The Economist

A special report on the future of Europe

The Trump doctrine: US and them

Science's publishing problem

Terror in London

MARCH 25TH–31ST 2017

Amazon's empire

And what could threaten it

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The world this week

Politics

A terrorist attacked central **London**. The British-born man drove a car along the pavement across Westminster Bridge, killing at least two people and leaving around 40 injured. He then entered the grounds of Parliament, the heart of Britain's democracy, and fatally stabbed an unarmed policeman before being shot dead. This "marauding" method of terror attack—using a vehicle to mow people down in a crowded area—was similar to atrocities carried out by Islamists last year in France and Germany.

The British government announced that it had informed the European Council of its intention to invoke **Article 50** of the Lisbon treaty on March 29th, triggering the legal request to leave the EU. There is still little clarity from the government about its intentions, and voters appear to be confused, too. A survey this week showed that both Leave and Remain supporters want to maintain free trade. But that will be hard if the government does not bend on freedom of movement for EU migrants.

Angela Merkel, the **German** chancellor, visited Washington for a meeting with Donald Trump. Despite moments of tension—such as when Mr Trump appeared to refuse to shake her hand—German media felt that the meeting went well. Mr Trump tweeted that media reports of the event were "fake news".

The electoral fortunes of Emmanuel Macron, an independent candidate in the **French** presidential election, were boosted after a nearly four-hour long television debate. Polls show that in a second-round run-off he would easily defeat Marine Le Pen, the leader of the anti-immigrant National Front.

Jeroen Dijsselbloem, the Dutch head of the Eurogroup of finance ministers, implied that **southern European** states had spent the money they borrowed during the euro crisis on "drinks and women". António Costa, the Portuguese prime minister, called for him to resign.

Taxin' Thaksin

The **Thai** government said it had discovered a "miracle of law" that would allow it to claim $350m in taxes from Thaksin Shinawatra, a deposed prime minister now living in exile. Mr Thaksin denies that any tax is owed.

North Korea successfully tested a powerful new engine to be used in its missiles. But a separate test appeared to go wrong when the missile exploded just after launch.

The Bharatiya Janata Party, which runs **India's** national government, selected Yogi Adityanath to be chief minister of the country's most populous state, Uttar Pradesh. The holy man is a divisive figure, having campaigned for the construction of a Hindu temple on the site of a demolished mosque, and for describing assertive women as "demons".

A scandal deepened in **Japan** regarding a nationalist kindergarten that has been accused of racism but has benefited from the patronage of public officials. The school's principal said that the wife of the prime minister, Shinzo Abe, had given a donation on his behalf. Mr Abe denied doing so.

Rex Tillerson paid his first visit to **China** as America's secretary of state. Before his arrival, he said the two countries were at a "historic moment" in their relationship, and needed a "fresh conversation" about it. But the visit did not appear to narrow differences between China and America over how to deal with North Korea.

No, Mr President

In extraordinary testimony to Congress, James Comey, the head of the FBI, confirmed that his agency was investigating Russian links to **Donald Trump's** campaign. He also dismissed an allegation that Mr Trump was wiretapped at the behest of Barack Obama. Earlier, the White House said it would "not repeat" its claim that GCHQ, Britain's intelligence-gathering agency, had assisted in the supposed spying. Mr Trump feebly blamed Fox News as the claim's source.

Neil Gorsuch's nomination hearing in the Senate to be a justice on the Supreme Court started smoothly. Democrats asked tough questions; Mr Gorsuch emphasised his independence. When asked about abortion he said he would have "walked out the door" if Donald Trump had asked him to overturn *Roe v Wade* as a condition of his appointment.

Feeling the pinch

The 68 countries involved in the coalition against **Islamic State** met in Washington to review progress, as fighters supported by American special forces moved ever closer to Raqqa, the capital of the self-styled caliphate, which is now almost surrounded. In Iraq, the army, backed by coalition air power, made gains in Mosul.

Syrian rebels launched an attack on a suburb of Damascus, the first large-scale fighting so close to the capital for four years.

Israel shot down a Syrian missile using its new advanced Arrow system. The missile had been fired at an Israeli jet that had attacked sites in Syria where weapons were being moved too close for comfort to Israel's border.

Activists in **Zimbabwe** took to the streets demanding electoral reforms in a bid to avert ballot-rigging in a national vote scheduled for 2018. They demanded the abolition of the state-appointed electoral commission. Some opposition groups have called for the vote to be supervised by the UN.

Love me tender

China suspended meat imports from Brazil after Brazilian police raided several **meat-packing** plants that sold unhygienic produce. Brazil is a big exporter of meat and China is its biggest customer. The EU and South Korea also restricted some imports. With no appetite for another hit to the recession-bound economy, Michel Temer, Brazil's president, invited diplomats and journalists to dinner at a steakhouse.

Peru suffered its worst storms in decades, caused by El Niño-type currents off its coast. With its cities caught off guard, at least 75 people were killed and 100,000 left homeless.

A rare insight into **Cuban** public opinion was published by NORC at the University of Chicago. Surveyed late last year, only 13% of Cubans think the economy is doing well. Two-thirds want more private ownership of business and 56% want to start their own firm. Perhaps not surprisingly, over half said they would leave the country if they could.

Business

Uber launched a charm offensive, holding its first press conference since a wave of bad publicity crashed over the firm. Arianna Huffington, a member of the board, backed Travis Kalanick, the beleaguered founder and chief executive, but said there can be "no room…for brilliant jerks" in the future. A few days earlier the executive in charge of promoting Uber's image resigned acrimoniously, saying that his beliefs were "inconsistent" with what he experienced at the firm.

A messy web

Google took steps to give advertisers some control over the placement of ads on YouTube after it emerged that ads from blue-chip companies had been found next to extremist content. Some big advertisers threatened to pull their business. Underlining the conundrum of policing the internet, the EU's digital commissioner criticised a proposed German law that would slap a €50m ($54m) fine on social networks that fail to delete hate speech or fake news.

In a nod to the new realpolitik, the G20 dropped a pledge to "resist all forms of **protectionism**" from the communiqué of a meeting of finance ministers. The phrase had been regularly inserted in G20 statements and was considered non-contentious, but the American delegation sought its removal. Steven Mnuchin, America's treasury secretary, said the administration "couldn't be happier with the outcome".

Two days after the meeting German economic officials hit back at American complaints that **Germany's** giant trade surplus is a problem. The head of the country's Council of Economic Experts said that "problems can arise on both sides: surpluses and deficits."

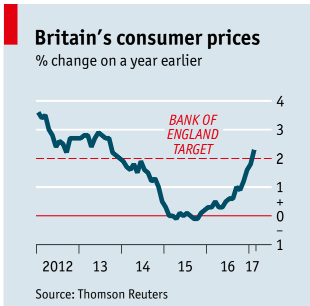
A biotech company in San Francisco published positive results from a clinical trial for a new **opioid painkiller** that claims to be less addictive than the prescription pills linked to an addiction epidemic that is sweeping America. Nektar Therapeutics' share price shot up by 40% after a study found that its drug dampens associated feelings of euphoria.

America and Britain banned passengers from taking laptops and other large electronic devices aboard flights that originate in several Middle Eastern and north African countries, prompted by the threat of a terror attack from explosives hidden in such devices. The American and British restrictions differ regarding the countries and **airlines** affected.

The cut-throat competition among India's telecoms companies spurred another merger of former rivals when **Vodafone** agreed to combine its business in the country with **Idea Cellular**, creating India's biggest provider of mobile-phone services. The market in India was jolted last year by the entry of Jio, a super-cheap carrier that supplies a six-month free service. Last month Bharti Airtel, the former number one, struck a deal to buy the Indian operations of Norway's Telenor.

AkzoNobel, a Dutch maker of paints and coatings and owner of the Dulux brand, swiftly rejected a sweetened takeover offer of €22.4bn ($24.1bn) from PPG, an American rival. It said the new price still did not reflect the "significant uncertainties and risks" to its shareholders of a deal, such as any antitrust issues that may arise. Elliott Management, an American activist hedge fund with a small stake in Akzo, threatened to use the company's bylaws to call for a shareholder meeting.

The pounding to your pocket



Consumer prices in Britain rose by 2.3% year on year in February. That was up from 1.8% in January and the steepest monthly increase in **inflation** since October 2012. Higher transport costs were blamed, but food prices rose for the first time in three years. The slide in the pound since voters decided last June to leave the EU has made imports more expensive. Inflation is now above the Bank of England's target of 2%. At its recent meeting, one of the central bank's policymakers voted to raise interest rates because of inflationary pressures.

Admitting what some analysts think is inevitable, the owner of the **Sears** and **Kmart** retail chains in America said that "substantial doubt exists" about whether it can continue as a going concern. Sears Holdings reported a $2.2bn loss last year. It has cashed in a few investments to stay afloat.

A hissing sound

American **stockmarkets** had a rocky week. The S&P 500, Dow Jones Industrial Average and NASDAQ indices recorded their biggest daily falls of the year so far, as the wrangling in Washington over the health-care bill led investors to fret that Donald Trump's low-tax, low-regulation economic agenda may not be easy to pass. One monthly survey of fund managers found that a net 34% think shares are overvalued, the highest proportion since 2001.

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

Amazon's empire

The world's most remarkable firm may eventually be threatened by its own success

AMAZON is an extraordinary company. The former bookseller accounts for more than half of every new dollar spent online in America. It is the world's leading provider of cloud computing. This year Amazon will probably spend twice as much on television as HBO, a cable channel. Its own-brand physical products include batteries, almonds, suits and speakers linked to a virtual voice-activated assistant that can control, among other things, your lamps and sprinkler.

Yet Amazon's shareholders are working on the premise that it is just getting started. Since the beginning of 2015 its share price has jumped by 173%, seven times quicker than in the two previous years (and 12 times faster than the S&P 500 index). With a market capitalisation of some $400bn, it is the fifth-most-valuable firm in the world. Never before has a company been worth so much for so long while making so little money: 92% of its value is due to profits expected after 2020.

That is because investors anticipate both an extraordinary rise in revenue, from sales of $136bn last year to half a trillion over the next decade, and a jump in profits. The hopes invested in it imply that it will probably become more profitable than any other firm in America. Ground for scepticism does not come much more fertile than this: Amazon will have to grow faster than almost any big company in modern history to justify its valuation. Can it possibly do so?

It is easy to tick off some of the pitfalls. Rivals will not stand still. Microsoft has cloud-computing ambitions; Walmart already has revenues nudging $500bn and is beefing up online. If anything happened to Jeff Bezos, Amazon's founder and boss, the gap would be exceptionally hard to fill. But the striking thing about the company is how much of a chance it has of achieving such unprecedented goals (see pages 17-19).

A new sort of basket-case

This is largely due to the firm's unusual approach to two dimensions of corporate life. The first of these is time. In an era when executives routinely whinge about pressure to produce short-term results, Amazon is resolutely focused on the distant horizon. Mr Bezos emphasises continual investment to propel its two principal businesses, e-commerce and Amazon Web Services (AWS), its cloud-computing arm.

In e-commerce, the more shoppers Amazon lures, the more retailers and manufacturers want to sell their goods on Amazon. That gives Amazon more cash for new services—such as two-hour shipping and streaming video and music—which entice more shoppers. Similarly, the more customers use AWS, the more Amazon can invest in new services, which attract more customers. A third virtuous circle is starting to whirl around Alexa, the firm's voice-activated assistant: as developers build services for Alexa, it becomes more useful to consumers, giving developers reason to create yet more services.

So long as shareholders retain their faith in this model, Amazon's heady valuation resembles a self-fulfilling prophecy. The company will be able to keep spending, and its spending will keep making it more powerful. Their faith is sustained by Amazon's record. It has had its failures—its attempt to make a smartphone was a debacle. But the business is starting to crank out cash. Last year cashflow (before investment) was $16bn, more than quadruple the level five years ago.

If Amazon's approach to time-frames is unusual, so too is the sheer breadth of its activities. The company's list of current and possible competitors, as described in its annual filings, includes logistics firms, search engines, social networks, food manufacturers and producers of "physical, digital and interactive media of all types". A wingspan this large is more reminiscent of a conglomerate than a retailer, which makes Amazon's share price seem even more bloated: stockmarkets typically apply a "conglomerate discount" to reflect their inefficiencies.

Many of these services support Amazon's own expansion and that of other companies. The obvious example is AWS, which powers Amazon's operations as well as those of other firms. But Amazon also rents warehouse space to other sellers. It is building a $1.5bn air-freight hub in Kentucky. It is testing technology in stores to let consumers skip the cash register altogether, and experimenting with drone deliveries to the home. Such tools could presumably serve other customers, too. Some think that Amazon could become a new kind of utility: one that provides the infrastructure of commerce, from computing power to payments to logistics.

A giant cannot hide

And here lies the real problem with the expectations surrounding Amazon. If it gets anywhere close to fulfilling them, it will attract the attention of regulators. For now, Amazon is unlikely to trigger antitrust action. It is not yet the biggest retailer in America, its most mature market. America's antitrust enforcers look mainly at a firm's effect on consumers and pricing. Seen through this lens, Amazon appears pristine. Consumers applaud it; it is the most well-regarded company in America, according to a Harris poll. (AWS is a boon to startups, too.)

But as it grows, so will concerns about its power. Even on standard antitrust grounds, that may pose a problem: if it makes as much money as investors hope, a rough calculation suggests its earnings could be worth the equivalent of 25% of the combined profits of listed Western retail and media firms. But regulators are also changing the way they think about technology. In Europe, Google stands accused of using its clout as a search engine to extend its power to adjacent businesses. The comparative immunity from legal liability of digital platforms—for the posting of inflammatory content on Facebook, say, or the vetting of drivers on Uber—is being chipped away.

Amazon's business model will also encourage regulators to think differently. Investors value Amazon's growth over profits; that makes predatory pricing more tempting. In future, firms could increasingly depend on tools provided by their biggest rival. If Amazon does become a utility for commerce, the calls will grow for it to be regulated as one. Shareholders are right to believe in Amazon's potential. But success will bring it into conflict with an even stronger beast: government. ■

The future of the European Union

How to save Europe

If it is to survive, the European Union must become a lot more flexible

ON MARCH 25th 1957, with the shadow of the second world war still hanging over them, six European countries signed the founding treaty of a new sort of international club. The European Union, as the club came to be called, achieved success on a scale its founders could barely have imagined, not only underpinning peace on the continent but creating a single market as well as a single currency, and bringing into its fold ex-dictatorships to the south and ex-communist countries to the east, as it expanded from six members to 28. Yet even as today's European leaders gather in Rome this weekend to celebrate the 60th anniversary, they know their project is in big trouble.

The threats are both external and internal. Internally, the flaws that became glaringly evident in the euro crisis have yet to be fixed. Prolonged economic pain has contributed to a plunge in support for the EU. Populist, anti-European parties are attacking the EU's very existence—not least in France, where Marine Le Pen is doing uncomfortably well in the presidential campaign, even if the National Front leader is unlikely to win in May. The most dramatic result of the anti-EU backlash so far is Brexit. Britain's prime minister, Theresa May, will not be in Rome for the birthday party; on May 29th she plans to invoke Article 50 of the EU treaty to start the Brexit process. Negotiations over Britain's departure will consume much time and energy for the next two years; losing such a big member is also a huge blow to the club's influence and credibility.

The external pressures are equally serious. The refugee crisis has abated, but mainly thanks to a dodgy deal with Turkey. A newly aggressive Russia under Vladimir Putin and, in Donald Trump, an American president who is unenthusiastic about both the EU and NATO, make this a terrible time for Europe to be weak and divided. That a project set up to underpin Europe's post-war security should falter at the very moment when that security is under threat is a bitter irony. It is also a reminder of how much is at stake if Europe fails to fix itself.

Never-closer union

The traditional response of EU-enthusiasts to such challenges is to press for a bold leap towards closer union. The euro needs this if it is to succeed, they argue. Equally, they say, more powers ought to shift to the centre to allow the EU to strengthen its external borders and ensure that it speaks with one loud voice to the likes of Mr Putin and Mr Trump. Yet the evidence is that neither European voters nor their elected governments want this. If anything, public opinion favours the reverse.

If ever-closer union is not possible, another Brussels tradition is simply to muddle through. The euro crisis is past its worst, immigration has peaked and Brexit will be managed somehow. If, after this year's elections, Emmanuel Macron is France's president alongside either Angela Merkel or Martin Schulz as Germany's chancellor, the club would be under staunchly pro-EU leadership. Yet muddling along has risks of its own. A renewed financial crisis that upset the euro again, or the election of another government committed to a referendum on EU or euro membership, could tear the union apart.

Is there a better alternative? The answer, as our special report argues, is to pursue, more formally than now, an EU that is far more flexible. In Euro-speak, this means embracing a "multi-tier" system, with the countries of a much wider Europe taking part to different degrees in its policies—and able to move from one tier to another with relative ease.

The great British break-off

There has recently been a flurry of interest in the notion of a "multi-speed" Europe. But what most EU leaders mean by the term is that core members should be able to pursue common policies in areas like defence, fiscal or welfare policy; it implies that all countries are moving towards the same destination. A broader, "multi-tier" Europe would find a place for non-members as well. The continent consists of 48 countries and 750m people, not just the 28 countries and 510m people in the union, still less the 19 and 340m in the euro.

The core of Europe will be those countries that share the single currency. To solve the euro's ills, they need more integration and shared institutions—from a proper banking union to a common debt instrument. The next tier would comprise a looser group than now of EU members that are not ready to accept the sacrifice of sovereignty needed to join the euro, which some will not do for many years, and may never.

Beyond that a multi-tier Europe should accommodate widely differing countries. That means a changed mindset more than changed treaties: in the language of Eurocrats, accepting a menu that is *à la carte*, not *prix fixe*. This is anathema in Brussels, where the idea that you can pick and choose the bits of the EU that you like is frowned upon, but it is what Europeans increasingly want. Countries like Norway or Switzerland may wish to be closely bound to the European single market. Others such as Britain may not be ready to accept the single market's rules, but still wish to trade as freely as possible with the EU. They might seek a bigger role in other areas such as defence and security. And places like Turkey, the western Balkans, Ukraine and Georgia might prefer a similar associated status instead of today's unsatisfactory situation, where they are told they are eligible to be full members but know they will never be allowed to join.

To work, a multi-tier Europe should be pragmatic about the rules that each tier entails. Those in the outer group might not accept fully free movement of people, for instance, but that is no reason to wall off their access to the EU's single market. Nor should there be a stigma of second-class status for those outside the core: after all, they include Denmark and Sweden, two of Europe's most successful countries. Ways should be found for countries with military or diplomatic clout (eg, post-Brexit Britain) to join in foreign and defence policies.

For the European project to survive another 60 years, the key is flexibility, in both directions. Just as Britain is leaving the EU, another country might one day leave the euro. Any such step will be hard to manage. But if the union cannot embrace differentiation, it faces the risk of disintegration instead. ■

Donald Trump and multilateralism

China first

The president's foreign policy will not deliver the American greatness he promised

ALMOST exactly a hundred years ago, America was poised to send troops to Europe to fight in a war which was not in the country's narrow, short-term self-interest. Fifty thousand of them would die, more than fell in either Vietnam or Korea. That carnage started an argument that has not let up since: does America have a broad interest in maintaining global stability and prosperity? Or should it conserve its blood and treasure and let the rest of the world go to hell? A couple of months into his presidency it is clear that Donald Trump's campaign slogan, "America First", means something like the latter. He wants a more powerful army, but can treat allies with contempt and thinks aid and diplomacy are a waste of time. He believes that the multilateral institutions where countries try to work together, built by America at great cost in money and lives during the 20th century in the hope of preventing war, are riddled with bad deals.

Enemies of State

His budget proposes to cut funding to the State Department and spending on foreign aid by 28%. It also suggests big cuts to America's contribution to the United Nations and World Bank, including withdrawing all funding for anything to do with climate change (see page 51). When Angela Merkel, leader of America's biggest European ally, visited Washington the president treated her frostily, and after she left he publicly scolded Germany for not spending more on its defence. He refused to withdraw an accusation that Britain, another steadfast ally, had spied on him—a charge for which he has no evidence, and which his own National Security Agency said would be "epically stupid" had it actually happened, which it did not.

His treasury secretary, Steven Mnuchin, removed a vow to resist protectionism from a recent G20 statement. His secretary of state, Rex Tillerson, who heads a department suffering from a crippling lack of direction, went to China, accompanied by a single reporter from a friendly news website, and used language about the need for mutual respect and non-confrontation that delighted Communist Party bosses—without obvious concessions in return. Some of this may be attributed to inexperience. But there is a thread running through it all that suggests an overarching design based on two assumptions. The first is that America cannot afford the costs of aid and diplomacy. The second is that multilateral institutions make America weaker. Both are wildly mistaken.

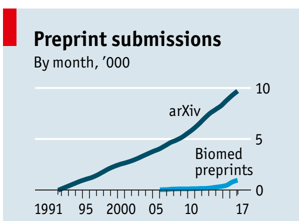
No doubt some of the money spent on aid and diplomacy is wasted. But they account for only 1% of federal expenditure, and cutting them could do great harm. Aid helps make poor countries richer and therefore more stable. Soft power is cheaper than hard power, and nearly always a necessary complement to it. For example, after America helps its Iraqi allies to defeat Islamic State, it will need diplomacy and aid to make sure that the terrorist group does not make a comeback. Mr Trump's secretary of defence, General James Mattis, once put it well: "If you don't fund the State Department fully, then I need to buy more ammunition ultimately."

Multilateral institutions such as the UN, World Trade Organisation, IMF and World Bank may occasionally constrain America, but overall they enhance its influence. Most have their headquarters in America. And yes, Uncle Sam foots a disproportionate share of the bills. Yet this has also given Americans exceptional sway over global rules covering everything from trade to security. Walk away, and the result will not be a better deal. It will be China first and America's allies diminished; not peace through strength so much as weakness somehow conjured out of primacy. ■

Scientific publishing

Breaking free

Medical research is poorly served by the journals charged with disseminating its results



SCIENCE advances fastest when data and conclusions are shared as quickly as possible. Yet it is common practice for medical researchers to hoard results for months or years until research is published in an academic journal. Even then, the data underpinning a study are often not made public.

The incentive to withhold findings is powerful. Journal papers are the de facto measure of a scientist's productivity. To win research money and get promoted, scientists need to accrue an impressive list of publications. Yet the delays in disseminating knowledge have the capacity to do real harm: during the Zika crisis, sponsors of research had to persuade publishers to declare that scientists would not be penalised for releasing their findings early. Nor are elite journals the guardians of quality that they often claim to be. The number of papers so flawed that they need to be retracted has risen sharply in the past two decades. Studies in elite journals (such as *Nature* and *Science*) are no more statistically robust than those in lesser journals.

Science should not, and need not, be shackled by journal publication. Three sensible reforms would ensure that researchers' results could be communicated to more people more quickly, without any compromise on quality. Step one is ▸▸

for the organisations that finance research to demand that scientists put their academic papers, along with their experimental data, in publicly accessible "repositories" before they are sent to a journal. That would allow other researchers to make use of the findings without delay. Those opposed to such "preprints" argue that they allow shoddy work to proliferate because it has not yet been peer-reviewed. That may surprise physicists and mathematicians, who have been posting work to *arXiv*, a preprint repository, for more than 25 years with no ill effects. After peer review, research should also be freely available for all to read. Too much science, much of it paid for from the public purse, languishes behind paywalls.

Step two is to improve the process of peer review itself. Journals currently administer a system of organising anonymous peer reviewers to pass judgment on new research—a fact they use, in part, to justify their hefty subscription prices. But this murky process is prone to abuse. At its worst, cabals of researchers are suspected of guaranteeing favourable reviews for each other's work. Better that reviewers are named and that the reviews themselves are published. The Gates foundation has announced its support for an online repository where such open peer review of papers takes place. The repository was launched last year by the Wellcome Trust, meaning that the world's two largest medical charities have thrown their weight behind it. Others should follow (see page 69).

Fight for your right

Finally, science needs to stop relying so much on journal publication as the only recognised credential for researchers and the only path to career progression. Tools exist that report how often a preprint has been viewed, for example, or whether a clinical data set has been cited in guidelines for doctors. A handful of firms are using artificial intelligence to assess the scientific importance of research, irrespective of how it has been disseminated. Such approaches need encouragement. Journals may lose out, but science itself will benefit. ■

Open banking

Vaulting ambition

New European rules herald a welcome challenge to incumbent retail banks

MORE treasured than the bullion in its vaults are the data a bank has stored on its servers. Bankers know what their customers eat, where they shop and, increasingly, what they get up to online. It is possible for customers to share these data with others, but the process is cumbersome. In effect, banks enjoy a monopoly over data that has helped them get away with lousy service and fend off newcomers with better ideas. In Europe, at least, that is all about to change.

The source of this upheaval is a new set of regulations, snappily named the Second Payment Service Directive, or "PSD2" (see page 65). The rules, which are being finalised and will be in force from January next year, will compel banks to share data easily with licensed third parties (if that is what their account-holders want). Bankers in Europe squeal that their profits and customer relationships are under threat. Fearing they could be next, America's bankers are already lobbying their regulators to keep their data monopoly intact. Such reactions are predictable and wrong.

Because that's where the data are

Opening up banks, and the data they hoard, is good for consumers and competition. New providers will be better placed to offer all sorts of innovative services. Apps might ping users when they are spending too much on booze or shoes, or offer them a one-click option to put unspent monthly income into a pension plan. Analytical tools might swiftly aggregate a person's financial data in one place, or combine banking data with other information to offer individuals the best mortgage or loan. The new rules, which also compel banks to share payment infrastructure with licensed third parties, should make online shopping simpler and cheaper, too.

Some concerns about PSD2 are legitimate. In particular, it is reasonable to wonder about the privacy and security implications of sensitive financial data being shared with third parties. But banks themselves are hardly invulnerable to cyber-attack. And the way that European regulators propose to deal with these worries looks promising.

Third parties that want to use bank data will need to convince national regulators that their data defences are solid and must submit to annual inspections. Newbies must also take out fraud insurance; their insurers will have a clear reason to demand state-of-the-art cyber-security. Many online payments will become more secure than they are today, because of the directive's requirements for the use of a robust authentication process involving two-step verification.

The gap between writing rules and implementing them is always large, so a few things are needed to make PSD2 a success. First, consent from customers to provide access to their bank data must be gained explicitly, not buried in pages of gobbledygook. The purposes for which data might be used should be clearly explained; and individuals' consent to share their personal information should be easily revocable.

Second, regulators must be ruthless both in ensuring that banks open up their infrastructure to others and in withdrawing the licences of third parties that break the rules, particularly on cyber-security. Third, they must also be flexible enough to allow for change as the market evolves. Since the new entrants will not be licensed to engage in riskier forms of finance—such as lending money—it makes sense to regulate them with a lighter touch. But if some fintech providers do end up becoming systemically important (by, for instance, controlling a dominant digital wallet), higher standards of oversight might be necessary.

More important now, however, is that regulators hold their nerve in response to bank lobbying. Opening up bank data gives fintech firms the opportunity to build new businesses and incumbent banks the incentive to improve their services. In both cases, the winner will be the consumer. ■

NTT DATA: Translating data into insights and a competitive edge

PART TWO IN A SERIES

John W. McCain
Chief Executive Officer,
NTT DATA Services

Much has been made of the potential for data to transform every facet of business, from customer segmentation and strategic decision making to operations. However, too many companies still struggle to generate value from the volumes of data they produce. Often, business units are without access to the information they need to fuel performance. Most executives understand the value of becoming a data-driven enterprise but don't know how to translate this goal into action. According to NTT DATA Services CEO John McCain, "The biggest IT challenges that companies face are modernizing their IT operations to compete in a global economy and finding a trusted partner with the scale, breadth and depth of capabilities to support them for the long haul."

How IT supports business strategy

When adopting an IT solution, companies must consider its impact on business strategy, risk, governance and security. This formidable task requires a trusted partner with the right industry and market knowledge. Mr. McCain notes, "NTT DATA provides strategic yet practical and actionable guidance—with industry and technology solutions ranging from blueprint to delivery and beyond." NTT DATA's acquisition of Dell Services gives the company the full complement of services necessary to tackle any complex business challenge. Further, the diffuse nature of global companies means that IT solutions must be flexible enough to accommodate operations across markets. This dynamic makes NTT DATA's 240 data centers and professionals located in more than 50 countries critical assets for global companies requiring a consistent approach to IT management and local regulatory compliance.

> **"[One of] the biggest IT challenges that companies face...[is] finding a trusted partner with the scale, breadth and depth of capabilities to support them for the long haul."**

Meeting specific industry needs

An added obstacle is that effective IT solutions can vary considerably across industries. Financial institutions must meet higher reporting and regulatory compliance standards. Healthcare providers and health plans are striving to be more customer-centric and exploring new risk-sharing models—all while protecting patient information. Manufacturing's tech transformation is accelerating rapidly, with increased automation and efforts to analyze volumes of data generated during design and production. Meanwhile, utilities are seeking to use sensor data to improve performance and decrease costs.

IT solutions must be tailored to industry needs, anticipate change and speed adoption of the next wave of innovation, from artificial intelligence and machine learning to 3D manufacturing and robotic process automation.

This combination of skills and experience is unique to NTT DATA. Mr. McCain says, "Our deep domain expertise, coupled with decades of industry know-how, ensures our clients can trust that we understand their specific business and challenges and can provide the strategic advice and comprehensive solutions to keep them a step ahead of the competition."

Turning business challenges into opportunities

Despite recent developments that have made data, analytics and technology a more pressing concern, certain fundamentals remain. Mr. McCain puts it simply: "Investments in technology must move enterprises forward and achieve tangible results. That's why NTT DATA is committed to using technology to turn business challenges into opportunities."

NTT DATA

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The Asian Development Bank (ADB) is looking for a Head of Risk Management based in Manila, Philippines, to provide strategic leadership in all areas of risk management to safeguard ADB's AAA credit ratings and strengthen its institutional risk culture. ADB's credit portfolio is dominated by sovereign debt and includes a growing share of private sector debt and equity investment in financial, infrastructure, various service sectors and private equity funds. The position reports to the Vice President of Finance and Risk Management.

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- Design, develop, implement, monitor and revise all risk related policies and guidelines
- Continuously develop, implement, and monitor ADB's capital adequacy framework and conduct a periodical stress-testing to validate the institution's risk bearing capacity
- Oversee quality of work, ensure achievement of ORM's objectives and continuously keep the Board and Senior Management informed of emerging risk issues and portfolio developments

Requirements:

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- At least 15 years of relevant professional experience, including 10 years in senior risk management positions in commercial banks/international financial institutions or multilateral development banks ideally on project finance and cash-flow based finance
- The position's experience and skills encompass:
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Find out more at **www.eiti.org/jobs**. The deadline for applying has been extended to 17 April.

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Education in Liberia

It was unfair of you to describe ActionAid's opposition to charter schools in Liberia as "partly ideological: they do not like for-profit schools" ("Lessons from Liberia", February 25th). On the contrary, our concerns with this experiment are based on feedback from communities, rigorous reviews of the evidence and basic principles. One private provider is struggling to run just 25 schools in Liberia and yet plans to scale up to 300 before any evidence emerges from a planned evaluation.

And yes, we believe that education should be free. Firms should not be able to make a profit from running private schools that receive public subsidies. It is illegal in many countries. Even the elite private schools in Britain are not run for profit. The Partnership Schools for Liberia programme that you mentioned is pouring money into less than 3% of schools in the country, which receive between \$50 and \$1,000 per child. Children in the other 97% of public schools do not receive such support.

We believe that education can be the most powerful equalising force in a society, but this is undermined when you create a stratified education system. The government of Liberia has produced a national education plan with good ideas for reforms that could help children in all Liberian schools. We wish it would focus on this rather than pursuing what is truly the "ideological" experiment.

LAKSHMI MOORE
Country director
ActionAid Liberia
Monrovia

All-a-muddle at Middlebury

At the Conservative Political Action Conference in 2013, Charles Murray recommended, to the disappointment of his conservative colleagues, that Republicans should accept the legalisation of gay marriage and abortion. Charges of racism regarding his book, "The Bell Curve", are still a matter of debate. Undaunted by these facts, students at Mr Murray's lecture at Middlebury College harangued him by accusing him of being homophobic and sexist as well as racist ("Blue on blue", March 11th). No need to bother with specifics when a stereotype is handy. It is an article of liberal faith that racism, sexism and homophobia are comorbidities. That is all the impassioned objectors need to know.

MARGARET MCGIRR
Greenwich, Connecticut

The real limits on free speech at American colleges over the past 30 years have not been in the liberal arts. Well-funded business schools have boomed during that time. Send your observer of free speech to these colleges. Good luck trying to find the socialist critic of market economics, the faculty member who has experienced the fear of precarious shift work, or the speaker who will criticise the unanimous view that markets, well, they just work. These limits on free speech are insidious and occur without much scrutiny.

STUART FRIEDMAN
Ithaca, New York

Home of the entrepreneur

Your article on French entrepreneurs ("Less misérable", February 25th) suggests that France has become Europe's most active destination for venture capital thanks to changes in French mentality, the rise of "deep-tech" startups and private initiatives. All your arguments are true but there is one other crucial point: public policies over the past 20 years should also be credited for this success. The French administration has created a tax haven for innovative tech companies. I am an entrepreneur and founder of a firm employing 50 people. The combined assistance of a tax credit for research, the improved status for startups and a state-backed interest-free loan helped us grow. In our first five years we gave nothing back to the state, though that assistance has now been largely returned.

The Economist often criticises the inefficiency of the French state, but on this topic it should delve deeper.

GILLES TOULEMONDE
Chief executive
Inova
Lyon

"Fractured" (March 4th) pointed out the many interesting parallels between the forthcoming French presidential election and last year's election in America. One big difference: unlike Donald Trump, Marine Le Pen needs to win a majority of the popular vote.

RICHARD TILLES
San Francisco

Car trouble

It is true that generous subsidies have led to increased sales of electric cars in Norway ("Northern light", February 18th). However, the associated perks of free parking and waiving of tolls has led to a rise in traffic, which contradicts the government's aim to reduce congestion and promote walking, biking and mass transit. Moreover, the value-added tax avoided by imported electric cars applies not just to the batteries, but also to the leather seats, sound system and high-performance suspension. Electric-car subsidies are luxury-car subsidies, causing unintended distortions.

JOHANNES MAURITZEN
Associate professor
BI Norwegian Business School
Trondheim, Norway

The dead-words stage

How do words die? Johnson's reasons are organic: words die because they are unloved and unused (March 4th). Or dumped. When the "Oxford Junior Dictionary" updated its edition for 7-year-olds, in came words such as allergic, bungee jumping, blog, celebrity, MP3 player, vandalism and chat room. Out went blackberry, buttercup, dandelion, conker, spinach, hamster, wren, otter, cheetah, some hundred other words related to nature, as well as porridge and sin.

Should a dictionary for 7-year-olds reflect their day-to-day language? Or should it help shape their understanding of the world, not just reflect its trends? The editors decide the words, and hence the language, no doubt scolding, as the real Samuel Johnson did, at the energetic unruliness of the English tongue.

As we take our youngsters out this spring, let's make sure that they can recognise a bluebell even if they can't spell it.

KATHERINE HALLGARTEN
London

It's not been since I was knee-high to a grasshopper that I read an article that was so much knee-slapping fun. Don't let anyone spin a yarn about the death of choice expressions. We've just got to put our foot down, dig in our heels and bow up our backs. We can noodle words right back, if we have a mind to.

JAMES BRUCE
Siloam Springs, Arkansas

Join the club

In every issue of *The Economist* the OECD is repeatedly described as "a group of mostly rich countries", and on occasion "a club of mainly rich countries". I was shocked to discover in "Steely defences" (February 18th) that the OECD had temporarily become "a club of rich countries". Had the poorer countries briefly found fortune or were they expelled for the week?

ERIK BOGH
Burbank, California ■

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Primed

SEATTLE

Investors think Amazon is going to grow faster, longer and bigger than almost any firm in history. Can they be right?

EVERY chief executive hopes to lead his company to success. Jeff Bezos, Amazon's boss, wants something more epic. A prominent wall in the company's headquarters in Seattle is covered with narratives from historic explorations: excerpts from "The Odyssey"; notes from the journey of Lewis and Clark as they ventured across America; the transcript of the first moon-walkers talking to mission control. At the end, ones and zeroes spell out how far the company has got: "Day One".

The phrase, reflecting Mr Bezos's belief that Amazon's journey has just begun—and begins again each day—is the company's mantra. At any other firm such grandiosity would invite derision. At Amazon, it makes investors drool and rivals quake.

Amazon, which went public 20 years ago, is now the world's fifth-largest company by value, worth over $400bn (see chart 1 on next page). Its e-commerce site accounts for about 5% of retail spending in America, roughly half the share of Walmart, the biggest firm in the sector. It is the biggest online retailer in America, and accounts for over half of all new spending. Its cloud-computing business, Amazon Web Services (AWS), is larger in terms of basic computing services than the three closest competing cloud offerings combined.

Since the start of 2015 Amazon's share price has risen by 173%, seven times the growth of the preceding two years. Operating profits have expanded, too, but at $4.2bn remain relatively small—which is how shareholders like it. Amazon has always emphasised the value of long-term growth (presumably with some bigger profits down the line), and investors have come to accept this. In February, when Amazon reported higher profits but lower revenue than expected, its share price temporarily dipped. Shareholders worried it might not be set to grow as quickly as they had hoped.

Morgan Stanley, a bank, expects Amazon's sales to rise by a compound average of 16% each year from 2016 through to 2025: that is higher than its estimates for Google or Facebook. That is a slower pace than Amazon managed over the past decade; but the bigger a company is, the harder it is to keep growing. Amazon's annual sales of $136bn are almost 50% more those of Alphabet, Google's parent, and over four times Facebook's. Credit Suisse, another bank, calculates that only ten firms with sales of more than $50bn have managed to grow by an average of 15% or more for ten years straight since 1950; no company with sales of more than $100bn has done so. If Amazon were to pull it off, it would be the most aggressive expansion of a giant company in the history of modern business.

That raises two questions. The first is how Amazon could possibly achieve this. The second is which industries it might upend in the process.

Amazon's growth to date has come from following a rather vague mission—becoming "Earth's most customer-centric company"—with massive investment that takes a long view when it comes to attracting, keeping and making more money from those customers. Year after year, an expanding collection of services sweeps up more customers and creates more cash. The company produced $16bn in cashflow before investment last year, more than four times the level five years earlier. That is thanks to its scale, says Heath Terry of Goldman Sachs, the investments it chooses and its skill at executing them.

The virtuous buzzsaw

The money it has spent on its e-commerce system has set new standards for service and price. Its site and the formidable logistics behind it are an alternative to queues and trekking from shop to shop. Little wonder that, according to a recent Harris poll, Americans hold Amazon in higher esteem than any other company.

Having first taught people that it was safe to shop on computer screens, Amazon went on to offer them new ways of buying stuff. The Kindle is not just an easy way of reading e-books; it is a very convenient way of purchasing them. Alexa, a virtual assistant linked to the company's Echo speaker, makes many sorts of shopping all but frictionless—a consumer can say she needs shampoo and that shampoo will arrive on her doorstep.

The company has also found new things to sell: most notably, computing power delivered as a service. The ability to get the number-crunching, data-storage and development tools they need without capital expenditure has been a blessing for startups and larger customers alike. Netflix, a streaming-video company, uses AWS to serve 94m subscribers; America's Central Intelligence Agency uses a version customised to its security needs. (*The Economist*'s website is also hosted by AWS.)

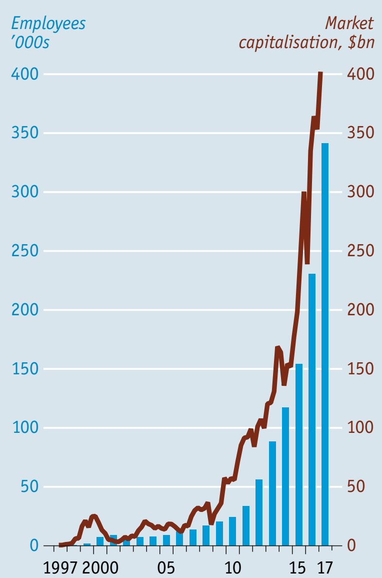
Achieving such successes takes hard work: the company has a reputation for intensity and a demanding culture. It also requires a willingness to spend. "It's very easy for a large company to get trapped into not wanting to place too many bets and fail too often," says Jeff Wilke, who leads Amazon's e-commerce business. It is a trap he is determined to avoid. A massive expansion of Amazon's e-commerce services has led it to lose money in two of the past five years. It is also pouring $3bn into an attempted expansion into India.

Some bets have failed. The Fire Phone, which Amazon launched in 2014, flamed out. The idea that it could be used to recognise, and find a seller of, any product it saw turned out to be far more interesting to Amazon than to its customers, who preferred simple capabilities available from other phones.

Amazon's successes have come from finding ways to spend money that bring increasing returns. Both AWS and the e-commerce business benefit from economies of scale. But they are also platforms that benefit from "network effects"—the more people buy from them, the better they get. As more firms use AWS, more developers know how to use it, giving Amazon more data with which to optimise it, which makes it more attractive in its turn. More shoppers on the Amazon site make it more alluring to third-party sellers, which increases the range of goods it can offer, which attracts more shoppers.

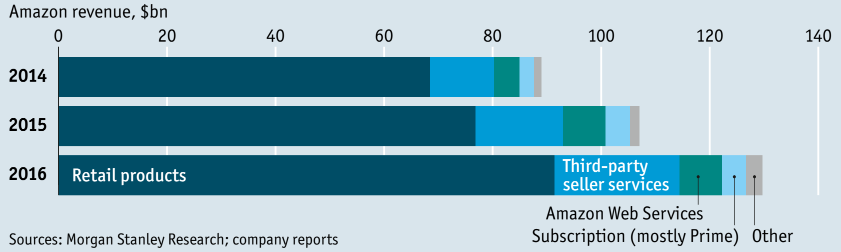
Alexa shows some signs of becoming a similar platform, though these are early days. Makers of cars, thermostats and other hardware can build Alexa into their gear. Alexa already has more than 10,000 "skills", similar to smartphone apps, that turn wishes into commands. The more skills and Alexa-powered devices there are, the more appealing the digital assistant becomes to consumers, which means a bigger market for new skills.

Delivering



Sources: Bloomberg; Thomson Reuters

Look inside



Sources: Morgan Stanley Research; company reports

Divisible only by itself

One of Amazon's most successful offerings has been its Prime subscription. Originally this just offered free shipping, but the company has added more and more new perks—two-hour shipping, for instance, or free and sometimes exclusive streaming video—to encourage people to stump up the annual subscription ($99 in America). The idea, Mr Bezos told investors last year, is to make Prime "such a good value, you'd be irresponsible not to be a member."

That is costly. In 2017 Amazon is expected to spend $4.5bn on television and film content, roughly twice what HBO will spend. But it has a big payoff. Users who subscribe to Prime spend at least three times as much as Amazon shoppers who don't subscribe, estimates Brian Nowak of Morgan Stanley. In part this is a selection effect; it makes more sense for heavy shoppers to subscribe. But it also seems that, having subscribed, they shop yet more heavily, knowing that they incur no further shipping costs when they do so. Mr Nowak reckons the company had 72m Prime members last year, up by 32% from 2015.

As well as focusing on customers, Amazon has proved rather good at treating itself as one; making something it wants and then selling it to others. Amazon wanted the benefits cloud computing offered, and having provided them for itself, decided to spread the costs by providing them for others through AWS. The customer's-eye view was a boon; Amazon understood the needs of startups better than established computing firms could. Last year AWS's revenue reached $12bn, up by more than 150% since 2014 (see chart 2).

Allowing others to use the company's e-commerce platform, warehouses and other services is an even bigger business. Fees from sellers around the world who use Amazon reached $23bn in 2016, nearly twice what they were in 2014.

Some of the company's current investments may deliver similar benefits. It is testing a grocery in Seattle that lets shoppers buy items without stopping at a cash register. This may prove a model for future Amazon shops. But it seems just as likely that the automatic-checkout technology will be sold to other retailers. It is also planning a $1.5bn hub for cargo planes in Kentucky. At the very least, that will help meet demand in busy periods and give it more bargaining power when dealing with vendors such as UPS and FedEx. But Amazon's fleet could one day be part of a logistics operation that rivals them.

Such experiments raise a tantalising prospect for shareholders. AWS provides the tools for companies to do business online; Amazon is a dominant online platform for selling digital and physical goods. Eventually, the company could offer infrastructure for all kinds of commerce, online and off. It already has one of the things that modern business most desires: data. It knows what its customers buy, listen to and watch; it has a good sense of how they respond to prices. The more data Amazon has, the better it can boost sales via its site through recommendations, advertisements, new services, products and more. That would make it ever more difficult for rivals to catch up.

Mr Bezos claims, as a corollary to thinking only of customers, never to think of rivals. However, the list of current and possible competitors that Amazon is required to include in its annual filings is long and getting longer. It ranges from retailers and search engines to film producers and, as of last year, logistics and advertising firms. Sir Martin Sorrell, boss of WPP, the world's biggest advertising company, might seem to have little to fear from a firm which last year made an estimated $2bn from advertising. But Amazon is a new intermediary between brands and customers, one which could conceivably use its direct relationships and stacks of data to cut out the ad-agencies altogether. "What worries you when you go to bed at night and wake up in the morning?" Sir Martin said in a recent conference call. "It's Amazon."

For many retailers Amazon is both a competitor and a way of getting more business. There are more than 70,000 companies, Amazon says, that earn more than $100,000 a year selling through the firm's site. Many of them are competing with their host in one way or another. Some go up against the company's own private-label products, which range rather bafflingly from potato crisps to baby wipes to loafers. Many more go up against the stock that Amazon buys and resells.

For anyone selling on Amazon, prominent placement in the "buy box" that appears on screen when something is searched for is a big boost. According to One Click Retail, a consultancy, products in the buy box account for 86% of sales on the website and 93% on the mobile app. By reverse-engineering the algorithm that runs the box, the consultants found that if a seller pays Amazon to handle warehousing and logistics on its behalf, which probably speeds up shipping, it is more likely to win a spot in the box. So on the occasions when Amazon's retail offering loses the buy box, it still gets a piece of the action.

All good things...

Bigger competitors do not want to work through Amazon. Some will not use AWS because they don't want to subsidise a rival. Large retailers are seeking to match Amazon's standard of fast, cheap shipping on their own. But that lowers the margins for their online sales and risks cannibalising sales from their stores. The competition thus threatens to make many of them permanently less profitable.

Last year Walmart made a particularly expensive bid to fend off Amazon, paying $3bn for Jet.com, an e-commerce startup. Marc Lore, Jet.com's boss, has history when it comes to competing with Amazon. "The Everything Store", a book about Amazon by Brad Stone, a journalist, tells the story of Quidsi, a previous startup of Mr Lore's that sold nappies through a site called Diapers.com. When Amazon was building a nappies business, the bigger company cut prices so rapidly that Quidsi reckoned that matching them would lose it $100m in three months. Quidsi agreed to be bought in 2010.

Other competitors are worried, too. In December Amazon challenged Netflix by expanding Prime Video to more than 200 countries. "I feel like we're competing with an unusual person," Reed Hastings, Netflix's boss, has admitted. "Because Jeff's there, it's kind of scary." This is not a winner-takes-all contest; two-thirds of American Prime subscribers also subscribe to Netflix, according to Cowen, a financial-services firm. But as Prime Video's offering improves, some Netflix viewers might drop their subscription.

Netflix hopes to keep them by spending on its exclusive shows; like Spotify in music, it also has the advantage of an established brand and a customer base. But competition is hotting up. Disney, Fox, NBC Universal and Time Warner have beefed up a streaming competitor of their own, Hulu.

The other tech giants have their own reasons to be worried about Amazon—though they may also have the best defences. Apple faces the risk that Amazon, not iTunes, becomes the default platform for streaming and buying content; but it has the diversified revenue needed to fight its corner. Google, for its part, does not want shopping through Amazon, and particularly Alexa, to cut it out of the loop, jeopardising its advertising revenues; nor does it want Alexa to be the platform people chose for running their homes. In February Google said its new assistant—called, simply, Assistant—would not only power a device called Google Home, but roll out to smartphones using Android, its mobile operating system. Their strength in mobile phones gives both Apple and Google an edge over Amazon.

Tech giants will also be fighting Amazon in the cloud. Microsoft is its strongest competitor, but Google and IBM are formidable, too. All four are fighting to lower prices and provide better technology, with billions now being pumped into AI.

If competitors fail to halt Amazon's whirl of activities, antitrust enforcers might yet do so instead. This does not seem an imminent threat. American antitrust authorities mainly consider a company's effect on consumers and pricing, not broader market power. By that standard, Amazon has brought big benefits.

Two perils lurk, however. One, for now, is theoretical. In a recent article in the *Yale Law Journal*, Lina Kahn argued that, among other things, the scope of Amazon's activities may make it impossible for competitors not to end up relying on it. If regulators paid more heed to market power, that could be a red flag—especially as Amazon continues to grow and provide its services to competitors ever more widely. A second threat is real. Donald Trump does not care for the *Washington Post*, a newspaper Mr Bezos owns. In 2016 Mr Trump said Mr Bezos was using the *Post* to attack him because Amazon has "a huge antitrust problem". If Mr Trump believes that—or even if he doesn't—his administration might favour action.

For now, though, Amazon's rivals must fend for themselves. They can hope Mr Bezos makes a mistake, or gets wrong-footed by some startling new trend—but though both are possible, they are hardly a strategy. Instead, the best defence is simple: sell something that customers want and Amazon does not have. Exceptional merchandise and service helps. In America big, bland bookstores are struggling, but the number of independent booksellers has climbed. The threat from Amazon has forced Walmart to improve its stores, with easier checkout and more helpful staff; it has seen a bump in sales. Amazon's investments in television have helped fuel a bidding war for good programming—Hollywood's studios are producing the best television for generations. And thanks to AWS, and its competitors, there has never been a better time to start up a web-based or data-centric firm.

For decades, consumer giants mostly grew slowly and comfortably, with only occasional bursts of innovation. Now Amazon's epic journey is forcing companies to lower prices and to improve products or to suffer. Many may, as a result, become less profitable; many will instead improve. And all the while, as Mr Wilke puts it, Amazon's "pioneers wander the world with divine discontent and say, 'how can I make that better today?'" Companies on its ever larger roster of rivals settle for mediocrity at their peril. ■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BANGKOK

The junta that runs Thailand unveils a 20-year plan that omits the most urgent item

WHEN its tanks rolled into Bangkok in 2014—ousting an elected government that had been paralysed by protests—Thailand's ruling junta promised that democracy would be back in a jiffy. Three years on, there is still no sign of the promised polls. Instead, in mid-March, the generals treated diplomats and foreign journalists to a briefing on their "20-Year National Strategy", a programme which, they insist, all future governments will be legally obliged to follow. It is only the latest indication that the men in uniform are here to stay.

The junta's right to impose its master plan on Thailand is enshrined in its new constitution, which it rammed though in a referendum last year after banning campaigners from criticising the text. That document allows for fresh elections, which, after multiple postponements, are now expected in 2018. But it also empowers a junta-stacked senate and several unusual committees to baby-sit incoming governments—which includes giving these bodies the right to intervene should elected politicians choose to pursue their own policies instead of sticking to the generals' preordained plan.

Spin doctors had previously stated, to general mystification, that the national strategy would encompass "six areas, six primary strategies and four supporting strategies". The latest explanation was similarly vapid: a clutch of admirable but vague aspirations, such as improving the competitiveness of the economy and promoting equality of opportunity, flecked with trendy phrases such as "green economy" and "human capital". The small print is to be filled out by committees, supposedly after public consultations. Cynics speculate that the details will be left woolly on purpose, to make it easier for the army to justify meddling whenever it likes.

Arthritic tiger

Everyone agrees that Thailand could do with a long-term plan. Once one of South-East Asia's economic stars, it has grown more slowly than all of its large neighbours for years. In a report released earlier this month the World Bank warned that Cambodia, Malaysia and Vietnam looked more competitive. Well-connected tycoons dominate business; many schools outside the biggest cities are woeful. For years governments have splurged the largest part of their budget on the lucky residents of Bangkok and its industrial exurbs, helping to keep citizens in the outer provinces poor.

Insiders say the junta is more aware of these problems than the antics of Prayuth Chan-ocha, its cartoonish leader (pictured, at centre, in khaki), suggest. So far it has propped up growth through tax cuts, transfers and temporary incentives to boost consumer spending. But it looks incapable of instigating the contentious reforms that a 20-year plan should entail. It has been successful at squelching opposition in Thailand's rural heartland, but remains beholden to a narrow urban clique determined to preserve its privileges. It introduced an inheritance tax in 2015, but only after greatly diluting the original proposal; a plan to tax land is crawling along.

Moreover, the junta's schemes increasingly appear hostage to the whims of Thailand's new monarch, King Vajiralongkorn, whose motives remain uncertain. He has already wrong-footed the generals twice: first, by choosing not to accede to the throne for a month after his father's death last October; second, by ordering changes to sections of the junta's constitution that lightly limited the palace's ill-defined powers. (Those redrafts are now awaiting the king's approval, one of several ways in which bigwigs have continued to tinker with the charter even though the electorate is supposed to have signed off on it.)

Lately the king has been purging and promoting court officials. Perhaps 20 people have left his service; cryptic notes in the Royal Gazette say they were dismissed for foibles including "procrastination" and "arrogance"; one "lacked enthusiasm". In February the palace announced that Jumpol Manmai, a senior aide, had been sacked for "extremely evil behaviour". He was later photographed with his head shaven, once a common punishment for Thais who offended the sovereign.

Some have taken this episode as a sign that the army and the palace are in fact rubbing along: Mr Jumpol was once thought ▸▸

close to Thaksin Shinawatra, a former prime minister whom the generals and their backers abhor. But the junta may well worry that the king will seek to use an annual army reshuffle, due in September, to shake up their ranks too.

The only way to secure Thailand's next two decades is to defuse the quarrel that lies at the heart of its political strife: a sporadically violent class war that has pitted well-off urbanites, royals and soldiers against the sometimes bumbling governments that the more numerous rural voters elect when they have a chance. In January the generals announced that a "reconciliation panel" will hold hearings with some politicians, including members of Mr Thaksin's party, Pheu Thai, which they have twice booted from power. The process is said to have started at the king's initiative. The idea is that participants will eventually sign a new "social contract".

But it is hard to see what such talks can achieve when the junta is still hounding Mr Thaksin and his supporters. Yingluck Shinawatra, another former prime minister who is Mr Thaksin's sister, is still undergoing a slow trial for negligence while in office; this month the government said that a newly discovered "miracle of law" would allow it to claim 12bn baht ($360m) in taxes from Mr Thaksin, who now lives in self-imposed exile, despite the expiry of the relevant statute of limitations. Meanwhile the military insists that it is not an actor in Thailand's politics, but a referee, and therefore need not take part in the reconciliation it is stewarding. In a remarkable feat of blindness, the soldiers still seem to believe that the dozen or so coups they have launched since the 1930s amount to a noble defence of the kingdom—and not the single biggest cause of its malaise. ■

Japanese politics

The enemy within

TOKYO

The governor of Tokyo defies her party to build a rival political machine

IT IS hard to exaggerate the gall of Yuriko Koike, the governor of Tokyo. She is a member of the Liberal Democratic Party (LDP), which dominates Japanese politics, and briefly served as minister of defence a decade ago. Yet last year she won her current job by running as an independent, against the LDP candidate. Last month she thumped the LDP again after backing a rival candidate for mayor of one of Tokyo's 23 wards. She is now preparing to challenge the LDP's control of the city assembly in elections to be held in July. Far from punishing this open rebellion, many in the party seem to be relishing it.

Tokyoites first, LDP second

Ms Koike's battering-ram in her war against the LDP is *Kibo no Juku* (School of Hope), a private academy for her political acolytes. The school has whittled down thousands of applicants to a few dozen graduates who will stand against LDP candidates in July. The charismatic governor's new party, *Tomin First no Kai* (Tokyoites First Group) could end up the biggest in the assembly: a recent poll found that 84% of Tokyoites support her.

This run has been fuelled by a populist's instinct for picking fights. Ms Koike, a former newscaster, has blamed corruption for the spiralling cost of the Olympic Games, which Tokyo will host in 2020. Her warning that spending on the event could top ¥3trn ($27bn), over four times the original estimate, has alarmed voters. "People see her on television every night fighting for them and they like her for it," says Katsuei Hirasawa, an LDP politician.

Ms Koike's showdown with Shintaro Ishihara, another LDP rebel who ran the capital from 1999 to 2012, has also caught the public's imagination. Ms Koike blames Mr Ishihara for approving the relocation of Tsukiji, the world's biggest fish market, to the toxic site of a disused gas works. The frail ex-governor has been summoned to the city assembly in a potentially humiliating probe that could widen to include his links to a failed bank.

During the election for governor last summer, Mr Ishihara said that running Tokyo could not be left to "a woman with too much make-up". But calculation, not revenge, motivates Ms Koike, says Michael Cucek, a political blogger. "Her aim is to wipe out the LDP old guard." In this she is following the lead of Junichiro Koizumi, Japan's prime minister from 2001 to 2006. Mr Koizumi also cultivated young candidates, dubbed "assassins", to supplant opponents within the LDP blocking his attempt to trim public spending and privatise Japan's giant post office. The injection of fresh blood helped to reinvigorate the party and vindicate Mr Koizumi.

But even a convincing win in Tokyo would not give Ms Koike the sort of political machine she would need to take on the LDP nationwide. Instead, she may hope to parlay her insurrection into a return to the heights of the party. In 2008 she stood for the leadership, which would have brought with it the job of prime minister, but lost to Taro Aso.

There are few obvious candidates to succeed the current prime minister, Shinzo Abe. Ms Koike's lack of a clear ideology is no handicap: the LDP itself, after all, flirted with austerity under Mr Koizumi but now runs one of the world's most spendthrift governments. She has been cultivating alliances. Komeito, the LDP's coalition partner at the national level, agreed earlier this month to support her candidates in July. Several LDP politicians have also rallied behind the governor, earning their expulsion from the party's Tokyo chapter.

The governor herself is protected from the LDP's retribution by her popularity. Casting her out would only make the party look scared and vindictive, says Robert Fahey, a contributor to *Sankei Shimbun*, a newspaper. The party's grandees are probably waiting to see how Ms Koike's protégés fare, says Mr Hirasawa. Whatever happens, she is already Japan's most popular politician; if her luck holds, she could one day be its leader. ■

Indian politics

Agent orange

DELHI

A firebrand Hindu priest takes charge of India's most populous state

TO SOME he is both hero and saint: a shaven-headed, saffron-robed servant of the Lord Shiva who has been elected five times in a row to India's national parliament and elevated, at just 44 years of age, to the highest political office in a state of 220m people. To others the choice of Yogi Adityanath as the chief minister of Uttar Pradesh (or UP as the state is often abbreviated) seems ominous. Pratap Bhanu Mehta, a columnist in the daily *Indian Express* who rarely uses such blunt language, describes the Hindu priest-turned-politician as "the single most divisive, abusive, polarising figure in UP politics".

No one can argue with the word "polarising". Since becoming India's youngest MP in 1998, Mr Adityanath has championed a range of reactionary Hindu causes, from the banning of cow slaughter to the proposed construction of a temple to Lord Ram, protagonist of the ancient *Ramayana* epic, at the god's supposed birthplace in the UP city of Ayodhya. Inconveniently, at the site selected for this honour, there stood a grand 16th-century mosque, at least until a mob of Hindu fanatics tore it down in 1992, sparking riots across India that left some 2,000 dead. The new chief minister's devotees, whether from the temple at Gorakhpur in eastern UP where he has long served as high priest, or from a Hindu youth-cum-vigilante group that he founded, respectfully touch his feet and call him *maharaj* or "great king".

Mr Adityanath has managed to offend many of his fellow citizens. Some women resent his assertions that they are weak, and liable to turn into "demons" when they take on jobs or activities traditionally reserved for men. Citizens of neighbouring Nepal may grimace at statements such as one on his website declaring that, for its own defence, India must preserve its smaller neighbour as a "Hindu Nation" by destroying "Muslim and Christian separatist forces working under the shield of Maoists". (Muslims and Christians make up less than 6% of Nepal's population.)

India's own 180m Muslims, in particular, find Mr Adityanath scary. Time and again he has warned of an alleged "love *jihad*" to convert unwary Hindu girls to Islam, and of the existential threat from rising numbers of Muslims. He often denounces the imaginary flight of Hindus from Muslim persecution of some sort or another. Time and again in UP, such talk has helped turn ordinary scuffles into ugly sectarian clashes.

Earlier this month India's prime minister, Narendra Modi, celebrated his party's crushing triumph in UP state elections with a soothing speech on the need to unite for the common good. Yet shortly afterwards, he appointed Mr Adityanath to run the state. Some say that Mr Modi's calculations are political. For the first half of his term he pandered mostly to better-off, better-educated city folk; the choice of a firebrand priest is meant to placate a different and restless demographic, his party's rural Hindu-nationalist base. Others ascribe the move to ideology: Mr Modi's big win in UP suggests there are few rivals to challenge his party in the next national election, in 2019, freeing it to carry out its religiously inspired mission.

Mr Adityanath has already shut down slaughterhouses and butcher shops suspected of handling beef, and has set up an "anti-Romeo squad" to hunt love jihadists and other predators. But the best indication of his intentions will be Ayodhya. Hindu-nationalist "moderates" have long counselled patience regarding the building of the Ram temple; hardline groups say they want it to happen now. Which approach will Mr Adityanath take? ■

THAAD in South Korea

Here's looking at you

Why an American anti-missile system does not merit China's fury

THE Chinese authorities are so angry with South Korea that they have cheered on boycotts of South Korean goods and culture, persecuted South Korean firms operating in China and discouraged Chinese tourists from visiting South Korea. China is South Korea's biggest market for exports (it spent $137bn on South Korean goods in 2015, nearly twice as much as the next biggest taker, America), so the prospect of a prolonged dispute is alarming. It is also puzzling, given that the source of the row—the deployment of an American anti-missile system called THAAD (pictured)—does not seem nearly as objectionable as China suggests.

Earlier this month America began installing a THAAD system in South Korea. As if to confirm the rationale for deployment, the previous day North Korea had fired four missiles into the Sea of Japan, in what appeared to be a simulated attack on an American base. Last year North Korea conducted more than 20 ballistic-missile tests in defiance of UN Security Council resolutions. If anything, the tempo of missile launches has increased this year. This week saw the testing of a powerful new rocket engine and an abortive missile launch. Yet China's foreign ministry has long fulminated against THAAD. It greeted the deployment by declaring its "firm opposition and strong dissatisfaction".

In Seoul last week America's secretary of state, Rex Tillerson, called on the South Korean government to stand firm in its support for THAAD and described China's behaviour as "inappropriate and troubling". Moon Jae-in, the front-runner in South Korea's presidential election, which will be held on May 9th, has said he will review the deployment, but has been careful not to promise to reverse it.

China has expressed two related criticisms of THAAD, which stands for Terminal High Altitude Area Defence. The first is that the powerful radar that THAAD uses to track and hit targets has the capability of "seeing" far into China and thus could be used to undermine the effectiveness of China's own nuclear arsenal. The second is that the system, which is designed to intercept and destroy short- and intermediate-range ballistic missiles during their descent (terminal) phase, at altitudes of 40-150km, would not be effective because Seoul is so close to North Korean missile launchers. The implication, again, is that China is the real target.

Neither of these arguments is convincing. In the first place, there are already two THAAD radars in Japan, which can see into China, albeit not quite as far as the radar going into South Korea. Michael Elleman, a missile-defence expert at the International Institute for Strategic Studies, says that the THAAD radar in South Korea might pick up Chinese missiles bound for the West Coast of America in their boost phase, but the advantage it would give would be "quite marginal". THAAD interceptors in South Korea cannot be used to hit Chinese missiles in their launch or boost phase and are in the wrong place to hit missiles attacking America in their terminal phase.

Moreover, the radar in South Korea will be configured in "terminal" rather than "look" mode. It takes a software change and about five hours to switch modes, but doing so would render THAAD useless against North Korean missiles, which pose a grave and immediate threat to the 28,500 American troops in South Korea.

America says it has repeatedly offered Chinese officials technical briefings on the radar's capabilities and limitations. They have shown little interest, possibly because they do not really disagree about the threat THAAD represents. Chinese military analysts have boasted of China's ability to "blind" THAAD (meaning to incapacitate it through electronic interference)—a further indication that the outrage is politically motivated.

It is also wrong to suggest that THAAD does nothing to protect South Korea from the North. In a paper for 38 North, a website, Mr Elleman and Michael Zagurek calculate that faced with 50-missile salvoes, a layered defence consisting of South Korea's Patriot system and two THAAD batteries (another may be deployed when it is available) would probably destroy 90% of incoming land-based missiles. The threat that one of the 10% getting through might be carrying a nuclear warhead would not be eliminated. But South Korea is a lot safer with THAAD than without it.

It is possible that China really does fear that one day its land-based nuclear forces might be hemmed in by an integrated American missile-defence system stretching from Japan to India. That is a remote prospect at both the political and the technical level but, by opposing THAAD's deployment in South Korea, China may be hoping to nip such a possibility in the bud.

It is more likely, however, that China, always resentful of the presence of American troops so near its borders, sees an opportunity to use THAAD to weaken America's alliance with South Korea. It may hope that its bullying might yet pressure South Korea's next president into reversing the deployment. If that is the intention, however, it has probably overplayed its hand, raising Korean hackles with its blatantly coercive methods.

Donald Trump is about to have his first meeting with China's president, Xi Jinping. There will be plenty of thorny issues to discuss. But when it comes to THAAD, the unpredictable Mr Trump can deliver a reasonable message: the problem is not missile defence, but the belligerence of North Korea which makes it necessary, and which Mr Xi has done too little to restrain. ■

Hydrological jurisprudence

Try me a river

A watercourse in New Zealand becomes a person

IT SOUNDS, admits Chris Finlayson, like a "pretty nutty" idea. Yet the new law that declares the Whanganui river, New Zealand's third-longest, a legal person, in the sense that it can own property, incur debts and petition the courts, is not unprecedented. Te Urewera, an area of forested hills in the north-east that used to be a national park, became a person for legal purposes in 2014. And around the world companies, foundations and assorted units of government have legal rights and responsibilities independent of the people who staff them. All the same, New Zealanders have been joking about whether the Whanganui might now vote, buy a few beers (how old is it?) or be charged with murder if a swimmer drowns.

The law, which was approved on March 15th, stems from disputes over the Treaty of Waitangi, by which New Zealand's indigenous Maori ceded sovereignty to British colonialists in 1840. The treaty was supposed to have protected Maori rights and property; it was observed mainly in the breach. In recent years the government has tried to negotiate settlements for breaches of the treaty with different Maori *iwi*, or tribes. For the Whanganui *iwi*, the idea of the river as a person is nothing new. The *iwi* professes a deep spiritual connection to the Whanganui: as a local proverb has it, "I am the river and the river is me." The law acknowledges the river as a "living whole", rather than trying to carve it up, putting to rest an ownership dispute that has dragged on for 140 years. When it was passed, members of the *iwi* in the gallery of parliament broke into a ten-minute song of celebration.

In practice, two guardians will act for the river, one appointed by the government and one by the *iwi*. Mr Finlayson, the minister in charge of negotiations tied to the Treaty of Waitangi, hopes the change will help bring those who do environmental damage to the river to book. Under the settlement the government will also pay the *iwi* NZ$80m ($56m) as compensation for past abuses and set up a fund of NZ$30m to enhance the "health and well-being" of the river. It is one of 82 deals that aim to remedy breaches of the treaty, including one with the Tuhoe *iwi* that made Te Urewera into a person.

Days after the law passed, an Indian court declared two of the biggest and most sacred rivers in India, the Ganges and Yamuna, to be people too. Making explicit reference to the Whanganui settlement, the court assigned legal "parents" to protect and conserve their waters. Local lawyers think the ruling might help fight severe pollution: the rivers' defenders will no longer have to prove that discharges into them harm anyone, since any sullying of the waters will now be a crime against the river itself. There is no doubt that of the 1.3bn-odd people in India, the Ganges and the Yamuna are among the most downtrodden.

Three people and a boat

Banyan | Clamshell phoneys

How a Chinese fishing fleet creates facts on the water in the South China Sea

ON A past visit to the little fishing port of Tanmen, on the island-province of Hainan in southern China, pigs were being driven onto the foredecks of wooden trawlers, while water butts were being lashed down at the stern. Farther down the quay, similar boats were about to unload their catch after a month at sea: not fish but giant clams, *Tridacna gigas*, up to a metre across, which required two or even four men to carry. The bivalves spilled out of the holds. Giant clams are one of Buddhism's "seven treasures", along with gold and lapis lazuli. China's new rich prize their shells as showy ornaments. Each can fetch as much as $3,000, so each haul was worth a fortune. And it was all illegal.

Nowadays Tanmen is transformed. The harbour is still crammed with fishing boats—calling on the spirit world for luck, one exuberant crew let off strings of firecrackers and threw joss paper up in the air as their vessel steamed out of the harbour. But the clam boats have gone, and some of the piratical air too. The quay has had a makeover, with new awnings under which fishermen's wives grill squid for day-tripping tourists. "It's over," one of the women declared. "The authorities have banned the clam fishing. It's big fines and 15 years in jail if they come after you."

The ban is surely welcome. From an analysis of satellite imagery, John McManus of the University of Miami last year concluded that 40 square miles (104 square km) of some of the most biodiverse coral reefs on Earth have been destroyed in the South China Sea thanks to giant-clam poachers. In the shallow waters of the reefs, crews use the propellers of small boats launched from each mother-ship to smash the surrounding coral and thus free the clams anchored fast to the reef. Though the practice has received little attention, it is ecological hooliganism, and most of it has been perpetrated by boats from Tanmen.

The fishermen have not been the reefs' only adversaries. China's huge and (to its neighbours) controversial programme since late 2013 of building artificial islands around disputed rocks and reefs in the South China Sea has paved over another 22 square miles of coral. When the two activities are taken together, Mr McManus says, about 10% of the reefs in the vast Spratly archipelago to the south of Hainan, and 8% of those in the Paracel islands, between Hainan and Vietnam, have been destroyed. Given that Asia's Coral Triangle, of which the South China Sea forms the apex, is a single, interconnected ecosystem, the repercussions of these activities, environmentalists say, will be huge.

Yet the Chinese authorities' conversion to environmentalism is not absolute. A few streets back from the waterfront in Tanmen, elegant boutiques sell jewellery and curios fashioned from the giant clams—and clam shells are still stacked outside. And the provincial money that is so clearly being lavished on Tanmen sits oddly with the illegality of its townsfolk's way of life. Tanmen used to be isolated on the far side of a wide river. Now a bridge connects it to the posh resort district of Boao, famous for a forum, a kind of Asian Davos, which China's leaders grandly host each year. Most striking of all, in 2013 President Xi Jinping himself showed up in Tanmen. Boarding one of the trawlers he declared to the crew, according to state media, "You guys do a great job!" The media did not report that a year earlier the trawler in question had been caught in the territorial waters of Palau, and in the confrontation with local police that followed one of the crew members had been shot dead. In Chinese propaganda, Tanmen's fishermen are patriots and model workers.

So what is going on? Over the years Tanmen's fishermen have become part of China's power projection in the South China Sea, an unofficial but vital adjunct to the Chinese navy and coastguard. The biggest trawlers are organised into a maritime militia ready to fight a "people's war" at sea. Though generally unarmed, they undergo training and take orders from the navy.

They are facts on the water, and have been involved in China's growing aggression in the South China Sea. In 2012 boats from Tanmen were part of a navy-led operation to wrest control of Scarborough Shoal from the Philippines, chasing Philippine fishing vessels away. In 2014 they escorted a Chinese oil rig that was being towed provocatively into Vietnamese waters. On land, Vietnamese expressed their rage by ransacking factories they thought were Chinese-owned. At sea, boats from Tanmen rammed and sank one of the rickety Vietnamese vessels coming out to protest. Andrew Erickson of the US Naval War College calls them China's "little blue men", an echo of the "little green men" who invaded Ukraine pretending not to be Russian soldiers.

Clamming up

Mysteriously, though, the giant trawlers of the Tanmen militia are now rafted up, their crews sent home. Perhaps China is keen to lower tensions in the region. After all, it has accomplished most of the terraforming it wanted. Bill Hayton of Chatham House, a think-tank in London, notes that towing the oil rig towards Vietnam was a propaganda disaster. And after a damning ruling last year from an international tribunal against the sweeping nature of its claims to nearly the whole sea, China has tried to get along better with the Philippines, which brought the case. (This week China denied reports that it was planning to build a weather station on Scarborough Shoal.)

Yet perhaps self-interest as much as patriotism fires the fishermen's behaviour. After all, boats from Tanmen would not have been quite so thrusting without lavish subsidies for construction and diesel. For the government, their costs have spiralled—and only exacerbated the overfishing in China's surrounding waters. A policy introduced in January aims to cut the catch from China's fishing fleet, the world's largest, by a sixth, in the name of sustainability. That will hit Tanmen's fishermen hard, making them less willing to defend China's claims. Francis Drake would have understood: pirates are patriotic, but usually only when it pays. ■

Soft power

Buying love

BEIJING

China is spending billions on a huge project to win admiration and boost its global influence. Can it succeed?

IMAGES of China beam out from a giant electronic billboard on Times Square in the heart of New York city: ancient temples, neon-lit skyscrapers and sun-drenched paddy fields. Xinhua, a news service run by the Chinese government, is proclaiming the "new perspective" offered by its English-language television channel. In Cambodia's capital, Phnom Penh, children play beneath hoardings advertising swanky, Chinese-built apartment complexes in the city. Buyers are promised "a new lifestyle". Across the world, children study Mandarin in programmes funded by the Chinese state. Some of them in Delaware don traditional Chinese robes and bow to their teachers on Confucius Day.

For many years, shoppers around the world have been used to China's omnipresence: "Made in China" has long been the commonest label on the goods they buy. More recently, however, the Chinese government has been trying to sell the country itself as a brand—one that has the ability to attract people from other countries in the way that America does with its culture, products and values. A decade ago the Communist Party declared a new goal: to build "soft power", as a complement to its rapidly growing economic and military strength. It spends some $10bn a year on the project, according to David Shambaugh of George Washington University—one of the most extravagant programmes of state-sponsored image-building the world has ever seen. Mr Shambaugh reckons that America spent less than $670m on its "public diplomacy" in 2014.

The party borrowed the idea of soft power from an American academic, Joseph Nye, who coined the term in 1990. Mr Nye argued that hard power alone was not enough to wield influence in the world. It had to come from "the soft power of attraction", too. China was acutely conscious that it lacked it. Many in the West were deeply suspicious of its authoritarian politics. In Asia people feared China's emergence as a regional hegemon. China knew it could use its economic might to win over governments, such as by building roads, railways and stadiums for them. But Mr Nye saw those kind of investments as expressions of hard power. China decided it needed more of the soft kind as well, so that foreigners would feel naturally inclined to do its bidding.

After several years of debate about soft power, or *ruan shili*, among Chinese academics, China's then president, Hu Jintao, spoke up on the topic in 2007, telling a party congress that China needed to build it. Mr Hu's successor, Xi Jinping, has stepped up the effort. In 2013, about a year after he took over as China's leader, Mr Xi convened a meeting of the ruling Politburo to discuss soft power. Its members agreed that it was a vital ingredient of Mr Xi's "Chinese dream of the great revival of the Chinese nation"—the term "Chinese dream" being one of Mr Xi's favourites.

Mr Xi has made himself promoter-in-chief of this new form of power (helped when he travels abroad by the highly visible presence of his elegant, smiling wife). His efforts to boost it were on display at the World Economic Forum in Davos in January, where he won plaudits for extolling globalisation and calling for unity in the fight against climate change. Even Mao Zedong, who enjoyed a cult status abroad among some left-wing academics, put far less work into winning over foreigners.

Raise the red lanterns

According to Mr Nye, whom Chinese officials acknowledge as a guru on the topic, there are three main ways that a country can gain soft power: through its political values, its culture and its foreign policies. But winning on all fronts is not easy. The party knows that its ideology has little chance these days of attracting others. Arguably China's soft power was stronger in the 1950s and 1960s when Mao, a brutal but charismatic dictator, espoused a socialist Utopia that inspired many people around the world. Nowadays some Chinese academics speak of a "China model"—the winning combination, in their view, of authoritarian politics and somewhat liberal economics (with a big role for the state). But Chinese leaders prefer to gloss over the politics when describing their country to foreigners. In 2008 the opening ceremony of the Olympics Games in Beijing barely hinted at the party or its principles.

Instead, China's soft-power strategy focuses mainly on promoting its culture and trying to give the impression that its foreign policy is, for such a big country, unusually benign. The culture that the party has chosen for foreign consumption is mainly one that was formed long before communism. Confucius, condemned by Mao as a peddler of feudal thought, is now being proffered as a sage with a message of harmony. Since 2004 China has established some 500 government-funded "Confucius Institutes" in 140 countries. These offer language classes, host dance troupes and teach Chinese cooking. Many of them are on campuses (an activity involving one, at the University of Delaware, is pictured). China has also set up more than 1,000 "Confucius Classroom" arrangements with foreign schools, providing them with teachers, materials and funding to help children learn Mandarin.

China hopes foreigners will take up some of its traditional customs. For example, it has set out to make Chinese new year as popular as Christmas. In 2010 the government put on fewer than 100 new-year events in foreign countries. This year it sponsored some 2,000 of them in 140 countries to mark the year of the chicken. Red-coloured Chinese lanterns swayed in city streets thousands of miles from the home of the lunar festival. The Communist Party wants China's cultural presence to reach everywhere: it recently staged a fashion show in Ethiopia's capital, Addis Ababa, featuring the *qipao*, a sleeveless dress that gained popularity among fashionable Chinese women in the 1920s.

China's diplomats have been busy trying to convince foreigners that China's rise is nothing to fear. Mr Xi speaks of a "new type of great-power relations", suggesting that China can co-exist with America without the kind of rivalry that caused the two world wars. His "One Belt, One Road" scheme—involving Chinese investment in infrastructure across Asia, the Middle East, Africa and Europe—aims to reinforce China's image as a country eager to use its newfound wealth for the good of the world (see page 61).

To help craft such an image, China has been investing massively in its foreign-language media. Xinhua, the government's main news agency, opened nearly 40 new foreign bureaus between 2009 and 2011, bringing its total to 162—at a time when cash-strapped media organisations elsewhere were shutting them down (it hopes to have 200 by 2020). The number of Xinhua correspondents based overseas doubled during that time. In December the state broadcaster rebranded its international media service, calling it China Global Television Network. Its six channels aim to compete with global services such as the BBC, CNN and Al Jazeera. (Mr Xi urged the network to "tell the China story well, spread China's voice" and "showcase China's role as a builder of world peace".) *China Daily*, the government's main English-language mouthpiece, pays for inserts in newspapers such as the *Washington Post* and the *Wall Street Journal*.

The government is trying to extend its reach online, too. Last year a government-affiliated media group spent 30m yuan ($4.35m) to launch a free, English-language website called Sixth Tone. It tries to sell China's message by being more sassy, and sometimes more critical, than other state media. With the party's blessing, private companies are getting involved, too. In 2015 Alibaba, China's biggest e-commerce firm, paid $260m for the *South China Morning Post*, Hong Kong's flagship English-language newspaper which has incisive—and often critical—reporting on Chinese politics. The deal has raised fears that Alibaba will try to turn the newspaper into a cheerleader for the party. China's richest man, Wang Jianlin, is trying to buy film studios and production companies in Hollywood, the epicentre of American culture (China's clampdown on capital outflows may have been frustrating his efforts recently—earlier this month he withdrew a $1bn bid for Dick Clark Productions, an iconic Hollywood firm).

China wants its message to be clearly visible in the heartland of America's capitalist culture. It began advertising itself in Times Square in 2011 (see picture, previous page). Last year Xinhua used its billboard there to broadcast a video 120 times a day for two weeks defending China's territorial ambitions over disputed rocks in the South China Sea. Sometimes the party uses covert means to sway foreign opinion. In 2015 an investigation by Reuters, a news agency, revealed that a Chinese state broadcaster, China Radio International, controlled at least 33 radio stations in 14 countries, including the United States, but was using front companies to mask its ties with them. Reuters said the stations avoided airing anything that might portray China in a negative light.

Sweet and sour

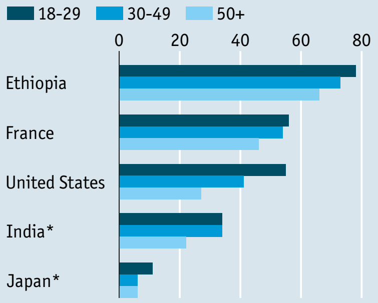
But when Mr Nye wrote about soft power, he suggested that governments could not manufacture it. He argued that much of America's had sprung from its civil society: "everything from universities and foundations to Hollywood and pop culture". The party is distrustful of civil society; its soft-power building has been almost entirely state-led. China has tried to combine elements of soft power with the hard power of its illiberal politics. Far from enhancing China's global image, this approach has often served to undermine it.

Take the Confucius Institutes and Classrooms. In 2007 a senior party leader described these as "an important part of China's overseas propaganda set-up." But many cash-strapped universities have gratefully supplanted their own language courses with ones led (even funded) by Confucius Institutes. In some places Confucius Institutes have replaced or started

Let there be no confusion about Confucius

Catch them young?

Favourable view of China by age group, 2015, %



Source: Pew Research Centre *2014

up entirely new China-studies programmes. Most of them do not actively push the party line, but Confucius Institutes usually skate over sensitive political topics such as the crushing of pro-democracy protests in 1989.

They often attract controversy. In 2013 McMaster University in Canada severed ties with its on-campus Confucius Institute after one of the institute's employees was forbidden to follow Falun Gong, a spiritual sect that is banned in China (the institute subsequently closed down). At a European Chinese-studies conference in 2014, the Chinese head of Confucius Institutes worldwide ordered pages referring to a Taiwanese educational foundation to be ripped from each programme. Such attempts at censorship only help to reinforce Western misgivings about China's politics and undermine its soft power.

China's efforts to use its global media to paint a rosier picture of the country also face a tough challenge. Its television networks employ foreign anchors (and plenty of panda footage) to try to win audiences abroad. But foreigners can also see the Chinese state's heavy hand, such as when it mobilises pro-China crowds to drown out protesters during visits by Chinese leaders, or when it arm-twists foreign politicians not to complain about China's human-rights record (Liu Xiaobo, a Chinese human-rights activist who was awarded the Nobel Peace prize in 2010, languishes in a Chinese jail, rarely mentioned in public by Western leaders). In February an official at the Chinese embassy in London warned Durham University not to host a vocal critic of the party: a former Miss World contestant who was born in China and raised in Canada—the country she represented.

As for China's message of peace to other countries, many in Asia are far from convinced. Its grabs for territory in the East and South China Seas have fuelled widespread resentment. The rapid expansion of its navy and air force, and its build-up of missiles, have sown anxiety in America, too.

China's soft-power push has made some gains. In global opinion polls respondents from Africa tend to be more positive about China than people from other regions. That is partly because of the money China has poured into the continent—in Angola every professional football match is staged in one of four, Chinese-built, stadiums. Younger people everywhere often view China more favourably than older people (see chart, left). This is a sign, perhaps, that the country is capable of being cool—who does not get a buzz out of Shanghai's skyline? Portland Communications, a public-relations firm, has conducted surveys of public attitudes towards 30 countries—most of them, apart from China, rich ones. China ranked bottom in 2015. Last year it crept two places higher, above the Czech Republic and Argentina.

But money has not bought China anything like the love it would like. A year before Mr Xi took over, just over half of Americans had positive impressions of China, according to the Pew Research Centre. By the end of 2016 that share had fallen to 38% (see chart, bottom right). Pew found a similar trend in other countries. In 14 out of 19 nations it polled between 2011 and 2013, views of China became less friendly.

No thanks to the party

China's rapid economic development has won it many admirers. But the social and environmental costs of this have also produced many critics. A country can have soft power and smog as well (America has had plenty of both in much of its recent history). But China's air pollution undermines its soft power: it is widely seen as evidence of a callous government that cares more about making the country richer than the health of its people or the planet. Many foreigners now associate the country with smog—an important reason why 37% fewer international tourists visited China in 2015 than in 2007. (Other reasons for the drop included the cost and increasing hassle involved in obtaining visas, and the yuan's exchange rate.) Mr Xi's eagerness to join the fight against global warming is partly driven by a desire to regain the soft power China has lost owing to its environmental horrors.

Some people in China privately grumble that the party itself, with its intolerance of dissent, is the biggest obstacle to the country's soft-power development. Since taking office, Mr Xi's relentless efforts to clamp down on civil society have hardly helped. He has also been trying to strengthen the party's control over the arts: in 2014 he said they should promote socialism rather than be "slaves to the market". That is unlikely to help China emulate the success of America's television shows, which project an attractive vision of American culture into people's living rooms the world over.

Few people outside China want to watch its programmes, which are often thinly disguised propaganda. The success of China's most successful film globally, "Crouching Tiger, Hidden Dragon", a co-production involving American companies, has not been repeated since its release in 2000. "Kung Fu Panda", an American-made animated film series, has perhaps done more to boost China's soft power than any movie made by the country itself. Small wonder that China was keen to enter into a co-production for the third in the series, which came out last year.

State-controlled media in China have reported with relish on commentary in America suggesting that Donald Trump's presidency may deal a heavy blow to the United States' soft power. If that arises from the appeal of a country's culture, political ideals and foreign policies, as Mr Nye reckons, then America's soft power is threatened in two of these domains. China's political system may not exert much of a global pull, but it could begin to look a bit more attractive to some people when compared with America's.

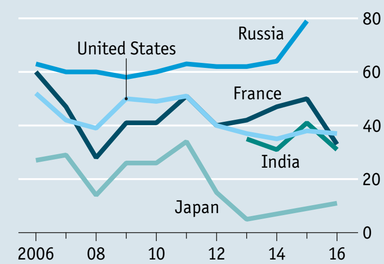
China has some attributes that it can play to its advantage. For example, it has no colonial history beyond its current borders and has started no wars in nearly 40 years. In a turbulent world, China's leadership appears relatively stable and predictable (at least to the casual observer—Mr Xi's determination to crush dissent suggests he sees serious threats to his power).

When Mr Xi became the first Chinese president to address the global elite at Davos, only days before Mr Trump was inaugurated, he appeared to sense an opportunity to bask in a rare glow. But the upswing in China's soft power is likely to be limited. Chinese officials themselves quietly ask whether China's strategy can ever succeed. In 2015 a senior official, Zhou Hong, wondered aloud what state-sponsored soft power could achieve. "Without the broad participation of the people," he wrote in the party's main mouthpiece, the *People's Daily*, "the external propagation of culture not only loses its meaning, but also loses its intrinsic energy." Mr Zhou was right about the Chinese people's role. China will find it hard to win friends and influence nations so long as it muzzles its best advocates. ■

From Russia, with love

"Do you have a favourable or unfavourable view of China?"

% responding favourable



Source: Pew Research Centre

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The Supreme Court

Neil Gorsuch: the natural

NEW YORK

The nominee is a very different kind of conservative from the man he would replace on the court

CONFIRMATION hearings for Supreme Court justices have become frustrating affairs. Senators pontificate and probe while nominees utter bromides and dodge questions for hours on end. In his stint before the Judiciary Committee this week, Neil Gorsuch, Donald Trump's pick for the court, has been especially tight-lipped. Senators have elicited only glimmers of what makes the 49-year-old judge with a decade on the Tenth Circuit Court of Appeals most interesting, or most worrisome: his affinity for a family of legal theories called "natural law". Though Mr Trump promotes his nominee as drawn from the mould of Antonin Scalia, the conservative jurist Mr Gorsuch was tapped to replace, he represents a stark departure from a central feature of Mr Scalia's jurisprudence.

Mr Scalia saw the constitution as "a practical and pragmatic charter of government" that neither requires nor permits "philosophising". In a right-to-die case in 1990, he quipped that the nine justices were no better suited to make fine distinctions on the morality of life support than "nine people picked at random from the Kansas City telephone directory". By contrast, Mr Gorsuch seems more ready to let his philosophical judgments out. Tapping into a tradition that reaches back to Thomas Aquinas and Aristotle, natural law says that some things are objectively good in themselves and should therefore serve as lodestars for individuals and societies. John Finnis, Mr Gorsuch's dissertation adviser at Oxford and one of the world's foremost natural-law theorists, lists these goods as knowledge, aesthetic appreciation, play, friendship, practical reasonableness, religion and—most notably—life.

In the second day of his hearings on March 21st, Mr Gorsuch deflected inquiries into his old adviser's positions on issues like abortion and gay rights. "I'm not here to answer for…Professor Finnis," he said. "I'd ask you respectfully to look at my credentials and my record." Such a look is revealing. In his doctoral work and book, Mr Gorsuch drew on the idea that "human life is fundamentally and inherently valuable" to argue against assisted suicide and euthanasia. When he first appeared before the Senate in 2006, he pledged he would keep his philosophical positions out of his judgments. "[P]ersonal views…have nothing to do with the case before me in any case", he told Senator Lindsey Graham. The parties "deserve better than that", he added, and "the law demands more than that." Mr Gorsuch then emphasised that his writings "have been largely in defence of existing law" and are "consistent with the Supreme Court's decisions in this area and existing law in most places."

In "The Future of Assisted Suicide and Euthanasia", written in 2006, Mr Gorsuch presented the ethics of end-of-life questions as fundamental to his sense of how the courts should handle lawsuits arising out of them. Though he has said that judges must "strive…to apply the law as it is", not as they would like it to be, Mr Gorsuch's natural-law lens is visible too. The first sign of a link between Mr Gorsuch's "inviolability-of-human-life" view and his jurisprudence comes in his book's ninth chapter, where he traces the roots of the idea that there is a moral imperative to respect "basic goods". The idea is apparent "from life's experiences" in which people deserve honour "out of respect for their innate value", Mr Gorsuch wrote. Treating human life as inviolable is the premise of "our entire political system" and both the Declaration of Independence and constitution reflect the founders' belief in "self-evident human rights and truths".

Next, Mr Gorsuch surveyed rival perspectives on the sanctity of life and he found them all wanting: "[A]ny attempt to draw lines between different sorts of lives …seems almost inevitably to become…an arbitrary and subjective enterprise." Even a small degree of arbitrariness "is simply not acceptable" in "policy decisions" involving "who is and is not treated as fully human". Mr Gorsuch concluded that when judges review laws permitting terminally ill people to enlist the help of doctors in their deaths, they should keep in mind that such acts "are categorically wrong".

Mr Gorsuch discussed one example—the Oregon Death With Dignity Act—and suggested, contrary to the Supreme Court's approach, that judges should subject such laws to heightened scrutiny because they may threaten the right to life of terminally ▸▸

ill individuals. This suggests that Mr Gorsuch's philosophical opposition to assisted suicide—now at odds with the law in six states (California, Colorado, Montana, Oregon, Vermont and Washington)—would in fact influence his judgment if these policies ever came before him. It also hints that Mr Gorsuch might be sceptical of laws allowing abortion and could—in line with Mr Trump's oft-repeated wish—reconsider *Roe v Wade*, the nearly 45-year-old precedent protecting women's reproductive choice.

Judicial adventures in metaphysics were anathema to the man who spent three decades in the seat to which Mr Gorsuch aspires. Throughout his career, Scalia amply criticised liberal justices who saw the constitution as a "living" document animated by principles such as autonomy or human dignity. (He likened the justification for Anthony Kennedy's same-sex marriage opinion in 2015 to "the mystical aphorisms of the fortune cookie".) Scalia would be ill at ease with Mr Gorsuch's natural-law jurisprudence as well, even if its implications more closely match his conservative views.

Given the slim Republican majority in the Senate, the confirmation of Mr Trump's first Supreme Court pick is all but assured. The Senate's apparent lack of interest in Mr Gorsuch's scholarship means America is likely to soon have a natural lawyer as its ninth justice—with little sense of what that would entail. ■

The FBI

G-man v POTUS

WASHINGTON, DC

The FBI is investigating the sitting president's campaign team

A "BIG grey cloud" hangs over President Donald Trump and his administration, following public confirmation by the head of the FBI that his agents are investigating Russian government efforts to interfere in the presidential election, and whether those efforts were co-ordinated with anyone linked to the Trump campaign. That was the verdict of the Republican chairman of the House Intelligence Committee, Representative Devin Nunes of California, at whose hearing the FBI director, James Comey, revealed the existence of the counter-intelligence probe, opened eight months ago. Thoughts of that cloud now hang over Washington, a town which remembers the FBI inquiries that haunted other administrations, even if criminal charges were not eventually laid.

Mr Trump threw up a fog of counterclaims. The president declared that the

Just another day in Washington

"real story" about Russia is that officials leaked classified information to reporters, and asked—in an early morning tweet unaccompanied by evidence—"What about all of the contact with the Clinton campaign and the Russians?" Taking their cue from the president, Republicans led by Mr Nunes asked the FBI boss whether it was a grave crime for senior figures in the Obama era to reveal that spies had overheard phone calls between the Russian ambassador and Michael Flynn, the retired general who later served, briefly, as Mr Trump's first national security adviser, before resigning for having lied about those phone contacts. Leaking is a serious crime, Mr Comey agreed. Next Mr Nunes asserted that it was "ridiculous" to say that Russians might "prefer Republicans over Democrats". Mr Comey and his fellow-witness, Admiral Michael Rogers, director of the National Security Agency, clarified that they claimed no knowledge about a general partisan bias on the part of Russia. Instead, the spy chiefs explained, after some prodding by the ranking Democrat on the committee, Representative Adam Schiff of California, it is the belief of intelligence services that President Vladimir Putin of Russia not only loathed Hillary Clinton but positively favoured Donald Trump.

The House hearing did not clarify much. Members of both parties speculated about circumstantial evidence of possible collusion. But that grey cloud of suspicion still matters. It explains why the president seized on claims by a Fox News TV contributor that President Barack Obama had asked GCHQ, a British spy agency, to eavesdrop on the Trump campaign—claims that the British government call "utterly ridiculous". It helps explain why the White House press secretary, Sean Spicer, insisted that Paul Manafort—a political consultant with ties to pro-Russian politicians in Ukraine and, according to the Associated Press, to the Russian billionaire and Putin ally Oleg Deripaska—"played a very limited role for a very limited amount of time" in the Trump campaign, when he was in fact that campaign's chairman.

It explains why Mr Nunes rushed to the White House to brief the president that, according to information handed to him, "it's possible" that American spies overheard members of the Trump presidential transition team during legal surveillance of foreign targets. Asked if he felt this vindicates his allegation that Mr Obama ordered Trump Tower to be wire-tapped during the campaign (a grave charge unsupported by evidence, according to the FBI boss), Mr Trump replied: "I somewhat do." Though Democrats howled that Mr Nunes has not remotely vindicated the president's attack on his predecessor, Trump fans cheered: in today's America, each side hears the facts it wants to hear.

The most startling exchange at this week's hearing involved questions about why Russian hackers were so indiscreet when they stole e-mails from the Democratic National Committee and from the head of the Clinton campaign. That "loudness" looks deliberate, Mr Comey replied. Russia's aim was to undermine the credibility of American democracy and sow division. Given that Russia may believe that worked in 2016, the FBI boss concluded: "They'll be back." ■

Sedentary millennials

Explaining remaining

LOS ANGELES

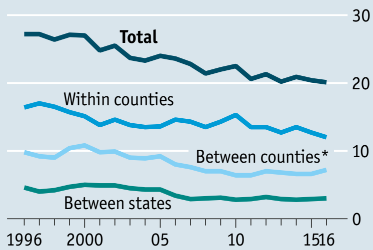
Millennials may move less because fewer of them own homes

MILLENNIALS—the generation which roughly includes those born between 1980 and 1996—have a reputation for being footloose. But analysis by the Pew Research Centre released in February suggests American millennials are moving less than previous generations did when they were younger. In 2016 20% of those aged 25-35 changed addresses, compared with 26% of the generation above in 2000 and 27% of late baby-boomers in 1990. Frequent moving in search of opportunity has long been an ingredient in American exceptionalism. Economists such as Tyler Cowen, author of "The Complacent Class", worry that its decline will dampen the nation's dynamism.

Since the 1980s, Americans of all ages have become more rooted. Between 1980 and 1981, 17% of Americans moved house, according to William Frey, a demographer

Road to nowhere

United States, domestic migration rates of 25- to 34-year-olds, %



Sources: Brookings Institution; William H. Frey

*Includes moves to counties in other states

at the Brookings Institution, a think-tank. Between 2015 and 2016 only 11% did. Migration between states, which is often driven by professional choices, has fallen by half since 1990. Young people, who normally move around most, seem especially stuck.

This is strange. More millennials lack the anchors that have previously rooted people in place: they are marrying later, having children later and buying homes at lower rates than previous generations did. In 1990 just under half of 18-to-34-year-olds had never married; that share increased to two-thirds in the period between 2009 and 2013. Less than half of 25-to-35-year-olds had children in 2016, compared with more than half for the previous generation and baby-boomers at a similar age. In 1982 41% of those under 35 owned homes. Today that share has fallen to 35%.

Yet despite the loosening of such ties, both short- and long-distance migration have decreased among 25-to-34-year olds since 1995. Short-distance moves within counties often happen when people simply move house—for example, to accommodate an increasing number of children. The fact that American youngsters are waiting longer before they start families may partly explain the drop in short-distance moves.

People tend to move longer distances, across counties and states, in search of better jobs. The recent recession saw longer-distance migration among young people fall. It has since recovered a bit. One factor that might explain what is going on is the relationship millennials have to home ownership. Aspirations to buy, rather than rent have traditionally pushed a significant share of young Americans to move. According to analysis by the Pew Research Centre, in 2000 14% of Generation Xers (born roughly between 1965 and 1980) surveyed by the Census Bureau said their primary motive for moving was to buy a house. In 2016 only 6% of millennials said the same. That might be partly because childless bachelors and bachelorettes are decreasingly likely to covet grassy yards and white picket fences.

Or perhaps such things are simply out of reach. Median earnings for full-time workers aged 18-34 fell by 9% between 2000 and 2013. In 2014, for the first time, more 18-to-34-year-olds lived with their parents than in any other arrangement, maybe because they could not afford to do otherwise. Conversely, it may be the case that people who already own houses—or equity in a house—are more inclined to move than those who do not.

Mr Frey wonders "whether [millennials] are ushering new young adult tastes and lifestyles that may be mimicked by generations that follow them; or is this a one-time downturn because of their difficult generation-specific economic circumstances?" If it continues, the decline in migration among millennials could spell trouble. Americans become less likely to move as they get older. If they're staying put now, millennials probably won't shift for better opportunities later on either. ■

Health fads

California freezin'

LOS ANGELES

Uncomfortable treatment with little scientific basis finds paying customers

NESTLED between a nail parlour and a tanning salon on Wilshire Avenue in Santa Monica, an upscale part of Los Angeles, is a newer kind of spa. Opened last year, CryoZone invites customers to spend $75 for three minutes in a cryogenic chamber cooled to -110°C for fledgling freezers and -132°C for chilling connoisseurs. The treatment is meant to calm inflammation and soothe muscle soreness, but Angelenos swear by it to solve all sorts of ills, from tennis elbow to the urgent need to lose a bit of weight before a daughter's wedding.

Invented in Japan in 1978 as a remedy for rheumatoid arthritis, cryotherapy is not new. But it was not until European rugby and football teams started freezing themselves in the past decade that it became more popular. America, which boasts at least 400 cryotherapy spas, is the first place to offer wide access to it. Impact Cryotherapy, a group that manufactures cryosaunas, claims to have units in 38 states running more than 10,000 sessions a week. California, unsurprisingly, is in the vanguard: there are around 60 below-freezing-cold vats in the state.

On a sunny weekday in March, CryoZone's minimalist space is buzzing. A man dressed in surfing trunks, a T-shirt and flip-flops had come to recover from marathon training. A woman in all-black Spandex is there to zap her back pain. Customers at the spa are invited into one of the centre's two treatment rooms and told to strip down to their skivvies. A towel is provided to swipe any excess moisture off the skin and fleecy gloves, socks and slippers are donned to protect the extremities. (A professional runner got frostbite in 2011 when he underwent cryotherapy in sweaty socks).

Next customers step into a round canister that looks like a galactic witch's cauldron, frothing with liquid nitrogen vapour, and ring a bell to solicit assistance. The chamber's platform has been adjusted to ensure that the customer's head pokes out of the top. A young woman in Nevada died in 2015 after she attempted to administer cryotherapy to herself, got stuck and asphyxiated from the lack of oxygen in the chamber. The spa's friendly business-development manager presses the timer and instructs his charge to rotate slowly as he makes small talk to speed the three minutes. It doesn't work. As the skin's temperature drops from 33.8°C to 1°C, horribly intense tingling starts—not so much pins and needles as swords and daggers. After 180 seemingly interminable seconds, the machine mercifully beeps.

Scientific studies on whole body cryotherapy are inconclusive at best. The Food and Drug Administration calls it a "trend that lacks evidence, poses risks". Health-conscious Americans seem unfazed. Perhaps its because they've seen athletes and celebrities like Shaquille O'Neal, Kobe Bryant and Demi Moore use it. Or maybe they trust their own personal reactions to cold treatment over science. The woman in black Spandex gushes: "My back pain used to be crippling. Now I can exercise again."

Journalist at work

New York's homelessness

Masses huddled

QUEENS, NEW YORK

New York has lots of homeless people, but comparatively few sleeping rough

SOME in Maspeth, a neighbourhood in New York City's Queens, were not at all pleased when they heard last year that City Hall had decided to convert a local hotel into a 110-bed homeless shelter. For months they held nightly protests in front of the hotel. They demonstrated outside the homes of the hotel's owner and of the city's homelessness commissioner. Eventually they wore down City Hall, which backed down a bit from a total conversion. Only 30 homeless men are housed in the hotel now. All of them have jobs. This is not unusual: more than one in ten of New York's homeless people are employed.

Since 1979, when a homeless veteran of the Korean war successfully sued the city for failing to provide him with shelter, the city has had a legal duty to house those unable to afford a home. (New York's state constitution says that "the aid, care and support of the needy are public concerns and shall be provided by the state and by such of its subdivisions.") In recent years the number of homeless people has grown. Whereas rents increased by 18% between 2005 and 2015, incomes rose by 5%. When Rudy Giuliani entered City Hall in 1994, 24,000 people lived in shelters. About 31,000 lived in them when Mike Bloomberg became mayor in 2002. When Bill de Blasio entered City Hall in 2014, 51,500 did. The number of homeless people now in shelters is around 63,000.

That is more than at any time since the Great Depression, though the comparison is misleading because the definition of homelessness has changed. These figures do not include the numbers living rough on the streets, who are hard to count accurately. Partly because of the obligation to provide shelter, New York in fact has fewer rough sleepers than many smaller cities (3,000 is the best estimate) but many more homeless people. Los Angeles comes next, with 44,000 homeless, followed by Seattle (10,700), San Diego (8,700), Washington, DC (8,350) and San Francisco (7,000).

Mr de Blasio unveiled a plan called "Turning the Tide on Homelessness" at the end of February, and declared his intention to open 90 new homeless shelters throughout the city. He plans to end the use of hotels as shelters by 2023 and to stop using cluster sites, private apartments paid for by the city, by 2021. Cluster apartments are not cheap and are often in poor condition. The mayor aims to reduce the overall shelter population by 2,500 over five years. He conceded that combating homelessness will be a "long, long battle", and added that he could not see an end to the problem.

That may seem reminiscent of the city's fatalistic attitude to crime in the 1980s. There are a few ideas around, such as increasing legal aid to those facing eviction, or creating a rent subsidy designed to help people facing eviction to stay in their homes. That is the brainchild of Andrew Hevesi, a state assemblyman; it has the backing of the mayor and dozens of state lawmakers. But short of a steep decline in rents, or an extensive programme to build more housing, or both, it is hard to see the city fixing its homeless problem.

New Yorkers, who do not have to walk far to see someone sleeping rough or panhandling, are not happy about this. More than half the city's voters say they are seeing more homeless people on the streets, in the subway and in parks. A poll by Quinnipiac at the beginning of March showed that 96% of New Yorkers think homelessness is a serious problem. More than 70% of them also think the city is doing too little to help. Yet doing more would require some combination of New Yorkers paying more tax, allowing more construction and welcoming homeless shelters and their occupants into their neighbourhoods. As the experience of Maspeth shows, that can be a hard sell. ■

Justice in Louisiana

Gremlins and phantoms

ABBEVILLE

A murky case in Acadiana points to problems in Louisiana and beyond

THE city of Abbeville, 20 miles south of Lafayette in the lush flatness of Acadiana, is known for a pretty Catholic church beside Bayou Vermilion and some slap-up oyster restaurants. It is the sort of small town in which the same surnames, many of them Cajun, recur among prominent business-owners and officeholders. It was also, until recently, home to a fearsome gang, known as the Gremlins—at least, so say the local prosecutors. That view of the group has yet to be endorsed by a trial, and, on current form, it seems unlikely to be. The Gremlins, and the limbo in which they are sunk, epitomise deep problems in the criminal-justice system of Louisiana, and not only Louisiana.

At first they instead seemed proof of the virtues of all-action policing. In February 2016, Clay Higgins, then spokesman for the sheriff of nearby St Landry Parish, denounced them in a Crime Stoppers video as "animals" and "heathens". Sporting body armour and a rifle, and backed by a phalanx of officers, he told the Gremlins they would "be hunted", railing in particular against one "uneducated 125-pound punk" whom he vowed to meet "any time, anywhere…You won't walk away." Such ultimatums earned Mr Higgins the nickname, "the Cajun John Wayne".

By then, and before the indictment was announced the previous December, most of the 17 supposed Gremlins were in custody. Their alleged crimes were indeed alarming: one murder, several attempted ▸▸

murders and drive-by shootings—though there were lots of routine drug offences, too. They were also accused of colluding in a "criminal street gang" and "racketeering enterprise"—which is where the trouble, and the lessons, begin. As Ronal Serpas, formerly police chief of New Orleans, says, racketeering laws are meant to target big-time mafiosi. Here, says G. Paul Marx, chief public defender for the district that includes Abbeville, "They're all dirt poor."

Moreover, he says, there is no evidence of the co-ordination or leadership that such an enterprise requires. Many of the alleged gangsters—all but one of whom are black—were barely born when the racketeering is said to have begun, in 1997. Their supporters insist the Gremlins tag referred not to a street gang but to a rap group, some of whose members posted ill-advised videos on YouTube that feature inflammatory lyrics. "They're no saints," says Coretta Williams, whose son, Gene Williams III, is among them, "but they're not the sinners they're claiming them to be."

Those who built the case are now reluctant to discuss it. Tony Hardy, Abbeville's police chief, pulled out of an interview with *The Economist*; although most of the accused come from his town—from a neighbourhood where lawns and pretty porches give way to trailer homes and ramshackle yards—a sergeant said Louisiana's state police had prime responsibility. The state police, the head of which recently retired amid a scandal over a tax-funded jolly to Las Vegas, say "multiple agencies" took part. Roger Hamilton, the prosecutor, declined repeated interview requests; cornered in Abbeville's white-columned courthouse, his boss Keith Stutes, the district attorney, maintained that while the racketeering charges may "seem unjust" to those affected, they "fit the circumstances".

He and others cited the ongoing legal proceedings in refusing to say more. That seems plausible, yet the reticence contrasts strikingly with the hoopla over the arrests and indictments. It wasn't only Mr Higgins. "This group of individuals have plagued the city of Abbeville," Chief Hardy said then. Grandstanding is a common feature of gang prosecutions, says Alex Alonso of California State University, Long Beach. The benefits to police and prosecutors go beyond PR, he says. The gang label helps to persuade juries when evidence is weak, and carries extra jail time—perhaps, for the "Gremlins", an extra 40 years. Police departments can apply for federal gang-related grants; some in Abbeville think that was an incentive in this case.

Mr Marx, the public defender, is trying to have the racketeering charges quashed. But otherwise he has made only one argument: that those defendants deemed indigent, and so notionally represented by his office, have been denied due process of law. Because, although some have been locked up for over a year, he says his team is able to help them in only a limited, cursory way. They are thus being denied a right that the constitution supposedly guarantees—as are hundreds of others in Louisiana and across America.

Throw away the key

Given the risk of conflicts, each "Gremlin" requires his own counsel. Three have private lawyers; the trouble for the others is that Mr Marx does not have the manpower to serve them. They are not alone. As of the beginning of March his office, which covers three southern Louisiana parishes, counted 746 individuals who had been charged but lacked representation—a big backlog but only a third of the total at the start of last year. That was when the chronic funding problems of Louisiana's public defenders became a crisis, and offices across the state began refusing new clients. Some judges dragooned private lawyers, some of them ill-qualified, to act pro bono. Other defendants, such as those "Gremlins" unable to post bail—hard to contest without a lawyer—were left to stew in jail.

In January, in a suit brought in New Orleans, a federal judge agreed that the state was "failing miserably" in its duty to indigent defendants—85% of the total—but ruled that fixing the problem was the legislature's job. (A similar suit is pending in state court.) It is true that the basic problem is political: specifically, the mismatch between Louisiana's appetite for prosecutions and legislators' reluctance to pay for them. The state has the highest incarceration rate in the country, but the most cockeyed system for funding public defenders, who rely for two-thirds of their income on local court fees and fines, principally traffic tickets, an erratic source of revenue.

The state itself is almost broke, so unlikely to stump up more. The upshot, says a recent study by the American Bar Association, is that Louisiana has only a fifth of the lawyers it needs to provide adequate public defence. While its problems are extreme, though, they are not unique. Last year Missouri's chief public defender despairingly tried to appoint the governor to represent an indigent defendant (he declined). In the past Florida's defenders have turned away clients, too.

This is a shortsighted economy. The parish jail in Abbeville is full, so several "Gremlins" are housed elsewhere, for a price. "They can't go to trial," says Mr Marx, because, as his quashing motion puts it, "there is no possible method for providing counsel for them." "I don't know how long the system is going to let them languish," he says; "apparently indefinitely." In fact very few cases go to trial in Louisiana: most defendants plea-bargain, which the long remands encourage, as do these scarifying gang charges. Still, even Mr Stutes, the DA, says he is frustrated. He says he expects a trial "at some point", but concedes that "we're at a standstill". "It's country here," says another person involved, "and they just do what they want to do."

"They made a whole big circus with our lives," says Ms Williams. When DAs, judges, sheriffs and city police chiefs are elected, political posturing may be inevitable. Take Mr Higgins. He resigned from the sheriff's office amid tension over his merchandising line. "Some horses just don't run with bit in their mouth," he reflected, saying he would "die rather than sacrifice my principles." He vowed to stick to "the Lord's path", which turned out to lead not into reality television, as seemed possible, but to November's election. Buoyed by his viral videos, and despite four marriages and allegations of child-support arrears, he campaigned in his cowboy hat and is now a United States congressman. ■

The road to Congress

Lexington | Mile-high mayor

Denver's mayor, Michael Hancock, is trying to save Democrats from a Trump trap

OUT in the savannah of American politics, the Democratic Party lacks big beasts. Republicans control the White House and Congress and, in the country at large, hold 33 governors' mansions and almost as many state legislatures. Not since the 1920s have Democrats carried so little clout at the state and federal level. Just one Democratic pack moves with the swagger born of electoral success: big-city mayors. Democrats head 17 of the 20 largest cities, from New York to inland centres like Denver, a fast-growing, diverse spot at the foot of the Rockies, once known for cows, Coors beer and hydrocarbons, now abuzz with tech start-ups and millennials seeking jobs in finance and health care.

In a backhanded tribute to their power, President Donald Trump has prepared a trap for Democratic municipal leaders. It is built around immigration enforcement, and the reluctance of many urban leaders to work too closely with federal immigration authorities—notably the black-clad agents of Immigration and Customs Enforcement (ICE). One of Mr Trump's first executive orders threatens to deny federal funds to so-called "sanctuary jurisdictions", meaning local governments deemed to be shielding "removable aliens" from deportation. On March 20th, obeying that same executive order, ICE issued the first of what are to be weekly reports tallying rejected "detainer" requests. In plain language, the report lists each time that local city officials, police or prison officers declined to hold foreigners eligible for removal long enough for them to be picked up by federal agents.

Some mayors sound ready to jump into Mr Trump's trap, eyes open, declaring that their fiefs are indeed "sanctuary cities"—thereby reinforcing the charge that Democrats are out of touch with regular folk who want safe communities. Marty Walsh of Boston has offered his City Hall office as a "safe space" for migrants fearing deportation. On the Democratic left, there is much talk of resistance. For Mr Trump—a man elected by the America of small towns, forgotten rustbelt cities and rural areas—such defiance is proof that big cities are sinks of dysfunction, run by liberal elites too craven or corrupt to enforce the rule of law. As a candidate Mr Trump brought the relatives of people killed by migrants to rallies. As president he accuses sanctuary cities of causing "immeasurable harm to the American people".

Put more simply, partisans on left and right see an advantage in fear-mongering. In contrast Michael Hancock, the self-styled moderate Democrat who has been Denver's mayor since 2011, believes that fear undermines good governance. The city's second black mayor, his problem-solving prowess was hard-won. One of ten children, he was brought up by a single mother. At times the family endured homelessness and nights without supper. Mr Hancock, a serious youth, started a mentoring scheme while at a high school plagued by gangs. Two brothers served time in jail, one died of AIDS and a sister was murdered by her boyfriend. He made it to college after a gig as a mascot for the Denver Broncos.

Today, interviewed in Denver's neoclassical civic centre, the mayor cuts a genial but earnest figure. He avoids the label "sanctuary city" and is adamant that Denver does not breach the terms of Mr Trump's executive order. He is also adamant that the new president's approach makes his city less safe. Since January, he notes, four domestic-violence cases collapsed after victims declined to testify, fearing detention by ICE agents seen staking out the municipal court. Denver, a city of about 700,000 people, is home to an estimated 55,000 undocumented immigrants, according to the Pew Research Centre, a think-tank. City prosecutors report a fall in calls reporting crimes to police in districts like Sun Valley, home to many Hondurans and other migrants.

Mr Hancock is to ask ICE to avoid detaining people inside courthouses, just as agents are currently meant to avoid arrests at schools, hospitals and churches. Yet Denver takes a more moderate line on working with the feds than cities like San Francisco, where in 2015 a serially deported felon was freed to kill after the then-sheriff ordered officers to avoid contacts with ICE. Denver's position is more nuanced: the city notifies the feds when a serious offender is about to be released and honours ICE warrants. But when ICE simply asks for someone to be held past their release date, without a warrant, Denver declines. In part, that is because Denver believes so-called "detainers" are unconstitutional. In part, the city believes scarce resources should be focused on removing serious criminals. Mr Trump's government wants to cast a broader net: in its March 20th report, ICE chides Denver for declining to hold a Mexican accused of drunk-driving.

Things to do in Denver

Some Republicans argue that America's future lies in admitting highly skilled legal migrants while cracking down hard on illegal residents. Mr Hancock suggests, gently, that they misunderstand the global contest for talent and investment. Why would skilled foreigners choose a home that is harshly unwelcoming to other newcomers, he asks? "Nobody wants to live in fear," he says, noting that recent chaotic travel bans have left some University of Denver students scared to travel home for spring break. It must be possible to strengthen immigration enforcement while being humane, he argues. "It doesn't have to be either/or."

Mr Hancock's city is solidly Democratic; just 19% of its votes went to Mr Trump. But his job often involves policies affecting the wider Denver metro region. That requires coalition-building in Republican-voting suburbs and listening to the concerns of rural neighbours—including farmers who rely on immigrant labour.

Asked if the Democrats' concentrated success in cities is itself a sort of trap, the mayor agrees. He urges Democrats to become "the metro party". Politics, metro-style, requires appealing to moderates, liberals and even conservatives, he explains. For now, Mr Hancock is a big beast in municipal politics. If Democrats are smart, they will give him more room to roam. ■

Also in this section

Coca-growing in Colombia

An unwelcome resurgence

SINAÍ, COLOMBIA

Despite last year's peace deal with the FARC, coca-growing is at an all-time high

THE hills surrounding Sinaí, a village in south-west Colombia, are blanketed in a green patchwork, ranging from the bright chartreuse of coca-plant seedlings to a darker clover colour that indicates the leaves are ripe for picking and processing into cocaine. It is areas like this that have helped to boost Colombia's estimated cocaine output 37% since 2015 to an all-time high of 710 tonnes in 2016, according to America's government. Some 188,000 hectares of land is now planted with coca, up from a low of 78,000 in 2012.

One reason for the rise seems counter-intuitive: the signing last November of a peace deal between the government and the FARC rebel group. It was supposed to reduce coca cultivation; the FARC had extorted a tax on coca crops and trafficked cocaine, and under the peace deal it is to support the government's eradication efforts. But the deal's terms were years in the crafting, and many of its provisions were clear well in advance—including that there would be payments for coca-farmers who shifted to different crops. The government created a perverse incentive to plant more.

And as the peace talks progressed, the government scaled back aerial crop-spraying—according to its critics, in order to placate the FARC. In 2015 it suspended spraying entirely, citing a study by the World Health Organisation concluding that glyphosate, the herbicide dumped out of planes, was "probably carcinogenic".

Instead, Colombia's government is putting its faith in crop-substitution. It is aiming at a cut of 50,000 hectares in the area under coca cultivation this year in 40 municipalities. If a community signs up, each family will receive subsidies and assistance of about $7,800 in the first year that they eradicate their coca, and will be helped to acquire title to the land and to find other means of support. In areas where no deal is struck, the army may come in to root up plants by hand.

Green shoots of peace

Since the end of January, more than 58,000 families representing 49,000 hectares of coca have signed up. But suspicion born of long disappointment is holding others back. In Argelia, the municipality to which Sinaí belongs, no one has agreed to take part. Marcela Montoya, of Ascamta, a peasant organisation in Argelia, says that although the region's coca-growers are in principle willing to switch crops, they doubt the government's promises. They should reduce their coca production only gradually, she says, and wait and see if the government comes through. Generations of Colombian coca farmers have subscribed to alternative-development programmes intended to support the transition from coca, only for funding to dry up.

In 2015 unarmed farmers in Argelia clashed with soldiers and government eradicators, burning the bus they were riding in. One farmer was shot dead and five others, as well as two soldiers, were injured. The government's intention is that the FARC's co-operation will help to lessen such resistance. As the guerrillas relinquish territory and make the transition to civilian life, it hopes that they will encourage farmers to make the switch away from coca. The FARC has shown a "clear and definite" commitment to convincing peasants to give up coca, says Eduardo Díaz, the government's director for crop substitution. Mauricio Jaramillo, a FARC commander in Guaviare province, says the guerrillas will have more influence than the government, because in many parts of the country coca-growers have relatives who are members.

But the FARC were never the only armed participants in the drug trade. As they withdraw, other criminal groups are moving in, including the National Liberation Army, a smaller guerrilla outfit. Argelia's coca farmers have a new slogan: "resistance"—to both the eradication pacts and the new armed groups trying to muscle in.

Some American officials think that stopping aerial crop-spraying was a mistake. Barry McCaffrey, a retired general who oversaw Plan Colombia, America's 15-year-long anti-drugs effort in the country, under Bill Clinton, told *El Tiempo*, a daily, that "the minute they decided to stop aerial fumigation they lost control over the problem." But the Americans are not publicly advocating a return to spraying—not least because proposed cuts to foreign aid would make it hard to pay for.

At present Colombia seems determined to attack the problem on the ground, farm by farm. It needs quick successes to build trust among coca-growers and calm American fears. In the longer term, though, so long as the world retains its taste for cocaine, farmers and gangsters will find a way to satisfy this demand. Those who spray are no match for those who pay. ■

Floods in Peru

Taking a battering

LIMA

Heavy rains are just the latest blow to the country's economy

MORE than 75 people have been killed, and more than 100,000 left homeless, as Peru's coast has been battered by the strongest rains seen in decades. Millions are without running water; more than 2,000km of roads and at least 175 bridges have been destroyed. The devastation has been caused by a "coastal El Niño", a localised version of the global El Niño weather cycle that brings warm currents from Australia to the Pacific coast of the Americas. Peru had been braced for a big El Niño in 2016, but it did not arrive. It was not expecting a coastal version, especially of such magnitude.

But even if it had known what was coming, it would not have been prepared. "This is not a natural disaster, but a natural phenomenon that has led to disaster because of the informal way this country has developed," says Gilberto Romero, the head of the Centre for Disaster Research and Prevention, a local NGO. "We need to re-think and re-engineer our cities."

Pedro Pablo Kuczynski, the newish president, has pledged to work with mayors to stop homes from being rebuilt in vulnerable areas, and wants hydrological studies along river basins to reduce the risk of similar damage in future. The government has set up a fund of 2.5bn soles ($770m) to help victims and begin reconstruction, on top of a stimulus package that will pump 5.5bn soles into infrastructure.

But the flooding is just the latest problem in Mr Kuczynski's in-tray. Last year, the government had forecast growth of 4.8% for 2017. In January it cut that prediction to 3.8% as the scale of a scandal involving Odebrecht, a big Brazilian construction firm, became clear. The floods will cut it further. In December Odebrecht admitted in a court case in the United States that it had paid bribes to win contracts across Latin America, including in Peru. It said it had paid $29m in Peru between 2005 and 2014 to secure concessions.

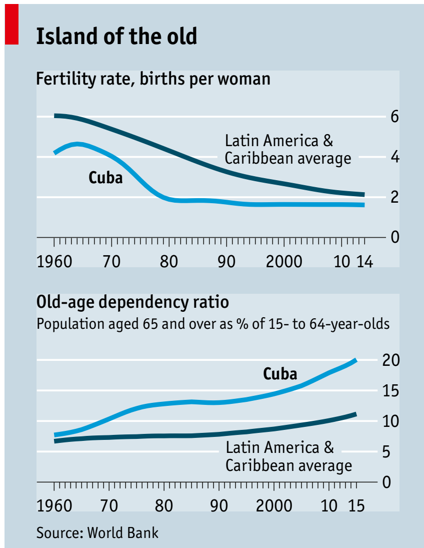
Initial investigations have landed five people in jail, and in February an arrest warrant was issued for Alejandro Toledo, Peru's president between 2001 and 2006, for allegedly taking $20m from the firm. Prosecutors are also investigating his two successors, Alan García and Ollanta Humala. All three have denied wrongdoing.

The government has passed new anti-corruption laws and told Odebrecht to pull out of Peru. But many voters expect further revelations. A poll by Datum Internacional, a research firm, found that two-thirds believe that Mr Kuczynski was involved in the Odebrecht bribery scandal. He has denied any link. Congress plans to question the transport minister, Martín Vizcarra, about a contract for a new airport in Cusco, Peru's main tourist destination. He denies any wrongdoing, and laments that the "Odebrecht effect" has made all political decisions suspect.

Mr Kuczynski's approval rating has fallen steeply since he took office eight months ago. It stands at just 32%, according to Ipsos Peru, a pollster. And Popular Force, led by Keiko Fujimori, his main rival in last year's elections, has a majority in congress. It is watching closely for any opportunity to damage the president. It intends to propose a bill to have Peru renounce its hosting of the 2019 Pan-American games, saying the money saved should go on reconstruction.

Mr Kuczynski says Peru can afford both, and that pulling out would tarnish the country's image abroad. That increases the pressure on him to manage the reconstruction well. If he succeeds, it would help to persuade Peruvians that his administration deserves its technocratic billing—and to rebuild his own image, too. ■

Time for a clean-up



Cuban pensioners

Hustling, cradle to grave

HAVANA

As the island's economy stalls, retirement has become notional

NORBERTO MESA, a 66-year-old grandfather, stands in the hot sun 11 hours a day, six days a week, guiding cars in and out of the parking spaces in front of a bustling farm stand. The 4,000 Cuban pesos ($170 at the official exchange rate) he earns each month in tips is more than ten times his monthly old-age pension of 340 pesos. Without it, the retired animal geneticist could not afford fruit and meat, or help his children, who work for low salaries, to feed his four grandchildren.

Though revolutionary Cuba had one of the region's earliest and most comprehensive pension systems, in recent years retirement has almost vanished. Without further economic reform, and the cheap oil that used to come from Venezuela, the economy has stalled. Pensions have been frozen, and their value eaten up by inflation. According to the most recent government statistics, from 2010, a third of men past retirement age are working. Three-fifths of older people say they often have to go without necessities.

The insular socialist paradise supposedly offers a social safety-net, cradle to grave. But it is full of holes. Medical care is free, but most medicine is not. Retirement homes are scarce, and rules that mean residents must give up their pensions and homes put off many, since these are often a lifeline for younger relatives in equally distressed circumstances.

So old people can be seen on the streets of Havana selling newspapers and peanuts, or recycling cans. They are scrubbing floors in affluent homes or cooking for a growing number of private restaurants and bakeries. Ernesto Alpízar, an 89-year-old former agronomist, goes door-to-door selling strawberries and flowers. Even so, he remains an ardent "Fidelista", grateful to the island's late dictator for the free cataract surgery that saved his eyesight.

For even as the island's old and infirm must hustle to survive, they have benefited from its success at providing health care. Life expectancy at birth is 79, not far short of most developed countries, and widely available birth control helps explain why family size has fallen further and faster than in most other countries (see chart on previous page). The flip side, though, has been a breakneck demographic transition—exacerbated by the large share of young and middle-aged Cubans who have fled to America. Over-65s now make up 14% of the population. The national statistical office estimates that the total number of pensioners will overtake the number of state-sector workers by 2025.

A few churches and charities, mostly funded from abroad, are trying to fill the gap. Rodolfo Juárez, a pastor of the International Community Church, a Protestant congregation, helps 60 indigent elderly people in Havana. His scheme provides fruit, vegetables and beans to supplement government rations of a daily piece of bread; and 7lb of rice, 2lb of sugar, five eggs and a piece of chicken a month. Although running it costs just 18,000 pesos a month, funding is a constant problem.

Mr Juárez and his wife, at 80 and 75, are older than many of those they help. Between their church duties and his teaching at a seminary, they make 3,600 pesos a month. Though that does not go far, it dwarfs Mr Juarez's pension. As long as Cuba's economy flat-lines, its elderly will have no rest till they drop. ■

Bello | Come together, right now

There has never been a better time for Latin American integration

IT IS Saturday lunchtime, and about 30 trucks are parked at each of the customs posts on either side of the bridge across the broad Uruguay river that marks the border between Argentina and Uruguay. Both countries are members of Mercosur, a would-be customs union that also embraces Brazil and Paraguay. In theory, internal borders should not exist in Mercosur. In practice, customs, sanitary inspections and other paperwork mean that the trucks are delayed for up to 24 hours, says Oscar Terzaghi, the mayor of Fray Bentos, on the Uruguayan side.

This represents an improvement. For three years before 2010, access to the bridge—the shortest land route between the two capitals, Buenos Aires and Montevideo—was blocked by Argentine environmentalists with the support of the country's president, Cristina Fernández. They claimed that a planned paper mill at Fray Bentos would pollute the river. The dispute ended only when the mill was operating and the International Court of Justice ruled that there was no evidence of pollution.

For the past half-century, Latin American politicians have talked incessantly about regional integration. But they have struggled to make it happen. Despite a big increase in trade agreements among Latin American countries this century, the share of their exports that stays within the region has remained stubbornly around 20%, according to a new report from the World Bank. That is low compared with Canada and the United States (35%), East Asia (50%) and 18 core members of the European single market (60%).

There are several reasons for this. Many Latin American economies are small, produce similar things and are separated by huge distances, all factors that tend to discourage trade. That is bad

news: trade boosts economic growth, by increasing efficiency and by the "learning" that comes from exporting to other markets or importing more sophisticated goods. And after six straight years of economic weakness, Latin America is casting around for new sources of growth.

Some of the centre-right governments that have recently come to power in South America are keener on open trade than their left-wing predecessors, especially in Mercosur. Unfortunately, the biggest gains in efficiency and learning might come from more trade with the United States, something Donald Trump seems uninterested in. But there are other things the region can do to help itself.

There is much talk in South America of "convergence" between Mercosur and the Pacific Alliance, a free-trading group comprising Chile, Colombia, Mexico and Peru. Next month in Buenos Aires, foreign ministers from both will meet for the first time. Yet the groups have different rules and philosophies; merging them is a technical and political impossibility. One option would be to use ALADI, a 1980 integration treaty, to harmonise and improve existing preferential agreements, says Enrique Iglesias, a Latin American elder statesman.

The easiest gains lie in tackling bureaucratic obstacles to trade. Susana Malcorra, Argentina's foreign minister, says that with her Mercosur counterparts she has identified 80 such obstacles, such as conflicting norms and standards, which they will try to do away with. They have pledged to unify border posts where there are two, as on the river Uruguay. Better transport links and open-skies agreements are essential, too. Transport costs in South America are unusually high.

The World Bank argues that regional and global integration go hand in hand. Mr Trump has killed the Trans-Pacific Partnership; the Pacific Alliance hopes to resurrect it without the United States, linking its members to Asia. Mercosur retains fairly high external tariffs and has few trade deals with others. It is making a fresh effort to conclude long-stalled talks with the EU; an agreement would provide a "road map and a corset" for liberalisation, says Ms Malcorra. But without Britain, the EU is even less likely to offer the market access Mercosur wants for its farm exports.

The rhetoric of integration masks often-shameless protectionism by business, especially in Argentina, Brazil and Colombia. This has bred cynicism. The problem, says Roberto Bouzas, a trade specialist at San Andrés university in Buenos Aires, is how to translate the abstract demand for integration into a concrete political agenda backed by organised interests, and find leaders willing to carry this out.

There is a flicker of hope. For the first time, says Ms Malcorra, there is "a very determined attitude from all the presidents". Unfortunately, the region's governments are politically weak. But they know they must rekindle growth, and that regional integration will help.

Also in this section

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Yemen

Beggar thy neighbour

Two years on, Saudi Arabia's war is a study in futility and self-harm

WITH hindsight Shawki Hayel, Yemen's most successful industrialist, made a mistake putting his food-processing plant in his hometown of Taiz. The town straddles the front line where northern Houthi rebels are fighting the Saudi-backed government in the south and the war has been harshest. Imports of flour for his biscuits are haphazard because of a Saudi-led blockade at Hodeida, the country's largest commercial port. Warlords on the road in between erect checkpoints to rob travellers and merchants. And then there is the problem of payment. Abd Rabbo Mansour Hadi, the president, moved Yemen's central bank from Sana'a, the capital seized by his northern Houthi foes in January 2015, to Aden, a southern port now controlled by soldiers from the United Arab Emirates (UAE), but had to leave its bureaucrats and database behind. Government employees have not been paid since July. Banks have stopped issuing letters of credit or cashing cheques.

As Yemen's formal economy collapses, a war economy has taken its place. For a fee, any truck can pass checkpoints without inspection, no matter what it carries. Weapons-smuggling is rife; particularly, says a diplomat, of Saudi-supplied arms. So cheap and plentiful are hand-grenades that Yemenis throw them to celebrate weddings. Sheikhs offer their tribesmen as fighters for neighbouring countries willing to pay for regional influence. (One warlord supposedly presented his Saudi backers with a payroll of 465,000 men.) For a further fee—call it performance-related pay—they might even advance. Ending the conflict might cost the warring parties their livelihoods, so they have stopped talking to the UN's special envoy. When the unfortunate diplomat arranged a ceasefire-monitoring centre in Saudi Arabia, the Houthis bombed it. "They and their sons make millions at the expense of hungry Yemenis," says a frustrated mediator.

Source: *The Economist*

Outsiders have added greatly to the fragmentation of Yemen. Iran has long backed the Houthis with weapons, but ideas are just as lethal an export. Yemen's population is comprised of roughly equal numbers of Shafii Sunnis and Zaydi Shias, inclusive sects whose followers once prayed side-by-side in the same mosques. But after Iran's Shia revolution in 1979, ayatollahs in Iran's holy city of Qom paid for hundreds of Zaydis to enroll in their seminaries. Many returned to preach the virtues of Iran's more mainstream Shiism, and hung portraits of Iran's supreme leader, Ali Khamenei, in their homes.

Saudi Arabia countered by exporting its own Wahhabi version of Sunni Islam. Radical preachers, such as Muqbil al-Waddai, opened retreats in the desert, where at prayer-time trainees bowed down to Kalashnikovs laid in front of them. With Sunnis concentrated on the coast and in the east, and Shias predominating in the highlands of the north-west, their rival creeds prised the country apart.

Such are the animosities that Yemen, stitched together in 1990, is now disintegrating. The south seethes at the northern bullies who bombarded their roads and sniped at their citizens when they briefly conquered Aden in the early months of the war. The north decries the southern traitors who invited Saudi and Emirati forces to drop bombs on them and isolate them by land, air and sea after the outsiders joined the war in March 2015.

The fact that gains on the ground are often secured by tribal understandings and payments rather than by fighting accounts for the high share—three-fifths—of all casualties that are caused by air strikes. Reluctant to take risks, Saudi pilots fly high, out ▸▸

of range of anti-aircraft fire. That spares Saudi lives, but imprecise bombing increases Yemeni civilian casualties. The UN says over 7,000 Yemenis have been killed in the two years of war. Hospitals were attacked 18 times in 2016.

Not according to plan

Hunger is also taking a toll. Yemen imports 90% of its food, so the warring parties control its supply as yet another weapon. Without electricity to keep it cool, much of what gets through perishes. Of some 27m Yemenis, 7m are going hungry, says the UN, almost double the figure in January. Some 3m people have fled their homes, but of Yemen's neighbours, only Djibouti accepts refugees. Yemen, says the UN, is the world's largest humanitarian crisis.

Saudi Arabia insists all this is a price worth paying for reinstating the president the Houthis chased out of the capital in 2015. They had reason to worry. After the fall of Sana'a, Iran boasted that Shias had won a fourth Arab capital (along with Baghdad, Beirut and Damascus), this time in their Saudi rivals' backyard. Some Houthis pointed artillery purloined from state armouries northward, and said they might march to Mecca. Others fortified positions on the Red Sea through which 4m barrels of oil pass every day en route to Europe. Vowing to push Iran back, the new Saudi king's impulsive son and defence minister, Muhammad bin Salman, saw a chance to prove his mettle.

But even if the diagnosis was accurate, the prince's response has been fatally flawed. War has only exacerbated the manageable threat that Saudi Arabia faced at the start. No matter how often its loyal press report victorious advances, the front lines have in fact changed very little. But Saudi Arabia now looks more vulnerable and Iran looms larger than ever. The Houthis mount regular raids dozens of kilometres into Saudi Arabia, often unopposed. Missiles land as far north as Riyadh, most recently striking an airbase there on March 18th, and disable coalition naval vessels in the Red Sea. Scores of Saudi and UAE tanks have been struck. As always, al-Qaeda and Islamic State fill the copious ungoverned spaces, perhaps offering a refuge for fighters fleeing Iraq and Syria. As a war it predicted would quickly end enters its third year, Saudi Arabia seems without an exit strategy. "Yemen [is] in danger of fracturing beyond the point of no return," said a recent UN report.

The UAE, which masterfully captured Aden with an amphibious landing in August 2015, had vowed to make the city a model for the rest of the country. A year and a half on it still refuses to let in journalists, so it is hard to measure its success. Security has improved, say locals, but governing institutions remain sorely lacking. Destitute refugees from Aden arriving in Djibouti insist they have seen no evidence of the billion dollars the Emirates claims it is investing in reconstruction. In the territories it has captured, the coalition's forces battle over the spoils. Mr Hadi's own southern tribesmen are but one of four forces scrapping for control of the port and the airport. Al-Qaeda is another.

Those who should know better egg them on. "All permanent members of the UN Security Council are against the war, but they are all ready to sell Yemen for arms," says an ex-UN official who worked on Yemen. By night Saudi Arabia launches American-made Reaper combat drones from an American base in Djibouti. In order to buy silence, King Salman promised China $65bn of investment on a visit this month. Saudi Arabia's people, fed up with the austerity measures put in place to help with their country's budget deficits, would rather the money was spent at home. ■

Syria

The race for Raqqa

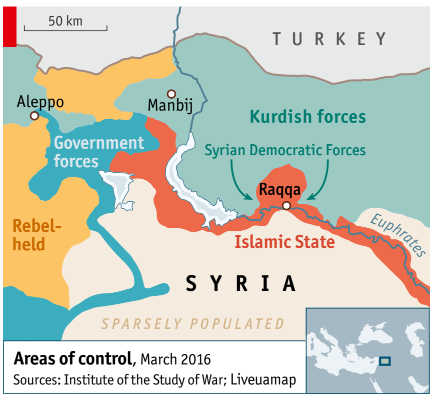
SANLIURFA

America's allies clash ahead of the final battle for Islamic State's capital

THE last caliph to make the Syrian city of Raqqa his capital was a lover of fine wine, art and women. Although certainly brutal (he had his most loyal adviser cut into three pieces in 803), Harun al-Rashid is best remembered for his lasciviousness, which inspired some of the raunchiest tales in "The Arabian Nights".

By contrast, Raqqa's current overlord—the self-declared caliph of a self-declared caliphate—will be remembered for unleashing a spasm of grotesque violence that erupted in Iraq and spread as far as the shores of Libya and the mountains of Afghanistan. Abu Bakr al-Baghdadi will have also presided over one of the shortest-lived "caliphates" in history.

The fall of the capital of Islamic State (IS), which the extremists captured in January 2014, looks imminent. Since November, a combined force of Kurdish and Arab fighters known as the Syrian Democratic Forces (SDF) has swept through the desert from the north, sealing the city from the north, east and west. Backed by air strikes from the American-led coalition against IS and supported by American special forces on the ground, the SDF's closest front line is now just a few kilometres from the city.



Areas of control, March 2016
Sources: Institute of the Study of War; Liveuamap

The coalition's planes have destroyed the bridges that span the Euphrates to the south, completing the siege of the city. Air-dropped leaflets have warned residents not to cross the river in ferry boats (IS has used the boats to reinforce the city with men and weapons). Both civilians and fighters are trapped.

As in its defence of Mosul, now also nearing its end, IS has burrowed a network of fortified tunnels beneath Raqqa and prepared dozens of suicide-bombers for its enemies. Its fighters have booby-trapped homes, ringed the city with belts of improvised landmines and strung tarpaulins across the main streets to conceal them from drones.

Whether the fight takes weeks or months, there is little doubt that IS will lose its capital. Of greater concern, given the heady mix of competing interests in northern Syria, is what comes next. Many question the wisdom of gambling on the Kurdish-dominated SDF to liberate a city where Arabs predominate. There are also fears that the SDF's links to the regime may restore a degree of government control over the city, which was the first to fall to rebel forces in the early years of the revolution. The SDF recently ceded control of several villages to the government in a Russian-brokered deal that has only intensified these fears.

"They [locals in Raqqa] want to get rid of IS but they are really worried about who's coming to free them," says Mohamad Shlash, a lawyer and former member of the city council. "IS is playing on these fears, telling people that the SDF is full of atheists and regime people who are coming to destroy Islam."

America's support for the SDF has infuriated the Turkish government, whose enmity with the Kurds has threatened to derail the campaign against IS. The SDF is spearheaded by the military wing of the PYD, a Syrian-Kurdish party that has seized on the chaos of Syria's six-year war to carve out a proto-state along the Turkish-Syrian border. The PYD in turn has close ties with the PKK, a Kurdish party that the Turkish government has fought for decades. It regards a Kurdish mini-state with strong links to a group both America and Turkey consider to be a terrorist organisation as anathema. To thwart Kurdish ambitions along its border, Turkey sent tanks and troops into Syria last August, bringing them face-to-face with American special ▸▸

forces deployed as advisers to the SDF.

In the run-up to the battle for Raqqa, America has had to work hard to keep these unruly partners from tearing themselves, rather than IS, apart. When Turkish-backed rebel forces attacked the SDF. around the town of Manbij earlier this month, America had to rush its own soldiers into the town to stop its allies from killing each other. It has also sent a unit of marines to the outskirts of Raqqa to set up an artillery base ahead of the battle. More soldiers and helicopters will probably follow as America seeks to speed up the fight against IS.

Whatever its make-up, the force faces a severely depleted IS. Its shrinking territory has seen the group's revenue drop by more than half since 2014. Local fighters have had their wages cut, lowering morale and increasing tensions with better-paid jihadist immigrants from countries such as Tunisia and Saudi Arabia.

"There are a lot of local fighters who want to quit," says an IS defector who fled to Turkey four months ago. "But many are afraid of being captured by the anti-IS tribes or by the rebel groups. They know they'll be killed. Others can't afford the smuggling fees. So they will have to fight. They don't have much choice." Even with the group's Utopian dreams in ruins, the war against IS is far from over. ■

Contraceptives in Egypt

A bitter pill

CAIRO

A shortage of drugs makes life tough for Egyptians

WHEN they got married a year ago, Hassan and his wife were not ready to have children. So she began using Yasmin, a popular birth-control pill made by Bayer, a German company. But last summer, Yasmin disappeared from pharmacies. So she switched to another brand, until it also disappeared. The newly-weds were careful, but in October Hassan's wife found out that she was pregnant. He went looking for abortion pills. But they, too, were unavailable.

The ordeal of Hassan (not his real name) and his wife is not unusual. During the past year, many Egyptians have struggled to find contraceptives, especially birth-control pills. This is symptomatic of a broader shortage of medicines that has caused widespread suffering. Access to contraception is rarely a matter of life and death—unlike, say, cancer treatment, which is also limited. But Egypt's population is growing at 2.4% a year, much faster than most other developing countries. Water and food are in short supply. The government can hardly serve the 92m Egyptians alive today.

Egypt was once at the forefront of contraception. In ancient times women inserted a paste made with crocodile dung into their vaginas to prevent pregnancy. Now more reliable prophylactics are imported, or made locally with foreign ingredients. The same is true of other medicines, so Egyptian drug companies need foreign currency, which was in short supply last year. Most had to buy dollars at a premium on the black market, adding to their costs. After Egypt floated its currency in November, leading to a precipitous drop in its value, the cost of imports spiked.

Since 1955 the government has fixed the price of medicine, which once made Egypt a destination for medical tourists. Now the policy hinders drug firms, which cannot pass on higher costs to consumers, most of whom pay for contraceptives themselves. Since last year firms have pleaded with the government to raise prices and, say critics, hoarded their stocks. Anxious consumers have aggravated the shortages by buying more than they need.

Hassan turned to the black market to get birth-control pills, until those disappeared. Others adapted in different ways. Egyptian couples tend to shun condoms, but some have resorted to them. There is a shortage of sex education, too. A pharmacist in Cairo claims one woman tried to swallow the condoms she bought.

By the time the government agreed to raise the price of medicines in January, 95% of the local factories that make drugs had stopped production, says Ali Ouf of the Federation of Egyptian Chambers of Commerce. For now, shortages are easing. "Most missing medicine is now available, but in very small quantities," says another pharmacist. "For contraceptives, one person cannot buy more than one pack."

There has been talk of the government playing a larger role in the drugs market. (When there was a shortage of baby formula last year, the army intervened.) But its bureaucracy is already part of the problem. Several ministries regulate the import, manufacture and sale of drugs. The IMF has urged Egypt to abandon fixed prices. Locals want the government to widen and improve coverage.

The government claimed a victory for its family-planning policies when population growth slowed slightly in 2015. The numbers for 2016 are not yet available, but they will not tell the whole story. Last year Hassan paid a doctor 8,000 Egyptian pounds ($440) to perform an illegal abortion. "The government is, of course, responsible for that," he says. ■

South Africa

The thin robed line

The courts are struggling with a government that defies the law

IT READS like a head-teacher's instructions to a failing pupil to come back every few months, homework in hand, to prove that he has done better. Sadly it is a judgment by South Africa's Constitutional Court, the country's highest, against a government that the judges no longer trust to uphold the laws and constitution.

The ruling, handed down by an exasperated court on March 17th, was something of a U-turn. Three years earlier it had found that the government had not run a fair tender process when, in 2012, it gave a contract to a private company to manage the payment of pensions and social grants. At the time the court did not look into whether the contract to Cash Paymaster Services (CPS) was corruptly awarded, but it did note that "deviations from fair process may themselves all too often be symptoms of corruption or malfeasance." ►►

Although in 2014 the court declared the contract with CPS invalid, it did not simply tear it up, because of its concern for the well-being of some 17m people, or nearly one in three South Africans, who get monthly payments from the state. These include not just the old but also mothers of young children, and people with disabilities. So the court said it would allow the contract to run for its full five-year term. But it told the government either to run a new (clean) tender to award a contract for the five years from April 2017, or to prepare to make those payments itself. Three years on, almost on the eve of the contract's expiry on March 31st, it turned out that the government had done neither.

After being hauled before the court by civil-society groups fretting that social payments would halt in April, the government admitted it could not make the payments itself, had not found anyone else to do so and argued that the court had no option but to allow it to renew the deal with CPS. With protests being held outside government offices and pensioners fretting about whether they would get paid in April, the court has been forced to give in and allow CPS to keep managing the social-welfare system, its rage evident in the judgment. The government had "broken the promise" it had made to the court, and the result of its endangering the payment of social grants is that "the fabric of our society comes under threat", the justices wrote.

The self-inflicted crisis has left many scratching their heads looking for a motive, or a beneficiary. Some suspected the hidden hands of allies of the president, Jacob Zuma, who for some months has been looking for an excuse to fire Pravin Gordhan, his independent-minded and internationally respected finance minister. Mr Gordhan's firm hand on the Treasury has thwarted several of Mr Zuma's more outlandish plans, including one to get Russia to build a fleet of nuclear-power stations that South Africa cannot afford.

Liezl Van Der Merwe, an opposition MP, voiced such concerns in February at a parliamentary committee meeting, when she asked for assurances that the government was not manufacturing a catastrophe to "give the minister and the president more ammunition to fire Pravin Gordhan". Yet risking social unrest to reshuffle a cabinet seems too dangerous a game for a politician as wily as Mr Zuma.

Whatever the cause of the crisis, the judges have passed an order that means the Constitutional Court is prying far more deeply into the affairs of the executive branch than it would prefer. The court has ordered the government to report every few months on its progress towards either preparing a new tender or taking over the payment of social grants within a year.

Judges and politicians are often at loggerheads. In a different case, a court overturned the appointment of an ally of the president as the head of an elite police investigations unit because, it said, he was "dishonest and lacks integrity". Yet the conflict between the two arms of government may also be putting judges at risk. Just days after both court rulings, unidentified intruders burgled the office of the chief justice, stealing only computers that held personal information about judges such as their home addresses.

Still, the judges seem able to get personal too. In the CPS case the court has ordered Bathabile Dlamini, the minister responsible, to give reasons why it should not make her pay for the costs of the court case "from her own pocket". But it is a sad day when South Africa's courts must resort to threatening ministers to ensure that their orders are enforced. ■

African rubbish

Plastic bantastic

NAIROBI

Banning the bag is a small step

LITTERING in graveyards is generally frowned upon. But at the edge of Kangemi, a slum in Nairobi, Kenya's capital, a patch of land that used to be a final resting place for humans now serves as a rubbish dump. A few mangy goats roam around, picking out scraps of food. Men, too, scrabble around. "This is where we find our daily bread," says George Kimani, who collects aluminium cans and plastic bottles and sells them to recyclers. But one thing is not of use, he says: plastic bags. Left behind by goats and men alike, they form a carpet of green, blue and white on the ochre earth.

Since their invention in the 1960s, disposable plastic bags have made lives easier for lazy shoppers the world over. But once used, they become a blight. This is particularly true in poor countries without good systems for disposing of them. They are not only unsightly. Filled with rainwater, they are a boon for malaria-carrying mosquitoes. Dumped in the ocean, they kill fish. They may take hundreds of years to degrade. On March 15th Kenya announced that it will become the second country in Africa to ban them. It follows Rwanda, a country with a dictatorial obsession with cleanliness, which outlawed them in 2008.

The ban was hailed by the United Nations Environment Programme as a breakthrough. "Our oceans are being turned into rubbish dumps," says Erik Solheim, the head of the agency. As Kenyans get richer and move to cities, the amount of plastic they use is growing. By one estimate, Kenya gets through 24m bags a month, or two per person. (Americans, by comparison, use roughly three per person.) Between 2010 and 2014 annual plastic production in Kenya expanded by a third, to 400,000 tonnes. Bags made up a large part of the growth.

Kenya has tried to ban polythene bags twice before, in 2007 and 2011, without much success. This latest measure is broader, but few are ready for it. The Kenyan Association of Manufacturers says it will cost thousands of jobs. Some worry that supermarkets will simply switch to paper bags, which could add to deforestation. And then there is the question of whether Kenyan consumers will accept it. In Rwanda, since its ban was imposed, a thriving underground industry has emerged smuggling the bags from neighbouring Congo. Packing in the plastic may be harder than it seems.

The Economist

SPECIAL REPORT

THE FUTURE OF THE EUROPEAN UNION

March 25th 2017

The case for flexibility

Creaking at 60

As it marks its 60th birthday, the European Union is in poor shape. It needs more flexibility to rejuvenate itself, argues John Peet

THE EUROPEAN PROJECT has sometimes given the impression of being in perpetual crisis. Indeed, its spiritual father, Jean Monnet, saw this as the best way to advance to his preferred goal of "ever closer union", arguing that "Europe will be forged in crises, and will be the sum of the solutions adopted for those crises." Yet as the union prepares to celebrate 60 years since its founding treaty was signed in Rome on March 25th 1957, it is in deeper trouble than ever.

A big reason for this is the politics in EU member countries. Crucial elections loom in many this year, and populist parties opposed to the European project and in favour of referendums on membership of the euro, the EU or both are likely to do well. In the Netherlands, Geert Wilders's anti-European Freedom Party gained seats in an election on March 15th, though fewer than many had feared. In France Marine Le Pen of the National Front is expected to win a place in the second, run-off round of the presidential election in early May, just as her father did in 2002. Although, like him, she will probably lose, she will come closer to winning than he did. And if she loses, it may be to Emmanuel Macron, who is running as an outsider with an untried political party.

Then in September Germany will go to the polls, and the anti-euro Alternative for Germany party is likely to win its first seats in the Bundestag. Although Angela Merkel may yet remain chancellor, her new Social Democratic challenger, Martin Schulz, is running close behind her in the polls. Were he to replace Mrs Merkel, the shock to a European project that she has largely led for 12 years would be profound. Italy must also hold an election by early 2018; two of its leading parties have at different times called for a referendum on the country's euro membership.

One reason for the likely success of populists against incumbents is that Europe's economic mood is so glum. Although growth has returned and the euro zone has stabilised, growth rates are still low and, notably in ▸▸

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the Mediterranean, unemployment (especially among young people) is punishingly high. Greece remains a basket-case on the edge of default, and the markets are nervous about Italy and France. Public debts across the union remain large, and progress on liberalising structural reforms has largely stalled. The euro zone has a partial banking union, a centralised bail-out fund and a European Central Bank (ECB) prepared to act as a lender of last resort, but its architecture remains incomplete and there is little agreement over how to finish the job.

Migration remains a huge issue. The numbers entering the EU from the Middle East and Africa have come down a lot, but mainly because of a questionable bilateral deal with Turkey to close the main transit route into Greece that could fall apart at any moment. Hundreds of would-be migrants still take to leaky boats across the Mediterranean every week. The distribution among EU countries of those refugees who have got through has created serious tensions, with Germany particularly angered by the refusal of central European countries to take more than a few. Work to strengthen the union's external borders has been fitful at best. Internally, the Schengen frontier-free system is troubled and several border controls have been reintroduced.

The deteriorating geopolitical environment makes matters worse. Turmoil and war across the Middle East and in north Africa were one big cause of the surge in migrant inflows. An aggressive Russia under President Vladimir Putin is now seen as a direct threat, particularly in eastern Europe. Turkey's president, Recep Tayyip Erdogan, is turning his back on a club that seems to have rejected his membership aspirations, and is spurning its democratic values as well. To cap it all, America's new president, Donald Trump, has shown himself hostile not just to multilateral free trade and Muslim immigrants but intermittently to the EU, praising Britain's decision to leave and urging others to follow.

That points to perhaps the biggest current concern of all: the EU's unpopularity with both national governments and their voters. Following last June's referendum, in which the British voted to leave by 52% to 48%, their prime minister, Theresa May, is about to trigger the two-year process for Brexit under Article 50 of the EU treaty. Brexit may be more painful for Britain than for its 27 partners, but it is still a threat to the future of a union that has previously only ever expanded. Some politicians in other countries have openly said that they want to follow Britain's example. The EU's popularity ratings in other member countries received a slight boost from the Brexit decision, but they remain strikingly low by past standards (see chart).

Indeed, whenever any European treaty has been put to a vote in recent years, it has been as likely to be rejected as approved. The Danes and the Irish are famous for having to be asked to vote twice to produce the desired result. French and Dutch voters sank the EU constitutional treaty in 2005. The Dutch also rejected an association agreement with Ukraine last year. In capitals around Europe, diplomats gloomily conclude that there may never be another treaty, for at least one country would surely fail to ratify it.

Whenever any European treaty has been put to a vote in recent years, it has been as likely to be rejected as approved

The Brussels institutions are not in much better shape. The European Commission under Jean-Claude Juncker has commendably slashed its output of red tape. Yet Mr Juncker was a poor choice, forced on EU leaders by an ambitious European Parliament. The European Council's president, Donald Tusk, has sometimes been preoccupied with fighting against the government of his native Poland. The parliament continues to flex its muscles and accrete power to itself, yet voters disdain it. Turnout in every single direct election since the first one in 1979 has fallen, hitting a new low of 42.6% in 2014.

When more Europe is not the answer

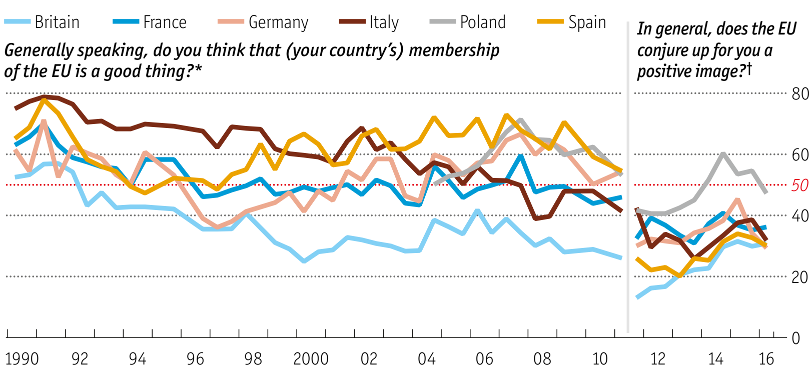
European leaders celebrating in Rome are well aware of these problems. Their responses to similar troubles in the past have fallen into two categories, neither of which seems adequate this time. One is to follow Monnet's advice and take a further bold leap towards ever closer union. Since the Brexit decision there has been much talk of a new Franco-German initiative to relaunch the project. True believers like Guy Verhofstadt, a former Belgian prime minister who is now leader of the Liberal group in the European Parliament and has just written a book, "Europe's Last Chance", argue that, since the union's troubles are created mainly at national level, more Europe and a leap towards ever closer union must be the answer.

Yet the evidence is that people in most member countries simply do not agree. Brexit was a warning of what can happen when the EU loses touch with voters. And many governments also strongly disagree with Mr Verhofstadt. Political leaders in France and Germany now treat the union as essentially an inter-governmental organisation and openly disparage the European Commission and European Parliament. During the euro crisis, Mrs Merkel tellingly began talking of a "union method" based on national capitals and parliaments instead of the classic Monnet method built around the EU institutions. Even in Italy, Matteo Renzi, a passionate pro-European, spent much of his recent premiership attacking Brussels for excessive rigidity in enforcing the euro's rules.

That leaves the second type of response, which is to muddle through. After all, the euro and migration crises seem to be past their worst. Excessive austerity

Love lost

Favourable opinions of the EU, % polled

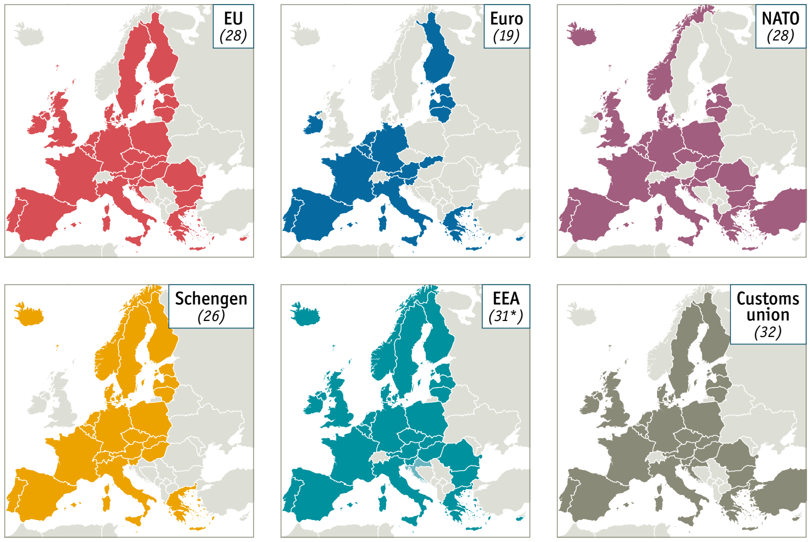


Source: Eurobarometer

*Polled up to 2011 †Polled from 2000 to present

Which Europe?

Memberships of various groupings



Source: *The Economist*

*Croatia currently a provisional member

may have done great harm, but outside Greece it is largely over. The single market, perhaps the union's greatest achievement, has survived the financial crisis and can surely weather Brexit. Domestic security co-operation on terrorism and crime is closer than ever. In foreign policy, EU countries have displayed commendable unity over sanctions on Russia, and have been vital in striking a nuclear deal with Iran. As economies improve and this year's tricky elections are negotiated, the union will somehow manage to keep going.

This is indeed the most likely course of events, yet it carries serious risks of its own. An unfinished euro may not be sustainable in the long run. If another financial crisis were to hit, as at some point it surely will, the currency could crumple. Worse, both it and the broader EU remain vulnerable to a political accident at any time. Possibilities include a renewed Greek crisis, the arrival of openly anti-EU leaders in France or Italy, or a firmer entrenchment in one or more east European countries of what they call "illiberal democracy". Given the challenges facing the union, muddling through may no longer be the safest option. Brexit could yet be copied by another member, leading to the slow collapse of the union. As Sigmar Gabriel, now Germany's foreign minister, told the German weekly *Der Spiegel* in January, "it is no longer unthinkable for [the EU] to break apart."

Variations on a familiar theme

What is really needed is a creative rethink of the entire European project. The most obvious idea is to drop the rigid one-size-fits-all model and adopt the greater flexibility of a network. This rests on three simple observations. The first is that few of the 27 EU member countries that will remain after Brexit favour much deeper political and economic integration. Second, these 27 are integrated into the EU in many different ways: all are in the single market, 26 in the banking union, 21 in Schengen, a different 21 in NATO and 19 in the euro, to list just five examples. And third, the European continent is home not just to the 28 EU members but 48 countries in all. Those outside the EU aspire to special relations with the club, and some belong to bits of it already (see maps).

Such heterogeneity could give rise to a scenario in which the countries of Europe move at different speeds, and not always towards the same goal. Within the EU, this idea has a long history. In 1975 the Tindemans report, drawn up by a former Belgian prime minister, floated the concept of a two-speed Europe. In 1994 Edouard Balladur, then France's prime minister, proposed a Europe of three concentric circles: an inner core of the single currency, a middle tier of those in the EU but not the single currency, and an outer circle of non-members with close links to the EU. In the same year two German Christian Democrat MPs, Karl Lamers and Wolfgang Schäuble (now Germany's finance minister), suggested a central "hard core".

The EU treaties were later amended to allow "enhanced co-operation" of subgroups. In 2000 Joschka Fischer, then German foreign minister, proposed an "avant-garde" of countries ready to build a federal Europe. Jacques Chirac, France's president, talked of "pioneer groups". The British preferred the term "variable geometry". In 2012 Jean-Claude Piris, a former chief legal adviser to the Council of Ministers, wrote a book advocating a two-speed Europe.

The idea of enhanced co-operation has recently picked up renewed interest. At an EU summit in Malta last month, Mrs Merkel suggested her fellow leaders should commit themselves to a union of "different speeds". The European Commission's recent white paper on the future of Europe suggested five options, one of which was to move explicitly to a multi-speed Europe. The French, German, Italian and Spanish leaders promptly supported the principle of this option, as did Joseph Muscat, prime minister of Malta, which holds the rotating council presidency.

Think again

Yet with small exceptions, these ideas have not borne fruit. Enhanced co-operation has been used but thrice, for cross-border divorce, the European patent and property rights. Such a paucity of results partly reflects fears that a multi-speed, multi-tier Europe could begin to undo the EU. This also explains the adverse reactions to an August 2016 paper by a group of experts published by a Brussels think-tank, Bruegel, entitled "Europe after Brexit: A Proposal for a Continental Partnership". Such a partnership could, the paper said, offer non-EU countries partial membership of the single market without full free movement of labour, and also create a system of decision-making that gave them an informal say (but no formal vote) in rule-making. The paper suggested that Britain, and perhaps others, might be interested. But both Brussels and national capitals dismissed the proposal because it would let Britain have its cake (barrier-free access to the single market) and eat it (limits on free movement).

The idea surely deserves another look. A union of 28, or even 27, members is very different from the original club of six. There are countless examples of opt-outs from common policies, ranging from large ones (staying out of the euro, common security and defence policy or Schengen) to minor ones (controls on purchases by foreigners of houses in Denmark and Austria, or Sweden's derogation from the rules for chewing tobacco and selling alcohol). In this sense, a multi-speed, multi-tier union exists already. This special report will explore its wider promise, starting with the most obvious example: the single currency. ■

The euro

That sinking feeling

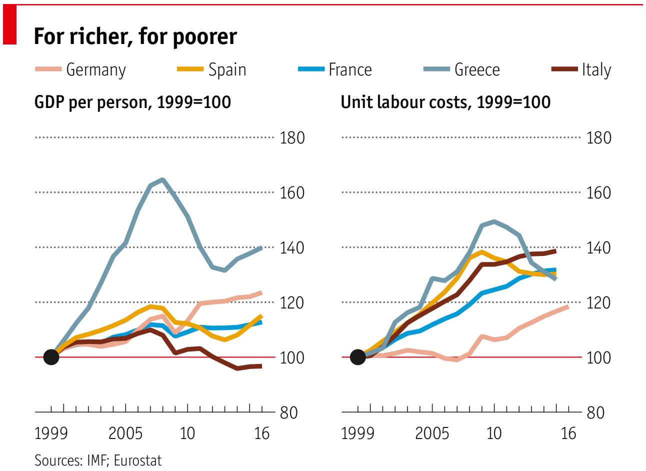
Euro-zone members agree that the single currency needs more integration, but disagree over how

MANY BRITISH TORY Eurosceptics trace their beliefs back to the 1992 Maastricht treaty which agreed to create a single currency. To them, Maastricht represented a Franco-German stitch-up. The French president, François Mitterrand, accepted German unification, and in exchange the German chancellor, Helmut Kohl, agreed to give up the D-mark for the euro.

In fact money was crucial from the very start of the European project. In the 1950s Jacques Rueff, a leading French economist, declared that "Europe will be made through a currency, or it will not be made." After the break-up of the Bretton Woods international monetary system in 1971, European countries made many attempts, usually in vain, to ensure currency stability through such arrangements as the "snake", the European monetary system and the exchange-rate mechanism.

A move to a single European currency may have seemed a logical extension of such efforts, yet it was far more momentous. However fixed an exchange-rate arrangement pretends to be, it can be altered at any time. Indeed, that is what happened repeatedly in the 1980s and 1990s. The point of the single currency was to put an end to such disruption. By launching the euro in 1999 and replacing national notes and coins in 2002, the EU was not just underpinning the single European market, its most successful project. It was also taking a giant leap towards deeper political and economic integration.

Yet the design of the euro suffered from two big defects that still haunt the single currency today. The first concerned the selection of countries that were able to take on the discipline of joining a single currency. Clearly France had to be a founding member, but beyond that the German government thought that, at least initially, the club should be kept quite small. The Maastricht criteria setting debt and deficit levels for would-be members may not have made economic sense, but they made political sense to Germans keen to keep out unreliable Mediterranean countries, most obviously Italy. At Maastricht it was already clear that Britain (and later Denmark) would stand aside.



During the 1990s Italy, too, toyed with letting economic and monetary union go ahead without it, partly because its public debt was far above the Maastricht ceiling of 60% of GDP, but also because its post-war economic success had been built on frequent devaluations. Yet when Spain and Portugal showed themselves determined to join the euro from the start, Italy, as a founding member of the club, felt it had to be there, too. The limits set in both the Maastricht treaty and the later stability and growth pact were fudged, so that at the outset the euro zone embraced 11 countries. Shortly afterwards Greece sneaked in as the 12th.

Don't delay, reform today

At first all went well, with robust growth and modest inflation. The Mediterranean countries benefited from interest rates converging downwards. But that meant they could avoid the pain of pushing through structural reforms to make their econo-

The design of the euro suffered from two big defects that still haunt the single currency mies more competitive. Many economists pointed out that such reforms were more necessary than ever for countries no longer able to devalue or run their own monetary policy, but politicians were all too ready to avoid unpopular remedies. One result was a worrying divergence in growth and unit labour costs, a proxy for countries' competitiveness (see chart on previous page).

That was to cause serious trouble when the second big defect in the euro became apparent towards the end of its first decade: its flawed architecture. There was a no bail-out rule but no provision for what to do if national governments needed help, a serious omission given that their debts were now, in effect, denominated in a foreign currency over which they had no control. The euro had no central funds that could be drawn on to assist members if they were hit by external shocks. Though banks had become increasingly European in life, they remained unavoidably national in death; yet national central banks had neither the ability nor the resources to rescue or restructure the biggest ones. The European Central Bank (ECB), for its part, was unable or unwilling to act as a lender of last resort.

Enthusiasts for European integration did not see any of these problems as insuperable, because they expected monetary union to lead inexorably to closer political union. Many still do. But there was little sign of this during the euro's first decade. Even the budget-deficit rules set by the stability and growth pact were ignored, with France and Germany ironically being identified in 2003 as the first rule-breakers. When in 2009 the single currency, structurally vulnerable as it was, became engulfed by the biggest global financial crisis since the 1930s, its problems quickly became glaringly obvious.

The ensuing euro crisis has lasted for what seems like many years. An emergency bail-out fund that later became the European Stability Mechanism (ESM) was established with the support of the IMF. First Greece and then successively Ireland, Portugal, Spain and Cyprus were forced into bail-out programmes. Because the crisis began in profligate Greece, the prescribed cure was usually fierce public-sector austerity, even though in most of the other countries excessive public spending and borrowing were not the root problems. The turning-point came in July 2012,

Exit strategy

Leaving the euro would be devilishly difficult but not impossible

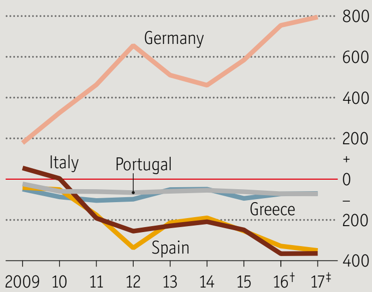
ONE BIG QUESTION has lurked throughout the euro crisis: should one or more members quit? The most obvious candidate is Greece, the country where the trouble began. It never met the criteria for joining, but its deficit and debt figures were misrepresented. And the crisis has inflicted agonies on the Greeks. Pierre Moscovici, the EU's economic- and monetary-affairs commissioner, notes that Greece's GDP per person has fallen by 45% since late 2009 and unemployment is nearly 50%. This is the worst performance ever by any advanced country.

Now a further row looms, over funds needed for Greece's third bail-out this summer. The IMF reckons that Greece will never repay its debts, which currently amount to 180% of GDP and rising. Yet euro-zone creditors refuse to accept any debt relief, preferring variants of "extend and pretend" to avoid owning up to fiscal transfers. Meanwhile Greece's government rejects more austerity, just as Greek voters did in a referendum in July 2015, only for it to be forced on them all the same. Even so, Greeks do not want to leave the euro—perhaps because for them it has become like Alcatraz: a prison that keeps people in mainly by making escape too risky. If an orderly procedure for leaving the euro were available, a Greek departure might become more attractive.

Officials say it cannot be done. Yet at least twice in 2012, and again in 2015, the German finance ministry spoke in favour of it. The technicalities of returning to the drachma could surely be managed. Existing euro notes might continue to be used, perhaps overstamped, as in the Czech-Slovak currency split in 1993; in any case, ever more payments are made electronically or by card. Most Greek banks would go bust, but stringent capital controls could be imposed, just as they were during the banking crisis in Cyprus in 2013. The ECB could provide the Bank of Greece with plenty of liquidity. The Greek economy, especially the tourist industry, would quickly reap large benefits from a substantial devaluation.

The have and the have-nots

European Central Banks' TARGET* balances, €bn



Source: European Central Bank

*Trans-European Automated Real-time Gross Settlement Express Transfer System †December ‡January

It was two other considerations that tipped the scales against Grexit. The first was the threat of contagion. If Greece left, the myth that there is no way out of the euro would be instantly exploded, bringing the single currency closer to a fixed exchange-rate regime. The markets might fret that Portugal or even Italy could follow, presaging the currency's eventual collapse. Yet Greece accounts for only 2% of the EU's total GDP, so if the EU fears that the departure of such an economic tiddler could destroy the euro, it has alarmingly low confidence in its own creation. Besides, institutional changes have provided the euro with far stronger defences than it had before.

The second objection is the potential cost of Grexit, not only in support for Greece's banks and people but through "TARGET" balances at the ECB. These reflect inflows and outflows of euros in national banking systems, which usually attract little attention. But the numbers have recently risen, a sign of renewed market nerves. Greece and Italy at the end of January had negative balances of over €70bn and over €360bn respectively, whereas Germany had a positive one of almost €800bn, its all-time high (see chart). Were a country to leave or the euro to break up, these balances would probably crystallise into genuine (and surely unpayable) claims.

Some economists have suggested that Germany, not Greece, should temporarily leave the euro, and rejoin later at a higher rate. The argument is that the underlying causes of the euro's problems are Germany's strong competitiveness and its huge current-account surplus. Yet a German exit seems politically implausible: the issue for markets is Greece's membership, not Germany's. Political or economic events could restart talk about Grexit at any time. It would be prudent to prepare for the worst—and seek to minimise the collateral damage.

when Mario Draghi, the ECB's president, declared that his institution was ready to do "whatever it takes" to preserve the euro. This was followed by moves towards a banking union, with the ECB taking over supervision of Europe's largest banks.

In general, when compared with America and Britain, the euro zone has been too quick to cut public spending and raise taxes; too slow to sort out its banks, many of which are still heavily burdened with bad debts; and too hesitant to push through structural reforms to its labour and product markets to improve competitiveness. Yet despite these failings, the euro zone's ills are easily exaggerated. Klaus Regling, the managing director of the ESM, likes to point out that, measured by GDP per person (rather than absolute GDP) and employment (rather than unemployment) rates, the zone's performance in the past 15 years has not been so much worse than America's. Today all members of the euro zone, even Cyprus and Greece, are just about growing—and all save Greece have regained access to capital markets.

In a sense, though, the euro's problems have merely mutated from acute to chronic. Pierre Moscovici, the EU commissioner for economic and monetary affairs, complains that growth is still too low; that differences between north and south remain large, and convergence has stopped or gone into reverse; and that the region suffers from serious imbalances, including a German current-account surplus of almost 9% of GDP. Germany remains overly dependent on external demand. Indeed, since the crisis and the bail-outs, the entire euro zone has shifted to a large current-account surplus, which may cause continuing tension with big deficit countries such as America and Britain.

The ins and outs

The composition of the euro zone, which since 2002 has expanded to take in the three Baltic countries, Slovenia, Slovakia, Cyprus and Malta, remains problematic. As one senior official in Brussels puts it, the euro works tolerably well for 16 of its members, but not for three: Greece, Portugal and, most problematically, Italy. Indeed, the real threat to the euro may not be Greece, given its small size. Many believe that the single currency could even survive a Greek exit from the euro, though others are worried about it (see box, previous page). But Italy has seen no net growth in GDP per person since the euro started in 1999, a calamity for a developed country and a big reason why two of its main political parties favour a referendum on euro membership. Italy might be said to be both too big to fail and too big to bail.

There has been talk of a renewed Franco-German initiative to relaunch and strengthen the euro after this year's spate of elections, yet differences between the two countries run deep. German officials were openly negative about the "five presidents' report" in 2015 (by the presidents of the European Commission, the European Council, the Eurogroup of finance ministers, the European Central Bank and the European Parliament), which proposed much deeper integration for the euro zone. The French are keener on such ideas, but Germany holds the key. Even if Mrs Merkel were replaced by Mr Schulz as chancellor, the Germans would be unlikely to shift position that much.

That is because, as a recent book ("The Euro and the Battle of Ideas", by Markus Brunnermeier, Harold James and Jean-Pierre Landau) shows, there are deep philosophical differences between the two countries over how the euro should be run. The French want to complete the banking union with a new system of common deposit insurance and bank resolution. They favour a *gouvernement économique* to counterbalance the ECB, with a euro-zone finance minister, a euro-zone budget and even a euro-zone parliament. They hope to move towards the creation of a mutualised debt instrument or Eurobond. Yet they resist the imposition of tougher fiscal restraints on national governments and they dislike being told what reforms to undertake.

The Germans accept the need for deeper integration if the euro is to survive, let alone thrive, but they object to how the French propose to achieve it. They see demands for common deposit insurance, a euro-zone budget and Eurobonds as tricks designed to transfer money from German taxpayers to profligate countries. They do not share the French taste for flexibility in fiscal policy, preferring discipline and rules. They fret that bail-outs or debt restructuring create moral hazard, and experience has taught them to take Parisian promises of reform with a large pinch of salt. And even were a Chancellor Schulz more amenable, hardline allies like the Dutch and Austrians would resist.

The euro, in short, remains a troubled currency, with question-marks over both its membership and its direction. There is general agreement that it needs further integration, but disagreement about how to go about it. Germany and other creditors feel that they are being asked to show solidarity with other euro-zone countries but are seldom offered reform and budget discipline in return. This has fostered an ugly anti-German mood in some countries. Germany, in turn, complains about a lack of solidarity in another area: immigration. ■

Immigration

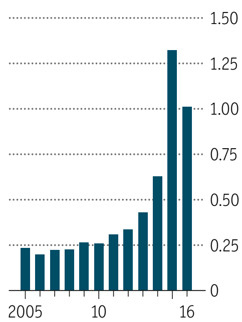
Compassion fatigue

Most EU countries are happy to welcome other Europeans, but not refugees from outside

EUROPE'S GREAT MIGRATION crisis seemed to blow up out of nowhere. Yet at least within the EU, increased movement of people should not have come as a surprise. The admission of 11 countries from central and eastern Europe, between 2004 and 2011, and the end of the seven-year transition period before allowing full free movement, was bound to encourage people from the new member states to look for opportunities abroad, given that wages and living standards in the west were so much higher. A simultaneous upsurge of unemployment in the south prompted a push north.

Higher immigration from outside the EU might also have been predicted in light of the Arab spring, the 2011 intervention led by Britain and France in Libya, the civil war in Syria and strife in Afghanistan and Iraq. Besides, in most EU countries the population is ageing and shrinking, but in Africa it is young and growing fast.

Peak asylum
Asylum applications to EU countries, non-EU citizens, m



Source: Eurostat

Yet the sudden inflow of migrants from non-member countries turned out to be politically much more explosive. At first it was Greece that felt the effects most heavily, a double whammy since it was also at the centre of the euro crisis. Spain had seen an earlier influx of migrants, notably to the Canary Islands, but had largely stopped it by doing deals with source countries in west Africa. Italy is now the main recipi-

Under the wire and into Europe

ent of illicit migration, in part because bilateral deals are impossible in lawless Libya. Economics, war and the lucrative business model of people-smuggling have combined to destabilise the EU, adding east-west tensions to north-south ones.

The refugee convention and the Dublin regulation for asylum-seekers have played a big part in this. The convention's relatively generous rules for accepting refugees were designed in 1951, when refugee numbers were lower and people-smuggling was not a big business. Under the Dublin agreement, applicants in Europe are required to apply for asylum in the first country they reach and have their cases adjudicated there, creating an obvious problem for EU countries with southern borders. Yet for a time it was easy to move through the Balkans into the frontier-free Schengen system. In 2015 that brought in large numbers of would-be refugees, with the net number of arrivals quickly reaching a million.

It was very much to the credit of Angela Merkel, Germany's chancellor, when in August 2015 she extended a welcome to Syrian refugees. Yet her generosity backfired when it became clear that other EU countries were, in effect, funnelling refugees to Germany (and Sweden, which had also opened its doors). For a while Mrs Merkel's popularity at home slumped, as the right-wing nationalist Alternative for Germany party, and even the Bavarian sister party of her own Christian Democrats, attacked her for being naive. The criticism became louder after a mass attack on German women by north African migrants at Cologne station on New Year's Eve 2015.

The number of asylum-seekers has since come down (see chart, previous page), mainly thanks to a bilateral deal struck in early 2016 under which Turkey promised to stop would-be migrants from crossing into Greece. In exchange Turkey received money, a promise of visa-free access for Turks and a fair wind for its EU membership application. At a time when the EU was also condemning the Turkish government for its democratic shortcomings, this deal was widely seen as hypocritical. Yet an even bigger concern was, and is, that Turkey's mercurial president, Recep Tayyip Erdogan, could tear up the agreement at any time.

Efforts are also under way to stop the inflow of mainly economic migrants from Libya. Under international law, upheld by European courts, pushing back boats laden with would-be refugees is forbidden. But national naval vessels are now trying to intercept them closer to the Libyan coast and pull rather than push them back. Elizabeth Collett of the Migration Policy Institute Europe, a think-tank in Brussels, huffs that this is an extremely fine legal distinction.

Outflows from other source countries are also being stemmed, and people-trafficking rings are coming under attack. There is talk of setting up asylum-processing centres in north Africa, as long as the EU can find what officials now call "safe places", not necessarily "safe countries". Much money is also being spent on strengthening the EU's external borders.

None for us, thank you

Yet the flow of migrants and asylum-seekers into Europe is likely to continue, and their distribution within the EU is creating huge problems. Germany and Sweden feel they have been landed with an unfairly large share of the burden. German officials criticise their EU partners for refusing to reciprocate the solidarity they asked for during the euro crisis. They are particularly angry with central European countries in the Visegrad group of Poland, the Czech Republic, Slovakia and Hungary, which have taken almost no refugees, in contravention of their obligations. Pascal Lamy, a veteran former commissioner, reckons that the east-west divisions created by the refugee crisis pose a greater threat to the union than the north-south ones arising from the euro crisis.

British Eurosceptics see the EU's migration crisis as evidence that continental Europe shares Britain's concerns about the free movement of people. But they have got it wrong: the worries in other EU countries are almost entirely about external migration, not the movement of people and workers within Europe. Even so, the migration crisis has clearly destabilised the Schengen system of frontier-free movement.

Schengen, which covers all EU countries bar Britain, Ireland, Croatia, Cyprus, Bulgaria and Romania, plus a clutch of non-members, has been "temporarily" suspended in some places. Austria has hardened its border controls. Hungary has built two fences. One effect has been to trap thousands of would-be refugees in grim conditions in Greece and the western Balkans. It is not clear when or even if Schengen will be fully restored.

Welcome, up to a point

No EU member other than Britain has said it wants to stop the free movement of people, but the principle has been eroded in several respects, starting with limits on welfare-benefit entitlements. Germany, the Netherlands and others have won several cases in the European Court of Justice, establishing that people from poorer east European countries are not entitled to claim immediate welfare benefits in richer EU members which often exceed median wages at home.

The EU's "posted workers" directive prevents central and east Europeans from undercutting domestic wages and working conditions in richer countries. But it allows them to pay welfare contributions in their home countries, which has been controversial in France, in particular. Some countries are trying to make it harder for would-be workers to come in without a job offer. Countries outside the EU but in the European Economic Area (EEA) can also in theory limit free movement, even though in principle they are bound to offer it. Liechtenstein, which is part of the EEA, sets quotas on the number of outsiders it allows to live and work there. Switzerland, which voted to restrict immigration from the EU in a referendum three years ago, has had to climb down, but it is at least being allowed to advertise jobs to Swiss people first.

The idea of free movement of labour was conceived at a time when living standards within the EU were more homogeneous than they are today. At the time nobody could have predicted the amount of movement triggered by the lifting of controls on east European countries. The sending countries do not necessarily welcome the outflow, either: although anxious to protect the interests of their nationals abroad, they realise that a brain drain of highly qualified workers may not be in their best interests.

In the proposal for continental partnerships by the Bruegel think-tank mentioned in the introduction to this report, the free movement of labour is not seen as a necessary part of a single market. The report also points out that, whereas the single market has lifted almost all restrictions on the movement of goods and capital, it is far from complete for services. The provision of services and mobility of labour, some economists note, tend to go together. And free movement is more essential for the euro zone than for the wider EU since it can be a partial substitute for the loss of currency flexibility.

Brexit may mean that no country in the EU or the EEA will challenge the free movement of people in Europe in the near future. Besides, the numbers coming in from outside and moving around inside may drop for a while. But all politicians want to be able to respond to public opinion, so the principle may start to fray at the edges. It could even become yet another example of the variable geometry that Brussels purists hate so much. The same is true of the EU's foreign and security policy. ■

Foreign and security policy

Home and abroad

European countries, inside and outside the EU, more than ever need to work together

THE EUROPEAN UNION is at heart an economic and trade project built on its foundation as a customs union. The 1980s saw the addition of the single market, the world's most deeply integrated economic union, followed a decade later by the launch of the single currency. But beyond finance and economics, the EU has traditionally had few pretensions. In 1991 Mark Eyskens, then Belgium's foreign minister, summed it up as an economic giant, a political dwarf and a military worm.

The focus on economics worked fine so long as European countries could rely for their security on NATO and the protection of the United States. This arrangement continued to function through the break-up of the Soviet empire and the expansion of both NATO and, later, the EU itself. But with Russia led by a newly belligerent Vladimir Putin, Turkey under an increasingly distant Recep Tayyip Erdogan, the Middle East a more violent mess than ever, Britain preparing to leave the EU and an apparently more isolationist America, it is no longer enough. The union clearly needs to focus more on strengthening its common foreign and security policy (CFSP).

It is easy to overlook the CFSP's achievements in recent years. Thanks in good part to the need for unanimity among EU

All in a day's work

member countries, the Brussels machinery can be cumbersome or even paralysed by irreconcilable differences, as became evident during the second Gulf war in 2003. The European External Action Service (EEAS), in effect the EU's diplomatic service, has taken a while to establish itself. As for the "high representative for foreign and security policy" established with the EEAS under the Lisbon treaty of 2009, the very title has a ring of Gilbert and Sullivan about it.

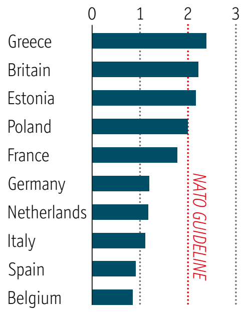
Unsung heroines

Yet the first two incumbents, Britain's Catherine Ashton and Italy's Federica Mogherini, have chalked up many unsung successes. These range from clearing pirates from the waters off Somalia to establishing a relationship of sorts between Kosovo and Serbia in the western Balkans. And despite Mr Putin's best efforts, all 28 EU countries have stayed remarkably united behind the sanctions imposed on Russia after its annexation of Crimea and invasion of eastern Ukraine in early 2014. Above all, the EU helped secure a nuclear deal with Iran in 2015. According to Sir Robert Cooper, a former counsellor to the EEAS, this would not have happened without it, working through an alliance of Britain, France and Germany.

Perhaps the EU's most successful foreign policy of all is its own enlargement. Over the two decades since the collapse of the Soviet empire in 1989-91, the European club has taken in no fewer than 11 former communist countries from central and eastern Europe, helping to establish not just market economies but also liberal democracy, sometimes in places that had next to no experience of the concept. The result has been good for both the European economy and the entire continent's security. It has helped make the club more pro-American and pro-NATO and less pro-Russian.

Mostly off target

Selected NATO members' defence spending
As % of GDP, 2016 estimate



Source: NATO

Now, however, many of these achievements are under threat. It is not just that Mr Putin sees the EU as an enemy and actively seeks to undermine it. The problems of the Middle East and north Africa also seem to be getting worse. More worryingly, further EU enlargement has more or less stopped. That creates a conundrum: what to do about the countries of the western Balkans and Turkey, which will clearly not become full members in the foreseeable future? Enrico Letta, a former prime minister of Italy who two decades ago wrote a book supporting variable geometry, suggests the EU should have been less dogmatic in the 1990s in insisting on full membership or nothing: an intermediate form of associate membership might have been better. There is now a real danger that some places could slip away from Western influence. Mr Putin is interfering in the western Balkans, as is Mr Erdogan, who is also taking Turkey in an ever more autocratic direction.

The biggest challenge, though, is the arrival of Donald Trump in the White House. Many Europeans, like many Americans, had hoped that he and his advisers would soon ditch the more intemperate language that he used during his campaign.

But his early statements in office have confirmed his protectionist instincts, his criticisms of Europe for free-riding on the back of American defence, his apparent eagerness to talk to Mr Putin, his serious doubts about the value of the Iran deal and his backing for hardliners in Israel. During his campaign he also made scornful remarks about both NATO and the EU and showed strong support for Brexit.

So what should the EU do? Unity seems more important than ever. The Europeans may have to fight hard to defend the Iranian nuclear deal. They will want to stick to a common line over Russia, the Middle East and Israel. They may also need to find new ways to engage the western Balkans and Turkey. And in all this, the EU countries should recognise that there is a strong argument for closely involving non-members, notably post-Brexit Britain but also Norway and others. A CFSP without Britain would be weaker and less effective. Hence the need for some institutional innovation—observer status, partial or associate membership—that brings Britain into the picture and helps to secure its solidarity with its European partners.

The same applies to the debate on defence. Even before Mr Trump's complaints that America's partners are not doing enough, the case for more, and more effective, defence spending was already strong. All EU countries that are also NATO members are in principle committed to its defence-spending target of 2% of GDP, but few achieve it (see chart, previous page). Since Britain's Brexit vote there has been much debate in national capitals on a new defence initiative, perhaps even setting up an operational military headquarters, which will be easier to do without a carping Britain. A Franco-German push could help. France's and Britain's defence policies are increasingly linked, whereas Germany remains a reluctant partner. In this area, more than any other, keeping Britain involved makes obvious sense.

Security begins at home

Justice and home affairs and domestic security raise similar issues. International co-operation in the fight against terrorism and organised crime is vital. As a former home secretary, Theresa May, Britain's prime minister, has repeatedly stressed the advantages to Britain of working with other EU countries on such matters. When she chose to exercise the British right to opt out of a string of justice and home-affairs directives in mid-2014, she promptly opted back into the most important ones, including Europol, the European Arrest Warrant and the system of passenger-name recognition. She has said that, after Brexit, she would like to stick as closely as she can to these arrangements.

Denmark has an even more extensive opt-out from justice and home-affairs policies than Britain (which carefully retained the right to opt back in to those that it liked). This has caused many headaches in Copenhagen. Even though Denmark is a member of the Schengen border-free zone, for instance, its access to the vital Schengen information system is at best indirect. To get around such problems, Denmark held a referendum in December 2015 on whether to end their Europol opt-out, only for Danish voters to say no once more.

Yet it would surely be wrong to allow politics or institutional inertia to interfere with essential co-operation in justice and home affairs, international policing or counter-terrorism. The United States and Australia have association agreements that allow them to place liaison officers at Europol. But as Camino Mortera-Marinez of the Centre for European Reform points out, non-EU countries cannot participate in the European Arrest Warrant. The European Court of Justice has also in the past stopped data-sharing agreements with third countries that do not adhere to EU privacy rules.

There is good reason not to allow non-members full participation in the single market, since that could undermine the principle that the economic and trade privileges it confers are contingent on accepting its rules and obligations. But such quid pro quos do not apply to security policy, judicial matters or foreign and defence policy. In these areas the more countries that can join, the better. That certainly applies to Britain and Denmark.

This, indeed, was the thinking behind the "pillar structure" set up by the 1992 Maastricht treaty, which was an attempt to create common foreign and security policies and an area of freedom and justice on an inter-governmental basis, without supervision or interference by the EU's institutions. Later treaties folded these subjects back into normal EU rules and practice, although most policymaking still retains the unanimity requirement. Yet the flexibility of Maastricht could now be reclaimed in a different way, by engaging non-members more closely than before, without necessarily involving EU institutions or courts. One reason for steering clear of them is that there remain plenty of qualms about their legitimacy and democratic credentials. ■

Institutions

Democracy and its dilemmas

The EU's institutions need reform

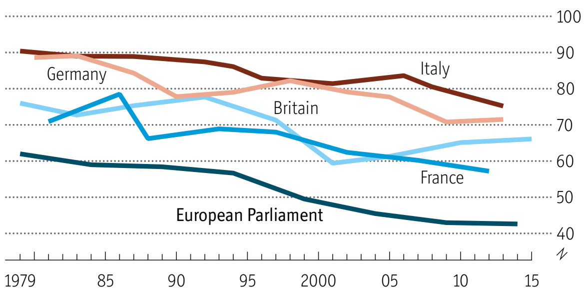
THE EU'S INSTITUTIONS, built up over six decades, are not ideally suited to responding flexibly to challenges such as the single currency, migration or foreign and security policy. The club remains vulnerable to the charges of operating with a "democratic deficit" that alienates many voters.

Start with what is still the central institution, the European Commission. Headed by Jean-Claude Juncker, a long-time prime minister of Luxembourg, it is much more than a civil service; it is the guardian of the treaties, the originator of almost all legislation and the sole executor of the EU's budget. By the standards of most governments it is also small, employing only around 33,000 people—about the same as a largish local council in one of the member countries (though commission staff command much more lavish salaries).

The Juncker commission has done some good things; in particular, it has sharply reduced the volume of regulation it proposes. Yet it suffers from having too many commissioners (28,

Why bother?

Average turnout across the EU in European Parliament elections and national turnout in parliamentary elections, % of electorate



Sources: European Parliament; parties-and-elections.eu

Voting is the easy part

one per member country), a defect that has been only partially dealt with by the creation of senior vice-presidents and junior commissioners. One consequence is that, even more than before, the commission is more or less run by Mr Juncker's powerful cabinet under Martin Selmayr, a German official. The commission has also allowed itself to be influenced too heavily by the European Parliament, the only institution that can dismiss it, instead of acting as a balance between the Council of Ministers (representing national governments) and the parliament as the two co-legislators in the system.

Commissioners are appointed by their national governments, but are subject to confirmation by the European Parliament. The commission president is now indirectly elected under a process called *Spitzenkandidaten* (tellingly, a German word), introduced in 2014. Egged on by certain MEPs, the main cross-border political groups designated their preferred candidates for the job ahead of that year's European elections. Most national governments ignored their suggestions, but when the centre-right European People's Party (EPP) emerged as the biggest political group, the European Council felt obliged to choose the EPP candidate, Mr Juncker, even though EU heads of government, including Angela Merkel and David Cameron, had serious reservations. Leaders dissatisfied with the outcome in 2014 say they are determined to ditch the *Spitzenkandidaten* process for the next election in 2019, but they may find it hard to put a stop to it.

When important decisions have to be made, it is national governments, not EU institutions, that do most of the hard bargaining

By contrast, the innovation of appointing a permanent president of the European Council has proved a success. That owes something to the job's first two incumbents, Herman Van Rompuy and Donald Tusk, former prime ministers of Belgium and Poland respectively. True, the EU now suffers from an inflation of presidents: of the European Commission, the European Council, the (rotating) Council of Ministers, the Eurogroup of finance ministers, the European Central Bank and the European Parliament, to name but six. But the increasing prominence of the European Council of heads of state and government reflects the reality that, when important decisions have to be made, it is national governments, not EU institutions, that do most of the hard bargaining. To some extent power has shifted from Brussels to national capitals.

Or rather (and there lies the rub), to one capital. The growing dominance of Berlin is a cause of anxiety not just in Brussels but in other capitals (including Berlin itself). It was perhaps inevitable during the euro crisis since Germany is, in effect, the system's paymaster. But the habit of letting Germany, and especially Mrs Merkel, decide has increasingly taken hold across the board. Germans occupy many key posts in the commission and parliament. Brexit will make matters worse, because it will break up the trio of Britain, France and Germany that has for many years been at the heart of the European project. That will expose the contrast between French weakness and German strength even more starkly, at an awkward political moment.

Mrs Merkel is widely admired, and careful not to seem too dominant. But neither she nor a putative Chancellor Schulz can compensate for France's inadequacies. The European project was conceived by French leaders to be headed by their country—one reason they tried hard to keep Britain out. Now their worst fears of dominance by others are being realised, not from across the Channel but from across the Rhine.

As an international bureaucracy, the EU has spawned many other bodies, some of them of dubious value. A number of them have been scattered around national capitals as sweeteners to keep the countries concerned loyal to the project. Perhaps the most preposterous pair are the Economic and Social Committee, which brings together trade union and civil representatives for monthly meetings, and the Committee of the Regions, which does the same for regional authorities. Between them these two Brussels-based bodies cost over €200m a year to run. Hardly anybody, even in Brussels, would notice if they were to disappear tomorrow.

No laughing matter

That is not true of the EU's main representative institution, the European Parliament. Since direct elections were introduced in 1979, its powers have been increased by every treaty, to the point where it is now largely a co-equal legislator with the Council of Ministers. At French insistence it still moves pointlessly between Brussels and Strasbourg every month, at an annual cost of some €114m. Many MEPs are impressively well-qualified and do an excellent job, often better than their national counterparts, in improving legislation and in questioning commissioners and the European Central Bank. Moreover, unlike other EU institutions, the parliament has room for anti-EU politicians. Nigel Farage, a British MEP and former leader of the UK Independence Party, memorably noted last June that when he arrived he was laughed at, but after the Brexit vote "you're not laughing now."

Yet as an institution seeking to bring voters closer to the European project, the parliament must still be judged a failure. It may frighten the commission, but it does not exert the sort of control over governments that national parliaments aspire to. Its link to voters is tenuous: turnout in European elections is low and falling, and voters tend to decide largely on national not European issues. Far from acting as a parliament that controls spending and curbs the executive, the European Parliament has often behaved more as a lobby group whose main aim seems to be to spend more and to augment its own powers.

One way of remedying this would be to increase the role of national parliaments. Many experienced EU officials regret the switch from a European Parliament made up of nominated national MPs to a directly elected institution, breaking the link between national and EU-level politics. National politicians in many countries remain shamefully ignorant of the EU and its rules, and too few MEPs see it as part of their role to help educate them. Indeed, many national parliaments have cast doubt on the European Parliament's democratic credentials, as has the German constitutional court. Yet the parliament is hardly likely to vote for its own demise.

Who rules the rulers?

The EU needs more leverage over errant members

AS THE EUROPEAN project grew from six reasonably cohesive members to 28 more diverse and less controllable ones, it was faced with two big questions. One was what to do if a country decided to leave. The response of the United States to South Carolina's secession in 1860 seemed excessive, so instead the treaty was amended to include Article 50, which sets out the procedure for exit. The hope was that it would never be used, but now Britain is invoking it. Untried though the procedure is, one thing seems certain: it will be long-drawn-out and painful for everyone.

The second question was what to do if a country started to trample on the democratic standards that are a condition of membership. Europe has had to consider this issue before, in 2000, when Austria brought Jörg Haider, a far-right politician, into a coalition government. The EU tried to isolate Austria by freezing contacts, but when that failed to oust Mr Haider it gradually thawed, and has since tacitly accepted governments sustained by extremist parties. In the 2000s several commentators suggested that Italy under Silvio Berlusconi would have failed the Copenhagen criteria for membership because he wielded such enormous power over the Italian media, but at the time nothing was done about it.

Illiberal Orban

The underlying difficulty, as David McAllister, a German Christian Democratic MEP, puts it, is that the EU has a great deal of leverage over applicant countries but almost none over members. It can suspend voting rights under Article 7, which is a sort of nuclear option. But whereas a new applicant can be restrained if it strays off the democratic course, an existing member that flouts the rules cannot easily be disciplined. And now the EU is unsure what to do about two such countries.

The first is Hungary, where Viktor Orban's Fidesz government, elected by a huge majority in 2010, quickly began to overturn European norms. Mr Orban, whose party had a majority big enough to change the constitution at will, interfered with the central bank, the constitutional court and the media. He even gave a speech in July 2014 extolling the virtues of an "illiberal democracy". Yet he has been careful not to go too far, pulling back from head-on confrontation with Brussels and using his party's membership of the main European centre-right grouping, the European People's Party, to fend off criticism.

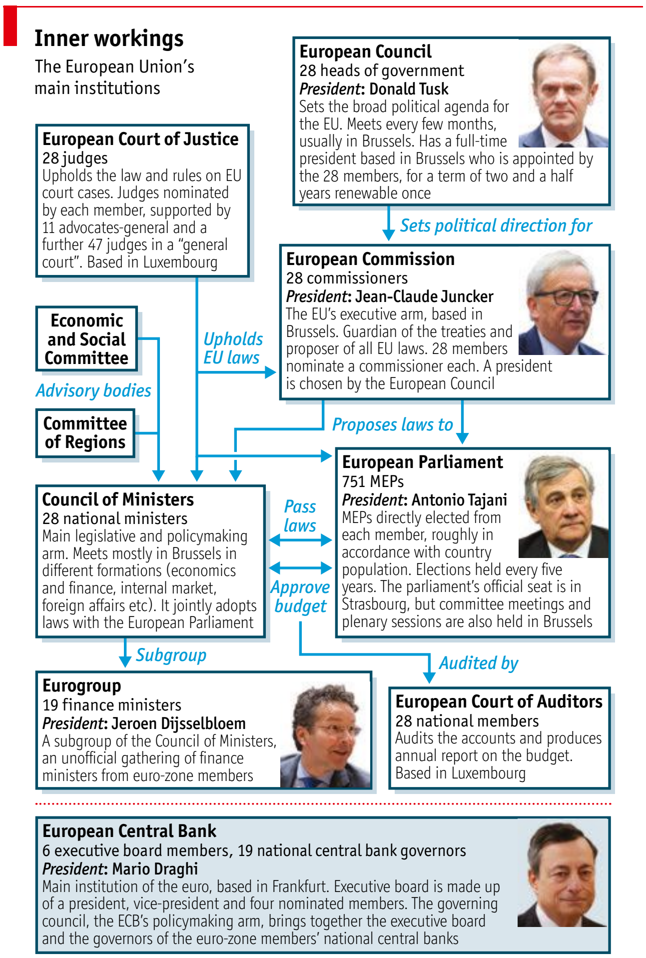
The Polish government, led by Jaroslaw Kaczynski and his Law and Justice (PiS) party since late 2015, presents a more serious problem. The EU accuses PiS of breaking the rules over the constitutional court and the appointment of judges. It frets, too, over media freedom. Frans Timmermans, a commission vice-president, has been trying to negotiate a solution; Angela Merkel recently visited Warsaw. Yet the PiS government rejects all outside criticism. Konrad Szymanski, Poland's Europe minister, says simply that the government was democratically elected and has the support of voters for what it is doing. He adds pointedly that it is western, not eastern, Europe that has seen the biggest recent upsurge in anti-EU populist parties.

Nationalist Kaczynski

Unlike Fidesz in Hungary, PiS in Poland has a proper opposition, so the next election could solve the problem. But unless it does, the Poles will continue to be troublesome. Piotr Buras of the Warsaw office of the European Council on Foreign Relations, a think-tank, notes that the government disagrees with the EU over the euro, democratic norms and even defence and foreign policy. It is almost as negative as pre-Brexit Britain. This suggests the EU could do with a new category of associate membership, serving as a half-way house for applicants not yet ready for full membership but also as a naughty step for members that backslide too much.

Instead, it might be used to help fill the EU's famous democratic deficit. Most talk of such a deficit is wrong or exaggerated: EU lawmaking is in many ways more transparent than national lawmaking, and national governments usually have to approve EU laws in the Council of Ministers, although they may pretend otherwise. The place that may be suffering most from a democratic deficit is not the union as a whole but an increasingly integrated euro zone. As it penetrates more deeply into national fiscal and other domestic policies, the case for a democratically elected chamber to keep it in check is becoming stronger.

One idea would be to reconstitute the European Parliament so that it represents only the euro zone. That could become part of a new architecture which would also feature a new euro-zone finance minister as well as a euro-zone budget that would act, as in any federal system, to smooth out differences in economic performance between the constituent parts. MEPs from non-euro countries might revert to being nominated by national parliaments. That would mean much of the wider EU budget could be scrapped; most farm support has been detached from production, so it could be renationalised, and regional spending could continue within the euro zone but not in the rest of the union. Such innovations would confer greater legitimacy on the European Parliament and give it a role, but only in the central core, not the wider EU. For countries thinking of joining or quitting the euro, a euro-zone parliament might also bring home to them how momentous a step that would be. ■



Source: *The Economist*

A multi-speed, multi-tier future

Differentiate or bust

The EU must embrace greater differentiation or face potential disintegration

IS EUROPE READY to embrace a new model built around not sameness but difference? Although the recent commission white paper and several national leaders have come out for a multi-speed Europe, they really have in mind a way for small groups of countries to go forward in such areas as defence or taxation, without having to wait for all, using the treaty's tools that allow enhanced co-operation. A true multi-speed, multi-tier Europe would be far more ambitious. Yet the troubles of the EU may seem to many quite enough to worry about without having to rethink the structure of their project.

That is certainly the message coming from national capitals and Brussels. Asked about how euro and non-euro countries will co-exist in future, one senior official in Paris notes that, after Brexit, nearly 90% of the union's GDP will be generated by the euro zone. Others say all non-members except Denmark will join the euro within five years. The rows over asylum-seekers between east and west will similarly end, says a Eurocrat in Brussels, because central Europe gains so much from the EU. Brexit will hurt Britain more than its partners. And ideas for more variable geometry, such as the "continental partnerships" touted by Bruegel, are "suitable for think-tanks", as another senior official (this time in Berlin) puts it, not to be taken seriously.

Yet this is too complacent. The union will have non-euro as well as euro members for years to come. The migration crisis is not turning the citizens of central Europe into good Europeans; instead, some are attacking the union's core principles. And although Brexit does seem likely to damage Britain more than the EU, the decision of a majority of voters in a large member country to leave is a huge indictment of the whole organisation, gravely weakening it in the eyes of the world.

A Europe for all reasons

A more differentiated Europe, based around the idea of variable geometry, a range of speeds or concentric circles, would be a good way to ease the tensions and problems that afflict the present, overly rigid EU. At the centre would be the 19-member euro zone, which will need deeper political and economic integration to survive. Next would be full EU members that are not in the euro. In principle, it would be helpful if those that find euro membership too demanding, or are not prepared to embrace the political integration it implies, were able to migrate into this looser second grouping without undermining or destroying the single currency. The main candidate for such a move is Greece, but there could be others in the future.

A third tier could then take in countries that do not currently want to join the EU but would like to participate as fully as possible in the single market. This would entail payments into the EU budget and a willingness to abide by almost all of the club's rules, including, in effect, an acceptance of the jurisdiction of the European Court of Justice. This group would take in the three members of the European Economic Area—Norway, Iceland and Liechtenstein—and, albeit in a slightly looser relationship, Switzerland. Again, others might aspire to join this group.

Beyond these three tiers would be a fourth set of countries that are unwilling to accept the rules made in Brussels but still want a deep and comprehensive free-trade arrangement with the EU. Some of these might also wish to be closely linked, through some form of observer or associate status, with the EU in foreign and defence policies and in domestic security issues. Britain is the most obvious candidate for such a group. But Turkey and some western Balkan countries might also be interested, and perhaps one day Ukraine, Georgia, Moldova and even Belarus might be added to the list. This tier, or something like it, might also become a home for countries that either choose or are asked temporarily to suspend their EU membership.

Different, not lesser

Why does the idea of institutionalised variable geometry provoke opposition? There are three answers. One is that countries in the outer tiers might feel they have been given second-class status. Even Britain, a firm believer in variable geometry, long fretted over the creation of a two-speed Europe built around the single currency, fearing that the real power and decision-making would be exercised by the inner circle. It is notable that the euro zone on its own now constitutes the "qualified majority" needed for the Council of Ministers to approve legislation.

Denmark, which has long had several opt-outs, has been similarly sensitive to being treated as an outsider. In the 1990s Italy felt that it needed to be in the euro from the start to avoid relegation. Greece and, later, several central European countries repeatedly objected to the idea of a two-speed Europe. Jaroslaw Kaczynski, the de facto leader of Poland, recently declared that this would lead to the "breakdown, in fact the liquidation of the European Union in its current sense".

Yet such fears seem largely groundless. With variable geometry already so extensive, the idea of a first, superior class of highly integrated members and a second, inferior class of more loosely associated ones no longer stacks up. Indeed, some countries might be better off standing aside from ventures they are not ready for, even if it involves some sacrifice of broader influence. Uffe Ellemann-Jensen, a Danish former foreign minister, recalls that at the time of Denmark's Maastricht opt-outs, such thinking was captured in the phrase: "To be or not to be, that is the question; to be and not to be, that is the answer."

This leads to the second reason for dismissing the idea, which is the opposite of the first: the fear that, unless everyone is prepared to agree on common principles and an ultimate goal, the club might slowly but surely fall apart. That was why purists always objected to British and Danish opt-outs. After the collapse of the Soviet Union, applicant countries from eastern Europe were presented with a take-it-or-leave-it choice: if they wanted to join the EU, they would have to accept the entire *acquis communautaire*, including commitments to Schengen and the euro.

As Britain negotiates its way through Brexit, it is faced with the same attitude: any special access to the single market or other forms of co-operation are out, since they are available only in return for taking on all the union's obligations. A multi-speed, multi-tier Europe conjures up a vision of the dreaded "cherry-picking", in which countries take the benefits of the EU without paying the appropriate price. To concede this, the thinking goes, is to risk destroying the union. Those who feel this way point out that golf clubs do not allow outsiders to change the rules and play whenever they choose. Yet this is a false analogy. Most golf clubs have many categories of membership, and most allow non-members to play at less busy times.

When the Treaty of Rome was signed 60 years ago and the club had only six members, a single class of membership made sense. With 28 members, and even with 27, one size is much less likely to fit all. It seems probable that the current overlapping memberships of the euro, NATO, parts of the single market, Schengen and co-operation on domestic security will persist for a long time, possibly for ever.

The third argument against variable geometry, again expressed by a senior Eurocrat, is that too much variation would turn the union into an ineffectual organisation reminiscent of the Holy Roman Empire. Yet this analogy does not work either. True, the empire was disparaged by one Frenchman, Voltaire, as "neither holy, nor Roman, nor an empire", and later puffed out by another, Napoleon. But Charlemagne's creation proved sufficiently flexible and decentralised to survive wars, plagues and religious upheavals. It repeatedly shed and gained territory, at different times taking in chunks of France, the Low Countries and northern Italy as well as the core German provinces (but never Britain). In so doing, it mostly brought more peace, prosperity, freedom and security to its inhabitants than were enjoyed by the rest of Europe—and it lasted for 1,000 years.

If it is too early to tell whether the Holy Roman Empire was a success, listen to one of Aesop's fables, dating back 2,500 years. It is about a reed growing by a river alongside a mighty oak. The oak taunts the reed for being weak and having to bend with every breeze. But one day a great storm blows up and topples the oak, whereas the reed remains standing. There may be something to be said for flexibility. ■

Charlemagne had a point

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Russia in the Middle East

Desert bear

MOSCOW

Russia uses bombs and diplomacy to reassert its global power

THE black fur hat looked odd on a Libyan warlord. But fur is de rigueur in wintertime Moscow, which has become an essential stop for Middle Eastern leaders like Khalifa Haftar, who visited twice in 2016. This month his rival, Fayez al-Sarraj, the head of Libya's UN-backed government in Tripoli, dropped by. Jordan's King Abdullah, Turkey's Recep Tayyip Erdogan and Israel's Binyamin Netanyahu have all stopped at the Kremlin for audiences with Vladimir Putin this year.

The visitors are a sign of Russia's growing activity in the Middle East. "The policy is wider than just Syria," says Andrei Kortunov of the Russian International Affairs Council, a think-tank. Russia's interests in the region include security, arms sales and oil. But most important, the Middle East offers a platform to reinforce Russia's status as a global power. "Those who have strong positions there will have strong positions in the world," says Fyodor Lukyanov of the Council on Foreign and Defence Policy, a government advisory body.

Serving as a power-broker in Syria has helped Russia to cultivate relationships. It strives to maintain contacts across the Sunni-Shia and Israeli-Arab divides. While fighting alongside Iran in Syria, Mr Putin helped broker an oil-supply pact with Saudi Arabia. He has also developed a rapport with Egypt's Abdel Fattah al-Sisi, repaired ties with Turkey's Recep Tayyip Erdogan after the downing of a Russian jet over Syria, and maintained friendly links with Israel's Mr Netanyahu, even angling for a more active role in mediating the Israeli-Palestinian conflict. "They go out of their way to talk with everyone in a way that the Americans don't," says Mark Katz of George Mason University.

Russia has even made minor inroads with traditional American allies. The Kurdish YPG militia, an American-backed group in Syria, recently said that Russia had set up a base to help train its fighters. Russia attracted Qatari investment last year in Rosneft, a state-owned oil giant, and the United Arab Emirates has pledged to buy a batch of Sukhoi fighter jets. "Like it or not, now you can't do without Russia in the Middle East," says a Western diplomat.

Western governments are especially concerned about Libya, where Russia may be aiding Mr Haftar, a secular strongman in the mould Mr Putin prefers. American officials say Russian special forces have been spotted near Sidi Barrani in Egypt, close to the Libyan border; Russian officials have denied it. Russian military contractors have said they are operating in Mr Haftar's territory. Rosneft has signed a memorandum of co-operation with Libya's National Oil Corporation.

Russia insists that its engagement with Mr Haftar is about dialogue and ultimately peace. Mr Haftar's forces have "major potential" to influence events, says Andrei Baklanov, deputy director of the Association of Russian Diplomats. Yet many Western officials remain wary.

Russia's ability to roam the region stems largely from the waning of American influence. Middle Eastern rulers have proved to be open to diversifying their investments. "This is a region that knows how to play big powers off each other," says Daniel Kurtzer, a former American ambassador to both Israel and Egypt. Yet Russian aims are limited. Vitaly Naumkin, of the Institute of Oriental Studies at the Russian Academy of Sciences, says the country has "neither the desire nor the resources" to become a new hegemon in the region. As one former Russian ambassador says, "We're realists, we can compare figures." Russia's economy is one-tenth the size of America's; its defence spending is 11% of America's in dollar terms. And in contrast to Soviet times, today's Russia does not promote an alternative system of governance. Instead, it preaches stability. "The Russian position is that preserving ▸▸

what exists is the only way to avoid chaos," says Mr Lukyanov—even if existing leaders are "cannibals, murderers or autocrats".

Moscow's fixation with stability stems partly from the threat terrorism poses to Russia itself. "Russia sees the Middle East as rather close," says Dmitri Trenin, the director of the Carnegie Moscow Centre, a think-tank. From Sochi, the Russian elite's favoured getaway, to Aleppo is 850km (530 miles), roughly the distance between Paris and Berlin. Officials say some 9,000 fighters have left Russia and former Soviet republics to join Islamic State.

But it has just as much to do with halting what Russia calls the West's "policy of regime change". When autocrats began falling during the Arab spring, Russia's interest in the region reawakened from a long post-Soviet lull. Russian officials viewed the protests in the Arab world, "colour revolutions" in post-Soviet republics and the Bolotnaya demonstrations in Moscow during 2011-12 as links in the same American-forged chain. For Mr Putin, the decision to intervene in support of Bashar al-Assad's regime in 2015 was meant in part to "stop the spread of the virus of the Arab spring", says Mr Trenin, as well as to "return to equal relations with the Americans" after the West's isolation of Russia over the crisis in Ukraine.

A brutal bombing campaign has helped achieve just that. But as Russia's engagement has deepened, the challenges have mounted. Despite successes on the battlefield in Syria, "there is no exit in sight", says Alexander Shumilin of Russia's Institute for US and Canada Studies. Israel has become increasingly concerned about a long-term Iranian presence in Syria. Negotiations over Syria's political future continue to falter, and a massive reconstruction bill awaits when the hostilities end. Securing the peace, as America has learned, is often harder than winning the war. ■

Spanish art

Exhibitionism

MADRID

The Prado's renaissance

AT THE turn of this century the Prado, Spain's premier art museum, slumbered in neglect. Limited opening hours and an almost complete lack of information about its paintings seemed calculated to put off visitors. Deliverance came with a law in 2003 granting it autonomy from the civil service. Before that the museum's staff ran the place in their own interest and the director had little power, says Eduardo Serra, a former defence minister who as chair of the Prado's trustees pushed the law through. To implement it he hired Miguel Zugaza, a shrewd manager, as director.

Miguel Falomir, who was appointed as Mr Zugaza's successor on March 21st, inherits a Prado that is flourishing. It attracts 3m visitors a year. It has weathered state funding cuts: about 70% of its budget of €45m ($49m) now comes from tickets, merchandising, fees from foreign exhibitions and sponsorship. Above all, the Prado has shed its provincialism.

"It was very introverted," says Mr Falomir, an expert on Titian. It used to mount exhibitions only of Spanish painting. When it branched out, with shows on Rubens and Titian, colleagues across Europe and America were sceptical. "Not any more," he adds. Last summer's blockbuster exhibition of three-quarters of the surviving work of Hieronymus Bosch was one that only the Prado, with its large Bosch collection, could have organised.

Groovin' on Rubens

Mr Falomir still faces challenges. All museums must cope with mass tourism. In a sensible compromise, entrance to the Prado is free for the last two hours of each day. Those who pay €15 to come earlier can contemplate Velázquez's "Las Meninas" with fewer jostling tour parties. Photographs and selfies are banned. To counteract young Spaniards' declining interest in the art of the past, Mr Falomir wants to bring in contemporary art inspired by the Prado's collection.

As museums become more and more alike, the Prado's collection remains unique. Unlike the Louvre or London's National Gallery, it is not encyclopaedic. Its core is the royal collection, which reflects the tastes of Spain's monarchs in its Golden Age. That makes it "magnificently unbalanced", says Mr Falomir. No other museum can count 200 Goyas, 90 Rubenses, 40 Titians or most of the surviving work of Velázquez or Bosch.

To mark the museum's bicentenary in 2019 work will start on an extension designed by Norman Foster. It will include a restored Hall of the Realms, the grandest remnant of the 17th-century palace that once stood on the Prado's site. Velázquez's "Surrender of Breda" and his five great equestrian portraits will return to the Hall, where they originally hung. Some 200 paintings currently in storage will go to the new space.

Spain's national self-confidence was shaken by the financial crisis of 2008-09. Many new museums around the country were revealed to be the unaffordable trophies of local politicians. The Prado's lesson for post-crisis Spain is that professionalism, entrepreneurial drive and internationalisation bring rewards.

France's presidential election

Going his way

PARIS

One month out, Emmanuel Macron's chances look better than ever

A BARNACLE has nothing on François Fillon. Neither scandals nor broken promises nor the defection of allies can prise the Republican candidate from his presidential campaign. Each week brings new details of his questionable practices as a businessman-politician. Last week a court put him under formal investigation for steering about €900,000 ($970,000) of public funds over 25 years to family members who it seems did little to earn it. Mr Fillon, despite a solemn vow to quit if this happened, decided to hang on.

In a televised debate on March 20th the candidate alluded to having made mistakes. One was surely his failure to declare gifts of nearly €50,000 since 2012 in the form of finely stitched suits from a Paris tailor. More damning was the news, leaked on March 21st, that investigators are looking into allegations of aggravated fraud and forgery. Reportedly these concern documents signed by Mr Fillon's wife, Penelope, declaring the hours she claims to have worked.

The very next day *Le Canard Enchaîné*, an investigative weekly, reported that Mr Fillon had been paid $50,000 to lobby for a Lebanese billionaire, Fouad Makhzoumi, who owns a pipeline-making business. According to the paper, Mr Fillon arranged a ▸▸

meeting for him with Vladimir Putin in St Petersburg in June 2015 (as well as with Patrick Pouyanné, the boss of Total, a French oil company). Even if true, the reports do not directly contradict Mr Fillon's denials that he took payments from Russia, but they would raise questions over his pro-Russian stance in foreign affairs. (In the debate, Mr Fillon likened Russia's invasion of Crimea to the West's support for an independent Kosovo.)

In a sideshow, France's Socialist interior minister, Bruno Le Roux, resigned on March 21st after investigators began looking into his habit of giving his daughters well-paid jobs in parliament during their school holidays. Mr Fillon has little to fear from the Socialists anyway: polls suggest that both established parties are crumbling and may not recover. Less than a fifth of voters say they support the Republican. Even fewer back the official Socialist candidate, Benoît Hamon, in part because a yet more left-wing figure, Jean-Luc Mélenchon, is siphoning away his voters.

Even if Mr Fillon were to consider quitting, it would be too late for the Republicans to replace him. Eleven candidates have officially declared that they will stand in the first round of the election on April 23rd. Set aside a few obscure anti-capitalists and several self-promoting Gaullists and independents, and the race looks ever more likely to come down to two anti-establishment figures: Emmanuel Macron, a liberal ex-Socialist, and Marine Le Pen, the leader of the populist, anti-immigrant National Front.

The obvious beneficiary of Mr Fillon's disastrous campaign is Mr Macron, a former economy minister and banker who favours free trade and the European Union. Polls suggest the 39-year-old is roughly tied with Ms Le Pen for the first round, with each backed by a quarter of the voters. In the run-off, they show Mr Macron would beat Ms Le Pen by 20 percentage points or more. Yet nothing can be taken for granted. Polls can be wrong, or change quickly. Mr Fillon's glimmer of hope is that support for Mr Macron, a newcomer to electoral campaigning, is not solid: some of his backers could switch after a blunder, or if his policies are seen as too liberal.

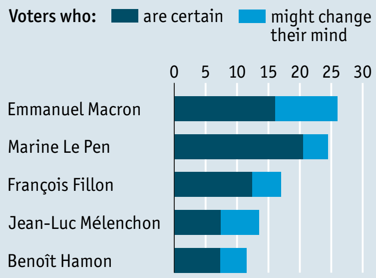
That glimmer is only faint. In the debate on March 20th, Mr Macron acquitted himself creditably during more than three hours of verbal melee between the five main candidates. At times he waffled, boasting of his pragmatism while avoiding any specific commitments. (Ms Le Pen landed a good line, congratulating him for speaking for seven minutes without saying anything.) On foreign affairs and migration he referred relentlessly to the need to work with the EU, which more French view unfavourably than favourably. But three snap polls suggested that a plurality of the viewers thought Mr Macron had won the debate. Another poll found that his supporters had become a bit more sure of their choice.

Mr Macron's most memorable moment was an angry exchange over Muslim integration with Ms Le Pen, whom he called a threat to national unity. That clash may well set the tone for the campaign. The front-runners hold contradictory opinions on nearly every topic. Mr Macron's strong approval of the EU provoked scorn and gurning from the leader of the National Front. He in turn ridiculed her praise of Britain's Brexit decision as "*formidable*".

In fact, Mr Macron might do best to attack Ms Le Pen's incoherent economic plans. Generally a strong speaker, she is not fluent when pressed on her mutually contradictory goals of boosting public spending enormously while trying to withdraw from the euro and restructure the national debt. Older voters, especially, worry that Ms Le Pen is a threat to French pensions and prosperity. Assuming Mr Macron does not blunder, the election appears to be his to lose. ■

Poll me maybe

French presidential election, voting intentions in 1st round, % polled on March 21st 2017



Source: Elabe

Reverse Balkanisation

A common market of their own

SARAJEVO

With EU enlargement in question, the western Balkans find a substitute

TO JUDGE by the headlines, things are getting pretty hairy in the western Balkans. Newspapers have been running articles arguing that borders should be redrawn. Russia's foreign ministry has accused Western officials of promoting a Greater Albania. Montenegro claims that Russia was behind an alleged coup attempt last November aimed at stalling its accession to NATO. Serbia has excoriated the president of Kosovo for suggesting that his demilitarised country might form an army, and Macedonia has lashed out against Kosovo and Albania for supposedly interfering in its domestic affairs.

Most of these clashes are empty posturing by leaders who are facing elections or other domestic challenges. But they have had one real consequence: Western governments have become alarmed enough to start paying attention again. Johannes Hahn, the European Union's commissioner for enlargement, says that EU governments have been pushing him for ideas on how to keep the region stable. The result is a plan for a western Balkan common market, backed both by local leaders and by the EU itself.

On March 16th, at a summit in Sarajevo with the prime ministers of the six Balkan countries that want to join the EU, Mr Hahn told them to seize the moment. When they meet again in Trieste on July 12th, he wants them to sign up to a plan for a regional common market, with free trade, free circulation of labour and capital, and regulatory standardisation.

Serbia and Albania are all for it; indeed, their leaders say it was their idea. "Serbia would like to play the role Germany plays in the EU within this group," says one diplomat. Montenegro and Kosovo, however, are alarmed. Montenegro is well advanced on its path to EU accession, and fears that the new plan will only hold it up.

Mr Hahn says the plan could create up to 80,000 jobs. Foreign investors will see a market of 20m people rather than six small countries. In fact, much of what Mr Hahn wants to do is already under way. An incomplete free-trade area exists, though intra-Balkan trade remains feeble. There is a western Balkan energy community linked to the EU, and a treaty integrating transport policy is ready to sign. Work has been done on the mutual recognition of professional qualifications. The idea now is to pull all these initiatives together and fill in the gaps.

The EU's governments are busy debating what type of union they want after Brexit. Goran Svilanovic, the head of the Sarajevo-based Regional Cooperation Council, to which the six Balkan EU aspirants belong, says they need to plan, too. The EU's members reaffirmed on March 9th that they expect the Balkan states to join the union eventually, but Mr Svilanovic thinks it could be on different terms, with new entrants starting out with only partial access and acquiring full membership status gradually.

In Sarajevo Edi Rama, Albania's prime minister, said he wanted Albanians to be able to work freely in the EU now, while his government works on the rest of its membership criteria. In today's political climate, that is a pipe-dream. But Mr Rama may be right that the western Balkan countries could sidle into the EU bit by bit, to avoid provoking resistance. In the meantime, a common market of their own may serve as a consolation prize. ■

Charlemagne | Europe's leaden-toed boot

Italy, host of the EU's anniversary party, is the country most likely to bring it down

THE European Union may be a Franco-German construction, but when the project needs a dose of grandiosity it invariably turns to Italy. This weekend the leaders of 27 EU countries (all bar Britain) will convene in Rome's glorious Palazzo dei Conservatori, beneath 17th-century frescoes and flanked by sculptures of sundry popes, to proclaim their unity—60 years after their forefathers signed the Treaty of Rome, the EU's founding document, in the same room. In today's fractious union the symbolism counts for something, even if the declaration the leaders will issue is crushingly bland. Yet there will be a note of irony to the proceedings, for if you ask officials in Brussels or Berlin which country keeps them up at night, the answer is always the same: Italy.

Very little changes here, sighs a local who emigrated as a child and recently returned to Rome. Sadly, that includes the size of the economy. The European Commission forecasts Italian growth at 0.9% this year, the slowest in the euro zone. Since 2008 Italy has been in recession as often as not. Real income per head is lower than when Italy joined the euro in 1999, and could soon be overtaken by zippy Spain. Youth unemployment stands at 38%, and the employment rate is among the lowest in the OECD. No wonder barely half the population of this traditionally pro-European country think the euro was a good idea.

Does this matter? Italy is nothing if not resilient. It has remained standing through waves of terrorism, epic political scandals and the long Silvio Berlusconi years. Predictions that markets would swoon after a failed constitutional referendum in December proved off the mark. Instead Matteo Renzi, the prime minister, resigned (though he is plotting his return) and Paolo Gentiloni, the mild-mannered foreign minister, glided into place at the head of a largely unchanged cabinet. "We have a stable government with a stable majority," says Mr Gentiloni. "That is not common on our continent." Italy's European partners speak warmly of the new prime minister, its 43rd since the war.

But peer ahead and it is not hard to conjure up a plot worthy of the most lurid *giallo*-writer. Italy's chronically low growth, low inflation and gigantic public debt burden (133% of GDP) make a potentially deadly trio. A showdown with the European Commission over the autumn budget looms. The banks, stuffed with bad loans, look a little healthier than six months ago, but still pose a headache. Most worryingly, the European Central Bank will soon reduce its massive bond-buying programme and could phase it out entirely by the end of the year. That could mean Italian borrowing costs start to rise just as the country gears up for elections early in 2018. (It was rising bond yields, not irate voters, that forced out Mr Berlusconi in 2011.)

Enter the anti-establishment Five Star Movement (M5S). Its leader, Beppe Grillo, a bewhiskered comedian, thinks the euro has choked Italy's exporters by blocking devaluation (although Italy's northern manufacturers have fared well lately) and pledges a referendum on membership. This resonates with Italians' growing Euro-fatigue; a new poll puts the M5S five points ahead of Mr Gentiloni's Democratic Party (PD). Mr Grillo has previously ruled out working with other parties, such as the populist Northern League, which also wants out of the euro. But plenty of observers think the M5S would happily ditch that principle if necessary.

It is this brew of political and financial risk that has outsiders sweating. Italy, they say, is too big either to bail—its economy is 7.5 times the size of Greece's—or to fail. As the election hoves into view, the prospect of an M5S-led government could spook investors, and perhaps even put at risk other wobbly euro-zone economies, starting with Portugal. Sandro Gozi, the Europe minister, says an anti-euro government in Italy would mean the end of the single currency. That is why it is common to hear euro-zone officials say it should never have been allowed in to start with.

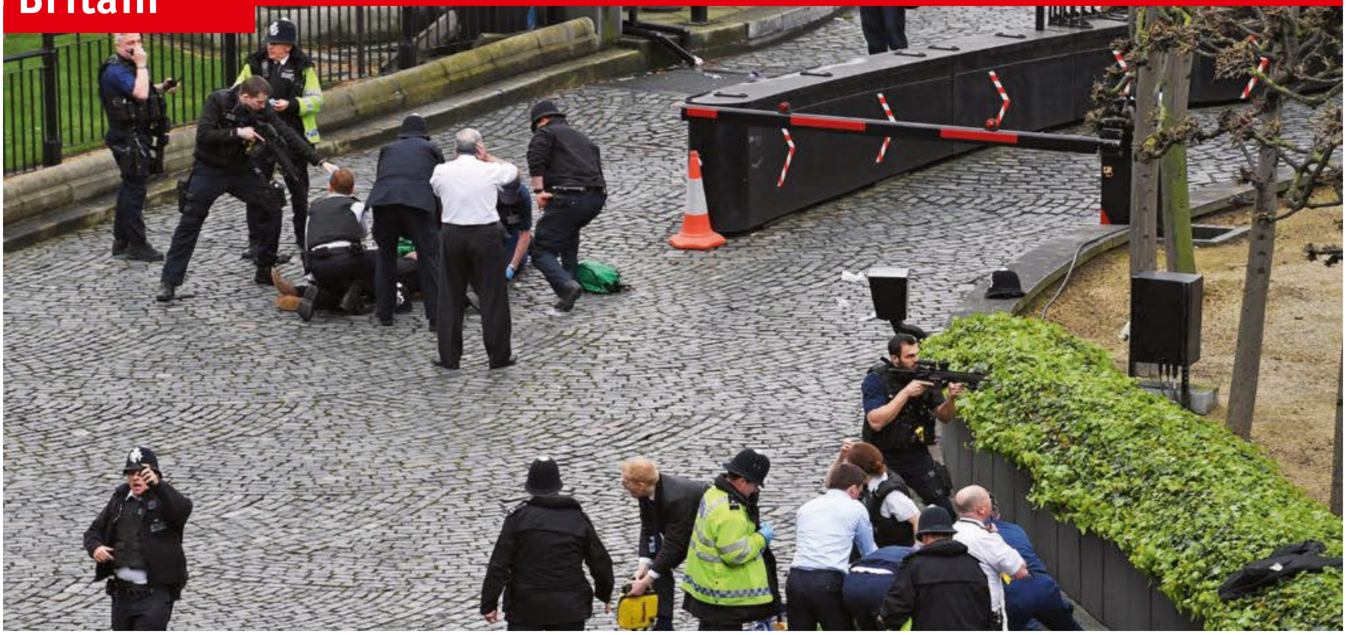
Others reckon Italy will weather this storm, as it has survived so many before. Voters' grumbles about this or that policy, says Mr Gentiloni, should not be mistaken for full-blown Euroscepticism. And should exit from the euro ever become a serious prospect, the thought of a collapse in euro-denominated asset values would concentrate minds. Some disillusioned PD sympathisers mutter that the M5S amateurs may as well be given a chance to prove their incompetence. (Virginia Raggi, the young M5S mayor of Rome, has made a pig's ear of the job she won last June.)

Garibaldi was no economist

Italy's problem, as described by an official in Brussels, was not the euro but the lira. It yoked together a productive north with the sleepy *Mezzogiorno*. When Italy joined the euro, optimists assumed that being locked into a currency with Germany would discipline it. But the productivity whip failed to crack; wages and prices remained too high relative to Germany's, and in the 2000s Italy was woefully unprepared for the rise of competition from China. Successive governments failed to tackle structural problems, from a sluggish legal system to sky-high hiring costs.

Credit-rating agencies are frowning upon Italy, as the rest of the euro zone starts to pick up speed. But the biggest vote of no confidence comes from Italy's own young people, tens of thousands of whom leave each year for opportunities abroad. Underinvestment in education and R&D make it hard to see where the long-term productivity boost Italy so desperately needs will come from. Money continues to be showered on the priorities of yesterday. And the demographic prospects are dire.

Mr Gentiloni does not downplay Italy's problems. Beyond banks and migration, one of his priorities is an investment plan for Italy's struggling south. It brings to mind a protocol in the Treaty of Rome, covering "particular problems relating to Italy". In 1957 the EU's founding members agreed to contribute European funds to the Italian government's plans for job creation in the *Mezzogiorno*. After all, nothing changes in Italy. ■



Terror in London

Parliament under attack

A car, a kitchen knife and an Islamist-inspired killer bring chaos to central London

"IT'S a simulation, no?" asked a confused tourist, as the emergency services hurried into action and a helicopter flew low overhead. This time, it was not. At 2.40pm on March 22nd—the anniversary of the terrorist assault on Brussels airport last year, which may or may not be a coincidence—a man using a car as a lethal weapon mowed down people on Westminster Bridge, crashed into gates outside Parliament and used a large kitchen knife to murder a policeman before being shot dead himself. It was precisely the kind of attack that Britain's security authorities have been expecting. It was also the kind that is most difficult to prevent.

Two other people died and around 40 were injured, seven critically, including one woman who fell or jumped from the bridge into the River Thames. Among the injured was a party of French schoolchildren and three other police officers. As news of the attack spread, Parliament went into "lockdown" and the part of London that symbolises Britain's democracy was sealed off.

Later in the day Theresa May condemned the "sick and depraved terrorist attack". The prime minister, who previously served as home secretary, declared: "We will all move forward together. Never giving in to terror. And never allowing the voices of hate and evil to drive us apart." It was the deadliest terrorist attack London had suffered since the Tube and bus bombings of 2005 (see chart). But Parliament reopened the following day.

As *The Economist* went to press, some details of the investigation into the attack had begun to emerge. Although it was a "lone wolf" assault of the sort seen several times during the past year in France and Germany, the British-born killer may have had helpers. On March 23rd police announced the arrest of eight people after a series of raids in London and Birmingham. What is not in doubt is that the perpetrator was inspired by Islamist extremism.

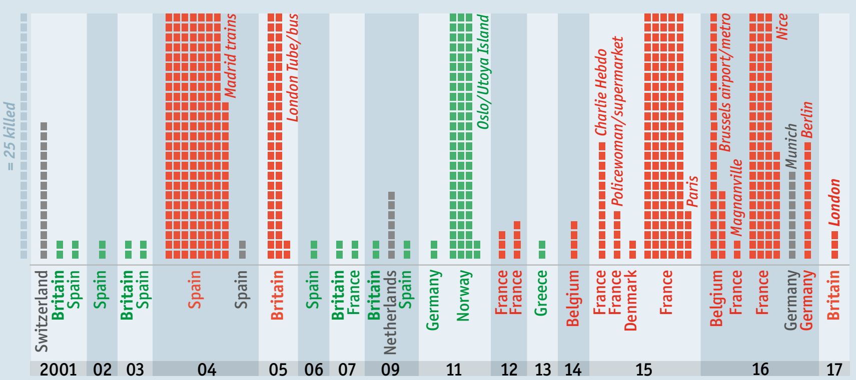
Although such an attack was anticipated—the first response was efficient and calm—the grim reality is that it may be the precursor to many similar ones.

Britain's counter-terrorism police and intelligence agencies are among the best in the world and have a successful recent record. Since the murder of a soldier in east London in 2013, they claim to have thwart- ▸▸

Terror's toll

Major attacks in western Europe, September 11th 2001 to March 23rd 2017*

Attacks causing two or more deaths† by: jihadists, other, unknown/no affiliation; □ =1 killed



Sources: Global Terrorism Database, University of Maryland; press reports

*At 11am GMT †Excluding perpetrators

ed 13 terrorist plots. At any time there may be up to 500 security-related investigations under way.

British security agencies have several advantages over their colleagues elsewhere in Europe. They are well funded, have state-of-the-art electronic surveillance capabilities and have largely banished the inter-agency rivalries that hamper counter-terrorist efforts elsewhere. Britain has some of the strictest firearms laws in the world and never joined the Schengen agreement, which allows border-free travel across much of the European Union. Its security services also have experience of fighting terrorism in Northern Ireland—as Britons were reminded this week by the death of Martin McGuinness, a proponent of terrorism and later peace in the province (see obituary).

But the problems they face now are different. Complex plots that involve detailed planning, numerous accomplices and the acquisition of guns or explosives offer plenty of opportunities for intelligence agencies to thwart them. But the kind of attack that Islamic State (IS) has become known for in the West is much cruder. Even if an individual is known to the authorities as an extremist who might one day pose a threat, he may slip off the radar. The Westminster Bridge attacker had been investigated "some years" ago by the intelligence services, Mrs May said.

And although IS may be on the point of losing its so-called caliphate in Iraq and Syria, its online propaganda remains as slick and seductive as ever. Radicalised, often disturbed young men are enticed into acts of violence against the societies in which they live. If anything, the threat posed by IS as it increasingly turns its attention towards the West is growing, possibly fuelled by the return of some battle-hardened jihadists to their homes in Europe.

Al-Qaeda, more active than ever in Yemen and under less pressure in Afghanistan, has learned from IS. Nonetheless, as the ban this week on taking electronic devices into the passenger cabins of aircraft flying from some Muslim countries suggests, the organisation has lost none of its fascination with aviation (see page 56).

After every terrorist outrage there is a temptation to look for the lessons that can be learned to make such an event less likely in the future. In the case of the Westminster Bridge attack, it is hard to see what those are. A car and a kitchen knife were all that was needed to bring terror to the capital for a few hours. But the security services in Britain are clear on one thing: policies that appear to demonise ordinary Muslims, as well as being wrong in themselves, are wholly counter-productive. The best technology in the world is no substitute for the human intelligence that comes from communities that do not feel alienated from the state. ■

What voters want from Brexit

Soft options and hard choices

As the government prepares to trigger Brexit, voters are torn over its terms

THE phoney war that has persisted since the vote for Brexit last June is almost over. This week Theresa May confirmed that she will send Brussels a letter invoking Article 50, the legal procedure for leaving the European Union, on March 29th. Yet, rather as with the phoney war, the prime minister's letter will be only the end of the beginning. For the invocation of Article 50 will open negotiations that will continue for two years, and quite possibly longer.

Mrs May has said that her priorities in the talks will be to end the free movement of people between Britain and the EU and to escape the jurisdiction of the European Court of Justice. She has also accepted that these two demands mean that Britain will have to leave the EU's single market, a position characterised by many as a "hard Brexit" that will maximise the economic damage it causes. To offset this she wants to preserve, to the maximum extent possible, barrier-free access to that market.

The difficulty of reconciling these conflicting demands seems to be reflected in what the public wants from Brexit, too. This emerges in a survey published this week by NatCen, a social research organisation. The survey is interviewing the same panel of respondents over time in an effort to track how public opinion towards Brexit is evolving.

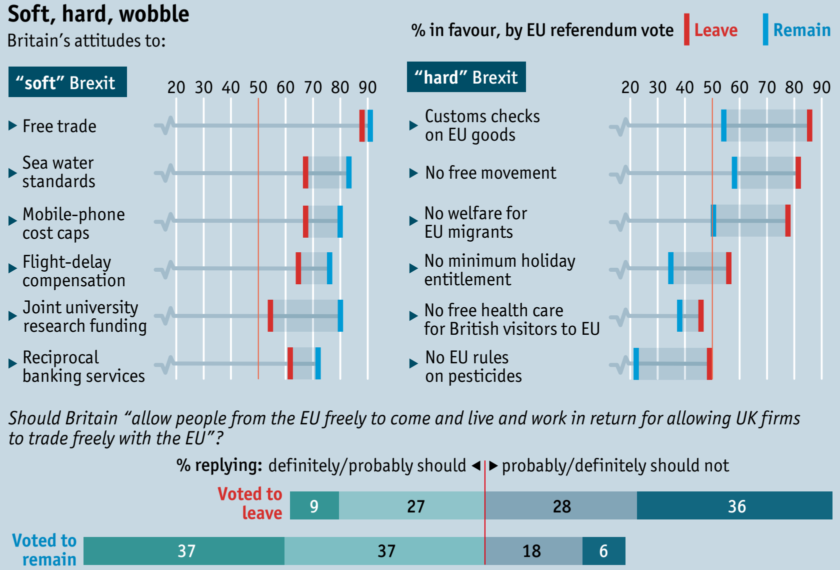
One striking finding of the research is that both Leave and Remain voters believe firmly in the advantages of free trade (and thus the merits of the single market). Both groups also like many other good things delivered by the EU, such as cleaner sea water and lower mobile-phone charges. These views point towards support for a softer form of Brexit. But both Leavers and Remainers also favour tougher control on migration from the EU, which suggests some backing for the hard variety.

What is more telling for Mrs May is what happened when the researchers asked about the trade-off between these different goals. Not surprisingly, Leavers were less inclined to accept free movement of people in exchange for free trade, while Remainers were in the opposite camp. Most Liberal Democrat and Labour voters said they would accept free movement if that was necessary to secure free trade, while those who backed the UK Independence Party disagreed. But supporters of the ruling Conservative Party were notably torn: 44% would accept free movement in exchange for free trade, but 55% would not.

As John Curtice of Strathclyde University, who supervised the NatCen research, argues, should the Brexit negotiations become sticky, this could present Mrs May with some politically difficult choices to sell to her supporters. What could make this even harder for her is that as many as 37% of the respondents already expect Britain to get a bad deal from the negotiations. Soft or hard, Brexit will be tricky indeed.

Soft, hard, wobble

Britain's attitudes to:



Source: NatCen, February-March 2017


THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND
LESSONS THAT SIT IN A CLASS OF THEIR OWN
Award-winning Professor Stuart McNaughton is teaching schools how to teach. His techniques to advance literacy and language development allow schools to improve by monitoring their own results, and adjusting teaching approaches accordingly.
Stuart's focus includes how to improve digitally-based teaching in low decile school clusters and the development of children's literacy in the Cook Islands, Tonga and the Solomon Islands.
And as part of the Woolf Fisher Research Centre at the University of Auckland, which he co-founded in 1998, he has pioneered school change interventions and new scientific approaches to redesigning schools to be more effective for students from diverse communities. The University of Auckland is ranked 23rd in the world for Education.*
Stuart's work is influencing educational policy and is helping change the futures of generations to come.
For more about Stuart or to see how others are achieving the amazing at New Zealand's leading university visit **auckland.ac.nz/amazing-researchers**
*2016 QS World University Rankings by Subject
ACHIEVE THE AMAZING
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PLUS

Bagehot | Retail politics with Andy Street

The West Midlands mayoral race presents a choice between two visions of municipal power

"GOOD afternoon, madam. Yes, that's my ugly mug on the leaflet! I hope you'll give it a read. May I ask where you live?" It is well over a decade since Andy Street quit the sales floors of John Lewis for the boardroom, where he steered the venerable chain of department stores to record profits. But the former chief executive hasn't lost the patter. This much Bagehot discovered on Erdington High Street as the wiry Conservative candidate for the new West Midlands mayoralty scuttled about, buttonholing shoppers. "I'm supporting you. I hate these politicians on 'Question Time' [a TV debate show]," professed Pam Rangely, a former Labour Party canvasser who had never voted Tory. "So you're switching to the other side?" your columnist asked her. Mr Street spun around: "Did you *see* her face? It fell when you talked of 'the other side'." The former retail boss does not like to think of himself as a party man.

To tour with Mr Street around the West Midlands metropolitan region, which includes Birmingham and industrial cities like Coventry and Wolverhampton, is to discover how lightly he wears his political identity. He considered running as an independent. His banners, website and leaflets are green rather than Tory blue (one handout mentions the word "Conservative" twice in ten pages). Addressing a crowd at the Prince of Wales pub in left-liberal Moseley, he admits: "I have wobbled in my commitment to the party," adding that he identifies most with Michael Heseltine, the bouffant doyen of centrist Toryism. "You don't have the hair for it!" heckles a drinker. "How is that different from being a Blairite in Labour?" hollers another. "It's a fine line," Mr Street replies. "They're philosophically very similar."

Some of this is tactics. Despite Labour's current woes, it still finds big-city Britain friendly territory. Of the three big "metro mayoralties" that will spring forth on May 4th (along with three smaller ones), only the West Midlands race is truly competitive. Even on this patch, Labour had a 9.4-point lead in the 2015 election. Siôn Simon, the party's candidate, is steeped in the economically centrist, ruthlessly tribal culture of Labour's "West Midlands mafia", which includes Tom Watson, the party's powerful deputy leader. At stake is a glittering prize: the second-largest direct mandate in Britain after the London mayoralty, control of transport, skills and housing policies affecting 2.8m people and £8bn ($10bn) of new money from the government. To win it, Mr Street must tack away from the Tories.

Yet his vague political identity speaks to something more fundamental, about him and the job. Ideologically, Mr Simon and Mr Street mostly see eye to eye. The difference has nothing to do with general outlook and everything to do with practice. That makes the West Midlands race intriguing—and important.

Take Mr Simon, a former MP now in the European Parliament. He is steeped in his party's culture and battles. His campaign is all about Labour: he is absent in most hustings, has published no manifesto with barely a month to go before the vote and seems to be cleaving to safe Labour areas. He talks about protecting the health service (over which the mayor will have no control) and taking on "politicians in London". Some call this posturing cynical, others hard-nosed power politics.

What the Labour world and realism are to Mr Simon, the business world and idealism are to Mr Street. He brandishes his 48-page Renewal Plan at every opportunity, spouts statistics (did you know that 60% of the Black Country lives within 1km of a bike-friendly tow path?) and demands that the West Midlands become fiscally self-sufficient, suckling less at Leviathan's teat and paying its own way for once. The house parable in Street-land is the successful local campaign, led by a certain former retail boss, to persuade HSBC, a global investment bank, to base its consumer-banking operations in Birmingham.

Convening, arm-twisting, cheerleading: these, to Mr Street, are the essence of the job, as opposed to what he calls the "begging bowl", "poor us" approach of Mr Simon. He wants to revive the tradition of Joseph Chamberlain, a Victorian mayor of Birmingham and icon of corporatist municipal success. "He used his business experience to 'improve the lot of the masses'—though I'd never put it like that," says Mr Street. Such a mayoralty demands a chief-executive-mayor with a strong personal mandate and cross-party reach. Hence Mr Street's obsession with visibility—he hurtles from event to event at a pace Bagehot has not witnessed before—and with non-partisanship.

Never knowingly under-polled

This matters regionally and nationally. Regionally because local government in the West Midlands does not have a happy history. Once wealthier even than the south-east, this part of England has suffered from decades of inept interventions by central government and bickering between local councils. The result is a deeply divided region (central Birmingham would pass for Boston, Massachusetts, its poorer outskirts for the less fashionable districts of Bucharest), and one beset by policy failures: a collapsing care system, growing homelessness, lagging skills.

And it matters nationally, because this mayoralty may be the one that decides the future of devolution in England. In an over-centralised, economically polarised country, the emergence of powerful elected officials overseeing wide urban regions is the best hope of solving crises in living standards, productivity and housing. Yet neither Andy Burnham (a gloomy opportunist) in Manchester nor Steve Rotheram (a hard lefty) in Liverpool looks likely to do that on their patches. Mr Simon is more promising than either, but a win for him would nonetheless be a blow to the ambition with which the metro mayoralties were created. A victory for the dynamic Mr Street would make Birmingham a beacon of municipal assertiveness. So Bagehot urges West Midlanders: don't vote Conservative, vote Street. ■

Also in this section

America and the world

US v UN

President Trump seems bent on weakening the global body

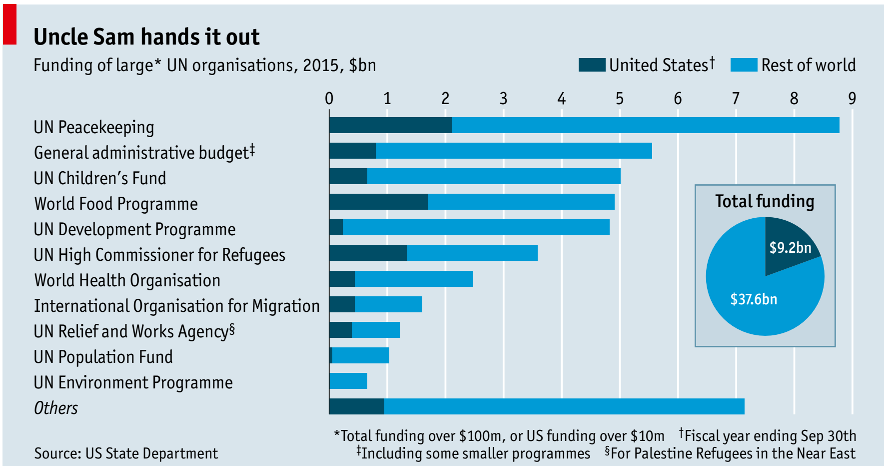
WHEN the draft of an executive order by Donald Trump saying he would cut America's contribution to the UN by 40% was leaked in January, alarm bells began clanging not just at the organisation's headquarters in New York but in chanceries all over the world. America pays for a good quarter of the body's costs and even more for its 16 peacekeeping missions that strive to mitigate some of the bloodiest conflicts on earth. Could he mean what he said? On March 16th, when the White House unveiled its budget for 2018, the answer was a defiant yes. The State Department, which channels America's contributions to the UN and its own foreign-aid agency, was told to chop $10.1bn from its budget, a cut of 28%.

For sure, this is but the start of months of bargaining between the White House and Congress. Several prominent Republicans, as well as an array of Democrats, said they would oppose cuts on such a scale. Moreover, what was dubbed the "skinny budget" was short on detail. Some saw it as theatre—"A Budget Blueprint to Make America Great Again", as Mr Trump described it—that was not intended to be enacted as drafted. But even if the cuts were to be halved in size during negotiations, they would still punch a big hole in the UN's pocket. And no one now bets that Mr Trump does not mean what he says about pulling back from the world.

Some programmes are to be protected. Security aid to Israel, worth $3.1bn a year, will be kept "at an all-time high". Pledges to Gavi, previously known as the Global Alliance for Vaccines and Immunisation, the President's Emergency Plan for AIDS Relief (better known as PEPFAR) and anti-malaria schemes will be fulfilled. But funds for climate-change programmes will cease (see next article). And within the State Department's remit, "the US would not contribute more than 25% for UN peacekeeping costs". At last count, it was paying around 28%.

It is unclear how America's foreign commitments, particularly to the UN, will change. Countries' payments to the organisation are of two sorts: "assessed contributions", calculated according to GDP, adjusted every three years and then written in stone; and a web of "voluntary" agreements, negotiated by each country, usually yearly, for funding the gamut of UN agencies, such as the World Food Programme, the High Commission for Refugees and the UN Children's Fund. Contributions to the general UN budget, which includes the secretariat in New York and its worldwide offices (see chart), and a clutch of activities under its direct control, are "assessed" by formula and compulsorily handed over.

The assessment for the American contribution to the UN's general budget and programmes under its umbrella in 2016 was 22% of their total cost. America would breach its treaty obligation to the UN if it refused to pay up. A senior official under Barack Obama puts the mandatory cost of American contributions to international organisations (including outside the UN arena) in 2015 at more than $4.2bn, and vo-



luntary ones at $5-6bn. So even if the State Department were to slash non-UN activities, by closing embassies, say, it would have to pare its voluntary contributions to a range of UN agencies to the bone.

Mr Trump could reduce or end America's contributions to UN peacekeeping missions at fairly short notice, though his proposed overall drop from 28% to 25% would let most continue. The five biggest are in the Central African Republic, Congo, Mali, Sudan's Darfur region and South Sudan. The mandate for the Congo mission comes up for renewal next month. "Everything is on the table," says Peter Yeo, a former State Department officer who helped negotiate America's payment of arrears when Bill Clinton was president and now heads the Better World Campaign, which urges America to support the UN. "The action," he adds with tentative optimism, "is now moving to the Hill," where Mr Trump's slash-and-burn proposals may, he hopes, be moderated. A more detailed budget is not likely for another two months. "So far the figures just don't add up," says an official at the Bill & Melinda Gates Foundation, which has distributed nearly $37bn in aid since 2000. The idea, popular in Mr Trump's circle, that private charities can fill the void is false, she adds, noting that many of her foundation's projects depend on partnerships with the state.

The UN organisations most reliant on American generosity are humanitarian, such as the food programme (35% paid for by America) and the refugee agency (38%), which help millions of starving and displaced people. If these, along with the peacekeepers, were to be gutted, the risks of famine and war would soar. In the long run that might well cost America more, if it eventually felt obliged to pick up the pieces. Mr Gates argues relentlessly that aid and development help Americans by enhancing global stability. So, recently, did 120 generals in a letter to Mr Trump.

Back in Turtle Bay

António Guterres, the UN's secretary-general since the start of the year, has been careful not to pick a fight with the American president. Mr Guterres and the envoys of just about all governments represented at the UN are pinning some hope on Nikki Haley, Mr Trump's ambassador there. According to a UN insider, "she has been trying to reassure everyone in the UN that all these statements from the Trump camp are just noise." In the past week that will have got much harder.

Mr Guterres, who has a reputation as a consensus-builder, has quietly let it be known that he will embark on a cost-cutting and streamlining campaign of his own. Britain, France and America have tended to work together in the Security Council, often in opposition to the other two veto-wielders, China and Russia. Now the British and French are hoping desperately to bind Mr Trump back with them into the UN system, fearing he may cosy up to Russia's president, Vladimir Putin, or by default let China make the running.

"That would mark a really dangerous shift in power dynamics at the UN," says the former Obama official. "Everything so far with this administration has been so haphazard. It's all so hard to predict." Congress may persuade Mr Trump to see merit in some aspects of the UN. But that, right now, seems like a losing battle. ■

Climate finance

Lean, not green

What American budget cuts might mean for the environment

AT HOME and abroad, one clear result of Donald Trump's proposed budget would be to push green programmes into the red. Between 2010 and 2015 America increased its climate-related spending in developing countries fourfold. It lavished $15.6bn on projects for clean energy, better land use and infrastructure suited to a warming world. Cutting such schemes is bad enough. But for America to step down as an environmental champion is worse. International deal-making will slow without its clout and diligence, other countries' emission-cutting efforts will shrink, and laggards such as Saudi Arabia and Russia will see no reason to catch up.

The proposed budget would eliminate money for the Global Climate Change Initiative, the federal government's hub for overseas environmental support. It would also affect entities such as the Green Climate Fund—set up in 2010 as part of an international pledge to transfer $100bn of climate cash a year from rich countries to poor ones by 2020—and the Climate Investment Funds, supported by George W. Bush's administration with $2bn partly to boost renewables abroad. Squeezing the State Department would mean that development banks, which back green projects around the world, could lose $650m.

International climate funding comes from a mix of governments, multilateral agencies, banks and development groups. The OECD, a group of mostly rich countries, estimates that poor countries received $62bn in public and private climate finance in 2014, up from $52bn in 2013. But domestic spending dwarfs international contributions. And some important UN initiatives require little to run.

Take the UN Framework Convention on Climate Change, a green treaty adopted in 1992, under which the Paris agreement to limit global warming to "well below" 2°C above pre-industrial temperatures was adopted in 2015. America covers about a fifth of its administrative budget. It is also the world's largest contributor to the Intergovernmental Panel on Climate Change, a group of scientists who advise governments on global warming. The annual sums for such bodies have been small: roughly $5.4m and $3.1m respectively. Other countries could compensate.

One contender is China. Co-operation between Barack Obama and Xi Jinping made the Paris agreement possible. And after Mr Obama pledged $3bn for the Green Climate Fund in 2014—of which he managed to deliver a third before leaving office, making America among its largest donors—China offered up $3.1bn in climate cash. As China, the world's largest polluter, gets richer, it is essential that it plays its part in paying for mitigation and adaptation to global warming, says Leonardo Martinez-Diaz of the World Resources Institute, a global research body.

Cash once lured developing countries to the table at climate talks. That is changing, says James Cameron, the chairman of the Overseas Development Institute, a British think-tank. The world is 1°C warmer than in pre-industrial times, and countries feeling related effects know they need to negotiate, with or without additional incentives. Many stand to gain from new technological measures; poor countries can benefit from others' green expertise.

The Paris agreement's loose structure and modest goals mean it should survive America's proposed purse-tightening. Policy wonks believe it could also bear America's withdrawal. But such a radical change of direction would send a terrible signal. The president once called global warming a "hoax", then more recently acknowledged "some connectivity" between human activity and climate change. But the budget plans reveal the consistent and troubling conclusion of his administration: that green programmes are always a waste of greenbacks. ■

Also in this section

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Uber's future

Hard driving

SAN FRANCISCO

The ride-hailing giant is going through the biggest crisis in its short history

AS A teenager, Travis Kalanick's first job was to knock on strangers' doors and sell them knives. Now he is trying to dodge the daggers aimed at him and at Uber, a ride-hailing firm that is the world's most valuable startup. On March 19th Jeff Jones, the company's president, stepped down after six months, declaring that "the beliefs and approach to leadership that have guided my career are inconsistent with what I saw and experienced at Uber." At least six key executives and high-ranking employees have left in the past nine weeks. They include Uber's head of mapping, a former head of self-driving car technology, and an artificial-intelligence (AI) expert who had been put in charge of the firm's AI research lab only three months ago.

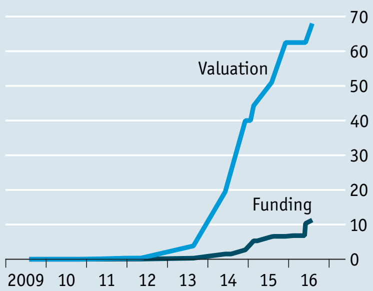
Aggressive and unrelentingly ambitious, Mr Kalanick built his eight-year-old company into America's largest privately owned technology firm by treading on the toes of different groups, including traditional taxi drivers, other tech companies and regulators. He pushed into new markets abroad and raised an unprecedented amount of capital, to the tune of around $12.5bn, including debt. The firm has a valuation of close to $70bn (see chart).

Yet a remarkable run of bad news for Mr Kalanick, combined with some setbacks for Uber itself, threatens to halt the firm's momentum. "I have never seen someone have such a bad couple of months," commiserates the boss of a large, public tech firm. Politics struck first: in January Mr Kalanick was widely criticised for serving on Donald Trump's business-advisory committee and for apparently intervening in a strike by taxi drivers opposed to Mr Trump's ban on refugees. A campaign, called #DeleteUber, took off, encouraging users to stop using the Uber app.

Then worries about Uber's culture mounted. A former employee wrote a blog post on how Uber's human-resources department failed to act on her sexual-harassment complaint. Next, an Uber driver filmed Mr Kalanick arguing with him about fare cuts and uploaded the material, including the boss lamenting that "some people don't like to take responsibility for their own shit". The latest embarrassment was the revelation that Uber had secretly designed and used a software feature, called Greyball, to evade city officials attempting sting operations to catch Uber drivers violating local regulations.

Hail to the private markets

Uber, $bn



Source: CB Insights

Two questions face the company. One is whether Uber will continue prospering under Mr Kalanick's leadership. Silicon Valley and its denizens may celebrate his type, but his public words and actions have made people close to the firm squirm. Bill Gurley, a venture capitalist and early Uber backer who sits on the board, is helping direct a search for a chief operating officer to keep Mr Kalanick in check and bring experience and discipline to the firm. It is certainly hard to keep on top of the firm's growth: last year, its headcount doubled.

If Mr Gurley and the rest of the board cannot find an experienced candidate willing to work with Mr Kalanick, calls for him to step down may grow louder. But that is his decision to take. Uber is a prominent example of founders' power at fast-growing tech firms. On its own, Uber's board does not have the clout to change the CEO, because of his super-voting shares and those of his co-founder, Garrett Camp: together they control a majority of the voting stock.

The second question concerns Uber's longer-term business prospects. One of the firm's early-stage investors says that recent events have been a series of "body blows", but he worries that there could be a "knockout blow" that would permanently damage Uber's momentum. So far, he says, it looks as if Uber is merely bruised.

From the start of the year to the first week in March, Uber's market share in America has fallen from around 80% to 74%, according to 7Park Data, which tracks the industry. Lyft, a smaller ride-hailing firm, seems to have been the chief beneficiary. The dip in market share for Uber could reverse, though the firm is unlikely to ▸▸

grow as effortlessly as in the past. There is, at least, still plenty of room to expand at home. Only around 6% of American mobile-phone users hail a ride through Uber and Lyft once a month or more.

Yet Uber's enormous valuation also depends on the firm pulling off a harder task: dominating most markets for ride-hailing around the world. Fortunately, there is little evidence that Mr Kalanick's antics have dented its prospects outside America. But the goal of worldwide dominion remains distant, even though no other private technology firm has ever spent so much money to gain a global foothold. It is competing against a strong competitor, Grab, in South-East Asia and was spending billions to compete against its Chinese rival, Didi, until it struck a deal last year to withdraw from the country in exchange for a 20% stake in that firm.

Investors particularly want to see the ride-hailing giant reach profitability in developed markets. Its sales, of around $5.5bn in 2016, are growing rapidly, but it has to spend a lot in American cities where there are rival local firms such as Lyft and (smaller) ones such as Juno and Via. For every dollar that Lyft spends in subsidising fares, it costs Uber four times the amount to hold onto customers and drivers, because of its far larger size. Foreign expansion adds still more expense, and it is unclear whether the competition at home and abroad, which hurts Uber's chance of becoming profitable, will ever ease up.

There are other threats to watch out for. Uber's performance depends on its software working smoothly and not being hit by outages, and this could suffer if more executives on the technical side leave. It may also struggle to hire talented engineers during this rough patch.

Another looming problem is regulation. Later this year the European Court of Justice, the European Union's highest court, will decide on whether Uber is a transport company or just a digital service; if it is judged to be the former, it will need to comply with stricter licensing, insurance and safety rules, lifting its costs significantly in Europe. Last week an American court upheld a law from Seattle allowing Uber drivers a vote to unionise. Other cities are expected to follow suit. A British court will soon need to rule on whether Uber has to pay value-added tax.

As for Uber's race to move away from human drivers to autonomous driving, obstacles lie ahead. In February Waymo, a self-driving car unit that is owned by Google's parent company, sued Uber, claiming that former employees of Google had stolen some of Waymo's proprietary technology when they set up their own autonomous-driving startup, Otto. Last year Uber bought Otto, which makes self-driving kit for lorries, for around $700m.

Patent disputes are common in the tech industry and can take years to play out, but Waymo is being particularly aggressive. It has asked a judge to ban Uber's use of its lidar technology, which uses lasers to scan a vehicle's surroundings and is employed in self-driving cars. Uber may settle for a large sum, but the affair adds uncertainty.

Some people close to Uber ask whether all the difficulties will force Mr Kalanick, who has said he never wants to take the firm public, to consider doing just that. It will now be far harder to raise money in the private markets at Uber's stratospheric valuation. But it is possible to argue the opposite: Mr Kalanick will need the clouds of controversy to clear before going public.

His company's problems could occur at many startups, but the fact that they have all struck at once suggests its immaturity and a lack of professional management. Given the sums at stake and the blow to the prestige of many in Silicon Valley if Uber failed, there will be no shortage of pressure on Mr Kalanick to prove that he is the right person to stay at the wheel. ■

Bottled water

Liquid gold

Companies are racing to add value to bottled water

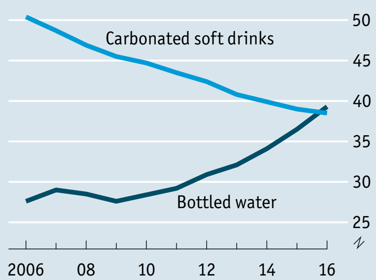
PRESENTED in an unusually-shaped heavy glass bottle with outsized black lettering, it could be a fine vodka. On sale for £80 ($99) in Harrods, an upmarket department store in London, it has a price tag to match. In fact, it is a bottle of water. Harvested directly from Norwegian icebergs that are up to 4,000 years old, Svalbardi is one of hundreds of water brands that are sourced from exotic places and marketed as luxury products.

From the basic to the expensive, the market for bottled water is an attractive place to be. According to Zenith Global, a consulting firm, the global market has grown by 9% annually in recent years and is worth $147bn. The main reason is changing lifestyles. People are spending more time, and eating more of their meals, away from home. They are also switching from soft drinks and alcohol to healthier fare. Data from Beverage Marketing Corporation (BMC), another consultancy, show that consumption of bottled water overtook that of sugary soft drinks in America in 2016 (see chart).

Sparkling sales

United States, consumption per person

Gallons



Source: Beverage Marketing Corporation

Basic brands, such as Aquafina from PepsiCo, compete on price and have slim margins. (The cost of the raw material, which comes from either natural or municipal sources, is next to nothing; the main costs are packaging, distribution and marketing.) At the other end of the scale, convincing customers to pay a lot should be hard when your product doesn't have a distinctive taste and an alternative is freely available from the tap in most rich countries. But "premiumisation" is working. Though still a small part of the American market, really high-cost bottled water (selling for more than $1.30 a litre) has been one of its fastest-growing areas, says BMC.

Premium water is hardly a new idea. The Perrier brand, which is owned by Nestlé, a Swiss consumer-goods giant, and Evian, owned by Danone, a French one, have long emphasised the uniqueness of their natural sources to sell water. But the newest offerings are promoting a lifestyle. Coca-Cola's premium water brand, which is advertised by Jennifer Aniston, is marketed as "inspirational" water for successful people. That is also the buzzword for PepsiCo's LIFEWTR, launched in America with a 30-second ad during last month's Super Bowl. For the fashion crowd, one range of Evian bottles features artwork from Christian Lacroix.

Adding flavour is another way to dress up water. Grocery stores stock fruit-flavoured waters and "plant" waters, such as coconut, maple or birch. Water that has been fortified with vitamins and minerals is a hit with exercise junkies. The market is small but lucrative: sales of flavoured water amount to only 4% of the volume of plain water sold, according to Zenith, but bring in 15% of the total revenue.

At the luxury end of the market, water has become more like wine, argues Michael Mascha, the author of a guide to fine water. In expensive restaurants the precise origin of water is what matters; many eateries offer water lists along with the wine selection. For power-lunchers in health-conscious Los Angeles, says Mr Mascha, buying an expensive bottle of water is a way to signal status.

High prices can be controversial, given that many people in poor countries have limited access to drinking water and environmental worries dog the industry. Transporting water from exotic places is costly; most plastic bottles languish in landfill ▸▸

sites; and some firms, such as Nestlé, have been accused by environmental groups of monopolising water sources at the expense of local communities, for instance during periods of drought in California. (Nestlé says it monitors environmental conditions around its source springs and that it adheres to sustainable practices.) Many brands address such concerns head-on. Svalbardi water is certified as carbon-neutral, for example; Coca-Cola funds drinking-water projects in Africa.

The thirst for posh water will only deepen, predicts Euromonitor, a market-research firm, as middle-class consumption in poorer countries catches up and as Westerners continue shunning unhealthy soft drinks. If so, the ingenuity seen so far in the bottled-water industry may be just a drip from the iceberg. ■

The laptop ban

Holding pattern

New measures will hit Middle Eastern airlines and their passengers

NEW intelligence appears to have prompted the decision of the authorities in both America and Britain to prevent the carrying of large electronic devices into the passenger cabins of aircraft flying from several Middle Eastern and North African countries. However, the announcements, which both came on March 21st, raise several unanswered questions. Passengers, and the affected airlines, may be concerned that there is an element of politics behind the new measure, coming as it does in the wake of Donald Trump's second attempt to ram through a highly controversial executive order restricting travel to America from some Muslim countries.

Some speculate that the intelligence may have been gathered by a raid carried out by American special operations forces on al-Qaeda's affiliate in Yemen, known as al-Qaeda in the Arabian Peninsula (AQAP). One such raid took place on January 29th and left a Navy SEAL and up to 30 civilians dead. Some reports suggested that the botched operation yielded no actionable intelligence. But administration officials maintained that material indicating future AQAP targets was seized.

AQAP has proved itself in the past to be technically innovative in finding new ways to plant explosives on airliners. There is also some evidence that it is spreading its expertise to other terrorist groups in the region, such as al-Shabab in Somalia, which managed to get an exploding laptop onto a plane leaving Mogadishu in February last year. It is possible that information has only recently become available about new AQAP plans to hide explosives in devices such as laptops, tablets and DVD players.

One oddity of the new cabin ban is that America and Britain do not agree on which airports the new measure should apply to. The American version affects departing flights from Saudi Arabia, Jordan, Kuwait, Turkey, Egypt, Morocco, Qatar and the United Arab Emirates (UAE). The British have added Tunisia and Lebanon to their list, while subtracting Kuwait, Morocco, Qatar and the UAE airports. There will be suspicion that America's inclusion of the UAE and Qatar may not be entirely unconnected with complaints from Delta, American and United about unfair competition from the big Gulf carriers, Emirates, Etihad and Qatar Airways. The three have grown rapidly over the past decade by building up their local hubs and flying anywhere in the world from them.

Emirates operates 17 daily flights to 11 American cities, carrying about 7,000 passengers. Between them, Qatar and Etihad have more than 5,500 daily seats to America. A vital part of their model is providing a high-quality business-class service. Firms pay for their employees to fly business class in the expectation that they will get some work done. Taking away their passengers' laptops will place the affected airlines at a competitive disadvantage. They are already hit by reduced tourism and passenger traffic due to terrorism fears.

Economy-class passengers will also suffer. Airlines increasingly charge passengers for baggage they place in the hold. From now on, if they fly from any of the listed airports, they will have no choice other than to pay up. The Gulf hub airports, which compete for international transit passengers, will lose some of their appeal. Passengers in all classes will inevitably have more possessions of high value either pilfered or damaged.

For whom the belt tolls

A further concern is whether measures against terrorists are being pursued at the expense of basic safety. Most of the devices now destined for the hold are powered by lithium-ion batteries. Safety experts say that luggage acts as an insulator, increasing the likelihood of a faulty battery bursting into flames, igniting other batteries and generating explosive hydrogen gas. A self-immolating laptop in the cabin can be quickly extinguished by the crew. A fire that breaks out in the hold is far harder to deal with. Passengers will want to know whether proper risk analysis was carried out before these decisions were made. ■

Tyre manufacturing

Puncture repair

Big tyremakers are regaining grip after losing out to Chinese rivals

CARS can be objects of desire and the bonnet badge an indicator of wealth and status. Yet the four small patches of rubber that do the vital job of attaching them to the road stir little emotion. A third of drivers cannot name the make of tyre on their car. Nor do they know that the dominant global brands have been fighting a losing battle for 15 or so years against Chinese competitors and now have a chance of winning back ground.

The established tyremakers have advantages over the industry they serve. They have margins that outstrip even Germany's luxury carmakers. Supplying manufacturers accounts for only a third of revenues of a typical tyre firm and even less of the profits. The rest comes from replacing tyres on vehicles on the road, which wear out every four years or so.

The expansion of the global vehicle fleet, forecast to grow by around 3.5% a year, helps gradually to reduce firms' dependence on the cyclical market for new cars. Tyremakers also benefit by selling most of their wares to thousands of distributors. They are fragmented and weak compared with carmakers, and less inclined to drive hard bargains.

Once, the big tyremakers could divvy up this growing pie. In 2000 the top five—Bridgestone, Michelin, Continental, Goodyear and Pirelli—accounted for over two-thirds of the market. Their share has since deflated to under half (see chart on next page) as China's domestic tyre industry grew as rapidly as its carmakers. Some estimates reckon there are 250 Chinese family-owned or state-run businesses (the biggest is Hangzhou Zhongce Rubber). Jean-Claude Kihn, Goodyear's boss for Europe,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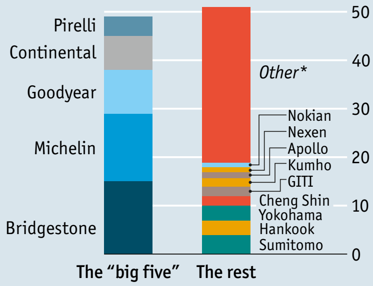
Tyres, kicked

Global tyre market, 2014, %



Source: UBS

*Mostly Chinese manufacturers

Middle East and Africa, reckons there could be many more. The lure of a trophy asset also tempted ChemChina, a Chinese chemicals giant, to acquire Pirelli, the sole supplier of tyres to Formula 1 motor racing, for €7.1bn ($7.7bn) in 2015.

Chinese tyres are cheap but lack the performance or longevity of pricier brands. But as David Lesne of UBS, a bank, points out, distributors had an incentive to push them. Though selling for as little as half the price of premium tyres, distributors made margins of up to 20% (compared with as little as 5% for established brands).

The premium manufacturers have cut costs and shifted production to cheaper places. Another helpful trend, oddly, is rising raw-material prices. After three or four years of oversupply of natural rubber and low oil prices, the main ingredients of synthetic rubber, these costs are rising. This will cause short-term pain for the big tyremakers. But as these account for 30% of costs for big firms and 60% for China's newcomers, the latter will have much less scope to avoid putting up prices, eventually eroding their price advantage.

Bigger wheels are also pumping up the old guard. Those over 17 inches in diameter require the premium tyres mostly made by established firms. The clamour to drive SUVs, which accounted for two-thirds of car sales in America in 2016, and a vogue for putting larger rims on humdrum cars means the appetite for these, which are at least twice as profitable as smaller ones, is growing fast. The big tyremakers are making the largest investments in new capacity to meet the need. Larger Chinese tyremakers are also spending to make bigger tyres but most of China's minnows, after years of competing furiously on price, have precious little spare cash for such investment.

Tyremaking should also be largely immune from all the disruption in carmaking. Electric and autonomous cars, after all, will still need tyres. Fleets of robotaxis and shared vehicles will favour the established firms, says Mr Lesne. Fleet managers tend to go for their harder-wearing, safer tyres. For big tyremakers the pressure applied by Chinese incomers is easing. ■

Food suppliers

Another grilling for Brazil

SÃO PAULO

A meat scandal damages the country's two global producers

EVEN amid Brazil's pungent stew of recent big corporate scandals, the latest is particularly stomach-turning. On Friday March 17th, in time for a traditional weekend *churrasco*, or barbecue, the federal police accused some of the country's biggest meat producers of bribing health inspectors to turn a blind eye to grubby practices. These include repackaging beef past its sell-by date, making turkey ham out of soyabeans rather than actual birds and overuse of potentially harmful additives. The police operation, dubbed Weak Flesh, could reduce Brazil's meat exports, worth $13bn a year, and damage its two big global meat producers, JBS and BRF.

Two days later the president, Michel Temer, treated 27 diplomats from the country's main export markets to prime Brazilian cuts at a steakhouse (pictured) in the capital, Brasília. Nevertheless, straight after that China, the European Union (EU), Chile and South Korea, which together consume a third of Brazilian meat sold abroad, said they would ban some or all imports from Brazil until it can allay misgivings about its inspection regime. The reactions from China and Chile provoked particular anguish. Unlike the EU, which has restricted products only from the 21 plants that are under investigation, they have barred all Brazilian meat from crossing their borders until further notice.

Investor fears of a widespread embargo quickly kicked in. By March 20th shares in JBS, the world's biggest beef exporter, and in BRF, the largest producer of poultry globally, had lost a sixth of their market value. Like other firms involved in the affair, both companies deny wrongdoing. Their share prices have since partially recovered, helped by South Korea's subsequent decision to lift its ban. Most of the meat-production plants under investigation belong to much smaller rivals. Only one of dozens of plants owned by BRF is under suspicion, and the same is true for JBS. Yet the damage to the firms' reputations may take a long time to repair.

The effort is under way: Brazilian authorities and the country's butchers are rushing to reassure customers at home and abroad. The suspected slaughterhouses make up a tiny fraction of 5,000-odd such establishments in the country, the industry's defenders note. Only 33 agriculture-ministry officials were fingered by the police, out of a bureaucracy of some 11,000.

In fact, both JBS and BRF have already clamped down on over-close relationships with officialdom inside their businesses. Such steps were judged essential as they embarked on successful global expansions during the past decade. These days, their products must get past keen-eyed foreign quality inspectors, their executives say, not just Brazilian ones.

It makes little sense for either company to jeopardise hard-won, lucrative foreign markets by cutting corners at home. Both companies know full well how long it takes to rebuild consumers' trust in the ▸▸

The steaks are high

wake of a scandal; some Europeans are still sniffy about British beef 19 years after Britain stamped out mad-cow disease. America let in Brazilian beef only last year, after two decades of talks.

Nonetheless, the episode will almost certainly postpone the impending flotation of JBS's international business in New York, which was expected to raise 10.5bn reais ($3.4bn), and of BRF's halal arm in London, aimed at raising $1.5bn. It may also hobble BRF's return to profit from its first-ever annual loss in 2016, caused by weak domestic demand and high prices for the corn it feeds to poultry. The two giants, as well as other Brazilian exporters, may need to slash prices or risk losing substantial chunks of market share. It is all too easy to fall foul of foreign governments' weak stomach for food scares. ■

The construction business

Profiting from the wall

NEW YORK

Construction firms eye up the wall planned for America's border with Mexico

FEW slogans were chanted with as much passion by Donald Trump's supporters in the presidential campaign as "Build that wall!". The construction industry is almost as enthusiastic. Last week America's Customs and Border Protection agency (CBP) issued two invitations for companies to bid to build the wall on the border with Mexico, which is expected to cost anywhere between $12bn and $25bn. The deadline for designs falls on March 29th. One request is for a solid concrete border wall, and the other for a wall using "alternatives" to reinforced solid concrete, suggesting the government has yet to decide what the barrier should be made of.

More than 700 companies, from big general contractors to firms selling materials to niche providers of lighting and surveillance systems, have registered to try to become suppliers. To the surprise of some, about one in ten of the firms bidding are local ones with Hispanic owners, drawn by the scale of the earnings on offer. Cemex, a Mexican cement giant that has plants on both sides of the border, said it would not sell cement for the project, though it had earlier expressed interest in joining the bidding. Another, tiny, Mexican firm has offered lighting.

Other foreign firms muscling in include SA Fence & Gate from South Africa and Quickfence from Spain, although they may not get far: the government's tender mentions a "Buy American" preference. Skanska, a Swedish firm that is one of the construction industry's largest, publicly snubbed the project. "We believe in openness and equality," declared its chief executive, Johan Karlstrom.

The big American bidders try to downplay the politics. Howard Nye, the boss of Martin Marietta, a materials giant based in North Carolina, says simply that his company has "a general interest in large infrastructure projects". Its shares and that of other construction firms have risen as a result of Mr Trump's pledge to lavish $1trn on infrastructure across the country. Those plans may be delayed, but not, it seems, the wall. For some smaller bidders, business and personal views are aligned. Michael McLaughlin of Greenfield Fence, a contractor based near San Diego, says the barrier is needed to keep "dangerous drug dealers" out of the country.

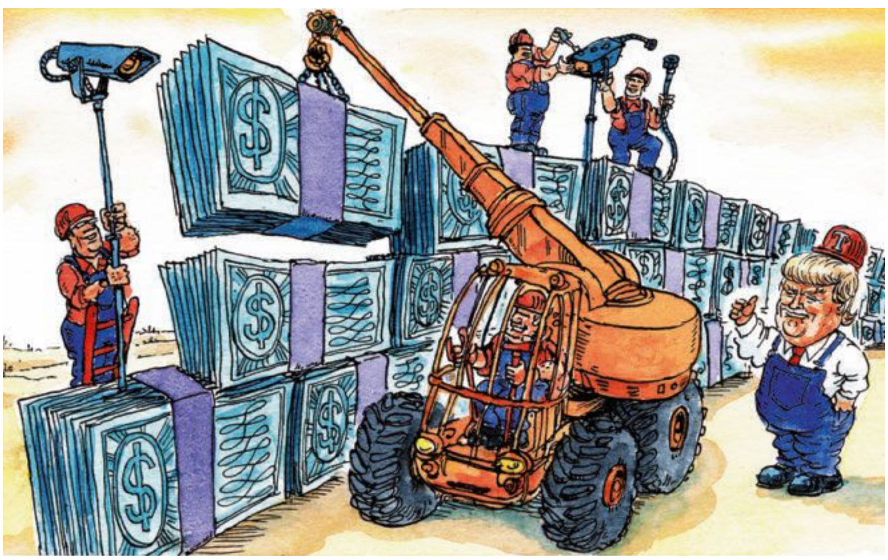
The general requirement is for a wall that is at least 5.5 metres high, preferably 9 metres, with anti-climb and anti-tunnelling features, and which—on the American side, at least—is "aesthetically pleasing". The few dozen firms that make it to the second round will later present detailed drawings and technical specifications as well as their best price. At the end of the process a still unknown number of winners will each be awarded a contract with a maximum value of $300m.

The rules of the game clearly favour large engineering and construction firms such as KBR, which helped build the detention camp at Guantánamo Bay and which will probably bid, or Kiewit, from Nebraska. These companies have the best design expertise, top-notch construction-management teams and the ability to strong-arm materials suppliers. But smallish players could still turn a profit by signing up to be subcontractors to bigger, prime contractors. Andrew Dorfschmidt of McDirt Excavation, a family-owned business in South Dakota, hopes to sell digging services to whichever companies are awarded the government contract.

Other firms are not interested in building the wall itself but are looking to sell border-wall accessories that are known as "tactical infrastructure and technology". These include lighting, standing platforms and remote video-surveillance systems. One such firm, 2020 Surveillance, assumes there will be cameras placed every 60 metres along the wall. At a licensing fee of a few hundred dollars per camera per year it would expect to make $10m in revenue every year the wall is in place, if it supplied surveillance for the whole length required, or about 1,000 miles (1,610km).

Despite the strong expression of interest from potential bidders, the construction schedule could be unpredictable. For one thing, company bosses note that the wall will run through many parcels of private land. Although eminent-domain laws, which force the transfer of private property into public hands, may be invoked by the government, agreeing on adequate compensation for evicted landowners often becomes a legal headache.

Receiving payment could also take time. Only a small fraction of the estimated total cost of building the wall has been ring-fenced under Mr Trump's "skinny" budget proposal. Mexico has disobligingly ruled out paying for it. Delay may not matter to everyone, however. Working on Mr Trump's pet project is probably a good way to get a slice of a broader infrastructure splurge, if and when it comes. ■



Schumpeter | Texas hold'em

Why shale firms don't give a frack about financial returns

INSIDE the boardrooms and bars of Houston, the spiritual capital of America's energy industry, the swagger is back. The oil price may only be at $48, or half the level it was three years ago. But shale fracking—the business of getting oil and gas out of rocks by blasting them with water and sand—is booming once again after the crash of 2014-16. Exploration and production (E&P) companies are about to go on an investment spree. Demand is soaring for the industry's raw materials: sand, other people's money, roughnecks and ice-cold beer.

Shale's second coming is testament to Texan grit. But the industry's never-say-die spirit may explain why it has done next to nothing about its dire finances. The business has burned up cash for 34 of the last 40 quarters, according to figures on the top 60 listed E&P firms collected by Bloomberg, a data provider. With the exception of airlines, Chinese state enterprises and Silicon Valley unicorns—private firms valued at more than $1bn—shale firms are on an unparalleled money-losing streak. About $11bn was torched in the latest quarter, as capital expenditures exceeded cashflows. The cash-burn rate may well rise again this year.

Meanwhile, the prospect of rapidly rising production is rattling global energy markets. In particular it worries OPEC, a cartel of producers led by Saudi Arabia that aims to restrain output and keep prices stable and fairly high. Khalid al-Falih, Saudi's energy minister, warned of "irrational exuberance" on March 7th during an energy-industry conference in Houston.

When oil prices halved in just 16 weeks starting in late 2014, panic hit Texas, followed—for a while—by grim austerity. The number of drilling rigs in America dropped by 68% from peak to trough. Companies slashed investment. Over 100 firms went bankrupt, defaulting on at least $70bn of debt. Shale's retrenchment helped to stabilise the global oil price. Production in the lower 48 states (ie, excluding Alaska and Hawaii), and excluding federal waters in the Gulf of Mexico, has dropped by 15% over the past 21 months, equivalent to 1m bpd, or 1% of global output.

The partial recovery in the oil price, which at one point fell as low as $26, is only one factor behind renewed enthusiasm for shale. Houston's optimists also argue that the full geological potential of Texas's Permian basin has only just become apparent. Some experts think it could in time produce more barrels each day than Saudi Arabia does. That has offset gloom about falling production from other shale basins, such as the Bakken formation in western North Dakota. The industry has also lifted productivity. Drilling is faster, more selective and more accurate, and leakage rates are lower. Wells are being designed to penetrate multiple layers of oil that are stacked on top of each other.

But the fact that the industry makes huge accounting losses has not changed. It has burned up cash whether the oil price was at $100, as in 2014, or at about $50, as it was during the past three months. The biggest 60 firms in aggregate have used up $9bn per quarter on average for the past five years. As a result the industry has barely improved its finances despite raising $70bn of equity since 2014. Much of the new money got swallowed up by losses, so total debt remains high, at just over $200bn.

Oil bosses like to show off their newest wells in the Permian basin, which, they say, can now make internal rates of return of more than 50% over their working lives. But most firms have mediocre wells too, as well as corporate overheads, so their overall efficiency improvement has not been great. For the ten largest listed E&P firms, aggregate cash operating costs per barrel fell by $13 between 2014 and 2016; not enough to offset a $50 drop in the oil price. Because shale-energy fields run out far faster than traditional ones, firms must reinvest heavily to keep production flat.

It is instructive to compare shale with another natural-resources business that has had to cope with a collapse in commodity prices. In 2016 the mining industry's biggest companies ground out profits, produced cashflow after capital investments and made a decent return on capital. Yet despite this unflattering contrast, capital investment by American E&P companies will probably soar over the next year, by perhaps 50% or more.

There are two theories for why this is happening. One is that the way in which executives are paid, together with lenders' incentives, means that Houston is always vulnerable to investment mania. Not one of the ten biggest E&P firms, for example, puts significant emphasis in its pay scheme on how much return on capital it produces. Low interest rates make it easy for shale firms to borrow, and fee-hungry banks cheer on the spectacle. But the only way that the mania will end well is if oil prices rise sharply, bailing out the industry, or if E&P firms are bought by bigger energy firms. That is possible, but companies such as Exxon and Shell are too seasoned to pay a lot for small, unprofitable firms.

Houston, we still have a problem

The second explanation is oil executives' belief in increased output from the Permian, and higher productivity. Most E&P firms reckon they can expand production at an annual rate of 10-20% over the next few years. But to justify their market values, and make an adequate return on their cumulative capital invested, listed E&P firms would over time need to make about $60bn of free cashflow each year. Assuming that both energy prices and capital spending stay flat, that would require them roughly to double production from current levels.

The trouble is that this is a circular argument. If achieved across the whole shale industry it would mean that output would be twice as high as it is now, leading to a 5% increase in global supply, which might in turn lower the oil price. There is something heroic—and baffling—about America's shale firms. They are the marginal producer in a cyclical industry, and that is usually an unpleasant place to be. The oil bulls of Houston have yet to prove that they can pump oil and create value at the same time. ■

Also in this section

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China's economic diplomacy

Closer to centre-stage

HONG KONG

China is increasingly comfortable with the international financial institutions

THE IMF "systematically impoverishes foreigners", and the World Bank's advice has "negative value to its best clients". These harsh words were voiced not by lefty critics of the Washington Consensus, but by two men (David Malpass and Adam Lerrick, respectively) whom Donald Trump has picked to lead his Treasury's dealings with the rest of the world, including the international financial institutions (IFIS), such as the World Bank and IMF, and the G20 group of leading economies.

Their future boss, Steven Mnuchin, America's treasury secretary, is not much more reassuring to the global financial establishment. At his first G20 meeting, in Baden-Baden in Germany on March 17th-18th (pictured), he vetoed a long-standing pledge to "resist all forms of protectionism". It had often been breached. But hypocrisy is the tribute vice pays to virtue.

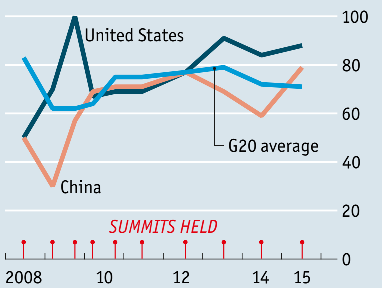
To veterans of international economic affairs, this combative stance is baffling. America's government now seems to disdain a set of institutions it nurtured into life—institutions that are more commonly criticised for following America's will too closely. "The United States is just handing the leadership over to China of the multilateral system," Jeffrey Sachs of Columbia University told Bloomberg this week.

But if there is a vacancy, is China qualified or even interested in the job? In January President Xi Jinping seemed to audition for the role in a speech praising globalisation at the World Economic Forum in Davos, Switzerland. As evidence of its capabilities, China can also point to a hefty portfolio of chequebook diplomacy. The China Development Bank, one of its policy lenders, already has a bigger book of overseas assets than the World Bank. Another institution, the Export-Import Bank of China, is not far behind. In addition, the country's central bank has extended currency-swap lines to over 30 countries, including many that America's Federal Reserve would not touch.

What about its willingness? Most of China's economic diplomacy to date has been bilateral, allowing it to win loyalty, reward friends and secure contracts for its companies. Over 60 countries will, for example, supposedly benefit from Mr Xi's nostalgic vision of a revived Silk Road (the "Silk Road Economic Belt and 21st Century Maritime Silk Road", mercifully shortened to "One Belt, One Road", or OBOR).

Eight out of ten: could do better

Compliance with G20 summit commitments, %



Source: G20 Research Group, University of Toronto

As for multilateral efforts, China's most eye-catching initiatives have worked around the existing system, not through it. It set up two multilateral lenders of its own, the New Development Bank (known as the BRICS bank, based in Shanghai, with financial contributions from Brazil, Russia, India and South Africa as well as itself), and the Asian Infrastructure Investment Bank (AIIB), in Beijing, which just increased its membership to 70, including every G7 country except Japan and America.

So it might seem that China has little interest in filling any gaps America might leave in the old multilateral system. But that would ignore another, less heralded trend. Overshadowed by its bilateral boondoggles and multilateral innovations, China's relationship with the incumbent IFIS has been warming. It has become more "compliant" with G20 commitments, according to the G20 Research Group at the University of Toronto (see chart). Its currency is now more fairly valued and its current-account surplus has narrowed, removing a bone of contention with the IMF.

The IMF's decision in 2015 to include the yuan as one of five reserve currencies in its Special Drawing Rights basket has also helped to rebut the notion that the fund is an arm of an American policy of containment. Moreover, since China's ham-fisted devaluation earlier that year, it has often sought the IMF's advice on managing the transition to a more flexible yuan and communicating its policy to the markets.

China is similarly happy to learn what ▸▸

it can from the World Bank, which has advised it on everything from managing the debt of its provinces to cleaning the air in its cities. The bank's suggestions are not always taken. But at least China seems to value its advice non-negatively.

China's relationship with these institutions is also becoming more generous. It is now the 11th-biggest donor to the International Development Association (IDA), the arm of the World Bank that helps the world's poorest countries. The China Development Bank has co-financed several World Bank projects in Africa.

Last autumn, when the IMF was looking for money to help Egypt, it phoned China, which agreed to extend a currency-swap line worth 18bn yuan ($2.6bn). The call took only five minutes and China's generosity embarrassed the G7 into stumping up some money in addition. China had been similarly helpful to the IMF bail-out of Ukraine a year earlier.

The World Bank and the IMF are imperfect vehicles for China's economic diplomacy. The bank's capital constraints might inhibit a big expansion in its lending and China's voting power and financial stake in the IMF will rise only if America permits. It took Congress six years to approve the last reform and it is hard to imagine the next round, due in 2019, winning much support from Mr Trump. But by adding extra dollops of financing to favoured bank and fund programmes, China can nonetheless steer the multilateral system indirectly, by adding its weight where it sees fit.

In the long term, if China becomes the world's leading economy, it is conceivable it will become the biggest financial contributor to the bank and the fund. At that point, according to their articles of agreement, their headquarters would have to decamp to China. All the more reason for the World Bank to help Beijing clean its air. ■

Buttonwood | Generation gap

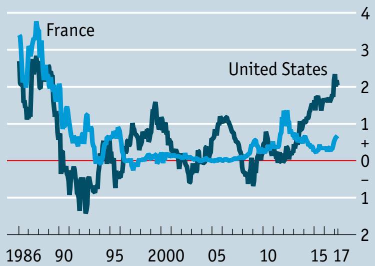
Europeans are borrowing more cheaply than the American government

AMERICA may be the world's largest economy, but these days its government pays more than many others to borrow money. Its ten-year bond yields are higher than those in Britain, France, Singapore and even Italy.

The gap between American and German ten-year yields has been above two percentage points. For much of the past 25 years, it was very rare for the difference to exceed a single percentage point. On occasions, American yields fell below German levels (see chart).

Counting the cost

Ten-year government-bond spreads over German bonds, percentage points



Source: Thomson Reuters

Go back a generation and you might have expected the country with the higher bond yields to be the one with the weaker currency; investors would demand a higher yield to compensate for the risk of future depreciation. But that is not the case today. The dollar has been strong, relative to the euro, and many people expect it to strengthen further. Indeed, the higher yield on American government debt is one reason why investors might want to buy the dollar.

Instead, the gap may reflect differences in both monetary and fiscal policy. In America the Federal Reserve stopped buying Treasury bonds a while ago and has raised interest rates three times since December 2015; the European Central Bank (ECB) is still buying bonds as part of its "quantitative easing" programme, and pays a negative rate on deposits. The Trump administration is committed to tax cuts and infrastructure spending that would increase the budget deficit and require more bond issuance. The euro zone has no plans of this sort for fiscal stimulus.

The present divergence recalls that between American and Japanese bond yields. The latter have been consistently low for much of the past 20 years, as the Japanese economy became mired in slow growth and deflation. Perhaps investors expect the euro zone to get stuck in a deflationary quicksand as the American economy returns to more robust growth.

But that view does not show up in inflation expectations. An oft-used measure, derived from the bond market, is known as the "five year/five-year forward rate". At the moment this gauge is showing the market forecast for the average inflation rate in 2022-27. In America the forecast is around 2.1%; in the euro zone it is around 1.7%. Six months ago the forecasts were 1.68% and 1.34%. Both have risen a little, but the gap has not widened significantly.

So more may be going on than simple economics. Politics, perhaps. The French presidential election is approaching and Marine Le Pen, the far-right candidate, has talked about redenominating French government bonds in francs instead of euros. That would lead to big losses for international investors. Although few people think Ms Le Pen will actually become president, investors have been burned by last year's voting upsets. So there has been a tendency to opt for the safest bonds in the euro zone—those issued by the German government. The spread between French and German ten-year yields is more than double its level on October 28th.

Another factor may be the actions of institutional investors. In a recent speech Hyun Song Shin of the Bank for International Settlements (BIS), an organisation of central banks, pointed out that both life-insurance companies and pension funds tend to have long-dated liabilities, ie, claims they must meet over many decades. They try to match those liabilities by buying government bonds. Accounting and regulatory rules often require them to use long-dated bond yields to calculate their liabilities.

But there is a mismatch: the liabilities of these companies and funds tend to be longer-dated than the bonds they hold. So when long-dated bond yields fall, their financial position deteriorates. That means they need to buy more bonds. This drives prices up—and yields further down, making the problem even worse. The BIS says euro-zone insurance companies accounted for 40% of the net purchases of the region's government's bonds in 2014. American pension funds and insurers own around $1.7trn of Treasury bonds (out of more than $14trn owned by the public), but seem to play a less substantial role in setting yields than European institutions.

The trend may change again, of course. Kit Juckes of Société Générale, a French bank, says the factors that have widened the spread between American and German yields may start to dissipate. Political worries may subside if Ms Le Pen doesn't win; the ECB may scale back its monetary easing; Mr Trump's stimulus plans may be delayed, or watered down. Whatever else history teaches us, it does not suggest that German ten-year yields of 0.41% will turn out to be a bargain.

Economist.com/blogs/buttonwood


Developing countries will consume 65% of global energy by 2040.
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The Bangladesh Bank heist

Still on the trail

DHAKA

The sophistication of last year's bank heist is becoming clear

A YEAR after one of the most spectacular robberies of modern times, the authorities in Bangladesh are still trying to crack the case. Hackers into the country's central bank sent instructions through SWIFT, a messaging network for cross-border payments, to transfer funds from the bank's account with the New York Federal Reserve to private accounts in Sri Lanka and the Philippines. Much of the stolen $101m has yet to be retrieved; the masterminds are yet to be identified. But the probe reveals the strikingly sophisticated, and international, nature of the crime.

After sifting 60 hard drives and thousands of pieces of paper, and interviewing dozens of people, investigators, talking anonymously in Dhaka, say they are confident about some details of the heist. They believe foreign hackers acted with inside help. The attackers' coding style has raised suspicions of involvement by North Korea. This week the *New York Times* reported that American federal prosecutors were examining this possibility.

Egregious violations of the bank's security procedures have also been uncovered. On the day of the robbery, its security cameras were disabled. A number of security protocols need to be met before the SWIFT system authorises a payment: one step, a physical key or dongle, was left plugged in for weeks, rather than locked away. Five of the hackers' 70 messages were accepted as genuine by the New York Fed. But for basic slip-ups (some payment instructions, for example, were incomplete) the thieves could have made off with $1bn.

SWIFT has not commented on the investigation. Last year Gottfried Leibbrandt, its chief executive, took pains to stress that it was the bank's security, and not SWIFT's, that had been compromised. Investigators have been silent in public on the role of Bangladeshi nationals in the crime. Reluctance to expose failings at home may help explain why their findings have yet to be published. The official line is that they do not want to jeopardise ongoing inquiries.

Bangladesh has recovered only $15m of the $81m wired to the Philippines. (Payments made to Sri Lanka were reversed before they could be withdrawn.) The main plotters have yet to be traced. Nor is there evidence that any money reached North Korea. But relations between Bangladesh and North Korea have soured: last August a North Korean diplomat was expelled from Dhaka on suspicion of smuggling.

Whether in connection with the heist or not, SWIFT has in effect cut off North Korea's formal ties with the global financial system. This month SWIFT was obliged to exclude three North Korean banks that were under United Nations sanctions. On March 17th it suspended services for the four remaining banks on the system, saying they no longer complied with its membership criteria. Reasons for termination include participation in activities that are illegal, endanger security or adversely affect SWIFT's reputation.

A speedy resolution to the Bangladesh case seems unlikely. Even if it is never cracked, it is clear, as Mr Leibbrandt put it, that it was a "watershed event" for the banking industry: a lesson in the threats posed by well-organised cybercriminals, which bankers neglect at their peril. ■

American trade policy

Done deals

A review of bilateral and regional trade deals will disappoint Donald Trump

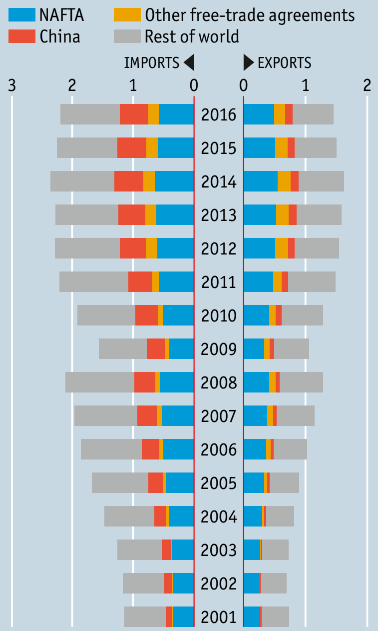
ACCORDING to a document crafted by the Trump administration, a model trade agreement has 24 elements. Second on the list is "trade-deficit reduction", giving a hint as to why Mr Trump wants to review America's existing agreements. In January Sean Spicer, his press secretary, said the administration would "re-examine all of the current trade deals." A presidential order to do just that is reported to be in the offing.

America boasts 14 bilateral and regional free-trade agreements (FTAS). Mr Trump seems to blame these agreements for America's large trade deficit. Most economists disagree, seeing it as reflecting macroeconomic imbalances. The FTAS are in any case with countries representing just two-fifths of America's two-way trade in goods, and less than 10% of its goods-trade deficit (see chart). Most (77%) of America's deficit stems from trade with China, the European Union and Japan. None has an American FTA.

A big grey area

United States, merchandise trade

By origin and destination, $bn



Source: US Census Bureau

A focus on trade deficits means that tiddly deals such as those with Jordan and Oman will not face much heat. NAFTA (an agreement with Mexico and Canada), and KORUS (South Korea), will face more scrutiny because of chunky American deficits with these countries. Israel is the next biggest trade-deficit offender. But Mr Trump seems unlikely to attack that FTA, America's oldest.

A review of trade deals is hardly revolutionary. More recent ones, like KORUS, have committees dedicated to monitoring them. And both the Mexican and the Canadian governments have accepted that NAFTA should be updated for things like e-commerce. They saw the Trans-Pacific Partnership, agreed to in 2016 by the NAFTA three and nine other Pacific Rim countries (and jettisoned by Mr Trump), as part of that process.

Last year geeks at the United States International Trade Commission (USITC) published a 373-page, evidence-based assessment of America's trade deals. It found that they were positive, but not transformative, raising GDP by 0.2% in 2012 and, in 2014, saving consumers $13bn through lower tariffs. Also, the USITC estimates that each of America's trade deals has tended to improve the bilateral trade balance. Without NAFTA, the USITC estimates that the goods deficits with Canada and Mexico would be larger by around 3% of total bilateral trade. Trade deals tend to slash other countries' tariffs more than American ones.

So it is unclear how poring over trade deals will achieve Mr Trump's goal of squashing the trade deficit. Others have a different worry. Trade agreements are supposed to be win-win. Concessions must be sold domestically. As Michael Froman, Barack Obama's trade representative, notes, "other countries have politics, too."

Payments in Europe

Levelling the paying field

New European payments regulation has the potential to shake up the banks

IN BRITAIN alone millions of people make formal complaints each year about their banks. For them, Sebastian Siemiatkowski, founder of Klarna, a Swedish payments startup, brings good news. New European rules, he says, will open the door to a host of innovative services that analyse transactions, so "an app could tell you there's a cheaper mortgage available and start the switching process for you." Apps could warn account-holders if they spend more than a predetermined amount or are about to become overdrawn, or even nudge them to save more. Customers need barely ever interact with their bank.

To date, despite dire warnings, European retail banking has been remarkably unscathed by technology-driven disruption. Customers stay loyal, and banks still do the most of the lending. Financial-technology ("fintech") companies are beginning to mount a challenge, most conspicuously in the online-payments industry in northern Europe: Sofort, iDEAL and other fintech firms conduct over half of online transactions in Germany and the Netherlands, for example. But their reach is more limited elsewhere in Europe. Physical payments are still overwhelmingly made with cash or bank cards.

One reason incumbents have proved so resilient is that fintech firms lack the customer-transaction information they need to provide many financial services. Banks can be slow to respond to requests for access to such data, or may block them altogether for security reasons. It is often either cumbersome or insecure for customers to share their own information. Banks, on the other hand, have easy access to transaction data, which they can use to sell their customers other services.

Regulators, however, are about to transform the landscape. The Payments Services Directive 2 (PSD2), due to be implemented by EU members in January 2018, aims to kick-start competition while making payments more secure. Provided the customer has given explicit consent, banks will be forced to share customer-account information with licensed financial-services providers.

This should change the way payment services work. They could become more integrated into the internet-browsing experience—enabling, for example, one-click bank transfers, at least for low-value payments. Security for payments above €30 ($32) will be tightened up, with customers having to provide two pieces of secret information ("strong authentication") to wave through a transaction.

With access to account data, meanwhile, fintech firms could offer customers budgeting advice, or guide them towards higher-interest savings accounts or cheaper mortgages. Those with limited credit histories may find it easier to borrow, too, since richer transaction data should mean more sophisticated credit checks.

None of this is good news for established banks. Profitability is already threatened by rock-bottom interest rates. According to Deloitte, a consultancy, banks' lockhold on payments serves as a handy source of income, earning European banks €128bn in 2015, around a quarter of retail-banking revenue. Many see PSD2 as a threat to their business models; they fear becoming the "dumb pipes" of the financial system. In a survey conducted last year by Strategy&, a unit of PWC, a professional-services firm, 68% of responding banks believed that PDS2 would leave them in a weaker position. The same proportion feared that they would lose control of interactions with customers.

Perhaps predictably, resistance is manifested as a concern about data protection: more than half of respondents to the PWC survey voiced concerns about security and liability. Such concerns are legitimate but also, argue fintech supporters, offer a convenient excuse for banks to block competition. Newcomers will be regulated, after all, and will have to convince the authorities that their data-protection systems are robust. As they are also required to be insured against losses from fraud, they will need to convince insurers, too. They will not be subject to the same capital and stress-testing requirements banks face: but nor will they be licensed to undertake the riskier business of lending.

For his part, Klarna's Mr Siemiatkowski thinks PSD2 is "perfect on paper". But he worries that, as implementation approaches, the rules will be watered down. Banks could also interpret them subjectively: they might delay sharing data or make them too confusing to be useful. But regulators have already bared their teeth: last year German competition authorities, citing the changes proposed in PSD2, ruled that banks were illegally restricting customers' online-banking activities.

Hot data

Banks will have to improve, in other words. Several incumbents are already adapting to the reality of the fintech challenge through partnerships and purchases. Santander's British arm, for instance, has teamed up with Kabbage, an American startup, to offer small companies working-capital loans; BBVA, a Spanish bank, acquired Holvi, a Finnish startup that helps companies track cashflow and invoices.

Yet for all their complaints, customers still trust banks with their money. In Britain only 3% of customers move current accounts each year. Familiarity, huge customer bases and low funding costs are all attributes entrants want to gain by association, just as banks want to exploit newcomers' technology. PSD2 will improve the services available to European bank customers. Whether via co-operation or confrontation is the question. ■

Philanthropy

Give and take

Donor-advised funds have shaken up giving—and not necessarily for the better

JEFF POWERS was raised as "a good Catholic boy". So when he sold his wall-fastener business in 2012 for $225m, he wanted to give back. And, like many philanthropists, he started close to home. He donated to the hospital where his son had spent months recovering from a car accident. He helped pay for a swimming pool at his children's school. Today he supports all sorts of causes, from scholarships in Florida to soup kitchens in New York.

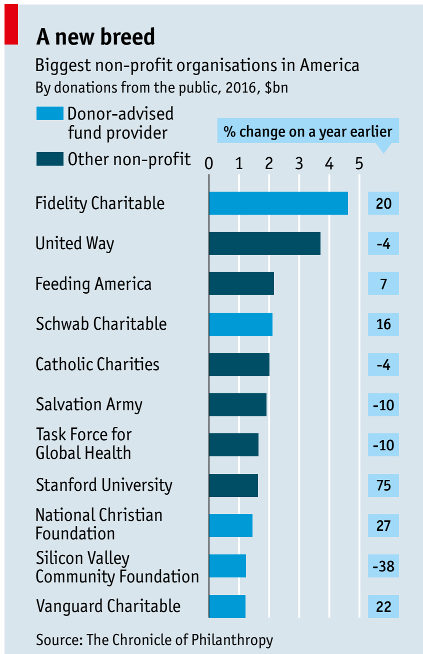
The way Mr Powers finances these projects would strike old-school charitable types as odd. Traditionally, a budding philanthropist would either give directly to a charity or set up a foundation. But Mr Powers uses a donor-advised fund (DAF), a type of account held by a non-profit entity, in this case Bank of America Charitable Gift Fund, an arm of the bank. DAFs are taking root in Britain and Canada, but they are primarily an American phenomenon.

DAFs are way-stations for donor dollars. Mr Powers deposits some money into his DAF and, while he ponders where it should go, Bank of America invests it for him. At some point he will suggest a beneficiary and, as long as it is a charity as defined by the Internal Revenue Service (IRS), the bank makes the grant on his behalf. Mr Powers is delighted with his DAF, praising the convenience and tax advantages.

Nothing suggests Mr Powers is other than one of the many people who use DAFs for nobly philanthropic reasons. Yet not everybody is happy with these funds. A huge surge in their popularity, sparked by the entrance of financial firms to the market, is upending the philanthropic world. Sceptics say it is not clear whether DAFs actually increase the amount of money that reaches the needy, and that the tax breaks associated with them mainly benefit the rich. Moreover, opacity leaves DAFs open to abuse. One long-held concern is that they are used to sidestep rules requiring foundations to make annual donations to charities. Analysis by *The Economist* shows this is indeed happening.

Their explosive growth is recent, but DAFs date from the 1930s. They were first used by community foundations to encourage local philanthropy as well as by single-issue non-profits, such as museums. But it wasn't until 1969, when new reporting rules took some of the shine off foundations, that DAFs flourished. In 1991, approved by the IRS, Fidelity Charitable, a non-profit linked to the mutual-fund group, was set up to offer DAFs to clients, becoming the first commercial provider.

By 2000 many other financial firms were peddling such funds, including Schwab and Vanguard, both now DAF giants. The industry has since ballooned: from about 180,000 American DAFs in 2010 to over 270,000 in 2015, easily outnumbering foundations. The assets held in DAFs doubled in value in that time, to roughly $80bn. Last year Fidelity Charitable overtook United Way, a traditional non-profit organisation, to become America's biggest charity by donations from the public (see chart).



...and remember to claim the tax deduction

Many providers have seen a further surge in donations of late, sparked in part by fears that the Trump administration may reduce philanthropic tax breaks. Between November 2016 and January 2017, Schwab saw a 68% increase in inflows compared with the same period in the previous year. Others also report a big uptick.

Even if more money is flowing into DAFs, it will not necessarily reach the needy as soon as it comes out. *The Economist* crunched the latest 12 months-worth of available data on the donations made by the three biggest DAF providers—the year ending June 2016 for Vanguard and the year ending June 2015 for Fidelity and Schwab (Vanguard and Schwab exclude donations under $5,000 from the data). Many payments went to worthy causes such as Médecins Sans Frontières and the Red Cross. But it is notable that the biggest recipient of DAFs' gifts is none other than Fidelity. The third-biggest is the American Endowment Foundation, another DAF supplier. The providers say this is an innocuous rejigging of personal finances. But it supports the claim that DAFs don't always get dollars to charities that need them.

DAFs are particularly popular among certain religions, though experts are unsure why. The Mormon church is the second-biggest recipient of DAF dollars. The American Jewish World Service and the Jewish Communal Fund rank highly, too. Fidelity allows donations only in multiples of $5 and $18, the latter being a lucky number in Judaism.

Tax breaks are an important reason why philanthropists of all stripes like DAFs. In American law donations to charities, including DAF-providers, enjoy bigger ▸▸

breaks than those to foundations, because the gift is seen as being put to good use immediately. Moreover, as with giving direct to charity, the tax benefits can be booked in the year of the donation, even though the ultimate beneficiary may not yet have been chosen. In a survey by Fidelity in 2015, 90% of donors named this as the main reason for starting a DAF.

Another advantage is that commercial suppliers of DAFS accept not only cash but—unlike most non-profits—illiquid gifts, such as art or land. Once a provider receives the asset, it will try to sell it and credit the proceeds to the donor's DAF. Non-publicly traded company shares, which have risen in value, are another common gift: the tax deduction is taken at the current market value—a benefit not afforded gifts to foundations. In 2013 around 28% of donations to DAFS were non-cash.

Moreover, whereas tax laws require foundations to give out at least 5% of their assets each year, DAFS face no such condition. So donors have more time to weigh their options. DAFS are easy to use, too. Internet-banking-style platforms allow grants to be made with just a few mouse-clicks. Set-up costs are a fraction of those of foundations, without the need to hire lawyers or fill in reams of paperwork.

Fans of DAFS argue that this convenience spurs philanthropy. According to Fidelity, two-thirds of its donors say the vehicle helps them give more; other commercial suppliers cite similar figures. This does not show up in the national statistics, however. Ray Madoff, a tax expert at Boston College, points out that the share of money going to charities in America has not budged in the past decade, at roughly 2% of disposable net income (though of course, since DAFS still account for less than a tenth of total giving, many other factors could play a role in this).

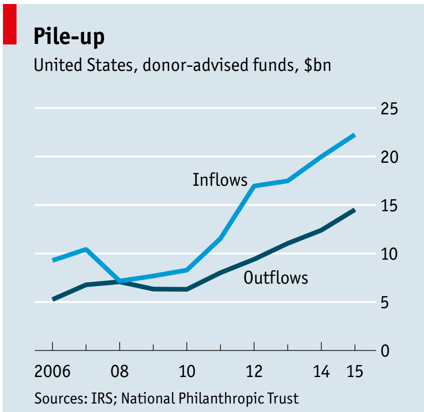
Weighing up the pros and cons is made harder by a scarcity of data. Numbers for individual accounts are not published—so it is impossible to know whether, for instance, thousands of donors, having collected their tax benefits, are sitting on their assets rather than distributing them.

Give and you shall receive

The only publicly available numbers are aggregates from DAF providers. These suggest that each year around 20% of assets held by them go to good causes. This is much higher than the rate of roughly 7% seen at foundations. But this comparison is misleading. For one thing, foundations, unlike most DAFS, are set up in perpetuity and thus tend to ration their grants. For another, DAF payouts are highly uneven: in a given year around one-fifth of providers fail to make a single grant, and, as noted, some outgoings are to other DAFS. Furthermore, payout rates—the proportion of total assets leaving DAFS—are falling. Fidelity's annual payout rate dropped from 21% to 16% between 2008 and 2014, the latest year of available data. Those of Schwab and Vanguard fell from 18% to around 11%.

Detractors argue that warped incentives curb giving. Providers profit from having more assets under their management and invested in their own funds. They therefore stand to gain from dissuading donors—who have already claimed their tax deductions—from making payments out of their DAF. And, because the money sitting in a DAF grows from the investment income, donors are further deterred from passing it on quickly to a good cause. (To their credit, however, the bigger DAF suppliers do have policies in place to distribute at least some of the money in dormant accounts. If an account at Fidelity has been idle for three years, it will give the holder a nudge. If the inactivity continues, Fidelity starts to make small grants on his behalf.)

Another concern is that some funds are used not to give but to game: for instance, to sidestep the 5%-minimum rule on foundation payouts. Donors can shift money from their foundation to a DAF as a way of meeting this threshold without actually giving anything to charity. *The Economist* examined grants from a random sample of about 4,000 foundations. Some 40 of them routed cash to the biggest DAF providers, amounting to about 1% of the value of all their contributions. This may seem like a negligible sum, but 11 of the 40 gave over 90% of the money they paid out to DAF suppliers. This is not illegal, but it does appear to flout the spirit of the tax code.



The IRS has grown wise to some of the problems. A decade ago it was including DAFS on its "dirty dozen" list of the most worrying tax scams. Another concern was self-dealing: in one case in 2006, a California-based DAF provider had boasted in its earlier marketing materials that setting up an account could "benefit the donor or the donor's family" and that the donor's children could be paid or granted fellowships direct from a DAF. That same year, DAFS were first defined in the tax code. Certain ruses, such as using them to buy tickets to charitable events or grant oneself low-cost loans, were later prohibited.

Although such shenanigans are harder to pull off, there are still opportunities, mainly at smaller DAF-providers, says Roger Colinvaux of Columbus School of Law. A keen fraudster could set up a small non-profit, staff it himself, channel money into a DAF, claim the tax breaks, redirect the money back to the non-profit and draw a fat, tax-advantaged salary.

Charity begins at home

Another worry is the use of DAFS to circumvent the "public-support test". This rule stipulates that a charity typically must receive the lion's share of its revenue from the general public. Others are classified as foundations. A creative donor could donate to a charity through numerous DAFS, giving the false impression of widespread public support. Last year, the IRS announced an investigation into this.

But the agency is stretched for resources, and experts say it struggles to keep on top of trickery. Another worry is the use of DAFS to convert illiquid assets, such as property or hard-to-price securities, into charitable dollars. Some fear the valuation system is open to abuse. Donors, who are keen to get the best price and maximise tax deductions, typically hire a third party to do the valuation. Monitoring this process is time-consuming and costly, and thus rarely carried out. A study by the Treasury Inspector General for Tax Administration, an American watchdog, looked at a sample of non-cash gifts to charities in 2010. It found that around 60% of returns did not meet reporting requirements and none of these had been examined by the IRS.

Moreover, DAFS are frequently used to funnel money to political campaigns and lobby groups, rather than what most people would consider good causes. Donors to such groups can also exploit the funds' murky nature to hide their identity. One study by Robert Brulle of Drexel University, in Philadelphia, tracked contributions to the anti-climate-change lobby in America. He found that in 2009 and 2010 about a quarter of its backing which could be traced came via the Donors Trust, a Virginia-based DAF supplier. There is no way of telling where this money originated.

Fans of DAFS argue that such cases are exceptions, and that most of their money goes to uncontroversial good causes. Many give generously and sincerely. But concerns will linger that DAFS allow the rich to reap financial benefits from financing pet causes they might well have backed anyway—and that more advantages accrue to donors than to the causes they are supposed to be helping. At present, there is scant evidence to suggest they fuel an overall rise in giving. Many philanthropists sing DAFS' praises. But that does not prove their worth to society as a whole. ■

Free exchange | Deaths of despair

Economic shocks are more likely to be lethal in America

AMERICAN workers without college degrees have suffered financially for decades—as has been known for decades. More recent is the discovery that their woes might be deadly. In 2015 Anne Case and Angus Deaton, two (married) scholars, reported that in the 20 years to 1998, the mortality rate of middle-aged white Americans fell by about 2% a year. But between 1999 and 2013, deaths rose. The reversal was all the more striking because, in Europe, overall middle-age mortality continued to fall at the same 2% pace. By 2013 middle-aged white Americans were dying at twice the rate of similarly aged Swedes of all races (see chart). Suicide, drug overdoses and alcohol abuse were to blame.

Ms Case and Mr Deaton have now updated their work on these so-called "deaths of despair". The results, presented this week at the Brookings Institution, a think-tank, are no happier. White middle-age mortality continued to rise in 2014 and 2015, contributing to a fall in life expectancy among the population as a whole. The trend transcends geography. It is found in almost every state, and in both cities and rural areas. The problem seems to be getting worse over time. Deaths from drugs, suicide and alcohol have risen in every five-year cohort of whites born since the 1940s. And in each group, ageing seems to have worse effects.

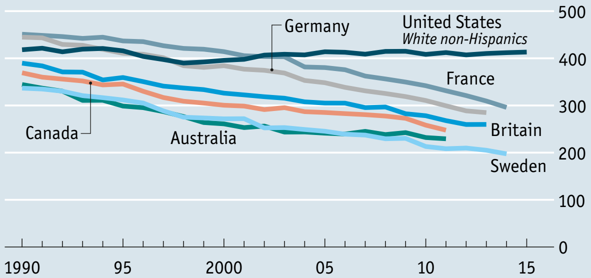
You might think that rising mortality is the flipside of falling incomes. Recent trends in median per-person income for households headed by white 50- to 54-year-olds mirror their mortality rate. Income rises in the 1990s and then falls in the 2000s, ending up roughly where it started. But split people out by education, and the reflection fades. The income of college graduates has followed a similar pattern (most of the surge in the value of a college education happened before 1990). But their mortality has steadily fallen. And deaths of despair are much rarer among blacks and Hispanics, whose incomes have been on similar paths.

The authors suspect more amorphous, long-term forces are at work. The fundamental cause is still a familiar tale of economic malaise: trade and technological progress have snuffed out opportunities for the low-skilled, especially in manufacturing. But social changes are also in play. As economic life has become less secure, low-skilled white men have tended towards unstable cohabiting relationships rather than marriages. They have abandoned traditional communal religion in favour of churches that emphasise personal identity. And they have become more likely to stop working, or looking for work, entirely. The breakdown of family, community and clear structures of life, in favour of individual choice, has liberated many but left others who fail blaming themselves and feeling helpless and desperate.

Desperate times

Deaths per 100,000 people

Aged between 45 and 54 years (adjusted for ageing within age bracket)



Source: "Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century", by Anne Case and Angus Deaton, 2015

Why are whites the worst affected? The authors speculate that their misery flows from their crushed aspirations. Blacks and Hispanics face worse economic circumstances, but may have had lower expectations to begin with. Or they may have taken hope from progress against discrimination. Low-skilled whites, by contrast, may find many aspects of their lives perennially disappointing. That may push them towards depression, drugs and alcohol.

American exceptionalism

The theory, however, does not explain why misfortune is so lethal in America. It is hardly the only place where manufacturing jobs have disappeared and the social fabric has frayed. In other English-speaking countries—Australia, Britain, Canada and Ireland—deaths of despair have risen, but not by as much. More research is needed to find out precisely what is going on. But it is not hard to see ways in which Americans are particularly vulnerable.

One example is the easy availability of opioid painkillers. Deaths from opioids more than doubled between 2002 and 2015. The epidemic is primarily found in North America. Another is access to guns, which are used in around half of suicides. However, although both these factors probably increase deaths, they cannot fully explain them. Alcohol, which kills many of those who despair, is readily available across the West.

A more likely root cause for despair is the absence of a safety net for swathes of Americans, particularly in health care. Before Obamacare financed an expansion of Medicaid (government-provided health insurance for the poor), few states provided any coverage at all for adults without dependent children. (Today, of the 19 states that did not expand Medicaid, only Wisconsin covers any childless adults.) A lack of health insurance has obvious implications for mortality when illness strikes. But it causes the healthy anguish, too. A randomised trial in Oregon found that Medicaid reduces depression rates by a third; researchers have found more personal financial strain in states that did not expand the programme. In other rich countries, people in dire straits need not worry about paying for health care.

Broader social insurance is also lacking. The help available for workers who lose their jobs is paltry compared with their lifetime income losses. As a percentage of GDP, America spends only one-fifth of the average in the OECD, a club of mostly rich countries, on training workers. It spends only a quarter of the average on financial help for the jobless. Yet Americans do not seem to build their own safety nets: 46% say they could not cover an unexpected $400 expense and would have to sell something or borrow to pay for it. A perilous economic existence and a culture which almost indiscriminately holds people responsible for their circumstances are toxic for mental well-being.

Life is unlikely to become more secure for the low-skilled. In fact, policy may soon make it more perilous. The health-care bill that lawmakers were due to vote on as *The Economist* went to press would vastly increase costs for the older, poorer people who are suffering the most. One avenue for reducing despair may lie in future generations of low-skilled Americans curbing their aspirations. Indeed, some of the jobless young already seem content to spend much of their leisure time playing video games. But America can surely do better than to hope for less hope. ■

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Open science

Time's up

Scientific journals were once a great idea. Now, though, they are slowing progress. But that is about to change

ON JANUARY 1st the Bill & Melinda Gates Foundation did something that may help to change the practice of science. It brought into force a policy, foreshadowed two years earlier, that research it supports (it is the world's biggest source of charitable money for scientific endeavours, to the tune of some $4bn a year) must, when published, be freely available to all. On March 23rd it followed this up by announcing that it will pay the cost of putting such research in one particular repository of freely available papers.

To a layman, this may sound neither controversial nor ground-breaking. But the crucial word is "freely". It means papers reporting Gates-sponsored research cannot be charged for. No pay walls. No journal subscriptions. That is not a new idea, but the foundation's announcement gives it teeth. It means recipients of Gates' largesse can no longer offer their wares to journals such as *Nature*, the *New England Journal of Medicine* or the *Proceedings of the National Academy of Sciences*, since reading the contents of these publications costs money.

That will hurt. Publication in such Premier-league journals is the stuff careers are built on. But it will also hurt the journals themselves. Their prestige is based on their ability to pick and publish only the best. If some work is out of bounds to them, no matter how good it is, that will diminish their quality. And if other patrons of science follow suit, those journals' businesses could begin to crumble. Moreover, by actively directing the beneficiaries of its patronage towards the repository in question, set up last year by the Wellcome Trust (after Gates, the world's second-largest medical-research charity), the foundation is pointing to a specific type of alternative—and to a future for scientific publication that, if not completely journal-free, is likely to be at least, "journal-lite".

Wellcome to the 21st century

Periodical journals have been the principle means of disseminating science since the 17th century. The oldest still around, the *Philosophical Transactions of the Royal Society* (pictured above), appeared first in 1665. Over the intervening three and a half centuries journals have established conventions for publication—such as insisting on independent (and usually anonymous) peer review of submissions—that are intended to preserve the integrity of the scientific process. They have, though, come under increasing attack in recent years.

One criticism, in a world where most non-commercial scientific research is sponsored by governments, is that there should be no further charge for reading the results of taxpayer-funded work. Journals, in other words, should have no cover or subscription price. A second is that the process of getting a paper published takes too long. Months—sometimes years—can pass while a hopeful researcher first finds a journal willing to publish, and then waits for peer review and the negotiation of amendments. That keeps others in the field in the dark about new results for longer than is really necessary, and thus slows down the progress of science. Third, though this is less easy to prove, many researchers suspect that anonymous peer review is sometimes exploited by rivals to delay the publication of competitors' papers, or, conversely, that cabals of mates scratch each others' backs, review-wise.

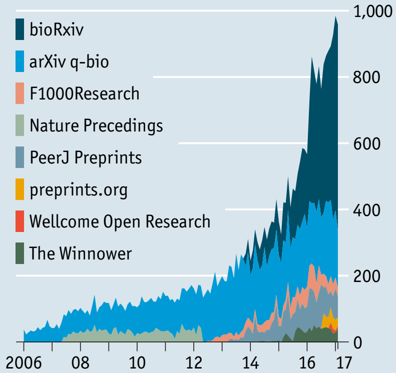
To these criticisms, another may be added, which is not the fault of journals, but still needs addressing. This is the unwillingness of many researchers to publish the data on which their conclusions are based. Some journals do insist on full disclosure of data, but not all are so particular. And, even then, the data in question will not see the light until publication day.

Partial solutions to some of these problems have been tried. The Gates foundation is experimenting with carrots, as well as sticks. It has offered the publishers of one top-flight journal, *Science*, $100,000 to make papers published this year about Gates-sponsored research free to read from the beginning. If this goes well, the experiment may be extended to other publications. Similarly, there is a movement among some publishers to make papers free to the reader by charging the authors (and therefore, ultimately, their patrons) for the costs of publication—usually in the range of $2,000-$3,000 per paper. But many now think these are half-measures, and that a real revolution in the idea of scientific publishing is needed.

Part of science has already undergone such a revolution. Since 1991 physicists have been able to deposit early versions of ▸▸

Print first, ask questions later

Biomedical preprint submissions, by month, to



Source: Omnes Res

their papers, known as preprints, in an online repository called *arXiv* (the "*X*" represents a Greek "chi" rather than a Latin "ex"). *ArXiv* is paid for by Cornell University Library, the Simons Foundation, a charity, and through fees from around 200 members (mostly universities). Over the years the number using it has increased, to the point where around 300 preprints are deposited every day.

This sort of "pre-publication" is rapidly becoming physics's method of choice. Depositing a paper in *arXiv* both establishes that a researcher has been the first to arrive at a discovery and makes that discovery available immediately to others. It does not provide formal peer review, but physicists are not shy of criticising the work of others, so a lot of informal (and un-anonymous) feedback can accumulate rapidly. This potential flak is a deterrent to publishing half-baked work. Nor does appearing in *arXiv* preclude later publication in a journal. The editors of periodicals were once sniffy about accepting material previously available elsewhere. In physics, they can no longer afford this luxury.

The Gates foundation's announcement is part of an attempt to extend this idea to the rest of science, particularly biomedical research. Biomedical equivalents of *arXiv* exist, but they are not much used. One of the largest, *bioRxiv*, received around 600 submissions in February. That is but a fifteenth as many as *arXiv*, even though many more biomedical papers are published per year than physics papers.

Why biologists have failed to follow physicists' lead is unclear. It may simply be a historical accident. *ArXiv* was started before most journals went online, so was initially more distinct from such journals than online databases are now. By the time biologists, less computer-literate as a clan than physicists, caught up with the idea, the online-offline distinction had blurred, and the journals saw online repositories as rivals. But whatever the cause, the result was clear: an unwillingness by non-physicists to embrace preprints.

The time, however, seems ripe to change that. Though its absolute numbers are still low, the use of *bioRxiv* is growing fast (see chart). And it is not just outside nudges that are bringing this sort of thing about. In February, for example, ASAPbio, a group of biologists who are trying to promote the use of preprints, began looking for bidders to create a website which will index all life-science preprints published in public repositories.

Outside nudges do help, though. It will not harm ASAPbio's chances of success that its plan has the backing of America's National Institutes of Health, the country's main source of taxpayer finance for medical research. And other philanthropic organisations besides the Gates foundation are also pushing in the same direction. The Wellcome Trust's creation of the repository Gates has just joined is one example. Another is the Chan Zuckerberg Biohub in San Francisco, brainchild of Mark Zuckerberg, a founder of Facebook, and his wife, Priscilla Chan. In February the Biohub announced it would disburse $50m to 47 local scientists on condition they made their work available as preprints.

There is even room for commerce in this brave, new world. The Wellcome-Gates repository is actually run by a firm called F1000, that also has its own preprint repository, F1000Research. This operates in a slightly different way from *arXiv* and its imitators in that its does include a formal process of peer review. F1000's review process involves named rather than anonymous reviewers, which many regard as a strength. But who those reviewers should be is suggested by a submitted paper's authors, which carries obvious risks of partiality. Revenue comes from a fee of up to $1,000 that authors pay on submission.

The wider use of preprints might also help reduce the problem of pre-publication data-hoarding. Once a preprint is published, its authors need not fear that others ▸▸

Judging science

Alternative truths

Various ways of assessing the importance of scientific work

ONE role academic journals have come to play that was not, as it were, part of their original job-description of disseminating scientific results (see previous piece), is as indicators of a researcher's prowess, and thus determinants of academic careers. Publication in a top-notch title such as *Nature* or *Science* is an adornment to a scientist's CV that is unlikely to be overlooked by an appointment committee. Using such publications as endorsements is, though, necessarily a rule of thumb. A paper's true quality is better revealed by the number of times it is cited elsewhere (ideally, in papers other than those written by the original's authors). But citations take time to accumulate. Other, faster means of assessment would be welcome.

That has led to the development of alternative metrics, or "altmetrics". These extend the concept of citation beyond references in other scientific papers—by recording, for example, how often a paper is downloaded, or when the outcome of a clinical trial is used to develop guidelines for doctors, or if a piece of work is included in a course curriculum.

Altmetric.com, based in London, was one of the first companies to work in this area. It has, since 2011, tracked mentions of published papers in sources ranging from social media and Wikipedia to policy documents published by government departments. A rival firm, Plum Analytics, in Philadelphia, tracks mentions, downloads, clicks and the like of everything from preprints (papers that have been made publicly available, but are not yet formally published) and sets of raw data to non-commercial computer programs which investigators have written to assist their own endeavours.

Using altmetrics should thus indicate the importance of a wider range of research-related activities than citations manage, and do so faster. Plum Analytics was bought in February by Elsevier, one of the world's largest scientific publishers, suggesting that altmetrics may be profitable as well as useful.

Meta, based in Toronto, takes another tack. It hopes, by bending artificial intelligence to the task, to identify important papers from the 2m or so produced every year. The firm's computers have attempted to recognise features of widely cited papers that contributed to their success. Sam Molyneux, Meta's boss, claims that as a result the firm's software can now predict the impact of newly published work.

Meta, too, was bought earlier this year—in its case by the Chan Zuckerberg Initiative, a company started by Mark Zuckerberg, a founder of Facebook, and his wife Priscilla Chan, that is being run as a philanthropic operation. Mr Molyneux says he hopes, within the next two months, to make Meta's tools available without charge to any scientist who wishes to use them.

will take credit for their work. And it is becoming easier to make data available in a way that lets the originator retain control and garner credit. Sites such as Figshare let researchers assign a unique alphanumeric code (called a Digital Object Identifier) to data sets, figures, video and so on, meaning their origins are clear.

None of this necessarily means that non-physicists will eschew journals and rush to publish their work in open repositories. Over time, though, more may come to see the advantages of doing so. As more researchers submit preprints and make their data available to others, they may find the comments they receive regarding their work helpful. Even the kudos of publication in the premier journals may slowly fade in the face of data about a piece of work's actual, rather than potential, impact (see box on previous page). Having survived three and a half centuries, scientific journals will no doubt be around for a long time yet. With luck, though, they will return to being science's servants, rather than its ringmasters. ■

Geology

The devils and the details

Powerful whirlwinds explain a strange feature of the Atacama desert

THE Salar de Gorbea, at the southern end of the Atacama desert, in Chile, is one of the most hostile places on Earth. It receives virtually no rainfall and the little water it does host is contained in ponds both acidic and salty. It therefore has no vegetation. It is, though, the site of some of the most extraordinary dunes on Earth.

Most dunes are made of sand: grains of silica that are 2mm across, or less. There are exceptions. The White Sands National Monument in New Mexico, for example, is so called because the ingredients of its dunes are sand-grain-sized crystals of gypsum. But this exception proves the rule, because the point about a dune is that it is created by the wind, and when it comes to minerals, the wind can generally pick up and move around only sand-sized objects. The dunes of Salar de Gorbea, however, are an exception that proves no rule at all. They, too, are white, because they are also made of gypsum. But the gypsum in question includes crystals more than 20cm long. How such dunes could form by wind action has long been a mystery. Kathleen Benison, of West Virginia University, thinks, however, that she has solved it.

Gypsum is a form of calcium sulphate created by the evaporation of water laden with that substance. Dr Benison knew that gypsum crystals of the size found in Salar de Gorbea's dunes form in ponds 5km from those dunes. She thus suspected that these ponds are the source of the dunes' crystals. This suspicion was reinforced, she explains in a paper just published in *Geology*, when she compared the internal bands marking stages of the growth of crystals from the dunes with those of crystals from the ponds. They appeared identical. That suggested crystals are somehow being transported from the ponds to the dunes.

She was able to rule out one mechanism for such transport—that the crystals had been moved by long-vanished streams or rivers—for several reasons. First, the Atacama is believed to have been too dry for streams to form for millions of years. Second, gypsum dissolves in water (this is, indeed, the reason dunes made of it are rare, for most deserts have at least some rainfall). And third, the faces of crystals from the dunes were scored in ways which indicated that they had been bashed around by strong winds.

The only inland winds obviously powerful enough to have done this are in the funnels of tornadoes. The Atacama desert does not, though, experience such storms. It does experience lesser whirlwinds, called dust devils. But the textbooks say that dust devils are not powerful enough to lift and carry objects the size of the crystals found in the dunes.

Textbooks, however, are not always correct, so Dr Benison decided to check for herself. She went to Salar de Gorbea and monitored the dust devils there. She found that devils do regularly form in valleys along the edge of the region. Some then pass over the ponds where the gypsum crystals are growing, pluck crystals out of those ponds, carry them the 5km to the dunes, and then dissipate, dropping their loads on the accumulating heaps.

Crystal clear?

What she does not yet know is how they do it, for the textbooks are, in one sense, correct. The most powerful recorded dust devils have wind speeds of 70kph. This is indeed insufficient to carry mineral particles bigger than 2mm across. For the devils of Salar de Gorbea to be transporting large gypsum crystals they must be far more powerful than that. Dr Benison seems therefore to have substituted one mystery for another. The devils clearly are responsible for Salar de Gorbea's dunes. What is responsible for these devils' great powers remains to be found out. ■

Animal experiments

Dirty secrets

Are laboratory mice being kept in conditions that are too clean?

THE hygiene hypothesis posits that certain diseases—notably asthma, eczema and type-1 diabetes—which are becoming more common than they once were, are caused in part by modern environments being too clean. The diseases in question result from misfunctions of the immune system. The hygiene hypothesis suggests such misfunctions are the result of children's immune systems being unable to learn, by appropriate exposure to viruses, bacteria, fungi and parasitic worms, how to respond properly.

If modern human homes are unnaturally clean, though, they are as nothing compared with the facilities in which experimental mice are housed. Those are practically sterile. That led Lili Tao and Tiffany Reese, two researchers at the University of Texas Southwestern Medical Centre, in Dallas, to wonder if such mice would display extreme versions of the predictions of the hygiene hypothesis.

This would matter, because mice are often used in medical experiments on the assumption that their reactions are similar enough to those of human beings for them to act as stand-ins. Conversely, laboratories' spotlessness might also mean mice are sometimes too healthy to act as useful models for disease. As they explain in *Trends in Immunology*, Dr Tao and Dr Reese therefore combed the scientific literature to look for both phenomena.

A nice example which the two researchers found of the hygiene hypothesis at work is that stopping laboratory mice being infected with murine cytomegalovirus, which is common in their wild kin, damages their immune response to a host of other pathogens, bacterial as well as viral. Mice so infected will survive subsequent exposure to otherwise-lethal doses of *Listeria monocytogenes* (a soil- and food-borne bacterium) and *Yersinia pestis* (the bacterium that causes plague). These mice are also better able than others to handle retrovirus infections. And the effects on them of multiple sclerosis—an illness the underlying cause of which is suspected to be an inappropriate immune response—are reduced.

On the other hand, early infection with a different common pathogen, *Yersinia pseudotuberculosis*, affects murine immune systems in a way that leaves mice more open to subsequent attack, rather than less so—the reverse of the hygiene hypothesis. By unknown means, such infection permanently diverts immune cells called dendritic cells from their normal homes in lymph nodes and to the wall of the gut, where they cause sustained inflammation. Similarly, early exposure to certain herpes viruses, also common in the wild, can result in latent infections that cause no perceptible symptoms unless a kind of parasitic worm called a helminth also turns up. That reactivates the infection. Anyone attempting to mimic human worm infestations using mice should be aware of this.

Those studying vaccines, too, need to be aware of the confounding effects of hygiene. Laboratory-bred mice have fewer memory T-cells than those brought up in the outside world. Memory T-cells are the parts of the immune-system that remember prior infections, thus enabling a rapid response if the agent which caused that infection is encountered again. Generating such T-cell memories is a vaccine's job.

Moreover, an experiment done by Dr Reese herself showed that exposing young mice to human pathogens, such as herpes and influenza viruses, altered their subsequent responses to vaccines for other diseases. Animals so exposed produce fewer antibodies against a yellow-fever vaccine than do pathogen-free mice.

As is often the case with these sorts of preliminary literature reviews, the outcome is a grab-bag of intriguing results, rather than a coherent hypothesis or prescription for action. But the evidence Dr Tao and Dr Reese have assembled suggests there is something going on here that needs investigating. It seems to be a classic example of the law of unintended consequences. The point of raising mice hygienically is to eliminate as many uncontrolled factors from an experiment as possible. That hygiene itself might be such a factor has not, until now, crossed people's minds.

How to respond is unclear. Running trials twice, with "dirty" and "clean" mice, could be one approach. Another might be to agree on a set of bugs to which early exposure is permitted. What this work does show, though, is that in research, cleanliness is not necessarily next to godliness. ■

Palaeontology

Old hipsters

The way dinosaurs are classified may be about to undergo a radical rethink

AS EVERY school-aged aficionado of dinosaurs knows, those terrible reptiles are divided into two groups: the Saurischia and the Ornithischia—or, to people for whom that is all Greek, the lizard-hipped and the bird-hipped. The names go back 130 years, to 1887, when they were invented and applied by Harry Seeley, a British palaeontologist.

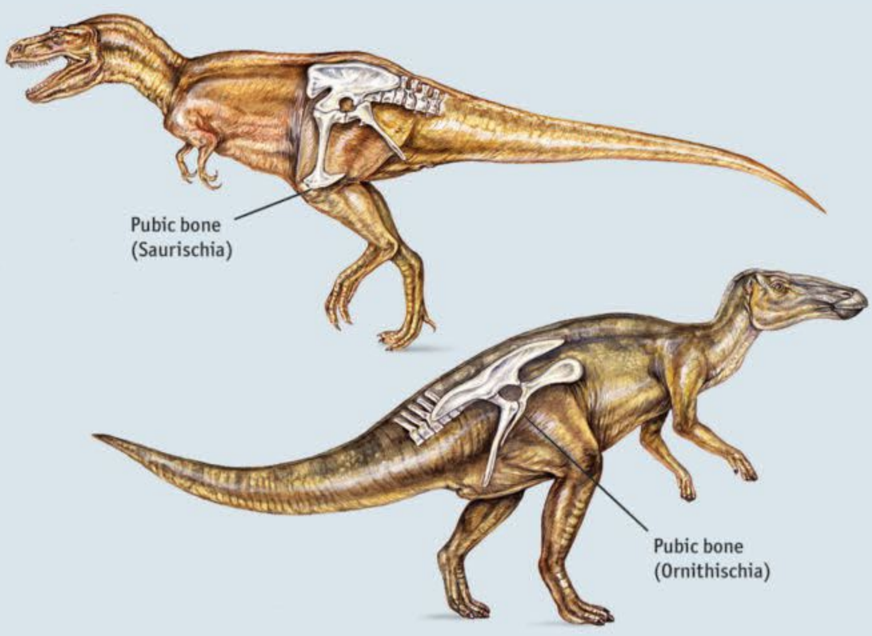
Seeley determined that the arrangement of the bones in a dinosaur's pelvis—specifically, whether the pubic bone points forwards (Saurischia) or backwards (Ornithischia)—could be used to assign that species to one of these two groups. In his view, and that of subsequent palaeontologists, the evolution of other features of dinosaur skeletons supported the idea that these two hip-defined groups were what are now referred to as clades, each having a single common ancestor. Seeley thereby thought he had overthrown the dinosaurs as a true clade themselves: he believed Saurischia and Ornithischia were descended separately from a group called the thecodonts.

Subsequent analysis suggests he was wrong about that. The dinosaurs do seem to be a proper clade, with a single thecodont ancestor. But the basic division Seeley made of them, into Saurischia and the Ornithischia, has not been challenged—until now.

The challengers are Matthew Baron, of Cambridge University, and his colleagues. Writing in *Nature*, they suggest dinosaur classification needs to be shaken up. Their system still has two groups, but it looks very different from Seeley's.

Based on an analysis of 74 types of dinosaurs and close relatives of dinosaurs, which examined 457 skeletal characteristics, they propose that hip-structure is not the be-all and end-all that Seeley and his successors thought it was. Instead, they separate the two great subgroups of Saurischia, the sauropods (*Brontosaurus*, *Diplodocus*, etc) and the theropods (*Tyrannosaurus*, *Allosaurus*, etc) and reassign them. The sauropods are teamed up with a group called the Herrerasauridae, which are so primitive they are not easily fitted into the Saurischia-Ornithischia system, to form a reconstituted Saurischia. The rest of the Ornithischia and the theropods, meanwhile, are joined as a newly named group, the Ornithoscelida.

Whether Dr Baron's classification will hold up remains to be seen. Any system based on comparative anatomy rather than DNA is vulnerable to the evolution of similar features on separate occasions—giving an illusion of relatedness that is actually untrue. Indeed, the problem with relying on anatomical features, such as hip-shape, to classify animals is well illustrated by dinosaurs themselves. It was not bird-hipped Ornithischia that gave rise to birds, but lizard-hipped theropods.



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Traditional conservatism

Fight or flight

Two new books by conservatives see liberalism triumphant. One counsels retreat, the other, renewal

On Human Nature. By Roger Scruton. *Princeton University Press; 151 pages; $22.95 and £18.95*

The Benedict Option: A Strategy for Christians in a Post-Christian Nation. By Rod Dreher. *Sentinel; 262 pages; $25*

DOES conservatism aim to uphold or to transform society? Across the West, the political right is split. Some conservatives back a status quo of globalised economies and live-and-let-live societies. Others want to upend that open, international order by putting the nation first, socially and economically. There is, however, a third kind of conservatism, represented by two new short books. Its guiding idea is that political problems at root are spiritual. In different ways, Rod Dreher and Roger Scruton suggest that conservatism's main task is to cure or abandon a sickened culture.

One offers a preacher's simplicity, the other a thinker's subtlety. Mr Dreher is a devout Christian, an editor at the *American Conservative* and the author of popular books advertising the personal rewards of faith. Sir Roger is an eminent British counter-example to the commonplace that conservatives distrust ideas. A philosopher, journalist and novelist, he has written around 50 books on political ideas, morals and aesthetics. In 1982 he founded, and for 18 years edited, the *Salisbury Review*, a conservative quarterly taking its distance from the libertarian right in the name of traditional values.

American conservatives have two stories about what ails present-day culture, one hopeful, one bleak. The hopeful story tells of liberal capture. In the 1950s-60s, an unrepresentative secular-liberal elite seized the churches, universities and media of a god-fearing, virtuous people. The task for conservatives was to win them back. That aim inspired the Christian right in its fight for the soul of the Republican party. At its peak in the Reagan-Bush years of the 1980s, the Christian right came close to believing that it had realigned America's political majority with an underlying moral majority.

Mr Dreher's is the bleak story. Secular decadence was too seductive: America, he says, now has an immoral majority and little can be done about it. Neither businesses nor politicians care what people do in bed or whether they say their prayers. A violent, godless and sex-obsessed culture can only be abandoned. He urges American Christians to drop resistance and protect their own families from the spiritual ravages. His proposal is a latter-day version of the sixth-century Christian retreat to monasticism at the break-up of the Western Empire. A leader of that retreat was Benedict of Nursia, which explains Mr Dreher's title, "The Benedict Option". His practical proposals include turning the home into "a domestic monastery" with regular family prayer and ascetic routines, home-schooling if Christian alternatives are unavailable, and creating like-minded neighbourhoods of cultural self-defence that "buy Christian, even if it costs more".

Mr Dreher's zeal and sincerity are attractive, but not all readers, even devout ones, will be drawn to his divisive purism or convinced by his lurid picture of "hostile secular nihilism". It is thanks to hard-won liberal tolerance that there is space in liberal democracies for the kind of soul-saving retreat from the larger society that he recommends. Despite its sense of rectitude, "The Benedict Option" is at bottom a call for free-riding on the liberal modernity it professes to spurn.

"On Human Nature" is altogether more serious. Its four essays pull together high-level complaints that the author has been making since his classic "The Meaning of Conservatism" (1980). The argument is more philosophical than polemical. His starting point is that every political outlook presupposes a philosophical picture of the human person. Liberals, as he sees them, picture people as self-possessed beings free to choose their attachments, conservatives as creatures with social roots that impose duties and allegiances. The liberal picture, he says, involves three mistakes.

They can be labelled (to use this reviewer's terms) scientism, libertarianism and transactionalism. Scientism mistakenly takes evolutionary biology and psychology to offer the whole truth about human nature. Science does explain humankind's animal selves, but not the irreducibly personal perspective by which people recognise who they are and hold each other to account. Libertarianism is correct that individuals are each morally free and personally accountable, but it neglects unchosen social ties that impose duties and flesh out who they are. Transactionalism considers anything of value to have acquired it by preference or consent, which threatens to equate value with price and render everything that matters open to trade.

Together those three mistakes encourage a flattened picture of people that makes too much a matter of choice and cannot account for what we owe to things of value in themselves such as beauty, the natural environment or the nation. For Sir Roger, the proper attitude to such "lasting things" is not to ask "what is this for?" but to acknowledge them without question and show what, in a non-religious sense, he calls piety. A sickened culture, he argues, could be cured if more people returned to this kind of piety.

"On Human Nature" is a tour de force of a rare kind. In clear, elegant prose it makes large claims in metaphysics, morals and, by implication, politics. It will be asked exactly what connects the three mistakes it exposes, and how far political liberalism depends on them. When liberals and conservatives turn to philosophy, perhaps political lines blur more than cultural conservatives might think.

It was a liberal achievement to push faith and private morality out of politics. Cultural conservatism would put them back. These two books suggest how hard that is to bring off in a liberal society. Liberals can raise one cheer, not more. "On Human Nature" shows the difficulties of matching political camps with those of faith and morality. "The Benedict Option" wants faith out of politics, which is where liberals want it. Mr Dreher, however, speaks only for a minority on the American Christian right. Its larger forces have hardly abandoned the fight. ■

Identity and politics

What kind of somewhere?

The Road to Somewhere: The Populist Revolt and the Future of Politics. By David Goodhart. *Hurst; 278 pages; $24.95 and £20*

WHY did Britain vote to leave the European Union? Why did America elect Donald Trump? Why are populists on the rise all over Europe? David Goodhart, founding editor of *Prospect* magazine and now a proud "post-liberal", has found a culprit. Populism, he argues in his new book, is an understandable reaction to liberal overreach.

Focusing on Britain, he identifies a new divide in Western societies, pitting a dominant minority of people from "anywhere" against a majority from "somewhere". The first group, says Mr Goodhart, holds "achieved" identities based on educational and professional success. Anywheres value social and geographical mobility. The second group is characterised by identities rooted in a place, and its members value family, authority and nationality.

Whereas Anywheres, whose portable identities are well-suited to the global economy, have largely benefited from cultural and economic openness in the West, he argues, the Somewheres have been left behind—economically, but mainly in terms of respect for the things they hold dear. The Anywheres look down on them, provoking a backlash.

Mr Goodhart's diagnosis has some merit. Globalisation has worsened inequality in Western countries, and the winners have not done enough to help the losers adjust to rapid changes. But Mr Goodhart is not content merely to diagnose. His mission is to convince liberals of the "underlying decency" of Somewhere ideas, to counteract nastier versions of populism: "Without a more rooted, emotionally intelligent liberalism…the possibility of even more unpleasant backlashes cannot be completely ruled out."

Respect and understanding for all, including Somewheres, is important. And better educational opportunities for young people who don't go to university are a good idea. But his other proposals are worryingly reactionary. A chapter that laments the erosion of the male breadwinner role proposes throwback changes to the tax system to encourage marriage and a more traditional division of labour. And the idea of restricting permanent immigration in favour of guest-worker schemes recalls decades of ghettoisation and frustration among children of migrants in places like Germany, who might be called Nowheres.

Mr Goodhart's book seems likely to inform the debate on what post-Brexit Britain should look like. This is worrying, for two reasons. For one thing, there is little evidence that his "decent populism" will act as a bulwark against nastier variants. As he admits, "mainstream populists who repudiate racism tend to reinforce ideas of insiders and outsiders that allow real racists to grow more confident"—an insight confirmed by the spike in hate crimes following the Brexit referendum.

His case for a "decent" populism leaves many other questions unanswered. Why, pragmatic anti-populist considerations aside, should national or racial attachments take priority over common humanity? Why should accommodating those who have such attachments justify excluding poor foreigners from economic opportunity? Saying it is "common sense" that "national citizens should be ahead of non-citizens in the queue for public goods" merely begs the question. For someone who accuses his liberal former tribe of intellectual laziness, that is not enough. ■

New immigrant fiction

This land is not your land

Temporary People. By Deepak Unnikrishnan. *Restless Books; 251 pages; $17.99 and £12.99*

A NATION is not just a place; it is a people who belong together, bound by history, ethnicity or language. But the United Arab Emirates (UAE) has borrowed its people. In a frenzied half-century, its population has grown from barely 100,000 to over 9m. Of these, a staggering 88.4% are citizens of another country. They built its impossible cities, but live under the shadow of one day being told to leave.

Among these perpetual foreigners are roughly 3m Indian migrants, mostly Malayalam-speakers—"Malayalees". They include the family of Deepak Unnikrishnan, who was born in Kerala and raised in Abu Dhabi, went to America to study, and decided to stay. His debut novel, "Temporary People", has won the inaugural Restless Books prize for writing by a first-generation immigrant to America. Its patchwork of chapters elicits the vertigo of Joseph Heller and the disoriented human hopelessness of Milan Kundera. In three sections—"Limbs", "Tongue. Flesh." and "Veed" ("home" in Malayalam)—it describes a hierarchy of unmet needs: to be safe, to be understood and, deepest felt, to belong.

"Temporary" lives come cheap. Up on sky-scraping building sites, "men don't burn...they decay." Each night, the bodies of those who have fallen from their perches are stuck back together "with duct tape ▸▸

Don't get too comfortable

or some good glue". The economy's insatiable hunger for labour is such that a brilliant scientist develops the "Canned Malayalee Project". In industrial greenhouses, seeds grow into "oak-dark heat-resistant five-foot-seven Malayalees" in 23 days. Their inevitable rebellion, when it comes, is bloody.

Mr Unnikrishnan's world could be written off as dystopian, were it not rooted so firmly in current reality. In the past decade, Human Rights Watch has issued multiple searing indictments of working conditions in the UAE, denouncing the *kafala* system of indentured labour, high rates of heat stress and on-site accidents. In 2009, footage emerged of an Emirati sheikh torturing an Afghan grain merchant, pouring sand into his mouth and eyes and setting him alight before repeatedly running him over. After short-lived expressions of horror from Western policymakers, the sheikh was neatly absolved in court, and the affair was forgotten. In "Temporary People", these events become an annual ritual compulsory for all local men.

This is not crime, but theatre. Among Mr Unnikrishnan's many games with form is to lay this gruesome scene out as a play. Each chapter is different. One is the transcript of an interview. Another, reworking tales from the Ramayana, an ancient Hindu epic poem, lays down the founding myth of a new people. Not all are so effective: "Pravasis?" ("migrants") tries too hard and makes too bald a point. It lists hundreds of jobs, through "Bank Teller" and "Chicken Decapitator", before trailing off sentimentally with "Country Maker. Place Builder. Labourer. Cog." But taken together this discordant polyphony of stories is the full-throated roar of an entire people.

Mr Unnikrishnan thanks his high-school teachers for allowing him "to take [his] time with English in order to tame it". His language is now solid, alive and dangerous. Tongues tear themselves from mouths, spewing "mangled", "unrecognisable" words "like shrapnel". Blacked-out and untranslated words deny even the reader the right to complete understanding. This is not an easy book; in fact it is eviscerating. But in "Temporary People" the Restless Books prize has rewarded an urgent voice worth attending to, even if it is hard to hear. ■

Supernatural fiction

Book of the dead

Lincoln in the Bardo. By George Saunders. *Random House; 368 pages; $28. Bloomsbury; £18.99*

ABRAHAM LINCOLN is often reduced to fit a purpose in American memory: hero, emancipator, war-monger, racist. George Saunders reduces him further, to a grieving father—but in doing so humanises him. The "Lincoln" of this new novel's title is Willie, the son who died at 11. Willie navigates the bardo, a semi-hallucinatory state (borrowed from Tibetan Buddhism) between life and reincarnation, while the father grieves.

"It harms no one; therefore, it is not wrong," says the president, cradling the corpse of the son he has removed from its coffin. Nor is his the only unusual mode of grief; the ghost of one mournful wife sees everyone as a giant moustache with legs, in memory of her husband. "Yes, her way is hard," says one of the other spirits. Like Dante's hell, Mr Saunders's bardo is a spiritual system rendered as a place. And his book is like a Buddhist "Divine Comedy", with an emphasis on the comedy. But this is also an urgently political, profoundly moral book, albeit one so playful and so fantastical that the reader may hardly notice.

The entire book seems to consist of nothing but epigraphs, which themselves turn out to be either historical sources (some real, some invented) or the chatter of spirits, indiscriminately mingling with one another. After a while, the reader begins to recognise the unique cadence of each spirit. The purposefully confusing form adds a disorientating but dramatic element to the book, and forces the reader to focus.

This is Mr Saunders's first novel, but he has been producing prizewinning short fiction for decades—often chronicling a fractious America (his 1996 debut collection is called "CivilWarLand in Bad Decline"). With Donald Trump leading the "party of Lincoln", values previously considered untouchable are now up for debate, and these themes are in sharper focus than ever. Mr Saunders has reported from last year's campaign trail, trying with genuine compassion to understand the rage of those who voted to upend America's politics. In his invented world, meanwhile, Mr Saunders's spectres judge each other by skin tone despite not having bodies, highlighting the absurdity of such bigotry.

Many of his ghosts repeat their stories, Ancient Mariner-like. These stories help keep them tied to this Earth. It is the moment of realisation—that they are dead—that sets them free. At the heart of his novel is the idea that truth and understanding can save a soul.

Architecture

Modernism's mystic

You Say to Brick: The Life of Louis Kahn. By Wendy Lesser. *Farrar, Straus & Giroux; 397 pages; $30*

AYN RAND'S politics may be less popular than they used to be, but in one way her influence endures: in the popular image of the architect. When architects appear in books or on screen, they are politer than the chiselled Howard Roark in "The Fountainhead", but they are just as jut-jawed and sure of themselves. Yet when Gary Cooper, playing Roark in the film, says that a building must be true to its own idea, this misleadingly suggests that a building emerges perfectly formed from an architect's imagination.

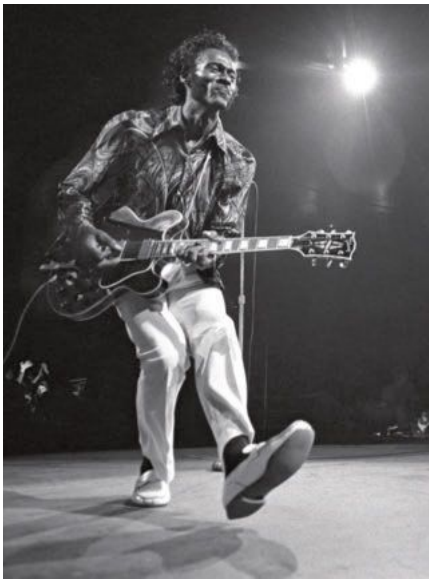
Wendy Lesser's new biography presents Louis Kahn as a likeable version of that archetype. Kahn was a brilliant architect who would rank even higher in esteem if his greatest work—the National Assembly in Bangladesh—weren't so far from critics' usual promenade. Yet Kahn, born in Estonia and raised in poverty in Philadelphia, produced enough outstanding buildings in America to be appreciated as one who, like Le Corbusier and Alvar Aalto, expanded the repertoire of Modernism: the new architectural language that saw the machine as the metaphor for architecture's endeavour, and concrete, steel and glass as its material.

Kahn had a mystical side too, though, and it irritated as many as it inspired. A contemporary, Edward Charles Bassett, said of Kahn that: "He was a fine, fine architect, but he would say something like, 'What does a brick want to be?' And there were all these kids who would bow down and face east, and I wanted to vomit." Ms Lesser, who borrows this pedagogical trick for her biography's title, has great architectural nous, but indulges this mysticism a little too far. She goes as far as to imply that Kahn, who as a child burned his face so badly he was disfigured for life, had done so in search of a transcendent truth.

The book is superbly researched, though. Ms Lesser describes the convoluted way in which Kahn's poorly managed architectural practice overlapped with a torturous personal life, cross-referencing work and personal diaries. Although the architect remained married to his wife Esther until his death, at one stage he was having affairs with three different women either in or closely related to his practice. He had a second daughter with Anne Tyng, an architect in his Philadelphia office, and fathered a son with Harriet Pattison, a landscape architect with whom he collaborated on the Kimbell Art Museum in Fort Worth, Texas.

Ms Lesser captures the charisma of Kahn: his goofy piano-playing for friends and family and his incessant urge towards artistic creation. Where the book is less strong is on Kahn's ties to the political and aesthetic debates of his age. Here, after all, is a man whose life was deeply influenced by Franklin Roosevelt's vision for America. Kahn campaigned on the need to build cheap housing as part of his early practice, and illustrated pamphlets for the United States Housing Authority. Just before he died, he produced a compelling design for a memorial to the president on New York's Roosevelt Island. Even if he really was scared off from engagement with politics by McCarthyism, as Ms Lesser suggests, his architecture, operating as it did in the real world, in dialogue with planners, contractors and the public, had no such choice.

Ms Lesser is honest enough to quote those who disagree with her idea that there was a link between Kahn's libido and his creative urge. But she nonetheless follows this notion to argue, for example, that Kahn's primitive shapes—the staggered study towers at the Salk Institute, for example—were symptomatic of a search for an aesthetic language of freedom, as much as his affairs were a search for sexual freedom. Had Ms Lesser spent more time in this otherwise excellent study comparing Kahn with equally creative architects with less complicated personal lives, she may never have arrived at that theory. It is just as likely that Kahn was looking at the way in which corporate America had successfully co-opted Modernism and was trying to reassert its humanist purpose. A biographer may dish the dirt by all means, but the dirt needn't take credit for everything. ■



Chuck Berry

The man behind the wheel

How Chuck Berry drove rock'n'roll to a whole new level

THE honour of having made the first rock'n'roll record is usually given to Jackie Brenston and his Delta Cats for "Rocket '88'" (1951). Like all musical firsts, this is hotly argued over: landmark singles by Bill Haley, Big Joe Turner, Elvis Presley and Bo Diddley are often considered close rivals. But any doubt about the arrival of true, flat-out rock was extinguished by "Maybellene" (1955), a two-minute ditty by Chuck Berry, who died on March 18th. What distinguished "Maybellene" was not so much the lowdown distortion of Mr Berry's "chitlin' circuit" lead guitar and the raw sound of his band, but the song's departure from the swinging R&B polish of its contemporaries. Mr Berry was behind the wheel, and though he was heading somewhere new, he knew exactly where.

When rock'n'roll hit the mainstream, he was pushing 30 and had more than a decade of hard luck behind him. It made him a unique rock'n'roller, both a flamboyant showman and a canny businessman. His break came when he recognised a popular trend and focused his imagination on how to mythologise it. He quickly found a middle ground between the smooth music he was raised on and the hellbent early rumblings of rock. Although the blues—especially as played by his idol Muddy Waters—are all over Mr Berry's music, his lanky fingers played longer and wilder solos, and he wrote new, challenging licks for every song he recorded.

What made him stand out, however, was that he was first and foremost a storyteller. He loved words and worked hard on them, modelling his uproarious tales on Louis Jordan's and his enunciation on Nat King Cole's. He sang of and for the new teenage world of soda fountains, jukeboxes, cars, sex in cars (if only he could unfasten her safety belt), breaking out and breaking free. In Mr Berry's world, all things are possible. "Johnny B. Goode", the poor country boy who becomes rock's first hero, may see his name in lights because "he could play a guitar just like ringin' a bell".

Because his songs were, at least on paper, simple in structure, their sophistication can slip by unnoticed. But his hits become fast friends through humour. "Roll Over Beethoven" adds, "and tell Tchaikovsky the news." "Maybellene" begins, "As I was motivatin' over the hill/I saw Maybellene in a Coupe de Ville". (He is in a V8 Ford, which soon overheats in the chase.) "You Can't Catch Me" takes it further when his car, a Flight de Ville air-mobile, avoids the state patrol by letting down wings and taking off in a "coooool breeze". Over the course of "Brown Eyed Handsome Man"—a then-daring paean to the allure of dark-skinned men—Mr Berry roams from a courtroom to India, to the Venus de Milo losing her arms in a wrestling match, to a baseball game, all in just two minutes.

Indeed, he could take you anywhere, coast to coast. In "The Promised Land", he used place to make sly allusions to the Freedom Riders' journeys through the south in the cause of civil rights:

We was ninety miles out of Atlanta by sundown,
Rollin' out of Georgia state
We had motor trouble it turned into a struggle,
Half way 'cross Alabam,
And that 'hound broke down and left us all stranded
In downtown Birmingham

His doleful songs were some of his best. "Memphis, Tennessee" is a desperate phone dialogue between the singer and long-distance information, set against a sad, loping groove. The caller is trying to find his girl, Marie. The brilliant touch comes in the last verse, as the listener learns that the girl is not the narrator's girlfriend but his six-year-old daughter, taken away by her mother.

Mr Berry's songwriting waned as he struggled with scandals and personal demons, but his influence did not. A cursory look at the set lists, singles and albums of the Beatles and the Rolling Stones in the next decade reveals cover after cover of his songs. Smokey Robinson, the leading force of Motown, owes an obvious debt to his wordplay and fun. Even the Beach Boys would have had a much harder time breaking out had Brian Wilson not written new lyrics to "Sweet Little Sixteen" and renamed it "Surfin' USA". Chuck Berry may have duck-walked off the world stage, but his music never will. ■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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	Mar 22nd	year ago
United States	+1.9 Q4	+1.8	+2.3	+0.3 Feb	+2.7 Feb	+2.3	4.7 Feb	-481.2 Q4	-2.8	-3.5	2.48	-	-
China	+6.8 Q4	+7.0	+6.5	+6.3 Feb	+0.8 Feb	+2.3	4.0 Q4§	+210.3 Q4	+2.0	-4.1	3.08§§	6.89	6.49
Japan	+1.6 Q4	+1.2	+1.1	+3.7 Jan	+0.5 Jan	+0.8	3.0 Jan	+186.5 Jan	+3.6	-5.4	0.07	111	112
Britain	+2.0 Q4	+2.9	+1.6	+3.2 Jan	+2.3 Feb	+2.6	4.7 Dec††	-138.1 Q3	-4.4	-4.0	1.22	0.80	0.70
Canada	+1.9 Q4	+2.6	+1.9	+2.6 Dec	+2.1 Jan	+1.8	6.6 Feb	-51.2 Q4	-2.8	-2.9	1.70	1.33	1.31
Euro area	+1.7 Q4	+1.6	+1.6	+0.6 Jan	+2.0 Feb	+1.6	9.6 Jan	+392.3 Jan	+2.9	-1.6	0.41	0.93	0.89
Austria	+1.7 Q4	+2.0	+1.5	+2.1 Dec	+2.2 Feb	+1.7	5.7 Jan	+8.0 Q3	+2.6	-0.9	0.65	0.93	0.89
Belgium	+1.2 Q4	+2.0	+1.3	+9.5 Dec	+3.0 Feb	+2.0	7.7 Jan	+3.4 Sep	+0.9	-2.7	0.91	0.93	0.89
France	+1.2 Q4	+1.7	+1.3	-0.4 Jan	+1.2 Feb	+1.3	10.0 Jan	-34.5 Jan‡	-0.9	-3.1	1.12	0.93	0.89
Germany	+1.8 Q4	+1.7	+1.6	nil Jan	+2.2 Feb	+1.8	5.9 Feb	+287.1 Jan	+8.3	+0.5	0.41	0.93	0.89
Greece	-1.4 Q4	-4.8	+1.2	+7.3 Jan	+1.3 Feb	+0.8	23.1 Dec	-1.1 Dec	-1.2	-6.4	7.40	0.93	0.89
Italy	+1.0 Q4	+0.7	+0.8	-0.5 Jan	+1.6 Feb	+1.2	11.9 Jan	+50.9 Jan	+2.4	-2.4	2.45	0.93	0.89
Netherlands	+2.3 Q4	+2.0	+1.9	+1.5 Jan	+1.8 Feb	+1.1	6.3 Feb	+57.1 Q3	+8.4	+0.5	0.53	0.93	0.89
Spain	+3.0 Q4	+2.8	+2.5	+7.2 Jan	+3.0 Feb	+2.2	18.2 Jan	+24.6 Dec	+1.5	-3.3	1.84	0.93	0.89
Czech Republic	+1.9 Q4	+1.6	+2.5	+9.6 Jan	+2.5 Feb	+2.3	5.1 Feb§	+2.3 Q4	+0.7	-0.5	1.00	25.0	24.1
Denmark	+1.9 Q4	+0.9	+1.3	+2.5 Jan	+1.0 Feb	+1.2	4.2 Jan	+25.3 Jan	+6.8	-1.9	0.71	6.89	6.64
Norway	+1.8 Q4	+4.5	+1.8	+0.6 Jan	+2.5 Feb	+2.4	4.2 Jan‡‡	+18.1 Q4	+5.3	+2.8	1.80	8.47	8.40
Poland	+3.2 Q4	+7.0	+3.2	+1.2 Feb	+2.2 Feb	+1.8	8.5 Feb§	-0.6 Jan	-1.3	-3.2	3.61	3.96	3.79
Russia	-0.4 Q3	na	+1.4	-2.7 Feb	+4.6 Feb	+4.7	5.6 Feb§	+22.2 Q4	+2.8	-2.9	8.13	57.9	67.4
Sweden	+2.3 Q4	+4.2	+2.4	+1.3 Jan	+1.8 Feb	+1.6	7.4 Feb§	+23.7 Q4	+4.9	-0.4	0.76	8.80	8.22
Switzerland	+0.6 Q4	+0.3	+1.4	-1.2 Q4	+0.6 Feb	+0.2	3.3 Feb	+68.2 Q3	+9.6	+0.2	-0.02	0.99	0.97
Turkey	-1.8 Q3	na	+2.4	+4.2 Jan	+10.1 Feb	+8.8	12.7 Dec§	-33.2 Jan	-3.4	-2.1	10.87	3.61	2.87
Australia	+2.4 Q4	+4.4	+2.6	+1.0 Q4	+1.5 Q4	+2.1	5.9 Feb	-33.1 Q4	-1.4	-1.8	2.76	1.30	1.31
Hong Kong	+3.1 Q4	+4.8	+2.1	-0.7 Q4	-0.1 Feb	+1.9	3.3 Feb‡‡	+13.6 Q3	+4.2	+1.3	1.67	7.77	7.75
India	+7.0 Q4	+5.1	+7.2	+2.7 Jan	+3.7 Feb	+4.8	5.0 2015	-11.1 Q3	-1.1	-3.2	6.81	65.5	66.7
Indonesia	+4.9 Q4	na	+5.2	+4.5 Jan	+3.8 Feb	+4.2	5.6 Q3§	-16.3 Q4	-2.0	-2.1	7.07	13,329	13,180
Malaysia	+4.5 Q4	na	+4.4	+3.5 Jan	+3.2 Jan	+3.2	3.5 Jan§	+6.0 Q4	+3.1	-3.1	4.07	4.43	4.01
Pakistan	+5.7 2016**	na	+5.2	+1.1 Jan	+4.2 Feb	+4.9	5.9 2015	-4.9 Q4	-1.7	-4.8	8.25†††	105	105
Philippines	+6.6 Q4	+7.0	+6.4	+9.3 Jan	+3.3 Feb	+3.3	6.6 Q1§	+0.6 Dec	+0.8	-2.6	4.68	50.3	46.3
Singapore	+2.9 Q4	+12.3	+2.1	+2.2 Jan	+0.6 Jan	+1.1	2.2 Q4	+56.7 Q4	+19.3	-1.0	2.24	1.40	1.36
South Korea	+2.3 Q4	+1.6	+2.5	+1.7 Jan	+1.9 Feb	+1.7	5.0 Feb§	+96.8 Jan	+6.2	-1.0	2.15	1,123	1,154
Taiwan	+2.9 Q4	+1.8	+1.8	+2.5 Jan	nil Feb	+2.1	3.8 Feb	+70.9 Q4	+11.5	-0.7	1.14	30.5	32.4
Thailand	+3.0 Q4	+1.7	+3.4	+1.3 Jan	+1.4 Feb	+1.3	1.2 Jan§	+46.4 Q4	+11.6	-2.0	2.65	34.7	34.9
Argentina	-2.1 Q4	+1.9	+2.7	-2.5 Oct	— ***	—	7.6 Q4§	-15.7 Q3	-2.9	-4.1	na	15.6	14.3
Brazil	-2.5 Q4	-3.4	+0.7	+1.4 Jan	+4.8 Feb	+4.5	12.6 Jan§	-23.8 Jan	-1.6	-7.7	9.90	3.09	3.59
Chile	+0.5 Q4	-1.4	+1.8	-0.9 Jan	+2.7 Feb	+3.0	6.2 Jan§‡‡	-3.6 Q4	-1.2	-2.1	4.24	663	675
Colombia	+1.6 Q4	+4.0	+2.4	-0.2 Jan	+5.2 Feb	+4.0	11.7 Jan§	-12.5 Q4	-3.6	-2.8	6.84	2,931	3,049
Mexico	+2.4 Q4	+2.9	+1.6	-0.1 Jan	+4.9 Feb	+4.9	3.6 Jan	-27.9 Q4	-2.6	-2.5	7.19	19.1	17.3
Venezuela	-8.8 Q4~	-6.2	-5.5	na	na	+562	7.3 Apr§	-17.8 Q3~	-1.6	-19.6	10.43	9.99	6.31
Egypt	+3.4 Q3	na	+3.9	+16.0 Jan	+30.2 Feb	+19.2	12.4 Q4§	-20.1 Q4	-6.2	-10.8	na	18.0	8.88
Israel	+4.3 Q4	+6.5	+3.9	+3.2 Jan	+0.4 Feb	+0.6	4.3 Jan	+12.4 Q4	+4.4	-2.3	2.14	3.65	3.84
Saudi Arabia	+1.4 2016	na	+0.8	na	-0.1 Feb	+2.0	5.6 2015	-46.8 Q3	-2.1	-7.3	na	3.75	3.75
South Africa	+0.7 Q4	-0.3	+1.2	+0.5 Jan	+6.3 Feb	+5.7	26.5 Q4§	-9.5 Q4	-3.4	-3.1	8.27	12.6	15.2

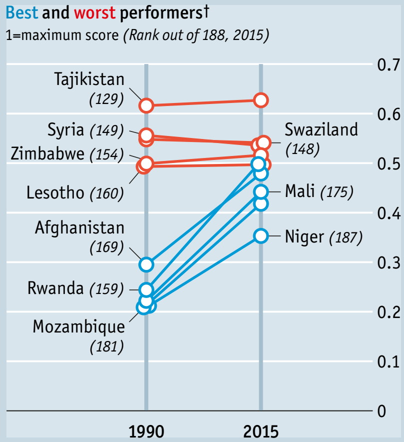
Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014 **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, Jan 29.53%; year ago 30.79% †††Dollar-denominated bonds.

Markets

	Index Mar 22nd	one week	% change on Dec 30th 2016 in local currency	in $ terms
United States (DJIA)	20,661.3	-1.4	+4.5	+4.5
China (SSEA)	3,398.1	+0.1	+4.6	+5.5
Japan (Nikkei 225)	19,041.4	-2.7	-0.4	+4.6
Britain (FTSE 100)	7,324.7	-0.6	+2.5	+3.5
Canada (S&P TSX)	15,348.5	-1.1	+0.4	+0.9
Euro area (FTSE Euro 100)	1,157.2	+0.3	+4.1	+6.6
Euro area (EURO STOXX 50)	3,420.7	+0.3	+4.0	+6.5
Austria (ATX)	2,799.3	-0.6	+6.9	+9.5
Belgium (Bel 20)	3,730.0	-0.8	+3.4	+5.9
France (CAC 40)	4,994.7	+0.2	+2.7	+5.2
Germany (DAX)*	11,904.1	-0.9	+3.7	+6.2
Greece (Athex Comp)	640.7	+1.2	-0.5	+1.9
Italy (FTSE/MIB)	19,953.4	+0.9	+3.7	+6.2
Netherlands (AEX)	509.5	-0.4	+5.5	+8.0
Spain (Madrid SE)	1,032.4	+2.6	+9.4	+12.0
Czech Republic (PX)	978.9	nil	+6.2	+8.8
Denmark (OMXCB)	811.6	-1.5	+1.6	+4.0
Hungary (BUX)	31,827.1	-2.5	-0.5	+1.8
Norway (OSEAX)	764.1	-0.6	-0.1	+1.6
Poland (WIG)	58,749.9	-0.6	+13.5	+19.6
Russia (RTS, $ terms)	1,123.2	+5.7	-2.5	-2.5
Sweden (OMXS30)	1,563.0	-1.6	+3.0	+6.3
Switzerland (SMI)	8,567.9	-1.4	+4.2	+7.0
Turkey (BIST)	89,809.1	+0.4	+14.9	+12.0
Australia (All Ord.)	5,732.0	-1.4	+0.2	+6.6
Hong Kong (Hang Seng)	24,320.4	+2.2	+10.5	+10.4
India (BSE)	29,167.7	-0.8	+9.5	+13.6
Indonesia (JSX)	5,534.1	+1.9	+4.5	+5.6
Malaysia (KLSE)	1,748.3	+1.8	+6.5	+7.9
Pakistan (KSE)	49,016.8	+1.5	+2.5	+2.1
Singapore (STI)	3,118.2	-0.6	+8.2	+11.8
South Korea (KOSPI)	2,168.3	+1.7	+7.0	+15.0
Taiwan (TWI)	9,922.7	+1.9	+7.2	+13.3
Thailand (SET)	1,566.7	+1.7	+1.5	+4.9
Argentina (MERV)	19,666.6	+1.5	+16.2	+18.1
Brazil (BVSP)	63,521.3	-4.1	+5.5	+11.2
Chile (IGPA)	23,486.4	+2.8	+13.3	+14.4
Colombia (IGBC)	10,052.2	+1.7	-0.5	+1.9
Mexico (IPC)	48,487.3	+2.1	+6.2	+14.8
Venezuela (IBC)	36,988.7	-1.7	+16.7	na
Egypt (EGX 30)	12,879.1	+1.0	+4.3	+3.4
Israel (TA-100)	1,264.2	-1.2	-1.0	+4.4
Saudi Arabia (Tadawul)	6,832.3	-0.1	-5.6	-5.6
South Africa (JSE AS)	52,096.7	+0.8	+2.8	+12.0

Human Development Index*

Between 1990 and 2015 Rwanda made the greatest strides in human development, according to the UN's annual Human Development Index (HDI), which looks at life expectancy, income and education. Rwandans can expect to live 31 years longer than they did in 1990 and now spend twice as much time at school. Syria and Swaziland have both seen their scores deteriorate. One estimate suggests that during the first two years of its war, Syria lost the equivalent of 35 years of progress in human development. The UN also calculates an adjusted development index that takes inequality into account. On average, this reduces countries' 2015 scores by 22%; Rwanda's falls by over 30%.



*An index of life expectancy, education and GNI per person
Source: UN Human Development Report
†% change in score, based on data available for 144 countries

Other markets

	Index Mar 22nd	one week	% change on Dec 30th 2016 in local currency	in $ terms
United States (S&P 500)	2,348.5	-1.5	+4.9	+4.9
United States (NAScomp)	5,821.6	-1.3	+8.1	+8.1
China (SSEB, $ terms)	349.5	+0.9	+2.3	+2.3
Japan (Topix)	1,530.2	-2.6	+0.8	+5.8
Europe (FTSEurofirst 300)	1,475.5	-0.2	+3.3	+5.8
World, dev'd (MSCI)	1,842.6	-0.6	+5.2	+5.2
Emerging markets (MSCI)	967.0	+2.5	+12.1	+12.1
World, all (MSCI)	446.9	-0.3	+5.9	+5.9
World bonds (Citigroup)	899.7	+1.8	+1.8	+1.8
EMBI+ (JPMorgan)	800.8	+1.2	+3.7	+3.7
Hedge funds (HFRX)	1,220.2§	-0.2	+1.4	+1.4
Volatility, US (VIX)	12.8	+11.6	+14.0	(levels)
CDSs, Eur (iTRAXX)†	76.9	+6.4	+6.7	+9.2
CDSs, N Am (CDX)†	68.9	+9.3	+1.6	+1.6
Carbon trading (EU ETS) €	5.0	-3.7	-24.5	-22.6

Sources: IHS Markit; Thomson Reuters. *Total return index.
†Credit-default-swap spreads, basis points. §Mar 21st.

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

The Economist commodity-price index

2005=100

	Mar 14th	Mar 21st*	% change on one month	one year
Dollar Index				
All Items	143.6	143.6	-3.4	+8.5
Food	153.3	155.9	-1.7	+1.7
Industrials				
All	133.5	130.8	-5.4	+18.3
Nfa†	142.3	145.1	-0.5	+24.3
Metals	129.7	124.6	-7.6	+15.5
Sterling Index				
All items	214.6	209.2	-3.5	+23.6
Euro Index				
All items	167.7	165.1	-5.8	+12.7
Gold				
$ per oz	1,206.6	1,243.3	+0.7	-0.7
West Texas Intermediate				
$ per barrel	47.7	47.3	-12.4	+18.0

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.

The means to the end

Martin McGuinness, terrorist leader turned deputy first minister of Northern Ireland, died on March 21st, aged 66

THERE were four moments, Martin McGuinness said, that made him a republican. The first—the one that made him raise his head from his job packing bacon for Doherty's in Derry, and take an interest in civil rights—was when the Royal Ulster Constabulary beat up marchers in Duke Street in October 1968. He was 18 then, and for the first time he took up stones, bombs, anything, and spent his evenings attacking the police. The moment he remembered longest, though, was when they took young Dessie Beattie's dying body out of a car by his house. It was July 8th 1971, the first time that the British army had used lead bullets in Northern Ireland. Blood was everywhere. It shocked him, and scared him more than a little. He had never seen anyone killed by a bullet before.

It was crystal clear to him that this was a war, and had to be fought like one. Armies must oppose armies. There was a peaceful path available, through political pressure and the Social Democratic and Labour Party, but he did not take it. Nothing could be achieved that way. His aim was now to fight until the last British soldier was driven down the River Foyle or down the Lagan, and Ireland became a socialist republic of 32 counties. From 1976 he took shared command of the Irish Republican Army, groomed its volunteers, organised its bloody campaigns, improved its weaponry (from fertiliser stuffed in milk churns to surface-to-air missiles from Libya) and played the alternately shifting or immovable hard man in talks, or back-channel manoeuvres, with the British government.

And on the other hand there he was, in 1997, minister of education in the first unionist-republican power-sharing executive in Northern Ireland. He was still listed on the Army Council of the IRA; but the bomb-thrower was now congeniality itself, and the most violent thing he was proposing was to scrap the 11-plus exam, which he had failed as a child. And there he was in 2007, even more astonishingly, deputy first minister to Ian Paisley, the most diehard of the arch-unionists, laughing along with him and having the *craic*, until they were known as the Chuckle Brothers. In 2014, all smiles, he shook the hand of Queen Elizabeth. People were confounded by the change.

Yet to his mind, there was no change. In 2017 he was as committed a republican as he had been at the start. He desired with all his heart the union of the north and south of Ireland. But having fully embraced violence as the only cure for oppression and discrimination against the Catholic minority in the north, having always held out the threat of bloodshed or refusal to decommission weapons when the peace process faltered, he gradually became aware that he was getting nowhere. The IRA would never give up its aim, as he would not, but the path now lay through politics.

Besides, there was always a part of him that kept away from violence. Friends from his youth in the impoverished Bogside thought him quiet, and in his parents' house there was no politics discussed whatsoever, just nightly kneeling to say the rosary. (On the run in the 1970s, as a wanted man, he still made efforts to get home for his mother's cabbage, spuds and pork ribs.) He did not drink, smoke or womanise, went to mass, and enjoyed thoughtful tasks: fishing, digging and, on holidays in Donegal, cutting turf and setting potatoes.

He long denied that he was a member of the IRA, preferring "republican activist in Free Derry". He expressed horror later at IRA bombings, at the same time sliding the conversation towards the atrocities, and the victims, on both sides. Despite directing operations, he played no active part in them, not least because he was blind as a bat and could not see his targets. When he joined the republican cause he was told he had a good face for it, with the blue eyes and red curly hair that made him look like a cherub, not a terrorist. He and his family got through the Troubles unscathed, perhaps because he didn't take chances with his life; or perhaps because the British had already marked him as someone with whom they might talk. His long-time friend Gerry Adams was useful, too; but aloof, where he had wit, and a ready smile, before that hard-as-flint look came over.

On the steps of Stormont

In effect, his chief usefulness was his undeniable (much as he denied it) power within the IRA. Over the years he trained the group, streamlined it and imposed iron discipline in its heartlands, including the tarring and feathering of "anti-social elements". Eventually he persuaded members that there was need for a cessation, for laying down weapons and working through Sinn Fein, the political arm of the movement. He was doing this himself and enjoying it, first getting elected to the Assembly in Stormont in 1982—though not taking his seat—and then becoming MP for Mid-Ulster in 1997.

Before this, in December 1994, he had gone to Stormont for talks with the British. It was his first visit. He was delivered in an armour-plated black cab, dangerous cargo. As he stood on the steps of the Assembly building, looking down the grand avenue, he felt "we had taken ownership for the first time of the place, that we had ...arrived politically and that we could build a new Ireland." A peaceful Ireland, yes. And eventually, as he never stopped hoping, united and republican. ■