortunately, is exiting the EU, its former partners will always remember the linguistic gift it is leaving behind.

Does not decline

European Union*, foreign languages studied
At lower-secondary level, % of pupils, 2015



Source: Eurostat *Excludes Britain (insufficient data)

The new Europhiles

Who loves EU, baby

BERLIN

Among young, well-educated urbanites, nationalism is provoking a backlash

"AU NOM *de l'amitié*" ("In the name of friendship"), proclaimed banners at the weekly Pulse of Europe demonstration in a Berlin square, a week before France's presidential election. Edith Piaf songs burbled from giant speakers. Amid a sea of blue-and-yellow European Union flags, the 1,500 marchers gushed about the European project. "I love Europe, it's my home," said Oli. "I want my children and grandchildren to experience, study and travel in Europe," added Sabine, who was attending her fifth Pulse of Europe event. Then they all belted out the "Ode to Joy", the EU's official anthem.

There is nothing novel about support for the EU. In most European countries the political mainstream backs the union and spouts nice words about continental collaboration. But lately something different has been going on: a surge, in certain quarters, of emotional, flag-waving, integrationist Europhilia. The Pulse of Europe, which started in Frankfurt in November and now holds regular rallies in some 120 cities across the continent, is one manifestation. Another is the success of a number of emphatically pro-European political outfits, the most striking example being Emmanuel Macron's victory in France.

Such political groups fall into three categories. The first consists of Mr Macron and Alexander van der Bellen, the former Green leader who became Austria's president in January. Both triumphed in two-round electoral systems in which the mainstream centre-right and centre-left candidates were knocked out, leaving a nationalist (Marine Le Pen in France, Norbert Hofer in Austria) to face a pro-European liberal. Neither Mr Macron nor Mr Van der Bellen won an unambiguous mandate; many of their voters simply opposed the far-right alternative. But both are part of "a steadily building trend of election victories for the idea of Europe", says Josef Lentsch, a political scientist in Vienna.

Second, in parliamentary systems pro-European parties have been making gains. At the Dutch election in March the two big winners were the liberal-federalist D66 party and GreenLeft, which rose from 8% to 12% and 2% to 9% respectively. "Being overtly pro-EU is no longer something to be ashamed of," says Michiel van Hulten of the London School of Economics.

Finland's most emphatically pro-EU party, the Green League, rose from its usual score of around 8% to 12% in local elections last month. In Sweden, the liberal Centre Party, which has recently sharpened its anti-nationalist identity, is polling near 12%, double its result in the last election. In Britain the Liberal Democrats have enjoyed a modest revival as anti-Brexiteers, moving into double digits in polls. Both Poland and Spain have spawned new parties that wear their pro-Europeanism on their sleeve: Nowoczesna, which soared last year before being consumed by scandal; and Ciudadanos, which has hit new poll highs of 17% in recent weeks.

The EUth of today

Third are extra-parliamentary campaign groups. Apart from Pulse of Europe, other movements have brought flag-waving pro-Europeans into the streets: in protests against the forced closure of the Central European University in Hungary; in rallies against the Eurosceptic government in Poland; and in the anti-Brexit movement in Britain.

Who is gravitating to this sort of politics? Supporters are often young, urban and well educated—the political wing of the "Erasmus generation" of cross-border European students. In Austria, for example, 58% of those aged under 29 backed Mr Van der Bellen. But Mr Macron's vote was evenly spread across age groups, and the Pulse of Europe crowds are similarly multigenerational. Ciudadanos voters are more likely to have degrees than supporters of any other Spanish party. In the Dutch election, if only university polling stations had counted, D66 and GreenLeft would have had a majority.

The new Europhilia is partly a backlash against the wave of nationalism evinced in the Brexit vote and Donald Trump's victory in America. There is also anger at mainstream parties who adopt nationalist and populist positions. In Sweden the Centre Party has pointedly attacked the centre-right Moderates for flirting with the far right. Mr Macron has attacked his own former party, the Socialists, for caving in to nationalist proposals to revoke the French citizenship of dual citizens convicted of terrorism. Jesse Klaver of GreenLeft urges fellow politicians: "Be pro-European…You can stop populism."

Asked about their success, Guillaume Liegey, one of the early brains behind Mr Macron's campaign, and Martin Radjaby, Mr Van der Bellen's campaign manager, offer similar recipes: sophisticated targeting of voters, door-to-door campaigning and a progressive sort of patriotism. Indeed, the Europhiles have learned some lessons from their populist nemeses. Like Ms Le Pen and Mr Hofer, they have adopted techniques from their counterparts in other countries, and ratcheted up pressure on mainstream parties to back their positions.

Even if small Europhile groups do not win elections, they can influence bigger parties. In Poland the Civic Platform (PO) party has moved into space opened up by Nowoczesna, adopting the EU as a symbol of opposition to the government. When Donald Tusk, European Council president and former PO leader, arrived in Warsaw on April 19th he was greeted at the train station by crowds brandishing EU flags. Martin Schulz, the centre-left candidate for German chancellor, has aligned himself with the Pulse of Europe movement. One lesson of Europe's populist wave is that small but emphatic groups can change the agenda. Along with Mr Macron's win, that should give Europhiles hope. ■

Charlemagne | Gathering steam

Can Emmanuel Macron revive the Franco-German engine?

LIKE all the best clichés, the notion that the European Union is driven by a Franco-German "locomotive" is grounded in truth. From the founding of the European Coal and Steel Community to the creation of the euro, almost all the signature projects of post-war Europe have emerged from Paris and Berlin. The compromises forged between two former foes with competing political and economic visions have proved powerful enough to bring much of the rest of the continent along with them. Lately, though, the French part of the engine has run out of steam, and the European train has been idling. Can Emmanuel Macron, the young reformer who won France's presidency wrapped in the EU flag, shunt it back on to the rails?

The grandest of Mr Macron's many ideas involve fixing what he calls the "half-pregnancy" of Europe's single currency. He wants intra-euro-zone transfers and investment, funded from a common budget and administered by fresh institutions like a finance ministry and parliament. But Germany has long looked askance at such *gouvernement économique*. As the two countries' economic performance has diverged, it has become ever harder for French ideas to find an audience in Berlin. In 2012 Mr Macron's newly minted predecessor (and former boss), François Hollande, took his anti-austerity campaign pledge to Angela Merkel and returned to Paris with a flea in his ear. Soon enough he was executing endless U-turns. He leaves office on May 14th with historically low approval ratings, an example of what not to do.

Mr Macron can expect a better hearing on his own visit to Berlin, due later this month. On two ground-softening trips to Germany earlier this year, he promised to tackle problems at home before making demands of his neighbours. "I propose to restore the credibility of France in the eyes of the Germans," he said in March. "We need it because the future of Europe is at stake." His priorities chime with time-worn German gripes: reinvigorating France's hidebound labour market (joblessness stands at 10%, well over twice the German rate) and shrinking its bloated state.

Mr Macron's campaign vows to shake up the more torpid parts of France's economy secured him a mandate to reform. But Germans have seen countless such French plans come and go. For all Mr Macron's fresh-faced appeal, he will have his work cut out in a country that is in a decidedly surly mood. The parliament that emerges after next month's legislative elections may not be eager to help the new president impose his will on France.

It is just as well that Mr Macron will face distractions at home, for Germany is gearing up for its own election in September, and events in France have begun to colour the campaign. Senior figures in Mrs Merkel's Christian Democratic Union (CDU), such as Wolfgang Schäuble, the flinty finance minister, have already dismissed Mr Macron's euro-zone proposals. But their Social Democrat (SPD) coalition partners, backed by parts of the press, like Mr Macron's ideas to boost Europe's (and Germany's) woeful investment rate. A strong SPD showing in September might mean Mr Macron's proposals find friendlier ears in Berlin.

But the hype surrounding Mr Macron's extraordinary campaign has too quickly spilled into grand talk of a reinvention of the euro zone. There is little appetite anywhere in Europe for the treaty changes that a major currency revamp would require. In Berlin it is not only the coming election that stays politicians' hands. Many Germans think their contributions to euro-zone bail-outs over the years have shown plenty of solidarity already. Mr Schäuble's finance ministry bitterly resists anything that smacks of a "transfer union" or debt mutualisation. It will be hard enough for France to win German support on smaller matters, such as completing the EU's banking union. "I'm sceptical about institutional proposals," says Norbert Röttgen, a senior MP for the CDU. "I'd concentrate on practical steps that yield results."

Similar noises emerge from some voices close to Mr Macron. "Our first priority is to be pragmatic," says Sylvie Goulard, a French MEP tipped for a top job when the new president names his government next week. "Can you really explain to an unemployed man that it's time to change the euro-zone structure?" Both Mr Röttgen and Ms Goulard speak of deepening co-operation on security matters; some German officials acknowledge that broadening the conversation to defence might be the only way for them to move, eventually, on economics. Expect also joint proposals on advancing the EU's digital single market, one of Mr Macron's stated priorities for Europe.

All hail Emmangela

A renewed Franco-German partnership would leave Europe better placed to handle future crises. But it would also help relieve Germany of the burden of hegemony. Its officials are weary of explaining that they have no wish to lead alone (suggestions that Donald Trump's election left Mrs Merkel the ruler of the free world elicit universal eye-rolls in Berlin). With Italy flailing, Britain Brexiting and Poland in the grip of illiberal democracy, a restoration of the bond with France would come at an auspicious time for Germany. It would also weaken resistance in other EU countries that have grown resentful of its dominance.

That is good news for Germany—but Mr Macron may in time call Berlin's bluff. Germany has long said it will consent to reform in the euro zone if other countries get their houses in order first. That is precisely what Mr Macron has promised to do. In rejecting the far-right, anti-EU Marine Le Pen in favour of a pro-European dedicated to restoring his country's self-confidence and renewing ties with Germany, French voters could have been following a script written across the Rhine. That leaves Germany with a stake in Mr Macron's success, but also the obligation to give his ideas a hearing. Some of them will be uncomfortable. But if a little German self-examination is the price of Mr Macron's victory, Europe will be all the better for it. ■

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Our election blog can be found at:
Economist.com/blogs/speakerscorner

Scotland

Uniting the clans

STONEHAVEN

Referendums on independence and Brexit have caused a realignment that benefits the Conservatives

ON THE High Street in Stonehaven, a town just south of Aberdeen, David Kelly checks no one can hear him. "What do I think of the Conservatives?" whispers the 72-year-old. "I love them. They're the only option around these days."

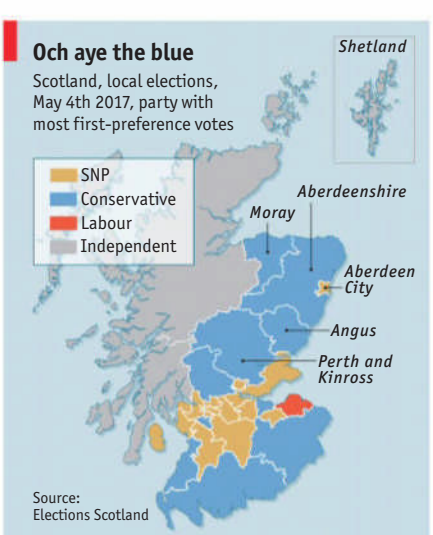
In recent years even hushed ardour for the Tories has been rare in Scotland. But on June 8th the party could win its highest share of the Scottish vote in a general election since 1979. It more than doubled its tally of council seats in local elections on May 4th, finishing second to the Scottish National Party (SNP). Polls suggest that next month up to 30% of Scottish voters could opt for the Conservatives.

It would be a triumph for a party that in the general election of 2015 won a single Scottish seat and just 15% of the vote. But in the aftermath of the referendum on independence in 2014, seismic shifts are everyday stuff. A Conservative resurgence is the latest effect of that plebiscite. It may yet determine whether there is a second one.

The revival has been a long time coming. From the 1920s to the late 1950s, the Unionist Party was the dominant force in Scottish politics. It stood for Empire, Protestantism and the United Kingdom. But as secularism spread and imperial Britain faded, support for the Scottish Conservatives, as the party became after it was absorbed into the British Tories in 1965, shrank. Tabloids portrayed Tories as pheasant-shooting, anglicised toffs. In 1955 the Unionist Party and its allies won half the vote. In October 1974 the Scottish Conservatives won less than a quarter.

Margaret Thatcher lost the party more votes, as most Scots felt they had not consented to her economic policies. Support for devolution grew, paving the way for the opening of the Scottish Parliament in 1999, which in turn expedited the rise of the SNP.

Conservative decline changed the electoral geography. Forerunners of the Liberal Democrats picked up seats in the Highlands and islands. In the north-east voters swapped the Tories for the SNP. But Labour was the main beneficiary of Conservative woes, winning the most Scottish votes in every general election from 1964 to 2010.



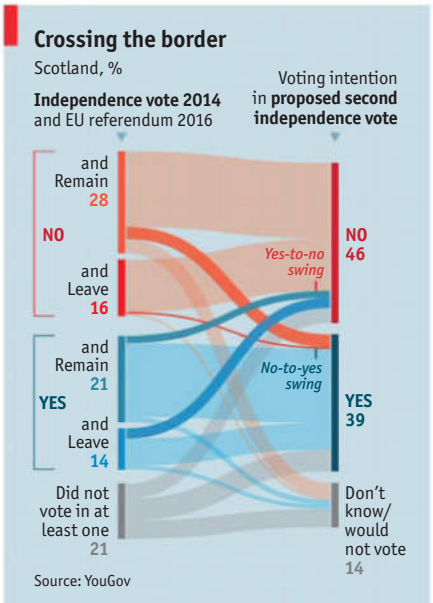
The independence referendum of 2014 changed all that. In the general election of 2015 Labour was reduced from 41 seats to only one, as supporters of independence coalesced around the SNP.

Now opponents of independence are coming together, in a few places to the benefit of the Lib Dems, but mostly around the Tories. Most of the party's gains in polls have come from unionists fleeing Labour, which also opposes independence but with less conviction. In this month's local elections the Tories won 25% of first-preference votes, up from 13% in 2012; Labour dropped from 31% to 21%. In Stonehaven Roy Skene, an oil engineer, explains that he "doesn't see what good independence would do", adding that he can no longer trust Labour to resist the SNP.

Ruth Davidson (pictured) has made it easier for Labour émigrés. The leader of the Scottish Conservatives embodies her party's traditions (she is a Christian, a staunch unionist and served in the Territorial Army) and transcends them (she is gay, socially liberal and does not own a castle).

The SNP remains pre-eminent but has slipped in the polls. In the local elections it did badly where it will be vulnerable to the Tories on June 8th. In four areas of the north-east—Aberdeenshire, Angus, Moray, and Perth and Kinross—the SNP's share of the vote fell by 8-12 percentage points.

One likely reason for this pattern is the EU referendum. Scotland voted 62-38 to Remain. In no council area was there a majority for Leave. But Moray came closest, with 49.9%. Three of the five most Eurosceptic areas were in the north-east. Leave voters are thought to account for most of the drop in support for the SNP, which backed Remain. Most are defecting to the Tories.



On the ground the SNP is nervous. Its Aberdeenshire candidates have rushed out a plan to open a railway line. In Moray, where Angus Robertson, the party's leader in Westminster, is under threat from the Tories, the pro-independence Greens have stood down to help his chances.

The SNP's support in Scotland's central belt means it will still have the vast majority of seats after June 8th. But the shifts suggest that Nicola Sturgeon, the party's leader, has misjudged the effects of the EU referendum. Expecting it to boost support for independence, she has called for a second plebiscite on secession. In fact, the net effect of the EU vote has been nil (see chart). Some Remainers who voted No to independence in 2014 would now vote Yes, seeing secession from Britain as a way back into the EU. But a similar number of Leavers who voted Yes in 2014 have switched to No, in order to protect Brexit. One Aberdeenshire fisherman says he voted for independence to get a better deal on EU fishing quotas, but now prefers Brexit, which he hopes will mean no quotas at all.

The SNP believes it has demography on its side; less than a third of Scots aged over 70 voted for independence. The party also expects frustration with the union to grow after Brexit actually happens, in 2019. And for all Ms Davidson's ribald congeniality, she still has work to do to convince Scots that she could become first minister.

Fortunately for her, that is a problem for the next Scottish election, in 2021. For now, after a decade of huge advances the SNP is set to take a small step back. Support for independence remains steady. But the zeal of the past few years is abating. At the Waterfront Café in Stonehaven, Patricia Speirs worries that "the timing for independence has been and gone". The local economy is struggling. Her friends are voting Conservative. "It's very sad," she says. ■

Welsh politics

Independents' day

MERTHYR TYDFIL

Why party men and women are losing out to free agents

A BEAMING Tanya Skinner still can't quite believe it. In local elections on May 4th she scooped enough votes in her ward to topple the head of the Labour council in Merthyr Tydfil in south Wales. She has become an instant local celebrity.

The result was embarrassing for Labour. Merthyr is virtually synonymous with the party; Keir Hardie, Labour's founder, was the local MP. Ms Skinner's victory contributed to Labour's losing control of the council.

Her result also showed that independent politics continues to flourish in Wales, in contrast to most of Britain, where parties dominate. Ms Skinner and 15 other successful independent candidates will run Merthyr council, barring an upset in three more seats that are due to be contested in June. Independents also gained control of the nearby council of Blaenau Gwent, another former Labour stronghold, once represented in Parliament by Aneurin Bevan, the architect of the National Health Service, and Michael Foot, a former Labour leader. In all, independents won 322 of the 1,159 seats that were contested in Wales, second only to Labour and well ahead of a resurgent Conservative Party, which won 184. In England, where 2,370 seats were contested, independents won just 162.

Independents have historically done well at a local level in Wales, especially in rural and western areas such as Pembrokeshire, where independents retained control of the council on May 4th. They campaign squarely on local issues, and although they rarely combine to form durable political blocs, they do vote as coalitions on some policies.

Independents have been given a recent boost by Labour's unpopularity. Such is the loyalty to Labour in large swathes of Wales that even if people want to give it a bloody nose, they are "never quite desperate enough to fall in love with another party," says Roger Scully, a political scientist at Cardiff University. Instead, they vote for candidates who belong to no party.

Ms Skinner, who describes herself as a socialist, joined Labour to support its leader, Jeremy Corbyn, but was turned off the Merthyr branch by what she calls the "old boys' club" that runs it. Lisa Mytton, an independent who is now vying to lead the Merthyr council, also testifies to her strong Labour background. About half of Merthyr's independents are ex-Labour supporters who were put off at one time or another by its local machine.

The profusion of independents also owes something to the animosity towards the Tories in Wales. The loss of jobs in the local coalmining and steelmaking industries in the 1980s is intimately associated with Margaret Thatcher. Thus, as one Tory official concedes, the party has an image problem. Some independents in rural Powys, for instance, are conservative by inclination but won't use the party label.

The official Tory party put up a record 628 candidates in Wales on May 4th. But still, logistically the party barely operates in many parts. Even this time, with the party buoyant in the national polls, it did not compete much in places like Merthyr.

In some places the lack of competition is unhealthy. Almost 100 candidates, 7% of the total, were returned unopposed. The first-past-the-post voting system makes it especially hard for challengers to break through (Scotland, by contrast, uses a form of proportional representation, which helps small parties). Wales's many independents enliven its democracy, but they are also a symptom of its sickliness. ■

The party's over

Bagehot | The Marxist moment

The Labour leadership is right—Karl Marx has a lot to teach today's politicians

AN UNOFFICIAL rule of British elections holds that you don't mention big thinkers. On May 7th John McDonnell, the shadow chancellor, broke this rule by mentioning not just any old big thinker but Karl Marx. "I believe there's a lot to learn from reading 'Capital'," he declared. The next day Jeremy Corbyn, the Labour Party leader, described Marx as "a great economist".

This produced jubilation on the right. The *Daily Telegraph* dismissed Messrs McDonnell and Corbyn as "the Marx brothers". The *Daily Mail* reminded its readers of the murderous history of communism. David Gauke, a Conservative minister, warned that "Labour's Marxist leadership" was planning to turn Britain into a "hard-left experiment". He added for good measure that Marx's thinking is "nonsensical".

Yet Mr McDonnell is right: there is an enormous amount to learn from Marx. Indeed, much of what Marx said seems to become more relevant by the day. The essence of his argument is that the capitalist class consists not of wealth creators but of rent seekers—people who are skilled at expropriating other people's work and presenting it as their own. Marx was blind to the importance of entrepreneurs in creating something from nothing. He ignored the role of managers in improving productivity. But a glance at British business confirms that there is a lot of rent seeking going on. In 1980 the bosses of the 100 biggest listed firms earned 25 times more than a typical employee. In 2016 they earned 130 times more. Their swollen salaries come with fat pensions, private health-care and golden hellos and goodbyes.

The justification for this bonanza is that you get what you pay for: companies claim they hire chief executives on the open market and pay them according to their performance. But the evidence is brutal. Most CEOs are company men, who work their way up through the ranks, rather than free agents. In 2000-08 the FTSE all-share index fell by 30% but the pay for the bosses running those firms rose 80%. J.K. Galbraith once said that "the salary of the chief executive officer of the large corporation is not market reward for achievement. It is frequently in the nature of a warm personal gesture by the individual to himself." Corporate Britain is more subtle: CEOs sit on each other's boards and engage in an elaborate exchange of such gestures.

The political system is no less rife with rent-seeking. Politicians routinely cash in on their life of public service by transforming themselves from gamekeepers into poachers when they retire, lobbying departments they once ran, offering advice to companies they once regulated and producing platitudinous speeches for exorbitant amounts of money. Tony Blair became rich in his retirement by offering advice to bankers and third-world dictators. George Osborne, a former chancellor, is also cashing in: he makes more than £650,000 ($840,000) for working for BlackRock investment managers one day a week, earns many tens of thousands for speeches and edits a London newspaper, the *Evening Standard*.

Marx predicted that capitalism would become more concentrated as it advanced. The number of listed companies has declined at a time when profits are close to their highest levels ever. Concentration is particularly pronounced in the most advanced sectors of the economy. Google controls 85% of Britain's search-engine traffic. Marx was also right that capitalism would be increasingly dominated by finance, which would become increasingly reckless and crisis-prone.

What about his most famous prediction—that capitalism inevitably produces immiseration for the poor even as it produces super-profits for the rich? "Immiseration" is too strong a word to describe the condition of the poor in a country with a welfare state and a minimum wage. Yet many trends are worrying. Average wages are still below their level before the financial crisis in 2008 and are not expected to exceed it for several years. The rise of the Uber economy threatens to turn millions of people into casual workers who eat only what they can kill.

Full Marx

The problem with Marx is not that his analysis is nonsensical, as Mr Gauke maintains, but that his solution was far worse than the disease. And the problem with Messrs Corbyn and McDonnell is not that they have learned something from Marx but they haven't learned anything from the past hundred years of history. Mr McDonnell is a fan not just of Marx but also of Lenin and Trotsky. Mr Corbyn described Fidel Castro as a "champion of social justice". A leaked draft of the Labour manifesto resurrects defunct plans to renationalise industries and extend collective bargaining.

The Tory party is heading for a substantial victory in large part because Labour's leaders are so unreconstructed. But it would be a mistake for the Conservatives to ignore the lessons of the master himself. As Trotsky once put it, "You may not be interested in the dialectic, but the dialectic is interested in you." The financial crisis suggested that the economic system is worryingly fragile. The vote for Brexit suggested that millions of people are profoundly unhappy with the status quo.

The genius of the British system has always been to reform in order to prevent social breakdown. This means doing more than just engaging in silly gestures such as fixing energy prices, as the Conservatives proposed this week (silly because this will suppress investment and lead eventually to higher prices). It means preventing monopolies from forming: Britain's antitrust rules need to be updated for an age where information is the most valuable resource and network effects convey huge advantages. It means ending the CEO salary racket, not least by giving more power to shareholders. It means thinking seriously about the casualisation of work. And it means closing the revolving door between politics and business. The best way to save yourself from being Marx's next victim is to start taking him seriously. ■

Surrogacy

Help wanted

Even as demand for surrogacy soars, more countries are trying to ban it

NATALIE SMITH was born without a uterus. But her ovaries work normally, which means that, with the help of *in vitro* fertilisation (IVF) and a "gestational surrogate"—a woman willing to carry a baby for someone else—she and her husband were able to have children genetically related to both of them. In 2009 they became parents to twins, carried by Jenny French, who has since had babies for two other couples. Ms French was motivated by her own experience of infertility between her first and second children. The experience created a lasting link: she has stayed friends with the family she helped to complete and is godmother to the twins.

Ms Smith was lucky to live in Britain, one of just a handful of jurisdictions where surrogacy is governed by clear (though restrictive) rules. In some other European countries, it is illegal. American laws vary from state to state, all the way from complete bans to granting parental rights to the intended parents, rather than the woman who carries the baby. In most of the rest of the world, until recently, surrogacy has been unregulated, leaving all concerned in a legal vacuum. The variation in laws—and costs—has created a global surrogacy trade rife with complications and pitfalls.

Now many of the developing countries whose low costs and lack of legal restrictions had made them popular surrogacy destinations are trying to end the business. Thailand barred foreigners from paying for surrogacy in 2015. Nepal banned it, even when unpaid, later that year. India, where surrogacy had been a booming business for more than a decade, suddenly barred foreign clients a few months later. A bill before its parliament would allow only unpaid surrogacy by close relatives.

These new laws were intended to protect surrogates from exploitation. These poor and often illiterate women could earn an amount equivalent to ten years' wages for a single pregnancy. Governments feared that some did not understand the contracts they were signing. Unscrupulous clinics often placed multiple embryos in their wombs with the aim of making pregnancy more likely, without making the risks clear. Some overused Caesarean sections and neglected postpartum care.

But rather than ending the trade, tighter rules are simply moving it elsewhere. Three years before it ended surrogacy for foreign clients, India had banned it for gay men. Indian agencies responded by relocating to Nepal, Thailand and Cambodia, flying out frozen embryos that were awaiting wombs, and women who were already pregnant to give birth. Now, in the wake of further bans, the business is shifting to Greece, Laos and Ukraine, says Sam Everingham of Families Through Surrogacy, an Australian charity. Several African countries are becoming more popular; Indian women seeking to be surrogates are going to Kenya. Far from their families and friends, and unable to speak the local language, they are more vulnerable to exploitation and abuse.

Baby or bust

The problem for those who would regulate surrogacy out of existence is that demand is strong, and rising fast. Though the number of children born globally each year through surrogacy is unknown, at least 2,200 were born in America in 2014, more than twice as many as in 2007. Britain registered nearly 400 in 2016, eight times as many as in 2007. One large Indian clinic popular with foreigners claimed to have delivered more than 1,000 babies between 2004 and 2015.

In times gone by a woman who, like Ms Smith, was unable to carry a baby might have adopted. But nowadays, fewer babies are put up for adoption. And gay couples, who can marry in a growing number of countries, are increasingly turning to surrogacy. Some single men are also seeking surrogates, just as single women may turn to sperm banks when Mr Right does not ap- ▸▸

pear. Advances in fertility treatment make all this possible, and mean that surrogates are now rarely related to the babies they carry. If the intended mother has no eggs of her own, or if the baby is going to a single man or a gay couple, IVF can be done with donated eggs instead.

The first formal surrogacy contract was drawn up in 1976 in America. Ten years later "Baby M", intended for a couple in New York, made headlines when the surrogate changed her mind and sued—unsuccessfully—for custody of the child, who was genetically hers and had been conceived by artificial insemination using the commissioning father's sperm. The furore led to bans in New York and several other states. The popular image shaped then has stuck: surrogates are widely viewed as likely to form, and then struggle to break, a maternal bond with the babies they carry, just like women whose difficult circumstances lead them to give up their newborns for adoption.

Fertility rights

In fact, recent studies show that it is extremely rare for a surrogate to change her mind and seek to keep the baby. Surrogacy UK, a British charity, says that there have been no such cases among the nearly 180 births it has helped to arrange since its founding in 2002. "You never think the baby is yours," says Michelle Green, a British mother of two and a surrogate of twins born in 2015. She is now on to a second surrogacy, and says she is proud to have given children to someone who would otherwise have been unable to be a parent.

On the rare occasions when problems do arise, it is almost always in the opposite direction: commissioning parents who decide they no longer want the baby. In Canada, which has regulated surrogacy since 2004, five such cases are known to have occurred, says Sally Rhoads-Heinrich, who runs Surrogacy in Canada Online, a referral and consultation service. The main reason for pulling out was divorce. But in no case did the surrogate keep the child: they were all given up for adoption.

Surrogacies in rich countries now usually involve mediators who pre-screen and counsel both sides to ensure they are well prepared and in agreement about what to do if anything goes wrong. In Australia, both sides must receive professional counselling and legal advice beforehand. In Britain the intended parents are vetted by social workers before they can take the baby home. Surrogacy UK encourages both parties to get to know each other for at least three months before trying to conceive. They are guided through 15 pages of questions, such as whether they would have the pregnancy terminated if the fetus has severe defects. Disagreement on anything major serves as a warning not to go ahead.

Even where surrogacy is legal, restrictive rules prompt many would-be parents to go abroad. Britons travel to evade a ban on surrogacy for single people, and for couples who need both donor eggs and donor sperm to conceive. (In a rare example of liberalisation, Britain's government is considering getting rid of these restrictions.) Israel and some parts of Australia allow it only for heterosexual couples. Three-quarters of the nearly 300 babies born to surrogates in Nepal in 2014-15 were handed over to Israeli and Australian citizens. And nearly everywhere that it is legal, paying anything more than pregnancy- and birth-related expenses is banned (a few American states, Ukraine and Georgia are exceptions). That crimps supply. Some places, including Britain, are so worried about anything akin to a market in babies that they ban advertising, meaning that would-be parents and surrogates struggle to find each other.

Where payment is allowed, by contrast, agencies can arrange the whole business without delay—including for foreigners. Diane Hinson of Creative Family Connections, an agency in America, says that about a third of her clients come from Europe. And would-be parents willing to look farther afield can often save a lot of money. Surrogacy in the American states where payment is allowed usually costs more than $100,000; in Laos or Ukraine the cost falls by two-thirds.

When they bring their babies home, though, they may find themselves in a legal tangle. Britain has drawn up guidelines for people who commission surrogacy abroad. But even if all their documents are in order it will take at least six months for them to be recognised as parents in Britain, says Louisa Ghevaert, a lawyer in London. Ms Rhoads-Heinrich says that her agency's Canadian clients celebrate the arrival of their children like any other parents, sharing the news on social media and throwing baby showers. But her clients from France, Germany, Italy and Switzerland, where surrogacy is banned, keep quiet, terrified that they will face opprobrium or even have their babies taken away.

Some babies born through cross-border surrogacy have been stuck without any citizenship, or without parents who are legally recognised in the country where they are being raised. Courts across Europe are increasingly being presented with cases where a strict interpretation of the law would mean babies being taken from their genetic parents and sent to an orphanage. In 2015 an Italian court ruled that a child born to a surrogate in Ukraine and brought to Italy should be put up for adoption. But judges are starting to grant parental rights to commissioning parents in such cases, on the ground that it is in the children's best interests. Decisions to the contrary have recently been overturned by appeal courts and the European Court of Human Rights.

All this has spurred debate about legalisation. In Sweden, which has no laws governing surrogacy, the National Council on Medical Ethics said in 2013 that it should be permitted under certain conditions. These included a close relationship between the surrogate and the intended parents; no genetic link between the surrogate and the baby; counselling and vetting of the intended parents; and a guarantee that the children would be told how they came into the world.

But last year a commission charged with advising the Swedish government said that surrogacy should never be allowed. It recommended that Swedes should be discouraged from seeking it abroad, by publicising the legal complications that might stop them bringing their children home. There were two main concerns, says Eva Wendel Rosberg, the author of the commission's report. The first was the lack of research on how those born through surrogacy will feel about their origins. The second was that it is impossible to be sure that the surrogate has made a truly uncoerced decision. Even those who carry babies for relatives, she says, may be pressured by family expectations.

Pregnant pause

In many places, a coalition of rarely aligned religious conservatives and left-wing feminists fiercely opposes any relaxation of the rules. The Catholic church describes surrogacy as a "failure to meet the obligations of maternal love, of conjugal fidelity and of responsible motherhood". Many feminists feel that it casts women as mere baby-vessels for hire. In 2015 the European Parliament described it as "reproductive exploitation" that "undermines the human dignity" of women. But recent history suggests that banning surrogacy will not end it, merely move it elsewhere. ■

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Aviation

Missed connection

The super-connectors face a world of troubles

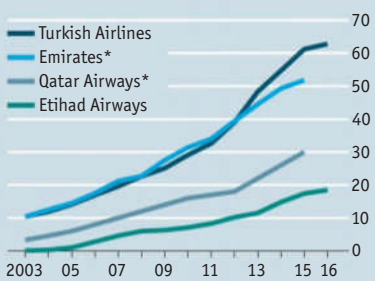
WHEN a video of a passenger being dragged off a United Airlines flight went viral last month, the American carrier's Middle Eastern rivals were quick to mock its customer service. Qatar Airways updated its smartphone app to say it "doesn't support drag and drop". The ribbing was justified. Over a decade of expansion, Qatar Airways, along with Emirates of Dubai, the world's largest airline by international passenger miles travelled, and Etihad Airways of Abu Dhabi, wowed customers with superior service and better-value fares.

Passengers joined them in droves, abandoning hub airports in America and Europe as well as the airlines that use them. Over the past decade the big three Gulf carriers and Turkish Airlines trebled their passenger numbers, to 155m in 2015 (see chart). They went a long way to dominating long-haul routes between Europe and Asia. Most international airlines rely on travellers going from or to their home countries, but customers of the four "super-connectors", as they are known, mostly just change planes at the carriers' hub airports en route to somewhere else.

A slowing of this spectacular growth was at some point inevitable. But it has been exacerbated by several things. First, the airlines have been deeply affected by the halving of the oil price since 2014, which has reduced their customers' spending power and sharply cut demand for air travel from the Middle East itself. In particular, energy companies, responsible for 29% of GDP in the Gulf states, are slashing travel in business class, the most profitable cabin in airlines' fleets.

Second, geography has turned sharply against them. When Sir Tim Clark, president of Emirates, helped Dubai's government to set up the airline in 1985, he was quick to spot that a third of the world's population lives within four hours' flight of Dubai, and two-thirds within eight. "They were in the right place at the right time," says Andrew Charlton of Aviation Advocacy, a consultancy. "But now they've been caught in the wrong place at the wrong time." A series of terror attacks in the region and a coup in Turkey last July has prompted many passengers to shun airports in the Middle East and to go elsewhere to change planes. The latest figure (from March) for capacity utilisation for Middle Eastern airlines was just 73%, the lowest since 2006 and worse than at the height of the financial crisis in 2008-09.

Soft landing
Passengers carried, m



Sources: Company reports; Bloomberg
*Financial years beginning April

The third, and latest, blow has been a set of travel restrictions introduced by the Trump administration. Since January Mr Trump has made efforts to ban the citizens of several Middle Eastern countries from entering America. Despite various legal challenges, those efforts have hit inbound traffic. In March America also banned electronic devices larger than a smartphone, chiefly laptops, from the cabins of planes flying between eight Middle Eastern countries and its own airports (Britain also introduced similar restrictions). The issuance of entry visas to America has been cut and security vetting increased.

After the first travel ban, demand fell by 35% on Emirates' American routes. The banning of laptops has had an even worse effect on the Gulf carriers. Many passengers, particularly accountants, consultants and lawyers who are paid by the hour, are now choosing to fly via European hubs on other airlines, says Greeley Koch of the Association of Corporate Travel Executives, a trade group. The airlines have started lending their own devices to business-class passengers, but demand is still tumbling. In April Emirates cut flights to America by a fifth, a severe reversal after three years of rapid expansion there. For a network airline a drop in demand from one destination means falls on all the routes that connect with them.

Even Sir Tim, normally upbeat, admits that it has been a "testing" time. Emirates ▸▸

said on May 11th that airline profits fell by 82% in the past year. Results for Etihad, expected this month, are likely to make grimmer reading. In March Turkish revealed its first annual loss since its privatisation in 2004. Qatar, meanwhile, is still growing, partly because the government is able to support it. Its alliance with IAG, owner of British Airways, in which Qatar has a 20% stake, also means that it is still seeing increases in passengers originating from London and then flying on to Asian countries.

Etihad is worst-placed. It has pushed out its CEO, James Hogan, and is in the midst of a strategy overhaul. Its move to invest in European airlines, including Italy's national carrier, Alitalia, and Germany's Air Berlin, has been disastrous. Last week, Alitalia, of which it owns 49%, declared bankruptcy. The week before Air Berlin, in which it has a 30% stake, announced a record loss of €667m ($739m) for 2016. Etihad failed to understand the differences between doing business in the Middle East and in Europe, where, for example, there are trade unions, says Gerald Wissel of Airborne Consulting in Hamburg.

Abu Dhabi's inability to afford more subsidies, given a low oil price, means that radical options are on the table, including closing down Etihad and even seeking a merger with Emirates. But its rival is not keen on such a course, because using two hub airports would be hugely complex.

Before such drastic moves become necessary, it is possible that the commercial pressure may ease. Airline passengers are starting to realise that recent terror attacks are not actually occurring on board planes, says Mehmet Nane, CEO of Pegasus, a Turkish low-cost carrier. Many are returning to Middle Eastern airlines, he claims. Mr Trump's travel restrictions may not be permanent. Alternatively, if his administration extends the laptop ban to include inbound flights from Europe, a step it is reportedly considering, the attractiveness of Gulf airlines relative to European carriers will improve.

Yet the breakneck growth of the recent past is unlikely to resume. Two new aircraft—the Boeing 787 and the Airbus A350—make it profitable to carry smaller numbers of passengers over long-haul routes. Secondary cities half a world away from each other can increasingly sustain direct connections. That eliminates the need to change planes in the Middle East. Big legacy carriers, in addition to long-haul, low-cost pioneers such as Norwegian and AirAsia X, are buying these planes in huge numbers. The fact that Airbus has 750 outstanding orders for its A350, compared with just 107 for the A380s that Emirates flies, shows where airlines think the future of aviation is heading. But before they celebrate their diminished force, they should thank the super-connectors for showing them how to raise their game. ■

Property investment

Citizen Kushner

NEW YORK

An esoteric visa scheme comes under scrutiny

THE events seemed inconspicuous enough: presentations in smart hotels in Beijing and Shanghai seeking investors for luxury American apartments. The details might have gone unnoticed had not a journalist from the *Washington Post* heard about the event's star attraction. But these days the surname "Kushner" is like a magnet. It quickly emerged that Nicole Meyer, sister of Jared Kushner, Donald Trump's son-in-law and senior adviser, spoke in her pitch on May 6th to prospective investors about her powerful brother. One slide (pictured) that was shown to the audience included a photo of Mr Trump himself.

The affair underlined potential conflicts of interest surrounding Mr Trump's family members and their businesses. Mr Kushner is not directly involved in the family firm. But Kushner Companies later apologised if Ms Meyer's name-dropping "was in any way interpreted as an attempt to lure investors".

The episode also shone a spotlight on a controversial American visa programme known as EB-5. The property firm, which is based in New Jersey, wants to raise $150m from foreigners to help fund the construction of apartments in the same state. The money is to be directed through intermediaries into the EB-5 programme. (Although the investor pitch had been planned months in advance, the presentation came just a day after Mr Trump signed a law that extended the programme until the end of September.)

Created in 1990 with the aim of stimulating the economy, EB-5 visas allow a path to citizenship for investors and their families if they can demonstrate that the deployment of $1m of their capital creates ten full-time jobs. The threshold falls to $500,000 in "targeted employment areas" (TEAs) where the jobless rate is 50% above the national average. The visas were little used for years. That was until property developers, starved of capital during the financial crisis, managed to convince the scheme's regulator that they should include "construction activity" jobs in their employment calculations.

Since then EB-5 visas have become a cheap source of finance for property developers. Investors, whose priority is usually citizenship rather than a financial reward, have shown themselves willing to accept returns of less than 1%. After intermediaries have taken their cut, the cost of capital to developers is typically 4-6%, about two thirds lower than conventional sources of finance for the industry, according to Gary Friedland, a real-estate expert at New York University. Kushner Companies will save $30m-40m by financing 15% of its new property with EB-5 visas, he estimates.

Much of the controversy around the visas is about the designation of TEAs, which is done by states. By stretching the definition of these areas, states are able to designate nearly every investment as falling within a TEA: the unemployment rate surrounding the proposed Kushner property, for example, is a mere 4%. This lowers the investment threshold and attracts more capital. Bills have been introduced to reform the programme but have failed.

Over the past three years 87% of the annual quota of 10,000 EB-5 visas has been snapped up by Chinese investors. Much of the money has gone to just two states, New York and California. The Chinese, who may not want a big return but do want ▸▸

A family affair

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their principal back, are attracted to big-name developers in big cities.

This is the second occasion in as many months that the subject of EB-5 visas has arisen in connection with Kushner Companies. In March there were reports that it was seeking investment from Anbang Insurance Group, a Chinese company that owns the Waldorf Astoria in Manhattan. Alongside Anbang's equity investment, Kushner Companies was said to seek EB-5 financing that would have gone to the property group's flagship building on Fifth Avenue. The deal was denied by Anbang and fell through.

Others have already been done. One New Jersey skyscraper was built by Kushner Properties in 2016 with the help of around $50m of EB-5 financing. It is adorned with the president's name. ■

Sinclair Broadcast

A signal event

NEW YORK

America's media regulator paves the way for TV-station consolidation

AT A time when ever fewer people are watching television, it may seem improbable that the owners of local TV stations in America want to expand their empires. It turns out that they can hardly wait. On May 8th, just 18 days after a change in federal rules made the deal possible, Sinclair Broadcast Group announced that it would buy Tribune Media in a transaction worth $6.6bn, beating out interest from others including 21st Century Fox, which is owned by Rupert Murdoch. Sinclair will become America's dominant owner of local TV stations.

The deal signals a broader interest in expanding what has been a surprisingly decent business in recent years. In America local TV stations tend to affiliate themselves with a national broadcast network, transmitting its content, including live sports. In exchange the stations make substantial payments. Despite falling viewership of network TV, the economics of local-station ownership have remained robust for two reasons.

First is the resilience of local TV advertising, especially in election years, says Mark Fratrik of BIA/Kelsey, a media consultancy. The ability of small TV stations to reach specific areas for local political races has proved difficult to match.

Second, TV stations have tapped a new vein of cash: retransmission fees, the payments they command from cable- and satellite-TV providers for their consent to retransmit their local broadcast-signal feeds to pay-TV subscribers. Such fees were tiny a decade ago, but Sinclair helped lead an industry charge to lift them. BIA/Kelsey estimates that stations collected $6.8bn in retransmission fees last year, or nearly a quarter of their $28bn of revenues.

Bigger is better for TV-station groups. Sinclair, which will have more than 200 stations after the deal, will have even more leverage to extract high retransmission fees from pay-TV operators. It will also be in a better position to demand lower payments to broadcast networks for their content.

The rule change on April 20th from the Federal Communications Commission (FCC), led by Donald Trump's appointee as chairman, Ajit Pai, was crucial. For many TV stations, a change to the FCC's calculation method lowered the number of households that they are deemed to reach. Even under the new rule, the combined Sinclair and Tribune business covers about 45% of households, which is over the cur- ▸▸

Business advice

Corporate insurgency

HELSINKI

Management lessons from an American general

STANLEY MCCHRYSTAL'S voice is hoarse as he addresses a packed arena in Helsinki. His audience, mostly businessmen in dark suits, is rapt. The American former general tells thrilling battlefield stories of leading the Joint Special Operations Command in Iraq, which captured Saddam Hussein and killed Abu Musab al-Zarqawi, al-Qaeda's local chief. He explains how his outfit adapted against an unexpectedly difficult enemy. A change in management style let his group go from conducting a handful of raids each month to hundreds, achieving better results against insurgents.

Neither America's occupation of Iraq nor Mr McChrystal's military career ended well. He went on to lead Western forces in Afghanistan, but stood down in 2010 after falling out with his political bosses. He reinvented himself as a management consultant. His McChrystal Group employs 65 people. It draws on its founder's experience hunting insurgents to advise businesses, including on Wall Street, on corporate culture.

What insight does an old soldier offer? Mr McChrystal is an apostle of devolved responsibility, or letting junior employees know and do more. One convert is his host in Helsinki: Reaktor, a 17-year-old firm of 400 staff, mostly coders, with a side-interest in launching satellites. An employee, Mikko Olkkonen, explains that "we have no hierarchy, no bosses, no targets, no quarters." It heeds Mr McChrystal's approach: firms can adapt in complex competitive environments, he argues, only if information is shared and teams of capable staff—not just the boss—can take decisions. It also helps greatly with recruiting to say that junior staff will have clout early in their careers.

A variety of big firms are listening. Mr McChrystal sits on the board of JetBlue Airways and of an American subsidiary of Siemens, a German engineering company. His firm advises Barrick Gold, a Canadian miner; Under Armour, a sportswear brand; a large bank; and several hospitals. Any assignment begins with "discovery" by an intelligence analyst who previously assessed the organisational structure of al-Qaeda. She works out who takes decisions inside companies. The reality usually differs from formal organisation charts.

"The management ideas I believe in are not revolutionary, but I came at it from a different experience," says the ex-general. He says firms should break apart "silos" and get employees talking. Mr McChrystal's advice on devolved power has its limits—no army, after all, has done away with hierarchies entirely, and even decentralised al-Qaeda was weakened by removing its leaders. It is hard to know how much his big corporate clients use the approach in pursuing sales and markets. But hearing an ex-general disparage hierarchies so forcefully thrills employees. Even as a Reaktor staffer explained in Helsinki that Finns rarely idolise heroes, the crowd sent Mr McChrystal off with an excited ovation.

After war war, jaw jaw

rent federal limit of 39%. Many believe Mr Pai will raise that cap.

Sinclair's acquisition raised concerns among some media watchdogs and left-leaning commentators not just because of worries over concentrated ownership—most other TV-station groups reach less than 20% of American households—but also because of who the owner is. David Smith, the group's executive chairman, is a conservative ally of Mr Trump who, critics say, puts his stations in the service of Republican causes. In December Jared Kushner, Mr Trump's son-in-law and adviser, boasted that he had struck a deal with the firm to broadcast interviews with the president on its affiliates (Sinclair denied giving Mr Trump special treatment).

Liberals may not be the only ones with reason to worry. Sinclair's deal gives it clout to push pay-TV operators to add another all-news channel, perhaps one of its own. It already owns a news channel in Washington, DC. A new conservative news channel would challenge Mr Murdoch's Fox News, which is in turmoil after a series of allegations about sexual harassment and racial discrimination. Even as Mr Smith's empire grows, he could sense another opportunity to expand. ■

A tale of two tech hubs

Silicon Valley North

SEATTLE

Two of America's most inventive regions are growing closer

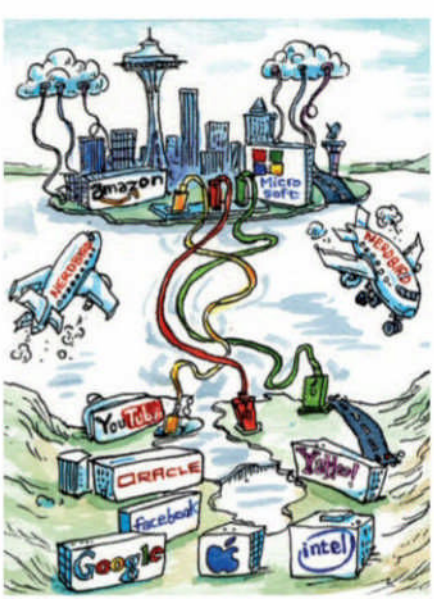
WOULD your region care to be the next Silicon Valley? In most of the world's technology hubs, local leaders scramble to say "yes". But ask the question in and around Seattle, the other big tech cluster on America's west coast, and more often than not the answer is "no"—followed by explanations of why the city and its surrounds are different from the San Francisco Bay Area. The truth may be more complex: in recent years the Seattle area has become a complement to the valley. Some even argue that the two regions, though 800 miles (1,300km) apart, are becoming one.

They have similar roots, notes Margaret O'Mara, a historian at the University of Washington (UW). Each grew rapidly during a gold rush in the 19th century. Later both benefited from military spending. Silicon Valley ultimately focused on producing small things, including microprocessors, and Seattle on bigger ones, such as aeroplanes (Boeing was for decades the city's economic anchor). This difference in dimension persists. The valley has plenty of giant firms, but its focus is mainly on startups and smartphones. In contrast, Seattle is still more of a company town, with Amazon and Microsoft, both builders of big data centres, looming large.

That, and the fact that Seattle and its suburbs are less than a fifth the size of Silicon Valley, has created a different business culture. In Seattle, for example, job-hopping is less common, as is swapping full-time employment for the uncertain life of an entrepreneur. Seattle has spawned firms such as Avvo, an online marketplace for legal services, and Zillow, a real-estate site, but the startup scene is underdeveloped. UW is a good gauge: it now has one of America's best computer-science departments but produces nowhere near as many new firms as Stanford University.

Local politics differ, too. Seattleites don't want their city to become like San Francisco, which is dominated by affluent, techie types. Their city council has just approved a new programme requiring property developers to include cheap units in their projects or to pay a fee. The aim is to ensure that Seattle remains America's second-most economically integrated city (as defined by RedFin, a data provider). San Francisco ranks 14th. "In the playground parents don't just talk about the next big thing," says Ed Lazowska, a professor of computer science at UW.

That is one reason, besides nature's attractions, cheaper housing and no state income tax, why exhausted Valleyites flock north. "You get better quality of life for half the cost," says Simon Crosby, co-founder of Bromium, a computer-security firm, who has made the move from California. Bromium is based in Cupertino, also the home of Apple, and he regularly takes the "nerd bird", as flights between the two tech clusters are called (they are full of geeks who live in Seattle and work in the valley). Venture capitalists often make the two-hour commute, too. Most money invested in Seattle startups comes from California; the north-western city only has a handful of VC firms, such as Ignition Partners and the Madrona Venture Group.



Another link between the two cities is cloud computing. Most startups in and around San Francisco run their business on Amazon Web Services, the e-commerce giant's cloud-computing platform. Its momentum is such that some in Silicon Valley have started to fret that it will one day become as dominant as Windows, the operating system made by Microsoft, once was.

For now it is Seattle that is more worried about being dominated by its neighbour to the south. The city hosts nearly 90 engineering offices that firms have opened to find new talent to hire. A third have a Californian parent. John Cook, who co-founded GeekWire, which covers the local tech industry, argued recently that, although the new offices add to Seattle's tech scene, they had taken "a lot of oxygen" out of the startup ecosystem by hoovering up highly qualified staff. That triggered a debate about the disadvantages of outside investment. Other effects of tech migration are equally contentious: home values have increased by a tenth in the past 12 months, according to Zillow.

Complaints about being overrun by Californians have a long tradition in Seattle, but the risk that the area becomes a Silicon Valley overflow zone preoccupies many. "We have to choose to remain different," says Tren Griffin, a Microsoft veteran. Chris DeVore, an angel investor who runs the Seattle branch of Techstars, a chain of accelerators, says more needs to be done to grow local startups. "Microsoft and Amazon were a bit of an accident," he says.

Regardless, Seattle and Silicon Valley are now joined at the hip. The best approach is to make that connection as efficient as possible, says Rich Barton, a serial entrepreneur. He not only started Zillow and Expedia, a giant online travel site, among other Seattle firms, but is a partner at Benchmark, a leading VC firm in the valley. Rather than relying on flights, which are often delayed or cancelled due to bad weather, he says, someone should build a high-speed rail line. Together, he quips, that old west-coast dream, popular again after the election of Donald Trump, would be within reach: "We could form our own country and secede." ■

Schumpeter | Active measures

A CEO's guide to fending off an activist shareholder attack

MODERN bosses are a resilient bunch who can handle everything from Twitter storms to takeovers. But one thing drives many of them berserk: activist hedge funds, which buy stakes in companies and lobby for change. Last month Klaus Kleinfeld, the boss of Arconic, an industrial firm, succumbed to a bout of "activist apoplexy". He sent a confidential letter to Paul Singer, head of Elliott Management, a fund that was trying to oust him. Its mysterious references to parties during the 2006 football World Cup in Germany and to a feather headdress seemed to be a threat to expose details about Mr Singer's personal life. Mr Kleinfeld, who had spent over a decade running big listed firms including Siemens and Alcoa, resigned when his board found out.

Bosses feel that they are being stalked by activists. Elliott is now in a confrontation with Akzo Nobel, a Dutch chemicals firm that is using a poison pill to resist a takeover by PPG, an American rival. Since 2010, on average, 8% of the firms in the S&P 500 index have faced an attack each year, according to Activist Insight, a research firm. And whereas they were once the gobby bad boys of capital markets, activists have got cleverer and harder to ignore.

Consider Daniel Loeb, of Third Point, a $16bn fund that on April 27th demanded a break-up of Honeywell, an industrial firm. In the 1990s and 2000s, he was known for leaving messages in web chatrooms under the name "Mr Pink". One of his "letters of mass destruction" advised a boss to retire to the Hamptons to "hobnob with your fellow socialites". Today Mr Loeb makes his case in a more sophisticated way, with detailed analysis of firms.

Instead of getting angry, CEOs need to get even. Schumpeter has put together a battle drill on how to cope with activists. It has four elements: know the enemy; prepare for them to attack; smother them with sincerity; and make concessions if you have to. Start with understanding activists, who play a useful role. As money flows into low-cost index funds, the job of scrutinising firms is being outsourced to a few dozen specialist vehicles. These analyse firms and seek the backing of the "lazy" money. A small fund with a good idea can win support to oust a big firm's board.

Activist funds also have weaknesses. Their bosses are often vain and impatient. To impress their own investors, they need to be seen to influence the running of big firms. They imagine they have superior strategic insights, articulated in long white papers. But often their proposals are banal demands for share buy-backs, which do not alter a firm's underlying value.

Preparing for the possibility of an activist attack is essential. As well as running the firm properly, that means getting closer to your other shareholders. Even companies under no obvious threat do this. For example, in 2016 and early 2017 members of Bank of America's board of directors met or spoke by phone with investors representing 29% of the bank's shareholder base.

When activists make their move, CEOs must be seen to take them seriously. General Motors (GM) has just given a masterclass in the patient neutering of a flawed proposal. David Einhorn, of Greenlight Capital, wants it to create a new type of share paying high dividends. GM's top management spoke with him ten times, and its board discussed the proposal three times, before rejecting it on March 28th. Even the most powerful bosses engage. In 2013 Tim Cook, Apple's CEO, endured a dinner with Carl Icahn, an irascible raider who made his name in the 1980s. "We had a commonality, we know the technology world," Mr Icahn graciously allowed. Apple ignored his call for a $50bn share buy-back.

When the activist is partly right, however, this must be acknowledged. BHP Billiton, a giant mining firm, faces a triple-pronged critique from Elliott. On April 12th BHP rightly dismissed two of its demands—a call to alter its dual listing in Sydney and London and the usual demand for a share buy-back. But it may be more flexible about the third request, to spin off its shale-energy business, which has few synergies with the group. By showing an open mind the firm has removed the sting from the attack.

If an agitator's critique is broadly correct, a CEO must make concessions. Ideally this means flattering the activist's ego while not giving him much influence. When DuPont agreed to merge with Dow Chemical in 2015, it gave advance notice to Nelson Peltz, who runs Trian, an activist fund, and secured his blessing. On March 22nd General Electric, which is struggling to increase profits, said that after talks with Trian, it had set new targets for cost cuts and tweaked its bonus scheme for its boss, Jeff Immelt.

The ultimate concession is to give activists representation on the board in return for keeping schtum. Letting Wall Street-sized egos loose inside companies does not always go well. As a director of Blockbuster in 2005-10, for example, Mr Icahn refused to honour an agreement on the CEO's compensation and made confrontational late-night phone calls. When Mr Loeb was a director of Yahoo in 2012-13 he clashed with its chief executive, Marissa Mayer, in a way that did not help the company. A better approach is to let activists appoint independent directors, who are supposed to represent all shareholders, not just their own agenda.

Grin and bear it

Adhering to the drill does not prevent all trouble. Mr Kleinfeld made mistakes—he never met Mr Singer, for example. But in 2016 his firm did appoint three independent directors with Elliott's approval and that didn't stop the hedge fund from resuming its attacks later. What ultimately did for Mr Kleinfeld was that his company had performed poorly for a long time.

The converse is also true. Well-managed firms should be able to defend themselves; they may even benefit from the new age of activism, which obliges managers to refine their strategies, boards to be on the ball and firms to stay close to all of their shareholders. The main cost is that activists can chew up endless hours of a CEO's time. Still, that is better than blowing your top and ending your career in a moment of madness. ■

Sorry, we're closed

NEW YORK

The decline of established ways of shopping is a threat to workers and investors

IT DOESN'T look like much but Staten Island Mall is optimism in a cement box. Like all such retail spaces the temperature is carefully calibrated. Bland pop music wafts down beige halls. Its biggest tenants are America's unholy trinity of struggling retailers: Macy's, J.C. Penney and Sears, all of which are closing stores. This mall, however, is undergoing a rebirth.

Gangs of builders are hard at work on a 235,000-square-foot expansion, adding nearly a fifth to the current floor space. This will house more shops, a new cinema and restaurants. In the old part of the mall, struggling tenants are making way for new ones. Sears will soon occupy just a quarter of its former space; two European discounters, Primark and Lidl, are taking its place. GGP, a real estate investment trust (REIT) that owns the mall, reckons that the $231m it is pumping into the expansion will bring healthy returns by 2019. "Good real estate wins," says Sandeep Mathrani, GGP's boss. It helps that the mall is the only one on a populous island.

Elsewhere, the future of American shopping looks in much worse shape. The Shoppes at Buckland Hills near Hartford, Connecticut, is also owned by GGP but there are no big plans to invest here. The car park is almost empty. It is unclear if the branches of J.C. Penney, Macy's or Sears in the mall will remain open or, if they shut down, whether new tenants will replace them. The mall faces relentless competition both from e-commerce and other shops nearby. An assistant sits patiently at a cash register, waiting for customers. "Day by day," he sighs, "it gets worse."

Mall adjustment

Therein lies the problem for America's retailers. Not every mall or shop is dying. For now, store-occupancy rates are healthy. Nor have consumers stopped shopping. But they are spending money in new ways to the benefit of other businesses, such as restaurants, hotels and e-retailers, in particular Amazon. As a result, a giant established industry is descending into crisis.

Last year about 4,000 shops closed their doors for good. In 2017 more than twice that number may shut, says Credit Suisse, a bank. Consumer confidence is strong and unemployment is at its lowest level in a decade, yet Standard & Poor's, a rating agency, expects retailing defaults this year to surpass those in 2009 when the economy was in the depths of a recession.

The most important question is how far and how fast the industry might sink. This has implications not only for retailers and retail-property companies but also the financial firms that have given them money, from banks to life-insurance companies. The total amount of capital, both debt and equity, supporting American retailing (excluding Amazon) now exceeds $2.5trn, according to *The Economist*'s tally.

The turmoil may also engulf millions of workers. The retailing industry employs 15.9m people, accounting for one in nine American jobs. The workforce has expanded by about 1m since 2012, yet a reversal looks inevitable. Since January the industry has shed 50,000 jobs, with more lay-offs sure to come. Mr Mathrani reckons that, for shopping centres to match demand, 30% of space should close permanently. In one particularly gloomy scenario, all retail property would shrink by as much. If staff dropped by the same proportion, 4.8m would be at risk of the sack—around half the number of American jobs lost during the financial crisis. Eventually, even more may be laid off, as remaining stores cut costs through automation.

Our examination of property data from CBRE, a brokerage, suggests that some cities with fewer shops per person, such as New York and Seattle, may fare better, but that few parts of the country will be untouched. Retailing accounts for at least one in ten jobs in every American state. Not since the decline of manufacturing began in the 1980s has an industry with so many workers faced such a profound shift.

These trends are not confined to America. Department stores in Japan are closing their doors. The Japan Department Stores Association estimates that national sales at such shops were worth ¥8.9trn ($63bn) in 2000, but fell to ¥6.2trn in 2015. Across the world, 192m retailing jobs are threatened by automation, according to esti- ▸▸

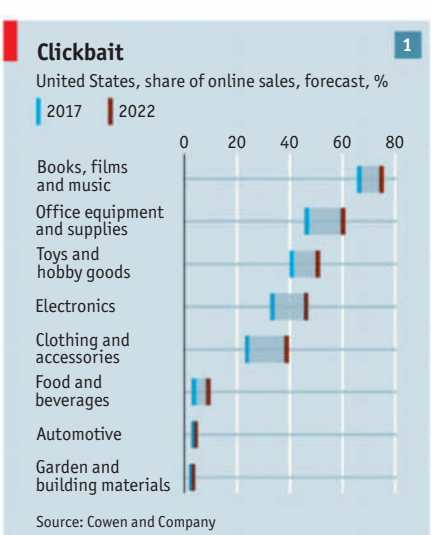
mates by the Eurasia Group, a consulting firm. However the change is particularly dramatic in America because, until very recently, the country's retailing industry had enjoyed such astounding growth.

Over the course of the 20th century retailers first built glistening downtown emporiums, and then expanded from main streets and city centres to the suburbs. Malls were conceived in the 1950s by Victor Gruen, an Austrian immigrant, as a new enclosed version of a town square. Sam Walton built his first Walmart in Rogers, Arkansas, in 1962 and would soon open big box after big box, each store making up in value for what it lacked in charm. The company's annual revenues still outstrip those of any other listed firm in the world.

The pace of development has ensured that America is now packed with stores. The country has about five times as many shopping centres per person as Britain. Retailing accounts for 31% of all commercial property, according to Cushman & Wakefield, a brokerage, the equivalent of more than 150,000 football fields.

The shop-building boom brought with it plenty of jobs. As other sectors that had once thrived swiftly waned, retailing employment remained stable, at least until recently. Foreign workers may make goods but American cashiers still sell them. Retailing jobs surpassed those in manufacturing 15 years ago and now exceed them by 28%. Wages may be low for salespeople—$13 an hour on average. Nevertheless, a job in retailing is a reliable way for those with little training to earn money. Just 20% of shopworkers have a university degree.

Americans' changing shopping habits threaten all this. Consumers are spending more on eating out, holidays and, to their chagrin, health care. They are spending less on clothes, typically the main offering of department stores and malls. When shoppers do buy a dress or jacket, they want a bargain, an attitude spawned in the recession and ingrained in the years since.



Although that has eaten away at sales for many traditional retailers, it has helped others such as Inditex's Zara, a fast-fashion behemoth, and TJ Maxx and Ross, which sell last season's designer styles at a discount. Such shifts in fortune would not have been enough to trouble the industry in the past. Shoppers have always ensured the survival of the fittest: ailing shops inevitably made way for more popular ones and consumers gained. But the rapid ascent of e-commerce, on top of these other trends, changes the game.

The share of retail shopping done online jumped from 5.1% in 2011 to 8.3% last year. That figure disguises the damage e-commerce has done to specific parts of retailing (see chart 1). Two-thirds of books, music and films are now purchased online, as well as over two-fifths of office supplies and toys, according to Cowen and Company, a financial-services firm. For years retailers assumed that Americans would still prefer to buy clothes and shoes in a shop rather than from a website—consumers would surely want to feel the texture of a frock's fabric, for example, and ensure a good fit. But a growing number of shoppers are happy to do without and shop from home. About a quarter of clothes and accessories are now bought online.

Amazon has both benefited from this shift and accelerated it, setting new standards for choice and service—in 30 American cities, members of its subscription service, Prime, can receive goods within two hours, at no extra cost. The harder retailers try to keep up, the less profitable they become. Spending on shipping and digital infrastructure chomps at margins even as retailers' online sales cannibalise those from their stores. For every percentage-point increase in their share of e-commerce sales, a retailer's margins shrink by about half a point, according to estimates by Morgan Stanley, a bank. And still Amazon races ahead. Last year it accounted for over half of all new online spending in America.

The result is that America's rich landscape of shops now looks like a dangerous glut. Since the start of 2016 Macy's has announced that it is closing 140 shops. J.C. Penney said in March that it would shut 138. More closures are sure to come. Department stores' floor space has contracted by 11.5% since 2006, but sales have shrunk more than twice as fast, according to Green Street Advisors, a real-estate research firm (see chart 2). To reach the inflation-adjusted sales productivity of 2006, at least another 800 department stores would need to close, reckons D.J. Busch at Green Street.

Even that might not solve retailers' problems. Shutting unproductive stores is fraught with peril: shops risk losing their customers to competitors, both online and off. Karen Hoguet, Macy's chief financial officer, has noted that when a chain closes a store in a particular area, online sales in that region often drop, too.

Department stores are not alone in their woes. Private-equity firms were once able to boost profits at a middling retailer by hiring new managers and untangling supply chains. The Shoppes at Buckland Hills features a parade of private-equity bets: Claire's, owned by Apollo, rue21 (Apax) and Gymboree (Bain Capital). All have too few shoppers and too much debt. If that continues they may go the way of Payless Shoe Source, owned by Blum and Golden Gate Capital, which declared bankruptcy last month.

Trouble in store

Taken together, these changes plague a growing number of retailing properties. Small strip malls—lines of stores united by a car park—have fared better, says Garrick Brown of Cushman & Wakefield, thanks to their mix of shops and restaurants as well as dry cleaners, dentists and other services. But high streets in towns and cities, malls and larger strip malls, where chain stores proliferate, are under pressure.

Malls, which account for 8% of America's retailing space, are particularly vulnerable. When a department store leaves a mall, other tenants are often allowed to renegotiate or end their leases. So if a big store closes, the prospect that fewer shoppers will visit makes it more likely that others will abandon the mall, too. Ailing malls might seem like good news for nearby competitors but they should not feel too smug. Struggling malls, in an effort to fill vacant spaces, are wooing businesses that now occupy larger strip malls, such as grocery chains and discounters. It is unclear if there are enough of these to go round.

The upheavals of the retailing industry give good reason for worry to a growing list of companies, investors and workers. The threat to retailers and the property companies that serve them is clear. American retailers (excluding Amazon) have a market value of about $1.6trn. The best-managed ones, such as Walmart and TJX, which owns TJ Maxx, look robust. But some of that $1.6trn will vanish, despite efforts to close weak stores and improve

those that remain.

The share prices of the two biggest retailing REITs, Simon Property Group and GGP, have already plunged by about a quarter since July. They are now investing in their best malls, seeking to replace sickly retailers with popular new ones. "We actually view this to be the biggest upside in our business," says Mr Mathrani. They have also tried to protect themselves from the worst performers. Simon spun off its weakest malls into a separate firm in 2014. GGP did the same in 2012. Those spin-offs are now discarding their most rotten malls.

Beyond retailers and REITs, it is less clear where the brunt of the travails will be felt. The sale of bad malls has shifted that problem to a variety of private investors. The ownership of strip malls and free-standing stores is fragmented, making it hard to work out who would be damaged as the decline of retailing quickens.

Talking shop

The picture for debt is equally muddy. Bank of America is unusual in that it discloses its exposure to retailing: about $50bn, equivalent to more than a quarter of its core capital. No comprehensive tally of retailing-property debt exists. According to Morgan Stanley, most loans last year came from regional banks, commercial mortgage-backed securities (bonds backed by cash flows from commercial property), national banks and insurers. *The Economist*'s examination of data from Bloomberg, the Mortgage Bankers Association and TreppAnalytics, a firm which tracks commercial mortgage-backed securities, suggests that the combined debt of retailing companies and retailing property is roughly $1trn. However the market's opacity means that the impact of any losses is hard to predict.

The effect on the 15.9m people who work in retailing is obvious, and already visible. Clothing, office-supplies and department stores have seen some of the heaviest job losses. Some jobs, such as selling groceries, are safer—slim margins and the logistical challenge of delivering perishable, bruisable food means most shoppers still buy in stores. *The Economist* has calculated what might happen to retailing workers (excluding those who work in car and fuel sales), if e-commerce grows as Cowen expects. Assuming that employment in stores rises or falls with changes in those stores' sales, and that labour productivity improves at historical rates, retailing jobs could shrink by 12%, or 1.5m jobs, by 2022. If e-commerce's share of sales is 50% greater than what Cowen expects, employment could fall by 17% (see chart 3).

Even these assumptions may be rosy. Retailing jobs are threatened not just as companies close shops but as the remaining ones try to beef up their profitability. Lowering labour costs can take many forms. In a recent study, LEK, a consultancy, pointed to Aldi, a German grocer, which has taken simple steps such as requiring shoppers to pack their own bags. Kroger, an American supermarket chain, has invested in an automated system to regulate and report refrigerator temperatures, so staff do not have to track them manually. Amazon is testing digital tools that allow shoppers to pick up goods in a store and leave without stopping at a cashier.

The boom in e-commerce is sometimes touted as an alternative for shop workers facing the chop. Indeed, e-commerce and warehouse jobs are a growing share of the workforce: they are now equivalent to 10.1% of retailing employment, up from 8% a decade ago. Amazon is hiring at a furious pace. In January the firm said it would add 100,000 workers in America by July 2018. These cheery figures may not offer much comfort in the long term. At its current pace, by July 2018 retailing will have shed three times as many jobs as Amazon is due to create.

Trends in job advertisements also offer only fleeting solace. Listings scoured by Burning Glass, a job-analytics firm, initially suggest a positive trend: from 2014 to 2016 the total number of vacancies in traditional retailing dropped, but this was offset by postings for e-commerce, warehousing and tech jobs in retailing. Yet the skills required for retailing's new jobs differ from those needed for old ones. Burning Glass found that 78% of e-commerce postings want applicants with a university degree, compared with just 12% in traditional retailing. Even warehouse positions demand more training: 53% of jobs in automated warehouses also require a degree.

Couriers need less training to ferry goods to customers' doors. Their ranks have grown to 655,000 workers last year. But that is a tiny sliver of the total retailing workforce. Retailing workers might switch to the companies that are taking over empty stores, including restaurants, beauty salons and health clinics. But it is as improbable that such firms will replace all of America's boarded-up shops as that they will offer jobs to every former shop worker, particularly those without training.

Checking out for good

Bye-bye buy, buy

Nowhere has escaped these changes. Even in Manhattan, rents have fallen in some trendy shopping areas. But the shifts will be uneven. Mr Busch of Green Street notes that malls and other stores in areas with wealthy, educated residents will perform better. More vulnerable are places where the supply of shops overwhelms demand. Since 2000 the construction of strip malls has increased even as the population has declined in several rustbelt cities, including Cleveland, Detroit and Pittsburgh. Just as many factory workers in those cities had to find new jobs, so too will shop workers.

Take Saginaw, an old industrial city in Michigan that has seen its population ebb. It has the country's sixth-highest concentration of retailing workers. That may change. A publicly traded REIT called CBL recently sold Saginaw's Fashion Square Mall to a private buyer. Morningstar, a rating agency, thinks the mall's loan is likely to default when it matures in 2022. Alder Hill, a hedge fund that has bet against mall loans, calls Fashion Square a "melting ice cube that will likely be run to maximise cashflow" before its owner walks away.

This slow melt has so far attracted little attention from politicians, despite jobs in retailing outnumbering those in coal mining, which has caught the political eye, by a factor of 300. The most substantial policy idea that will affect retailing will probably not become law. That's just as well. Congressional Republicans' tax plans include a border-adjustment tax, which retailers say would raise the price of imports, thereby crunching margins or forcing price increases. Any other intervention seems unlikely. Americans, so used to visiting shops packed with enticing goods, may have to get used to many more empty ones. ■

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India's economy

Pumping the country dry

MUMBAI

States are on a borrowing spree of the kind that rarely ends well

WHICH Indian state sounds more likely to repay a loan: Bihar, the country's poorest, with a budget deficit of nearly 6% of its state GDP last year and a hole in its finances after it banned alcohol sales; or Gujarat, a relatively prosperous coastal region with a deficit nearer to 2%? According to bond markets at least, both are equally good credits, and so pay the same interest rate. As welcome as such mispricing might be to the Bihari authorities, it is brewing trouble for the rest of the Indian economy.

The borrowing habits of Bihar, Gujarat, and India's 27 other states used to be below the radar of all but the pointiest financial eggheads. The indebtedness of India, and its annual budget deficits—both high by emerging-market standards—could largely be blamed on the profligacy of the central government in Delhi. But an explosion in the net amounts borrowed by states over the past decade (see chart), from 154bn rupees in 2006 ($3.5bn then) to an estimated 3.9trn in the fiscal year just ended ($60.4bn now), means they now require nearly as much funding as the centre.

The shift in financial gravity from Delhi to the states is fraught with problems. For one, there is a data vacuum: state-budget documents are compiled, if at all, by central authorities after over a year's delay. And though the central government has done its utmost to pare the country's budget deficit, mindful that interest payments guzzle up around a third of central-government tax revenue, state chief ministers have spent much of the saving. That has left the combined state- and central-government budget shortfall at the same level (see chart)—and India's credit-rating stuck just one notch above "junk" territory.

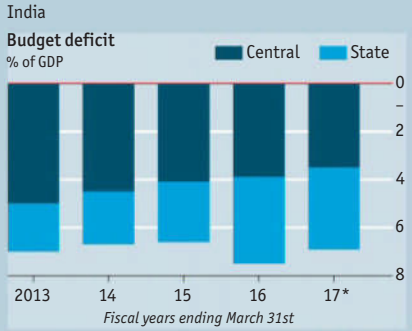
Investors are lending money to all the states at the same rate for good reason: the central government, through much nudging, winking and head-shaking, has indicated it will look after them if the states default. It also compels publicly owned banks, pension funds and insurance companies to pile in. So states' chief ministers have every incentive to binge on the artificially cheap debt; a 3% annual deficit cap is waived as often as it is enforced.

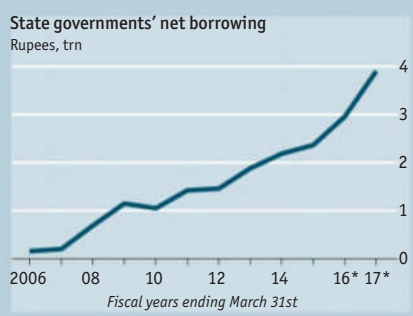
Some states are running deficits because of sagging revenues. A handful plan to copy Bihar's prohibition, although booze brings in over a quarter of some states' income. The sudden "demonetisation" of the economy in November stalled construction, and so stamp-duty receipts. Increased central-government transfers have made up only part of the shortfall.

Runaway expenditure has a bigger impact. Not all the spending is wasteful: states have sensibly restructured the debts of power-distribution companies, an expensive but worthwhile exercise. But much is politically indulgent. Most of the new outlay is about current expenditure rather than on growth-enhancing capital investment, says Pranjul Bhandari of HSBC, a bank. A pay rise to central-government civil servants is expected to be matched by states. Some spending is outright populist, notably the waiver of repayment of loans to farmers recently enacted in Uttar Pradesh, the biggest state, at a cost of over 2.5% of its GDP. Worryingly, other states are contemplating this, raising the risk of what Ms Bhandari calls "competitive populism".

The states' profligacy pushes up the interest rates the central government has to ▸▸

Altered states
India





Sources: Government statistics; Reserve Bank of India; JPMorgan Chase
*Estimate

pay, because of the risk it will have to bail out a wayward state. But it has a wider impact. In India capital is scarce, and foreign inflows restricted, so states compete with companies and consumers hoping to borrow from the same sources. Because states' bonds are less liquid than the central government's, they pay a slight premium to attract investors. That used to be around 0.4 percentage points, but has swollen to just under 1 percentage point recently.

Sajjid Chinoy of JPMorgan Chase, a bank, says that increase has in turn affected how much it costs companies to issue bonds. Why lend to a company such as Tata or Reliance or to a homebuyer at 1% over what the central government pays to borrow, if lending to any state government yields the same and bears an implicit guarantee from Delhi?

Companies rely predominantly on bank finance. But banks are undercapitalised, their equity cushions wiped out by rash lending. By hogging the money investors such as pension funds and insurance firms could be investing in companies, states have made it harder for those companies to move away from bank borrowing to bond issuance. That in turn makes it more likely that the government, which owns most of the banks that do most of the lending, will have to inject more capital into them, so worsening the deficit in yet another way.

Crunching data from disparate states, Mr Chinoy says state borrowing rose by a whopping 32% in the year to March 2017, after a 25% rise in the previous year. Even in a fast-growing economy, that is enough to set nerves jangling. To convince states to enact a nationwide goods-and-services tax from July, the central government has committed to guarantee the revenues received by states for five years. If only it had struck a deal to limit their spending instead. ■

Buttonwood | The big squeeze

The fund-management industry looks poised for further consolidation

MAKING money yourself from investing other people's has been a good business for over a century. Asset managers established a key principle early on: they could charge an *ad valorem* fee on the amount they oversee. So when markets go up, their fees go up.

But as the title of a recent London Business School conference indicated, investment management is "an industry in disruption". Abhijit Rawal of PwC, a consultancy, described the sector's problems as the "four Rs": returns are low; revenues are being squeezed; regulations are being tightened; and the robots are coming to take away business.

Plenty of potential for growth remains, as workers save for retirement. But the industry faces the same sort of cut-throat competition that technology has caused elsewhere. The oldest challenge comes from index trackers, funds that try simply to match the performance of a benchmark like the S&P 500. It took many decades for such "passive" funds to become widely accepted, but they are rapidly gaining market share. Vanguard, a big passive manager, received more than half of all global fund inflows last year.

Big tracker funds can drive down fees through economies of scale. The expense ratio for Vanguard's S&P tracker is just 0.04% of its assets. The average active American equity fund, which tries to beat the index, charges 0.8%. Such fund managers may claim they can outperform the market but in practice few do so consistently. Over the 15 years to the end of December 2016, less than 8% of American equity funds managed that feat. As an old quip has it, "you make your money working in active management but invest the proceeds passively."

Some managers think they can beat the market by backing certain types of

company: those that look cheap on valuation measures such as asset value or dividend yield, say. But even here technology is eroding the case for active management. Computer programs can select stocks on the basis of such criteria at low cost. These "smart beta" funds are gaining ground. The result is that average fees are being dragged down across the industry. According to the Investment Company Institute, a group that represents fund managers, the average expense ratio of American equity mutual funds, weighted by assets, fell from 0.99% in 2000 to 0.68% in 2015.

One reason why high-cost funds have survived for so long is the way that savings products are sold. Many retail investors rely on brokers to advise them; these brokers are often paid commissions or fees by fund managers. These are then passed on to clients in the form of higher management fees. Passive funds do not offer such inducements, so they used not to get recommended. But regulators have been cracking down on such arrangements: Britain stopped these payments in 2013. Trackers have made strong gains since then.

A new disruptive element is the arrival of "robo-advisers", which offer investors low-cost, diversified portfolios based on their aims and risk profiles. These are popular with younger investors, who are used to buying products online.

Another challenge for fund managers is a change in the corporate-pensions market. Fewer companies are offering defined-benefit (DB) pensions, which are linked to a worker's salary; new employees now have a defined-contribution (DC) pension, the benefits of which are not guaranteed. Employers offering DB pensions need to generate a high return to keep contributions down, so many tend to use specialised "boutique" managers. But DC plans often offer a default fund, chosen by most employees; these usually employ a more limited range of fund managers. The market tends to be concentrated in the hands of big fund-management groups and insurance companies, which can handle the administration of the scheme as well as the investing.

The result is that the industry seems bound to consolidate. A spate of recent mergers of big fund managers has included one between Henderson, an Anglo-Australian firm, and Janus, an American one. There is plenty of scope for the sector to thrive, if it adapts. It seems likely that retiring baby-boomers will rely more on their own resources, and less on the state, and those assets will need managing. Many investors will opt for multi-asset funds, which own equities and bonds; these are less vulnerable to index-tracking because there is no obvious benchmark. And plenty of people will want the reassurance of speaking to a human being, rather than rely on robo-advice. The challenge for fund managers will be to provide it all at a reasonable cost.

Economist.com/blogs/buttonwood

Clearing-houses and Brexit

Clearing out

New European proposals might force euro clearing out of London

BREXIT has thrust a mundane, if crucial, bit of financial-market plumbing into the spotlight: the clearing of financial instruments. Clearing-houses sit in the middle of a securities or derivatives transaction, and ensure that deals are honoured even if one counterparty goes bust. In November a study commissioned by the London Stock Exchange (LSE) warned that if euro clearing was forced out of the City, 83,000 British jobs could be lost, and a further 232,000 affected. On May 4th the European Commission said it was looking into new rules for euro-denominated clearing. One option is relocation from London, an idea greeted in the City with a mixture of incredulity, disdain and fear.

In the wake of the financial crisis, the G20 group of big economies made it mandatory to settle most simple derivatives trades through clearing-houses. By 2016, 62% of the notional $544trn global over-the-counter derivatives market was settled in this way. Globally, London handles 37% of foreign-exchange derivatives and 39% of interest-rate derivatives, including three-quarters of those in euros (see chart). So unsurprisingly, it also dominates clearing. LCH, a clearing-house that is part of the LSE, clears over 50% of all interest-rate swaps across all currencies. Around 75% of those in euros are cleared in London.

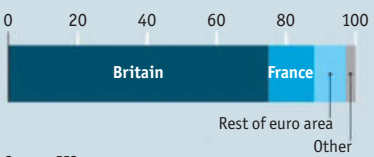
But centralising clearing concentrates risk: the failure of a clearing-house would be disastrous. So clearing-houses require collateral from the counterparties using them, and must submit to close supervision. The European Central Bank has long worried that it has no direct control over euro-denominated clearing outside the euro area, yet any problems would embroil banks and payment systems within it. In 2015 it lost a court case against Britain over its attempt to force clearing to move. Many jurisdictions, the EU included, limit their financial institutions' access to foreign clearing-houses. The European Securities and Markets Authority (ESMA) lets European firms use clearing-houses only in countries it has deemed "equivalent", ie, America and a dozen others.

Brexit necessitates a new arrangement. The City has mostly been focused on obtaining "equivalence". But the commission argues the systemic importance of British clearing-houses for the euro area may well require new, stricter oversight. So it is assessing two other options. "Enhanced supervision"—favoured by ESMA—would mean adopting the American model, in which clearing-houses that deal directly with American clients, such as the LCH, are also supervised by the American regulator. But the other option—forced relocation—has gained the support of many senior EU policymakers. Barney Reynolds of Shearman & Sterling, a law firm, insists it would not amount to much: the most the EU could do is to compel European banks to use EU-based clearing-houses. Since firms based in the EU outside Britain account for only 7% of cleared euro-denominated interest-rate derivatives at LCH, the impact could be modest for London. LCH itself claims the result would be a larger euro-denominated market outside the EU and a smaller, less-liquid euro-area market.

Since America tolerates 97% of dollar interest-rate swaps being cleared in London, it seems perverse for the EU to shift euro clearing. But Simon Puleston Jones of FIA, an industry body, points out that America is comfortable because its regime allows its regulators much greater oversight. If Brexit turns acrimonious and precludes a moderate change such as enhanced supervision, Europeans may seek blunter instruments. It is not just Brexiteers who want to take back control. ■

Britain clears up

Over-the-counter euro interest-rate derivative turnover, by country, April 2016, %



Source: BIS

Africa's economy

Dispensing with informalities

The continent's economy turns a lighter shade of grey

COMMON to all men, according to Adam Smith, is "the propensity to truck, barter and exchange". Less common is a willingness to report all of this enterprise to the authorities (which have a propensity to register, regulate and tax). South Africa's *spaza* shops (convenience stores often run from people's homes), Kenya's *jua kali* (a Swahili term referring to the "hot sun" under which craftsmen traditionally made and sold their wares) or Senegal's tight-knit networks of Mouride street peddlers—all contribute to the informal economy. This shadow economy, which includes unregistered enterprises and off-the-books activity by registered firms, is difficult to measure, almost by definition. But this week the IMF released new estimates of its size.

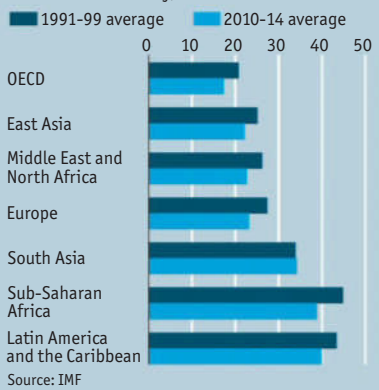
The fund's economists inferred the size of the informal economy indirectly, based on more visible indicators that either cause informality (heavy taxes, high unemployment and patchy rule of law) or follow from it. The consequences include suspiciously low numbers of people officially working or seeking work, and a heightened demand for currency, since informal firms operate mostly in cash. The IMF also tracks a gauge of activity that is hard to conceal: the brightness of a country's lights at night, as recorded by weather satellites.

According to their results, the informal economy is equivalent to almost 40% of GDP in the average country of sub-Saharan Africa. That is a big number, but not as large as it was in the 1990s (almost 45%). Indeed Africa's rate of informality may now be lower than Latin America's. (The African average masks a wide range, from under 25% of GDP in Mauritius and South Africa to about 65% in Nigeria.)

Some policymakers see informal enterprises as parasitical, profiting at the expense of more scrupulous rivals who heed regulations and pay taxes. Others see them as aspirational, embodying the poor's entrepreneurial spirit and ambitions for the future. Often, these businesses are neither. They are just the employer of last resort for people with few other options. In sub-Saharan Africa, about a third of those starting a business are doing so out of necessity not inclination, a higher percentage than in other emerging economies. Many join the shadow economy to escape destitution, not regulation or proletarianisation.

In the shadows

The informal economy, % of GDP



Source: IMF

China's economy as television soap

In the name of GDP

SHANGHAI

China's pursuit of growth still gets very high ratings

RARELY has a Chinese city boss had more fans than Li Dakang, the earnest, driven Communist Party chief of Jingzhou. "I want development, I want speed and I want GDP," he recently intoned. "But I want it to be modern GDP, GDP that comes without pollution." Over the past month tens of millions have tuned in to watch him strive to fulfil these promises. On their smartphones, they share images of the heavy-eyed man with an easy smile, quoting his words and cheering him on. His policies have even been immortalised in a musical tribute, "The GDP Song".

Li Dakang is not real, nor is Jingzhou. They exist only on "In the Name of the People", a wildly popular 55-part television series about China's battle against graft. Since its first broadcast in March, the show has attracted attention for its depiction of official corruption, unusual in the context of Chinese censorship. Less noted is the insight it has offered into a range of China's economic problems—not just in its storyline but in the viewing public's reaction.

The show touches on economic topics often too hot for the Chinese media to handle. Factory workers clash with police after a bankruptcy wipes out their company shares. A senior leader's child amasses big stakes in local firms for his family. A small-business owner ends up in hock to loan sharks. Local bankers demand "consulting fees" when extending loans, pocketing the cash. (So realistic is this portrayal that the Chinese press reports that Guo Shuqing, the country's most senior banking regulator, pointed to the show in a warning to banks at a recent meeting.)

The most consistent economic storyline is Li's relentless pursuit of growth and the problems this narrow focus brings. He himself seems clean, but turns a blind eye to corruption around him. His insistence on moving quickly causes real harm. As a young official, a frenzied drive to build a country road leads to a village chief's death. Later in his career, his hasty decision to bulldoze a factory sparks a protest in which more than 30 people are injured.

This sorry record seems grounds to object to Li. Instead, this flawed figure is by far the show's most beloved, more so than the dedicated, upright officials who lead the party's anti-graft battle. Online merchants, a good bellwether of trends, have started selling versions of the sleeveless jumper and tea Thermos that he favours. The internet memes doing the rounds—for instance, a pledge to "defend GDP" for Li's sake—are partly in jest but do reveal support for public servants in his mould.

Why is Li Dakang so liked? In part because, warts and all, he is more believable than the saintly officials seeking to snuff out corruption. But there is more to it. Even when Li makes mistakes, his obsession with growth is very well received. Cautious, clean officials who err on the side of inaction are seen in a much less flattering light. In recent years China has started to emphasise policy goals other than GDP, from promoting culture to protecting the environment. Li Dakang-mania shows there are limits to this shift, and not just because of the government. Fast growth is still immensely popular. ■

Internship *The Economist* invites applications for the 2017 Marjorie Deane internship. Paid for by the Marjorie Deane Financial Journalism Foundation, the award is designed to provide work experience for a promising journalist or would-be journalist, who will spend three months at *The Economist* writing about economics and finance. Applicants are asked to write a covering letter and an original article of no more than 500 words suitable for publication in the Finance and economics section. Applications should be sent to deaneintern@economist.com by June 2nd. For more information, please visit www.marjoriedeane.com.

Crowd-sourcing hedge funds

The wisdom of the herd

A new sort of hedge fund bets on the expertise of amateurs

"QUANT" hedge funds have long been seen as the nerdy vanguard of finance. Firms such as Renaissance Technologies, Two Sigma and Man AHL, each of which manages tens of billions of dollars, hire talented mathematicians and physicists to sit in their airy offices and develop trading algorithms. But what if such talent could be harnessed without the hassle of an expensive and time-consuming recruitment process? That is the proposition Quantopian, a hedge fund and online crowd-sourcing platform founded in 2011, is testing. Anyone can learn to build trading algorithms on its platform. The most successful are then picked to manage money. Last month the firm announced it had made its first allocations of funds to 15 algorithms it had selected.

Quantopian would appear to have one striking advantage over its competitors: sheer weight of numbers. The difficulty of hiring and a desire for secrecy limit even big quant funds to a full-time research staff in the low hundreds (Man AHL, for instance, has 120). Quantopian boasts 120,000 members on its platform.

These are amateurs, however, not full-time employees. John Fawcett, Quantopian's CEO, says many sign up to learn how to apply algorithms to trading; they usually already have experience in coding and modelling in domains outside finance. Few will have their algorithms selected, an honour that comes with a licensing fee of 10% of net profits . The rest can at least use their algorithms to trade their own money.

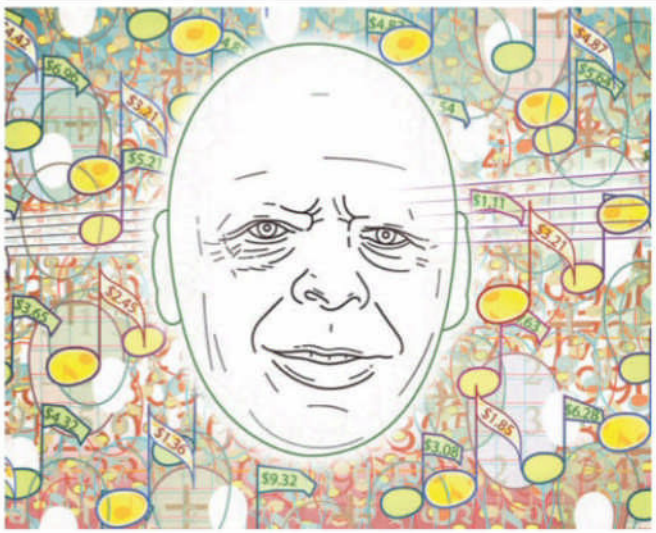
Mr Fawcett plans both to allocate funds to more algorithms, and to increase allocations to those already picked. There is no dearth of capital. Steve Cohen, a big-name investor who survived an insider-trading scandal at his previous hedge fund, provided some of Quantopian's venture-capital funding and has pledged up to $250m to promising algorithms on the platform. The firm intends to launch a fund open to other investors this year.

Quantopian-like models have the potential to bring the gig economy to high finance. Most people on its platform hold full-time jobs or are students, earning some income on the side. At least one quant hedge fund has already bet on the trend. WorldQuant's WebSim platform, like Quantopian's, offers access to financial data and a way to test ideas, though it is geared towards more basic research. The best performers on WebSim can become paid part-time research consultants, of whom there are now close to 500, nearly as many as WorldQuant's full-time staff.

It is still early to judge Quantopian's allocations (ranging from $100,000 to $3m per algorithm) by their financial return. As a pioneer, it has no obvious comparators. Some algorithms at Quantiacs, a competitor with only around 6,000 members on its platform, have generated up to 40% returns in the past year, but that is with small allocations of capital (Quantiacs has yet to manage outside assets). So the real test for the crowd-sourcers lies ahead: will a deeper talent pool mean better performance, even when serious money is involved? ■

Free exchange | Embrace the contradictions

William Baumol, originator of the idea of "cost disease", dies at 95



ON MAY 4th William Baumol, one of the great economists of the 20th century, died. Mr Baumol, who kept working into his 90s, published more than 500 papers across a dazzling array of topics; his best-known work, describing "cost disease", was essentially a side-project. He was a scholar whose stray thought on a sleepless night could change how people see the world.

Mr Baumol was born in the South Bronx, attended New York public schools and took an undergraduate degree at the College of the City of New York. Shaped by his family's left-wing views, in high school he read Karl Marx, which kindled an interest in economics. He did his PhD at the London School of Economics; he defended his dissertation "over whiskies and sodas at the Reform Club". He spent most of his long career at Princeton University. He had long been on the shortlist for a Nobel prize; sadly, death means he cannot receive one.

His contributions will endure, however. Mr Baumol's primary intellectual focus was the entrepreneur, whose role was badly neglected by prevailing economic theories. This, he reckoned, was an intolerable omission. The difference between rich countries and poor ones rests on differences in their use of technology, he argued, and it is through enterprising individuals and firms that innovations go from the drawing-board to active use across an economy. Business theories, he lamented, inevitably treated people as automatons, rather than potential revolutionaries.

Mr Baumol did better, casting entrepreneurs as crafty strivers dedicated to raising their personal status, who plot their course in life based on the incentives they face. Policy determines whether that means climbing the bureaucracy or founding Microsoft.

He helped move economics beyond the narrow ideal of perfect competition by introducing the idea of contestable markets, in which competitive pressure comes from the worry that rivals will swoop in to vie for a market if incumbents are anything other than ruthlessly efficient. Perfectly contestable markets should be just as efficient as perfectly competitive ones, even if only a handful of firms dominate a business. His framework gave economists a way to model what they previously could not: why some industries have lots of firms and others have just a few. Firms should enter the market until all are operating at the most efficient scale (so they cannot cut costs by selling more or fewer units). He was not preaching the Panglossian infallibility of markets. Rather, he helped economists understand why some industries might be more concentrated than others—and when oligopoly is a consequence of corporate chicanery rather than market efficiencies.

Yet Mr Baumol will be remembered best for his cost disease. Its origin was unlikely: a commission to help those promoting the arts understand the financial struggles that cultural organisations faced. A report co-written with William Bowen closed with a simple but striking observation. Workers in the arts compete in the same national labour market as those in factories. As rising productivity in manufacturing lifts the wages of factory workers, arts organisations must pay their staff more to keep them from quitting to make widgets. But rising wages in the arts are not matched, as in manufacturing, by corresponding productivity growth: performing a piece by Schubert took the same time and the same number of musicians in the 20th century as it did in the 19th. Thus rising costs and stagnant productivity create increasing pressure over time to raise ticket prices, or take in more donations, or produce less art. The analysis bore relevance outside the arts, he quickly realised. Technological progress in some industries implies that in services with relatively low rates of productivity growth—like health care, education and government—swelling costs will outstrip growth in productivity. Costlier public services are a necessary side-effect of long-run growth.

Cost disease is a powerful but frequently misunderstood concept. Sectors in the low-productivity bucket are not necessarily doomed to remain there. In future, new technologies could allow fewer teachers or doctors to serve many more students and patients. Nor must cost disease always entail a crisis of affordability. The wage increases driving it are a side-effect of productivity gains elsewhere, which make the economy richer. Trouble results, Mr Baumol pointed out, when rising spending creates political pressure for cutbacks, leading to needless deterioration in the quality of services. Whereas cost-saving efficiencies are both possible and welcome, budget cuts premised on the notion that the share of spending on, say, education should remain flat hinder rather than help the economy. Indeed, if stagnant services complement an economy's high-flying sectors (plying tech firms with educated workers, for example), then rising employment in stagnant areas raises rather than lowers overall productivity growth.

Cost disease also provides a vision of a world of large-scale automation. As machines become better at doing things, the human role in generating faster productivity growth will converge towards zero. At that point, so long as society expects everyone to work, all spending in the economy will go towards services for which it is crucial that productivity *not* grow, in order to provide jobs for everyone. Society could seemingly be both characterised by technological abundance and paralysed by cost disease.

Practising theorist

Mr Baumol revelled in such contradictions. In the 1990s he tackled trade, and found that in the presence of economies of scale, production could get stuck in the "wrong" place—a country with an underlying comparative advantage might still fail to dislodge production from incumbent exporters. He relished hard questions, and was happy to find that a hunch of his proved mistaken on closer scrutiny. Probing, pragmatic and humble intellects are all too rare in economics. They are now scarcer still. ■

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Artificial intelligence

Shall we play a game?

Why AI researchers are so keen on video games

LAST year Artur Filipowicz, a computer scientist at Princeton University, had a stop-sign problem. Dr Filipowicz is teaching cars how to see and interpret the world, with a view to them being able to drive themselves around unaided. One quality they will need is an ability to recognise stop signs. To that end, he was trying to train an appropriate algorithm. Such training meant showing this algorithm (or, rather, the computer running it) lots of pictures of lots of stop signs in lots of different circumstances: old signs and new signs; clean signs and dirty signs; signs partly obscured by lorries or buildings; signs in sunny places, in rainy places and in foggy ones; signs in the day, at dusk and at night.

Obtaining all these images from photo libraries would have been hard. Going out into the world and shooting them in person would have been tedious. Instead, Dr Filipowicz turned to "Grand Theft Auto V", the most recent release of a well-known series of video games. "Grand Theft Auto V" is controversial because of its realistic portrayal of crime and violence—but from Dr Filipowicz's point of view it was ideal, because it also features realistic stop signs. By tinkering with the game's software, he persuaded it to spit out thousands of pictures of these signs, in all sorts of situations, for his algorithm to digest.

Dr Filipowicz's stop signs are one instance of the fondness that students of artificial intelligence (AI, of which machine vision is an example) have for video games. There are several reasons for this popularity. Some people, such as Dr Filipowicz, use games as training grounds for the real world. Others, observing that different games require different cognitive skills, think games can help them understand how the problem of intelligence may be broken down into smaller, more manageable chunks. Others still, building on these two observations, think games can help them develop a proper theory of artificial (and perhaps even natural) intelligence.

Learner driver

For all of this to happen, though, the games themselves have first to be tweaked so that they can be played directly by another computer program, rather than by a human being watching the action on a screen. "Grand Theft Auto V", for instance, can be turned from a source of pictures of road signs into a driving simulator for autonomous vehicles by bolting onto it a piece of software called "Deep Drive". This lets the driving and navigation programs of such vehicles take control—a cheaper and safer way of testing driving software than letting it loose on roads.

Games companies are beginning to understand this. In June 2015, for instance, Microsoft started Project Malmo, an AI-development platform based on a popular "world-building" game called "Minecraft" that it had recently purchased. In November 2016 Activision Blizzard, owners of "Starcraft II", a science-fiction strategy game in which players build and command human and alien armies, announced something similar in collaboration with DeepMind, an AI firm owned by Alphabet, Google's holding company.

The following month, with the permission of the owners involved, a privately financed research group in San Francisco, called OpenAI, released "Universe". This is a piece of software, free for all to use, which features hundreds of games presented in ways that mean they can be played directly by appropriate programs. The offerings in "Universe" range from bestselling, big-budget titles such as "Portal 2" (a physics-based puzzle game) to cheap-and-cheerful web games like "Bubble Hit Pony Parade" and "James the Space Zebra".

One of Microsoft's hopes in starting Project Malmo was to teach AI software to collaborate with people. To this end, Katja Hofman, the project's head, is trying to use "Minecraft" to create an advanced personal assistant. Her goal is software that can anticipate what its human operator wants, and help him achieve it. "Minecraft", which is simpler than the real world but still complicated enough to be interesting, makes the perfect testing-ground. Dr Hofman and her colleagues are, for instance, using it to try to teach a computer to work out that it must co-operate with a human player in order to catch a virtual pig. Since the machine is incapable of understanding written instructions, it must learn co-operation purely by watching the actions of its human confrères in the game.

Acting as training wheels for the real world is not, however, the only thing video games can do for AI. The fact that different ▸▸

games require different talents helps researchers chop up the problem of intelligence. In 2015 DeepMind released a paper describing how its researchers had trained an artificial neural network—a program based loosely on the structure of a biological brain—to play dozens of different games released in the 1970s and 1980s by Atari, a pioneering video-games company.

Some games proved harder than others for the network to master. "Breakout", which is a bit like a single-player version of tennis, was easy. The objective is to smash floating blocks by hitting them with a bouncing ball. A player can do one of two things: move the "racket" left or move it right. Failure is punished instantly (missing the ball costs a life). Similarly, success is instantly rewarded (each smashed block adds to the score). This combination of simplicity and immediate feedback suited DeepMind's neural network, which learnt to play "Breakout" so well that it reached scores more than ten times those a professional human games-tester can manage.

Other games were less straightforward. In "Montezuma's Revenge" the goal is to retrieve treasure buried deep inside a danger-filled pyramid. To do this players must first achieve lots of sub-goals, such as finding keys to open doors. Feedback is less immediate than in "Breakout"—for instance, a key that turns up in one area might open a door in another, far away. And the ultimate reward, reaching the treasure, is the consequence of thousands of previous actions. This meant that the network found it hard to connect cause and effect. In contrast to its virtuoso performance at "Breakout", it was able to make almost no headway at all with "Montezuma's Revenge".

Since then, DeepMind's researchers have tweaked their algorithms to make the system more curious about things, by giving it bigger rewards for exploration and experimentation. This makes it more likely to stumble across good strategies which have payouts that are not immediately apparent. That approach is not limit to mastering skills in a virtual world—it can be applied to the real one, as well. DeepMind's algorithms have, for instance, been put to use in Google's data centres, where they have developed ways to cut energy use by 40%. Indeed, it is possible to view tasks like that as games in themselves. To cut energy use in a data centre, a network can tweak things like coolant-pump settings and load distributions while keeping an eye on energy use. The lower it can get the "score", the better it is doing.

Embodiments of truth

At the moment, repurposing a games-playing program to run a data centre's energy budget really is like teaching it a new game from scratch. That is because DeepMind's original neural network could learn to play only one game at a time. In order to understand "Breakout", for example, it would have to forget everything it knew about "Space Invaders". Such amnesia is in the nature of artificial neural networks—and is something that distinguishes them from real brains. They learn by system-wide adjustments of the strengths of the connections between the virtual neurons of which they are composed. Change the task to be learned, and the old web of connections will gradually be overwritten. Now, however, as they describe in a paper published in March, DeepMind's programmers have worked out how to overcome this and let a network master many games at once, in the way that a real brain can. That is a step towards transfer learning—the ability to put to use in one context patterns of behaviour learned in another—which is a hot topic in AI research.

Like displaying curiosity and delaying rewards, transferring learning from one task to another is something humans do effortlessly but machines struggle to manage. Here again, games are playing an important role in research. For example, Julian Togelius of New York University has organised a challenge called the General Video Game AI Competition. Entrants must create a single program that can play, with reasonable competence, ten different video games that neither it nor its programmers have come across. This requires the software to master many skills—planning, exploration, decision-making and so on—and apply them to problems it has not previously encountered.

Even when transfer learning is mastered, though, constructing useful artificial intelligence will remain a piecemeal activity. What researchers would really like is an underlying theory of how to do so systematically. One candidate to be such a theory, called embodied cognition, argues that, instead of trying to design intelligence into a program from the beginning, it needs to be learned entirely from experience.

Dr Hofman, in particular, backs this approach. She reckons video games are perfect platforms on which to explore the idea. Previous attempts to study embodied cognition, carried out in the 1980s, involved fitting robots with sensors and letting them learn, by running around and bumping into things, how the real world works. Researchers back then did have some success with this approach, but they ran into problems scaling their experiments up. As David Silver, who works at DeepMind, observes: "Robots have gears and wheels and motors, and all sorts of fiddly things like that. You end up spending a lot of time doing maintenance work."

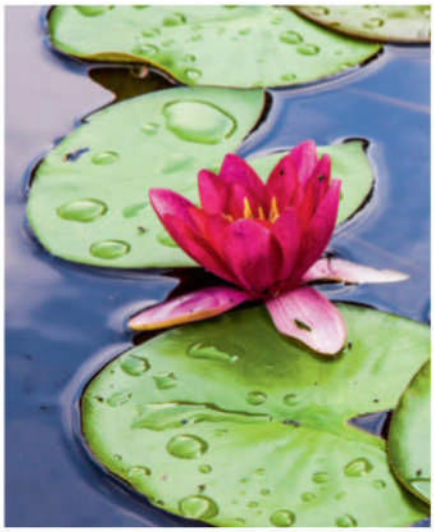
Play up, play up and play the game

Video games can streamline this process. A virtual robot in a virtual world is weightless. It has no moving parts, so needs no maintenance. Adjusting it to change its specifications does not require breaking out the spanners and taking it to bits. A few strokes on a keyboard will suffice.

Its environment can be altered easily, too. Rerouting a maze no longer means welding sheets of metal together or gluing plastic walls. And a computer can run thousands of such simulations at a time, allowing legions of virtual robots to try tasks again and again, learning with each attempt. That kind of large-scale testing, which permits the learning process itself to be monitored and understood, is simply not practical using real machines.

The important thing, according to Demis Hassabis, DeepMind's founder, is to make sure the virtual robot cannot cheat. It must navigate using only the information its virtual sensors can gather. There can be no peeking behind the scenes of the simulation. If such a robot wants to learn its way around the danger-filled pyramid in "Montezuma's Revenge", or the fictional city of Los Santos in "Grand Theft Auto", it must work out where it is and what is happening from what it can "see", not by asking the computer which is running the game to give it co-ordinates. This is the approach DeepMind takes when it teaches programs to play video games.

Studying embodied cognition in this way is a logical conclusion of the games-playing approach to AI. It seems an appropriate one. Watch the young of any intelligent creature, from dogs to humans, and you will see them building up something that looks suspiciously like embodied cognition by playing. Evolution did not have the assistance of computers when it arrived at this process. But the fundamental point of such activity, in both the artificial and the natural worlds, is to prepare players for the biggest game of all—reality. ■



New materials

The lotus position

A self-repairing surface that stays clean and dry

THE repulsive powers of lotus leaves are the stuff of legend. Water sprayed onto them forms instantly into silvery beads (see picture) and rolls right off again—carrying any dirt on the leaf's surface with it.

The physics behind this impressive and beautiful phenomenon is well understood. Lotus leaves repel water because they are covered with minuscule waxy nodules that stop water molecules bonding with a leaf's surface tissues, meaning those molecules bond with each other instead. That arrangement has been replicated in several man-made materials. Unfortunately, these are easily damaged by abrasion—and, not being alive, cannot regrow and repair themselves. They are thus hard to commercialise, which is a pity, because the self-cleaning, self-drying surfaces they create could be of great value. A technique just described in *Langmuir* by Jürgen Rühe of the University of Freiburg, in Germany, may, however, fix this problem by giving lotus-like materials the ability to regenerate when damaged.

Dr Rühe's approach is to mimic a second living organism—this time an animal, the lizard. As lizards grow, their scales do not grow with them. Instead, old scales are shed and replaced from below by new ones. Dr Rühe theorised that it might likewise be possible to create a stack of lotus-like layers that would flake off when damaged, revealing a pristine surface beneath.

Lotus-like man-made materials belong to a class known as nanograsses—so called because, under an electron microscope, they resemble lawns. Dr Rühe's nanograsses have water-repellent "blades" attached to thin sheets of silicon. The task he set himself was to create a stack of these that could tell when the one at the top was compromised so badly that it needed to be replaced, and then replace it automatically.

He conceived of doing this by gluing the layers of the stack together with a water-soluble material. He reasoned that, as the top layer got worn, and water began leaking through it, this glue would start to dissolve. A small amount of damage would do no harm. But enough would weaken the glue to the point where the uppermost nanograss lawn flaked off, and the next one down took over.

Testing this idea out using an appropriate glue (a special water-soluble polymer), he found that it worked. When he scratched the top of such a stack with a scalpel and exposed it to water, it did, indeed, come loose and fall off as the water seeped into the underlying glue. Such an arrangement will not, of course, last for ever. Eventually, it will run out of layers. But if the idea can be applied to industrial practice, then long-lived, self-cleaning surfaces may at last become routine. ■

Correction: In "Skating on thin ice" (April 27th) we referred to Oystein Bo as Norway's defence minister. In fact, he is state secretary in the Ministry of Defence.

Musical instruments

Debranding

More evidence that modern violins are better than 300-year-old ones

FOR a work of art by a genius, $16m might not seem an outrageous price. And that is what is believed to have been paid, in 2012, for the Vieuxtemps Guarneri—a violin made in the 18th century, in Cremona, Italy, which thus became the most expensive fiddle in the world. The Vieuxtemps's owner remains anonymous, but he or she has made it available for life to Anne Akiko Meyers, an American violinist pictured playing it below.

Violins crafted by members of the Guarneri family and their Cremonese contemporaries, the Stradivari and the Amati, regularly fetch millions, because players like Ms Meyers value them so highly. But a violin is not, by itself, a work of art. It is, rather, a means of creating one—in other words, a piece of technology. An instrument. And for an instrument to be worth that much, it had better be the best in its class.

Unfortunately for the shades of Cremona's master luthiers, evidence is growing that their wares, though once unquestionably the best, are so no longer. Past studies by Claudia Fritz of the University of Paris VI, and Joseph Curtin, a violin-maker in Michigan, have shown that professional players wearing goggles to stop them seeing their instruments clearly cannot tell between Cremonese and well-made modern violins—and generally prefer the sound of the latter. The pair's latest paper, just published in the *Proceedings of the National Academy of Sciences*, suggests the same is true of audiences.

In experiments in concert halls in Paris and New York, Dr Fritz and Mr Curtin matched pairs of instruments, one old and one new, against each other in a series of tests, some solo and some with orchestral accompaniment. They used the goggle technique to stop players knowing what they were playing, and employed a special screen, transparent to sound, to hide player and instrument from the audience, which consisted of musicians, critics, composers and so on.

In both places these experts agreed that the new violins projected sound better than the old ones did. Moreover, though only the New York audience was asked, its members preferred the music of the new violins to that of the old ones—even though, like the players, they could not actually tell which was which.

That any of this will persuade people like Ms Meyers to abandon Cremona seems unlikely. For them it is part of the brand. But for aspiring players who cannot afford millions, Dr Fritz's and Mr Curtin's work is surely food for thought.

Goodbye to old times?

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Fabled places

The dream beyond the desert

The story of Timbuktu remains clouded by fantasy

The Storied City: The Quest for Timbuktu and the Fantastic Mission to Save its Past. By Charlie English. *Riverhead; 416 pages; $28.* Published in Britain as **The Book Smugglers of Timbuktu**; *William Collins; £20*

TOMBUT. Tenbuch. Tombouctou. Timbuktu. The names called to Europe from out across the Sahara, never quite certain. Was it a New Jerusalem? An African Carthage? A Moorish Florence? Nobody knew: explorer after explorer had tried to reach it, to send word back to Europe of this fabled city on the Niger river, but until well into the 19th century every attempt had ended in death or failure. Perched on the outer reaches of European knowledge, Timbuktu powerfully captured what Edward Said, a Palestinian-American scholar, called the "Orientalist" imagination. For centuries, myth was piled upon myth.

In "The Storied City", Charlie English, a veteran journalist for the *Guardian*, traces how the European idea of Timbuktu took shape through the "West's centuries-long struggle to find, conquer and understand the city". Cut off from Christian Europe following the Muslim conquests in the seventh and eighth centuries, Timbuktu's sheer remoteness at the far end of the Saharan caravan trails meant that first-hand accounts were non-existent. Explorers dreaming of Africa's El Dorado, with prizes and wealth for doing so waiting back home, yearned to remedy this.

Leo Africanus, a north African traveller of obscure origin, put Timbuktu on Europe's intellectual map with "Descriptions of Africa", a florid account of his journey from what is now Tunisia to the gold-trading kingdoms of west Africa. His mid-16th-century portrait of a city of gold and enlightenment echoed down the centuries. Mungo Park, a Scottish explorer, published "Travels in the Interior Districts of Africa" in 1799. A bestseller, it made Timbuktu the talk of literary Europe, but Park never reached the city. A little-known Scottish soldier, Major Alexander Gordon Laing, finally entered in 1826: he later left a cryptic note that revealed little, before disappearing into the desert. René Caillié, a reclusive Frenchman, proclaimed himself ready to share Laing's fate: "Dead or alive: it shall be mine." But Caillié went on to become the first European explorer to return from the city alive, in 1828.

Other detailed accounts began to emerge, describing a city less fantastical than many Europeans had imagined. But the myth of Timbuktu proved resilient. Into the 20th century it remained a source of fascination to scholars enraptured by the gilded legend of its libraries and unrivalled learning.

The reality, inevitably, was more mundane. To be sure, an influential Moorish trading town had sat at the juncture of the world's largest desert and west Africa's longest river since at least the 12th century. Until the discovery of the Americas it lay at the heart of a region that produced two-thirds of all the Mediterranean's gold. The settlement was an important asset for a succession of empires: Mali, Songhai, Morocco. It was an exceptionally (though not uniquely) sophisticated society from at least the mid-14th century, rich with literature, *madrasas* and thousands of students. Timbuktu's most distinctive feature, though, was its many private libraries, the work of the city's scholars, drawn from its wealthiest families. It was in these libraries that the famous manuscripts—vast numbers of mainly religious texts but also secular works such as poetry, novellas and works of science—were deposited, and carefully conserved, over the centuries.

Running alongside Mr English's lively telling of the quest for Timbuktu is a thrilling account of a more recent story: the daring evacuation of hundreds of thousands of Timbuktu's manuscripts by its librarians during the jihadist occupation in 2012. The threat that the jihadists posed to the city's inheritance was often foreshadowed over the preceding centuries, from the Moroccan invasion in the late 16th century, which led to killings, expulsions and looting, to the French conquest at the end of the 19th. The French and the jihadists, though utterly different in every other way, both saw a once-great city that could be restored to glory only through their occupation.

Mr English tells the new and the older tales in parallel. The evacuation of Timbuktu's manuscripts has been recounted by others in many newspaper articles and another recent book. But the history of European exploration is a compelling ▸▸

enough subject in its own right, and much less well-known. The two stories illuminate each other, but somewhat obliquely. It is nonetheless a brilliant device.

This is because Mr English concludes by casting a degree of doubt on the story of the evacuation. It is, he suggests, a "modern-day folktale", the *jihadi* threat to the manuscripts slightly exaggerated, their number and value a tad inflated. But this, he argues, is in keeping with a long tradition. Timbuktu's story has always been told and re-told: a tapestry of half-truths and almost-truths shaped by outsiders and Timbuktiens alike. The city's history, he says, exists in "perpetual motion, swinging back and forth between competing poles of myth and reality". No wonder people like Mr English keep writing about it. ■

The maths of life

Mr Big

Scale: The Universal Laws of Growth, Innovation, Sustainability, and the Pace of Life, in Organisms, Cities, Economies, and Companies. By Geoffrey West. *Penguin Press; 479 pages; $30. Weidenfeld & Nicholson; £25*

GEOFFREY WEST is the restless sort. He has spent much of his career as a theoretical physicist, working at the Los Alamos National Laboratory in New Mexico. After a while he became fascinated by biology, then cities and companies. He is interested in all sorts of things, from Isambard Kingdom Brunel's ship designs to Ingmar Bergman's films. When he says that he drives his wife nuts, you believe him.

On one level, "Scale" is a book about Mr West's peculiar career path. But on another, it is about the hidden mathematical patterns underlying life, cities and commerce. Many things that appear unrelated are actually linked, he says. The size of an animal is related to the speed of its metabolism and its lifespan. If you know the population of a city and what country it is in, you can predict fairly accurately how many petrol stations it has and how many patents its citizens produce. Mr West even suggests that the mice and the metropolises are linked.

To take an odd example: how much LSD should you give to an elephant, should you feel minded to do such an irresponsible thing? The answer is not the 297 milligrams that was injected into a poor pachyderm called Tusko in 1962, leading shortly to his death. The researchers came up with that amount by extrapolating from research on cats. They had simply scaled up a feline acid dose to account for the greater mass, without accounting for the fact that safe dosages for drugs do not quite double with a doubling in mass, and other factors also play a role. Extrapolate this over the many multiples of mass an elephant has over a cat, and Tusko should have had a few milligrams, not several hundred.

Non-linear scaling relationships such as these fascinate Mr West. "Underlying the daunting complexity of the natural world lies a surprising simplicity, regularity and unity when viewed through the coarse-grained lens of scale," he writes. In other words: do not get too distracted by what animals and plants look like, or how they have evolved. Just look at fundamental properties like their size and weight. These tend to obey mathematical laws.

Cities, he suggests, are a little like giant organisms. They often grow in the same exponential way. A map of lorry journeys looks a bit like a network of blood vessels. Cities also scale non-linearly. A city that is twice as populous as another does not have twice as much infrastructure and twice as much productivity. It has a bit less infrastructure than you would expect, and a bit more productivity per head (as well as more crime). Just as an elephant is a more efficient animal than a cat, big cities are more efficient than small ones. That is why people are drawn to them.

Having charted these patterns, Mr West is not quite sure what to make of them. He suggests that urban planners should think of themselves as facilitators of fundamental natural processes. But how, exactly, should they do that? Like many urbanists, Mr West admires Jane Jacobs, who believed that cities such as her beloved New York should be left to evolve naturally rather than being tweaked by meddlesome planners. In fact New York is one of the world's most rigorously planned cities. Its grid pattern was laid down when the city was just a small settlement on Manhattan's southern tip.

Mr West is an entertaining, chatty guide to the things that interest him. That is mostly to the good, although the chattiness does mean that "Scale" suffers from a problem of scale. A ruthless editor could have excised at least a quarter of the words and created a tighter, more compelling book. Size is not always everything. ■

Cairo certainly does scale

Memoirs

Neurosurgeon, reveal thyself

Admissions: A Life in Brain Surgery. By Henry Marsh. *Weidenfeld & Nicolson; 271 pages; £16.99. To be published in America by Thomas Dunne in October; $26.99*

ILLNESS, wrote Susan Sontag, is "the night-side of life". In his bestselling 2014 memoir, "Do No Harm", Henry Marsh, a neurosurgeon, gave an elegant account of his role as a gatekeeper of this night-side, an "underworld of suffering". In "Admissions" he returns to the same territory, but also covers his life before and after the heart of his career.

The book starts at the ignominious end of Mr Marsh's time in Britain's National Health Service (NHS). Ground down, as he tells it, by bureaucrats and needless regulations, Mr Marsh sends his resignation letter. His final operation is tricky, but a success. The next day he finds his patient has had an unnecessary nasogastric tube inserted. He asks the nurse to remove it but, without the paperwork, the nurse refuses. Mr Marsh snaps. He tweaks the nurse's nose, shouts "I hate your guts!", and storms off. He later, sheepishly, returns to apologise. The telling episode shows both Mr Marsh's disarmingly frank storytelling and his querulous, warty sort of heroism. He is, in spite of himself, hugely likeable.

After 40 years in the NHS, Mr Marsh fears falling idle and useless. So he keeps

busy, and he writes. In Nepal and Ukraine he helps former colleagues in their clinics. Every day people appear with tumours bigger than any he had ever seen in Britain. The suffering is overwhelming, the surgery almost pointless. Here his reflections on death and dying equal those in Atul Gawande's excellent "Being Mortal". And every few chapters he returns to Oxford, where he has begun renovating a lockkeeper's cottage near his childhood home. This brings him back to his youth, from swimming lessons to first loves, his time at Oxford University, and a brief stay as a patient in a psychiatric hospital. The effect is of a rather wayward *Bildungsroman* of his path to becoming a neurosurgeon.

It was the privileged insights into neurosurgery which made "Do No Harm" such a remarkable book. "Admissions", to some extent, offers more of the same. Mr Marsh describes neurosurgeons as a tribe, isolated by the terrible responsibility of their job. There is the decision of whether to operate, which involves great uncertainty. And there is the risk of neurosurgery itself, where the smallest mistake can blind, paralyse or kill someone. But Mr Marsh describes it as a sort of addiction, where the huge responsibility is part of the thrill. "Like all surgeons all I want to do is operate." As soon as he makes the first incision, he finds a "fierce and happy concentration". His writing is at its vivid best in the "muted drama of the theatre", with "the bleeping of the anaesthetic monitors, the sighing of the ventilator" and "the sucker slurping obscenely" as he removes a tumour from someone's brain.

There are, though, fewer such moments in Mr Marsh's new book. Those expecting a second "Do No Harm" will be surprised, but not disappointed. "Admissions" is more about the man than the surgeon, but it is excellent in its own right. ■

Johnson | Hit and misspeak

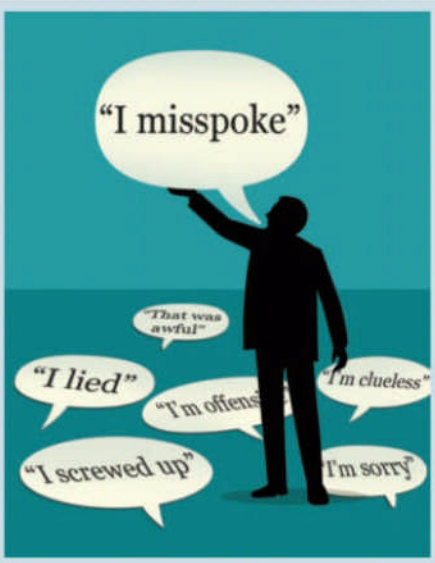
"I misspoke" is a bait-and-switch excuse when a public figure fouls up

JORDAN EDWARDS, a black 15-year-old, was in the passenger seat of a car at a house party in Balch Springs, near Dallas, when he was shot and killed by a policeman with a rifle. The policeman's boss later told reporters that the car had been driving "aggressively" backwards towards the officer. But after reviewing body-camera footage, it came to light that the car had been heading away from, not towards the officer. The police chief's retraction? "I misspoke."

More recently Diane Abbott, the British shadow home secretary, was being interviewed about her Labour Party's plans to add 10,000 new police officers to Britain's streets. She first gave the interviewer a cost of "about £300,000" ($388,000). Given a chance to correct this sum (£300 per officer), she changed it to £80m. Asked if this figure wasn't also rather low, she went on to say that Labour would be recruiting 25,000 officers a year for four years, then 250,000, then 2,250, and accused the host of producing the 250,000 figure. It was an epic disaster. Her excuse? "I misspoke."

Geoffrey Nunberg, a linguist, distinguishes two kinds of speech mistakes: "typos" and "thinkos". Typos are ubiquitous and listeners hardly notice many of them. Thinkos go deeper; they betray that the speaker might actually not know something. If someone says the capital of Italy is Florence, that's probably a true thinko, unless the person is an expert in Italy who just happened to be thinking about a forthcoming holiday in Florence. But when people are caught in a thinko, they are often tempted by the "misspoke" explanation—it's hard to prove them wrong, after all, if they say they knew the right thing but just accidentally said the wrong one. It could happen to anybody.

But the Balch Springs police chief and



Ms Abbott went beyond thinkos. The first—to give the most charitable possible explanation—was telling a nationwide news audience, in the wake of a horrible tragedy, something he did not really know. This was a time for prudence, for saying as little as possible until the facts were in. But it seems that he trusted an officer's verbal account of the story, and told that false story to the world. The true retraction should have been not "I misspoke", but "I told you all what I wanted to be true, on completely insufficient evidence. I screwed up terribly, and I'm sorry."

Ms Abbott's explanation was that she had done seven interviews that day, of which the train-wreck was the last. She genuinely misspoke when she said £300,000, obviously—such a sum is trivial in national budgeting. But the jumble of numbers that followed, some of them plausible, some of them ridiculous, and her repeated stumbling and backtracking, could only be the product of a tired, stressed and hastily prepared politician having a very bad moment. An honest, self-deprecating, account—"That was awful. Pour me a drink"—would have earned her a lot of credit. Everyone has terrible days. But she insisted on pretending that the whole thing was akin to a mere typo.

Kellyanne Conway, an adviser to Donald Trump, "misspoke one word" when she referred to a "Bowling Green massacre", a supposed terrorist attack. That one little misspoken word was "massacre"—nothing of the sort took place in Bowling Green, Kentucky. Tarun Vijay, an Indian politician, said that Indians were not racist, given that they live with "black" South Indians; he, too, reached for "I misspoke", clarifying that he merely meant that India is a country of many colours. But at least he, unlike Ms Abbott or Ms Conway, delivered a proper apology.

Public figures' claims of "misspeaking" are inherently suspicious. Most people don't need to point out a mere typo: these are usually obvious in the moment, and forgiven without explanation. It seems far more common that claims of misspeaking are a kind of bait-and-switch, swapping a major sin—lying, being indefensibly clueless or saying something offensive—for a minor one, a claim of having tripped over the tongue as over a carelessly tied shoelace.

In April, Mr Trump's press secretary, Sean Spicer, said that not even Hitler had used chemical weapons on his own people. He later apologised—and in an article about the flap in *The Hill*, a reporter accidentally misidentified Mr Spicer: "When asked to clarify those comments, Hitler misspoke again by saying Hitler did not use gas against his country's people." The mistake was online for about 20 minutes before being corrected. Talk about a typo.

Britain's Olympic athletes

What price victory?

The Talent Lab: The Secret to Finding, Creating and Sustaining Success. By Owen Slot with Simon Timson and Chelsea Warr. *Ebury Press; 304 pages; £20*

IT SEEMS hardly an auspicious time to release a book on Britain's Olympic success. Numerous scandals—accusations of bullying, sexism and failure to keep proper records of drugs—are engulfing British Cycling, a symbol of national glory. Yet the transformation of Britain's performance in the Olympics remains a remarkable tale. In 1996, Britain's "team of shame" came 36th in the medal table, below Algeria, Ireland and North Korea. At the London games of 2012, Team GB (as the United Kingdom's squad is officially known) won 65 medals, up from 15 in 1996. Britain performed even better in Rio last year, winning 27 golds and 67 medals in all, finishing second, above China, in the overall medal table, defying the trend of host nations' sliding down the tables in the following games.

These hauls have been a triumph for detailed and ambitious planning, as Owen Slot, a sports writer for the *Times*, explains in an engaging book. Huge spikes in cash have helped. Across Olympic and Paralympic sports, UK Sport, Britain's funding body, spent £69m ($89m) on Sydney 2000 but almost £350m on Rio 2016. Yet cash alone cannot explain all of Team GB's success: for the 2012 games, South Korea and Japan spent over three times more than Britain and had worse returns.

UK Sport adopts the mindset of an investor seeking the best returns wherever they can be found. The model has been unashamedly ruthless, concentrating on disciplines with the best medal prospects while ditching also-rans. Even among the sports that do receive funding, cash is diverted to a tiny coterie of elite athletes: the £21m allocated to swimming before Rio was focused on nine "Golden Children". Before Rio 2016, Liam Tancock, Britain's best male swimmer of recent times, lost his funding largely because he would turn 31 before the games—past his prime.

Mr Slot's attention to detail turns up some fascinating facts. East German-style national talent-scouting programmes were created, producing Olympic medallists from those who had never previously played the sport—in the process debunking a widespread notion that 10,000 hours are needed to achieve excellence in a skill. Coaches were hooked up to heart-rate-variance monitors, to understand how to manage their stress levels better, and Team GB's managers analysed the optimal way to coach athletes of different sexes. Teams engaged parents about the best techniques for nurturing high-performance athletes. The British Olympic Association made its first reconnaissance mission to Brazil, to find ideal hotels and training facilities, six years before Rio 2016.

UK Sport has borrowed from a wide array of fields in pursuit of an edge. Music schools and military special forces were asked for advice on spotting talent and performing under pressure, and an expert in turning around flagging businesses, borrowed from a private-equity firm, helped improve British shooting's meagre performance. Mr Slot's book is written in conjunction with Simon Timson and Chelsea Warr, two of Team GB's directors of performance, who contribute a brief summary of lessons after each chapter. Their input is double-edged: it ensures that the book provides an unrivalled look inside UK Sport's medal-factory, but may also keep Mr Slot from tackling some subjects with complete independence.

The increased investment in the Olympics and the subsequent bonanza of medals, may have given Britain a reason to hold its head high. But success for the elite has come at a time of falling sports participation in Britain, with the decline greatest among the poor. For all the successes, the question lurking beneath this book is an uncomfortable one. In an era of austerity and impoverished grassroots sport, has the price of these medals been too great? ■

Art and artists in Africa

The next big thing

PARIS

Two fine exhibitions of the continent's best contemporary art

BEFORE the first world war the most exciting artists were French; in the 1990s they were Chinese. Now the hot new place for contemporary art is Africa. Visitors to the opening of the Venice Biennale on May 13th can go to a Nigerian pavilion for the first time; three days later Sotheby's will inaugurate its first auction of African contemporary art. At the end of September Jochen Zeitz, a German businessman, will open the long-awaited Zeitz MOCAA, which Thomas Heatherwick, a British designer, has been creating for him in a disused grain silo on the waterfront in Cape Town. Those too impatient to wait should make haste, meanwhile, to Paris, where the Fondation Louis Vuitton (FLV) in the Bois de Boulogne has unveiled two of the most vivid exhibitions of African artists that the city has ever seen.

For the first exhibition, "Être Là" ("Being There"), Suzanne Pagé, FLV's artistic director, has selected 16 artists from South Africa. Much of what they have made for the show is creepy, frightening and aggressive. That is not unexpected given that this is the work of a generation grown increasingly frustrated at the country's inability to live up to its post-apartheid promise.

The second show, "Les Initiés" ("The Insiders"), is more surprising. Drawn from a collection built up by Jean Pigozzi, heir to the Simca motoring fortune, it starts in 1989, when the communist proxy wars in Africa were coming to an end and technology, in the form of mobile phones and internet banking, was but a step away from giving Africans greater control over their daily lives. It blends humour and inventiveness, in the form of witty masks made from randomly collected domestic objects by Romuald Hazoumé from Benin, an artist whose work David Bowie collected; sculptures of bright, idealised cities by Bodys Isek Kingelez of the Democratic Republic of Congo; magical works made with porcupine quills by John Goba from Sierra Leone; and hilarious face masks, such as "Oba 2007" (pictured), made by Calixte Dakpogan, also from Benin, out of beads, pens, nail-clippers and synthetic coloured hair which he has found on his walks through his hometown of Porto-Novo. Here, energy and adventurousness are matched only by imagination, belying any notion that Africa is a dark continent.

Bright new faces

Tenders

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(P. Vijaya Kumar)
Chief General Manager

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Invites Request for Qualification (RFQ) from Potential Developers or Consortium of Developers for establishment of World Class Oceanarium at Mamallapuram, Chennai on Public Private Partnership (PPP) mode.

Tender No:33516/R3/2012 Dt.05.05.2017

The Department of Fisheries, Government of Tamil Nadu intends to develop a world class Oceanarium at Mamallapuram in Chennai on Public Private Partnership mode. Mamallapuram is located at a distance of 56 Km south from the city of Chennai and is one of the major tourist centres and classified as UNESCO world heritage site. The extent of land available for the proposed development is 13.07 acres free from all encumbrances. The potential concessionaire is proposed to be chosen through a two-stage competitive bidding process.

The State Government will provide interest free O&M loan of Rs. 30 crore cumulative to the developer during the first three years of operation. The estimated capital cost of the project is Rs.258 Crore.

The Department of Fisheries (DoF), GoTN invites 'Request for Qualifications' (RFQ) from eligible Developers on their own or in Consortium, having

- a net worth of Rs. 64 Crore in preceding financial year and Turnover of Rs.75 Crore in preceding three financial years
- experience of designing and commissioning at least 1 (one) Oceanarium project having minimum water capacity of 2.25 million liters and consisting of at least 1 (one) acrylic tunnel aquarium with moving walkway along with various ancillary facilities like touch pool, marine mammal stadium, research facilities etc., over the past 15 (Fifteen) financial years which can be also demonstrated through a Techno Commercial agreement executed with a technical partner having the experience.

The RFQ document can be downloaded from the following websites **www.tenders.tn.gov.in** & **www.fisheries.tn.gov.in**. The following gives details of RFQ document:

Sale of RFQ Document	**5th May 2017.**
Cost of RFQ Document	**Rs.25,000/- (Rupees Twenty Five Thousand only).**
Pre-application conference	**26th May 2017 at 11:30 Hrs.**
Tender inviting authority response to queries and issue of corrigendum/addendum if any	**9th June 2017.**
Last Date of RFQ Submission	**30th June 2017 at 16:00 Hrs.**
Opening of Technical Proposal / RFQ	**30th June 2017 at 16:30 Hrs.**

(**Note:** Any announcements, pre-bid replies, addendum relating to the project will be published only through the website above.)

For further information, please contact

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e-mail: tnoceanarium@gmail.com

DIPR/ 1927 /Tender/2017

Commissioner of Fisheries

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment	Current-account balance		Budget balance	Interest rates, %	Currency units, per $	
	latest	qtr*	2017†	latest	latest	2017†	rate, %	latest 12 months, $bn	% of GDP 2017†	% of GDP 2017†	10-year gov't bonds, latest	May 10th	year ago
United States	+1.9 Q1	+0.7	+2.2	+1.5 Mar	+2.4 Mar	+2.3	4.4 Apr	-481.2 Q4	-2.7	-3.5	2.41	-	-
China	+6.9 Q1	+5.3	+6.6	+7.6 Mar	+1.2 Apr	+2.3	4.0 Q1§	+170.1 Q1	+1.7	-4.0	3.62§§	6.90	6.52
Japan	+1.6 Q4	+1.2	+1.3	+3.3 Mar	+0.2 Mar	+0.7	2.8 Mar	+187.3 Mar	+3.5	-5.3	0.04	114	109
Britain	+2.1 Q1	+1.2	+1.6	+2.8 Feb	+2.3 Mar	+2.7	4.7 Jan††	-115.7 Q4	-3.3	-4.0	1.17	0.77	0.69
Canada	+1.9 Q4	+2.6	+2.1	+3.9 Feb	+1.6 Mar	+1.9	6.5 Apr	-51.2 Q4	-2.9	-2.7	1.64	1.37	1.29
Euro area	+1.7 Q1	+1.8	+1.7	+1.2 Feb	+1.9 Apr	+1.6	9.5 Mar	+398.9 Feb	+3.1	-1.5	0.43	0.92	0.88
Austria	+1.7 Q4	+2.0	+1.6	+3.1 Feb	+2.0 Mar	+1.8	5.9 Mar	+6.6 Q4	+2.4	-1.1	0.68	0.92	0.88
Belgium	+1.5 Q1	+2.1	+1.4	+4.0 Feb	+2.3 Apr	+2.1	6.9 Mar	-2.0 Dec	+1.0	-2.7	0.79	0.92	0.88
France	+0.8 Q1	+1.0	+1.3	+2.0 Mar	+1.2 Apr	+1.3	10.1 Mar	-30.4 Mar	-1.1	-3.1	0.87	0.92	0.88
Germany	+1.8 Q4	+1.7	+1.6	+1.8 Mar	+2.0 Apr	+1.8	3.9 Mar‡	+287.2 Mar	+8.1	+0.5	0.43	0.92	0.88
Greece	-1.4 Q4	-4.8	+1.2	+8.7 Mar	+1.6 Apr	+1.0	23.5 Jan	-0.7 Feb	-0.8	-4.2	5.67	0.92	0.88
Italy	+1.0 Q4	+0.7	+0.8	+2.8 Mar	+1.8 Apr	+1.4	11.7 Mar	+46.8 Feb	+2.4	-2.3	2.27	0.92	0.88
Netherlands	+2.5 Q4	+2.5	+2.2	+4.0 Mar	+1.6 Apr	+1.2	6.1 Mar	+64.8 Q4	+8.7	+0.7	0.65	0.92	0.88
Spain	+3.0 Q1	+3.2	+2.6	+8.9 Mar	+2.6 Apr	+2.1	18.2 Mar	+25.9 Feb	+1.6	-3.3	1.62	0.92	0.88
Czech Republic	+2.0 Q4	+1.6	+2.5	+10.9 Mar	+2.0 Apr	+2.4	3.4 Mar‡	+2.3 Q4	+0.9	-0.5	0.83	24.4	23.7
Denmark	+2.3 Q4	+1.9	+1.4	+10.7 Mar	+1.1 Apr	+1.4	4.3 Mar	+26.5 Mar	+7.1	-1.2	0.69	6.85	6.53
Norway	+1.8 Q4	+4.5	+1.7	+3.3 Mar	+2.2 Apr	+2.4	4.3 Feb‡‡	+18.1 Q4	+4.9	+2.7	1.69	8.61	8.21
Poland	+3.3 Q4	+6.6	+3.2	+11.1 Mar	+2.0 Apr	+2.0	7.7 Apr§	+0.4 Feb	-1.2	-3.2	3.43	3.88	3.88
Russia	+0.3 Q4	na	+1.4	+0.8 Mar	+4.1 Apr	+4.3	5.4 Mar§	+34.9 Q1	+2.8	-2.8	8.13	57.6	66.3
Sweden	+2.3 Q4	+4.2	+2.6	+3.8 Mar	+1.3 Mar	+1.7	6.8 Mar§	+23.7 Q4	+4.8	-0.4	0.65	8.91	8.15
Switzerland	+0.6 Q4	+0.3	+1.3	-1.2 Q4	+0.6 Mar	+0.5	3.3 Apr	+70.6 Q4	+9.9	+0.2	-0.03	1.01	0.97
Turkey	+3.5 Q4	na	+2.8	+2.8 Mar	+11.9 Apr	+10.0	13.0 Jan§	-33.7 Feb	-4.4	-2.0	10.63	3.59	2.94
Australia	+2.4 Q4	+4.4	+2.7	+1.0 Q4	+2.1 Q1	+2.2	5.9 Mar	-33.1 Q4	-1.3	-1.8	2.66	1.35	1.36
Hong Kong	+3.1 Q4	+4.8	+2.8	-0.9 Q4	+0.5 Mar	+1.6	3.2 Mar‡‡	+14.5 Q4	+6.5	+1.5	1.45	7.79	7.76
India	+7.0 Q4	+5.1	+7.1	-1.2 Feb	+3.8 Mar	+4.6	5.0 2015	-11.9 Q4	-1.1	-3.2	6.94	64.7	66.6
Indonesia	+5.0 Q1	na	+5.2	+5.5 Mar	+4.2 Apr	+4.2	5.3 Q1§	-16.3 Q4	-1.9	-2.2	7.04	13,358	13,288
Malaysia	+4.5 Q4	na	+4.3	+4.7 Feb	+5.1 Mar	+4.0	3.5 Feb§	+6.0 Q4	+2.8	-3.1	3.96	4.35	4.05
Pakistan	+5.7 2016**	na	+5.4	+8.1 Feb	+4.8 Apr	+4.6	5.9 2015	-7.2 Q1	-2.6	-4.8	8.98†††	105	105
Philippines	+6.6 Q4	+7.0	+6.6	+11.1 Mar	+3.4 Apr	+3.3	6.6 Q1§	+0.6 Dec	+0.3	-2.4	5.05	50.0	46.8
Singapore	+2.9 Q4	-1.9	+2.1	+10.2 Mar	+0.7 Mar	+1.3	2.3 Q1	+56.7 Q4	+19.2	-1.0	2.20	1.41	1.37
South Korea	+2.8 Q1	+3.6	+2.6	+3.0 Mar	+1.9 Apr	+1.8	4.2 Apr§	+92.9 Mar	+6.3	-1.0	2.30	1,136	1,173
Taiwan	+2.6 Q1	+2.9	+2.3	+3.2 Mar	+0.1 Apr	+0.5	3.8 Mar	+70.9 Q4	+12.3	-0.8	1.10	30.3	32.5
Thailand	+3.0 Q4	+1.7	+3.8	-0.5 Mar	+0.4 Apr	+0.8	1.3 Mar§	+42.3 Q1	+11.0	-2.3	2.54	34.8	35.2
Argentina	-2.1 Q4	+1.9	+2.7	-2.5 Oct	— ***	—	7.6 Q4§	-15.0 Q4	-2.6	-4.2	na	15.6	14.2
Brazil	-2.5 Q4	-3.4	+0.7	+1.1 Mar	+4.1 Apr	+4.3	13.7 Mar§	-20.6 Mar	-1.4	-7.7	9.76	3.16	3.48
Chile	+0.5 Q4	-1.4	+1.8	-8.3 Mar	+2.7 Apr	+3.0	6.6 Mar§‡‡	-3.6 Q4	-1.3	-2.2	4.02	672	677
Colombia	+1.6 Q4	+4.0	+2.2	-3.2 Feb	+4.7 Apr	+4.1	9.7 Mar§	-12.5 Q4	-3.5	-3.1	6.31	2,943	2,981
Mexico	+2.7 Q1	+2.4	+1.7	-1.7 Feb	+5.8 Apr	+5.2	3.5 Mar	-27.9 Q4	-2.5	-2.4	7.28	18.9	18.0
Venezuela	-8.8 Q4~	-6.2	-5.5	na	na	+562	7.3 Apr§	-17.8 Q3~	-1.5	-19.6	10.43	10.1	9.99
Egypt	+3.8 Q4	na	+3.5	+23.9 Feb	+31.5 Apr	+22.5	12.4 Q4§	-20.1 Q4	-5.6	-10.8	na	18.1	8.88
Israel	+4.3 Q4	+6.3	+3.4	+0.3 Feb	+0.9 Mar	+1.0	4.2 Mar	+12.4 Q4	+4.4	-2.6	2.20	3.61	3.77
Saudi Arabia	+1.4 2016	na	+0.8	na	-0.4 Mar	+2.0	5.6 2015	-24.9 Q4	-2.1	-7.4	3.68	3.75	3.75
South Africa	+0.7 Q4	-0.3	+1.1	-2.4 Feb	+6.1 Mar	+5.8	26.5 Q4§	-9.5 Q4	-3.4	-3.1	8.75	13.4	15.1

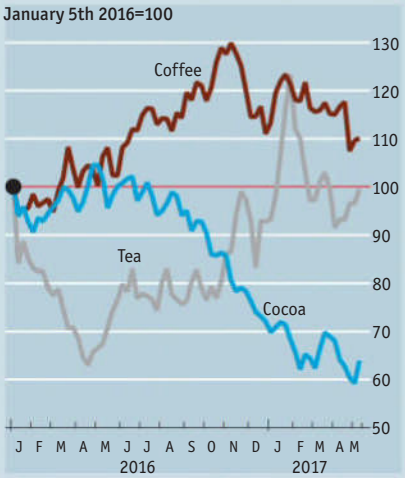
Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014 **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, Mar 25.42%; year ago 34.88% †††Dollar-denominated bonds.

Markets

	Index May 10th	% change on one week	% change on Dec 30th 2016 in local currency	% change on Dec 30th 2016 in $ terms
United States (DJIA)	20,943.1	-0.1	+6.0	+6.0
China (SSEA)	3,196.8	-2.6	-1.6	-1.0
Japan (Nikkei 225)	19,900.1	+2.3	+4.1	+6.5
Britain (FTSE 100)	7,385.2	+2.1	+3.4	+8.4
Canada (S&P TSX)	15,633.2	+0.6	+2.3	+0.4
Euro area (FTSE Euro 100)	1,238.9	+1.8	+11.4	+14.8
Euro area (EURO STOXX 50)	3,645.7	+1.7	+10.8	+14.2
Austria (ATX)	3,075.7	+2.6	+17.5	+21.0
Belgium (Bel 20)	4,041.0	+2.8	+12.1	+15.5
France (CAC 40)	5,400.5	+1.9	+11.1	+14.5
Germany (DAX)*	12,757.5	+1.8	+11.1	+14.5
Greece (Athex Comp)	792.0	+5.8	+23.0	+26.8
Italy (FTSE/MIB)	21,552.8	+3.8	+12.1	+15.5
Netherlands (AEX)	535.7	+2.0	+10.9	+14.2
Spain (Madrid SE)	1,109.2	+1.7	+17.6	+21.1
Czech Republic (PX)	1,010.0	+1.4	+9.6	+14.9
Denmark (OMXCB)	894.3	+0.7	+12.0	+15.3
Hungary (BUX)	33,666.3	+5.0	+5.2	+7.8
Norway (OSEAX)	790.5	+2.5	+3.4	+3.3
Poland (WIG)	61,839.9	-0.4	+19.5	+28.7
Russia (RTS, $ terms)	1,111.6	+1.4	-3.5	-3.5
Sweden (OMXS30)	1,649.7	+1.0	+8.7	+10.9
Switzerland (SMI)	9,089.8	+2.2	+10.6	+11.5
Turkey (BIST)	96,194.2	+2.5	+23.1	+20.8
Australia (All Ord.)	5,911.1	-0.1	+3.4	+5.5
Hong Kong (Hang Seng)	25,015.4	+1.3	+13.7	+13.2
India (BSE)	30,248.2	+1.2	+13.6	+19.2
Indonesia (JSX)	5,653.0	+0.1	+6.7	+7.6
Malaysia (KLSE)	1,766.6	-0.3	+7.6	+11.0
Pakistan (KSE)	51,103.5	+5.1	+6.9	+6.5
Singapore (STI)	3,250.0	+0.4	+12.8	+15.6
South Korea (KOSPI)	2,270.1	+2.3	+12.0	+19.1
Taiwan (TWI)	9,968.3	+0.1	+7.7	+14.8
Thailand (SET)	1,560.3	-0.2	+1.1	+4.2
Argentina (MERV)	21,510.0	+1.4	+27.1	+29.4
Brazil (BVSP)	67,349.7	+1.9	+11.8	+15.2
Chile (IGPA)	24,203.2	-0.6	+16.7	+16.4
Colombia (IGBC)	10,541.8	+3.3	+4.3	+6.4
Mexico (IPC)	49,930.5	+1.7	+9.4	+19.0
Venezuela (IBC)	60,657.0	+4.0	+91.3	na
Egypt (EGX 30)	12,993.4	+3.1	+5.3	+5.4
Israel (TA-100)	1,292.2	+1.6	+1.2	+8.0
Saudi Arabia (Tadawul)	6,930.3	-0.5	-4.3	-4.2
South Africa (JSE AS)	54,254.4	+1.2	+7.1	+9.0

Commodity prices

The price of cocoa has plummeted by 36% since the start of 2016, to just under $2 per kilogram. Oversupply is partly to blame: farmers in Ivory Coast, which accounts for around 40% of world supply, are forecast to increase production by 20% in the current crop year; in Nigeria production is likely to rise by 15%. Tea prices have been volatile. A spike in January can partly be explained by a drought in east Africa. Rising demand from countries in the Middle East should continue to support the market this year. Coffee prices have risen modestly since the start of 2016. The value of robusta beans in particular has been shored up by declining levels of production in Brazil and Vietnam.



Source: *The Economist*

Other markets

	Index May 10th	% change on one week	% change on Dec 30th 2016 in local currency	% change on Dec 30th 2016 in $ terms
United States (S&P 500)	2,399.6	+0.5	+7.2	+7.2
United States (NAScomp)	6,129.1	+0.9	+13.9	+13.9
China (SSEB, $ terms)	322.6	-3.4	-5.6	-5.6
Japan (Topix)	1,585.2	+2.3	+4.4	+6.8
Europe (FTSEurofirst 300)	1,556.9	+1.9	+9.0	+12.3
World, dev'd (MSCI)	1,895.9	+0.7	+8.3	+8.3
Emerging markets (MSCI)	995.1	+0.9	+15.4	+15.4
World, all (MSCI)	459.9	+0.7	+9.0	+9.0
World bonds (Citigroup)	900.5	-0.8	+1.9	+1.9
EMBI+ (JPMorgan)	815.7	-0.6	+5.6	+5.6
Hedge funds (HFRX)	1,231.0§	+0.2	+2.3	+2.3
Volatility, US (VIX)	10.2	+10.7	+14.0	(levels)
CDSs, Eur (iTRAXX)†	62.2	-4.6	-13.8	-11.2
CDSs, N Am (CDX)†	61.6	-1.7	-9.0	-9.0
Carbon trading (EU ETS) €	4.5	-1.8	-32.4	-30.3

Sources: IHS Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §May 9th.

Indicators for more countries and additional series, go to: **Economist.com/indicators**

The Economist commodity-price index

2005=100

	May 2nd	May 9th*	% change on one month	% change on one year
Dollar Index				
All Items	142.7	141.1	-0.8	+3.8
Food	152.1	152.8	+0.9	-5.1
Industrials				
All	132.9	129.0	-2.9	+17.2
Nfa†	138.3	134.0	-3.0	+11.4
Metals	130.5	126.9	-2.9	+20.0
Sterling Index				
All items	200.8	198.2	-4.4	+15.9
Euro Index				
All items	162.7	161.1	-3.2	+8.6
Gold				
$ per oz	1,254.6	1,217.8	-4.3	-3.4
West Texas Intermediate				
$ per barrel	47.7	45.9	-14.1	+2.6

Sources: Bloomberg; CME Group; Cotlook; Darmenn & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional †Non-food agriculturals.

Highest, fastest

Ueli Steck, speed-soloing alpinist, died on April 30th, aged 40

THE most terrifying thing that happened to Ueli Steck was not the moment an avalanche caught him on Annapurna, the tenth-highest mountain in the world, and almost knocked him off. Nor was it the time when—perhaps because, on the same mountain, a rock hit his helmet—he found himself in an instant 300 metres below, concussed and bruised all over. Each event caused him to wonder whether he liked risky climbing too much. But as one of the best alpinists of his generation, and often the fastest, he did not wonder long.

No, the most frightening episode occurred in April 2013, when he found himself under attack by a crowd of rock-throwing sherpas at Base Camp II on Everest. That was the moment he thought he might die, a thought he had not had before. The sherpas were angry because, as they fixed the safety ropes above the camp, he and two others had ignored the rule to keep the mountain clear of climbers and had come up past them. He had no wish to be disrespectful. But since he made no use of safety ropes, why shouldn't he go up?

He had a problem with people on mountains. Off the slopes he could be gregarious and funny; on them, he became so intensely focused that he could not bear distraction. He climbed light, with just four carabiners, an ice-pick, crampons on his boots, a coiled rope for rappelling on descents, and his own-brand titanium Swiss Army knife with a large file and bolthead wrench. To rely on any more gear was only half-doing the climb. He went up cleanly, leaving only his footprints. Supplementary oxygen he scorned as "false air" and "bottled doping"; he never used it.

Naturally, he preferred to climb alone. Trodden tracks deterred him, and he would wait until fresh snow obscured a route in order to work out his own. After his marriage, he promised his wife he would not do solo climbs; but somehow the right partner did not appear, or gave up, and he had to go on by himself. On his first expedition, at 12 above his home in Emmental with an old mountaineer, he was given the lead from the start; consequently, he fretted to see anyone ahead of him.

Nor did he want help. On his first ascent of Everest in 2012 he insisted that his guide, Tenji Sherpa, was a partner, not an assistant. He wanted to be called "Dai", brother, not "Sir". He made the breakfast tea and they ate together, cornflakes or barley *tsampa*, as the sun came up. This was both a courtesy and a statement of self-reliance. Pretty soon, as usual, he peeled off and made for the summit alone.

The worst aspect of other climbers was that they held him back. Not for him "the brotherhood of the rope". Speed was of the essence. In his own Alps he had shattered records: the north face of the Eiger, a 1,800-metre ice-wall, climbed in 3:54 hours, then 2:47; the north face of the Grandes Jorasses, 1,200 metres, never climbed by him before, in 2:21; the north face of the Matterhorn in 1:56. He would set two stopwatches and race off, running when he could, or hurling in his ice-pick and hauling himself up after. These feats earned him the nickname "the Swiss machine", which he hated. He was not a robot, more a cat or a spider, moving easily and with absolute long-armed precision on the sheerest, iciest rocks.

He argued that it was simply safer to climb fast, not to linger on high mountains where the cold or the weather might kill you. But he also came to enjoy speed-climbing for its own sake. His training regime bordered on craziness: 1,200 workouts a year, his routine run three laps up 2,000 vertical metres. Focus, focus, all the time. He had to make sure that every muscle was pulling; that way, he would know how long he could cling to an ice-nub, or work an overhang. On that first Everest climb he had seethed because, without extra oxygen, he was overtaken by alpinists who had it. His slowness was unbearable. He didn't just need to be better than other people, but better than himself.

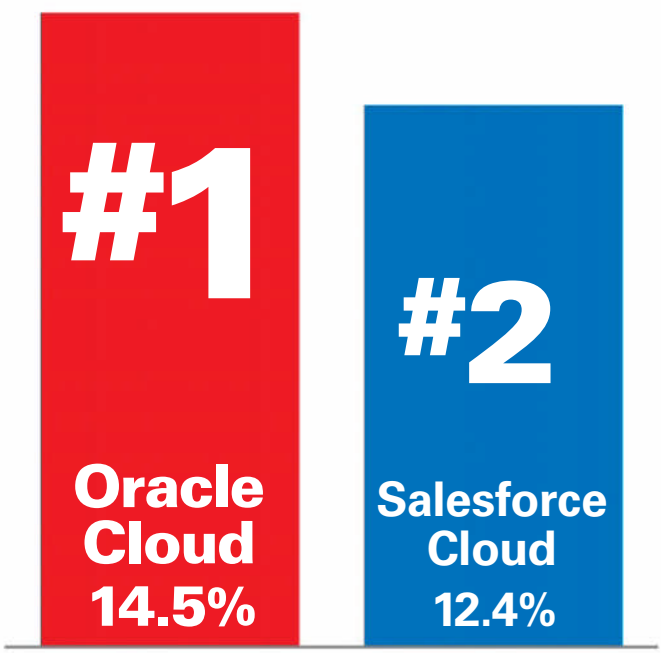
Speed proved harder in the Himalayas than in the Alps. His best time, though the avalanche wrecked his attempt to record it, was on Annapurna's south face in 2013: 7,219 metres up and down alone in 28 hours (the next party took the usual eight days). He returned this April to plan another ascent of Everest with a traverse to Lhotse, the world's fourth-highest peak, by a route not tried before. He fell to his death while climbing Nuptse first; he was going to go with Tenji Sherpa but, again, was alone. He felt "super-ready"; why wait?

The endless challenge

In his speed and daring, he was unusual among climbers. In his attitude to high mountains, he was not. There was no rhapsodising. At the top of Everest it was his success that was "beautiful", not the view, which he found "familiar". Mountains challenged him, so he took up the challenge, again and again, to prove himself.

So too did Min Bahadur Sherchan, a Nepalese who, on May 6th, died at the Everest base camp. He was 85, and planned to become the oldest person to reach the summit. He had set the record in 2008, at 76; a Japanese had broken it five years later. This was his fourth attempt to regain it. Mr Sherchan had several aims in mind, including promoting peace and inspiring the old. But he had no ambition to break anyone else's record, he said; just his own. This was between the mountain, and him. It might have been Ueli Steck speaking. ■

Oracle #1
SaaS Enterprise Applications Revenue



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Source: IDC "Worldwide SaaS Enterprise Applications Market Shares, 2015: The Top 15 by Buyer Size," doc #US41913816, Dec. 2016; Table 4.
For the purposes of this report, SaaS enterprise applications include the following application markets: CRM, engineering, ERP, operations and manufacturing, and SCM.