

The Economist

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The two Mexicos



And the lessons for development



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Politics



Tony Abbott was defenestrated as leader of **Australia's** Liberal Party, and thus as prime minister, in an unexpected leadership election that was called following months of gaffes by Mr Abbott and falling poll numbers for the governing party. The new prime minister, Australia's fourth in two years, is Malcolm Turnbull (above), who says there is no need to call a general election ahead of next year's scheduled contest.

The People's Action Party in **Singapore**, which has ruled the city-state since 1959, won a resounding victory in a general election. It took 83 out of 89 seats in parliament, smashing an opposition which had been thought to be on the rise.

North Korea said its main nuclear reactor, in Yongbyon, has resumed normal operations. It was shut down in 2007 in return for a promise of foreign aid, but that deal broke down in 2013.

America confirmed it will give **China's** president, Xi Jinping, a state welcome when he visits Washington on September 25th, his first visit to the White House since taking office three years ago. Mr Xi will also travel to Seattle and New York.

Dump on Trump

The **Republican** presidential candidates held a second televised debate. Having learned a lesson from their first encounter, which was dominated by Donald Trump, the candidates didn't give the front-runner an inch, tearing into his policies as crazy and unworkable. Mr Trump looked

increasingly uncomfortable as the night wore on. Before the event Rick Perry dropped out of the race, the first mainstream candidate to do so.

The Census Bureau reported that the number of people without **health insurance** in America fell to 33m in 2014, or 10.4% of the population, from 41.8m in 2013.

California's legislature voted to allow **assisted dying**. The bill now goes to Jerry Brown, the state's governor, who has so far not said whether he will veto it. In Britain MPs in the national Parliament voted to kill a similar measure for England and Wales.

Tottering on

Zimbabwe's president, Robert Mugabe, called parliamentarians back to a special session to hear him read his state-of-the-nation address a day after he mistakenly read out a speech he had previously given in August. The 91-year-old has ruled Zimbabwe continuously since independence in 1980.

The **HALO Trust**, a charity that works to remove **landmines** left behind after war, declared Mozambique mine-free after 22 years of work. Some 200,000 landmines were placed there during a long civil war that ended in 1992.



Several thousand people protested in Kinshasa, the capital of the **Democratic Republic of Congo**, to demand that Joseph Kabilé, the president, not seek an unconstitutional third term in office.

There were reports of a continuing build-up of Russian forces in **Syria**. The Russians back the country's president,

Bashar al-Assad, who now controls less than 15% of his country and is under pressure from a variety of rebel groups, including Islamic State.

An American general admitted that only four or five America-trained **Syrian rebels** are still fighting there, while officials said that only about 120 are being trained. America had hoped to train over 5,000 a year. Meanwhile, Australia launched its first air strikes inside Syria against IS and France said it will soon start air strikes there to aid moderate forces that are opposed both to IS and the government.

Egypt's air force accidentally killed 12 people, including eight Mexican tourists, in an attack in the Western Desert. The government said it had mistaken them for arms smugglers coming from Libya.

Saudi Arabia temporarily stopped the Binladin Group, one of the world's biggest construction companies, from taking on any more work after a crane it was operating at Mecca's Grand Mosque collapsed, killing 107 people and injuring hundreds more.

Border intrusion

Venezuela's president, Nicolás Maduro, continued to stoke tension with neighbouring **Colombia** by adding another ten municipalities to an area under a state of emergency. He claims to be cracking down on crime and smuggling, but critics say he is trying to distract public attention ahead of an electoral contest which his Socialists may lose.

After a close count of first-round results Sandra Torres, a former first lady of **Guatemala**, was named as the person who will face a popular comedian, Jimmy Morales, in next month's presidential election.

Under strong pressure to mend public finances after a humiliating downgrade of its credit rating, the government of **Brazil** announced a package of belt-tightening measures including a freeze on wages for

some public servants and a financial-transaction tax.

At least 1m people in **Chile** had to leave their homes after a powerful undersea earthquake shook the country, causing panic in many places.

The beige revolution



Britain's opposition Labour Party elected **Jeremy Corbyn** as its new leader. Hitherto a perennial backbencher on the hard left of the party, Mr Corbyn was a rank outsider when he joined the race. In his first week as leader he appointed a shadow chancellor of the exchequer who wants to foment "the overthrow of capitalism" and refused to sing the national anthem at an event to commemorate the Battle of Britain. But his idiosyncratic style facing David Cameron in Parliament went down well.

Germany called into question the future of borderless travel in Europe by reimposing passport checks on the frontier with Austria. Austria then imposed its own checks on its border with Hungary, which had itself started enforcing a new law that criminalises the unofficial entry of **refugees** and **migrants** into the country.

Violence in the eastern Donbas region of **Ukraine** more or less subsided after 18 months of near-constant fighting with Russian-backed rebels. But observers warned that the instability of the Ukrainian government is set to continue.

A TV debate among party leaders in **Greece** failed to give an insight into who will win elections on September 20th. The governing Syriza party has lost much support following the latest bail-out plan.

Business



A long-mooted attempt to merge the world's two biggest beer companies, **Anheuser-Busch InBev** and **SABMiller**, was back on the cards, after confirmation that they are exploring a deal. AB InBev counts Stella Artois, Budweiser and Corona among its brands, and SAB numbers Peroni and Grolsch among its, as well as holding a stake in MillerCoors. If they were to combine—and overcome antitrust concerns—it would be one of the biggest corporate mergers on record.

Global aspirations

Altice, a French media and telecoms company, agreed to buy **Cablevision**, America's fourth-biggest cable-TV operator, in a \$17.7 billion deal. The Israeli-French founder of Altice, Patrick Drahi, has mighty ambitions for his firm, buying up telecoms assets in France as well as Portugal Telecom. This is his first big deal in America; Altice had expressed an interest in Time Warner Cable before it was snapped up by Charter Communications in May.

Hewlett-Packard announced another 30,000 job cuts. It has already shed around 50,000 workers in a restructuring that will soon see the company split in two: HP, which will house the computer and printer businesses, and Hewlett-Packard Enterprise, which will handle software and business services, and which is where the latest job cuts will fall.

The Tokyo Stock Exchange fined **Toshiba** ¥91.2m (\$750,000) over an accounting scandal, the biggest penalty to

date imposed by the bourse. It also warned the Japanese conglomerate to improve its internal accounting procedures within a year, or else its shares will be delisted.

The **OECD** shaved its growth forecasts for the **world economy**, which it now expects to expand by 3% this year and 3.6% next. The organisation is anxious that "stagnating world trade and deteriorating conditions in financial markets are curbing growth prospects in many of the major emerging economies," particularly China and Brazil. The **OECD** published its report before the **Federal Reserve's** meeting on September 16th and 17th.

The dead hand

Long-awaited government reforms of **China's** state-owned enterprises were unveiled, to much disappointment. The plan allows for greater private-sector involvement, but couched this in terms of the state continuing to play a dominant role in the firms' activities. It also said nothing about whether the SOEs would ever be allowed to fail, which many see as the real test of China's commitment to market reforms. China's stockmarkets, meanwhile, had another volatile week.

Standard & Poor's cut its credit rating for **Japan** by a notch. It blamed the government's economic policies for its decision, saying that although the reforms of the government under Shinzo Abe, the prime minister, had shown "initial promise", Abenomics has not tackled "a very weak fiscal position... ageing population and persistent deflation".

Britain's annual **inflation rate** dipped to zero in August. It has now been 0.1% or lower for seven months, even though growth is robust and wages are rising, somewhat undermining the claim in February by Mark Carney, the governor of the Bank of England, that "this is a temporary phenomenon." Inflation in the euro zone was revised down to 0.1%.

Nearly 150 economists, including Thomas Piketty, the author of "Capital in the Twenty-First Century", wrote an open letter of protest against the French government's nomination of François Villeroy de Galhau as the new head of the **Banque de France**. Mr Villeroy de Galhau stepped down as a senior executive at BNP Paribas, a global bank based in Paris, in May. The economists argue that it is "unrealistic" to think he could

lead the central bank with "impartiality" so soon after leaving the banking industry.

Portugal's central bank suspended the auction of **Novo Banco**, which emerged from the wreckage of Banco Espírito Santo, because rival bids from potential Chinese and American buyers were too low. Some of the money the government had put into Novo Banco ahead of the auction could now show up in Portugal's national accounts until a new sale process begins.

The bank that likes to say yes

The row over the refusal by Congress to renew the mandate for America's **Export-Import Bank** intensified, when General Electric said it would move some manufacturing jobs abroad as a result. The bank provides exporters with loan guarantees, which American manufacturers say are crucial when competing against state-backed firms in Europe and Asia. Republicans describe such aid as "corporate welfare". About 400 of the jobs that GE is relocating will be to France, which has offered the American firm financing to export gas turbines.

Other economic data and news can be found on pages 88-89



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The two Mexicos

With its combination of modernity and poverty, Mexico provides lessons for all emerging markets



trade growth and capital inflows, by talk of new middle classes and the bottom billion, it was easy to forget old truths about how hard it is for poor countries to become rich. A breezy assumption took hold: that emerging markets would surely follow the likes of South Korea and Taiwan on the path to wealth.

That view of development has crumbled of late, along with emerging markets' growth rates. China, the locomotive to which many are still hitched, is slowing. Russia, South Africa and Brazil (see page 31) are in reverse gear. Their currencies drop with every fall in commodity prices; they will no doubt weaken further if the Federal Reserve raises American interest rates in a meeting due to end after we went to press. Trade is growing more slowly than global GDP, a trend that seems unlikely to reverse soon (see page 67). All of this makes the trajectory taken by the East Asian tigers seem ever more exceptional.

A more realistic model of development is Mexico, a country that has parlayed its considerable advantages into patches of modernity but has singularly failed to eradicate poverty nationwide (see pages 21-24). Some of its disappointments can be laid at the door of specific policies. But they also reflect the difficulties countries face throughout the emerging world.

Duet for one

Mexico has a lot going for it just now. Its economy is tied to America's rather than China's: in a week it sells more exports to the world's largest consumer market than it does to China in a year. Once dependent on oil, it has Latin America's largest and most sophisticated industrial base, exporting more cars than any country except Germany, Japan and South Korea. For two decades its macroeconomic management has been impeccably orthodox. Recently, it has thrown open its oil industry to private investment, and has tackled private monopolies. A vibrant Mexican middle class prospers along an industrial corridor running from the American border down to Mexico City. Its political system is essentially stable.

Yet despite decades of reforms—at times half-hearted, at times full-throttled—Mexico has failed to bridge the gap between a globalised minority and a majority that lives in what Enrique Peña Nieto, the president, admits is “backwardness and poverty”. Since 1994, when Mexico joined the North American Free Trade Agreement, income per head has grown by an annual average of barely 1%. About half the population remains stuck in poverty; another quarter risks slipping back into penury. Lawlessness, corruption and conflicts of interest prevail among the police, courts and politicians supposed to care for the marginalised.

Mexico's duality shows that getting macroeconomic policy right is necessary to success, but not sufficient. The difficulties

“IN ESTABLISHING the rule of law, the first five centuries are always the hardest.” For much of the past two decades, that quip by Gordon Brown, a former British prime minister, has seemed not just dour, but wrong. Buoyed by China, by

it still faces are a cautionary tale. The first lesson, and easiest to learn, is the centrality of urbanisation. Cities offer people opportunities to prosper that cannot be found in the countryside: about 120,000 people in Asia are migrating to cities every day, for example. But unless cities provide transport, power, sanitation and security, they will fail to fulfil their economic potential. Violent, drug-related crime stalks Mexico's scruffy *barrios*, where city-dwellers live. In South Africa the lack of public transport obliges slum-dwellers to take expensive minibus-taxis to work. Cities in Pakistan and the Philippines are plagued by blackouts. Slums ought to be every moderniser's priority. They are where most people live, and where jobs, schools and technology are closest to hand.

Roads and rails

The second is the importance of infrastructure, and not just in the cities. Many of the foundations of the modern Mexican economy were laid a century ago, in the form of roads and railways tying its industrial heartland to its ports and the northern border. That leaves swathes of the country unconnected. Centralisation breeds anomalies: beach resorts often buy their seafood in Mexico City's wholesale market, hundreds of miles from the coast. Yet linking up parts of a country is not easy. It takes both investors willing to bear risk and also politicians prepared to take on the status quo. In India, for example, plans for big infrastructure projects have been frustrated by squabbles over land and a dearth of long-term financing.

A third lesson from Mexico is the need to bring the informal economy into the light. Small, unregistered firms provide employment to most of the labour force, but are shunned by banks and anxious to remain below the taxman's radar. That saps the domestic economy. In the past decade and a half, while the productivity of the biggest Mexican companies has grown by 5.8% a year, that of the smallest has plunged by 6.5% a year. This problem is as prevalent in Mexico's *changarros*, where tacos sizzle alongside every bus stop, as it is in the shops and stalls of India, where only 2% of food and grocery retailing is in the formal sector. Electronic invoicing, which creates digital trails for the taxman, and mobile banking, which brings poor people out of the cash economy, both offer promise.

But the ubiquity of informal firms also points to a final lesson—the corrosive effects of a general lack of trust. Without enforceable laws and contracts, public services that make taxes seem worth paying and a political establishment that serves the national interest, the only institution that most people can rely on is the family. As Mr Brown hinted, it can take generations to build institutions that enable people to trust arm's-length transactions. But it is not impossible. Witness the confidence now invested in Mexico's and Brazil's central banks, or South Africa's tax authorities.

Even the boldest reformer could not rapidly resolve all of these problems. This is the less cheering message of the two Mexicos: for all but a handful of countries, the road to prosperity is hard and long. But Mexico's successes also demonstrate that it does exist. Even if the gains must be measured in decades, perseverance eventually brings rewards. ■

Britain's Labour Party

Backwards, comrades!

Jeremy Corbyn is leading Britain's left into a political timewarp. Some old ideological battles must be re-fought



BEFORE he had finished belting out his first celebratory rendition of "The Red Flag", a hymn to class struggle, some of Jeremy Corbyn's colleagues in Labour's shadow cabinet had already handed in their resignations. A 66-year-old socialist, Mr Corbyn has spent 32 years as one of the hardest of hardline left-wingers in the House of Commons and a serial rebel on the Labour backbenches. On September 12th he flattened three moderate rivals (see page 51) to become leader of Britain's main opposition party. Labour MPs are stunned—and perhaps none more so than Mr Corbyn himself.

Two views are emerging of Labour's new leader. The more sympathetic is that, whatever you think of his ideology, Mr Corbyn will at least enrich Britain by injecting fresh ideas into a stale debate. Voters who previously felt uninspired by the say-anything, spin-everything candidates who dominate modern politics have been energised by Mr Corbyn's willingness to speak his mind and condemn the sterile compromises of the centre left. The other is that Mr Corbyn does not matter because he is unelectable and he cannot last. His significance will be to usher in a second successive Conservative government in the election of 2020—and perhaps a third in 2025.

Both these views are complacent and wrong. Mr Corbyn's election is bad for the Labour Party and bad for Britain, too.

Cowards flinch and traitors sneer

Start with the ideas. In recent decades the left has had the better of the social arguments—on gay rights, say, or the role of women and the status of the church—but the right has won most of the economic ones. Just as the Tory party has become more socially liberal, so, under Neil Kinnock and then Tony Blair, Labour dropped its old commitment to public ownership and accepted that markets had a role in providing public services. Mr Blair's government put monetary policy in the hands of an independent Bank of England and embraced the free movement of people and goods within Europe.

The argument today has moved on—to the growing inequality that is a side-effect of new technology and globalisation; to the nature of employment, pensions and benefits in an Uberising labour market of self-employed workers (see Free exchange); and to the need for efficient government and welfare systems. Fresh thinking on all this would be welcome—indeed it should be natural territory for the progressive left. But Mr Corbyn is stuck in the past. His "new politics" has nothing to offer but the exhausted, hollow formulas which his predecessors abandoned for the very good reason that they failed.

Only in the timewarp of Mr Corbyn's hard-left fraternity could a programme of renationalisation and enhanced trade-union activism be the solution to inequality. If just spending more money were the secret of world-class public services, Britain, which cut almost 1m public-sector jobs in the previous parliament, would have been a cauldron of discontent. In fact voters' satisfaction with public services rose. If you could

create macroeconomic stability by bringing the Bank of England back under the government's thumb, then Britain would not have spent the post-war decades lurching from politically engineered booms to post-election busts.

Time and again, Mr Corbyn spots a genuine problem only to respond with a flawed policy. He is right that Britain sorely lacks housing. But rent controls would only exacerbate the shortage. The previous Conservative/Liberal Democrat coalition government should indeed have been less austere. It could have boosted demand by spending more on infrastructure. But Mr Corbyn's notion of "people's QE"—getting the Bank of England to print money to pay for projects—threatens to become an incontinent fiscal stimulus by the backdoor (rather than serve as an unorthodox form of monetary policy when interest rates are at zero). There is no denying that young people have been harmed by Tory policies that favour the old. But scrapping university-tuition fees would be regressive and counterproductive. For proof, consider that in England more poor students go to university than when higher education was free, whereas in Scotland, whose devolved government has abolished tuition fees, universities are facing a funding crisis and attract no more poor students than they did.

To see where Mr Corbyn's heart lies, you have only to look at the company he has kept. He admires the late Hugo Chávez for his legacy in Venezuela. No matter that chavismo has wrecked the economy and hollowed out democracy. He indulges Vladimir Putin's authoritarian kleptocracy in Russia and blames NATO for provoking its invasion of Ukraine. He entertains Hamas, which has repeatedly used violence against Israel and admires Syriza, the radical left party that has governed Greece with almost unmatched incompetence. Yet he is stridently anti-American, anti-Israel and anti-NATO and quietly anti-European Union (apparently, it's a free-market conspiracy—see page 52). He even scolded China's Communist Party for its free-market excesses.

To argue that Mr Corbyn's ideas will improve the quality of political discourse in Britain just because they are different is about as wise as Mr Corbyn's refusal this week to sing the national anthem at a service to commemorate the Battle of Britain. Policies this flawed will crowd out debate, not enrich it.

The Corbyn of history

Perhaps that doesn't matter. Mr Corbyn had no expectation of winning the leadership, and for a man who has never had to compromise, the drudgery of party management, media appearances and relentless scrutiny must be a hardship. Even if he is not pushed, he may not choose to stay for long.

Yet the leader of the opposition is one Tory meltdown away from power. Even if Mr Corbyn fails ever to become prime minister, as is likely, he will still leave his mark on the Labour Party. The populism and discontent that brought him the leadership will not just subside. The loathing of Westminster that he represents and the fantasies that he spins will make the task for the next centrist Labour leader all the harder. There is nothing to celebrate about Mr Corbyn's elevation. For Britain, it is a grave misfortune. ■

A prime-ministerial coup in Australia

Stabbed in the front

Malcolm Turnbull ousts Tony Abbott at a critical juncture for the economy. Why so many political murders?



THAT Australia now has its fourth prime minister, Malcolm Turnbull, in little more than two years should be a worry—especially when you consider the manner in which all his predecessors were turfed out. Tony Abbott came to power in a general election in 2013, ending six years of Labor Party dominance, in part by claiming that his (conservative) Liberal-National coalition was above the kind of fratricide that had seen Labor's prime minister, Kevin Rudd, ousted by his rival, Julia Gillard, only for him to get his revenge by re-ousting Ms Gillard when opinion polls turned against Labor. Now Mr Turnbull has done to Mr Abbott what Mr Rudd and Ms Gillard did to each other—only with exceptional cold-bloodedness and guile (see page 35).

The good news is that Mr Turnbull could prove the most competent leader since John Howard, who served 11 years before his coalition's defeat in an election in 2007. Had Mr Turnbull led the Liberals into the latest general election (he lost the Liberal Party leadership to Mr Abbott by a single vote), *The Economist* would have endorsed him rather than Mr Rudd, a bright mind but a lousy operator. Having made his money in law and business, Mr Turnbull has solid pro-market credentials. Unlike Mr Abbott, who downplays the risks of climate change, he sets store by using market mechanisms to bring down carbon emissions (per person, Australians are among the world's highest emitters). As a social liberal, he is closer to most Australians than was Mr Abbott, who is opposed to gay marriage. And in foreign policy, he will be less "Manichean", as one expert put it: less inclined to see the world—including China's rise—only through the prism of security.

For the time being the new prime minister is signalling

more a change of tone than of policy. He has replaced Mr Abbott's sneering negativism with more hopeful rhetoric—declaring, for instance, that these are "exciting times" to be Australian. Above all, he says he will provide competence and leadership at a time when, after more than two decades of unbroken growth, Australia's economy is slowing—crimped, not least, by the slowdown in its largest overseas market, China. Australia needs investment in services and new industries if it is to shift from an over-reliance on exporting iron ore and coal—the hope is that consistent pro-business government will help that where Mr Abbott's repeated u-turns hindered it. But the general election is due in less than a year. Mr Turnbull does not have long to prove that he can lead an effective government.

Conviction politics

A natural question to ask is whether the economy can be fixed without also mending a political system that produces so many revolving-door prime ministers. Three-year parliamentary terms are extremely short and would seem an obvious culprit. Yet they used not to prevent strong leaders from emerging—Mr Howard for one.

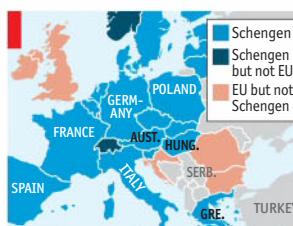
Certainly, subsequent leaders—not least Mr Howard's protégé, Mr Abbott—have been made of thinner stuff. But that is only part of the answer. The old class-bound lines, along which Liberal and Labor loyalties once ran, have gone. Both parties are now hunting on the same ground, among an urban, educated swing-voting middle class. When confronted by the findings of the latest opinion polls or focus groups, the parties' tendency is to panic; the next election is never far away.

This is not healthy. Australia should now debate lengthening the parliamentary term. And Mr Turnbull must prove that connecting with the middle ground—which Mr Abbott abandoned—is a better method of governing than jumping at every opinion poll. Australians may even reward him for it. ■

Europe's migrant crisis

Shooting Schengen

Only an EU-wide agreement on asylum can save passport-free travel in Europe



WHAT happens at Europe's borders often telegraphs momentous change. The Soviet blockade of Berlin in 1948 foreshadowed the cold war. The scrapping of a Hungarian fence on the frontier with Austria in May 1989 doomed Soviet rule in eastern Europe months before protests toppled its leaders. Now the reimposition of some border controls by Germany and Austria, to stanch the flow of refugees and migrants, is the harbinger of something dramatic: the erosion and possible demise of the Schengen free-travel area, one of the European Union's most striking achievements.

For the past two decades anyone in the 26 European countries of the Schengen area, including some outside the EU (but excluding Britain and Ireland), could travel within this zone without being troubled by customs or passport controls. Named after the town in Luxembourg where the agreement was signed, Schengen makes trade and travel easier, and is a tangible manifestation of the EU's "ever closer union".

But as with that other grand project, the euro, Schengen is only a partial act of integration: external borders, migration policies and policing remain in the hands of national governments. As with the euro, an outside shock has destabilised Schengen and embittered relations between EU states. The in- ►

► flux of migrants has made a joke of the EU's asylum rules. Refugees are supposed to seek sanctuary in the first EU country they reach—typically Italy or Greece. But Schengen makes it easy for them to push on to the country most likely to welcome them, or where they can find friends, relatives and jobs.

Many head for prosperous, generous Germany. Angela Merkel, the chancellor, at first cast aside the rules to preserve Schengen, amid touching scenes of Germans welcoming refugees. But, unable to cope, she now wants to restore order to the system. So Germany has imposed border controls on the frontier with Austria, which has restricted movement across the frontier with Hungary, which has in turn started imprisoning migrants who cross illegally from Serbia.

Schengen rules allow countries to impose temporary controls to deal with extraordinary events. Yet the impact of Germany's action is far-reaching. If such a big place at the heart of the EU can break the unspoken taboo against suspending Schengen, then others will have fewer qualms about following suit. In France, for example, politicians from the centre- and far-right may well actively work for Schengen's abolition.

Suspending Schengen is just a sticking plaster for Europe's refugee crisis, which could persist for many years; migrants arriving in Europe will search for weak points at frontiers and

burst through them. The crisis demands interventions at every stage, from working for a ceasefire in Syria to helping Turkey and Lebanon deal with their vastly larger numbers of refugees. Crucially, at home, Europeans must share the task of taking in asylum-seekers, hard though this will be. (If sent to a less-attractive country, some may head straight back to Germany.) Yet few places seem to share Germany's *Willkommenskultur*. At a meeting of interior ministers on September 14th eastern European countries blocked plans for 120,000 refugees to be resettled across the EU under a system of quotas.

The stakes in Europe

This beggar-thy-neighbour mindset is reckless. It will ultimately lead to the breakdown of Schengen, and a European freedom will have been lost. The idea that EU leaders can act in the common interest will have suffered yet another blow. The crisis has already strengthened anti-immigrant, anti-EU populist parties; its chaotic mismanagement will boost them still further. And it will do nothing to help pro-Europeans arguing the merits of staying in the EU in Britain's looming referendum. If the euro zone is stagnant, Britain leaves and Europeans can no longer travel freely, citizens might then ask: what exactly is the point of the EU? ■

Doctor-assisted dying

One door closes, another opens

A missed opportunity in Britain; a chance to be seized in California



SHOULD doctors be allowed to prescribe life-ending medication to terminally ill patients who ask for it? For this newspaper the answer is simple: the state should no more intrude on personal decisions at the close of life than at any point during it.

But doctor-assisted dying is legal in only a few European countries, Colombia and four sparsely populated American states.

Last week, for the first time since both places said "no" in the 1990s, lawmakers in Britain and California voted on this question—and came to different conclusions. By 330 to 118, British MPs rejected a bill modelled on Oregon's 1997 Death with Dignity Act; by narrower margins, California's state assembly and senate passed a similar measure. If its governor, Jerry Brown, does not veto the bill within 30 days, doctor-assisted dying will soon be legal in America's most populous state.

California's bill had seemed stalled; it was revived in a special legislative session. The British bill, by contrast, had momentum. In 2010 the director of public prosecutions had said that those accompanying loved ones to clinics in Switzerland, where doctor-assisted dying is legal, would not face charges. And last year a similar bill had made good progress in the House of Lords, Britain's upper chamber, before running out of time. But both shared a common feature: they were proposed by individual politicians, not the government. Indeed, everywhere that doctor-assisted dying has been considered or legalised, change has been spurred on by campaigning patients and their supporters, not by mainstream political parties. Governments have preferred to avoid the issue—even though solid

majorities of voters in most Western countries favour giving the terminally ill the option of a painless way out.

Critics fear that legalising doctor-assisted suicide will start a slippery slide towards mass euthanasia. But this has not happened in Oregon, where in 17 years just 1,327 lethal doses have been dispensed—and that counts people who moved to Oregon specifically to die, including Brittany Maynard, a Californian with terminal brain cancer whose story moved some Californian lawmakers into supporting the bill. As *The Economist* has reported, there is little evidence that assisted-dying laws have been abused, and plenty that they alleviate suffering. Some fear that, if the option is available, sick or disabled people will feel undue pressure to make use of it. But this has not happened, either. On the contrary, many have found that having control over the timing and manner of their death has given them greater dignity and autonomy.

Leading from the front

Assisted dying has powerful, respectable opponents, including some doctors and religious leaders. California's medical association recently dropped its opposition, but Britain's remains opposed. The Catholic church condemns all forms of suicide. Britain's prime minister, David Cameron, said he was "happy" for MPs to debate the matter, but was "not convinced" of the need for change. Mr Brown, a Catholic, said that the issue was "important" and merited "serious consideration", but has not made clear whether he will veto California's bill.

Mr Brown's conscience is his to govern; Californians deserve the same liberty. He should let this bill pass. And governments everywhere should recognise that, just as life belongs to the individual, so should its end. ■



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Iranian scientists

The same "network analysis" that is used to detect covert nuclear weapons ("The nuke detectives", September 5th) could be turned towards the soft diplomacy of science, with the aim of linking Iranian scientists to peaceful collaborators. Iran shows great promise in science. Despite intermittent war, sustained sanctions and Iran's pariah status, the country's scientific output has increased 11 times faster than the world average.

Granted, most of this reflects an obsession with nuclear-based technologies or chemical weapons. But it also suggests a pool of scientific capacity that could be turned to peaceful purposes. A global network of scientists is increasingly collaborative and influential. The more elite the scientist, the more likely it is that he or she is participating in that global network. There is no reason to doubt that senior Iranian scientists would want to join in.

Governments should not overlook the soft diplomacy of science. Richard Nixon used its peaceful power to good effect in 1972, offering it as a carrot to encourage good relations with China. Last year China displaced Britain as the country collaborating most with scientists in the United States. Iran is better placed now than China was then to join the global network of scientists and redirect resources in ways that are peaceful and transparent.

CAROLINE WAGNER
Chair in international affairs
Ohio State University
Columbus, Ohio

Left in power

The foreign policy of the South African government ("Clueless and immoral", September 5th) should be assessed in the context of the composition of the party in power, a triumvirate of the African National Congress, the South African Communist Party and the labour unions.

Many of the most important levers of power are in the hands of Communist Party

members, whose objective has long been and remains the creation, through the agency of the "national democratic revolution", of a "socialist" state based on the model of the Soviet Union and Cuba.

VERNON STEWARD
Former ambassador for South Africa
New York

A world leader in traffic

As a Belgian, I was very interested in your article on autonomous cars ("Teaching tomorrow", September 5th) because of their potential effect on traffic. Belgium has the worst traffic jams in Europe, according to an index compiled by INRIX, a firm that analyses traffic data, and the problem keeps getting worse. The national railway company, NMBS, has launched an absurd but funny campaign to nominate Belgian traffic jams for UNESCO world heritage recognition. NMBS promoted its campaign as a wake-up call for Belgians to make them think about taking the train as an alternative to the car. It did this by spreading the message that we Belgians seem so addicted to being stuck in traffic that we might as well try to make it an official part of our culture. An online video went viral, sparking a debate on social media about Belgian traffic.

RAMIN AFSHAR
Brussels

Remiss on remittances

"Costly cash" (September 5th) emphasised the point that the stringent regulation of remittances to poor countries by richer countries that are more interested in fighting money-laundering and terrorism also chokes off what has become the largest source of foreign capital in Somalia and other places.

In those poorer countries, remittances sometimes shift from household to venture-capital funding, fuelling the growth of small and not-so-small businesses. Our recent study for the World Bank analysed trends in remittances, new business startups and

access to capital for 47 developing countries from 2002-07. In nine countries with the worst access to capital (such as Senegal) an increase in annual remittances from the sample mean of \$120 per person to about \$145 increased the number of annual new business startups logged in official registries by nearly 3,000. That number doubles or triples when adding new but unregistered business startups in the informal economy.

Regulatory burdens increase the cost to migrants of sending money to friends and family back home. It is suffocating household and business activity in those places that is vital to economic growth and reducing poverty.

MAREK HANUSCH
Senior economist
World Bank
Washington, DC
PAUL VAALER
Chair in law and business
University of Minnesota
Minneapolis

Don't cry for me...

The question is not so much whether Donald Trump will or will not be the Republican nominee ("Trump's America", September 5th), but who would be his running-mate should he win. He needs an Evita. A partner who has experienced the pain and misery of joblessness, foreclosure and business failure might bring Mr Trump's campaign into the American mainstream.

The root cause of Mr Trump's popularity is years of economic insecurity that has made American voters suspicious of established politicians. Today Juan Perón is hardly remembered at all for anything he ever said, but

Evita's deeds, attitude and words still resonate. With an Evita by his side Mr Trump could become the transformational candidate that Republican strategists dream of: a politician who can capture broad support across America's diverse population.

LUIS SUAREZ-VILLA
Irvine, California

You criticised Mr Trump for having an opaque position on gun control. I disagree. One could easily wish that, and be happy if, guns were not freely available but, given their prevalence in America, still "fully support and back up the Second Amendment". Yes, Mr Trump has created a whole new league of political calamity, but let us not fall into the trap of assuming him stupid and interpreting all of his statements as such.

STUART MCINTYRE
Glasgow

There are many examples of blustering outsiders such as Mr Trump who do well in office. Much of the establishment derided Ronald Reagan prior to his election as governor of California. Like Mr Trump he had no record in politics, but had been very successful in other industries. Similarly, candidates who are loved by the media often fail to live up to expectations in office.

Going by his record, who now would consider awarding a Nobel peace prize to Barack Obama?

DAVID SCOTT
Loughborough, Leicestershire

Mr Trump's relations with the Republican Party can be best summarised by a line from Oliver Goldsmith's poem, "An Elegy on the Death of a Mad Dog": "The dog to gain his private ends, went mad and bit the man!"

DONALD YATES
Roswell, Georgia ■

Executive Focus

Ibrahim Leadership Fellowships Programme

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Social Policy (Health Policy)

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The closing date for receipt of applications for each role will be published on our website.



Managing Director



The Australian Broadcasting Corporation (ABC) is the nation's primary public broadcaster, programming and distributing content across television, radio and digital platforms. Operating under Government Charter, the Corporation has a unique role in informing, educating, entertaining and connecting all Australians. The Board of Directors is now seeking a new Managing Director to lead the ABC.

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Applications are now sought from candidates who can demonstrate the qualities implied by the description above. These should be directed, in confidence, to Nick Steiner or Fiona McGauchie at Egon Zehnder via ABC@egonzehnder.com. The deadline for applications is 5pm AEST on Sunday 18 October 2015.



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Of cars and carts

HUAJUAPAN DE LEÓN, MEXICO CITY AND SAN JOSÉ CHIAPA

Despite decades of reform, most Mexicans are still a long way from wealth and modernity

OUTSIDE San José Chiapa, a somewhat shabby town of 8,000 in the Mexican state of Puebla, a vast box-like factory complex is rising out of the fields like a mirage, attended by new highways, flyovers and roundabouts for its lorries and executives. Audi, a German carmaker, is investing \$1.3 billion into this project. From 2016 production of its snazzy Q5, which is currently made in Ingolstadt, near Munich, will be moved here instead. Cars from San José Chiapa will be shipped around the world.

Volkswagen, Audi's parent company, has been building cars in Puebla for decades. Mexico's position between two continents and two oceans, bolstered by free-trade agreements with 45 countries, has made it attractive to such manufacturers. The Germans have favoured Puebla, which lies to the east and south of Mexico City; the Japanese Aguascalientes, to the north-west: they have turned Mexico into the world's fourth-largest car exporter.

"How Audi are you?" asks a sign in the company's smart recruitment centre in San José Chiapa. For the 100,000 people from around the country, mostly engineers and technicians, who have applied for the 3,800 jobs so far offered, the answer is "As Audi as you want me to be".

"About as Audi as a horse-drawn cart," though, would be the frank answer of most

people living nearby. Audi recruits need a secondary-school education; many of the locals never got past primary. More than half of the people round the city depend on farming small plots for a living. In the fields surrounding the plant, dozens of men in big hats are bent-backed over their hoes. Not a tractor is in sight.

One of the farmers, Abel Ramírez, leads his horse and cart across a new highway, the wheels leaving thin ruts in the mud either side of the road. The lorries bound for the Audi plant make his horse skittish as they swish by. He is anxious about Audi's impact on his livelihood. Workers from out of town have brought with them worries about crime and, horror of horrors, health-and-safety concerns. For how long, Mr Ramírez wonders, will he be able to keep his horse, pigs and cows in barns attached to his home before one of the Audi factory's employees complains? "I'm a Mexican Aztec peasant and this is the way we are. But what if I offend others?" he asks.

Magdaleno Valencia, a neighbouring farmer, is more optimistic. "We used to produce milk," he says, pretending to squeeze udders. "Now we produce Audis." His cheerfulness stems from promises that the government will set up a university in San José Chiapa to provide technicians for the car industry. Mr Valencia thinks this means

that, although few of today's townspeople can dream of anything other than a menial job at the factory, their children will have good cause to aim higher.

José Munguía, the local priest, agrees that the current generation has missed out. He says that the farmers who sold their land to Audi mostly blew the money on family parties rather than investing it. ("None of it even came to the church," he sniffs.) They have not built hotels, or started new businesses supplying the plant, because they lack the skills and imagination. The government should have provided programmes on developing such businesses, he believes. It blew the opportunity.

Tontos v correctos

The ways prosperity and modernity spread—or do not spread—around Mexico have been a subject of debate and study for a century or so. In 1926 Robert Redfield, an anthropologist from the University of Chicago who did much to introduce the study of modernisation into the social sciences, settled himself in Tepoztlán, a charming cobbled town 50km south of Mexico City, for fieldwork. He expressed what he observed in terms of a gap between "los correctos" (the correct), the local elite who were gradually absorbing city ways, and "los tontos" (the fools) who stuck with old traditions.

The gap had a spatial dimension. Near the town's plaza were the biggest houses and the most competitive artisans; interaction with visitors and tradespeople from outside meant that big-city culture was strongest there. Farther out, the jobs became more traditional; midwives, herbal doctors and firework-makers. At the very

edge of town people did not even tell the time; there were no watches, and they were too far away from the plaza to hear the church bell. But though such patterns were part of the story, there was more to it. The *tontos* were removed from modernity not merely by the walk to the town centre, but by their habits of mind.

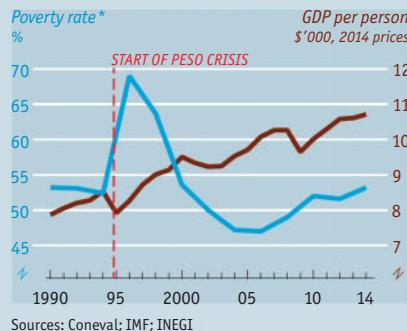
Spatial divisions in Mexico's modernisation are still obvious today. As Ricardo Hausmann of Harvard University's Centre for International Development points out, economic productivity in Nuevo León, a heavily industrialised state close to the American border, is at South Korean levels. In the south of Mexico it is close to that of Honduras. The country's industrial clusters devoted to the manufacture of cars, planes, electric goods and electrical equipment—categories which between them account for two-thirds of Mexico's manufacturing exports, and thus for about 18% of GDP—are largely to be found in a band next to its northern border and in the central states below it. These states account for about 70% of the 120m population.

This part of the country is criss-crossed by trunk roads, railways and gas pipelines which make it an attractive manufacturing destination. Some economists see these networks as defining the continent's "new frontier"; where once the Rio Grande was the border between modernisation and underdevelopment, now the boundary is formed by the edges of this new infrastructure. Luis Rubio of CIDAC, a think-tank, notes that within these areas "NAFTA [the North American Free Trade Agreement] sets the rules of business", meaning they operate under a modern legal structure different from the somewhat arbitrary justice seen in the rest of the economy.

It is in these regions that you find an elite not unlike Redfield's *correctos*. Its members have benefited from the reforms

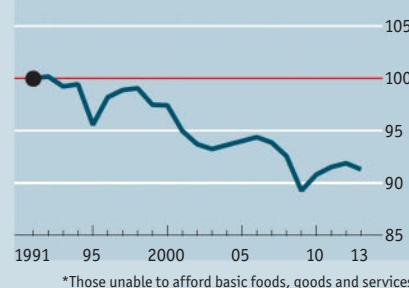
Uninspiring

Mexico



Sources: Coneval; IMF; INEGI

Total factor productivity 1991–100



*Those unable to afford basic foods, goods and services

that have made Mexico a model of free trade and sound money over the past two decades, casting off its prior dependence on providing raw materials. They fly abroad on holiday, drink wine and fine tequila, and send their children to private schools.

The din of the street

But the bulk of the population continues to live in a land that President Enrique Peña Nieto described in his inaugural address, three years ago, as one of "backwardness and poverty". This is the Mexico of *changarros* (makeshift food stands), informal markets, cash-only family firms, peasant farmers and indigenous communities, as well as a vicious underworld. It is where half the population remains poor, on government figures, despite the promise of NAFTA, which came into force in 1994 (see chart). Its inhabitants may not pay tax, but extortionists, bent lawyers, judges and officials often shake them down for cash.

This periphery is, paradoxically, where most jobs are created. But such is the burden it imposes on the economy that from 1990–2013 overall productivity in Mexico

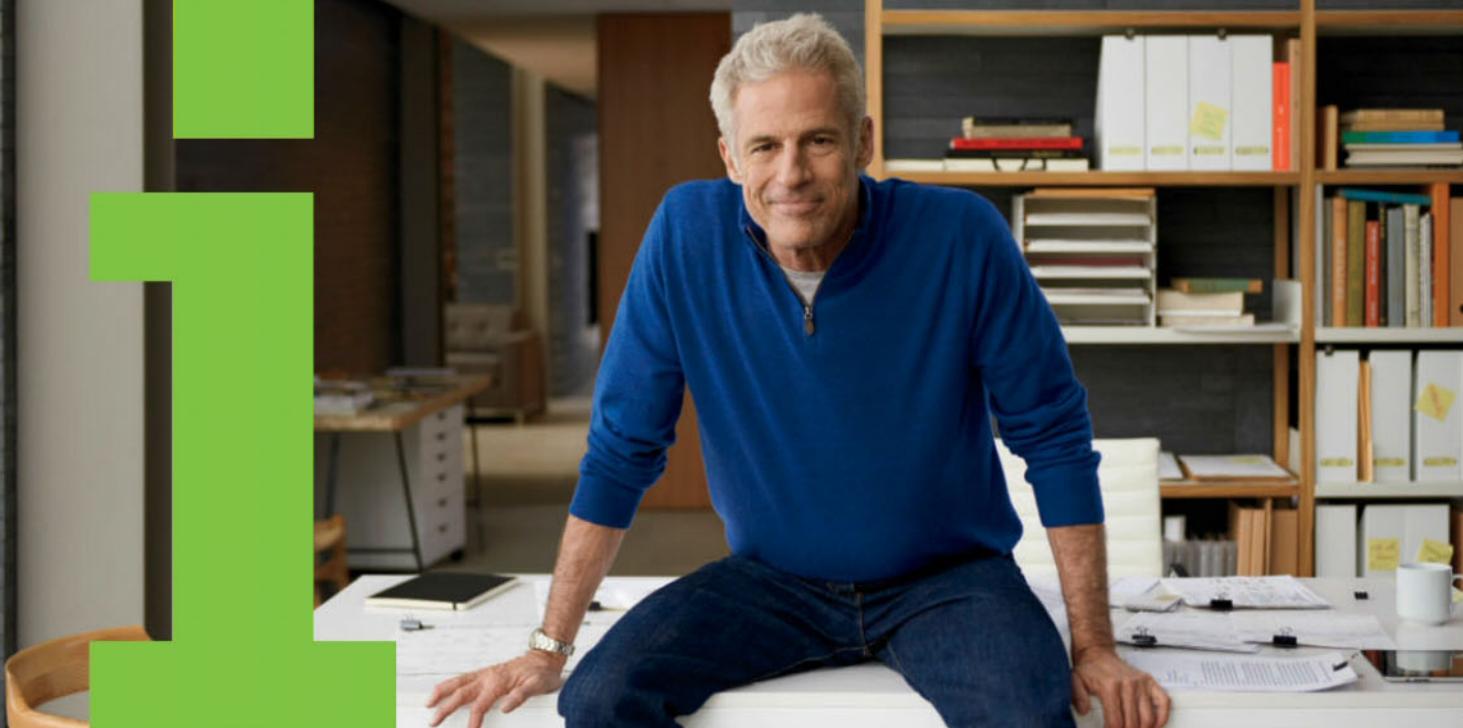
fell by 0.3% on average each year: labour, capital and technology became ever less efficient over almost two-and-a-half decades. "Probably no country in the world presents a starker contrast between external success and domestic failure," writes Dani Rodrik of Harvard.

On two occasions, 20 years apart, problems in the poorest bit of this second Mexico, its deep south, have thrown the country off course just when it appeared to be on the cusp of big economic breakthroughs. In 1994 the "Zapatista" indigenous uprising in Chiapas, the southernmost state, knocked the lustre off the launch of NAFTA and helped trigger the peso crisis less than a year later. In 2014 the drug-related massacre of 43 students in the southern state of Guerrero battered Mr Peña's credibility just as he was basking in the completion of 11 economic and political reforms that had started to win him international acclaim.

It is wrong to think of the division between the modern Mexico and the rest of the country as purely one between north and south. As San José Chiapa shows, the distance between them is not just to be measured in kilometres; it is to be mapped in terms of formality and informality, the rule of law and its absence, of race and of culture. The Economic Productivity Unit set up by the government in 2013 blames dismal output on excessive informality, insufficient finance, lack of worker training, weak managerial capabilities and excessive regulation, crime and corruption. Its boss, Ernesto López-Córdova, has direct experience of the informal economy; his office in the capital's historic centre is above a cobbled street so full of hawkers that it is hard to hear him. As the din makes clear, low-productivity Mexico is not simply a creature of the countryside (though it is true that Mexicans are less likely to live in cities than other Latin Americans).

Mr Hausmann, one of the unit's advisers, would like to get more people into the big cities. The fact that some of Mexico is now rich, he says, means that countrywide factors, such as a weak constitution or poor basic education, cannot be the main pro-





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blem. Geography may not be everything, but it does matter. He thinks the most important thing is to get unproductive workers the specific improvements in their skills they need for better jobs and with safe, reliable ways of getting to those jobs.

Those taking a more sociological view, though, see a different problem. They say that many Mexicans feel that the top-down model of development does not offer them the sort of stability they value. That stability, such people think, is instead to be found in the small businesses in which they mostly work—businesses that are embedded in a culture of family ties rather than rugged individualism. Gabriel Zaid, a Mexican writer who first focused on Mexico's productivity problems in the late 1970s, says that today's factories cannot provide the jobs needed by the 55m Mexicans under 25. Small-scale business activity, in contrast, provides plentiful employment; he contends that they could raise Mexico's productivity with relatively little investment.

Some link this cultural reluctance to modernise to the dogged survival of the *Méjico profundo*—the chunk of society where cultural links to the ancient Meso-American civilisation are still strongly felt. David Robichaux, of Mexico's Ibero-American University, says that this part of Mexico is not limited to the 7m or so speakers of indigenous languages. He reckons tens of millions of *mestizo* (mixed-race) Mexicans share family and community values that are as important to them as notions of modernisation and progress, and sometimes inimical to those ideas and their implementation. These people are not all poor. Many run small firms—but rather than reinvesting to improve their businesses' efficiency, they may prefer to splash out on village fiestas and family gatherings.

The persistent attachment to scruffy, informal farms and firms may be in part a cultural choice; it is surely also, though, a consequence of earlier failures. Many Mexicans remain small-business people because they lack the skills, contacts or possibilities to become more entrepreneurial, or better paid and better treated—but more routinely taxed—salary earners. The romantic notions of the *Méjico profundo* are often peddled by interest groups that benefit from this status quo, such as unions and old-fashioned political bosses with power bases in peasant communities.

In "Why Regions Fail"—a follow-up to "Why Nations Fail", a book which he wrote with Daron Acemoglu—James Robinson of Harvard looks at some of these failures and policy biases and the way they affect the south of the country, which is poorer, more unequal and less urbanised than the rest. In colonial Mexico indigenous groups were exploited to benefit a small elite; in the latter two-thirds of the 20th century, the ruling Institutional Revo-

lutionary Party (PRI) controlled a one-party state that left the south in the hands of local barons, he says. It was starved of public funds and infrastructure; to an extent it was made poor, not left poor. "We know today that the south has less efficient legal systems that are less good at enforcing laws and southern states have governments that are more clientelistic and corrupt in the way they interact with citizens," Mr Robinson writes. He contrasts this with more inclusive institutions emerging elsewhere in the country.

The grasshoppers of hope

Oaxaca, a southern state that has the highest informality and second-lowest productivity in Mexico, was gripped this year by struggles over the merits of modernisation. For a group committed to maintaining a status quo that serves it well look no further than the CNTE, a rebel teachers' un-



They read the classics, too

ion which has used mob tactics across southern Mexico to thwart reforms. In Oaxaca the union's Section 22 chapter promotes its own education agenda based around indigenous values such as communal work and village fiestas. It paralysed schools for months in a bid to prevent exam systems being introduced for its members.

On the one hand their tactics appear unforgivable. The state is crying out for a better education system. On the other hand, many Oaxacans can be forgiven for thinking modernisation is a mirage. About a third of Oaxaca's labour force works in farming, many using oxen instead of tractors to plough the *milpas*, few within commuting distance of the few well-paying factories. Half the state's roads are unpaved, and foreign investment is minimal—0.15% of Mexico's total in 2013, according to a gov-

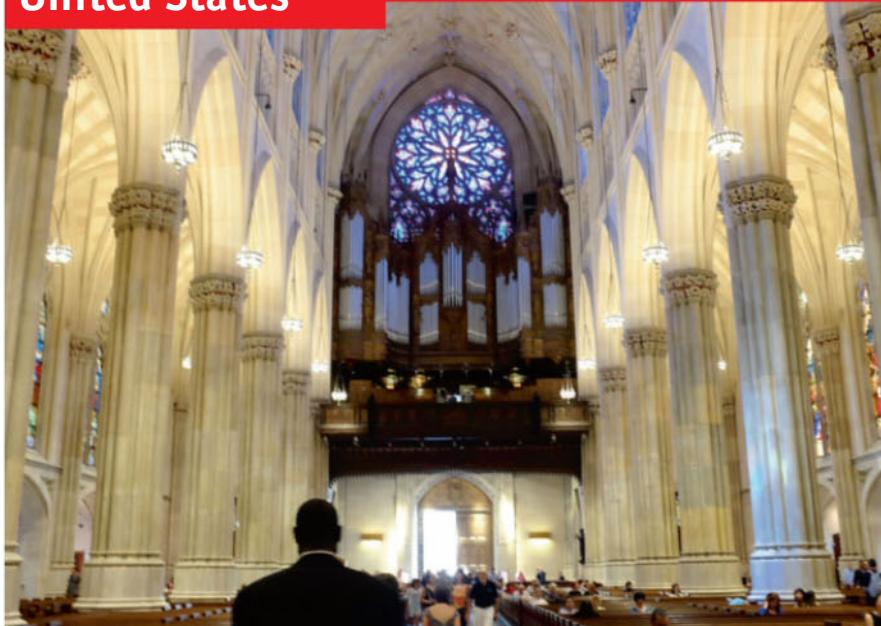
ernment analysis. One way to keep from despair is to resign yourself to a feeling that this is the way it will always be.

For all this, there are flickers of enterprise. Take a little-known community of ten public universities, the Oaxaca State Universities System, which are aimed at serving people from indigenous communities and at the same time technologically minded. Its rector, a fervently energetic 84-year-old Spaniard called Modesto Seara-Vázquez, says his students from Mixtec and Zapotec races, whose languages, like Mandarin, are tonal, have aptitudes for mathematics and computing similar to those of east Asians.

There is no community decision-making here. Mr Seara-Vázquez runs the universities much as Lee Kuan Yew used to run Singapore. At the Mixteca Technological University, on the outskirts of the ragged city of Huajuapan de León, surrounded by a clump of trees in an otherwise deforested sierra, the campus is litter-free, union-free and politics-free—the one word that carries weight is the rector's. Students are reschooled for six months after entry to account for what they failed to learn from Oaxaca's teachers. Those who pass their exams work eight hours a day, must read a classic novel every month, and are usually trilingual, speaking Spanish and English as well as their native tongue. Mr Seara-Vázquez works himself just as hard, notching up 1.2m kilometres on Oaxaca's potholed roads on his frequent visits to all the campuses. Yet he is repeatedly frustrated by the refusal of businesses to set up in Oaxaca to take advantage of the talent he nurtures. "They just don't believe it," he says.

Some students strike out on their own. Two have set up their own firm, Inalim, on the outskirts of the state capital. It produces toasted grasshoppers, a local delicacy that they export as far as France. The acrid smell hits you as soon as you enter the factory, but it is clean and efficient, providing scores of jobs. When they started, their biggest issue was lack of trust. Farmers would not sell grasshoppers to them because they feared they would be cheated; banks would not back them; distributors would not work with them. But they persevered, with a rigorous focus on quality control. Their products are now distributed by Bimbo, a highly efficient Mexican food retailer with operations in the Americas and Europe.

Yet Inalim is an exception, and likely to remain so. Without strong technological underpinning, alliances with bigger firms, and hard-earned trust from banks and customers, most Mexican businesses struggle to grow. These attributes are becoming more abundant in the modern part of Mexico, providing the possibility of prosperity for those who want to move there. For those who don't, though, they are barely even a distant dream. ■



Pope Francis and America

Who owns the pope?

WASHINGTON, DC

A papal visit provides fresh opportunity for conservatives and liberals to scrap

“WE LOOK forward to welcoming you to our workplace and request the opportunity to meet you.” Pope Francis is known for holding ad hoc meetings with the poor and bereft; even so, the invitation he received from 46 disgruntled canteen workers at the Capitol, ahead of his visit there on September 24th, was audacious. The Bishop of Rome does not mediate in petty pay disputes.

Yet the stunt illustrates a striking reality of Pope Francis’s planned five-day visit to his American flock, which is the richest and fourth most populous of any nation. From aggrieved Hispanics to irate conservatives, from an increasingly questioning Catholic rank-and-file to the many non-Catholics attracted to the pope’s blend of modesty and celebrity, millions of Americans want a piece of him.

Not even John Paul II’s hugely popular visit to America in 1979, when the US church was smaller by a third yet—with over 20,000 more priests—stronger than it is today, excited more hoopla than is the looming prospect of Pope Francis. In Catholic churches, schools and hospitals across Washington, DC, New York and Philadelphia, destinations for his first trip to America, life-size cut-outs of the Argentine-priest are being set out and posters unfurled. At the open-air mass he will say in Philadelphia, up to 1.5m people are expected. And what the pontiff says, including in the first ever papal address to Congress and another

er outside Independence Hall, birthplace of the constitution, will carry unusual political weight. Because the political context into which he will step, for Catholics, non-Catholics and especially the 55m Hispanics who increasingly dominate the American church, is fraught.

Though far more vigorous than any dwindling European equivalent, the American church badly needs a shot of the “Francis effect”—the institutional pick-me-up Catholics have looked for in the pope’s popularity. The financial and reputational damage done by revelations of thousands of child-abuse scandals has exacerbated deeper and daunting changes: including a hollowing out of what were once pre-eminent congregations, in New York, Philadelphia, Chicago, Boston and other centres of European Catholicism, as their members move to the suburbs, or simply quit. A recent survey by the Pew Research Centre suggests that for every American converted to Catholicism, six abandon it—easily the highest net loss of any church. Around 13% of adult Americans are former Catholics: if that were a denomination, it would be America’s third biggest.

The outflow is largely covered by the increase in Hispanic Catholics, who now represent over a third of the total, a share that is rising fast. This is injecting hope and dynamism into an institution that would otherwise be in decline. “We do funerals,

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they do baptisms,” quips John Carr, a Catholic thinker at Georgetown University in Washington, DC. Yet the change is not without friction. Hispanicisation is shifting the church’s centre of gravity to the south and west and changing its culture, including the language of worship, almost everywhere. “This Easter we had three crosses outside our church with actors on them,” says Mr Carr. “That’s not how we usually celebrate Good Friday.” Of eight special masses being said for the pope in the capital, where he will also canonise America’s first Hispanic saint (see next story), five will be at least partly in Spanish, the language in which the pontiff will deliver most of his addresses.

El papa

General enthusiasm for the pope, whose approval rating among Americans is in the high 80s, is a fillip for all Catholics. But at a time when the front-runner for the Republican presidential nomination, Donald Trump, suggests spoken Spanish has no place in American public life, his visit is especially reassuring for Hispanics. “The pope is sending a message that you need to be welcomed if you speak other languages, that language should not be an issue,” says Father Evelio Menjivar, a Washington-based parish priest who is organising the Spanish-language celebrations.

Pope Francis will address Congress in English, but that will not lower the political temperature in a place where Catholics have never been more prominent. Fifty years ago, John Kennedy, America’s only Catholic president, saw his presidential campaign dogged by claims that it was impossible to serve both America and Rome. Eight Catholics are now vying to be president—including Jeb Bush for the Republicans and perhaps Joe Biden for the Democrats. Almost a third of the House of

► Representatives is Catholic—including the Republican speaker, John Boehner, at whose invitation the pope will make his address.

This does not mean he is about to swing the election: Catholics vote in line with all Americans—which is to say, whites ones lean Republican and Hispanic ones Democrat. Yet the rise of Catholic politicians has brought into focus the wearisome degree to which the church's main split, between an ascendant conservative wing that worries mainly about religious freedom and the rights of the unborn, and a liberal wing more concerned with social justice, has become a proxy for America's wider political brawl. That will make the pope's address inevitably politicised and acutely sensitive.

A champion of poor immigrants, a critic of capitalism and a tree-hugger who has, meanwhile, done little to revise the church's social teachings, Pope Francis has something for both camps. So both are claiming him—"the degree to which everyone wants this guy on their team is remarkable," says George Weigel, a conservative Catholic commentator. Yet right-wing Catholics are the more uneasy. "People quite close to the pope misunderstand America or don't like America," says Robert Royal, another conservative commentator. "I'm worried about that."

There will be more such grumbling, not least because the pope is expected to speak on immigration and the environment early in his visit, before issuing a defence of the traditional family, at a summit in Philadelphia, later on. Yet any suggestion that the pope is himself anti-American is hard to stand up. He is a critic of the greed and economic fragility capitalism can engender; less obviously of the system itself. That is a position that has long been taken, if more quietly, by American bishops, as indeed is the pope's concern for poor immigrants and the environment. As a son of European immigrants, his biographer Austen Ivereigh notes, his personal history is also distinctly American: "He's the first pope of the New World." And in his efforts to decentralise power from the Vatican, he has perhaps done more to dismantle his office's thoroughly un-American monarchic pretensions than any of his predecessors.

The real target of his papacy, argues Father Matt Malone, a fellow Jesuit and editor of *America* magazine, is just the sort of polarisation awaiting him on Capitol Hill. "Both sorts of cultural warrior, on the left and the right, think the pope is aligned with them or against them, but what he's really saying is: 'A pox on both your houses.' He is reminding us that our goal as Christians is not to be right, but to be holy." It is an attractive message. But to endure the political pummelling, from left and right, that the pope's every utterance is about to attract, he may need a miracle. ■

Junípero Serra

Sinner and saint

SAN GABRIEL, CALIFORNIA

The pope plans to canonise the missionary founder of California

WHEN Pope Francis holds a Spanish-language mass in Washington, DC, on September 23rd, to canonise the 18th-century Franciscan missionary Junípero Serra, supporters know what the ceremony will symbolise: a corrective blow against accounts of America's history that give all the credit to English-speakers.

Talk of America's founders, for most, prompts thoughts of merchant-adventurers splashing ashore in Virginia, or Puritans washing up in New England. Yet there is a parallel history that began in the south, spoke Spanish and combined hunger for land with Catholic zeal. Serra, born to a farming family on the island of Mallorca, established the first missions on which the modern state of California was built. Though ageing and in chronic pain, he converted as many as 5,000 native Americans before his death in 1784. He is "one of the founding fathers of the United States", the pope declared earlier this year.

Admirers call Serra a champion of the underdog, who denounced Spanish troops for raping Indian women (some were lassoed like animals, he recorded) and for killing native men who resisted. His writings include a successful appeal to spare an Indian who killed a missionary during a revolt in San Diego in 1775, so that he could be "saved" by con-

version. "For that is the purpose of our coming here and its sole justification," he wrote to the viceroy in Mexico City, far to the south. The present-day archbishop of Los Angeles, José Gómez, has called Serra's appeal one of the earliest recorded pleas against the death penalty.

Pope Francis, the first Latin American pope, has spoken of "grave sins" committed against native peoples across the Americas in the name of God. Nobody can defend colonialism, the "original sin of the North American continent", says Gregory Orfalea, a historian and Serra's biographer. But Serra, he argues, was a "voice of conscience" who went against the grain of his time, and has been chosen by this pope for sainthood precisely because he is "not perfect".

For others the sins overseen by Serra are too deep for him to be so exalted. At the San Gabriel Mission, in Serra's day a bountiful source of produce for the young city of Los Angeles, a painted sign from the 1960s welcomes visitors to a "garden of peace" where trod "the daring Redskin, the blithe-spirited Mexican" and "valiant Spanish soldiers". Modern plaques record that 6,000 Indians lie beneath the grape vines and flowers, many killed by disease, and that local Tongva Indian culture was almost wiped out. Indians were often paid for their labour with glass beads. They were flogged for disobedience or "concubinage" and—once converted—were not free to leave. Deserters were hunted down and beaten or chained. Serra sorrowed over excesses but supported floggings, which he likened to stern parental discipline.

Some surviving Indian tribes in California oppose the canonisation. A petition against Serra's sainthood has gathered 10,000 signatures. A statue of Serra stands in the Capitol in Washington, as one of two sculptures representing California. A Democratic state senator wants Serra replaced with a statue of Sally Ride, the first American woman in space, who would also be the first gay person to be honoured in the Capitol's National Statuary Hall. The governor of California, Jerry Brown, himself once a candidate for the priesthood, says he will battle to keep Serra's statue on display "until the end of time". At root Serra has triggered a row about minorities in modern America, and who stands in greatest need of recognition. That fight will long outlast his canonisation.



Revered by some

Air-force bases

Catch-2015

ABILENE, TEXAS

The Department of Defence can neither close bases nor keep them working

THE cinema at Dyess Air Force Base, in central west Texas, is a splendid facility. It is entirely free for airmen and their families. Outside, there is a smart café selling snacks, sodas and, in the evenings, when children are not present, alcohol. Yet for more than two years, this centre for social life on the base sat empty, because it did not have the equipment to project films. Just a few months after the air force paid a hefty sum to refurbish the building, the Army and Air Force Exchange Service, the government-owned firm which ran the cinema, switched from analogue to digital distribution of films. When it did so, it decided it could not afford to buy a new digital projector for Dyess.

That is just one tale of the maddening bureaucracy recounted by Colonel Michael Bob Starr, the commander of the base. Another he tells is of how the Pentagon scrapped funding for his base's library. When he went to close the library, however, he was informed that only the secretary of defence could make that decision. There was still no funding, but that didn't matter: the regulations said that the library had to stay open.

Such absurdities are hardly new to the military. Similar tales in the 1950s helped to inspire Joseph Heller's "Catch-22", a novel about the futility of war and the silliness of military regulations, in which faulty IBM machines promote majors and no one can ever go home. The scale, however, can still astound. Colonel Starr reckons that he is personally responsible for enforcing some 200,000 rules, mostly dreamed up in Washington. Pentagon management techniques, he jokes, "tend to reflect the very best lessons from the 1950s".

Yet slowly, at his base, something is changing. Under pressure to get more out of its resources, the air force is beginning to foster some independent thinking. Colonel Starr's frankness is evidence in itself: few military types would complain about their superiors so openly to a reporter. Yet Colonel Starr is unusual. He likes to quote management books. And, he reckons, to put into action the call from General Mark Welsh, the air force's chief of staff, to make the service more flexible and innovative means being a little more open about the stupid things that the air force does.

Since 2013, spending cuts as a result of the government budget sequestration have reduced the air force's budget. Big projects such as the F-35 fighter jet, or the ex-



I've only been trained once, sir

pansion of drone warfare, swallow up much of what is left. At Dyess, which is home to a fleet of B-1 bombers and C-130 transport planes, staffing has fallen sharply, especially in areas such as aircraft maintenance. Staff sense that more cuts are coming—many, for example, are deeply worried by a proposal to take away hous-

ing allowances from the junior partner in military couples.

Colonel Starr has done much to mitigate the effects of austerity. He has started an innovation club, where junior officers and enlisted men can put forward ideas their superiors have rejected, such as storing the base's contracts digitally, instead of printing them out. He has worked with Abilene, the hot, dusty Texan city that hosts Dyess. The cinema was started up again after locals raised money to buy a new projector; the library was kept open by an agreement with the city to share facilities. Bravely, he has chosen to simply disobey some regulations which he says tie up staff pointlessly—such as one that insists that security guards should receive the same training twice.

Such victories keep the base functioning. The trouble, though, is that efficiency quickly runs into politics. The air force estimates that it has roughly 25% more infrastructure than it needs. But closing bases, or scrapping underused aircraft, is unpopular in the districts they are based in. There have been no BRAC hearings, which determine where to cut, for a decade. Congress has to vote to spend money on BRAC hear- ►

The TSA

Locked out

Special keys let officials open any suitcase. What could go wrong?

OPENING a suspect suitcase to search its contents usually means breaking the lock. So America's Transportation Security Administration worked with manufacturers to create a special category of locks, which can be opened by master keys held by airport security.

That might seem an elegant solution—but illustrations in a *Washington Post* story about the TSA last year included high-definition photos of a complete set of the keys. Commonly available software can turn any picture of an object into a digital blueprint. Now a group of amateur lock-pickers has proudly posted on the internet proof that they had used 3D printers to make perfect copies of the master keys, and published the files so that others could do the same.

From a technological point of view this is nothing special: the dangers of publishing pictures of keys are well-known. But the scale of the compromise is startling: around 300m locks have been sold with the TSA's red-triangle imprimatur, both as stand-alone padlocks and in luggage brands such as Samsonite.

The damage to security is probably slight. Luggage locks are notoriously flimsy: they serve more to protect privacy than property. Thieves find it easier to

pick or smash locks than steal keys.

But the episode does highlight the danger in official thinking about security, particularly at a time when the FBI and other law-enforcement agencies are lobbying to have back-doors—in effect secret master keys—built in to commercial encryption products. The justification is that because codes are easier to make than to crack, spies, terrorists and criminals can shelter behind encrypted communications: "going dark" from encryption as the FBI's director, James Comey, put it in a speech on September 10th. Making big internet companies build hidden weaknesses into the software that runs messaging and e-mail services would give the authorities a chance to catch up.

The fiasco around the TSA's master keys highlights the flaw in this argument. The ability to decrypt everyone's messages would indeed be useful for law-enforcement agencies. But malefactors would like these keys too, and make every effort to purloin them. Given the TSA's lapse (and a series of other catastrophic breaches in the security of government networks in recent years), who would believe that the electronic master keys were stored safely?

ings, and congressmen can usually find reasons to avoid doing so. What cuts have been proposed, such as discontinuing use of the A-10 attack jet, known as the "Wart-hog", are fiercely resisted in Congress.

"Everybody will agree to reductions, as long as it is not here," says Brian Yates, a former air-force officer who now works for the Abilene Chamber of Commerce. At Abilene, locals adore the air force. The land Dyess is built on was in fact donated by the city; with its 5,000 staff (including civilian personnel) the base is by far the biggest local employer, putting some \$433m into the local economy each year. Airmen tell stories about how, when they go out for dinner, strangers insist on paying their bills. In an attempt to protect against cuts, the city and the state of Texas have spent money on upgrading the road and fibre-optic con-

nctions to the base.

In May, the Texas legislature voted to create a \$30m fund to be spent over two years to protect bases in the state (less than the \$150m supporters wanted). Other bases have more solid protection, gripes Mr Yates. The main rival to Dyess in bombing capacity is Ellsworth, a base in South Dakota. As the only base in the state, it has two senators looking out for it in Washington. Dyess by contrast has to compete with a dozen or so other military installations for political attention. Each year, the Abilene Chamber of Commerce leads a delegation up to Washington to wine and dine important people. With each dinner, each dollop of state money to protect bases and each postponed BRAC hearing, turning the air force into the flexible service its chiefs want will get harder. ■

liberally, their abuse grew. Sales of prescription opioid painkillers have increased 300% since 1999, according to the federal Centres for Disease Control and Prevention (CDC), even though the amount of pain Americans report to their physicians has not changed.

Three-quarters of heroin addicts used to take prescription drugs and switched to heroin, which is cheaper and more easily available on the black market. A gram of pure heroin costs less than half what it did in the 1980s, in real terms. "This is a doctor-caused epidemic," says Tom Frieden, boss of the CDC. In states with higher prescription rate of opioid painkillers, such as Michigan, Ohio and Indiana, the number of heroin addicts is higher too.

In depressed areas in the Rust Belt, where poverty and unemployment rates shot up as factories shut down and jobs disappeared, the drug epidemic is ravaging once-idyllic communities. Indiana had a brutal wake-up call earlier this year when Austin, a small rural community just off the interstate between Indianapolis and Louisville, was the epicentre of the largest outbreak of HIV infections ever seen in the state. Nearly 200 people were infected in a population of just 4,200 because addicts injecting Opana, a prescription painkiller that delivers a potent high, shared needles, which is the fastest way for an infection to spread. "We have never documented anything like it," says Mr Frieden.

Indiana and Illinois are lagging behind in efforts to fight the drug epidemic. "If we want to make the heroin problem worse, we are headed in the right direction," warns Kathie Kane-Willis, the director of the Illinois Consortium on Drug Policy at Roosevelt University. According to a study published last month by the consortium, Illinois dropped from 28th in the nation for providing state-funded treatment for addiction to 44th in just five years. Illinois is the least equipped state in the Midwest to provide treatment for the growing number of heroin addicts, says the study, and Indiana is only slightly better. This suggests the needles and spoons are here to stay. ■



Heroin in the Midwest

A hydra-headed scourge

CHICAGO

How the Midwest is battling a drug epidemic

EVEN street-savvy former gang members are shocked by the spread of heroin to Chicago's suburbs. Earlier this year, when Roberto Hernández, a Puerto Rican, was in the final stages of preparation of a big push by Gangs to Grace, a church ministry on the west side, to save Latino gang members from lives of violent crime, he explained that white girls from the suburbs go to neighbourhoods even he wouldn't set foot in to buy heroin. Many of them are as young as 14 or 15. Some prostitute themselves to fund their addiction.

"We have the worst heroin problem in the nation in the Chicago area," says David Cohen, a recovering heroin addict who counsels addicts at Insight Behavioural Health, a treatment centre. Greater Chicago has the highest number of emergency-room visits related to heroin in the country with 24,627 visits in 2011 (the latest year for which records exist), compared with 12,015 in New York. In Chicago 35% of substance-

abuse treatment admissions are for heroin, compared with 16% nationwide. And demand, especially from young women, keeps rising: on the city's west side business is booming at what insiders say is the largest open-air drug market in the country.

Heroin hit the Midwest harder than other places because the coasts learned to deal with the problem in the 1960s, and are thus better able to handle its resurgence, says David Ferguson, a medicinal chemist at the University of Minnesota (see chart). Midwesterners, especially in rural areas, are less aware of the dangers. They had to learn how to fight drug traffickers, mostly from Mexico, who use Chicago as a transport hub for their wares. The Midwest and the South also have far fewer treatment centres for addicts than the north-east.

The heroin epidemic in the Midwest is closely linked to the rampant opiate epidemic. As doctors prescribed opioid painkillers such as OxyContin more and more

Cleveland brown

US heroin-related deaths per 100,000 people
By region



Bill de Blasio

How's he doin'?

NEW YORK

Quite well, though New Yorkers think otherwise

TWENTY-FIVE years ago few New Yorkers went to Times Square. It was gritty, unsafe and plagued by pornography, prostitutes and drug dealers. Today, few New Yorkers go to Times Square, but for entirely different reasons. It is too crowded. It has become an urban playground for the 56m tourists who visit New York annually. They fill nearby Broadway theatres, pack the surrounding theme shops and chain restaurants and walk slowly, taking selfies. Times Square is also full of street performers, who include multiple Statues of Liberty and Disney characters. Unsavoury sorts dressed as Elmo, a Sesame Street character, and Spider-Man, a superhero, have been known to hassle visitors into tipping them. But it is a group of women known as *desnudas* who have sparked worries that a return to the old Times Square is possible.

Desnudas are topless, body-painted women, who saunter around Times Square posing for pictures in exchange for "donations". Most of the complaints received by the Times Square Alliance, which promotes business in Times Square, are about *desnudas*, accusing them of aggressively panhandling or complaining about nudity. The nearly naked beggars have little to do with Bill de Blasio, the city's mayor. But, unfairly or not, they have fuelled the notion that Mr de Blasio is not managing the city well.

Nearly half of voters, according to a recent Quinnipiac poll, say that quality of life in New York has got worse. Only a third say quality of life is "very good" or "good", the lowest number ever measured. For 46% of voters crime is a "very serious" problem. Guardian Angels, volunteers clad in red jackets and berets, are patrolling Central Park for the first time in two decades. A police union had its members post photographs on social media of homeless people (which have since been removed) to document the decline of the city.

Yet that city has just had its safest summer in 20 years. Crime continues to fall. School test scores are up. Why are so many New Yorkers seemingly convinced that their prospering city is on the verge of ruin?

Part of the reason is that they have been predicting it since before Mr de Blasio was elected. Then, plenty of New Yorkers thought that the city would slip back into its dangerous past, as if the muggings and murders of the 1970s and 1980s were New York's natural condition. The Partnership for New York City, which represents New

permits, too, are up. Despite evidence that he is making good on campaign promises (which included introducing universal pre-kindergarten education and building more affordable housing), "there is a lack of confidence in how the mayor is managing municipal services," says Kathryn Wylde, head of the Partnership.

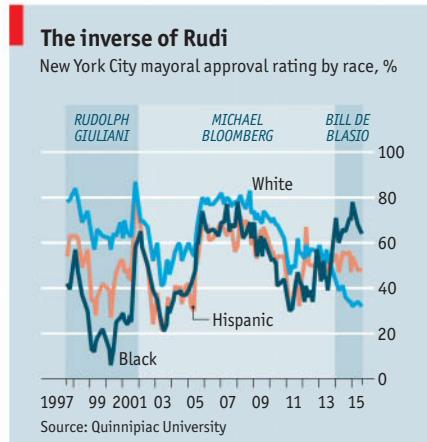
Part of what is happening can be explained with reference to polling. As with a previous mayor, Rudy Giuliani, perceptions of Mr de Blasio divide along racial lines (see chart). Many white New Yorkers think he is more interested in his national Progressive Agenda—which he unveiled in May in the shadow of the Capitol building in Washington as a sort of leftish version of Newt Gingrich's "Contract with America"—than their potholes. In addition to his grandstanding, Mr de Blasio's detractors find his tendency to be late for everything irritating and roll their eyes at his frequent tiffs with the state's governor, Andrew Cuomo, a fellow Democrat.

Homeless in the apple

In addition to these foibles, New York has seen an increase in homelessness. This, too, may not directly be the mayor's fault. But people tend to use it as a proxy for orderliness and good governance. Just over 57,000 sleep in the city's homeless shelters, over 40% of them children (these numbers do not include those sleeping on the streets). That is an increase of nearly 7% since Mr de Blasio took office. At fault are cuts to rent subsidies that pre-date Mr de Blasio, a decline in the supply of cheap housing and a shift in behaviour by police, who no longer move the homeless on.

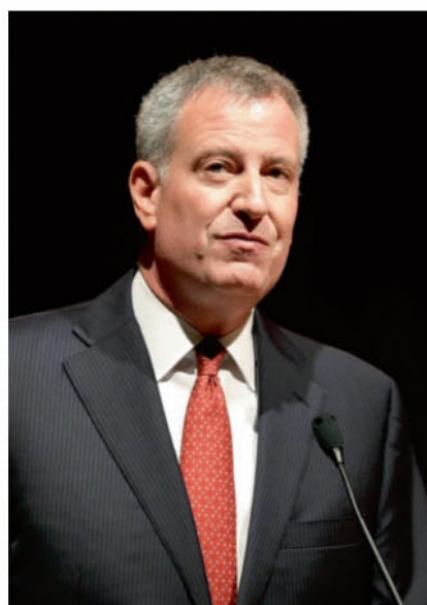
Homelessness, and the memories of Mr de Blasio's radical campaigning, smother all good news. The mayor has abandoned his vow to limit charter schools, going so far as to praise them in a speech on September 16th. He has backed away from silly fights with low and high-tech forms of transportation (Uber and horse-drawn carriages). There is still work to be done, especially with the NYPD. A police officer recently tackled to the ground a retired (black) tennis star as he waited for a limousine to transport him to Flushing Meadows to watch the US Open, mistaking him for a credit-card thief. Mr de Blasio handled the incident well: he apologised and the cop, for now, has been put on desk duty.

Ed Koch, who led the city in the 1970s and 1980s, often asked his constituents "How am I doin'?" Depending on the year and the neighbourhood, he was greeted by cheers or jeers. New Yorkers judge their mayors principally on public safety, delivery of city services, and quality of schools, says Steve Malanga of the Manhattan Institute, a think-tank. Mr de Blasio has yet to ask New Yorkers "How am I doin'?", which is just as well. His approval ratings have never been lower. ■



York's biggest companies, was so concerned that it created a dashboard of economic indicators so it could keep a close eye on the city's vital signs. It recently released its second-quarter findings, which revealed that New York is doing well. It continues to see job growth.

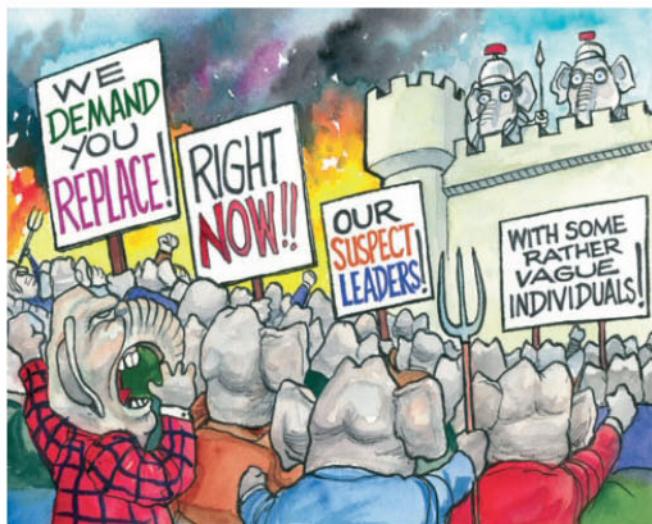
There are 177,000 more jobs now than when the mayor was elected. Unemployment is at its lowest level since before Lehman Brothers imploded. Mr de Blasio says that this summer saw the highest percentage of New Yorkers employed since 1976. City revenue is up 8% compared with last year and spending down 8.7%. There is even a surplus of \$3.6 billion. Construction



It depends on whom you ask

Lexington | Regicidal Republicans

The party faithful are keen to decapitate politicians with experience of politics



THIS is a humbling election season for folk who think they understand American politics. A rather hangdog mood duly hung in the air at the second Republican presidential debate on September 16th, hosted by the Reagan Library in southern California. The assembled strategists, spin doctors and journalists watched the field of 15 candidates variously flub their lines or deliver zingers and, as is conventional on these occasions, tentatively drew up rankings of winners and losers.

By conventional rules, the season's shock front-runner, Donald Trump, had an iffy night. After months of climbing in the polls with a mixture of boasting, bigotry and abuse for rivals—a style The Donald referred to on debate night as “braggadocious”—he was floored by a withering put-down from Carly Fiorina, a former technology chief executive whose looks he had earlier slighted. Ms Fiorina, who used to run Hewlett-Packard, a computer firm, swatted aside Mr Trump's claims that he had not meant to insult her with a brisk: “I think women all over this country heard very clearly what Mr Trump said.” The billionaire property tycoon blushed a crimson red, and stammered that he thought Ms Fiorina “beautiful.”

Jeb Bush, a former governor of Florida who was once expected to be dominating the contest by this point in the cycle, also had a so-so evening. Mr Bush landed a couple of blows, but could not shake his habit of lapsing into wonkish jargon. A low point came during a long and emotional discussion of abortion, when Mr Bush (a devout Catholic) vowed to cut federal funding for abortion providers by restoring a Reagan-era legal interpretation of a budget line he named as “Title x of the HHS funding”. Senator Marco Rubio of Florida had a good night, countering Mr Trump's nasty nativism with a touching tribute to an immigrant grandfather who spoke Spanish, and used that language to teach the young Marco to love America.

For the professional pundit crowd in the spin room and press tent where Lexington spent the evening, it was harder to reach a clear verdict about Ben Carson, a retired paediatric neurosurgeon and stern Christian conservative, who is in second place in many polls after closing fast on Mr Trump. Mr Carson's style is low-key to the point of near-somnolence. He was anything but impressive when it came to explaining his plans for a flat tax (“It's all about

America,” he mumbled drowsily, before attacking progressive tax rates as “socialism”).

The problem for pundits is that opinion polls have proved conventional judgments wrong again and again this season, as Republican primary voters flocked to candidates whose merits are hard to identify. For several months, the key to the mystery seemed to lie in anger. Voters are angrier than ever before with Washington and the political class, it could be stated with confidence. According to this theory Republican voters in 2016 are a bit like the Tea Party in 2009 and 2010. They loathe Barack Obama and the Democrats with a passion and despise Republicans in Congress for failing to thwart him, despite controlling both the House of Representatives and the Senate. That rage is joined by seething suspicion of any promises made by politicians.

Off with their heads

There is some evidence for this theory. Polls show majorities of Republicans scorning political experience and saying they want an outsider to shake up Washington. Governors and senators and other grandes who thought they had worked out how to woo conservatives, by stressing their records of unyielding right-wing purity, found their years in office being held against them (while the same angry voters seemed willing to forgive Mr Trump any number of breaks with conservative orthodoxy, from his past donations to Democrats to his calls to whack hedge-fund bosses with higher taxes). So low-trust is the mood among Republican voters that several White House hopefuls, in an effort to pander to them, spent more time attacking each other than denouncing the Democrats. Standing at a podium in front of the gleaming airliner used by Ronald Reagan as Air Force One, Governor Bobby Jindal of Louisiana cast caution to the wind, ignored Reagan's “11th commandment” about never speaking ill of fellow-Republicans and declared: “I am angrier at the Republicans in DC than I am at the president.” Given the current mood coursing through his party, the remark made sense.

But even this theory needs revising. For while Republican voters are exceedingly angry and mistrustful, their lynch-mob rage is selective. Mr Carson could hardly be less fiery (though he primly disapproves of many things), yet he is surging. And the same conservative activists who disbelieve the establishment on all fronts are startlingly willing to give outsider candidates like Mr Trump, Mr Carson or Ms Fiorina, the benefit of the doubt. So highly trusting are rank-and-file Republicans that—to the despair of pundits and fact-checkers—they shrug when Mr Trump refuses to provide any details about how he would handle foreign affairs, breezing that once he is president: “I will know more about the problems of this world”. Nor do they seem fussed to be told that Ms Fiorina's time as a CEO was marked by massive job losses, after a bungled merger. A fourth anti-establishment candidate, Senator Ted Cruz of Texas, seems able to tap into this mood of strangely extravagant trust, by playing up his credentials as a serial rebel and critic of party leaders in the Senate.

Republican primary voters are not in a revolutionary mood, then, but a regicidal one. They think their rulers are corrupt, inept and mendacious, if not actually treasonous. But they are at the same time ready to swoon before new rulers promising to fix America in an instant. The key credential required to earn that trust is a lack of experience. Will those outsiders disappoint their followers in their turn, triggering a still deeper loss of public trust? Probably. This is going to be a bumpy year. ■



Brazil's sagging economy

Recession's sharp bite

SÃO PAULO

The shrinking of a once-vibrant economy is shocking ordinary folk as well as number-crunchers

JOB centres are rarely upbeat places. In Brazil, where they are often a last resort for those who lack the personal connections that lubricate much of life in the country, they can be particularly bleak. Francisco, a 54-year-old driver queuing at one in downtown São Paulo, has had no work for over two years. The lines have never been longer, he sighs. "It's the crisis."

Brazil's growth has been anaemic for years. It averaged 2% a year during President Dilma Rousseff's first term in office from 2011 to 2014—despite booming global demand for the country's soyabeans, iron ore and oil. Government meddling with the private sector, combined with excessively loose monetary and fiscal policy, sapped confidence; investment dried up and inflation soared. Without the crutch of high commodity prices, GDP has now col-

lapsed (by 1.9% in the second quarter of 2015, compared with the first), pulling the hitherto resilient labour market with it.

Nearly 500,000 jobs have been cut since January. Researchers at Fundação Getulio Vargas, a business school, reckon another 2.5m will be shed before the end of 2016. Unemployment rose to 7.5% in July, from 4.9% a year earlier—the fastest annual rise on record (see chart 1). It is expected to hit roughly 10% at the end of next year, and stay there for some time. Speak to Brazilians and it is hard to find anyone without a friend or family member on the dole.

From flophouses to boardrooms, moods darkened further in the wake of the decision last week by Standard & Poor's to demote Brazil's debt to junk status, following Ms Rousseff's inept efforts to cast onto an unco-operative Congress the responsibility for balancing the budget. The rating agency subsequently downgraded dozens of big Brazilian companies, including several large banks. Petrobras, the state-controlled energy firm which is also at the centre of Brazil's biggest-ever corruption scandal, earned another dubious distinction as the world's largest company without an investment-grade credit rating. At the start of the year Petrobras accounted for about one-tenth of total Brazilian investment; now it may need to trim its capital expenditure by even more than the 40% it announced in June.

S&P's decision mainly reflected pre-existing worries about the Brazilian economy. Neither the stockmarket nor the real-

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Bello is away

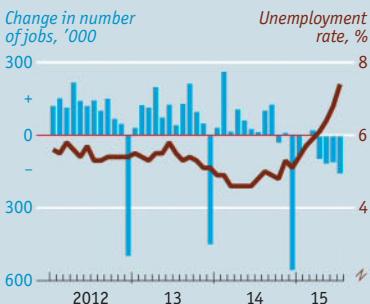
down by 30% against the dollar since January—nosedived in the days after the announcement; this suggested that a return to junk status had largely been priced in. But the news has certainly added to the gloom. Already-high borrowing costs for both the public and private sector will rise, and with them the risk of further downgrades. Pension and mutual funds that can only hold investment-grade assets will offload Brazilian bonds at a brisker pace, in anticipation of similar moves by Moody's and Fitch. (Typically, two of the big three rating agencies need to slap a "junk" label on a country's bonds before such funds are obliged to divest.)

This will not cripple the Brazil of today, with its diversified economy and plump foreign-exchange reserves, as it might have in earlier, more chaotic times. Ilan Goldfajn of Itaú, a big Brazilian bank, expects net inflows into Brazil's capital markets to bottom out at \$10 billion in 2016, down from \$45 billion in 2014.

But divestment will make it harder for Brazil to shake off its worst recession in decades. This week analysts polled by the Central Bank once again took an axe to growth forecasts (see chart 2). The OECD, a rich-country club, thinks GDP could ►

The wrong sort of rise

Brazil



► shrink by 2.8% this year and 0.7% next. A weaker currency has stoked inflation, which the Central Bank has been trying hard to quench with (contractionary) interest-rate rises. This has failed to boost exporters much—leaving aside Brazil's hyper-competitive farmers. Few expect growth to rebound before 2018, when the next presidential election is due. Income per person, which peaked in 2011, may take longer to recover.

Since disavowing the interventionist policies of her first term, Ms Rousseff has tried, unsuccessfully, to pick a path between fiscal orthodoxy, championed by her finance chief, and stimulus demanded by her planning minister and many in her

left-wing Workers' Party. To appease the former camp, on September 14th the government presented another set of belt-tightening measures worth 65 billion reais (\$17 billion), including a pay freeze for some public servants and a controversial tax on financial transactions.

Just like the government's earlier efforts, these look half-hearted: insufficient to repair public finances and unleash a spirit of exuberance, but more than enough to enrage Congress, over which the increasingly unpopular president has no control and where a movement to oust her is gaining steam. Ms Rousseff is clinging on to her job for the time being. Many ordinary Brazilians have not been so lucky. ■

A messy vote in Argentina

Falsification fears

BUENOS AIRES

Why a local shambles convinces many that a voting system needs changing

AS CITIZENS of Argentina look ahead to a next month's presidential election, they are interested not only in who wins. (That is likely to be Daniel Scioli, a nominee of the leftist ruling coalition.) They also ask whether the poll will be orderly and legitimate. And the chaos and rancour which attended a local contest in the country's north give them reason to fret.

The race to be governor of Tucumán province, a poorish agricultural region,

was murky from the start. In the run-up to the poll on August 23rd, social media were full of pictures of political operatives handing out food to voters. It is common for contestants to tempt indigent voters with food, medicine or cash, but this is usually done discreetly. Such conspicuous largesse was an embarrassment.

Hours after the vote, things got much worse; 42 ballot boxes were set on fire. Then José Cano, the opposition Radical



Electronics would be easier

Party's runner, complained that some of his party's votes had been misappropriated and voting figures had been distorted.

Tension rose after his opponent from the nationally dominant Front for Victory (FPV), Juan Manzur, was declared victorious after a provisional count, released that evening. People banged pots and pans in front of the governor's palace, which has been in FPV hands since 2003. Many chanted: "Thieves!" Mr Manzur said his opponents were just bad losers.

The electoral committee, working with laborious slowness, came up with what it called a final tally on September 14th, confirming Mr Manzur as the winner by 12 points. Two days later, at Mr Cano's behest, a court nullified the result. Among the evidence he produced was some video footage from a few days after the poll which, he alleged, clearly showed electoral officials taping up open ballot boxes and falsifying signatures.

The opposition's unhappiness over voting ranges far beyond one region. It favours switching to a fraud-proof electronic system. Currently voters step into a darkened booth or discreetly hidden space where there are slips of paper for each party. They put slips for the candidates they prefer in envelopes and drop them in a box outside. But unscrupulous types often remove the slips of parties they don't like, so that subsequent voters have to expose their own preferences by asking for replacements. Parties can limit such abuses by placing volunteers at polling stations, but that is easiest for strong, rich movements like the FPV.

Even the keenest reformers agree that it is too late to switch to an electronic system ►



Disaster in Chile

At least 1m people in Chile had to leave their homes after a powerful earthquake, centred under the sea north-west of Santiago, shook the country and caused panic in several cities. The immediate death toll of five was expected to rise. President Michelle Bachelet addressed the nation and said she was heading for the stricken areas. The quake, measuring 8.3 on the Richter scale, triggered waves up to 4.5 metres. It struck as many Chileans were travelling to the coast for a week of annual festivities.

Correction: In our story about Guatemala last week ("Change you can laugh at") we wrongly gave the first name of the country's former president, Otto Pérez Molina, as Oscar. Sorry.

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► before the first-round presidential ballot on October 25th. But on September 14th the opposition gave the electoral commission a simple four-page list of proposals for what it called realistic, short-term improvements. For example, it asked that all the officials in charge of polling stations receive training. And it suggested that whenever a voter reports that a particular slip is missing, the response should be to provide a

packet with slips for all available options, so that the complainer does not have to reveal any preferences.

Leandro Querido of Electoral Transparency, an NGO, thinks the shenanigans over Tucumán had the happy side-effect of highlighting the need for total reform. Not much can happen in the next five weeks, but at least more people admit that an overhaul is overdue. ■

Indigenous Canadians

On the electoral war-path

KITIGAN ZIBI, QUEBEC

After years of abstaining, aboriginal people could now be swing voters

THE FIRST NATIONS, or native Indians, of Canada have had full voting rights since 1960, but until very recently many of their leaders used their influence to dissuade their people from going to the polls. Now that may be about to change.

"The view was that it's not our government," says Jean Guy Whiteduck, who has been chief for 30 of the past 40 years of Kitigan Zibi reserve north of Ottawa, home to a band (sub-division) of the Algonquin people. Such purism reflects the idea that the 850,000 members of Canada's First Nations, with their 617 bands, have a sovereignty of their own and must deal directly with the monarch who reigns over Canada as well as Britain or her representatives.

Yet that hard line is softening ahead of the country's general election on October 19th. Although residents of Kitigan Zibi still do not want electoral posters on the reserve (they removed some from the local highway), a surprising number have told Chief Whiteduck that they now intend to vote. He in turn has shifted to a more neutral stance—telling them "it's your choice to make"—and he is debating the possibility of casting a ballot himself.

Canada's aboriginal people are classified as First Nations, Inuit (the indigenous people of the Arctic) or Métis, who are of mixed descent. What they share is deep frustration with the perceived indifference of the federal government.

The list of complaints is long. The government barely responded to a damning inquiry into boarding schools where aboriginal children were abused; it refused to hold an inquiry into the cases of more than 1,000 aboriginal women who were murdered or went suspiciously missing since 1980; it underfunds health and education on reserves, which is a federal task; and it changes environmental and other laws without consulting First Nations.

"Since the Canadian government doesn't respect us, we have to change it to

one that will," says Tyrone Souliere, a founder of Rally The First Nation Vote, a movement which helps people register to vote and learn about local candidates.

Ordinarily 1.4m aboriginal Canadians would have little electoral clout in a country of more than 35m people, except in a handful of ridings (electoral districts) in the north, where indigenous people exceed 70% of the population. Close to the American border, where most Canadians live, the percentage drops to single digits.

But the electoral race is tight. The latest forecasts give the ruling Conservatives a nine-seat lead over the Liberals, their traditional rivals, with 116 of the 338 places in the House of Commons. The centre-left New Democrats are tipped to take 114 seats. The Assembly of First Nations, an advocacy group, has produced a list of 51 ridings where the aboriginal vote could decide the winner, either because of a slim margin or a high aboriginal population.

For the first time in the assembly's history, its national chief is urging his mem-

bers to vote, and working with Elections Canada, a federal agency, to make sure people know how and where to do so. "It is vital that First Nation voices be heard in every way possible, including through the ballot box," says Perry Bellegarde, the national chief (pictured), who did not vote in the previous election but now says he will.

Not all First Nations agree. The Mohawks of Kahnawake, a reserve near Montreal, remain adamantly opposed on the grounds that voting means ceding sovereignty and speeding assimilation. They point to the two-row wampum belt which they have sported since striking a treaty with the Dutch 400 years ago. The belt, made of shell beads, shows two parallel lines; Mohawks say this indicates that they agreed to stay in their canoes and the Dutch in their ships, without interfering with each other. Still, in at least two northern ridings, aboriginal candidates are running for all three of the main parties. A total of 54 are running across Canada (23 New Democrats, 18 Liberals, eight Greens, four Tories and a Libertarian).

Sensing a more open door, the opposition parties are wooing aborigines. The Liberals would invest C\$2.6 billion (\$2 billion) in aboriginal education over four years, and the NDP pledges a swift inquiry into the ill-fated aboriginal women. The Conservatives have yet to make an offer.

More than any party's promises, the call from First Nation leaders to vote could be the factor that pushes aboriginal participation above the previous level of around 40%. Add in the seductive idea that indigenous people may now be swing voters.

But as some recall, the last time the First Nations hoped to play a pivotal role in history, things did not end well. In 1812 they helped the British to fight the Americans to a draw. But as they read history, Britain broke its promise to assign them a vast homeland; instead they found themselves confined to reservations. ■



Let's give those forked tongues a hearing



Politics in Australia

Turnbull's turn

SYDNEY

Yet another prime minister is removed, and the assassin, Malcolm Turnbull, promises happiness

THE coup's speed stunned everyone. Australia's Liberal Party had always denounced its Labor opponents for ruthlessly tossing their leaders to the sharks as soon as they looked wobbly. Faced with such a threat himself on September 14th Tony Abbott, the then Liberal leader and prime minister, declared: "We are not the Labor Party." But within a matter of hours, his party had ditched its high-mindedness and replaced Mr Abbott with Malcolm Turnbull, a former ministerial colleague, as Australia's 29th prime minister.

Mr Turnbull (pictured) is the fourth occupant of the post in just over two years, a record pace of political change at the top. The former Labor government had ousted Kevin Rudd in 2010 in favour of Julia Gillard, whom Mr Rudd ejected in 2013, only for Australians to elect a conservative Liberal-National coalition under Mr Abbott shortly after. Mr Rudd and Mr Abbott had in common that both led their parties to victory from opposition. Yet that counted for little once opinion polls turned against them, and their colleagues feared being sent back into opposition.

Australia's leadership convulsions reflect a country in which class identities and political allegiances have become more fluid than ever. No longer assured of support from their old conservative and working-class bases respectively, Liberal and Labor must battle for a shifting middle

ground: educated, urban professionals whose votes are up for grabs. Norman Abjorensen of the Australian National University reckons that these "fluctuations in public opinion and the constant soundings of focus groups" can doom leaders such as Mr Abbott if they falter. Their fates depend not on the previous election, but on their prospects for the next one.

Revolving-door prime ministers

Under Mr Abbott's leadership, the coalition had trailed Labor in opinion polls for more than a year. A poll in early September put Labor eight points ahead, a margin wide enough to crush the government at an election due in just a year. Mr Abbott blamed what he called the changing nature of Australia's politics after his Liberal colleagues overthrew him for Mr Turnbull by 54 votes to 44. "We have more polls and more commentary than ever before," he said. "Poll-driven panic has produced a revolving-door prime ministership, which can't be good for our country."

But that is to ignore the part Mr Abbott's own misjudgments played in his downfall. His politics proved mean-spirited, and he was readier to alarm Australians about security—for instance the threat of militant Islam in their midst—than to develop an inspired economic agenda.

Growth has slowed to 2%, lower than earlier forecasts and well below Australia's

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potential. An investment boom in mining, linked to demand from China, Australia's biggest trading partner, has waned. Investment in services, high-end manufacturing and other non-mining ventures must take up the slack. Yet Canberra's political turmoil in recent years, as well Mr Abbott's policy u-turns and gaffes, have sapped business confidence. Voters' trust in the Abbott government never recovered after its first budget in 2014, in which savage spending cuts seemed to fall most heavily on those who could least afford them. Mr Turnbull was scathing, saying Mr Abbott had proved incapable of "providing the economic confidence that business needs".

The new leader, who is 60, had long hankered after the job. Like Mr Abbott, Mr Turnbull comes from a comfortable background in Sydney. He holds socially liberal views, at odds with those of his party's reactionary wing. When Mr Turnbull led the Liberal Party before, during their opposition years, the right wing unseated him in 2009 and installed Mr Abbott, by one vote. As Mr Abbott's fortunes sank, Mr Turnbull seized the chance to reclaim the leadership and persuaded enough of Mr Abbott's supporters to switch sides, if only to save their own seats.

A recent survey suggested that 41% of Australians wanted Mr Turnbull as Liberal leader, with just 15% preferring Mr Abbott. Mr Turnbull's unflinching character strikes a chord with many. His father raised him after his mother, a writer and academic, left for America when he was a child. In the late 1970s Mr Turnbull was a Rhodes scholar at Oxford, where a don wrote of him that he was "always going to enter life's rooms without knocking". Back in Australia he made his name as a lawyer and a fortune as a banker and IT entrepreneur. ➤

► Mr Turnbull earned a reputation for fighting for progressive causes long before he entered parliament 11 years ago. As a lawyer in the late 1980s he successfully challenged a bid by the British government to stop the publication in Australia of a memoir by Peter Wright, a former British intelligence agent. In 1999 Mr Turnbull led the Australian Republican Movement's campaign at a referendum on ditching Australia's ties to the British monarchy. After John Howard, then Liberal prime minister, successfully pushed for a no vote, Mr Turnbull called him "the prime minister who broke this nation's heart".

Now that Mr Turnbull has seized the prime ministership, he must unite his

party's conservative and liberal wings. He will not for now try to push the party into enacting two changes he supports: allowing gay marriage and creating a market mechanism to tackle climate change. His main priority is to revive an economy that is running out of puff.

His first test comes with a by-election on September 19th in Canning, a federal constituency near Perth in the state of Western Australia. A Liberal parliamentarian, whose death precipitated the election, had held the seat with a 12-point margin. Until Mr Turnbull's coup, the election threatened to turn into a rebuke of Mr Abbott. The seat is home to many workers who fly in and out of the mining regions

that—until a recent slump in Chinese demand for commodities (see next story)—have helped to underwrite the country's prosperity. The Labor opposition leader, Bill Shorten, played on jitters among Canning's voters about the potential impact of a free-trade agreement that Australia signed in June with China. He claims it could favour workers from China over Australians in big Chinese projects in the country. Mr Turnbull attacked Mr Shorten's "catastrophically reckless approach", while describing the deal as "one of the most important foundations of our prosperity". He predicted that a change of Liberal leadership "would improve our prospects in Canning".

Mr Turnbull's business background and reforming instincts endear him to business leaders. In his first day in Parliament as prime minister, Mr Turnbull offered a narrative far removed from that of his predecessor. "These are most exciting times to be an Australian," he declared, while calling on the country to be ambitious in seizing economic opportunities. As China slows and drags down demand for the things Australia sells, Mr Turnbull's challenge will be to create a climate of greater certainty for business and investment—and optimism for voters. Joe Hockey seems unlikely to survive as Treasurer.

Already Labor senses that it faces a more formidable fight at the next election. Yet Mr Turnbull knows as well as any how quickly the ground under Australia's politicians can shift. ■

Commodities in Asia

Nervousness of steel

SHANGHAI

A wave of cheap Chinese metal exports hits the region

IN THE minutes from the Australian central bank's latest meeting, one third of the text was devoted to analysing China's economy and markets. Little wonder. China's seemingly bottomless appetite for steel has sustained Australian growth over the past decade. With Chinese investment now slowing, those fat years are over. This helped to undermine the economic credentials of Tony Abbott, who lost his job as Australia's prime minister on September 14th.

China's steel consumption is roughly half the global total. It peaked in 2013, and ebbed as the country's frenzied building slowed. Daniel Kang of J.P. Morgan, a bank, forecasts that China's annual demand for steel will continue falling until 2017 and will settle at about 10% below its high-water mark.

That may not sound like a big drop but it has left Australia with a major hangover. It is the world's biggest exporter of iron ore, the main ingredient in steel, and its miners had assumed that China would sustain its ultra-fast growth. In

stead, iron ore prices are nearly two-thirds lower than two years ago.

Demand for steel in India and South-East Asia has started to improve, but is far from enough to replace the Chinese shortfall. The declining value of Australia's exports has become a drag on growth. As mining companies cut costs and cancel projects, the eventual impact on the economy could be even worse. Adding to the pain, Australia's coal exports to China have also plummeted, hit by China's industrial slowdown and its shift to cleaner energy.

But compared to other Asian states, Australia is still the lucky country or, better said, the less unlucky one. It has a wide mix of commodities. While Indonesia, for instance, relies on fossil-fuel exports, Australia can turn to milk and meat. The weaker Australian dollar is luring even more Chinese tourists. Moreover, Australian miners have less to fret about than do steelmakers in Japan, India and South Korea.

The latter not only have little hope of selling steel to China, but must now compete against shiploads of cheap Chinese metal (see chart). With so much excess capacity, China is likely to ship more of the metal abroad this year than Japan, the world's second-biggest producer, could make if its steel mills were running at full capacity. India and South Korea, the world's fourth- and fifth-biggest producers, have imposed anti-dumping duties to repel Chinese imports.

As steel prices fall, Australia's biggest miners are using their high-quality, low-cost iron ore to take a bigger slice of the global market. For them, it does not matter much who is making the metal, so long as it is still being made.

Surplus metal

China's steel
Domestic demand
% change on a year earlier



Protest in Japan

To the barricades, politely

TOKYO

Students have energised protests against Japan's new security laws

WHEN Katsuya Okada, the leader of the Democratic Party of Japan, the country's biggest opposition party, addressed a crowd of tens of thousands surrounding the Diet (Japan's parliament) on August 30th, the largest demonstration in Tokyo in years, his words were almost drowned out by hip-hop drums and young chanting voices from a separate group nearby—the Students Emergency Action for Liberal Democracy.

With their fresh faces, trendy clothes and polite manners, the students have in recent months lent energy to large demonstrations against the policies of Shinzo Abe, the prime minister—especially new laws that would allow Japan's armed forces to come to the aid of allies, notably America, if they come under attack. As *The Economist* went to press this week the bills ►



Down with the government, if that's all right with you

▶ were expected to pass the Diet.

The student protests are a novelty in a country where the young have been singularly detached from politics. Only one in three people in their 20s bothered to vote in the most recent general election, in December 2014. Protest is more usually the domain of elderly lefties. Now students have made street protest normal, even fashionable, for the first time in many years. "They've shown that it's not the action of a marginalised and weirdo few," says Jeff Kingston of Temple University.

The students came together in May and count about 1,000 members. They are the toast of talk shows. One female leader, Mana Shibata, is attracting legions of fans. Another leader, Aki Okuda, was invited to address the upper house on September 15th; he bought a suit in the morning and re-coloured his dyed-brown hair back to black to fit in with the MPs. Younger protesters are bringing new, web-savvy techniques, including a system for printing a variety of insulting anti-Abe posters by the thousands at convenience stores.

Right-wing bloggers accuse the students of being Koreans, or Chinese spies, or worse. People close to the government are putting it about that they are managed by the youth wing of the Japanese Communist Party, which Mr Okuda denies. Many in Mr Abe's Liberal Democratic Party are growing nervous about the prime minister's lower approval ratings ahead of an election for the upper house next summer.

The students have inspired other groups to band together. Minako Saigo, a 28-year-old mother of three, founded a mothers' protest group last July after watching the students; about 2,000 people marched under her banner in Shibuya in Tokyo later that month against Mr Abe's new security laws. There are also groups of

academics out on the streets, as well as members of Soka Gakkai, a Buddhist and pacifist lay sect which backs Komeito, Mr Abe's coalition partner. The sect's adherents are growing angry about Komeito's unwavering support for Mr Abe.

Mr Okuda says Japan is becoming a place with the "kind of culture where people can come out and express their opinions". No matter what happens with the security bills, people will not stop protesting, he insists. His group's ultra-polite tone is a far cry from the student protests of the 1960s and 1970s, when some died in clashes with riot police. These days just blocking the street is regarded as a radical act in Japan, says Nobukazu Honma, another student leader, "so we behave well and take our rubbish home." ■

War crimes in Sri Lanka

The first casualty

COLOMBO

A new government takes a cautious step to expose the truth of a bloody conflict

IT WAS a long time coming. Six years after the end of Sri Lanka's long civil war a new government promised on September 14th to set up a "truth, justice, reconciliation and non-recurrence commission" to investigate atrocities committed during the conflict. It is unlikely, however, to heal the deep wounds of that period. The UN Human Rights Council in Geneva says the inquiry needs foreign judges. Sri Lanka's leaders, fearful of upsetting nationalist voters, reject that.

The pledge to form the commission

was made to the UN body by Mangala Samaraweera, the foreign minister. It was aimed at taking the sting out of what the Sri Lankan government knew would be a hard-hitting 261-page report that was published by the UN two days later. In it, the council gave details of numerous allegations of what it said could amount to war crimes by both sides during the two-decade-long conflict between the army and the vicious rebels of the Liberation Tigers of Tamil Eelam (LTTE). These include killings, rapes and abductions. The UN's commissioner for human rights, Zeid Ra'ad Al Hussein, spoke of a "horrific level" of violations and abuses.

Many members of Sri Lanka's ethnic Sinhalese majority, however, do not want foreigners to get involved in prosecuting such cases. Mr Samaraweera stopped short of admitting that the army committed crimes against the country's Tamil minority, as many Tamils allege it did, especially during the final bloody phase of the war, which ended in 2009. He only conceded that the reputation of the armed forces had been tarnished "because of the system and culture created by a few in positions of responsibility".

Those "few" would include Mahinda Rajapaksa, whose ten years in power ended abruptly when he lost an election in January. With a sturdy base among Sri Lanka's Sinhalese majority, he oversaw the rout of the LTTE as president and head of the armed forces. One of his brothers, Gotabaya Rajapaksa, was defence minister. Maithripala Sirisena, who replaced him as president, might even be sucked in; he was acting as defence minister during the last two weeks of the battle, when tens of thousands of Tamil civilians were killed.

For the first time in nearly four decades, however, a Tamil parliamentarian leads the opposition. Another Tamil is the chief justice. The government has vowed to criminalise hate speech. But there are towering obstacles to reconciliation between Sri Lanka's ethnic groups—Mr Rajapaksa being one of them. He is now serving as a legislator. If he is accused of war crimes, even by a tribunal from which foreigners are excluded, there may be a backlash against the government among Sinhalese nationalists who revere him.

Mr Rajapaksa denies that any war crimes were committed, but a commission he set up did find evidence of some wrongdoing. His troops went to battle "carrying a gun in one hand, the Human Rights Charter in the other," he said in 2011. The UN report suggests that he is talking rot. For the country to admit as much would be progress. Before the council, Mr Samaraweera acknowledged scepticism about Sri Lanka's ability to transform. The journey may be slower than some want, he conceded. Whereas for others, "we may already have gone too far." ■

Education in South Korea

The crème de la cram

SEOUL

Korean kids with pushy parents use crammers to get into crammers

SHORTLY before 10pm, BMWs and school buses line the streets of Daechi-dong, a neighbourhood in the stylish district of Gangnam in Seoul. Soon, secondary-school pupils will spill out of its *hagwon*, or private crammers; around 1,000 of these night schools are packed into the area, including the most prestigious in the city. After five hours of tuition, in English, maths or science, following a full day at school, the teens will be whisked home—to more study, past midnight.

Such is the ordeal of education in South Korea. From a tender age all pupils (and their parents) are fixated on the eight-hour multiple-choice entrance exam for university, to which three-quarters of school-leavers go. Because competition is fierce, parents plough money into private tuition—over 18 trillion won (\$15 billion) last year, or more than a tenth of household spending—to improve their children's chances of getting into the best secondary schools (see chart).

This has led to intense competition even for places in crammers. The most desirable *hagwon* set their own entrance exams and refuse applicants with a low score. Some of those rejected reapply several times. Hence a new breed of cram schools has emerged that mostly coach students to get into more illustrious ones. They are called *sekki* ("cub") *hagwon*.

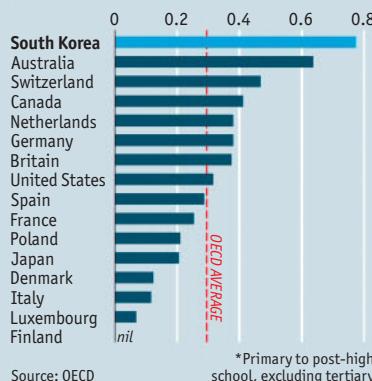
They do not advertise (and indeed represent the *sekki* label). Nor do parents admit to sending their children to them, says Kim Hyun-jung, who runs DSchool, an online forum where parents share tips on private schooling in Daechi-dong (it gets 10,000 views daily). Going to a *sekki* *hagwon* is "a bit embarrassing", she says.

Even after a student gains entry to an elite *hagwon*, the *sekki* sort can remain useful. Crammers often use textbooks that their pupils would not begin studying at day schools until up to five years later. So some students go to a *sekki* *hagwon* for two nights a week simply to keep up with classes in their main *hagwon* (where they are streamed by ability and tested frequently).

Over 3,000 new *hagwon* opened last year, adding to 30,000 existing ones. But *sekki* *hagwon* are rare outside gilded Daechi-dong. Most students attend inferior *hagwon* or cheap after-hours classes at school. Ku Bonchang of World Without Worries About Shadow Education, a non-profit group, worries that the *sekki* trend may catch on elsewhere, however. "People

Because they're special

Private spending on education* % of GDP, selected OECD countries, 2011



are in this race to win," he says.

The government has tried to level the playing field such as by banning *hagwon* from teaching after 10pm and requiring them to tell the government how much they charge. Last year *hagwon* were prohibited from teaching ahead of the school curriculum. Yet enforcement is lax. Like many other bright students, Choi Ye-eun, a 13-year-old studying maths for 17-year-olds, says that she does much of her *hagwon* homework during school time. ■

Illegal logging

Stumped

Chinese firms are still stealing Myanmar's forests

WHEN soldiers in Myanmar raided a huge illegal logging site in Kachin, a war-torn northern state, they swooped upon a thousand ill-paid labourers imported from neighbouring Yunnan, a province in China. Some of the Chinese managed to flee into the jungle, surviving for days without food and water before escaping across the border. The unluckiest—more than 150 of them—were arrested and prosecuted. China barked at Myanmar in July, when a court in Kachin state handed most of them life sentences. They were soon pardoned and deported, but only after having spent six months in custody.

This diplomatic spat is probably just another blip for the Chinese gangsters who have been denuding Myanmar's northern forests for more than 25 years, driven by their compatriots' voracious appetite for timber. Ten years ago a crackdown on both sides of the border seemed to have the loggers nailed. Yet a study published on September 17th by the Environmental Investigation Agency (EIA), a London-based

charity, argues that the illicit trade has regrown, and may be reaching a new peak. It reports that Myanmar lost 1.7m hectares of forest between 2001 and 2013, of which at least a chunk was smuggled over the border from Kachin to Yunnan. Since 2009 Myanmar's average annual tree loss has roughly doubled, to 185,000 hectares.

Myanmar's laws decree that wood and wooden products may only be exported through the river ports at Yangon, its old capital and biggest city, and never to its neighbours over land (see map). Foreign sales of logs were banned completely in April 2014. But those rules mean nothing to corrupt members of the army, which controls around 60% of Kachin: they sell safe passage to loggers entering from China. The rules mean even less to the ethnic-Kachin rebels whom the army is fighting. They are said to flog access to tree-topped mountains to Chinese firms as a way to fund their military campaigns.

Even if Myanmar steps up efforts to prune the trade, lasting progress will be difficult without firm support from China. Demand there for cheap foreign timber—to be used both in furniture and as fancy flooring—is only increasing as the Chinese government beefs up protection of its own forests. EIA's researchers found that officials in Yunnan had largely abandoned previous efforts to support conservation in Myanmar. They do little to hinder the lorry-loads of logs that cross the border, provided the Chinese firms that import them cough up the appropriate tax.

Worries about Myanmar's over-dependence on China were one big reason why the ruling generals opened their long-isolated country to the world. Since that process started the government has looked less scared of challenging its moody northern neighbour, on this and other issues; the two governments will meet to discuss illegal logging on September 24th. But it is not obvious how Myanmar can expect to tempt Chinese bigwigs to ditch a trade that has so enriched Yunnan's elites—if not their exploited minions. ■



Banyan | Under the umbrella

An unelected dictatorship, Thailand's government finds China more amenable than America



PRAYUTH CHAN-OCHA, Thailand's prime minister, sometimes resembles a ham actor ad-libbing his way through an audition for a role as an unhinged dictator. "You cannot oppose me. No one will let you do that!" he told reporters this month, before threatening to deal with critics by taping their mouths shut. His junta then briefly detained a well-known journalist for publishing articles that "could cause confusion" (on release, he promptly quit his job). The regime the former army chief installed in a coup last year is digging in. This month the draft produced by a committee it appointed to write a new constitution was mysteriously rejected, delaying elections until 2017 at the earliest. Thailand's lurch back into autocracy complicates its relations with its long-standing ally, America, which has repeatedly called for the restoration of democracy. China, however, has no such qualms. Its relations with Thailand have never been better.

Some see this as an acceleration of a long-term and irreversible trend across Asia. China's economic rise and growing military clout help it gain diplomatic sway at America's expense. In the words of Benjamin Zawacki, an American writer who is completing a book on Thailand's relations with the two countries, "after half a century of being within the US sphere of influence (to varying degrees of course), Thailand is moving into that of the Chinese." Certainly plenty of evidence can be found of mutual irritation between America and Thailand, and of the burgeoning of Thailand's links with China. But that need not imply that the country has to choose one big powerful ally over the other.

Besides deplored the coup, America imposed some sanctions, cutting aid to the army and curtailing joint exercises and official visits. This year the State Department's annual "Trafficking in Persons" (TIP) report kept Thailand in the category of countries where the problem is deemed to be worst. This was widely seen, despite American denials, as a political punishment. Thai officials and politicians are sensitive to American slights. The relationship is old and close, reaching its zenith during the Vietnam war, but also unequal. Thais often feel bullied and patronised. Resentment lingers at the lectures and harsh economic medicine they had to swallow after the economy imploded in 1997.

So too does gratitude for China's early offer of help that year and for its habitual refusal to "meddle" in Thailand's affairs by, for

example, criticising coups. China is Thailand's biggest trading partner; of the nearly 25m tourists who visited last year 4.6m came from China, more than from any other country. Ties would receive a further boost from the high-speed railway China is planning from its south-western province of Yunnan, through Laos to Bangkok and eventually Singapore. An even more epochal development would be the digging of a canal across the Thai-Malaysian peninsula, at the Isthmus of Kra, which at its thinnest point is just 44km (28 miles) wide. This would be of great strategic benefit to China. It would no longer depend on shipping through the Strait of Malacca for vital imports—a "chokepoint" that leaves it vulnerable to potential enemies, such as America.

Such a canal has been mooted for more than 300 years, but remains unbuilt because of the prohibitive difficulty and expense. The idea has resurfaced this year, with reports in the Chinese media in May that an agreement had been signed to construct it at a cost of \$28 billion. Both countries were quick to deny this. But the news in July that Vietnam intends to build a seaport at an island 17km off its southern tip prompted renewed speculation that the investment was a bet on the canal's being built—and hence caused some consternation in Malaysia and Singapore, whose ports benefit from its absence.

That such an old pipe-dream is taken seriously stems from a perception that Thailand is now in China's pocket. The same interpretation was given to Thailand's controversial decision in July to deport back to China 109 Uighurs—members of a largely Muslim, Turkic minority in China's western region of Xinjiang. They had fled alleged Chinese repression, only to be detained in Thailand. Thai police this week blamed the mysterious bombing at a famous shrine in Bangkok last month, in which 20 people were killed, on Uighurs. One of the two people detained in connection with the attack, and three of the nine suspects still at large, are reported to be Chinese citizens. Playing down any link with jihadist terrorism, the police suggested the attack was retaliation for their having broken up a people-smuggling network.

This close relationship with China, however, is neither new, nor a response to the West's snootiness about military juntas. Thailand has, since the 1970s, when China stopped supporting communist rebels there, been perhaps China's closest partner in South-East Asia. Unlike some other countries, it has no territorial dispute with China. Nor has it a history of internal conflict involving the millions of Thais of Chinese descent. The period of mutual hostility after the Chinese revolution, when Thailand became a staunch American ally, was the exception not the rule.

Spoilt for choice

Thailand, however, as Mr Zawacki also says, is not about to become a Chinese client state. Public opinion would not support that. The deportation of the Uighurs drew criticism at home as well as abroad; the navy's plans to buy Chinese submarines appear to have run into serious opposition. Conversely, parts of the Thai establishment are very keen to protect relations with America. They lobbied hard, if in vain, to have its TIP ranking raised. Just this week a government minister reiterated Thailand's interest in joining the Trans-Pacific Partnership, a potential free-trade agreement, led by America and excluding China. America and China are competing for influence, but it is not yet a cold war: joining one sphere need not entail eviction from the other. And, in Thailand as elsewhere, China's growing heft actually makes American friendship more desirable than ever. ■



Also in this section

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America and China

A very long engagement

BEIJING

Xi Jinping's state visit to Washington will do little to resolve growing tensions

WHEN Deng Xiaoping donned a cowboy hat at a rodeo during his first trip to America soon after the two countries re-established diplomatic ties in 1979, his striking gesture symbolised the end of a decades-long freeze. The Chinese were not only opening up their markets, but also their minds. Deng's hosts dared to hope that engagement with China would help to mould it in America's image. Xi Jinping, China's president, will make his own attempt at retail politics when he visits the United States from September 22nd. But he will do little to win over Americans—now far less optimistic about changing China, and increasingly wary of its growing strength. The question is whether Mr Xi cares what America thinks.

This is an important moment for one of the world's most vital relationships. Trust is fading on both sides. Mr Xi has shown signs of impatience with Deng's policy of keeping a low profile in foreign affairs, which the late leader poetically described as *taoguang yanghui*, or "hiding brightness, nourishing obscurity". Since he took over in 2012, Mr Xi has been flexing muscle in the seas of the western Pacific, avoiding direct confrontation with America and its allies but testing their resolve (new satellite images released by an American think-tank on September 15th appeared to show that China was building a third airstrip in disputed waters of the South China Sea,

despite calls by America and others to desist). America has responded to such moves by beefing up its alliances. It too wants to avoid a conflict, but countries in the region fret about possible accidents that could trigger one.

This will not be the first extended meeting between Mr Xi and Barack Obama, the American president. But it will be Mr Xi's first trip to the White House since he took office; there he will enjoy the formal pomp of a state visit, complete with 21-gun salute and brass fanfare. The two sides will have much to chew over at their meetings and a black-tie state dinner at the White House: the alleged hacking of 22m American government employees' personal records by

Chinese cyber-spies in April; accusations that China is manipulating its currency to make exports cheaper; as well as China's island-building in the South China Sea. Mr Xi's suppression of civil society and tightening of controls on the internet will be on the agenda too, though the Americans do not want to let disputes over such issues aggravate other disagreements.

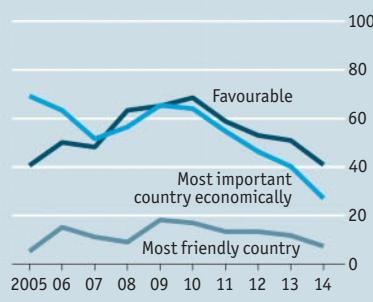
Not all is acrimony. In recent months there have been notable areas of accord. In November the two countries reached an agreement on carbon emissions, which they hope will encourage progress at UN climate talks in Paris later this year. China helped broker a nuclear deal with Iran in April. It is moving closer to America's stance on North Korea. There is even speculation that the two countries may announce an eye-catching deal (on what is unclear) during Mr Xi's trip. But it would have to be a big one to improve the mood.

It does not help that both countries are preoccupied with politics at home. Mr Xi is waging the most sustained and far-reaching campaign against corruption that China has seen in decades. This is partly aimed at boosting the Communist Party's image, and partly at intimidating anyone who might think of challenging him. He has his eye on leadership changes in 2017. Five of the seven most powerful leaders are due to retire then; he wants trusted supporters to replace them. Displaying backbone in dealing with foreigners is never a bad tactic in Chinese politics.

Similarly in America, the approach of next year's presidential elections is giving rise to more China-bashing than usual. Donald Trump, fighting for the Republican nomination, has accused China of "raping" America and trying to "suck the blood" out of it. Mr Trump and others view China's devaluation of the yuan in August ➤

Fading allure

Chinese views about America, % of respondents



► as the first shot in a global currency war—an attempt to boost exports and “steal” American jobs.

Such sentiment helps explain why Mr Xi's first stop will be in Seattle, to meet tech executives. Business was once a bridge between the two countries. Now it too is part of a tangled geopolitical rivalry. America accuses China of abetting cybercrime and stealing intellectual property. Just before the visit, American officials mulled slapping sanctions on Chinese companies suspected of pinching American secrets. Mr Xi's meetings in Seattle appear aimed at showing that China, far from harming American business, is still a boon to it. He also wants to make a point to Mr Obama: American companies, for all their concern about Chinese cybertheft, are still hungry for access to China's huge market.

But the allure of China's economy is fading. When Mr Xi last visited America in 2013, for an informal “no neckties” summit with Mr Obama at a Californian ranch, China's growth was already slowing. Now worries are mounting in America that China could suffer a “hard landing”, brought on by piles of debt. The Chinese government's image among American business leaders, as well as at home, has been tarnished by its botched attempt in August to prop up the country's stockmarket. Details released on September 13th of plans for reforming state enterprises may have been intended to show that Mr Xi is still a reformer at heart. But they were hardly inspiring (see page 62).

Mr Xi may hope that nationalist displays will help to boost his popularity among middle-class Chinese as the economy enters a rough patch. A military parade through Beijing on September 3rd, involving 12,000 goose-stepping troops and ballistic missiles—some of them recently developed in order to keep American power at bay—was one such. Its stated purpose was to commemorate the defeat of Japan in the second world war, but it was also clearly intended to reinforce Mr Xi's prestige. It was the first such review since he became China's leader, and the first marking victory over Japan; America and most of its allies pointedly stayed away.

Chinese leaders' pride in shows of pomp extends to American soil. Mr Xi's predecessors viewed their receptions at the White House as a badge of honour—symbolic, as they saw it, of America's acceptance of China as a global power. So Mr Xi will at least try to appear civil during his trip. In recent weeks state media have toned down their anti-American rhetoric, referring to relations with the United States as “a little awkward” and even describing American reservations about China's rise as “understandable”.

Under Mr Xi, however, the Communist Party's anti-foreign rhetoric has become more shrill. Anti-American feeling has also

grown (see chart on previous page). Winning over American public opinion—Deng's clear aim with the cowboy hat—does not appear to be one of Mr Xi's priorities. That is fortunate for him. His trip is likely to be eclipsed by that of another leader of a billion-plus people, Pope Francis, who is due to arrive on the same day he does. In America, Mr Xi risks suffering something worse than criticism: neglect. ■

Reforming the armed forces

Command and lack of control

BEIJING

A cut in the number of troops may presage wider military reform

IF THE People's Liberation Army (PLA) were a company, it would be about to lose its position as the world's largest corporate employer. When troop cuts recently announced by Xi Jinping, China's president, are completed in 2017, the ranks of China's armed forces will have shrunk by 300,000 to 2m, putting it just behind Walmart, a retailer (see chart). It would still be by far the world's largest military outfit.

When the downsizing was announced, at a big military parade on September 3rd, the cuts seemed no more significant than a round of corporate redundancies. Mr Xi's own explanation—that they would help the PLA to “carry out the noble mission of upholding world peace”—also seemed to come straight from the gobbledegook of corporate obfuscation.

But recent commentary in China's state media suggests that the reductions may presage something more: a long-overdue reform of the command structure of the PLA and a shift in the balance of the main military services. If so, one of the most important subsidiaries of the Chinese state is in for a shake-up.

The army has long been the senior service. Almost three quarters of active-duty personnel are soldiers. The navy and air-force chiefs did not have seats on the main institution for exercising civilian control over the armed forces, the Central Military Commission, until 2004. It was only in 2012 that an officer outside the ranks of the army became its most senior military figure. The army's dominance is a problem at a time when China is expanding its influence in the South China Sea and naval strategy is looming larger.

Moreover, there has long been a split within the PLA between combat forces (which kill the enemy) and other operations (logistics, transport and so on) which are regarded as secondary. But in modern, high-tech warfare, non front-line services such as those responsible for cyberwarfare

and electronic surveillance often matter more than tanks and infantry.

Embodying these outdated traditions is a top-heavy, ill-co-ordinated structure with four headquarters and seven regional commands. Many Chinese analysts argue that, as now constituted, the PLA would not be able to conduct modern information-intensive military operations which integrate all the services properly.

China has long talked about military reform. In late 2013 Mr Xi told fellow leaders that the command system for joint operations was “not strong enough”. It was duly announced that China would “optimise the size and structure” of the armed forces. *China Daily*, an English-language newspaper, said that a “joint operational command system” would be introduced “in due course”.

It now appears that these changes are under way. Mr Xi was recently quoted in *PLA Daily*, a newspaper, saying that “we have a rare window ... to deepen [military] reform”. It is possible that Mr Xi's anti-corruption purge, which has taken aim at two men (one now dead) who were once the country's most powerful military figures, as well as 50 other generals, may have weakened opposition enough for change to begin.

The *South China Morning Post*, a newspaper in Hong Kong, recently published what it described as a radical plan devised by military reformers. This would scrap three of the four headquarters, reduce the number of regional military commands to four and give a more prominent role to the navy. It remains to be seen whether Mr Xi will go that far. But there is no doubt that, in order to fulfil what he calls China's “dream of a strong armed forces”, he wants a leaner, more efficient PLA. To China's neighbours, that would make it even more frightening. ■

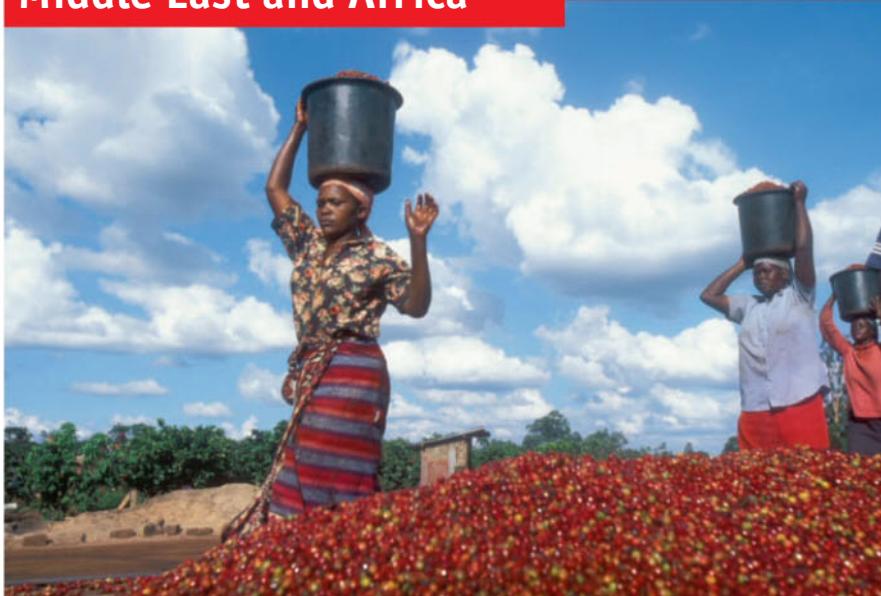
Bigger for now

Number of employees, 2015, m



Sources: Fortune; IISS;
McDonald's

*Estimate †Includes
franchise employees



Agriculture in Africa

Wake up and sell more coffee

NAIROBI

Small farmers in Africa need to produce more. Happily that is easier than it sounds

ON A hillside about an hour's drive north of Nairobi, Kenya's capital, is a visible demonstration of the difference between the miserable reality of smallholder farming in Africa and what it could be. On one side of the steep terraces stand verdant bushes, their stems heavy with plump coffee beans. A few feet away are sickly ones, their sparse leaves spotted with disease and streaked with yellow because of a lack of fertiliser.

Millicent Wanjiku Kuria, a middle-aged widow, beams under an orange headcloth. Cash from coffee has already allowed her to buy more land and a cutting machine that prepares fodder for a dairy cow that lows softly in its thatched shed. Her bumper crops are largely a result of better farming techniques such as applying the right amount of fertiliser (two bags, not one) and pruning back old stems on her trees. Simple changes such as these can increase output by 50% per tree. Her income has increased by even more than this, because bigger berries from healthy trees sell at twice the price of their scrawnier brethren, says Arthur Nganga of TechnoServe, a non-profit group that is training Mrs Kuria and thousands of other smallholders in Kenya, Ethiopia and South Sudan. This year's crop will pay for a pickup, she says, so she no longer has to hitch rides on a motorcycle.

Mrs Kuria's success invites a question. If it is so easy to raise a small farmer's output, why haven't all the small farmers managed it? To say that the answer matters is a

wild understatement. Africa's poorest and hungriest people are nearly all farmers. To lift themselves out of poverty, they must either move to a city or learn to farm better.

It should be possible to grow much more in Africa. The continent has about half of the world's uncultivated arable land and plenty of people to work it. It is true that erratic rainfall adds to the risks of farming on large parts of the savannah, but switching to drought-tolerant varieties of plants or even to entirely different ones—cassava or sorghum instead of maize, for instance—can mitigate much of this problem. Indeed Africa has in the past given glimpses of its vast potential. Five decades ago it was one of the world's great crop-exporters. Ghana grew most of the world's cocoa, Nigeria was the biggest exporter of palm oil and peanuts, and Africa grew a

quarter of all the coffee people slurped.

Since then it has shifted from being a net exporter of food to an importer. Sub-Saharan Africa's share of agricultural exports has slipped to a quarter of its previous level; indeed, the entire region has been overtaken by a single country: Thailand (see chart). This is largely because Africa's crop yields have improved at only half the pace of those elsewhere and are now, on average, a third to a half of those in the rich world. Farmers in Malawi harvest just 1.3 tonnes of maize per hectare compared with 10 tonnes in Iowa.

There are several reasons for the stagnation in African agricultural productivity but poor policies have played a large role. In many countries state-owned monopolies for the main export crops were established either before independence or soon after. The prices paid to farmers were generally squeezed to create profits that were meant to be invested in other, sexier, industries. Such policies failed to spark an industrial revolution but succeeded in making farmers poorer. In Ghana, for instance, the colonial administration and first independent government taxed cocoa exports so heavily that farmers stopped planting new trees. By the 1980s cocoa production had collapsed by two-thirds.

In the 1990s many of these policy mistakes were compounded when, urged on by Western donors and aid experts, many African countries dismantled their agricultural monopolies without giving time for markets to develop or putting in place institutions to link farmers to them. This was good for commercial farmers in places such as South Africa, where output soared, but cut off remote smallholders. Farmers in Zambia, for instance, now pay twice as much for fertiliser as those in America.

Yet this Cinderella sector is now being seen as an opportunity rather than a "development problem", says Mamadou Bi-

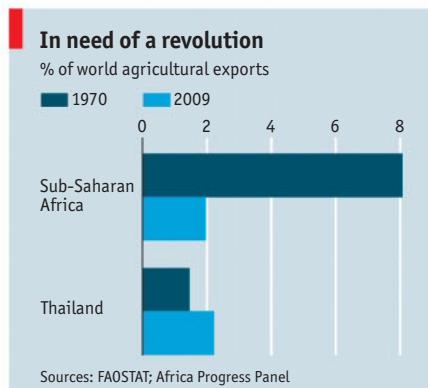
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▶ teye, who heads the African operations of the Rockefeller Foundation, a charity. Money from organisations such as Rockefeller, the Gates Foundation and do-gooding companies such as Nestlé is pouring into supporting small farmers.

The first benefit is improved productivity. Farmers have been shown how to increase crop yields sharply simply by changing their techniques or switching to better plant varieties. A second is in improving farmers' access to markets. Progress here is being speeded along by technology. In Nigeria the government has stopped distributing subsidised fertiliser and seeds through middlemen who generally pocketed the subsidies: it reckons that only 11% of farmers actually got the hand-outs that were earmarked for them. Instead it now directly issues more than 14m farmers with electronic vouchers via mobile phones.

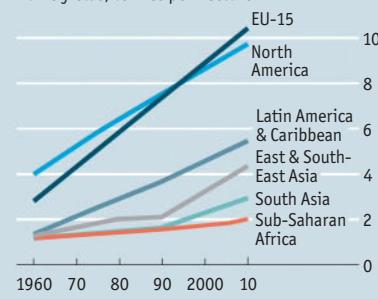
Or take Kenya Nut, a privately owned nut processor. It is using technology from the Connected Farmer Alliance to send text messages to farmers giving them the market price of their produce, so they are not ripped off by the first buyer to show up with a lorry.

After years of underperforming, Africa's smallholders have a lot of catching up to do. The World Bank estimates that food production and processing in Africa could generate \$1 trillion a year by 2030, up from some \$300 billion today. Yet many remain sceptical that Africa's small farmers will achieve their potential. To some, the rewards on offer seem too good to be true, like the \$50 on the pavement that the economist in the joke walks past because "If it were real, someone would already have picked it up."

Yet the success of projects such as those run by TechnoServe and Olam (a commodity trader that helps farmers grow more cashews, sesame seeds and cocoa in Nigeria) suggest that there may well be \$700 billion on the pavement—or rather, in Africa's fields. Instead of subsidising steel and other big industries, African nations should wake up and sell more coffee—not to mention cocoa, nuts and maize. ■

Left behind

Maize yields, tonnes per hectare



Chad

Justice at last

DAKAR

Twenty-five years after his downfall, a dictator goes on trial

HISSÈNE HABRÉ, the former dictator of Chad, has made curious sartorial choices for his war-crimes trial. In court he tops his billowy white *boubou*, the traditional menswear of west Africa, with aviator sunglasses and an elaborate turban as if shielding himself from desert sands—or from a prosecutor's questions. He is prone to fits of muffled shouting. When Mr Habré's trial got properly under way on September 7th, after a 45-day suspension almost the moment it had begun, he had to be dragged into the courtroom "like a spoiled child who won't take his medicine", as one of his victims scoffed. Armed guards pinned him down in his chair.

Many Chadians can scarcely believe he is in court at all. Around 40,000 were killed and many more tortured under Mr Habré's bloody rule in the 1980s. Ousted in 1990 by the current president, Idriss Déby, Mr Habré fled into exile in Senegal—allegedly taking with him much of the cash in the country's treasury. He lived there in luxury and, he thought, security. But his victims and their families never gave up and he was arrested two years ago. The trial "shows that survivors and activists with tenacity and perseverance can actually organise to bring a dictator to justice, even in Africa," says Reed Brody, counsel for Human Rights Watch, who has been working with Mr Habré's victims since 1999.

This is the first time a former head of state is being tried with due process in an African court—and the first time anywhere that one is being tried on the basis of universal jurisdiction, whereby grave crimes can be tried by the courts of a country other than the one in which they took place. Other such trials of heads of state have taken place only at international tribunals.

Senegal's courts are trying Mr Habré for crimes against humanity, torture and war crimes using Extraordinary African Chambers set up with support from the African Union (AU). Yet this positive development comes as many governments on the continent, including South Africa's and Kenya's, are thumbing their noses at the International Criminal Court in The Hague. The AU, meanwhile, has proposed its own court human-rights abuse—but with incumbent leaders and even incumbent senior officials granted immunity.

As the testimony continues, gruesome details of life under Mr Habré are being aired. Some were tortured in the dreaded "piscine", a swimming pool converted into



The tyrant behind the turban

cells, while many others were starved to death. One form of torture was known as the *arbatachar*, in which a prisoner was hogtied for long periods. Fatimé Sakine, a former secretary, was tortured in this way. "I saw so many deaths," she said, as she awaited her turn to testify. "I still get nightmares and shivers when I think about it. It has been very heavy, but now I feel like we are reaching the end because we will finally face Hissène Habré." ■

Libya's civil war

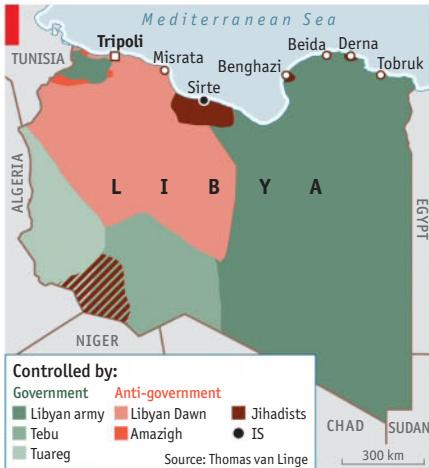
Running out of time

BEIRUT

Who can pull Libya out of the abyss?

PEACE envoys in the Middle East have a thankless task. That is certainly true of Bernardino León, the Spanish diplomat who heads the UN's mission to Libya. For months Mr León has been knocking heads together in the hope of bringing some semblance of unity to the country. But as *The Economist* went to press, the talks were faltering, days before the deadline of September 20th that Mr León has set.

Like previous rounds of jaw-jaw, the talks seek a power-sharing arrangement that would rid divided Libya of its parallel parliaments, governments and courts. Under the deal being proposed, the factions would form a government of national accord. The House of Representatives (HOR), the internationally recognised parliament in the eastern city of Tobruk, would have the primary legislative role. Much of the negotiation concerned the future role of members of the self-declared parliament ►



► still in Tripoli, known as the General National Council.

On September 15th the internationally recognised government in the east (based in the city of Beida rather than Tobruk) appeared to reject the deal after Mr León said amendments could be made to the draft, at the GNC's request. A day later, the HOR turned up the pressure, saying it might stop exports to oil companies still dealing with the rival authorities in Tripoli.

There is little doubt that Libya needs a political agreement, and fast. The civil war that has raged since the downfall of Colonel Muammar Qaddafi has ruined the few institutions that existed. The country is thought to have used up a quarter of its foreign reserves last year. The next 18 months will see severe austerity measures. Jihadists of all stripes have fed off the chaos.

Most worrying is Libya's Islamic State (IS) franchise. Since getting booted out of Derna, in the east, it has bedded down in Sirte, Qaddafi's hometown. Two attacks in Tunisia, in the Bardo museum in Tunis and at a beach resort in Sousse, have been linked to men who trained in Libya.

Although some militias have declared a truce to focus on IS, most of them, including the force controlled by Khalifa al-Hifter, a former general who is affiliated with the Beida government, are more interested in fighting each other than defeating IS. That is why talk is growing in Western capitals of possible operations against IS in Libya. It is unclear whether this would be an extension of the coalition against IS which is currently only operating in Syria and Iraq, or a new grouping. Egypt, which has seen several of its citizens beheaded by IS in Libya, is one Arab country urging action.

Still, as with Iraq and Syria, Libya's underlying problems need to be solved alongside any military action. In theory that should be easier in Libya: there is not much ideological difference between the various factions. Mr León describes this as the "very last moment" for Libyans to come together. Alas, many ordinary Libyans gave up on their country a while ago. ■

Egypt

Political desertification

CAIRO

The armed forces won't have to answer for killing foreign tourists

IT WAS to be a short lunch break for the tourists on a desert safari. The Mexican visitors with their local guides had pulled off a main road 200 miles (320km) southwest of the Egyptian capital, Cairo, and stopped at a popular picnic spot when a sudden rain of rockets and bullets cut them to pieces, leaving 12 dead, ten injured and their convoy of jeeps aflame.

The Egyptian air-force pilots steering their aircraft back to base no doubt congratulated themselves on destroying another band of terrorists. But by the evening of September 13th it was clear that there had been a terrible mistake. The air strike had been called in by police tracking smugglers of arms from Libya who had recently kidnapped and beheaded a local guide, and who may have been responsible for the similar killing last month of a Croatian oil worker. But instead of helping secure Egypt from the jihadist menace, its military inadvertently dealt a deadly blow to a tourism industry that has already been battered by years of political upheaval and terrorist violence.

Despite such unrest, for the vast majority of Egyptians crowding the Nile Valley their army's slowly escalating war against jihadists has been safely over the horizon. Aside from scattered incidents the fighting has mostly centred in the far-off northeast corner of the Sinai Peninsula. With reporters banned from that area, Egyptians have

had to rely on government bulletins declaring successive victories over the group that now calls itself the Sinai Province of Islamic State.

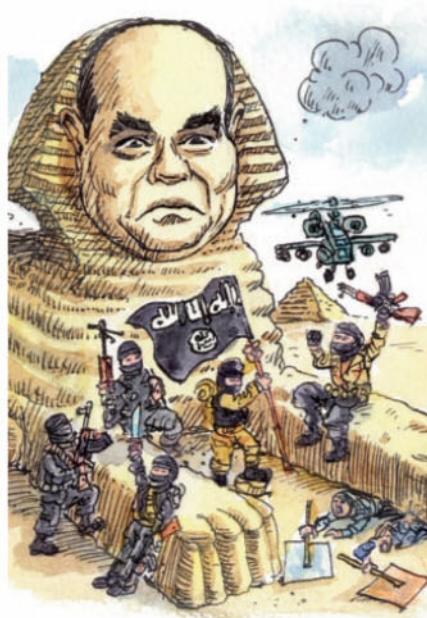
Since the launch of a new offensive in Sinai on September 7th the army has claimed a total of 415 "kills", to the loss of nine of its own troops. Unconfirmed reports from residents describe abandoned villages, extended curfews, acute shortages of power and water, and constant fear of attack from both itchy-fingered soldiers and militants. A defiant video released by Sinai Province on September 16th appears to show jihadists in flip-flops destroying an M60 tank and capturing a hilltop position.

The tragedy in the desert brought home not only the growing peril of armed jihadists in areas far from Sinai. It also raised questions over the methods and competence of an army whose traditional immunity from criticism has been bolstered during the two-year-long rule of Abdel Fattah al-Sisi, a former field-marshal and defence minister. "Why are they killing foreigners? Aren't we Egyptians good enough?" asked one cynical writer on Twitter.

Such questions are unlikely to be answered. Mr Sisi's government has stuck doggedly to a narrative of slow but sure progress in getting Egypt back on track after the upheaval of the Arab spring and the chaotic rule of the Muslim Brotherhood. After the much-heralded opening of a new channel for the Suez Canal last month came cheering news of a giant gas find off Egypt's Mediterranean shore. In another sign of a return to normality, parliamentary elections are scheduled to go ahead next month, ostensibly completing a transition that has included the passage of a new constitution and the formal election of Mr Sisi last year.

Yet much as many Egyptians yearn for stability, and wish Mr Sisi success, the country's "new normal" feels far from comfortable. Earlier this month the prime minister, Ibrahim Mehleb, and his entire cabinet resigned amid a mounting corruption scandal. The rules for the parliamentary elections are so complex, and restrictions on parties and the press so far-reaching, that few Egyptians expect the new parliament to be much more than a chorus of presidential yes-men.

Noting the weakness and factionalism of Egypt's current array of political parties, Abdullah al-Sennawi, a columnist on the *Al Shorouk* newspaper, says Egypt will witness a "de facto suspension" of the constitution's provisions for pluralism and the rotation of power. More grimly still, Ashraf al-Sherif, an opposition columnist, suggests that the "political desertification" created by Egypt's "high priests at the temple of the old state" will generate despair at the lack of prospects for change, leading to the rise of some new form of Islamism as the only alternative to the status quo. ■



Muslims head for Mecca

Prepping for the pilgrimage

BEIRUT

The logistics of the haj

WHEN pilots take to the skies over northern Africa next week they will be issued with special instructions and charts. During the haj, air traffic across the continent changes. Rather than mostly flying north or south, flocks of aircraft wing their way east to Saudi Arabia, home to Islam's holiest sites.

The annual pilgrimage, which the Koran enjoins every believer who can afford it to perform at least once in a lifetime, is much easier for pilgrims than it used to be. In the old days they trudged for days over land. Now they fly, and even a seat in economy class is comfier than a thousand-mile trek across the Sahara. Over 2m Muslims from 183 countries will descend on Mecca and its surroundings in time for September 22nd, when the haj starts this year. Managing that ingress requires heroic logistics.

In the past few years as the crowds have swollen, Saudi Arabia has moved to restrict the numbers. A dedicated ministry allots each country a quota of visas based on its Muslim population; this has been reduced since 2013 due to renovation works in Mecca. Each country then distributes them by lottery. Muslims can only apply, in their home country, if they haven't been in the past five years—an exception is given to those accompanying a woman under 45 years old, all of whom must have a male *mahram*, or guardian.

A lucky few might win a fully-paid trip funded by their government. But most visa-endowed pilgrims must next pick a package from a Saudi-approved agency. These range from a luxury five-star experi-

ence to setting up camp somewhere or bedding down on a hotel roof. "This year we're hosting guests mainly from Egypt, Morocco, Senegal and France," says Muhammad Sabry of Elaf Ajyad, a mid-range hotel in Mecca.

To ferry the pilgrims, extra flights are put on, often, as in Egypt, departing from special "seasonal" terminals. Air India, for example, has said it will operate 230 direct flights from seven Indian cities to Jeddah, the main disembarkation point for the haj. (Pilgrims may not leave the western area of Saudi Arabia during their stay.) On arrival, pilgrims speed down a four-lane highway to Mecca, about 65km (40 miles) away. They enter a state of *ihram*, or holiness. Men must don a seamless two-part white outfit; women a simple dress that leaves their hands and face exposed.

Ensuring that the pious masses can safely move between the sites during the five days of the pilgrimage, is particularly tricky. They must walk (or be bussed if they are elderly or weak) distances of several kilometres between Mount Arafat, the Grand Mosque of Mecca and the valley of Mina. Accidents have become rarer since a stampede in 2006 left 363 people dead. But on September 11th a crane at the Grand Mosque collapsed, killing 107 people performing the *umrah*, the lesser pilgrimage.

In recent years the kingdom has modified several sites, which has altered the rituals themselves. Special electronic gates let pilgrims into the site. Muslims circumambulate the Kaaba, the black cube in the Grand Mosque, both on the ground and on

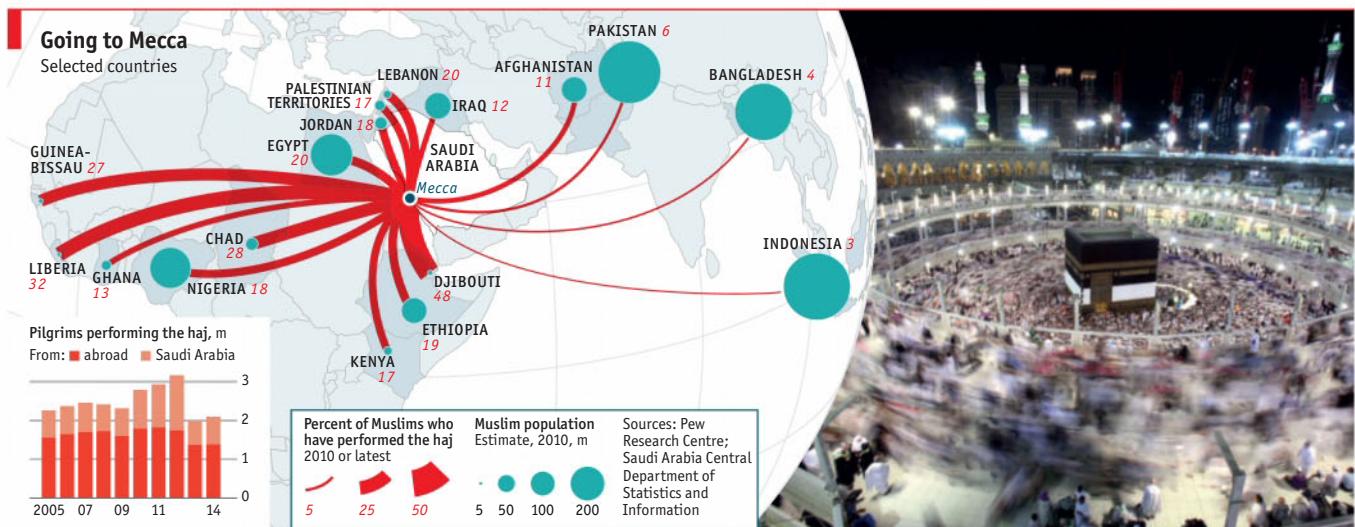
a platform above it. The faithful need not kiss the black stone on its eastern corner, as is traditionally required, but can point to it instead. They can also appoint someone else—usually a butcher—to slaughter an animal, as is required at the end of the haj. Last year 2.5m animals were sold; many had to be imported.

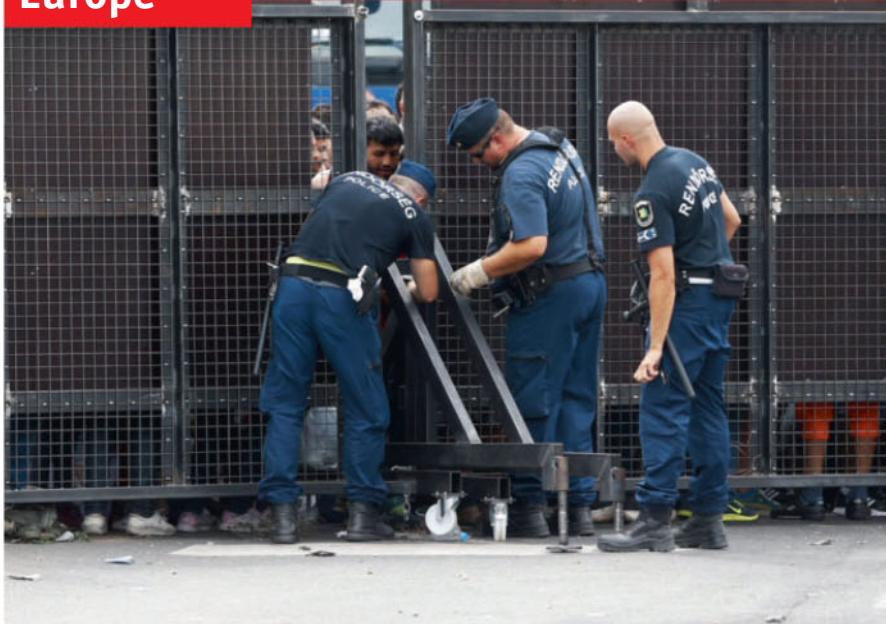
Saudi Arabia says it will deploy 100,000 members of its security forces to protect the areas and control crowds. This year is particularly tense: Islamic State has claimed three bombings at Shia mosques in the country's eastern province this summer. Both Sunni and Shia Muslims take part in the haj; the Saudi government is anxious that none be murdered.

With so many people from so many places crammed together in the heat, exhaustion, dehydration and infections are common. Saudi Arabia is struggling to put an end to Middle East Respiratory Syndrome, a deadly virus. The government has set up 25 hospitals nearby; the Red Crescent will run 69 medical centres.

The logistics will only get harder. The Saudi government is spending billions of dollars on expanding the holy sites' capacity (luckily the haj makes the country some \$8.5 billion each year, by one estimate). The Grand Mosque will soon be able to accommodate 1.6m pilgrims at once: extra floors, 21,000 toilets and hundreds of escalators and lifts are being built. (Female pilgrims have often complained that there are not enough toilets.)

The swelling crowds are changing the holy places beyond recognition. Garish hotels have replaced ancient neighbourhoods and non-Islamic sites in Mecca. An ugly clock tower looms above the Grand Mosque. Shops selling everything from Baskin-Robbins ice cream to Rolex watches abound. "Mecca and Medina are meant to be sanctuaries, not cities," says Sami Angawi, an architect who runs the Haj Research Centre, a think-tank. Yet where there are pilgrims, there are profits. ■





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Refugee crisis

Europe starts putting up walls

BERLIN

Germany and other countries reimpose border controls

“WE WILL manage,” said Angela Merkel, the German chancellor, in an attempt earlier this month to win public support for the refugees streaming into the country from the Middle East via the Balkans. Her phrase was both optimistic and familiar—it comes from the German version of the theme song of “Bob the Builder”, a children’s television series.

But within two weeks, on September 13th, Mrs Merkel performed a volte-face that stunned the European Union. Because Germany could not “manage” the influx of asylum-seekers and migrants, she reimposed controls along the border with Austria, accelerating an already galloping crisis. Austria, Slovakia and the Netherlands followed suit with controls of their own. They are said to be temporary and legal under the Schengen agreement that sets up free travel in most of the EU. And so they may be. But the crisis has a life of its own.

Hungary declared an emergency, sealed its border with Serbia with barbed-wire fences and began arresting those trying to cross. Police fired tear gas at them; 20 officers and many refugees were hurt. Growing numbers of refugees are now trapped on the Serbian side and have started evading the barrier by marching into Romania and Croatia, which are in the EU but not yet in Schengen. Hungary responded by saying it will extend the fence to its Romanian border. The cascade of events is likely to continue.

Mrs Merkel and her Austrian counterpart, Werner Faymann, meeting in Berlin on September 15th, called for an emergency EU summit. A day earlier the EU’s interior ministers had failed to reach agreement on a plan proposed by the European Commission for a binding quota system that would allocate 120,000 refugees among member states. The fiercest resistance came from eastern European countries. The plan could still be passed when the ministers next meet on September 22nd. But Germany’s interior minister, Thomas de Maizière, says that more pressure is needed. He proposes cutting EU subsidies to member states that refuse to take their share of refugees.

Disorder on the border

A potentially more effective way of exerting pressure involves extending German border controls to its eastern neighbours, Poland and the Czech Republic. The checks would not affect the legal rights of people seeking asylum in Germany (there or anywhere else) but merely move the burden of registering applicants from inland processing centres to the border. Yet controls would slow traffic and disrupt commerce, much of which benefits eastern Europe. Germany, ever sensitive about being seen as a bully, will think hard about increasing pressure overtly. Nonetheless, on September 7th Sigmar Gabriel, Germany’s vice-chancellor and economics minister, made

a veiled threat. More border controls, he said, “would be a politically dramatic reverse for Europe, and I think a mental one too. But it would also be a heavy economic blow...especially for those states that are now saying: ‘We won’t participate.’”

For now, Mrs Merkel is busy shoring up domestic support. She became a heroine of sorts to refugees and many citizens on September 4th when she allowed trains to carry stranded refugees from Hungary through Austria into Germany. Germans bearing flowers and sweets turned out to welcome them. But Mrs Merkel, who is usually more cautious, had acted without bringing along some of her closest political partners. The conservative Christian Social Union governs the state of Bavaria, which borders Austria, and was outraged by Mrs Merkel’s welcoming stance, calling it a “grave mistake”. Other regional and municipal governments joined in the criticism. So did some EU countries, accusing Mrs Merkel of encouraging even more refugees to come.

Germany’s welcome mat could fray as the crisis grows. But Mrs Merkel is trying to retain her position as a champion of refugees. “If we now have to start apologising for showing a friendly face in an emergency, then this is not my country,” she said defiantly on September 15th.

She is haunted by the spectre that EU countries could fail in their greatest humanitarian challenge yet, thus betraying their own values. Border controls appear to negate perhaps the most visible achievement of European integration. Unsurprisingly many Eurosceptics are celebrating. “Schengen surely can’t survive now,” tweeted Nigel Farage, the leader of Britain’s UK Independence Party. “Bye-bye, Schengen,” gloated Marine Le Pen, the leader of France’s even more virulently anti-EU National Front. ■

Migrants and labour markets

More vacancies than visitors

BUDAPEST, PRAGUE AND WARSAW

Eastern Europe may not like refugees but needs them more than other EU countries

WITH their pristine rooms and green courtyard, the new psychiatric clinic and geriatric and dermatological wards cost \$19m. But what the hospital in Bydgoszcz in north-west Poland does not have is enough nurses and carers. As a result it can only fill half of its 236 beds. Such labour shortages are common in eastern Europe. Construction, manufacturing and technology firms are struggling to find enough workers. And shortages are likely to get worse as populations age rapidly.

Meanwhile, eastern European governments have been among the most vocal opponents of plans to relocate refugees across the EU. Poles and Czechs have joined Hungarians in refusing to accommodate migrants, who are often young and educated. This ignores economic logic.

A survey by ManpowerGroup, a consultancy, found that two out of five firms in Poland struggle to fill vacancies. In Hungary, almost half could not get the staff they need. In the Czech Republic and Slovakia fewer employers report difficulties (18% and 28%) but the share has been climbing steadily over the past few years.

IT firms, which face a crunch everywhere in Europe, struggle the most. Their best employees are lured to western Europe or America by higher salaries. Poland may be thriving as a back office for European business, but in 2014 it needed 50,000 more IT workers than it could find. In Slovakia, the 50,000-strong IT sector could expand by 10,000 overnight if people were available. "The education system is good at producing scientists, but not coders," says Radovan Durana, an economist at the Institute of Economic and Social Studies in Bratislava. In Hungary, it is engineers who are in particularly short supply. Although Budapest is cheaper than Berlin, many graduates move to Germany, where pay is 150% higher.

So far skill shortages have not stopped national economies from growing. Poland and Hungary will expand by around 2.8-3.3% this year. But they could do much better. GDP per person in 2014 was less than 68% of the EU average. Labour shortfalls also increase pension deficits and leave holes in public finances.

Many eastern countries are failing to reach their considerable potential. Slovakia produces nearly 1m cars per year, the most per capita in the world. In August, Jaguar Land Rover announced plans to open its first continental European plant near the

city of Nitra, costing €1.4 billion (\$1.6 billion) by 2018. Local suppliers should be among the main beneficiaries, but a survey by PwC, a consulting firm, found that nearly 80% already lack skilled labour.

The public sector is no better off. Poland has five nurses per 1,000 inhabitants—compared with 13 in Germany. Of those only 1% are under 25, and 29% are due to retire by 2022. The average age among specialist doctors is 55. Maciej Hamankiewicz, president of Poland's Supreme Medical Council, warns that patients may not receive proper care.

In Hungary, the crisis in the health system is even worse. Some 40% of doctors are over 60 and more than 200 medical practices have no doctor at all, mostly in the poorer eastern and northern regions. At Almasi Balogh Pal Hospital in Ozd, 55 doctors work nonstop to serve a city of 80,000 people. A hospital director says adverts for recruits get no response.

Reality check

It is Panglossian to expect refugees from far away to plug skill gaps instantly. Reliable data on what migrants know how to do are scarce. However, there is ample evidence that Syrians, the single largest group of arrivals, are relatively well-educated. Many Syrian doctors were trained in the Soviet Union and speak fluent Russian. Within minutes at one Budapest train station an Economist correspondent came across a Syrian lawyer, a mechanical engineer, an agricultural engineer and a physics teacher, all of whom spoke good English.

Even less capable refugees could have

plenty of jobs to choose from. The Polish ministry of labour has identified large shortages of manual workers in agriculture and construction. The Hungarian economy ministry points to demand for carpenters, shop assistants, gardeners and bakers. Poland is already importing tens of thousands of seasonal workers from neighbouring Ukraine.

As populations age, workforces will keep shrinking. In Hungary birth rates are declining and lifespans are stretching. Many of the young emigrate. The population is forecast to shrink by 8% between now and 2035, while Poland faces a shrinkage of 6% (see chart). These figures still underestimate the problem, since official forecasts take people registered in a census as the baseline population, even though many live abroad and may not return.

Some eastern European officials insist they can fill skill gaps by drawing in labour from neighbouring countries with cultures more similar to their own, such as Bulgaria and Romania, which are EU members but not yet part of the Schengen travel zone. That too may be wishful thinking. Bulgarians and Romanians can already move around freely in Europe if they show their passports, and few head for other former Warsaw Pact countries. Meanwhile, both countries' populations are ageing fast.

In the Balkans, wages are often lower than farther north, and employment in Poland or Hungary may seem attractive. But populations in the former Yugoslavia are old and shrinking; many of the young have already left. In Bosnia and Herzegovina the population was 4.4m in 1991, but now is 3.8m, and by 2050 the UN predicts it will fall by a further fifth, to 3.1m.

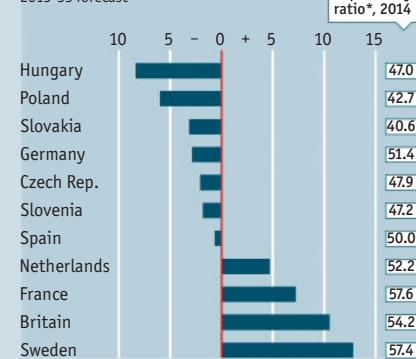
Immigration critics are right that integrating outsiders into countries with difficult languages and fragile public services is hard. But the rewards are obvious. "Poland is not likely to catch up with the West without opening up to foreign workers," says Marcin Piatkowski, an economist at the World Bank. ■

Where migrants might fit in

Firms having difficulty filling jobs, %
2015



Population, % change
2015-35 forecast



Eastern European attitudes

Orban the archetype

BUDAPEST

One man epitomises hostile views on migrants widely held by his people

HE ORDERED a fence topped with razor-wire along the 175-kilometre border with Serbia. He cast Christian Europe as battling Muslim hordes for survival, stirring memories of ancient battles against Ottoman invaders and shattering political taboos. Viktor Orban, Hungary's prime minister, is a pugnacious opponent of immigration. His stance is shared not only by many of his people but also by plenty in other eastern European countries. Whereas 96% of Germans approve in principle of taking in refugees (and 59% support taking in more now), 71% of Czechs are against taking any. How to explain this discrepancy?

Throughout history Hungarians and their neighbours have benefited mightily from migration and the charity of others. The second world war, the Russian invasions of Hungary in 1956 and Czechoslovakia in 1968, Poland's tortured 20th century—all have produced waves of refugees. Hungary has a tradition of welcoming strangers. Indeed, the Magyars themselves are comparatively recent arrivals in Europe, having come from the Urals just over a millennium ago. St Stephen, Hungary's first Christian king, advised his son, St Emeric, in 1036 to "make the strangers welcome in this land, let them keep their languages and customs, for weak and fragile is the realm which is based on a single language or a single set of customs."

Mr Orban's personal journey is a good starting point for understanding how things have changed. He shot to fame in June 1989 after speaking in front of 250,000 at the reburial of Imre Nagy, the leader of Hungary's failed 1956 revolution. A founder of the Alliance of Young Democrats, or Fidesz in Hungarian, he demanded that the Russians depart. Within months the communist government folded.

But like his countrymen, Mr Orban found operating in freedom a tougher task than expected. Competition became stiffer. He groped his way ahead in elections, won power in 1998 but lost it again, and was in the wilderness for eight years from 2002 until finally tightening his grip on power by embracing semi-authoritarian tactics. Former allies were cast aside. Foes fared worse. Success came from strength rather than co-operation, he surmised.

Many of his countrymen learnt a similar lesson. A quarter-century after tearing down the Iron Curtain they still feel like second-class citizens in Europe and if anything expect to receive aid rather than give

French diplomacy

No longer so male and stale

PARIS

France is appointing many more female ambassadors

AT THE end of every summer, the French diplomatic service summons all its ambassadors from around the world to Paris for a week of brainstorming and fine cuisine. Usually, the assembled crowd is monochrome, middle-aged and male. This year, however, it was marked by a shock of silk scarves and coloured jackets: nearly a third of the ambassadorial corps was made up of women, compared to 19% in Britain and 26% in America.

Little-noticed outside the foreign-policy world, France has transformed the place of female diplomats. Currently 48 of its ambassadors are women, a record; and women won 29% of all new ambassadorial appointments last year, up from 11% in 2012. "We've now achieved a critical mass," says one of them. "Our presence has gone from remarkable to commonplace."

This has not happened without an official push, and decades of frustration for some. A few years ago, a nominations committee queried whether one female candidate had "broad enough shoulders" for a senior foreign post (she still got it). But in 2012 France decided to reserve a share of top public-service appointments for women, with a target of 40% by 2018.

The foreign ministry could have notched up the numbers by simply sending women to remote islands and kingdoms. Instead, their ambassadorial postings now include some of the most prestigious (Sylvie Bermann in London; Catherine Colonna in Rome), as well as strategic (Isabelle Dumont in Ukraine; Martine Dorance in Pakistan). Ms Bermann, a fluent Mandarin-speaker, was previously ambassador to Beijing.

it. Unlike their prime minister, who is fluent in English, two out of three Hungarians cannot speak a foreign language. Contact with different races is minimal across the region. Poland is 98% white and 94% Catholic. Many social spheres remain deeply insular and conservative.

Mr Orban, born in 1963, may now move in elevated circles but he comes from the same stock. He grew up in a village outside Budapest. Every summer he worked on a collective farm. Suspicion was everywhere under communist rule. Politics was impossible to discuss outside trusted company. "People did not gather because that could be dangerous," he says. "Family was the only thing that could defend you from the outside world." Sealed off behind the

Does a female ambassador change anything? Besides the pressing linguistic question of whether to call her Madame l'Ambassadrice (favoured by some younger diplomats) or Madame l'Ambassadeur (Ms Bermann's preference, to avoid being taken for an ambassador's wife), the answer may be: not all that much. "Authority has nothing to do with being a man or a woman," declares one female ambassador.

Perhaps most importantly, a less male representation projects a less fusty national image at a time when "soft" power counts for ever more. Indeed, feminisation seems to be part of a broader French effort to "renew our global diplomacy for the 21st century", in the words of Laurent Fabius, the foreign minister, whose predecessor but one was a woman, Michèle Alliot-Marie.



Madame l'Ambassadeur, Sylvie Bermann

Iron Curtain, life remained mostly unchanged for decades. The great social debates in the postwar West—feminism, anti-racism, gay rights, the end of deference to authority—went pretty much unnoticed, and still mystify supporters of Mr Orban.

His worldview was shaped, he says, by an Hungarian epic called "Miklos Toldi", describing a 14th century nobleman who protects women and children. "There is no shame in being strong and successful and we should not pretend that we are all equal," he says.

Mr Orban's politics is based on such beliefs, says Gyorgy Schopflin, an ally and Fidesz member of the European parliament. The prime minister wants a Europe where Christian and national traditions—which ➤

► he believes are under threat—are taken seriously. The assumption in the West that post-communist societies would seamlessly absorb Western liberal mores on immigration and multiculturalism was profoundly wrong, according to Mr Schopflin. “These countries are still defining their identities,” he says. “They don’t want to adopt the Western approach.”

In a region with recent memories of being ruled from Moscow, sovereignty remains a powerful rallying point. Talk of compulsory quotas for accepting asylum-seekers raises hackles. Yet despite such sentiments as well as Mr Orban’s hard line, Hungary is still a society in flux. The tens of thousands of refugees pouring through the

country have triggered the largest volunteer response since the end of communism. Some citizens drive out to the roads where migrants tramp towards Austria and hand out food. Others join well-organised rotas at the main train stations, distributing food, clothes and water, running ad-hoc nurseries, taking the sick to hospital or even holding concerts.

Ferenc Gyurcsany, a former prime minister, hosted several refugees in his home, as a growing number of Hungarians are doing. Mr Orban says he does not rule out hosting a refugee family himself, telling a German newspaper that he would consider it as long as others did not “take it as an encouragement” to come to Europe. ■

some new to the industry. Antonio Mazzeo of the Tuscan regional government said allowing prospectors into areas like the Val d’Orcia could help Italy meet the EU’s demand of raising to 20% its renewable energy share by 2020, and claimed it would create jobs.

Some opponents reject geothermal energy altogether. Though renewable, it is not necessarily benign: its exploitation generates noise and can involve releasing toxic substances from below ground. For years, geothermal plants on Mount Amiata, which overlooks the Val d’Orcia, spewed mercury into the air. ENEL Green Power, which ran them, claims to have eliminated the problem with a new filtering system. Stefano Boco, a former lawmaker for the Italian Green party, who heads an association representing ENEL’s new rivals, says that “100% of our members are committed to using a closed-circuit technology with no emissions.” Noise levels at their plants would apparently be “well below the legal threshold”.

Some critics accept geothermal energy but argue that power stations in certain areas would mar unique landscapes and threaten a local economy built around tourism and high-quality food products. “For us the unspoilt beauty of the Val d’Orcia is value added,” explains Mr Franci, who took over the olive press from his father. “We sell in China through an intermediary. We represent zero-point-zero something of his turnover. Yet whenever he brings customers to Europe, he brings them here to eat *pici* and *tagliata*, do a tasting—and admire the view.”

For Giampiero Secco, the mayor of nearby Seggiano, handing out exploration licences is patently at odds with the emphasis of successive governments on agri-tourism and agri-business in Tuscany. “You have a whole lot of people here who have been encouraged to do something and who are now having the rug pulled from under them,” he says. ■

A Tuscan tussle

Mercury and Brunello

MONTENERO D’ORCIA

A row over geothermal energy plants disturbs a holiday spot

THE view from the roof terrace of Gior- gio Franci’s olive mill in Tuscany is sub- lime. It takes in the entire undulation of the Val d’Orcia. Just discernible to the east are the walls of Pienza, a UNESCO world heri- tage site. Scattered across the valley—a UNESCO world cultural landscape—are medieval castles, Etruscan hill villages and the vineyards that yield one of Italy’s great wines, Brunello di Montalcino.

If Mr Franci’s fears are confirmed, how- ever, this glorious vista will soon be pock- marked with drilling rigs and, in a few years, dotted with geothermal power sta- tions. The Val d’Orcia is the arena for an im- passioned struggle in which the adver- saries of conservationists are not foragers for fossil fuels but promoters of green energy.

On August 26th a six-month morato-

rium imposed by the Tuscan regional gov- ernment expired, restarting a process lead- ing to exploratory drilling in 31 conces- sions, including some in Val d’Orcia and other environmentally sensitive areas.

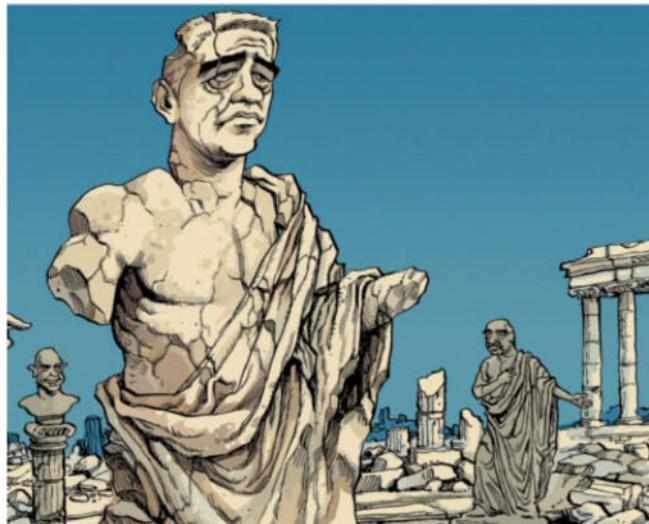
Tuscans have been living with geo- thermal energy since classical times, when they began enjoying the region’s hot springs. The world’s first geothermal pow- er station was built at Larderello in the north of Tuscany in 1913. Today, geothermal energy meets 27% of the region’s power needs. Until a few years ago, Italy’s biggest electricity supplier, ENEL, enjoyed a mon- opoly. The sector was liberalised five years ago and firms that have won new ex- ploration licences include the Italian sub- sidiaries of Portuguese and Canadian companies as well as several local firms,



Paradise potentially lost

Charlemagne | Still standing, somehow

After a disastrous year Greece's prime minister may yet win re-election. But the fire has gone



A RECENT cartoon in *Kathimerini*, a Greek newspaper, depicts Alexis Tsipras, the prime minister, waking up in a cold sweat. "I had a nightmare!" he exclaims to his partner. "What was it?" she asks. "That I was re-elected!" he replies.

Poor Mr Tsipras. Swept to power on a wave of anti-austerity hope in January, for six months he and his leftist government captivated the world as they battled to convince euro-zone partners to lend Greece more money without the tough conditions of two previous bail-outs, saw banks forced to close and came close to losing the euro.

Today Mr Tsipras cuts a diminished figure. He capitulated before Greece's creditors and signed a third programme under duress. The country still lives under capital controls. The economy is even more of a wreck. His party has split. The demagogue who once promised to upend Greek politics seems worn out. In calling an election on September 20th to renew his mandate, Mr Tsipras offers an awkward proposition for Greek voters: that they should choose him to implement the bail-out he denounces. Little wonder the campaign is dull. Watching this spectacle after the high drama of the summer is like sitting through a B-movie after a session of Hitchcock, says George Pagoulatos, a professor at the Athens University of Economics and Business.

Mr Tsipras is largely the author of his fate. He demonstrated diplomatic and economic ineptitude from the start. His pick for finance minister, Yanis Varoufakis, a vain economics professor with an unparalleled ability to inspire loathing in his negotiating partners, was only the first of his many missteps. The referendum he called in June on a bail-out offer that would expire by the time of the vote made little legal sense and triggered the capital controls that set back Greece's fragile recovery; soon afterwards he was obliged to sign a much tougher deal. Yet voters cheered his defiance of the German imperium. For a moment it seemed as if Mr Tsipras could lead Greeks anywhere—including, perhaps, out of the euro zone and even the European Union.

One useful truth has emerged from this wild ride: that Greece's euro membership is incompatible with the anti-austerity message Syriza once peddled. But it was a costly experiment. The economy may shrink by around 2% this year, after returning to growth in 2014 (output has shrunk by a quarter from an admit-

tedly unsustainable pre-crisis level). Unemployment, which had been dribbling down from a high of nearly 28%, is creeping up again. Capital controls are suffocating businesses, particularly importers. Taxes will soon go up. Many Greeks now talk of their suffering as another historical calamity to be endured, like occupation by the Turks and the Nazis.

Polls show Syriza neck-and-neck with its rival, the centre-right New Democracy. But in office neither party will have much room for manoeuvre. The bail-out sets the parameters for policy. An ever-vigilant euro zone, scorched by the experiences of this year's negotiations, will pounce on the first sign of deviation from the path Greece has agreed to follow in exchange for its rescue funds. Coalition partners will act as a further check on adventurism.

With a lot less at stake in this election, the candidates have been reduced to making personal jabs. New Democracy's leader, Evangelos Meimarakis, an affable old-timer, charges Mr Tsipras with reckless incompetence. Mr Tsipras's pitch is that of the heroic failure, who fought hard for his country but could not overcome the mighty Angela Merkel and her euro-zone factotums. He adds that Mr Meimarakis's party has not been cleansed of the corrupt habits that marked its recent turns in office. But that is an old line, and anyway ignores the reality of Syriza's brief term: it turns out that the new party is as attached to the Greek traditions of clientelism and patronage as the old ones were.

Is Greece thus condemned to an eternity of economic drudgery? Not necessarily. There are lots of good things on offer for the next government should its creditors consider it to be behaving, notes Mujtaba Rahman, at the Eurasia Group, a consultancy. These include public funds to recapitalise the battered banks, inclusion in the European Central Bank's quantitative easing scheme and the biggest prize of all: a restructuring of Greece's public debt, probably through an extension of maturities.

Whatever government emerges from the election will therefore have good reason to get moving on the many reforms it must enact before the bail-out's first review later this year. One observer who has discussed the bail-out with the economics teams of the main parties says it is hard to tell them apart. Even Mr Tsipras has softened his tone towards its provisions (although if Syriza loses, it might return to hell-raising in opposition).

Trouble ahead

The bigger battles will come next year, when the austerity implied by the bail-out's fiscal targets start to bite and reform fatigue sets in. Tough battles with interest groups such as farmers lie ahead. None of the stewards of previous programmes has come anywhere close to implementing reforms properly. And today, says Wolfgang Piccoli of Teneo, a risk-analysis firm, the Greek bureaucracy is, if anything, even less capable of executing reforms than in the past. Slippage seems inevitable, although the absence of large debt repayments before next July should at least provide respite from the question of Grexit.

If he wins re-election, Mr Tsipras will find himself in precisely the same position as in January: overseeing a broken economy and relying on rescue funds. He will need to draw on serious reserves of statesmanship to manage a controversial bail-out that will hurt before it heals, without succumbing to the temptations of populism. That will be neither dream nor nightmare, but the prosaic reality of governing a troubled country that has never been in a position to afford the indulgences of radicalism—least of all now. ■



The Labour Party

A new, old politics

Jeremy Corbyn's triumph in his party's leadership election will be short-lived

THE moment, when it came, was electric. Rumours had already flashed through the crowds in Hyde Park, where Britain's left was gathering for a pro-refugee rally. Some claimed he had taken some two-thirds of the vote. The result almost corroborated the whisper: Jeremy Corbyn, the hard-left politician whose three-decade career as MP for Islington North he had spent on the fringes of British politics, had obtained fully 59% of first-preference votes in Labour's leadership election. Britain now has the most uncompromising opposition leader in living memory.

In retrospect, the reasons for his election were clear enough. Under Gordon Brown and Ed Miliband, Labour had ditched the centrist legacy of its three-time election winner, Tony Blair, but offered little to take its place. During the leadership campaign Mr Corbyn had filled that vacuum by presenting his party (as well as prospective members and affiliated supporters) with a simple and certain vision: a firm rejection of the policies that had propelled Labour to power under its most successful leader. Instead his campaign, predicated on the views of a noisy minority, offered a pure socialism uncomplicated by the realities of Britain in 2015. It was a vision that will yet describe the terms of the new Labour leader's downfall.

The defining feature of the party's new

era is the massive influx of new members and other affiliates that it has experienced in the past months. Over 550,000 people were eligible to vote in Labour's leadership election, almost three times the party's pre-election membership and an illustration of the surge of union members, interested (mostly young) outsiders and—in a small number of cases—malicious saboteurs who joined it to vote for Mr Corbyn, expecting him to prove an electoral liability.

The result was a mandate, of sorts, greater than any enjoyed by a recent mainstream party leader. Old-timers in Labour are now waiting to see whether these thousands join their local parties and support their campaigning. Mr Corbyn and his supporters hope to convert them to engaged members; their opponents in the party doubt whether this is possible.

His election to the leadership of the Labour Party affects British politics on three levels. First, it means that the country's main opposition leader and his team have almost no experience of front-line politics. That much was evident in the hours and days after Mr Corbyn's election. Having run a campaign focused on equality, on September 14th he gave all the big jobs in his shadow cabinet to white, middle-aged men; most painful to his supporters was the appointment of John McDonnell, his abrasive hard-left ally, over Angela Eagle, a

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likeable and conciliatory soft-left figure, to the crucial post of shadow chancellor.

Many of his backers were appalled, but kept quiet. Moderates like Jamie Reed, Chuka Umunna and Emma Reynolds decided to retreat to the backbenches. Journalists who had camped outside the room in Westminster where the new leader and his team allocated jobs published an unedifying account of the overheard discussion, in which the sheer panic and lack of preparation of Britain's new opposition leader became clear.

Second, Mr Corbyn's triumph generates a sudden—and probably irreconcilable—gulf between Labour's leader and most of his MPs. That was clear on September 16th, when he appeared in his first prime minister's questions. The new Labour leader had asked for queries from ordinary voters and deployed six, one by one, during his allotted slot. Not a terrible idea, the wheeze founded on his inability to follow up David Cameron's answers. For much of the display Labour's MPs sat in an embarrassed silence. They had displayed a similar demeanour during Mr Corbyn's first address to his parliamentary party, on September 14th, when he was quizzed on his willingness to wear a red poppy to commemorate Britain's war dead (Mr Corbyn is a pacifist and republican who—to tabloid outrage—stood silent as the rest of the congregation in St Paul's Cathedral sang the national anthem to commemorate the Battle of Britain).

Third, Mr Corbyn's election changes the balance in the Conservative party. None of the four candidates for Labour's leadership had truly worried the government, but Tory strategists had rooted for Mr Corbyn nonetheless. As a result, Mr Cameron's troops—like the bookies—take his ►►

► party's success at the next general election, due to take place in 2020, as a certainty. Moreover, they have come to acknowledge that its best chance, faced with a party led or recently abandoned by Mr Corbyn, lies in exuding stability and moderation. Thus the prime minister has spent the past weeks talking about tackling employers that do not pay the minimum wage (stealing Labour's territory) and expanding the free-school programme (dividing Labour and forcing its leader to voice his unpopular opposition to this bid to give schools more autonomy).

George Osborne, increasingly seen as the front runner in any future Tory leadership race, benefits from this development as the obvious continuity candidate. Boris Johnson, who had been poised to challenge his party's establishment in the event of an electoral disaster, suffers. Confronted by an eccentric who speaks his own mind, why would the Conservatives pick their own loose cannon?

Inexperienced, unsupported and faced by a formidable rival in Mr Osborne, Mr Corbyn thus faces a mighty challenge. He will probably fail. The elections next May to local councils, the Welsh Assembly, the Scottish Parliament and London's mayoralty may well illustrate the lack of support for Labour's new leader. Unless the Conservative party collapses under the strain of its internal divides on Europe (not impossible, given the prime minister's ongoing "renegotiation" of Britain's EU membership and plans to hold a referendum on the matter, probably next year), these should mark the beginning of the end of Mr Corbyn's leadership. He will not fall until many Labour MPs fear for their seats and have an alternative figure around whom to rally. Though none is obviously ready to play that role, several senior MPs and council leaders (see *Bagehot*) may be in a position to unite Labour's moderates in opposition to their incompetent, unelectable leader in the next few years.

And so Mr Corbyn's most profound weakness will prove to be his conservatism. Labour's new leader will propose policies long dismissed as out of date: nationalisations, interventionist pay policies, left-wing hostility to the EU. He will appear intellectually barren to members of his own cabinet and their supporters. He will continue to undervalue liberal freedoms like gender equality. His self-regarding refusal to speak to the mass media will expose him to the cartoonish attacks of his Conservative rivals. His top-down style of party management—reportedly reducing the influence of the shadow cabinet and centralising personnel decisions—will render the party rigid and unresponsive. Eventually, Mr Corbyn's MPs will tire of him and install a more credible alternative. But the intervening months—and indeed years—will not be pretty. ■

Labour's foreign policy

The anti man

Jeremy Corbyn is clearly anti-American but ambiguous over Europe

WHAT Jeremy Corbyn displays most overtly is an atavistic nostalgia for the leftism of his youth. This is what underlies his strident anti-Americanism. And it informs most of his views on defence and foreign policy.

Thus the new Labour leader is opposed to nuclear weapons and against a renewal of Britain's Trident nuclear deterrent. He is anti-NATO, which he sees as a legacy of the cold war. He has even blamed NATO's eastward expansion for provoking Russia's invasion of Ukraine. And he has said that he cannot think of any circumstances in which he would send British troops to fight abroad. That will make it harder for David Cameron, the prime minister, to secure parliamentary approval to extend Britain's bombing campaign against Islamic State from Iraq to Syria.

Mr Corbyn has supported anti-American leaders like Venezuela's late president, Hugo Chávez. He has suggested that Britain should share with Argentina its sovereignty over the Falkland islands. He has long been a fierce critic of Israel. And he has consortied with representatives of terrorist groups that include the Irish Republican Army (IRA), Hamas and Hezbollah.

It is fair to say that most of his MPs, and many in his shadow cabinet, disagree with most of this (although Mr Corbyn's new shadow chancellor, John McDonnell, once said that the IRA should be "honoured for taking part in their armed struggle"). The day after Mr Corbyn's election, his new deputy, Tom Watson, made clear that, unlike his leader, he supported both NATO and the nuclear deterrent. But the greatest confusion, and the most pointed differences, came this week over Britain's membership of the European Union.

On September 13th Chuka Umunna, formerly shadow business secretary, refused to join Mr Corbyn's shadow cabinet because, he said, the new leader would not commit himself to campaigning, in the government's planned EU referendum, for Britain to stay in. The next day Hilary Benn, the shadow foreign secretary, sounded a different note, insisting that "we are campaigning for Britain to remain part of the European Union," adding that this applied "in all circumstances". A day later Mr Benn said the Labour Party had always been committed to "not walking away."

Yet the message from the party leadership is a lot more ambiguous. Mr Corbyn is a veteran Eurosceptic who voted to leave the European project in the 1975 referendum. He sees the EU as a liberal, pro-free-market and pro-free-trade grouping that would, for example, make it harder to renationalise the railways and utilities. He is firmly against Europe's planned Transatlantic Trade and Investment Partnership with the United States.

Mr Corbyn conspicuously failed to mention Europe in a speech to the Trades Union Congress on September 15th. But a day later he said he could not envisage backing a British exit, or "Brexit". The line he appears to be moving towards is that the decision whether to campaign strongly to stay in the EU may depend on the results of the prime minister's renegotiation. Should Mr Cameron succeed in weakening the EU's social and employment rules, Mr Corbyn might yet feel free to campaign for Brexit. This, say the Corbynites, also has the merit of denying Mr Cameron a blank cheque of Labour support no matter what concessions he wins in Brussels.

As one Labour MP who has now returned to the backbenches says, the EU referendum will be the defining moment of this parliament, adding that she, along with perhaps 90% of her parliamentary ►



Haranguing the hegemon

► colleagues, believes the party must remain pro-EU. The fear among Labour pro-Europeans is that, even if Mr Corbyn stops short of backing Brexit, he may choose a neutral position, supporting two groups of MPs arguing on both sides.

None of this will help the government's EU strategy. To satisfy his Eurosceptic back-benchers, Mr Cameron needs to win promises of less costly and intrusive EU

regulation, such as a watering down of the EU's working-time directive. But anything he gets in this area risks giving Mr Corbyn (and some trade unions) an excuse to back withdrawal. At all events, the government can hardly hope to look to Labour for full-throated support for staying in. The Tories may feel chuffed by the arrival of such a leftist opposition leader, but it has measurably increased the risk of Brexit. ■

killing. IRA members were involved, he said, but there was no indication it had been sanctioned by the high command. In an unprecedented statement, he added: "The continuing existence and cohesion of the [IRA] hierarchy has enabled the leadership to move the organisation forward within the peace process."

This enraged unionists. The small Ulster Unionist Party announced that it would withdraw from the Assembly. Following the arrest on September 9th of Bobby Storey, Sinn Fein's chairman in Northern Ireland (who was later released without charge), Mr Robinson signalled that the DUP would follow suit. He first called for the Assembly to be either adjourned or suspended, threatening that he would otherwise pull his ministers out of the ruling executive, which could have led to the Assembly's collapse. When David Cameron turned down his demand for suspension, and other parties blocked an adjournment, Mr Robinson said he would "stand aside" (but not resign) as first minister. Three of his four ministers have resigned; the fourth, Arlene Foster, has stayed on as acting first minister. Mr Robinson will renominate and then withdraw his ministers every week, to prevent nationalists occupying the vacated ministries. The DUP itself admits this is "messy and ugly".

It has left Northern Ireland with a zombie government. Some committee and other work is still going on, but Stormont's marble halls and corridors have become much quieter than usual. The Assembly is not technically suspended, but the effect is close enough.

Theresa Villiers, Mr Cameron's Northern Ireland secretary, has been assigned with finding a fix. She will now spend up to six weeks chairing talks aimed at bridging the gulf between republicans and unionists, with the aim of saving the Assembly from collapse. Relations between the parties have "almost completely broken down", she said this week.

Prominent on the agenda is the idea of an independent commission to report on the state and behaviour of the IRA, with the aim of reassuring unionists that the organisation has completely disbanded. Of course, this will work only if the IRA does indeed wrap itself up.

With elections to the Assembly due next May, both the main unionist parties have been launching spirited attacks not just on republicans but on each other. That hardly improves the chances of a deal. A recent opinion poll found that whereas a clear majority of nationalists see value in the Assembly, fewer than half of unionist voters regard it as important. Resuscitating the government will require some give and take on all sides; if they feel that little is at stake, unionists may not be inclined to be very flexible. ■



Northern Ireland's crisis

Under the gun

BELFAST

With the devolved government in limbo, pressure to find a solution is rising

IT BEGAN with a backstreets killing. Early in May, Jock Davison, a 47-year-old grandfather, was gunned down close to his home in a republican inner-city district of Belfast. The clinically executed murder generated some shock, for such incidents have become a rarity in a city where violence was once commonplace.

Four months on from Davison's killing, a story of low criminality has become one of high politics, which threatens to derail Northern Ireland's power-sharing government. On September 10th the region's first minister, Peter Robinson, stepped aside from his post and pulled most of his Democratic Unionist Party (DUP) out of office. With the Stormont government effectively in limbo, talks are now under way to resolve what has become Northern Ireland's most serious political crisis in years.

The path from Davison's murder to political crisis was short. In August, three months after his killing, another local man, Kevin McGuigan, was shot dead in the street by a gunman who is said to have called out: "This is payback for Jock Davi-

son." Word quickly spread that both men had been figures in the Irish Republican Army (IRA) who had ordered or carried out many murders of their own. Years ago, Davison is said to have ordered IRA members to "kneecap" McGuigan, shooting him in the legs. It seems that McGuigan at last took his revenge in May. Police believe that McGuigan was then killed by associates of Davison.

The two murders raised the critical question of whether the IRA, which was supposed to have decommissioned its weapons and "left the stage" years ago, was back in business. Sinn Fein, the party once regarded as the IRA's political wing, which now sits in Northern Ireland's administration, has long insisted that the IRA is defunct. Many suspect that it lives on, but have turned a Nelsonian blind eye so long as it spurns violence.

A detailed picture of the republican underworld emerged when Northern Ireland's chief constable, George Hamilton, published a description of how the police and the spies of MI5 viewed the McGuigan

Bagehot | Jim McMahon, reluctant maquisard

The revival of Labour's moderates will come from local government



LAMBETH banned the word "family" from its literature. Hackney declared itself a "nuclear-free zone". Liverpool flirted with bankruptcy and threatened to fire 30,000 workers to force the government's hand, all under the mantra: "Better to break the law than break the poor". The Labour Party's left-wing local councils, in the grip of Trotskyists from the hardline Militant Tendency, exemplified the worst of the party's trek into the electoral wilderness in the 1980s.

Bagehot found himself reflecting on how much has changed since then as he picked his way around a derelict bank with Jim McMahon. As the beams from their torches glanced off beautiful cornices, boarded-up windows and the marble counter where Victorian businessmen once cashed their earnings, the leader of Oldham council marvelled: "Come back in 2020 and this place is going to be amazing." He then speculated about its future as an office block, a restaurant or a startup space, like the one around the corner that he and Bagehot had just visited. Such is Mr McMahon's record for forward-looking government that he was elected spokesman for every Labour councillor in Britain last year at just 33. The contrast between his pragmatism and his party's municipal record in the 1980s could hardly be starker.

Other things are, however, suddenly reminiscent of that period. The election of Jeremy Corbyn as Labour's leader puts the Militant wing—albeit not under that name—back in charge of the party. Mr Corbyn has already revived the silly gesture politics of that era: refusing to say whether he would kneel before the queen in a swearing-in ceremony, for example. But at least in the 1980s the trade unions were a voice of moderation. Now they are actively promoting the new leader. The sensibles—gathered around the triumvirate of Tristram Hunt, Chuka Umunna and Yvette Cooper—are looking for a focus and a base in the party. They are known as the Maquis; that is, those who (unlike the Free French) will resist the new leadership from within.

Mr McMahon spurns these divisive struggles. But like it or not, he is the ultimate *maquisard*: blazing the most distinctly moderate, pro-business, reformist trail in a party in which all of those epithets are in question. He and Sir Richard Leese, the dynamic leader of Manchester council, could yet prove the "golden thread" of sanity, says one senior party figure. They are cultivat-

ing ideas, habits and people with which the party can start to rebuild if (or when) the curtain falls on Mr Corbyn's pantomime of a leadership.

His credo in Oldham clashes with that of his party's leader. Mr Corbyn, who grew up in a manor house in Shropshire, deals in absolutes and abstracts: "justice, freedom, solidarity and equality for all". Mr McMahon, who left school at 16 and worked in a supermarket before becoming a technical apprentice, is less ideological. His talk of attracting people who are doing well and want to form a family hints at his own progress. Touring the town with him, Bagehot was reminded of a quote by Jim Murphy, the former Scottish Labour leader: "I want working-class parents to have the chance to have middle-class kids". Mr McMahon also bears traits of Michael Heseltine, the Conservative former deputy prime minister whose energetic reinvention of failing places can be seen in Liverpool and London's Docklands today.

Where Mr Corbyn dismisses profit as a measure of iniquity, Mr McMahon relishes it. Passing a soon-to-open restaurant, he is waved in by Luke and Ata, two twenty-something entrepreneurs turning a grand old shop into a shrine to smoked meat with support from the council. Mr McMahon quizzes them on their progress, scrutinising the carpentry and the outdoor seating area: "You need to level out that, then put the railings there," he says, pointing out of an upstairs window. Oldham's council leader observes about business growth: "We got a quarter of a billion pounds after the problems," he says, referring to race riots in 2001, "but have nothing to show for it because it did not boost the private sector."

A third contrast is that while Mr Corbyn scorns fiscal rectitude, Mr McMahon swears by it. "We aren't waiting for London to solve our problems," he proclaims. Oldham has seen its grant from the government cut by almost half, but satisfaction in its services has risen by 20%. Council staff attribute this to the sale of unnecessary buildings and to new ways of providing services (for example, making available council property to charities that fill gaps left by public spending cuts). Meanwhile it has spent more on boosting Oldham's confidence: improving flower displays, smartening up shopfronts and fixing derelict buildings to attract investors and new, well-off residents. Mr McMahon measures his success by increases in business tax and council tax receipts (he expects the latter to rise by up to 20% by 2020), which he takes as a sign that the town is shedding its reliance on public spending.

Listen very carefully

Not every Labour council leader is like Mr McMahon. Rotherham's Labour council, for example, was recently overwhelmed by a child-sex scandal. But he exemplifies a wave of local government leaders from his party—including Sir Richard in Manchester, Sir Robin Wales in east London and Nick Forbes in Newcastle—blazing a forward-looking and pragmatic trail.

The question is: can this body of experience help tug Mr Corbyn towards reality or provide a basis for the party's revival if he fails? In Britain surprisingly few politicians graduate, as in America and Germany, from local to national politics. Mr McMahon is tipped to be mayor of Manchester or even party leader one day. But he insists that he is going nowhere: "I want to see my kids grow up in a better Oldham." Perhaps this is for real: perhaps he will confine his abilities to the town he so obviously adores. Or perhaps it is the false modesty of a politician with national ambitions. Bagehot certainly hopes so. ■



The Sustainable Development Goals

Beyond handouts

Targets intended to shape development for the next 15 years are bloated. All the same, they show how aid is changing for the better

THE “largest gathering ever of world leaders”; a “step-change” in aid; a “massive step forward for humanity”: the UN meeting to be held on September 25th has had politicians, donors and aid workers reaching for superlatives (as well as jargon). Prime ministers, presidents and the pope will gather in New York to unveil the “Sustainable Development Goals” (SDGs) that are supposed to shape aid and development for the next 15 years. Is the hoopla justified?

Most of the SDGs’ predecessors, the Millennium Development Goals (MDGs), have been met, largely because of progress in China and India. But there were just eight of them, focused on cutting extreme poverty and improving health care and education, all clearly defined. By contrast there are 17 SDGs and a whopping 169 “associated targets”, covering world peace, the environment, gender equality and much, much more. Many are impossible to measure. They are “higgledy-piggledy”, agrees Lord (Mark) Malloch-Brown, who helped write their predecessors. A tighter focus and more precise definitions might have been wise. Even so, the SDGs are part of an important shift in thinking about development that is making it both more ambitious and more realistic.

David Cameron, Britain’s prime minister, talks of a “golden thread” in which governments, private enterprise and civil society work together to create open societies

and open economies, end conflict and corruption, and enshrine the rule of law, free speech and property rights. Building infrastructure and persuading Western banks to finance it are strands of the thread. Even the SDGs’ sprawl has its bright side. The main reason there are so many is that they were set by consensus rather than written by a few specialists, mostly from rich countries. This lessens the feeling that rich men from “the north” are telling “the south” how to do better.

Capitalism v poverty

Poor-country governments and rich-world aid lobbies have become less hostile in recent years to the idea that free markets and big business can help cut poverty. Multinationals were wary when the MDGs were unveiled, says Lord Malloch-Brown; now many are on board. And some rich-as-Croesus philanthropists, together with a bevy of market-friendly think-tanks, have started to monitor and measure the results of aid spending, and to search for ways to make it more effective. “The MDGs got everyone to face the same direction,” says Andrew Mitchell, who ran Britain’s aid-giving department from 2010 to 2012.

Pre-eminent among the big spenders is Bill Gates, the Microsoft magnate, whose foundation has dished out more than \$31 billion since 2000. George Soros, a Hungarian-born American financier, and his Open Society Foundations argue for tran-

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sparency in aid, budgets and contracts. The Gatsby Charitable Foundation, started by Lord (David) Sainsbury, a British retailer, advises African governments and business on improving supply chains. Another Briton, Sir Christopher Hohn, a financier, has spent more than \$1.5 billion since 2006 via his Children’s Investment Fund Foundation (CIFF) on spreading the crucial message that improving young children’s health leads to big benefits later in life.

For the past 15 years Mo Ibrahim, a Sudanese-born British telecoms magnate, has drawn up an Index of African Governance. “Peer pressure does work,” says Bjorn Lomborg, a Dane who runs the Post-2015 Consensus, an attempt to identify which SDGs should be given priority. Standards of governance in Africa have clearly improved in the past generation, despite backsliding here and there.

Mr Gates stresses that his foundation is a catalyst, not an implementer. Other bodies, including governments, can do the heavy lifting. Convinced, in the words of one of his aides, that “technology can fix everything”, he searches for innovative ways to lift up the poor, for instance by drawing them into a banking system and working out how to insure poor pastoralists’ livestock.

The Gates Foundation has played a big part in virtually eradicating polio, and in greatly reducing malaria and other diseases, including river blindness. It has also contributed to the Global Fund to Fight AIDS, Tuberculosis and Malaria, the biggest public-private partnership of its kind, created in 2002, which spends \$4 billion a year. More recently the foundation has concentrated on basic nutrition.

Mr Soros has sought to make governments and firms open about their dealings. In 2002 his foundation helped set up Publish What You Pay, now a global coalition ➤

► of 800-plus independent watchdogs, and in 2013 it launched a Transparency Champions Challenge. Another monitor with clout is the Open Budget Index, launched in 2006 by the Centre on Budget and Policy Priorities, a Washington think-tank. The Berlin-based scrutineer, Transparency International, founded in 1993 by Peter Eigen, a former World Banker disgusted by the corruption he saw in east Africa, has become a strong force for uncovering corruption, including in the aid world.

Leading the fight against graft in mining, oil and gas is the Extractive Industries Transparency Initiative. Under Clare Short, a former British minister for aid, it has steadily gained momentum, with 48 governments (22 in Africa) and 90-odd big companies promising to expose payments and revenue to public scrutiny. The British and American governments have signed up, hoping that France and Germany will follow, though Brazil, China, India and Russia seem unlikely to do so any time soon. Ellen Johnson Sirleaf, Liberia's president, is a fan. Even governments in Congo-Brazzaville and the Democratic Republic of Congo, both bywords for corruption, have had to become a bit more accountable (admittedly from very modest beginnings). "They just can't steal with same impunity as before," says one of the initiative's activists.

Another feature of the post-MDG consensus that goes beyond aid is a looming campaign against tax avoidance by multinationals and firms that conceal their "beneficial ownership", thereby depriving poor countries of the revenue they need to better their people's lot. At a UN conference on financing development in Ethiopia in July, it was decided to set up a body called "Tax Inspectors Without Borders" in Paris in co-operation with the OECD, a club of 34 mostly well-off countries.

Voters in the West, often suspicious that their taxes are being frittered away on dubious projects in Africa and elsewhere, increasingly expect transparency and oversight here, too. In 2011, for example, the British government set up an Independent Commission for Aid Impact, which led to a number of projects, including a large one in southern Africa, being scrapped.

As the SDGs proliferate, donors are putting greater emphasis on measuring results and collecting data. They need data to be more disaggregated and to know where the poor are concentrated, as well as their ages, how they live and what sort of work they do. Advances in technology make this easier. Satellites can more precisely determine where forests are thinning, for example, or where crops are thriving or wilting. Among the SDG targets is one that calls for all births to be registered so that all children have legal identities, and their progress can be tracked. What matters most is "measuring need and measuring impact," says Michael Anderson, who runs CIFF

Making aid work

The best medicine

NAIROBI

How a slum clinic keeps costs low

WHERE do slum-dwellers go when they fall ill? In Mukuru, a densely packed warren of corrugated iron shacks in south-east Nairobi, the usual answer is to find a backstreet pharmacist. At one of these, customers can buy packets of pills for the ailments caused by living in a tough neighbourhood: antimalarials; antibiotics; aspirin. Drugs are not always reliable: fake or out-of-date medicines are common. A patient who thinks he has malaria when he actually has flu will not be put right by a slum pharmacist.

For the past few years, however, in one corner of Mukuru, people with medical problems have had a better option. Opposite a makeshift public urinal which costs five Kenyan shillings (about 5 cents) to use is a smart green-and-white-painted clinic. From 7am until 8pm each day it offers primary health care to anyone who walks in. A price list explains that a consultation is 100 shillings; the various tests and treatments on offer cost a little more. Staff tap patients' details into an iPad; the shift's clinician, Ian Oyola, shows off an examination room with scales, blood-pressure monitor and

the various other tools of a modern doctor's surgery.

The clinic is one of two run by Access Afya, an NGO that also provides health care to children in several low-cost private schools in Nairobi's slums. It illustrates how aid is evolving. Funding is a mix of public and private; smart technology is used to improve efficiency and results—and the aim is as much to show the way for others as to serve immediate needs. Though the NGO gets some money from donors, including Grand Challenges Canada, a Canadian government fund for health-care innovation, and USAID, America's aid agency, 70% of the clinics' running costs are covered by patients' fees, and that share is rising. Melissa Menke, the American founder, plans to open three more clinics in Nairobi next year. But just as important is to create a model for affordable, self-sustaining clinics that can be copied by others across the developing world.

The clinics record patients' data via a custom-built iPad app that automatically uploads the information to head office, where it can be analysed. A spike in upset tummies might suggest a problem with the local water supply; that in turn could prompt a text message to patients in the affected area warning them to be careful (and perhaps buy water-purification tablets). All patients receive phone calls after consultations to check that the treatment is working. Drugs inventory is managed with commercial retail software, which tracks trends and alerts staff when something is running low.

Patients are mostly drawn from Nairobi's poorest, making perhaps \$50-150 a month running informal businesses in the slum. But a growing minority are slightly better off, working as security guards or in factories. Dommianah Mwakali, one of Access Afya's community workers, says that many of the best customers are members of local savings and self-help groups. If health care is good, she says, people will pay for it.



Slum docs

and was previously Mr Cameron's special envoy for the UN's development goals. Yet, he adds, of the 193 countries which have signed up to the SDGs' nutrition targets only 74 have enough data to assess whether they're on track to meet them.

"We know so much better now what works and what doesn't work," says Mr Anderson. "Aid is an ever-declining part of the story." That, perhaps, is the SDGs' real

message. Unwieldy as they are, they are not just a call for more handouts. The MDGs were meant to create a social safety net; the SDGs to be fit for an age in which the standard of living in a big chunk of the developing world is creeping towards the levels of rich countries. The SDGs' boosters, though admitting they will be harder to measure than the MDGs, let alone meet, hail them for going "beyond aid". ■



Vitamins and supplements

Miracle healers

NEW YORK

Despite scandals and scepticism, America's supplement industry looks healthy

THIS is a strange time for supplement-makers. From one angle, the industry's prospects look bright. Demand is rising for products that promote health "naturally". Supplement-makers have just the thing, or rather, things: some 85,000 pills, powders and elixirs in America alone. They will be touted at the Natural Products Expo East, a big convention this week in Baltimore. Among the exhibitors are Solgar, with a vegetable pill that "increases mobility, flexibility and range of motion in sensitive joints", and Emergen-C, with a powder that "may help support a healthy heart" and "support your immune system".

Between 2009 and 2014 worldwide sales of supplements like these grew more than 50% faster than those of over-the-counter drugs, reaching \$88 billion, according to Euromonitor, a market-research firm. That is a boon for many small producers—the industry is fragmented—and a few big ones. Otsuka Pharmaceuticals of Japan owns Pharmavite, which churns out 15 billion pills a year. Pfizer and Bayer, pharma giants from America and Germany, are each big peddlers of multivitamins. Mylan, a drugs firm, is trying to acquire Perrigo, whose products include vitamins and "probiotics" (products containing live, and beneficial, bacteria and yeasts).

In 2010 the Carlyle Group, a private-equity firm, paid \$4 billion to buy NBTY, which controls brands such as Solgar. Other industry titans include multilevel mar-

keters, such as Amway and Herbalife, whose recruits not only peddle their products, but enlist other sellers.

Looked at in another light, however, the industry seems besieged. Concerns abound over the veracity of the claims it makes. America's justice department has accused Bayer of illegally promoting the effect of its probiotic, a collection of bacteria that it says "support digestive health". A court ruling is imminent. On September 21st America's Federal Trade Commission will hold a meeting to scrutinise adverts for homeopathic products.

Worries over safety are graver. On September 1st America's Food and Drug Administration (FDA) sent warning letters to firms selling pure caffeine, one teaspoon of

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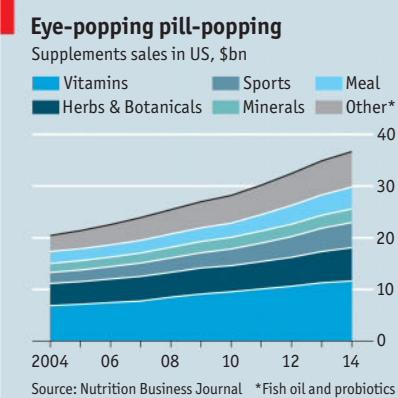
which has as much of the stuff as 28 cups of coffee. In April the FDA warned several firms that they had illegally dubbed as "supplements" products that contain BMPEA, a stimulant similar to amphetamine. And regulators are not the only ones watching the industry. Numerous lawsuits are in the works, on everything from allegedly dangerous diet pills to protein powders said to lack protein.

In the face of such attacks, however, the industry has a good immune system of its own. Supplements boast a unique trifecta: lax regulation, potent marketing and millions of credulous consumers keen to pin their hopes of a healthier life on a pill. "It's an industry that has proven time and again that it is very resilient," says Mike Archbold, boss of GNC, a vitamin retailer.

America is the industry's honeypot, thanks to loyal consumers and uniquely helpful regulations. Though growth has slowed, supplement sales reached a record last year of \$25 billion, according to Euromonitor. The *Nutrition Business Journal*, which defines the sector more broadly, puts the figure at \$37 billion (see chart).

The country's craze for supplements, as recounted in "Vitamania", a book by Catherine Price, started in the 1930s and 1940s. Pills containing vitamins—chemicals that perform vital functions in the body—were seen as a way to boost soldiers and workers alike. Once vitamins could be synthesised in factories rather than extracted from nature, they became cheaper and more widely used. From the 1970s Linus Pauling, a Nobel prize-winner in chemistry, argued that vitamin C could prevent colds and cure cancer (it can't).

Strangely, it was regulations which gave the industry its biggest lift. In the 1990s the FDA considered new rules for supplements' health claims. "It set off a firestorm," remembers David Kessler, the ►



► FDA's commissioner at the time. "The industry understood there were billions of dollars at stake." Lobbyists framed the issue as one of personal liberty. Bureaucrats would rob Americans of both vitamins and the freedom to care for themselves.

The result was a law that covered not just vitamins and minerals, but botanicals, amino acids, enzymes, metabolites and pills made from animal organs. The 1994 law let firms sell supplements without requiring the FDA's approval for safety or efficacy. It also, for the first time, authorised firms to tout health benefits. They cannot claim that their pills can diagnose, prevent, treat or cure a disease, but they may make vague claims that it "supports a healthy heart" or is "essential for strong bones", and so on. As a result, rather than restrain the firms, the law unleashed them. There are more than 20 times as many supplements on the market as there were in 1994.

Critics such as Paul Offit, of the Children's Hospital of Philadelphia, argue that the rules fail to ensure safety or efficacy. First, safety. The rules on manufacturing standards apply to the supplement-makers, but not their suppliers. There is no cap on the amount of nutrient that a pill may contain. The FDA's powers over products on sale are anaemic. To ban a product, it must prove that it is unsafe. It took seven years for the agency to piece together evidence that certain diet pills caused liver disease. Given the FDA's limited role, many firms hire consultants to check their products' quality. Others do not.

Earlier this year New York's attorney-general charged that many supplements did not contain what they claimed, although some argue the state's tests were faulty. Other studies have also found problems. When ConsumerLab.com, an independent outfit, tested 42 multivitamins, 16 failed, mainly for having either too much or too little of a nutrient.

Other cases are more serious. Last year an infant died from a contaminated probiotic. In 2013 a vitamin B pill was found to contain steroids: women reported facial hair and missed menstruation. That year consumers on a diet product called OxyElite Pro began to develop acute hepatitis. Nearly 50 people went to hospital; at least three had a liver transplant and one died.

The question of efficacy is just as thorny. Under the 1994 law, firms must have some substantiation for the claims they make, but they do not have to file it with the FDA. When a government auditor reviewed some firms' evidence in 2012, one firm cited an old, handwritten college essay. Others offered links to Wikipedia.

Sceptics question if many supplements are worth buying. A few products have some evidence behind them, such as folic acid for women planning to become pregnant and vitamin B12 for the elderly. A study published on September 14th linked

"ONE should eat to live, not live to eat," wrote Molière, the French comedic playwright. Some workaholic entrepreneurs have taken him at his word. Soylent, a two-year-old startup, is trying to save consumers time and money by selling them a healthy, cheap "meal" that they can drink. Each vegetarian portion has only around 400 calories, costs around \$3 and boasts of being as nutritious as, and more environmentally-friendly than, processed food and meat.

Soylent has found a place among American workaholics who resent the cost and hassle of preparing regular meals. This is especially true in Silicon Valley, home of many "early-adopter" engineers too consumed with coding the future to break from work. Their bad diets can damage their health. Several years ago Sam Altman, an entrepreneur who is now president of Y Combinator, a startup boot camp, was so cost-conscious and focused on building his first company, Loopt, that for weeks he ate only ramen noodles and coffee ice cream, until he developed scurvy. He later became an investor in Soylent. At first the product was sold as a powder, but even that was a hassle for some consumers, so on September 9th it started shipping version 2.0, which comes already mixed and bottled.

The name Soylent is a tribute to a 1966 science-fiction novel, "Make Room! Make Room!", set in an overpopulated world where everyone eats a mixture of lentils and soy (and, in the film version, human flesh). Rob Rhinehart, the drink's 27-year-old creator (pictured), came up with the idea when he was working on a different startup, focused on wireless internet. He was so poor that he started mixing his own food, and later dropped the other project to focus on food technology. He is, by any measure, extreme. He considers shopping at grocery stores, in the presence of "rotting" produce, a "multisensorial living nightmare", and no longer owns a fridge.

Soylent has proved that it can appeal to a niche, as well as to a handful of financiers: in January the firm raised \$20m from investors, including Andreessen Horowitz, a well-regarded venture-capital firm. But it has plenty of obstacles to overcome. Yucky-sounding ingredients like algal oil (yes, derived from algae) will put many off, as well as reviews from early users that Soylent makes them gassy. "I prefer my food with both flavour and texture," says one young, vegetarian entrepreneur who has tried it. Mr Rhinehart insists that Soylent's "neutral" taste is the best way to appeal to the broadest group of people. Just how big that group really is, however, remains to be seen.

Food technology

Liquid lunch

SAN FRANCISCO

A startup called Soylent wants to change the way people consume calories

A photograph of a young man with short brown hair, wearing a light grey t-shirt, standing in a kitchen or laboratory setting. He is holding a large, metallic, resealable bag of Soylent powder in front of him. The bag features a blue hexagonal logo with a white stylized letter 'S'. The background shows various pieces of equipment and shelving typical of a food production facility.

"ONE should eat to live, not live to eat," wrote Molière, the French comedic playwright. Some workaholic entrepreneurs have taken him at his word. Soylent, a two-year-old startup, is trying to save consumers time and money by selling them a healthy, cheap "meal" that they can drink. Each vegetarian portion has only around 400 calories, costs around \$3 and boasts of being as nutritious as, and more environmentally-friendly than, processed food and meat.

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low levels of vitamin D to cognitive decline, though there is no evidence yet that supplements can solve the problem. Steve Mister of the Council for Responsible Nutrition, a lobby group funded by supplement-makers, argues that since many Americans eat unhealthily, supplements therefore fill a need.

But it is difficult to discern many supplements' benefits, says Paul Coates of the National Institutes of Health, a government agency. In a drug trial the control group takes no medicine. In a study of a vitamin, the control group still ingests various levels of that vitamin from food. That makes it

harder to judge the effect of a supplement.

The evidence that does exist is mixed. Some botanicals, such as ginkgo, show no effect in large studies. Others, such as St John's wort, can interfere with blood thinners. When researchers tested if a precursor to vitamin A cut the risk of cancer among smokers, they found that supplements seemed to increase it. In 2011 a study found that men taking vitamin E were more likely to get prostate cancer than those on a placebo. Two studies suggest that multivitamins may lower the risk of cancer in men; another suggests they may reduce heart-disease deaths in women. But ►



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► in 2013 a trio of papers reported that multi-vitamins showed no effect on heart disease, cancer, cognitive decline or death.

There are some signs of weakness in the industry. American supplement sales grew more slowly in 2014 than at any time since 2002, according to Euromonitor. But in general firms don't seem to be fazed by the negative attention, for three reasons.

First, further regulation is unlikely. Bills to improve oversight have never got anywhere. The FDA is unlikely to use even its existing powers. The Council for Responsible Nutrition has a \$6m budget to boost its members' interests. The FDA's Division of Dietary Supplements has \$5.2m to police the entire industry. Its strongest boss to date was a former supplements lobbyist who has since returned to lobbying.

The stimulant BMPEA illustrates the agency's limits. The FDA knew in 2013 that some products contained it, but did not issue warnings to manufacturers until April. The inaction may have been due to conflicts of interest. More likely, the agency had too many tasks and no cash. Nearly five months after sending its warning letters, the agency cannot confirm that products with BMPEA are off the shelves.

Second, firms are expert at bouncing back. A negative scientific paper can hurt sales, according to Simeon Gutman of Morgan Stanley. A study on the risks of excess vitamin D, for example, helped depress sales growth from 16.7% in 2011 to 1.3% in 2012. But it rebounded to 9% in 2013. And if one particular product does not make a comeback, companies offer a new one. "You've always had something else that comes along," says Mr Gutman.

Third, and most importantly, Americans love taking supplements. About half of them do so regularly. They take them for all sorts of reasons—their bones, their hearts, their minds—but mostly for that holy grail of general health. That is not so surprising. Not only are firms good marketers, but conventional health care is expensive and vexingly complex. Supplements let patients take charge of their health. And then there is the placebo effect, the brain's response to the belief that a given pill will help, which scientists agree is real.

The industry's gravest threat may not be regulators or huffy academics, therefore, but a simpler foe. Consumers are increasingly keen on natural and organic foods. Last year sales grew by 12.7% compared to supplements' rise of 5.1%, according to the *Nutrition Business Journal*. But supplement makers are already adapting. GNC has launched "whole-food-based sports nutrition products". Last year Pharmavite bought FoodState, which makes vitamins from "fresh and local foods". Consumers could simply cut out the middleman by eating decently, but the makers of the supplements have good reason to hope that they will not be so sensible. ■

A giant drinks merger Beer monster

NEW YORK

AB Inbev may combine with SABMiller, in a flat market for big beer brands

THE history of the world's biggest brewer is one of unquenchable thirst. In 1989 Jorge Paulo Lemann and two partners bought a middling Brazilian beer company named Brahma for \$50m. A decade later Brahma acquired Antarctica, a rival, to become AmBev. In 2004 a merger with Interbrew, the Belgian seller of Stella Artois and Beck's, created InBev. Four years later, InBev paid \$52 billion for Anheuser-Busch of the United States. As if those deals weren't dizzying enough, in 2012 the new Anheuser-Busch InBev paid \$20 billion for full control of Grupo Modelo of Mexico.

Now may come its boldest deal yet. On September 16th SABMiller, the world's second-biggest brewer, confirmed that it is being courted by AB InBev. The combined firm would earn roughly half the industry's profits and sell one in every three pints of beer quaffed worldwide.

The announcement comes at a sobering time for big brewers—in June McKinsey, a consulting firm, said the industry faced "its greatest challenge in 50 years". Consumption in many big markets has been as flat as cask ale. In America the buzz belongs to "craft" brewers, whose volumes jumped by 18% last year even as total beer sales stayed level. Some markets have fared worse. In Germany, where beer is a point of national pride, consumption per person has plunged by one-third since the 1970s.

Little wonder, then, that big brewers and investors have mulled various tie-ups. Last year SABMiller tried and failed to buy Heineken, the third-biggest beer company. June brought rumours that Mr Lemann's private-equity vehicle, 3G, would buy Dia-

geo, the world's biggest distiller, perhaps to combine it with AB InBev. More recently, analysts have weighed a merger of Diageo and SABMiller.

Some of these combinations would have merit. But there is a logic for AB InBev to make this particular bid at this particular moment. It is losing its fizz in its two main markets. In Brazil a weak economy is hurting sales. In America its share of volumes was an impressive 45% in 2014, but that is five percentage points below what it was in 2009, according to Euromonitor, a market-research firm. So, buying SABMiller looks attractive, for at least three reasons.

First, AB InBev has already snapped up other big, appealing targets, explains Trevor Stirling of Sanford C. Bernstein, a research firm. In the past, it has sliced the costs of newly acquired assets, as is 3G's way. In the three years after AB InBev bought Anheuser-Busch, its American profit margin rose by 13 percentage points. AB InBev plans to boost Grupo Modelo's profit margin by 18 percentage points over the same period. SABMiller is already pretty lean, but a merger would offer some scope to widen its margins.

Second, the merger would help AB InBev extend its global reach. SABMiller earns almost a third of its profits in Africa, where AB InBev's sales are negligible. A combination would also help AB InBev serve more drinkers in Colombia and Peru.

Third, SABMiller looks cheap. Its share price has slumped in the past year, thanks to a weak South African rand and Colombian peso. Slower growth in emerging markets, where SABMiller earns 72% of its profits, has not helped. If emerging economies resume their brisk climb, investing in SABMiller could pay off handsomely.

Under the takeover rules in Britain, where SABMiller is listed, AB InBev must make a formal offer by October 14th. SABMiller's board is likely to reject its initial approach, and may seek another deal to avoid being taken over. However, its attempts to join up with Heineken got nowhere. It is not obvious that there are other good targets. "If that deal was out there," argues Mr Stirling, "they would have done it already." SABMiller's two biggest shareholders are Altria, a tobacco giant, and the Santo Domingo family of Colombia. If AB InBev's terms are sweet enough, they will probably support a merger.

Antitrust regulators are another big barrier, though AB InBev could work to appease them. For example, it could sell SABMiller's stake in MillerCoors, in America, and in CR Snow, China's biggest brewer. It has already done something similar. After it bought Grupo Modelo, AB InBev calmed American regulators by agreeing to sell the Mexican firm's American beer business for \$4.75 billion. Shedding a business or two can be justified, after all, in the name of acquiring a much bigger one. ■

Not just froth

Global beer sales, top ten brewers by volume
2014, hectolitres m





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The Sky Terrace at night



The Residents Club interior and Sky Terrace

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NEW YORK

Symphony, a Wall Street-backed service, takes on Bloomberg

STARTUPS typically strain to be noticed. Symphony, a new communication service backed by a consortium of 15 financial firms, does not have this problem. Its unveiling on September 15th was preceded by frenzied speculation not only about what Symphony might do, but which companies and products could become collateral damage if it turns out to be a success.

At the top of the list is Bloomberg, the world's largest provider of financial information (whose newish editor-in-chief is John Micklethwait, a former editor of *The Economist*). But the more immediate targets are online-collaboration platforms for companies, such as Slack, which have become increasingly popular. Over time, its creators hope, Symphony will evolve into a hub for all sorts of business and social interaction—a Facebook without all the clutter and unsolicited self-promotion—that could become an alternative to the most ubiquitous digital-communication product in the business world: e-mail.

The technical roots of Symphony reach back to another company, Perzo, founded by David Gurle, a former executive at Microsoft and Thomson Reuters. Whatever Perzo's initial goals, interest in such communications platforms increased on Wall Street in the aftermath of news in 2013 that journalists at Bloomberg may have gleaned some information from monitoring the messaging system on the company's terminals. This is a critical conduit for correspondence between traders, bankers, and even officials.

The resulting indignation may have been largely opportunistic: banks were already unhappy that an outside entity not only controls a key part of their communication infrastructure, but charges so much for doing so. Goldman Sachs began building its own network, and then led the purchase of Perzo in 2014 and the creation of Symphony's ownership syndicate. This also includes Bank of America, BlackRock, Citigroup, JPMorgan Chase, Morgan Stanley and other usual suspects.

That sort of backing means that Symphony stands a chance of becoming an industry-wide platform. But its initial version is intended for use within a single company. The service lets employees, among other things, form discussion groups and offers mechanisms that make it easy to distribute outside information such as research reports. It also allows firms to consolidate their many messaging

services. Mr Gurle, now Symphony's chief executive, says that one of the financial firms consulted during the development of Symphony uses as many as 44 systems.

But Mr Gurle has much bigger plans than just consolidating communication. Symphony is built in such a way that the internal user groups created on Symphony can be expanded to include employees from other firms and then, eventually, customers. An obvious step would be for financial firms to open up the system to their wealth-management clients.

The service will also provide access to a stream of financial information. Three companies have agreed to provide news and data for Symphony's initial release: Dow Jones, Standard & Poor's Capital IQ and Selarity, an information aggregator that offers a filtering system to provide relevant content based on a user's interests. This line-up will soon be complemented by a facility for users to pay for further content, which will presumably have all sorts of information providers trying to claw their way in through the door.

A big question ahead of Symphony's launch was how it would bring together the seemingly contradictory goals of ensuring users' privacy while being open to financial regulators. Under an agreement with New York's Department of Financial Services, which was announced the day before the service's unveiling, all messages on Symphony will be copied and held by an independent entity for at least seven years. Encryption will mean that these can only be read with the permission of the company involved, but the set-up also guarantees that the data will be preserved and that a court order could force co-operation. Discussions are ongoing with a number of regulators in other countries to get them to sign up to this approach.

Most importantly, perhaps, Symphony will be cheap: \$15 a month per user. That is a fraction of the \$1,700 a month that a Bloomberg terminal costs. But the price tag will not guarantee Symphony's success. Other challengers to Bloomberg have failed, largely because it is exceedingly hard to dethrone a messaging service that enjoys a near-monopoly among the people who count in finance. Bankers' occasional petulance aside, Bloomberg is also the repository of vast amounts of trust: its data are central to how many products are evaluated, priced and traded.

Bitter sweet

Symphony's greatest advantage, its ownership structure, may also be a source of vulnerability. If Symphony turns out to be a huge success, would a Wall Street consortium really be permitted to control a critical platform for global financial communications? If Symphony succeeds, expect to hear applause, and then, perhaps, the audience will turn. ■

China's state-owned enterprises

A whimper, not a bang

SHANGHAI

China's plan to reform its troubled state firms fails to impress

IF EVER there was a moment for China to pull a rabbit out of the hat, this is it. The Chinese government has lost a great deal of credibility in the eyes of the world over the past few months thanks to its bungled devaluation of the yuan and clumsy attempts to prop up its plunging stockmarkets. Investors are worried that a weakening Chinese economy and debt-laden state firms may push the world back into recession. This week China National Erzhong Group, a machinery firm, said it might miss an interest payment on \$150m of debt.

So when rumours surfaced recently that China's State Council, the ruling body, and the Communist Party's Central Committee had decided to go ahead with a long-awaited reform of state-owned enterprises (SOEs), many were hopeful. After all, these bloated behemoths represent much of what is wrong with the Chinese economy. As the charts show, their perfor-

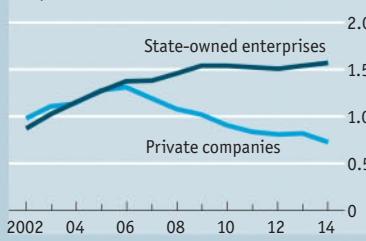
State-owned, and in a state

China

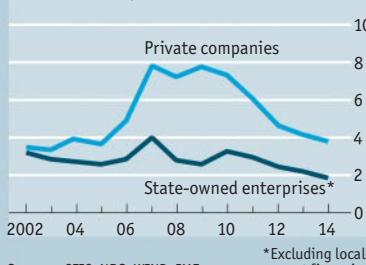
State-owned enterprises' share, %



Debt/equity leverage ratio



Return on assets, %

Sources: CEIC; NBS; WIND; IMF
*Excluding local-government financing

►mance has long been deteriorating. Leverage has soared. Returns at state firms do not even cover the cost of capital.

Alas, the dream of bold market reform has been crushed. The scheme unveiled by officials on September 13th will do little to fix what ails the SOEs. The very way in which the plan was unveiled explains why it may prove unworkable: officials from five competing agencies gave speeches at its launch.

Optimists had hoped that the reforms would move China towards the successful approach taken by Singapore to managing its SOEs. Temasek, the agency that holds the state's stakes in such firms, focuses on maximising long-term returns rather than meddling in operational details. The new plan does call for the creation of new state asset-management companies, which sounds Temasek-like. China's ministry of finance, which is keen to raise the dividends paid to the exchequer by SOEs, is pushing for this market-minded approach.

Unfortunately, resistance from the State-owned Assets Supervision and Administration Commission (SASAC), which currently micromanages the biggest Chinese SOEs, has hobbled that effort. A radical embrace of the Temasek model would put SASAC out of business. Rather than remain hands-off, it wants the new asset-management firms to get their hands dirty by forcing consolidation of the biggest SOEs into gargantuan national champions. And it looks likely that the agency will continue supervising many of the mega-SOEs created by such mergers.

The new plan also calls for some positive-sounding steps toward "mixed ownership." China's leaders have ruled out wholesale privatisation, but sales of minority stakes and the listing of shares seem to be on the cards. Such moves could inject a dose of market discipline, as outside investors push for greater transparency and better corporate governance at SOEs.

However, while the reform plan advocates "mixed ownership", it also vows to "prevent the loss of state assets". This suggests that a chunk of the minority stakes in SOEs will be sold to other state firms, rather than just to private investors. Lu Wenjie of UBS, a bank, observes that the conservative approach to privatisation means "poorly-run SOEs may have little chance of turning profitable quickly." The plan also says "leadership by the party" will be strengthened at state enterprises, making a mockery of the idea that outside investors will have an influential voice.

Andrew Batson, a keen observer of the SOE scene at Gavekal Dragonomics, a consulting firm, sums up the plan thus: "an ungainly mishmash of bureaucratic compromises that sets no clear goals and is riven by internal contradictions." China's best chance to rein in the excesses of state capitalism is yielding a whimper, not a bang. ■



Russian oligarchs in Israel

Welcome to the Promised Land

JERUSALEM

The arrival of big-spending foreign tycoons raises some doubts

REPORTS in April that Roman Abramovich, a London-based Russian businessman (pictured), had bought a hotel in Tel Aviv's posh Neve Tzedek neighbourhood for 100 million shekels (\$25m), probably to convert into a private home, caused barely a stir in the local business community. The owner of Chelsea Football Club is only the latest in a long list of oligarchs to invest in an Israeli home. It will not be the most expensive Russian businessman's home in Israel anyway. That distinction goes to a huge and lavish estate in Caesarea, a millionaire's playground by the sea, being built for Valery Kogan, the owner of Domodedovo airport in Moscow. It is said to be costing him half a billion shekels.

Most oligarchs purchasing a private stronghold in the Promised Land do not spend more than a few weekends a year there. Even so, many of them have gone to the trouble of obtaining Israeli citizenship. Since the businessmen in question have Jewish origins, they are entitled to this under Israel's Law of Return. Israel's government has long tried hard to attract Jewish businesspeople to the country, but for many years, they were content mainly to donate to philanthropic causes. The scepticism among American Jews was summed up by an old quip: "To make a small fortune in Israel, come with a large fortune."

In an effort to attract successful people and their money, the authorities took a no-questions-asked attitude to the source of the funds. More recently, the success of Israeli technology companies has also made

the country a viable destination for legitimate investment. The oligarchs, for their part, have increasingly sought out potential boltholes in case they fall out with the government back home.

Besides the warm welcome from officialdom, another of Israel's attractions for the oligarchs is physical security. Many of them travel the world with bodyguards, looking over their shoulders for hit-men or polonium in their tea. It is never referred to publicly, but there is an understanding that Russia's intelligence services do not challenge their Israeli counterparts by carrying out hits in Israel. "There haven't been any assassinations here, that's enough," was all one senior official would say.

With many oligarchs forced to choose between being for or against Vladimir Putin, or between one or other of the factions fighting for power in Ukraine, Israel has become a neutral zone where they can all meet, safe from extradition for (often politically motivated) indictments. At the end of the week and on the eve of Jewish holidays, websites such as Flightradar24.com show the paths of business jets from Moscow, Kiev and other ex-Soviet cities heading to Tel Aviv's Ben Gurion Airport.

Israeli law-enforcement officials have raised concerns that lax tax rules have created a pipeline for money-laundering. Last month the finance ministry tried to convince the cabinet to adopt its proposal to cancel a ten-year exemption from reporting foreign income and assets that immigrants and returning Israeli expatriates enjoy. (They would still have been exempted from paying tax on their foreign income.) The immigration minister, Ze'ev Elkin, blocked the plan. He insists that the exemption is not there to attract the oligarchs, who have their pick of friendly tax jurisdictions elsewhere.

Not everyone is convinced. The Israeli tax authority reckons that Israelis hold unreported wealth equivalent to around one-fifth of the country's GDP. Some of that money is trickling in to the country, but its main effect is to fuel an upward spiral in property prices.

There are also worries about the effect the influx of oligarchs is having on local politics. Ezriel Levi, a former executive at the Israel Land Authority, says the country is letting in dirty money, and that some of it "buys the oligarchs access to politicians, who are constantly looking for ways to bypass the strict campaign-finance laws."

A series of Israeli politicians, including one former president and three prime ministers, have been investigated over the past decade for accepting illegal payments from foreign Jewish tycoons. One former prime minister, Ehud Olmert, is currently appealing against a prison sentence related to such payments. More such political scandals are likely to occur if Israel allows itself to remain an oligarchs' playground. ■

Data-centre software

Progress without profits

SAN FRANCISCO

A flock of startups is making cloud computing faster and more flexible, but most of them will not survive

“WHEN my hair gets long, I kind of look like him.” Matei Zaharia jokingly evades the question about what he thinks of being compared to Bill Gates. But the 30-year-old Romanian-Canadian computer scientist is indeed reminiscent of Microsoft’s former boss in his early days: he is considered one of the most brilliant geeks of his generation; he has developed an exciting new technology, called Spark, to crunch data; and he is one of the founders of a promising startup, Databricks.

Yet in an important way the two men are different: Mr Zaharia has no interest in making billions. After spending two years helping get Databricks off the ground, he has recently reduced his involvement with the firm and become a professor at the Massachusetts Institute of Technology. “I like to work on long-term and risky projects—something you can do at university, but not at startups,” he explains.

This combination—progress without profits—makes Mr Zaharia a poster-child for a branch of the IT industry that is crucial to many websites and apps, but gets much less attention than the latest smartphone or the next social-media sensation. Databricks, and a bunch of other startups, provide software that makes data centres run more efficiently and lets them handle vast amounts of data.

The operators of the biggest data centres, such as, say, Amazon or Facebook, already have this sort of software installed. But the next stage, which the startups are concentrating on, is to make it sufficiently user-friendly for non-tech businesses. The sector is improving rapidly, but may never make anyone filthily rich—even those who are keener than Mr Zaharia on money.

The model for this sort of software was virtualisation, the idea of splitting a computer into several “virtual machines”, each with its own operating system and programs. Originally developed for mainframe computers, virtualisation became popular in the late 2000s as a way of making corporate data centres more efficient by spreading work around servers that were being under-used. The company that pioneered this, VMware, has grown rapidly.

A startup called Docker is now seeking the same sort of success with “containerisation”. It slices big and complex online applications into more manageable parts, which can be handled separately, meaning that small teams of programmers can focus on improving the code in one container.

Upgrades can be installed at any time without the need to wait until a new version of the entire application is ready.

Since containers make developers much more productive, Docker’s software has proved hugely popular. The firm claims there have been more than 800m downloads since the program was first released in March 2013. Some of Docker’s customers have already made it an important part of their software supply chain. Gilt, an e-commerce site, for instance, used containers to cut seven big applications into 400 smaller ones.

“Orchestration” is perhaps the most important addition to this class of software. Whereas virtualisation carves up one computer into many, orchestration makes a bunch of machines (a “cluster”) look like one big computer by moving containers around between them. In July Google made public its version of the technology, called Kubernetes, so others can use it. CoreOS, another startup, has added a version to its software package. Mesosphere, which makes an operating system for data centres, has integrated Kubernetes into it.

Firms not only need help with running and updating their applications, they also need assistance in managing their growing piles of data. This is the remit of Hadoop, a database program with an accompanying set of number-crunching tools. The package also originated at Google, but is now marketed by firms such as Cloudera and Hortonworks. The software lets companies create and analyse “data lakes”, vast repositories for all kinds of information.

Sifting through these digital waters is

often slow, which is why Databricks’ Mr Zaharia developed Spark, a sort of spreadsheet for big piles of data. It allows these to be handled in real time as the information comes in, for instance, from websites and sensors. Although it is only a few years old, Spark has already attracted a following of hundreds of developers and users. In June IBM announced that it would put its weight behind the software.

Their popularity notwithstanding, it is not clear whether these startups will ever become good businesses. In contrast to software firms in the past, they will not make money by selling copies of their programs. In most cases these are “open-source”, ie, the software’s creators publish the source code, so anybody can work with it. They do so out of a mixture of altruism and a belief that the product, and thus the market for it, will develop quicker if people are free to collaborate on it.

Instead, the startups are looking to make a living by charging for add-ons of various sorts. Hortonworks offers subscriptions for things such as troubleshooting and updates. Docker and CoreOS are planning to charge for management tools. Databricks has turned Spark into a set of web-based services which, for instance, allow subscribers to visualise data.

Even so, it will be tough to survive in competition with giants like Amazon and Microsoft, which are offering comprehensive cloud-computing services. What is more, many potential customers may prefer to get all the pieces from one firm rather than stitching together software from startups, says Simon Crosby, a virtualisation veteran who works for Bromium, a provider of online-security software.

The current plethora of data-centre-software startups is likely to shrink as they run out of venture capital. Some firms will be gobbled up by established software firms, such as VMware and Red Hat. But they may be remembered fondly by data-centre managers for having made computing cheaper, faster and more flexible. ■



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Schumpeter | Death and transfiguration

The golden age of the Western corporation may be coming to an end



EDWARD GIBBON, the great English historian, begins his “Decline and Fall” with a glowing portrait of the Roman Empire in the age of Augustus. The Empire “comprehended the fairest part of the earth”. Rome’s enemies were kept at bay by “ancient renown and disciplined valour”. Citizens “enjoyed and abused the advantages of wealth and luxury”. Alas, this happy state of affairs was not to last: the Empire already contained the seeds of its own destruction. Gibbon soon changed gear from celebrating triumphs to chronicling disasters.

Perhaps the history of the Western corporation will one day be written in much the same vein. Today’s corporate empires comprehend every corner of the earth. They battle their rivals with legions of highly trained managers. They keep local politicians in line with a promise of an investment here or a job as a consultant there. The biggest companies enjoy resources that have seldom been equalled; Apple, for instance, is sitting on a cash pile of more than \$200 billion. And they provide their senior managers and leading investors with “wealth and luxury” that would have impressed even the most jaundiced Roman.

A new report by the McKinsey Global Institute provides some invaluable statistics for any future Gibbon, which MGI calculated by crunching data from nearly 30,000 firms across the world. Corporate profits more than tripled in 1980–2013, rising from 7.6% of global GDP to 10%, of which Western companies captured more than two-thirds. The after-tax profits of American firms are at their highest level as a share of national income since 1929.

Yet the men and women from McKinsey change gear as quickly as Gibbon. The golden age of the Western corporation, they argue, was the product of two benign developments: the globalisation of markets and, as a result, the reduction of costs. The global labour force has expanded by some 1.2 billion since 1980, with the new workers largely coming from emerging economies. Corporate-tax rates across the OECD, a club of mostly rich countries, have fallen by as much as half in that period. And the price of most commodities is down in real terms.

Now a more difficult era is beginning. More than twice as many multinationals are operating today as in 1990, making for more competition. Margins are being squeezed and the volatility of profits is growing. The average variance in returns to capital for

North American firms is more than 60% higher today than it was in 1965–1980. MGI predicts that corporate profits may fall from 10% of global GDP to about 8% in a decade’s time.

Two things in particular are shaking up the comfortable world of the old imperial multinationals. The first is the rise of emerging-market competitors. The share of Fortune 500 companies based in emerging markets has increased from 5% in 1980–2000 to 26% today. These firms are expanding globally in much the same way as their predecessors from Japan and South Korea did before them. In the past decade the 50 largest emerging-world firms have doubled the proportion of their revenues coming from abroad, to 40%. Although the outlook for many emerging markets is more mixed than it was just a couple of years ago, troubles at home may push rising multinationals to globalise more rapidly.

The second factor is the rise of high-tech companies in both the West and the East. These firms have acquired large numbers of customers in the blink of an eye. Facebook boasts as many users each month as China has people: 1.4 billion. Tech giants can use their networks of big data centres rapidly to colonise incumbents’ territories; China’s e-commerce giants Alibaba, Tencent and JD.com are doing this in financial services. Such firms can also provide smaller companies with a low-cost launching pad that allows them to compete in the global market.

MGI does not dwell on it, but the political environment is also becoming more hostile. Populists on both the left and the right rage against corporate greed. In America, presidential hopefuls Bernie Sanders and Donald Trump both criticise companies for exploiting tax loopholes. Even middle-of-the-road politicians are sounding a more anti-corporate note. Angela Merkel introduced Germany’s first minimum wage in 2014; and in Britain David Cameron is phasing in a “living wage”. Companies may find themselves under pressure to “give back” to wider society.

How can Western companies navigate these threats to their rule? MGI advises them to focus on the one realm where they continue to have a comparative advantage—the realm of ideas. Many companies in labour- and capital-intensive industries have been slaughtered by foreign competitors, whereas idea-intensive firms—not just companies in obvious markets such as the media, finance and pharmaceuticals, but in areas such as logistics and luxury cars—continue to flourish. The “idea sector”, as MGI defines it, accounts for 31% of profits generated by Western companies, compared with 17% in 1999.

Capitalist redemption

The relative decline of the Western corporation could also lead to a rethinking of some of the long-standing assumptions about what makes for a successful business. Public companies may lose ground to other types of firm: in America the number of firms listed on stock exchanges has fallen from 8,025 in 1996 to about half that number now. The cult of quarterly earnings may lose more of its following. A striking number of the new corporate champions have dominant owners in the form of powerful founders. They are willing to eschew short-term results in order to build a durable business, such as Mark Zuckerberg at Facebook, the Ma-hindras and other assiduous families in India, and private-equity firms. Gibbon’s great work was a tale of decline and fall, as classical civilisation gave way to barbarism and self-indulgence. With luck, the tale of the relative decline of the Western corporation will also be a tale of the reinvention of capitalism as new forms of companies arise to seize opportunities from the old. ■



World trade

Becalmed

PORT OF TILBURY

A slowdown in global trade growth is bad news for many emerging markets

AT THE blustery Port of Tilbury, on the eastern outskirts of London, the word in the air is diversification. Less space is being given over to conventional container shipping. Instead, the port's owners are investing in new projects. A large metal skeleton will soon become a refrigerated storage unit, to hold perishables on their way to Britain's supermarkets. According to Tilbury's chief operating officer, Perry Glading, the country's container ports have a problem with overcapacity. Tilbury's response is to use the port's 1,000-acre site as flexibly as possible.

World trade data bear out Mr Glading's caution. In South Korea, a bellwether for the global economy, exports of goods fell

by almost 15% year on year in August in dollar terms. In China, the most important link in global supply chains, exports were down by over 5%. British and American exports have also been slipping. In the first six months of the year global merchandise trade shrank by more than 13% year on year. From the mid-1980s until the middle of the last decade, annual trade growth stood at 7%.

The recent falls can be partly explained by changes in prices. The dollar is strong, reducing the notional value of goods priced in other currencies. Commodity prices have plunged: that not only reduces the value of the raw materials shipped around the world, but also helps hold

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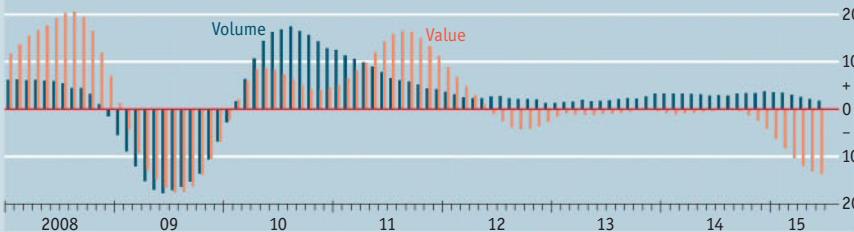
down input costs, and thus the price, of all manner of manufactured goods. In volume terms, trade is still growing—by 1.7% year-on-year in the first half of 2015 (see chart 1). But that is far below the long-term average, of around 5% a year. In emerging markets, volume growth was weaker still, at 0.3% year on year.

In the early 1990s trade grew slightly faster than world GDP. But later in that decade, China and the former Soviet Union began to integrate into the global economy, the World Trade Organisation (WTO) was founded to bolster exchange, and technological change started making it easier to manage long, dispersed supply chains. As a result, trade grew twice as fast as the world economy in 2003-06. Since then, however, it has been slowing. For the past two years world GDP has grown more quickly than trade. The slowdown is all the more remarkable given that declining transport costs thanks to cheap oil should be boosting international commerce.

The problem is partly cyclical. Europe, which accounts for around a quarter of global output but one-third of world trade, ►

Worse for most, better for some

Global trade
Six-month average, % change on a year earlier



► is enduring "an extremely long cyclical downturn", according to Paul Veenendaal of the Netherlands Bureau for Economic Policy Analysis. Its GDP growth was 0.8% in 2012-14, compared with 3.5% in 2005-07.

At the same time, falling demand for raw materials in China is harming the economies of many commodity exporters. These countries are also final markets for many Chinese exports, creating something of a vicious cycle.

One-off events have also contributed. In early 2015 trade with America was hit both by a strike at ports on the west coast, which absorb 50% of imports, and unsea-

sonably cold weather, which put off shoppers. These disruptions to supply and demand saw imports fall by 3.4% in the first quarter of the year compared with the previous one. A study by Emine Boz, Matthieu Bussière and Clément Marsilli at the Centre for Economic Policy Research estimated that such passing factors were responsible for around half of the slowdown in trade in rich economies in 2012-14.

Yet structural factors play a part, too. A recent IMF working paper argues that trade elasticity—the amount of trade generated as incomes rise—has fallen significantly in both China and America. China is making

more at home: the share of imported components in exports has fallen from 60% in the 1990s to 35% this decade (see chart 2 on previous page). America, meanwhile, has begun to exploit its huge domestic reserves of shale oil; imports of crude fell by 1.9m barrels a day between 2010 and 2014. At an average price of \$93 a barrel, that represents savings of \$60 billion, or the equivalent of 25% of what America did spend on crude oil in 2014, according to its Energy Information Agency.

The slowing pace of trade liberalisation is another drag. In 2010-14, 109 new trade deals came into force, down from 128 in the ►

Buttonwood | Looking for the lifeboats

Which investments work best when markets decline?

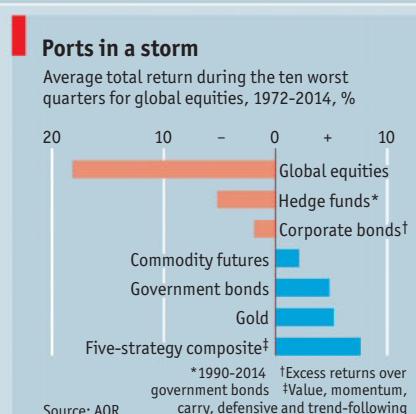
MORE investors fear the American stockmarket is overvalued than at any moment since 2000, according to Robert Shiller of Yale University. Recent research by Deutsche Bank, meanwhile, suggests that government bonds are as expensive as they have ever been. So it makes sense for investors to consider what assets they should buy to hedge against a sudden plunge in the value of equities or bonds.

New research by AQR, a fund-management group, looks at the ten worst quarters for global equities and government bonds between 1972 and 2014. On average, equities lost more than 18% during such quarters while bonds, a less volatile asset, lost 3.9%.

These two asset classes are often seen as complementary: the classic "balanced" portfolio comprises 60% equities and 40% government bonds. Shares are riskier and benefit from economic growth; bonds are safer but their value is eroded by inflation. The AQR numbers show that government bonds do act as a useful hedge for equities, earning an average return of 4.8% in the quarters when shares plummeted. That is good news: both assets may look overvalued but they are unlikely to fall in tandem.

But government bonds were not the only asset to do well; commodities and, in particular, gold, also produced positive returns. Corporate bonds were of little help: they lost value, relative to government bonds, when equities fell (see chart).

When government bonds fall, equities are less consistent as a hedge: they gained ground in only six of bonds' ten worst quarters. Nevertheless, thanks to their phenomenal performance in the second quarter of 2009, when the post-crisis rally got going, equities delivered an average positive return of 3.5% in bad bond quar-



ters. Commodities also gained ground. Although it does not feature in AQR's table, cash would have delivered a small positive return during sell-offs. But the current return on cash is close to zero, making it less appealing as a hedge.

What about hedge funds? In the past, these high-charging vehicles claimed to be able to prosper in good times and bad. Proper hedge-fund indices did not begin until 1990, so do not cover the full period. Even so, their record in the eight bad equity quarters since then has been disappointing: an average loss of 5.2%. A lot of hedge funds are exposed to the stockmarket.

AQR suggests that this may not tell the full story. There are a number of asset-picking strategies that have been shown to work over time. A combination of five of those strategies (value, momentum, carry, defensive and trend-following) would have produced very good returns during past stockmarket sell-offs.

Since many hedge funds operate variants of these strategies, it might seem odd that the overall industry numbers are not as good. However, the AQR composite figures do not allow for trading costs or fees.

Its numbers are also the result of back-testing, a process that can produce marvellous results but is nonetheless flawed. Test enough strategies on past data and you are bound to find a few that work brilliantly. This would be so even with a truly random series, such as winning lottery numbers. There is no guarantee that such strategies will be as successful in future.

Is AQR's exercise worth attempting at all? Many investors take a philosophical view. First, they are unlikely to predict the exact timing of the next market plunge; if the signs were obvious, they would have sold already. Second, long-term investors should ignore short-term market falls. Crashes may come and go but in the long run, asset prices will rise. American equities overcame both the bursting of the dotcom bubble and the 2008 financial crisis to reach record peaks earlier this year.

But the challenge for investors this time may not be a sudden collapse like 1987's Black Monday. It could be a long slow decline, like the air leaking out of a deflating tyre. The obvious case study is Japan, which was the first rich country to grapple with deflation and zero interest rates. Japanese equities are still at just half the level of the end of 1989, despite many promising rallies in the interim; bond yields have been stuck at very low levels since the late 1990s.

At least Japanese investors had the option of buying foreign assets as a way of escaping the doldrums in their home market. But the conditions they faced may now set in across the developed world. Emerging markets were the big hope, but even they have let investors down in recent years. The options are narrowing.

"Alternative thinking: Good strategies for tough times", www.aqr.com

► previous five years, according to the WTO. The biggest deal currently under negotiation, the 12-country Trans-Pacific Partnership (TPP), seems to have run aground. Negotiating new pacts is becoming harder as average tariffs have fallen; deals now hinge on much thornier subjects such as labour standards and protection of intellectual property.

It would have been naive to imagine that the remarkable confluence of trade-boosting circumstances of the early 2000s would last forever. The falling dollar value of world trade is not necessarily a terrible thing. Cheaper products help consumers to buy more goods. By the same token, the slump in volumes is not a disaster for the world economy if it reflects growing domestic output in America and China.

But many economies will suffer. Commodity exporters in the rich world, such as Australia and Canada, are relatively diversified. Their falling currencies will boost tourism and exports of manufactured goods, among other industries. Of greater concern are the many economies without much manufacturing. Rapid trade growth in the 1990s and 2000s led to a golden age of convergence between incomes in emerging economies and the rich world, as poor countries joined global supply chains. Yet many have barely begun the process of industrialisation: average income in sub-Saharan Africa is about one-quarter of that in China. Weaker trade growth and shorter, leaner supply chains mean the ladder Chinese workers climbed is being pulled up behind them.

If the world is unlikely to repeat the trade boom of the 2000s, there are nonetheless ways to prevent trade from stagnating. Rich countries should push ahead with the trade deals they have begun, and ratify the ones they have already negotiated. The deal on trade facilitation the WTO reached in 2013, which aims to reduce the cost of trade in poor countries in particular, requires ratification by two-thirds of the organisation's 161 members to come into force. So far, just 16 have signed on. Efforts to pass TPP have been undermined by electoral politics. Barack Obama, having won "trade promotion authority" (the power to submit trade deals for an up-or-down vote in Congress) should strive to finish TPP, lest the political capital already spent on the deal go to waste. TPP is especially worthwhile as it lowers barriers to agricultural imports and services, which will be of critical importance to developing economies that can no longer count on manufacturing to carry them to greater wealth.

Reforms within emerging economies, to liberalise agriculture and prepare workers for jobs in the service sector, will also be necessary. But as leaders from Indonesia to Brazil are discovering, the slump after the boom is not the easiest moment to take hard decisions. ■



Capital flight from China

Flow dynamics

MACAU

Lots of money is escaping China's porous capital controls

THE man who calls himself Jack is a caricature of a small-time gangster. Sporting a chunky Louis Vuitton belt, a gold necklace and gold-rimmed sunglasses, he chomps on a Cuban cigar. He says he has come to a pawnshop across the street from the Ponte 16 casino in Macau, a gambling Mecca and former Portuguese colony that is administered separately from the rest of China, only for its fine Cohibas. But when asked for advice about how to exchange yuan held within China for foreign currency—a transaction officially limited by China's capital controls—he breaks into a laugh and flashes a Chinese bank card. "Just swipe it," he says. "However much money you have in your China account, you can transfer it here."

Macau's role as an illicit way station to move cash out of China, away from the government's prying eyes, is nothing new. In recent months, though, things have been busier than normal. Capital outflows were already on the rise because of worries about the economy. During the summer, after the stockmarket crashed and the government let the yuan weaken, they soared. Official data indicate that more than \$150 billion of capital left China in August—a record (see chart).

Faced with this exodus, the government launched a crackdown on underground banks, which run money across borders and arrange for matching onshore and offshore transactions. Police raided Macau's pawnshops and arrested 17 peo-

A giant sucking sound

China, \$bn

Trade balance FDI Implied capital outflows
Change in foreign-exchange reserves on previous month



Sources: National Bureau of Statistics; General Administration of Customs; State Administration of Foreign Exchange; MOFCOM; *The Economist*

► ple for laundering money. That appears to have slowed things down. When your correspondent visited pawnshops in Macau this week and asked whether they could help him shift 1m yuan (\$157,000) out of China—three times what one can legally withdraw in a year—most demurred.

Still, a few said they would oblige, offering to pay the money out in stacks of Hong Kong dollars for a fee of only 3%. Jack, for his part, explains that it used to be easy to do big transfers in one go. Now, it is safer to break them up into smaller pieces to avoid attracting attention.

With its garish casinos and jewellery stores, Macau is the flashiest of the conduits for taking cash out of China. But there

are plenty of others, some for much bigger transactions. Overpaying for imports, buying fake consultancy services and forging deals with foreign subsidiaries are all common. On Taobao, an online marketplace, it is possible to find vendors who offer cross-border currency trades.

The big question is how dangerous these outflows are for the economy. At the same time as cash has streamed out via the capital account, China has received vast inflows through its current account. In the first eight months of this year, for example, China registered a jaw-dropping \$365 billion trade surplus.

That China's foreign-exchange reserves have still fallen is evidence that even more

money has left through other channels. Straight arithmetic implies some \$600 billion in outflows. This, however, is a gross simplification. A strong dollar exaggerates the fall in reserves, by devaluing assets in other currencies held by the central bank.

Moreover, much of what has been recorded as outflows under the capital account is not "hot money" of the kind passing surreptitiously through Macau. Many companies have simply chosen to hold onto foreign earnings in their Chinese bank accounts, rather than rushing to convert them as they did in the past, when yuan appreciation was a one-way bet. Accounting for this, Larry Hu of Macquarie Securities calculates that China's true capital outflows are less than half their implied volume, and less than its trade earnings. This, he drily notes, is not what a balance-of-payments crisis looks like.

Nevertheless, the outflows have clearly rattled authorities, or they would not have intervened vigorously in recent weeks to defend the yuan. Some wonder how long China can sustain this intervention. The real threat would come if millions of households lost faith and decided to take their cash out of the country. In that respect, Macau's pawnshops are a worry. But even if underground banks are readily available, relatively few are willing to take the risk of using them. As long as that inhibition holds, China should be able to weather the capital flight. ■

Central-bank bosses

Caste iron

PARIS

France debates the experience needed to run the Bank of France

IN MOST countries a stint at a big international bank is no disqualification for a top job at a central bank. Mark Carney of the Bank of England (ex-Goldman Sachs), Mario Draghi of the European Central Bank (Goldman again) and Bill Dudley of the Federal Reserve Bank of New York (yes, Goldman too) are three prime exhibits. Yet the nomination of François Villeroy de Galhau, until recently a senior executive at BNP Paribas, as the new governor of the Bank of France has prompted an unusual rumpus.

Mr Villeroy de Galhau (pictured) is the impeccable product of French elite education. He graduated from not one but two of the country's top public graduate schools—the Ecole Nationale d'Administration and Polytechnique—and is a former member of the inspection des finances, an elite corps of finance-ministry officials. Situated on what friends call "the Catholic left", he also has long had ties to the Socialist Party of President François Hollande. Before joining BNP in 2003, he was chief of staff to two Socialist finance ministers, Christian Sautter and Dominique Strauss-Kahn.

In the past figures like Mr Villeroy de Galhau have glided without comment between grand civil-service and private-sector jobs, a phenomenon known in France as *pantouflage*. But the public mood is shifting. Mr Villeroy de Galhau seemed to sense this, vowing to forgo a tidy package of stock options and shares, and resigning from BNP earlier this year. But this has not quelled concerns, in part because previous governors of the Bank of France have been career civil servants. His nomination posed a "grave problem of conflict of interests", declared 150 French economists, among them Thomas



Stained by commerce

Piketty, in an open letter to *Le Monde* this week. It was "totally illusory", they added, to imagine that he could do his job "with full independence".

Their objection carried a hint of bruised *amour-propre*: the economists deplored the fact that a background in academic economics is not judged an asset, as it is in America, for example. But it also reflects growing frustration at how difficult it is to prise open top French jobs. To this day, plenty of private French firms are run by ex-civil servants. As one dissenter points out, nobody for a moment considered a foreigner for the Bank of France (Mr Carney is Canadian). Even the candidate the disgruntled economists seemed to favour—Benoît Coeuré, a senior ECB official and a published economist, as well as a Polytechnique graduate and former finance-ministry official—is not exactly an outsider.

Risk-weighted capital

Whose model is it anyway?

Regulators are taking a firmer stand on how banks gauge risk

AS SIMPLE way to judge the solidity of a bank is to compare the amount of money it can afford to lose without keeling over to the size and riskiness of its business. After the financial crisis, regulators sensibly worked to boost the first figure: banks now fund their lending less with money they borrow themselves, often from depositors, and more with capital belonging to their shareholders. That was the easy bit. Trying to get to the bottom of how risky banks are, and so how much capital each requires, is now top of regulators' minds. Beyond further denting the sector's profits, the outcome of their review threatens to introduce risks of its own.

Although seemingly arcane, the level of capital banks need is central to their profitability—and, they argue, to their ability to finance the real economy. With interest rates close to zero in much of the rich world, borrowed money is cheap for ►

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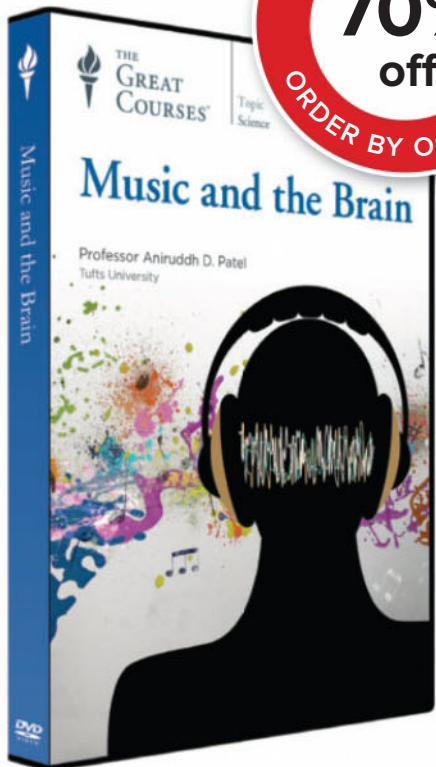
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► banks, if not virtually free. Shareholder funds, on the other hand, cost them around 10% a year—the return typically demanded by investors for agreeing to bear the first losses in a sector with a tendency to blow up. So the debate between bankers and their watchdogs about how much capital banks need is naturally fiery.

Regulators are fine with safer types of lending being funded by borrowed money. Government bonds are sometimes assumed to be completely safe, and so require no capital to be held against them. For every \$1m of residential mortgages, current global benchmarks suggest backing of just \$30,000 of capital; the rest can be funded by debt. At the other end of the scale, credit extended to a Kazakh coal mine with a patchy record of repaying its debts, say, will need to be funded with far more shareholder capital. The extra buffer of equity crimps the bank's margins but reduces the likelihood of a failure or bail-out.

Weigh, blend and shrink

Regulatory models work by looking at all of a bank's assets (the money a bank expects to recoup from outstanding loans is usually the biggest) and establishing whether they are more akin to safe mortgages or speculative loans. The resulting blended figure, risk-weighted assets, or RWA, has become one of banking's most important yardsticks. Lowering banks' RWAs means less equity is required, which usually means higher returns. It is therefore an obsession for bank bosses.

Big banks' RWAs as a percentage of their assets, known in the jargon as RWA density, has been drifting down. That may be because banks are making safer loans. But regulators have long suspected something fishy may be afoot: that banks are assessing their risky loans to Kazakh mines as little riskier than residential mortgages.

If that is indeed happening, regulators must partly blame themselves. The models used to gauge the riskiness of a loan book were once provided by regulators, with fixed weightings for categories such as business credit or loans to other banks. But an update to the global regulatory guidelines, known as Basel II and adopted just before the financial crisis, encouraged banks to come up with their own risk models. After all, bankers should know better than bureaucrats how risky any given loan might be. These home-made models have since been used to determine how much capital a bank needs.

The models are often fiendishly complicated, as well as being numerous: the average bank will have dozens, if not hundreds, each dealing with a different type of asset. Though regulators theoretically vet them, it is often hard to detect subtle biases. The ever-declining RWA density suggests bankers are getting savvier about "optimising" their models. Repeated studies have found

that putting the same pool of loans and securities through different banks' formulae lead to wildly different outcomes.

In response, regulators are beginning to reverse themselves, and limit banks' discretion. The Federal Reserve, for one, has long been sceptical of banks' in-house risk-weighting efforts. Though American lenders have to meet RWA-based capital requirements just as others do, Fed officials seem to set more store by the fearsome "stress tests" they carry out each year, to assess how banks would be affected by a range of hypothetical setbacks. These tests, beefed up in the aftermath of the crisis, also use risk models, but ones that are devised and run by regulators, not the banks themselves. To prevent gaming, banks are left in the dark as to how the models work.

Few other regulators have the staff for this labour-intensive approach, however. That has left Europe's, among others, more reliant on banks' own risk-weightings. So the European Central Bank recently launched an "intrusive review" of the 7,000 RWAs at the 123 banks it oversees, in an attempt to instil more consistency and conservatism. The Basel Committee, a global club of regulators, is also pondering changes to its guidelines.

The idea, in Europe and beyond, is to limit how far banks can adapt their spreadsheets to make their assets look less risky. The benchmark will be a model put together by the Basel Committee, known as the "standardised approach", which big banks dislike because it usually requires them to hold more capital than internal models. The lenders may still use their own risk-weighting models, but any outcome that makes their assets look far less risky than the standardised approach, which is itself being overhauled, will be rejected.

That may seem like belatedly seizing the keys of the asylum back from the in-

mates. But shunting banks back onto standardised models is itself fraught with risk. Regulators are just as fallible as bankers: who is to say their industry-wide model is any less flawed than banks' individual ones? European regulators worry about a "monoculture" in which watchdogs in effect steer lending to favoured types of borrower. The standardised models can themselves be gamed: banks naturally seek to lend to the riskiest borrowers within each weighting category, since they can earn higher profits (by charging higher interest) without incurring extra capital charges.

Analysts at JPMorgan Chase think RWAs at Europe's 35 biggest banks may swell by nearly €1 trillion (\$1.1 trillion), a 10% jump, as a result of the new rules likely to be imposed by the Basel Committee. That will require an extra €137 billion of capital. Many banks will need to cut dividends or scale back lending as a result. "Safe" lending such as mortgages will be particularly badly hit, the bankers claim. Investment banks, accomplished model-fiddlers, are also worried.

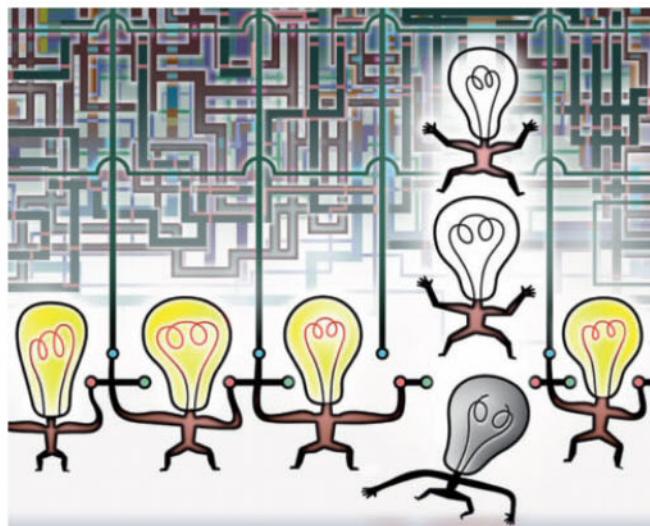
Financial lobbyists decry this as the advent of "Basel IV"—a big and intemperate change in the rules of banking and an underhanded way of forcing them to raise yet more capital. It comes on top of other measures which have a similar effect, such as requiring banks to gauge the risk of rising interest rates on their franchise.

Regulators' attempts to reduce complexity and weed out wilfully distorted risk weightings is welcome. Arguably, however, supplementing risk-weighted capital ratios with a blunt and ungameable "leverage ratio", which eschews risk-weighting altogether, has already done much of the job. Imposing multiple safeguards may help regulators sleep, but they should remember that no rules are foolproof, and all of them warp incentives. ■



Free exchange | Part-time palaver

Turning freelancers for firms like Uber into employees would not necessarily improve their lot



WHAT is an employee? Judges in several American courts are grappling with just this question. Most notably, some drivers for Uber, an app-based taxi service, are suing to have themselves declared employees, rather than independent contractors, in a bid to gain more rights. With technology making it ever easier to farm out small tasks, and freelancing on the rise, the traditional definition of employment may eventually break down. Yet the importance of the “employee” label—and the benefits that come with it—is often overstated.

Historically, the challenge for economists has been to explain employment rather than contracting. Firms with employees use plans and hierarchies to get things done; those who use contractors rely on markets and prices instead. In 1937 Ronald Coase, an economist, argued that this comes down to transaction costs. For instance, it is difficult to contract on output when it is tough to judge quality (as with, say, a spreadsheet). When transaction costs are high, it may be better to replace contractors with employees, who are paid for their input rather than outputs.

A corollary to Coase’s theory is that when transaction costs are low, there is no need for a firm. Industries in which tasks can be neatly divided and where output is easily tracked, such as building, haulage and logging, contractors have been prevalent for decades. In 2009, the year Uber was founded, 88% of taxi drivers were already contractors.

Contracting, then, is not new. But campaigners for workers’ rights worry about the use of contractors in the rapidly growing app economy. Often, governments and companies provide benefits exclusively to employees. Are contractors missing out?

The main benefits associated with employment fall into three broad categories: public pensions, health care, and unemployment insurance. In the case of pensions, governments usually levy payroll taxes on firms in proportion to their workforce, and use the proceeds to support pensioners. Hire a worker as a contractor, and firms need not pay the levy; in America the self-employed must instead pay it themselves. Workers’ advocates claim this means contractors face higher tax rates than employees.

However, conventional economics says the burden of a tax cannot be altered just by changing which party writes the cheque. America’s Congressional Budget Office considers payroll

taxes part of a worker’s tax burden, even though employers pay them. Were Uber forced to pay social-security contributions instead of its drivers, it would presumably offset this extra cost by reducing the share of each fare that goes to drivers. Their take-home pay would remain the same. This argument cuts both ways: if it does not matter who pays, firms may as well cough up (though businesses may legitimately worry about the associated administrative costs of paying contributions).

Then there is health care, which is often tied to jobs in America. Again, there is no free lunch for workers when employers foot the bill. Numerous studies have found that the more firms pay for health insurance, the less they pay in wages. For instance, in 1994 Jonathan Gruber of MIT found that when some states began insisting on better coverage for childbirth, married 20- to 40-year-old women—whose insurance costs rose most on average—took an offsetting hit to their pay.

The third main benefit, support for the jobless, relies on the label “employee” by definition. Temporary and part-time work muddies the rules on eligibility. In many countries those working more than a certain number of hours a week cannot claim benefits. That creates a sharp incentive for on-demand workers to limit their hours to remain eligible. In New York, for instance, weekly benefits are reduced by 25% for every day on which any work is performed.

Elsewhere, eligibility depends on the circumstances in which the employee left his previous job: if he quit voluntarily, the government may not pay anything. In a world of flexible hours, this can open up tricky questions. If a worker signs up for a job with irregular hours, but then quits when his shifts change in an intolerable way, many American states will not pay any benefits.

Fortunately, there is a relatively simple fix: make welfare payments contingent only on income, rather than circumstances. Benefits can be withdrawn gradually as income increases, perhaps at a rate comparable to income tax. That would encourage jobhunters to take on piecemeal work in the gig economy.

Pushing on a string

If compulsory benefits are offset by lower wages, why should Uber’s drivers care how they are labelled? Accepted economic wisdom provides one possible answer: wages are “sticky”, or hard to cut in cash terms. If it takes time for pay to fall in real terms, workers who win more benefits in court would be better off for a short while. Workers may also recognise that there is one benefit attached to employee status—a minimum wage—that cannot be offset by lower pay.

Is that an argument for a minimum wage for contractors? Opponents point to its distorting effect on incentives. Workers would look to boost hours rather than output, requiring firms to monitor their effort closely. In Uber’s case, a driver could stay in a quiet area, take few passengers and still make money. What might tip the balance the other way is if firms have too much bargaining power over their workers. This should not apply to a traditional contractor, such as a plumber, who works for lots of clients. But were apps to dominate a whole market—as some suspect Uber eventually might—then contractors may feel outgunned. If that happens, they will need more protection. ■

* Studies cited in this article can be found at www.economist.com/apeconomy15



Future aircraft

Electrifying flight

By using electric and hybrid forms of propulsion, very different-looking aircraft may end up taking to the sky

WHEN Didier Esteyne, an Airbus test pilot, flew a small two-seat electrical-powered aircraft called the E-Fan across the English Channel in July, the giant European aerospace group was keen to point out the journey was not a gimmick. Indeed, Airbus is serious enough about electric flight to want to put the E-Fan into production as a pilot-training aircraft. It will go on sale towards the end of 2017 to be followed by a four-seat version.

Airbus is not alone in thinking about making much bigger electric and hybrid aircraft to carry passengers. Just as in cars, electrical propulsion offers a number of advantages over piston and jet engines. Modern, digitally controlled electric motors supply lots of torque, a rotational force which is as good at turning propellers and fan blades as it is wheels. Electric power is also quiet, clean and highly reliable, with fewer engine parts to wear or break.

Batteries, it is true, do not provide the range many would like: lithium-ion ones allow the E-Fan to fly for about an hour with a 30-minute reserve. That may be fine for a flying lesson, but not for a passenger airliner. Batteries, though, are steadily improving and, because aircraft have long service lives (the Boeing 747 first flew in 1969), aerospace engineers work on projects set well into the future.

What really excites them about electric propulsion is that it provides the opportunity to build radically different aircraft, like the Airbus E-Thrust concept illustrated

above. The idea is that instead of hanging big and heavy jet engines below the wing, a greater number of small and lighter electrically driven fans or propellers could instead be incorporated into other areas of an aircraft. Doing this with lots of small conventional engines would be complicated and would add a lot of weight. But electric motors make the concept, called distributed electric propulsion (DEP), feasible. The advantage of distributing power is that it can be used to increase the airflow over the wings and thus allow an aircraft to fly more efficiently. "DEP enables a fundamental shift in how we design aircraft," says Mark Moore, a principal investigator into electric flight at NASA's Langley Research Centre in Virginia.

On the runway

NASA is testing a DEP wing mounted above a truck and driven at high speed across a dry lake bed at Edwards Air Force Base in California. The wing uses 18 small, electric propellers strung along its leading edge. The next step is a project called Sceptor, which involves replacing the wing on a conventional four-seater light aircraft—in this case, a twin-engined Italian-built Tecnam P2006T—with a DEP wing containing a dozen or so electrically driven propellers (illustrated on next page). Scepter is due to begin test flights in 2017.

Sceptor's line of small propellers will increase the aircraft's lift at lower speeds, allowing it to take off and land on shorter

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runways. It also means the wing could be made more slender, perhaps only a third of the width of the wing on a conventional aircraft, thus saving weight and fuel costs. Typically the wing on a light aircraft is relatively large to prevent it from stalling (which happens at low airspeeds, when the wing cannot provide sufficient lift). But large wings are not very efficient when an aircraft is cruising because they create a lot of drag. Sceptor's wing will be optimised for cruise, yet still provide enough lift to help prevent stalling on take-off or landing.

The wing will also be capable of other tricks. The speed of each electric propeller can be controlled independently, which provides the ability to change the pattern of airflow over the wing to cope with rapidly changing flying conditions, such as wind gusts. When cruising, the propellers closer to the fuselage could be folded back, leaving those on the wing tips to do the work. If Scepter's test flights are a success, the technology could be incorporated into small commuter aircraft within a decade, even with present progress in battery development. These aircraft, says Mr Moore, would have no in-flight emissions, be extremely quiet and reduce operating costs by around 30%.

Airbus's E-Thrust concept is further from the runway. A collaborative project with Rolls-Royce, a British manufacturer of jet engines, and other research groups, the aircraft, or something like it, is projected to enter service around 2050. By then, the European Union expects the aviation industry to have cut fuel consumption, emissions and noise from passenger aircraft by at least 20-30%, relative to today's state-of-the-art designs.

The goal of the E-Thrust is to meet such targets and be able to carry around 90 passengers on flights of two hours or more, and still have a generous safety margin from its batteries. This, though, will require ➤

► a breakthrough in the technology to store electricity—which might well happen over the next few decades. The concept also uses distributed propulsion, but with a twist because it is hybrid.

A traditional jet engine sits in the tail of the e-Thrust. It also has three electrically driven fans on each wing. On take-off, the jet and all six electric fans will be used to provide maximum lift. When the aircraft reaches its cruise altitude, the jet can be throttled back but is powerful enough both to power the fans and to top up the batteries. During descent, both the jet and the fans will be turned off. As the aircraft glides, the oncoming air will turn the fans so that they work like wind turbines to top up the battery some more. The fans will be used to land, with the jet ticking over ready to provide additional thrust should the aircraft need to go around again.

One advantage of the hybrid system is that it provides a massive boost to a jet aircraft's "bypass" ratio. This is a measure of the amount of air that flows around the hot core of a jet engine compared with that which goes through it to provide oxygen in the combustion chamber. The jet engines on early passenger aircraft had a low bypass ratio, producing a lot of their thrust from the fast-moving air blasting out of the rear of the core. This made them noisy and fuel-hungry. As the blast leaves the core it turns a turbine, which via a shaft turns a fan at the front of the engine to draw in more air. By making the fan larger, it has been possible to move a bigger volume of slower-moving air (the bypass) around the outside of the core. This is more efficient and much quieter. It is also the reason why jet engines have over the years got fatter.

Modern jets have a bypass ratio of up to 12:1 compared with about 5:1 or less in the 1970s. But making the fans even larger is becoming difficult as they take up more and more room under the wing. And bigger engines need stronger wings, which adds to an aircraft's weight. The hybrid set up in

the e-Thrust neatly gets around these problems because only the jet engine in the tail has a fuel-burning core. This means all of the air flowing through the six electricaly driven fans contribute to its "effective" bypass ratio of 20:1 or more. This would make the aircraft extremely fuel-efficient and very quiet.

Smooth operator

Another efficiency comes from the distributed engines "ingesting" what is called the boundary layer of air flowing over the wing. This is a very thin layer of air close to the surface of the wing. It is slowed down by friction as molecules of air touch the wing's surface. The boundary layer passing over the raised upper surface of the aerofoil shape of a wing (which provides a wing with its lift) can become turbulent, which helps produce the wake which a jet aircraft leaves behind. By positioning the e-Thrust's electric fans above the wing to intercept the boundary-layer air, the fans can

accelerate it, which reduces drag from the wake.

Technical advances in two areas are needed for the e-Thrust to fly. Besides better batteries the other is superconductivity, a phenomenon that removes electrical resistance when certain materials are cooled below a critical temperature. Reducing resistance allows construction of electrical and motor systems light and powerful enough to fly the aircraft. This has been done on a small scale, in equipment such as hospital scanners. But for an aircraft it will require intense cooling at a level beyond anything commercially available. A group at the University of Cambridge is working with Airbus on that problem.

Get over those hurdles, and electric aircraft will gather momentum. They will start off small but get bigger and carry more passengers as technologies improve. Some of those technologies, Airbus expects, will also help make traditional jet aircraft more efficient and quieter, too. ■

Artificial intelligence in medicine

Now there's an app for that

Computers can recognise a complication of diabetes that can lead to blindness

ARTIFICIAL intelligence (AI) can sometimes be put to rather whimsical uses. In 2012 Google announced that one of its computers, after watching thousands of hours of YouTube videos, had trained itself to identify cats. Earlier this year a secretive AI firm called DeepMind, bought by Google in 2014, reported in *Nature* that it had managed to train a computer to play a series of classic video games, often better than a human could, using nothing more than the games' on-screen graphics.

But the point of such diversions is to illustrate that, increasingly, computers possess the pattern-recognition skills—identifying faces, interpreting pictures, listening to speech and the like—that were long thought to be the preserve of humans. Researchers, from startups to giant corporations, are now planning to put AI to work to solve more serious problems.

One such organisation is the California HealthCare Foundation (CHCF). The disease in the charity's sights is diabetic retinopathy, one of the many long-term complications of diabetes. It is caused by damage to the tiny blood vessels that supply the retina. Untreated, it can lead to total loss of vision. Around 80% of diabetics will develop retinal damage after a decade; in rich countries it is one of the leading causes of blindness in the young and middle-aged. Much of the damage can be pre-

vented with laser treatment, drugs or surgery if caught early, but there are few symptoms at first. The best bet is therefore to offer frequent check-ups to diabetics, with trained doctors examining their retinas for subtle but worrying changes.

But diabetes is common and doctors are busy. Inspired by recent advances in AI, the CHCF began wondering if computers might be able to do the job of examining retinas cheaply and more quickly.

Being medics, rather than AI researchers, the CHCF turned for help to a website called Kaggle, which organises competitions for statisticians and data scientists. (It was founded by Anthony Goldbloom, who once worked as an intern at *The Economist*.) The CHCF uploaded a trove of thousands of images of retinas, both diseased and healthy, stumped up the cash for a \$100,000 prize, and let Kaggle's members—who range from graduate students to teams working for AI companies—get to grips with the problem.

The volunteers used the images to train computer algorithms to note the sometimes subtle signs of the disease. The results were impressive. Doctors agree with each other about whether a picture shows diabetic retinopathy and, if so, how serious it is, about 84% of the time, says Jared Teo of the CHCF. After just five months of work, the contest's winner, Benjamin Gra- ►



NASA spins the props

► ham, a statistician at the University of Warwick, in Britain, was able to come up with an algorithm that agreed with a doctor's opinion 85% of the time.

That offers a big advantage. An algorithm is cheaper than a doctor ("training" a new one is simply a matter of copying it to another computer). They are quicker, too obviating the need to wait for images to be sent to a lab. An instant diagnosis may help

sufferers begin treatment, says Mr Teo. Many of the CHCF's patients are poor, find it difficult to take time off work, and may struggle to attend a follow-up meeting. And there may be other advantages. Jorge Cuadros, a researcher at the University of California, Berkeley, who has been working with the CHCF, jokes that there is anecdotal evidence that some patients may even take a machine's judgment more seri-

ously than that of a human doctor.

Eventually, the CHCF wants to deploy the open-source algorithm in clinics throughout California. For now, though, it is being held back by a mix of caution and regulation. "You get a similar problem as you get with driverless cars," says Dr Cuadros. "Who's going to take on the liability if something goes wrong?" There are regulatory issues, too: the Food and Drug Administration, America's medical regulator, only recently decided it needed a way to approve AI applications, says Sophia Chang of the CHCF. The plan for the moment is to use the computer only to determine whether a retinal photograph has been properly taken (it is a fiddly job).

But the caution is unlikely to last. Although AI has been one of those fields in which promises often fail to match up to reality and using computers to analyse medical images is not new, deep-learning algorithms seem to have solved many of the problems that plagued earlier approaches. "We've been able to watch the spread of deep learning on Kaggle," says Mr Goldbloom. "It's crushing every image-recognition contest we run." Startups such as Enlitic, which wants to analyse all kinds of medical images with computers, have been springing up. In August IBM spent \$1 billion buying Merge, a medical-imaging company; the idea is to use Merge's database to teach IBM's computers. The better computer-aided medicine becomes, the greater the pressure will become to move it out of the lab and into the clinic. ■



Diagnostics

Sweating the big stuff

Patches on the skin can analyse sweat and monitor glucose

PEOPLE are born with up to 4m sweat glands to provide a natural way to regulate temperature. The evaporation of perspiration cools you down. As sweat is produced it also picks up a lot of information about how the body is behaving, in the form of "biomarkers": electrolytes, sugars, amino acids, proteins, hormones and many other molecules that are the products of metabolism. If the tiny traces of these substances can be detected and measured, then it should be possible to monitor a person's health from his sweat.

One of the biggest uses may be to monitor blood-sugar levels in people with diabetes. At present, diabetics must prick a finger regularly to obtain a drop of blood, testing it on an electrochemical strip inserted into a meter that calculates the amount of glucose in the blood. Some patch systems already exist, but tend to rely on microneedles, which continuously sample blood and transmit the results to a wearable device via a wire.

If Jason Heikenfeld of Eccrine Systems, a Cincinnati firm, has his way, the days are numbered for pricking the skin to obtain a sample. Dr Heikenfeld is trying to develop a sweat sensor to do the same job. What makes that possible is better understanding of biomarkers themselves—there are some 800 in

sweat—and advances in "microfluidics", a technology which uses minuscule pipes, valves and sensors to manipulate and test minute amounts of liquid.

The patch that Eccrine Systems is developing absorbs sweat from a porous adhesive to the sensor, which is coated with a membrane that attracts a specific biomarker for measuring glucose. A microprocessor then determines the concentration and transmits the data wirelessly. A disposable sweat patch for glucose monitoring could be worn for as long as a week, allowing round-the-clock monitoring. The data could also be relayed directly to a doctor.

Gentag, based in Washington, DC, announced a prototype diabetes patch in July. John Peeters, the chief executive, says it too will relay information to a device wirelessly. Both Gentag and Eccrine Systems aim to have their patches on the market in 2016.

The World Health Organisation says diabetes affected 387m adults worldwide in 2014 and expects that number to exceed 590m by 2035. Sufferers are likely to require two to three times as much health-care spending as healthy individuals. Since this burden could be greatly alleviated by prevention and monitoring, it is a problem worth sweating over.

Self-healing materials

Space glue

Faster-acting materials can seal holes in an emergency

BULLETS fired on an aircraft are bad news. A single shot through the pressurised fuselage at altitude can cause oxygen to escape in seconds. Gunfights may not be a problem on spacecraft, but they do need to be able to cope with a high-speed impact from a bit of space debris. Engineering tougher hulls is one way to reduce the risks, but another is to use materials that can rapidly heal themselves. A team of chemical engineers think they have come up with just the stuff.

In looking for a material that would spontaneously self-repair, Timothy Scott of the University of Michigan and his colleagues wanted to try a liquid resin which could be stored between two solid sheets. If the sheets are penetrated, the idea is that the resin oozes out and solidifies, blocking the hole. Materials capable of doing this al-

▶ ready exist. Some use microcapsules containing a glue-like chemical, which spreads if the capsules are ruptured when the material in which they are embedded is damaged. The gluing action is sometimes triggered by another chemical, such as a catalyst, which has been mixed into the main material. The problem with such processes is that they can take hours to set. That may be fine for some applications, like a self-healing coating on pipework. But in an aircraft or in space a hole needs plugging instantly.

The group began looking for compounds that would rapidly solidify when exposed to chemicals commonly found in the air that people breathe. Dr Scott reasoned that if an aircraft's fuselage or spacecraft is punctured, there would be an enormous amount of breathable air suddenly vacating the vessel.

Radical ideas

Compounds that react to water vapour in air were dismissed: much of the air found in aircraft and spacecraft is deliberately kept rather dry in order to help prevent corrosion, and is thus unlikely to provide enough moisture to cause a self-healing reaction. Carbon dioxide and nitrogen are poor at setting off the necessary chemical transformation. The favourite candidate was a group of chemicals known as alkylboranes, which are used in various industrial applications and react vigorously with oxygen to generate a highly reactive class of chemicals known as free radicals. These free radicals are widely used to initiate polymerisation, the process of joining together many small molecules into longer ones to create plastics.

However, working with alkylboranes was not easy because their free radicals react with oxygen in such a way that they can also shut polymerisation down, and that is not what the researchers wanted to happen. To get around this problem, Dr Scott created an alternative liquid resin made of organosulphuric compounds, known as thiols, and hydrocarbons called alkenes. The free radicals formed by this combination still react to oxygen, but they retain an affinity for driving polymerisation along.

To test this idea out, Dr Scott and his team used the combination within a one-millimetre space contained between two hard layers of plastic material, each of which was also one millimetre thick. The researchers then clamped this sandwich into position and shot it with a rifle at point-blank range. Sure enough, they found that the formulation rapidly transformed into a durable polymer plug in the bullet hole. Moreover, as they report in *ACS Macro Letters*, high-speed video revealed that the solid plug formed in under a second, faster than any similar self-healing materials yet developed. ■

Sexual selection

Speed-dating birds

Choosing their own mates works best for zebra finches

MOST research into how animals choose their mates looks at how partners show preference for certain physical traits, which may well indicate genetic fitness—usually measured as reproductive success. Yet in some species, mating preferences are more individualistic. Zebra finches are one. They are choosy about their mates and there is not a lot of agreement about who is the best catch. Once hitched, zebra finches tend to be monogamous and the fathers share in the child care.

Malika Ihle and her colleagues at the Max Planck Institute for Ornithology, in Seewiesen, Germany, wondered what would happen if the finches were prevented from choosing their mates. So they constructed an experiment to discover if birds allowed to pursue life with a chosen mate fared any better than those forced into an arranged union. To do this they studied 160 bachelor zebra finches, putting together groups of 20 males and 20 females in an aviary to get to know each other.

Pairs that started grooming each other—a sign of courtship—were deemed couples. Half of those couples got to stay together, but the other half were forced to pair off with someone else's chosen mate. The reason for this was that the researchers wanted to make sure all the individuals had been found desirable by another finch, even if not by the one they ended up

with. This meant that whatever happened next wasn't because some of the birds were simply losers.

All the couples were given their own cages for a few months, to help the forced pairs develop bonds. Then they were released into a group aviary where they started their families. Over the next five months—enough time for the finches to raise three separate broods—the researchers continued to observe them, both directly and with video. The experiment was then repeated with the same birds, this time forcing two-thirds of the couples into arranged matches and allowing only one-third to stay with their chosen mate.

The results, published this week in *PLoS Biology*, showed a clear advantage for birds who had chosen each other over those who had not: they had 37% more surviving young. Those strong-armed into a relationship yielded more eggs that went unfertilised or got lost, and more deaths of hatched chicks. Females in forced pairings were not as interested in sex, and males were less keen to look after the chicks. The males who had their partners chosen for them also did more philandering.

Dr Ihle and her colleagues say the evidence supports the idea that zebra finches select their mates based on how well they get along, putting behaviour ahead of seeking genetic compatibility. The researchers argue that if the finches were choosing mates for genetic reasons, they would expect to see more embryos die because of genetic defects caused by a degree of interbreeding between a more limited selection of partners. But they did not see that at all. Instead, the difference in the survival of chicks appeared to depend on the youngsters being looked after well by their parents, whatever they looked like. ■



Fancy flying back to my place?



Cultural districts

Scrubbing up well

LOS ANGELES

A burgeoning arts district is helping California's biggest city reinvent itself

THE opening of the Broad Museum (see next article) is claimed by some to bestow a pre-eminence on downtown Los Angeles that has long been sought. Many Angelenos have never been completely persuaded that their sprawling, mongrel-like metropolis could ever have a proper downtown, even though it has skyscrapers hugging the freeway and a line-up of cultural crown jewels on South Grand Avenue, on what is called Bunker Hill, where the Broad is to be found. But the sceptics should take heart. Another part of the city-centre that has been ignored for decades is now coming to the fore, amid hundreds of blocks of low, anonymous industrial buildings that spread southeast a mile or more from the foot of Bunker Hill to the vast railway yards by the Los Angeles river.

A couple of streets away an arts district has been quietly taking root, as a coterie of artists first settled, and then thrived, in near invisibility. Though a few coffee shops and some sophisticated restaurants have opened, most barely announce their presence within the rusting sheds. Murals cover derelict factories and lorries roar down the wide streets.

Ever since it opened, the district's fulcrum has been the Box, an influential gallery in a concrete-block building, founded by Mara McCarthy, the daughter of Paul McCarthy, a well-known Los Angeles artist. Now, close by the Box, Paul Schimmel, for many years the chief curator of the Museum of Contemporary Art (MOCA), has teamed up with Hauser & Wirth, a power-

ful international gallery that represents Mr McCarthy, among others, to overhaul a 116,000-square-foot (10,800-square-metre) complex of derelict industrial buildings (pictured).

The project, which will be called Hauser Wirth & Schimmel, is conceived as a "destination", Mr Schimmel says. Designed by Annabelle Selldorf, an architect who specialises in galleries, it will work much like a museum, with an educational area, a bookshop, a restaurant, a garden, four large exhibition spaces and a sculpture court. It is also a sign of the city's growing presence in the international art world.

The new gallery will be a short walk from the Geffen Contemporary, a MOCA branch. The combination of the two will rival the institutions of Bunker Hill. Other high-profile projects are also bringing greater attention to the area. Preliminary construction has begun to replace the crumbling Sixth Street Bridge that spans the Los Angeles river. The arches and delicate deck-supporting cables of the new bridge, designed by Michael Maltzan, an architect working with HNTB, an engineering firm, echo the graceful arches of the original, which has provided the backdrop for dozens of memorable scenes filmed in the concrete riverbed. The bridge accommodates pedestrians and bikes with stairs and ramps that drop down to the riverbank and run up the arches to gain views of downtown. It could become an attraction to rival the High Line Park in New York.

There is also untapped value in the

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river itself. A master plan provides greater public access to the softened edges of a naturalised stream flowing among lushly planted islands. The district's mongrel character has spurred Mr Maltzan to develop other projects around downtown, channelling the area's industrial atmosphere while proposing new ways of accommodating its growing density.

One of these is a block of flats, One Santa Fe, that extends a quarter of a mile (402 metres) along the railway yards. Three floors of white and red stucco flats run above a two-storey concrete parking structure that is as stark as a highway viaduct. The design expresses the district's "infrastructure scale" of railways, bridges and power lines, Mr Maltzan says. Its extended horizontal layers are meant to suggest that higher density may be achieved by stacking horizontal elements rather than building towers.

In other cities, the presence of such landmark investments would set off a wave of property development that would drive away the very people who first created value out of abandonment. Locals seem less worried about that happening in Los Angeles because the city is seen as eternally fluid and diffuse. "Every place is sort of a destination here," says Laura Owens, a Los Angeles artist who has collaborated with Gavin Brown, a gallery owner, and Wendy Yao, who owns a bookshop, to open 356 Mission, an exhibition space. As prices have risen in the arts district, Ms Owens has moved to Boyle Heights, across ➤

► the river. "People will drive all over to see what's interesting." She says her gallery is off the beaten path, but won't be in a year. (A local offshoot of Maccarone, a New York gallery, is opening nearby this month.)

One subject of much local debate is the growing tension between the city's low-density past, with its easy driving culture, and its evolving present—which finds Los Angeles becoming denser and more gridlocked. "To get a balance of life and work people are looking to avoid commuting," said Yuval Bar-Zemer, whose Linear City development company has converted old factories into living and workspaces. "The biggest advantage of downtown is that people discover that they don't have to drive everywhere."

The arts district is one element in downtown's mosaic. Residents are moving into massive, long-empty loft buildings in grand Beaux Arts style in what is called the Historic Commercial Core, at the foot of Bunker Hill. Discreetly tasteful shopfronts for tiny, elegant restaurants and the "co-working spaces" that are so popular among young entrepreneurs are now found amid worn but exuberant discount shops that traditionally catered to the Latin American downtown working class.

Redevelopment is beginning to hem in Skid Row—between the commercial core and the arts district—where decades of public policy has concentrated some 5,000 of the city's homeless people. They have filled pavements with tent encampments. "The city's approach is to make homelessness tolerable to those who are not homeless," said Mike Alvidrez, executive director of the Skid Row Housing Trust, a non-profit housing developer. "We're not grappling with the underlying issues." He hopes that the arrival of influential people will change that.

Other cities have failed to retain the mixed nature of different districts when their popularity draws in homogenising property development. Already lumpy blocks of flats—fortified and dull to look at, but vastly more profitable than industrial, commercial or non-profit uses—are springing up in some parts of downtown, a trend that Mr Bar-Zemer says "will turn us into [suburban] Orange County." He would like to see residential use restricted to keep the area welcoming to manufacturing, commercial uses and developments where people can both live and work.

With its slower pace of revitalisation, downtown LA may have found a unique way to remake itself. To maintain its mutt-like mix, Mr Bar-Zemer says: "Now is the time to experiment." Others, including Mr Maltzan, wonder whether these smaller, incremental redevelopments will one day grow into a much larger web. "But a great deal is unknown, a great deal is in flux," he says. That is, however, an apt description of Los Angeles throughout its history. ■

The Broad Museum

Open doors

LOS ANGELES

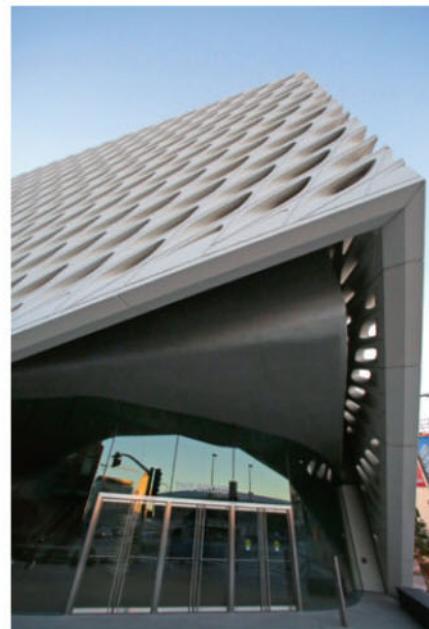
The city gets a brand-new contemporary-art museum

EXPECTATIONS for the Broad, a vast new private museum in downtown Los Angeles, have been growing in the run-up to its opening on September 20th. Eli and Edythe Broad, its patrons, are among America's most prominent contemporary-art collectors. The Broad (it rhymes with "road") is to be the permanent home for the 2,000 works they have amassed over nearly half a century.

As an architectural project, the museum's nervously latticed exterior stands tentatively along Grand Avenue, a cultural corridor that has been willed into being largely through Mr Broad's generosity. He helped found the Museum of Contemporary Art (MOCA) across the street in 1979, then bailed it out when it ran into serious financial trouble in 2008. And he helped get Frank Gehry's adjacent Walt Disney Concert Hall built when fund-raising stalled in the 1990s.

Having worked with a number of well-known architects, Mr Broad should have had the acumen to achieve greatness when he chose Diller Scofidio & Renfro, the firm that united the warring resident companies at the Lincoln Centre in New York and brought it back to life.

Elizabeth Diller's team designed a skewed-grid exterior as a kind of monumental open-weave fabric—a "veil" softly draped over the primary display space. It



Holey veil

sits atop the "vault", a blob that stores the Broads' collection. The firm has long experimented with ideas of voyeurism and exhibitionism, and the experience of the museum was supposed to be fluid and sexy. The veil is raised at the corners to disclose a glass-walled lobby, where biomorphic dark-grey surfaces rise and spread overhead like a surreal forest canopy. Those surfaces make visitors aware of the vault, which the Broads wanted to be made visible as an emblem of their liberal policy of lending to other institutions.

An escalator invites the visitor to ride upward 105 feet (32 metres), penetrating the mass of the vault in a tube-shaped tunnel. It bursts into the centre of a huge exhibition space to reveal the lurid hues of an oversized bunch of Jeff Koons tulips in front of an array of austere monumental paintings by Christopher Wool.

This triumphal arrival within the collection rivals any museum from the golden age of the 19th century. Skylights shaped to emulate the veil's grid float like a benign cloudscape, bathing the art in light. Pathways into galleries open in different directions, allowing visitors to choose the order in which they view the art.

Joanne Heyler, the Broad's founding director, has chosen more than 250 works, mainly paintings, and divided the floor into 20 ample spaces. The first exhibition of the collection is a chronological hit parade of American artists from Andy Warhol and Robert Rauschenberg, as well as more recent works from elsewhere: Takashi Murakami's long pictorial mural that was inspired by the Fukushima disaster and an emotionally charged cityscape in the process of obliteration, "Cairo" by Julie Mehretu, that dates from 2013.

Unfortunately the museum's veil proved very difficult to build, and the exterior went from resembling a softly pliable openwork fabric to a squared-off box. The tactile feel of the original outside would have drawn the visitor into the sensuousness of the lobby. Now exterior and interior barely speak to each other.

In the earliest design, the veil would also have screened sun coming in through glass walls on all sides of the display space, creating better light, at the expense of a great deal of wall space. In the end, only the Grand Avenue side, wrapping two corners, opens to the daylight-puckered veil. Elegant as the lighting effect is, it forms a strongly patterned background that is un congenial to any but the most assertive works, including a monumental table and chairs by Robert Therrien.

Some of America's greatest museums have been made when great collectors and great architects clicked, from the Frick Collection in New York to the Menil Collection in Houston. Though it is a pleasurable place to view extraordinary art, the Broad is not in the same class. ■

Art under Hitler

Wheeler-dealer

The Munich Art Hoard: Hitler's Dealer and His Secret Legacy. By Catherine Hickley. Thames & Hudson; 272 pages; £19.95

THE Nazis would willingly have destroyed, much as Islamic State (is) does now, everything they regarded as *Entartete Kunst*, or “degenerate art”. This included many early 20th-century masterpieces, including “Femme Assise” by Henri Matisse (pictured), that were seized from museums and Jewish collectors and sold for foreign currency, which the Nazi regime needed, just as is does, to finance its war machine.

Hildebrand Gurlitt became a facilitator of this process. Intelligent, with a well-trained eye and an appreciation of art that he inherited from his father, he enjoyed both the trust of prominent Jews and the confidence of Hitler’s ideologues. Gurlitt was himself a quarter Jewish, a small taint to his Aryan-ness that the Nazis were willing to overlook in order to take advantage of his connections in the art world.

Gurlitt was one of only four German dealers licensed to buy and sell on behalf of Hitler’s regime. He was a conduit by which despised “degenerate art” could be sold. He bought art cheaply from Jews fleeing from Germany. He purchased for the Führer’s projected art museum in Linz and also built up a big collection of his own. In short, Gurlitt saved much art, but he dealt in it while its rightful owners perished; he said he helped Jews, but he also profited massively from their misfortune.

This complex, shadowy story, and the subsequent fate of the art that Gurlitt handled, is painstakingly told in Catherine Hickley’s comprehensive narrative, “The Munich Art Hoard”. She does not linger long on issues of morality, but meticulously lays out the spidery network of ties, lies, pressures and fears that helped Gurlitt save his own skin and amass (and ultimately safeguard) a huge collection. When the hoard finally emerged in 2013 from the shuttered residences of his mild-mannered and socially autistic son, Cornelius, the discovery shocked the art world and raised a cloud of legal and ethical dilemmas. The reclusive Cornelius, who had thitherto felt his pathological solitude strangely comforted by his possession of the secret cache of art, found himself become an international cause célèbre.

There are passages in Ms Hickley’s account which display all the excitement of the best investigative journalism. But journalism it remains. The big issues which the story raises are all left unresolved, which is a pity. But perhaps the greatest pity of all is



Sitting waiting

that while lawyers, bureaucrats and art historians continue to deliberate, several hundred works of art—many of the highest order and by artists as prominent as Monet, Manet, Courbet, Chagall and Munch—languish unseen in a vault in Munich. Arguments over legal repossession will inevitably mean that many of them may not be seen again for decades. This is perhaps their only opportunity to be displayed altogether. The German authorities have many responsibilities to bear. But the most easily discharged of all would be to let the world have the opportunity meanwhile to view this unseen art—raising public awareness thereby of the sheer scale of what happened in Nazi Germany and reminding people that looting and trafficking of art works still happens today. ■

The second world war

Roosevelt's failure

1944: FDR and the Year that Changed History. By Jay Winik. Simon & Schuster; 512 pages; \$35 and £25

CHRONICLING someone’s life can be tedious. The author must plough through a mass of detail before getting to the real action. Jay Winik, by contrast, dives straight in with “1944”, his animated tale of how the Holocaust tragically shifted into highest gear, even as the Allies turned the tide in the second world war.

The story begins with the Tehran conference in late 1943, when the three main Allied leaders agreed to open a second front in Europe. Mr Winik, a talented storyteller, serves up memorable glimpses of the negotiations. President Franklin Roose-

velt enjoyed mixing the drinks and poking fun at Winston Churchill, while Josef Stalin chain-smoked and doodled wolves’ heads. Just over six months after the conference came D-Day, the Allied invasion of Normandy.

But Mr Winik’s chief focus is the Holocaust. For the Nazis’ killing machine, 1944 was a critical year. Hundreds of thousands of Hungarian Jews boarded trains that carried them to their deaths at Auschwitz. At the height of the terror some 24,000 Jews a day were gassed in what Mr Winik describes as the “largest single mass murder in human history”.

The author argues that Roosevelt, whose health was waning and who was concentrating on winning the war and forging the peace, should still have tried much harder to stop Hitler. The contrast he draws is with Abraham Lincoln. Whereas Lincoln signed the Emancipation Proclamation and freed the slaves even as war raged, FDR did not make saving the Jews a priority, despite mounting reports of genocide. The obtuseness of key officials at the State Department set the tone for America’s tepid response. When Roosevelt finally set up a War Refugee Board in 1944, to resettle and save Jews and other Nazi targets where it could, it was almost too late.

This is not a heavyweight history. It skims lightly across familiar, sometimes oversimplified terrain. Only briefly mentioned are the bloody battles of the Pacific theatre or the furious effort to develop the atom bomb. Instead Mr Winik dwells, passionately and at length, on Americans’ lack of interest in bombing Auschwitz even after the genocide was clear. While he is correct that America could have saved lives, he alludes only fleetingly to latter-day analyses of how poorly an aerial campaign would have worked in an era before most precision-guided bombs. The Nazis also doubtless would have improvised had the gas chambers been struck.

Erroneously, Mr Winik credits two Slovaks, Rudolf Vrba and Alfred Wetzler, as being the first to escape Auschwitz, in 1944. In fact, four others had made it out before then, by taking Nazi uniforms and commandeering an SS car. The escape of Vrba and Wetzler was significant, because they wrote a lengthy report on the death apparatus at the death camp. Unfortunately, officials circulated it only slowly.

It is impossible to read this book without thinking about the current crisis—the refugees fleeing terror and despotism in the Middle East who are flooding into southern Europe. They are trying desperately to make their way to, of all places, Germany. It is the largest such crisis since the aftermath of the second world war. Europe and America should remember the past, and welcome them. Seventy-plus years ago the doors were closed, and history stands in judgment. ■

The economics of deception

You have been warned

Phishing for Phools: The Economics of Manipulation and Deception. By George Akerlof and Robert Shiller. Princeton University Press; 272 pages; \$24.95, £16.95

“**C**OMPETITIVE markets by their very nature spawn deception and trickery.” This is not the hyperbole of a diehard Marxist, but the contention of two Nobel prizewinners in economics in a new book, “Phishing for Phools”. Economic models tend to assume that people are informed about the decisions they make; in the jargon consumers have “perfect information”. This supposedly enables consumers to make markets work to their advantage. But Robert Shiller of Yale University and George Akerlof of Georgetown University argue instead that this assumption is false. There are plenty of market equilibria, the authors find, where one party is being deceived, or “phished”. You may think you are doing well out of markets; you may behave quite rationally; but in fact you are being taken for a “phool”.

Econo-nerds have been waiting eagerly for this book. Messrs Shiller and Akerlof—with nearly 15,000 academic citations between them—have devoted their enormous collective brainpower to these ideas for years. They have been writing the book itself since 2010. You might think that, as a result, it would be dense; in fact the opposite is true. It mostly consists of other peoples’ research, helpfully boiled down into titbits that are perfect material for cocktail-party chatter.

One section of the book discusses how credit cards are used to “phish” the unsuspecting. Why do shops accept cards when it is so costly? One study found that credit-card firms charge convenience shops fees that amount to over twice their profits. But cards also trick people into spending more than they really want to. Richard Feinberg of Purdue University demonstrated this in a psychological experiment. After putting MasterCard symbols nearby, subjects said they would pay significantly more for a basket of goods than the control group—in some cases about 200% more. You, the consumer, may think that credit cards make life more convenient. In fact they “phish” you on a daily basis.

The authors also expose car salesmen. One of their research assistants tracked down a salesman who was willing to reveal his tricks of the trade. When helping customers work out a financing plan, he would trick them by getting them to focus on the monthly payment, not the length of the contract. Half the profits, others con-

An Oxford memoir

Romantic contrarian

Look Back in Laughter: Oxford’s Postwar Golden Age. By R.W. Johnson. Threshold Press; 272 pages; £12.99

THE author of this enjoyably random assortment of memoirs nearly died in 2009 after contracting a bizarre bacterial infection in a swimming accident off the coast of South Africa, eventually having his left leg amputated above the knee. While hovering for months in a medical limbo-land, he cast his mind nostalgically back to the 29 years he spent at Magdalen College, Oxford, mostly as a don.

Infused with egalitarian anti-apartheid idealism, R.W. Johnson arrived at Oxford in 1964 as a Rhodes Scholar, lucky not to have been locked up or tortured as some of his friends had been. He stayed until his return to what would soon be Nelson Mandela’s South Africa, where he rapidly turned into a scourge of the ruling African National Congress. The outcome is a delightfully rum collection of anecdotes and arguments, some of them marvellously arcane in the most ludicrous navel-gazing Oxonian tradition, others touching on grander matters of state, foreign policy and high principle.

In essence Mr Johnson is a romantic contrarian liberal. He claims a lingering loyalty to a vaguely defined left, while pondering ruefully whether he may have

grown into a bit of an establishment man himself. He became an expert on modern France. He helped stop Margaret Thatcher from receiving an honorary Oxford degree on account of her alleged “utter philistinism” towards education. He writes a whole chapter on Oxford’s communists and Soviet spies, some of whom he appears to have respected for their own brand of loyalty to a cause.

Yet he perches on an ideological high wire, wobbling sometimes to the libertarian right, admiring big brains on all points of the spectrum, and deplored the British government for bullying universities into changing their students’ “demographic shape” for narrow political reasons. Back in South Africa, against the prevailing ethos, he defends Cecil Rhodes and his scholarship trust.

Oxford suited Mr Johnson; it was “the most tolerant atmosphere I had ever experienced in my life”. He plainly loved its quirky humour. Sometimes he felt he was in “pure paradise”, soaking up the joys of Britain’s permissive late 1960s while supping at high table at Magdalen College with the likes of A.J.P. Taylor, a historian, along with some of the nine Nobel prizewinners, past or present, in the college. Among his other fancies was sending his favourite students off to write for *The Economist*.

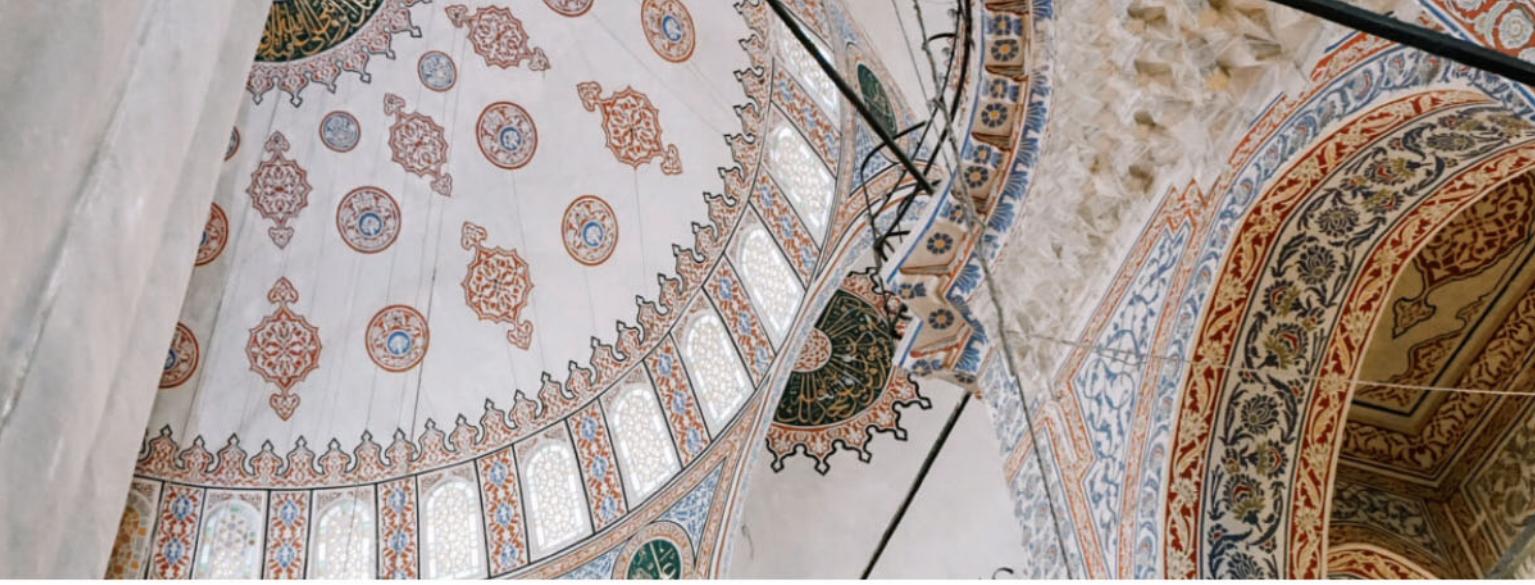
ceded, came from 10% of their customers—the most gullible ones.

Although these vignettes are interesting, the book also has flaws. The authors cover a huge number of topics, veering from misleading advertising to fraud in junk-bond markets and rip-off tactics by estate agents. The intention is to show that

phishing is pervasive. The effect, though, is that the authors analyse none of the topics satisfactorily. Many of their arguments end up being crushingly familiar. An entire chapter, for example, is spent pointing out that lobbying is a problem in American politics (hardly a novel discovery). In the next chapter the reader is told, again at breakneck speed, that pharmaceutical companies present misleading medical evidence in order to sell more medicines.

The book’s central message is certainly thought-provoking. But there is no systematic analysis of the phenomenon, thereby refuting the claim that this is a study of “the economics of manipulation and deception”. Had the authors focused in greater depth on phishing in a small number of industries, they would have been able to give their theory the attention it deserves. It is important to know why phishing happens in some places, but not others; or what can be done to stop it. Instead readers are merely left with the impression that there are lots of nasty people about—and perhaps that they may themselves have been phished. ■





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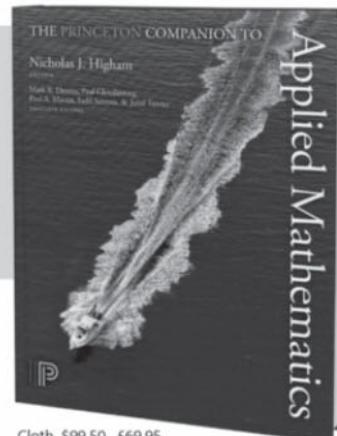
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Organization: World Agroforestry Centre

Closing date: 31 October 2015

Publications

Unsafe Abortion and Women's Health

Every 11 minutes a woman dies from an unsafe abortion. Virtually all occur in poor countries. Rosalind Petchesky of the City University NY said 'Colin Francome's solid well researched overview of abortion legislation and realities across the globe offers an invaluable tool.'

<http://www.ashgate.com/isbn/9781472427618>

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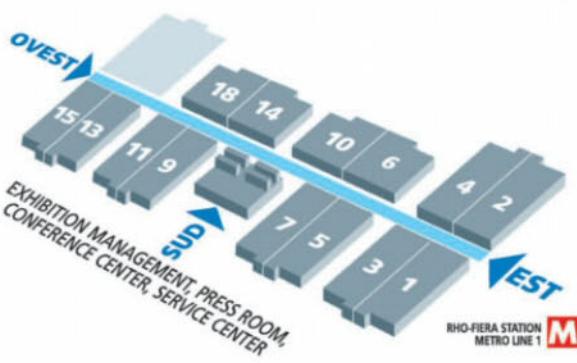
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GENERAL PROCUREMENT NOTICE

KINGDOM OF BAHRAIN
MUHARRAQ PEARLING HERITAGE CONSERVATION AND URBAN ECONOMIC REVIVAL
(Istisna'a No. BH-0061)

The Government of the Kingdom of Bahrain has received financing in the amount of US\$ 48 million from the Islamic Development Bank (IDB) towards the costs of the Muharraq Pearling Heritage Conservation and Urban Economic Revival Project in the city of Muharraq and intends to apply the proceeds to payments for the eligible goods and works to be procured under this project.

The principal objective of this project is to foster the socio-economic and cultural development of Muharraq and to improve the living conditions of the residents by developing new commercial services and improving urban mobility. The proposed investment program, financed through an Istisna'a financing, will require the procurement of the following works:

The proposed project involves the rehabilitation and conservation of 12 historical buildings (included in UNESCO World Heritage List) linked to the Muharraq's pearl heritage and connects them through a 3.5 km long walking trail. In addition to these buildings, a number of properties of significant historic value would also be conserved and rehabilitated under this project along with façade upgrading for an estimated of 750 houses. The project also involves construction of 17 open public spaces, a visitor centre, pedestrian bridge and 4 parking buildings.

The project would be executed into the following contracts:

1. Conservation and Rehabilitation Works for the Southern Section of the City (monuments, historic buildings, and façade upgrading), International Competitive Bidding for Member Countries (ICB/MC).
2. Conservation and Rehabilitation Works for the Northern Section of the City (monuments, historic buildings, and façade upgrading), (ICB/MC).
3. Development of the Pearl Trail (17 open public spaces, indicators along the trail), (ICB/MC).
4. Visitors Center and Bu Maher Pedestrian Bridge, National Competitive Bidding.
5. Car Park Buildings (ICB/MC).

Bidding for the above contracts is envisaged to commence in the second half of 2016. Procurement of contracts financed by the Islamic Development Bank will be conducted through the procedures as specified in the Islamic Development Bank's Guidelines for Procurement of Goods and Works Under Islamic Development Bank Financing (current edition), and is open to all eligible bidders, as defined in the guidelines.

Specific procurement notices for contracts to be bid under the Islamic Development Bank's international competitive bidding limited to Member Countries (ICB-MCs) procedure will be announced, as they become available in IsDB website (www.isdb.org) and international newspapers. Prequalification of contractors will be required for contract number 5 (as above) following the IDB Procurement Guidelines.

Interested eligible bidders who wish to be included on the mailing list to receive invitations to prequalify/bid under ICB or ICB/MC procedures, or those requiring additional information, should contact the address below.

The Coordinator of the Project Management Unit
Pearling: Testimony of an Island Economy
Bahrain Authority for Culture and Antiquities
Building 455 Road 2209 Block 322
Manama, Bahrain

Attention: Ghassan Chemali
Email: ghassan.chemali@culture.gov.bh
ghassan.chemali@gmail.com
Phone: (+973) 17298768
Fax: (+973) 17296771



Pearling
Testimony of an Island Economy
A World Heritage Nomination Site



VOLTA STAR TEXTILES LIMITED EXPRESSION OF INTEREST

The Volta Star Textiles Limited ("VSTL"), located at Juapong in the North Tongu District of the Volta Region of Ghana, was established in the late 1960s and incorporated in November 2007 as an agro-processing business involved in the processing of cotton into yarn and grey baft for local consumption and export. The mission of VSTL is to stand out as the preferred textiles products supplier in Africa and beyond and to be recognized as a world class company through its "total quality" and people driven spirit.

Government of Ghana ("GoG") acting through the Ministry of Trade and Industry ("MoTI") has appointed PwC to assist with the revitalisation of VSTL as part of efforts to enhance the status of VSTL as a leading textile processing company in West Africa and to improve the economic prospects of Juapong and its surrounding communities.

To achieve this objective, GoG through MoTI is inviting prospective bidders to submit an Expression of Interest ("EoI") to acquire 70% of the shares of VSTL.

The deadline for the submission of the EoI is **Friday, 25 September 2015 at 4pm**.

Expressions of Interest should be marked **CONFIDENTIAL – PROJECT STAR** and addressed to;

THE PARTNER
PRICEMATERHOUSECOOPERS (GHANA) LIMITED
NO. 12 AIRPORT CITY, UNA HOME, 3RD FLOOR
AIRPORT CITY, ACCRA, GHANA
ATTN: KINGSFORD ARTHUR

For enquiries, please contact **Augustina Mills** or **Kwesi Arhin** at the PricewaterhouseCoopers (PwC) Ghana Ltd office at No. 12 Airport City, Una Home, 3rd Floor, Airport City, Accra or PMB CT 42, Cantonments, Accra.

T: +233 (0) 302 761 500 F: +233 (0) 302 761 544



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- Russian language proficiency is preferred

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Please visit culturalvistas.org/alfa to apply.

Questions? alfa@culturalvistas.org | +1 212 497 3510

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NIGERIAN NATIONAL PETROLEUM CORPORATION

NNPC Towers, Herbert Macaulay Way, P.M.B. 190, Garki- Abuja, Nigeria

INVITATION TO TENDER FOR SALE AND PURCHASE OF NIGERIAN CRUDE OIL GRADES

1. INTRODUCTION

NNPC is the Nigerian National Oil Corporation empowered pursuant to NNPC Act (LFN Cap. 320) to engage in all commercial activities relating to the Petroleum Operations.

In compliance with the Public Procurement Act 2007 and the Bureau of Public Procurement guidelines, NNPC intends to engage qualified and reputable Companies for the sale and purchase of Nigerian Crude oil grades.

2. BRIEF DESCRIPTION OF SCOPE OF SALE

Sale and purchase of Nigerian Crude Oil grades subject to terms and conditions as will be advised in the term sheets and general form of agreement.

NB: *Term Sheets and General Form of Agreement shall be made available to pre-qualified applicants. Who may apply:*

- 2.1 A bona fide end user who owns a refinery and may also own retail outlets. Bilateral involvement of home Governments may be added advantage.
- 2.2 Trading arm of Upstream companies operating in Nigeria with established track record of oil and Gas production activities.
- 2.3 An established and globally recognized large volume Crude Oil trader.
- 2.4 Indigenous Nigerian company engaged in Nigerian Oil and Gas downstream business activities.

3. PRE-QUALIFICATION REQUIREMENTS

- 3.1 Full details of company profile with Certificate of Registration/Incorporation, certified true copies of memorandum and article of Association of the company.
- 3.2 Company Tax Clearance Certificate for the last three (3) years (2012, 2013 and 2014).
- 3.3 Evidence of VAT registration and Remittance (where applicable).
- 3.4 Demonstration of minimum annual turnover of **US\$750 million** and net worth of at least **US\$300 million**.
- 3.5 Ability to establish an irrevocable Letter of Credit for the payment of any allocated Crude Oil subject to the contract terms.
- 3.6 Ability to pay an initial deposit of US\$2.5Million representing the first lifting deposit upon signing of the contract agreement.
- 3.7 Evidence of compliance with the Industrial Training Fund (ITF) Amendment Act 2011 by inclusion of copy of Compliance Certificate from the Industrial Training Fund (where applicable).
- 3.8 Details of the applicant's facilities, markets and volume of crude oil/ products traded and/or processed over the last three years.
- 3.9 Audited account for three (3) years (2012, 2013 & 2014).
- 3.10 Evidence of verifiable similar services carried out within the last five years
- 3.11 **Compliance with the Nigerian Content Act**
Compliance with Nigerian Content Act shall be a major consideration in the selection of applicants to lift Nigerian crude oil. It should be noted that evidence of Nigerian equity in the entity seeking consideration shall give competitive advantage.
- 3.12 Interested applicants must submit a detailed Nigerian Content execution strategy to the satisfaction of the NCDMB, clearly setting out Nigerian Content commitments for subcontracting in the areas of;
 - 3.12.1 Insurance and Legal Services
 - 3.12.2 Banking and Financial Services
 - 3.12.3 Training and Capacity Building
- 3.13 Any additional information relevant to enhance the bid/tender process.
- 3.14 Certainty of business integrity and pre-signed undertaking to strictly comply with Nigerian Anti-Corruption laws in processing the bid and executing the contract if successful.

4. OTHER CONDITIONS

In addition to the above, applicants should show commitment to the development of the Nigerian economy by investing in any number of investment opportunities that abound either in the oil industry or other sectors or, as an alternative, in the short run, meaningful and sizeable investment in community development project(s) as may be acceptable. Investment areas include:

- 4.1 Upstream investment – to increase our reserves and production capacity;
- 4.2 Downstream projects in refining, processing, distribution and storage of petroleum products;
- 4.3 Gas utilization projects;
- 4.4 Independent Power Plant Projects;
- 4.5 Agriculture;
- 4.6 Railway Construction;
- 4.7 Solid Mineral Development;
- 4.8 Healthcare sector development and Real Estate Development;
- 4.9 And any other areas of the economy acceptable to the SELLER.

5. SUBMISSION OF BID DOCUMENTS

All prospective companies wishing to tender for the sale and purchase described in 2.0 above shall submit relevant documentation as stipulated in 3.0 above.

The requested information and any supporting documents in respect of these requirements shall be submitted in ONE original plus TWO hard copies and two electronic copies (CD ROM). The documents which should be in separate packages shall be sealed and clearly marked "**INVITATION TO TENDER FOR SALE AND PURCHASE OF NIGERIAN CRUDE OIL**" to the following address:

The Group Managing Director
Nigerian National Petroleum Corporation
NNPC Towers
Herbert Macaulay Way
Central Area, Abuja

All the documents shall be delivered as follows:

- 5.1 Bids to be submitted on or before **4.00pm on Monday, 26th October, 2015**.
- 5.2 Venue: Block D, First (1st) Floor, Room 45B, Herbert Macaulay Way, NNPC Towers, Central Business District, Abuja, FCT.
- 5.3 Bids shall be opened on **Tuesday, 27th October, 2015 at 10.00am** in the Amphitheatre, 1st Floor, Block A, NNPC Towers.

6. IMPORTANT INFORMATION

- 6.1 It must be noted that:
 - 6.1.1 Late submission shall be rejected.
 - 6.1.2 Your company shall provide NNPC with a Letter of Authority to verify all claims made in your submissions.
 - 6.1.3 NNPC reserves the absolute discretion and right to either accept or reject any documents and it shall not be required to assign a reason for refusal to invite your company to participate in the bidding exercise or to enter into any correspondence concerning the selection of any contract for the services.
 - 6.1.4 All claims must be adequately substantiated and verifiable.
 - 6.1.5 NNPC shall deal directly with only authorized officers of the interested companies and not through individuals or agents (ownership is therefore essential).
 - 6.1.6 All costs incurred by your company as a result of this pre-qualification exercise and any subsequent request for information shall be to your account.
 - 6.1.7 The pre-qualification and any related process neither creates any commitment by NNPC nor establishes any legal relationship.

SIGNED: MANAGEMENT

Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices latest 2015 [†]	Unemployment rate, %	Current-account balance		Budget balance % of GDP 2015 [†]	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$ Sep 16th year ago			
	latest	qtr*	2015 [†]				latest 12 months, \$bn	% of GDP 2015 [†]						
United States	+2.7	02	+3.7	+2.4	+0.9 Aug	+0.2 Aug	+0.4	5.1 Aug	-406.4 Q1	-2.6	-2.6	2.23	-	-
China	+7.0	02	+7.0	+6.9	+6.1 Aug	+2.0 Aug	+1.5	4.0 Q2 [§]	+291.4 Q2	+3.0	-2.7	3.18 ^{§§}	6.37	6.15
Japan	+0.8	02	-1.2	+0.8	nil Jul	+0.3 Jul	+0.7	3.3 Jul	+107.8 Jul	+2.7	-6.8	0.38	121	107
Britain	+2.6	02	+2.7	+2.5	+0.8 Jul	nil Aug	+0.2	5.5 Jun ^{††}	-180.5 Q1	-4.8	-4.4	1.88	0.65	0.61
Canada	+1.0	02	-0.5	+1.4	-2.7 Jun	+1.3 Jul	+1.1	7.0 Aug	-48.5 Q2	-2.9	-1.8	1.60	1.32	1.10
Euro area	+1.5	02	+1.4	+1.4	+1.9 Jul	+0.1 Aug	+0.2	10.9 Jul	+317.6 Jun	+2.6	-2.1	0.78	0.89	0.77
Austria	+0.5	02	-2.6	+0.7	-0.1 Jun	+1.0 Aug	+1.0	5.8 Jul	+6.5 Q1	+1.4	-2.1	1.03	0.89	0.77
Belgium	+1.3	02	+1.7	+1.3	-4.5 Jun	+0.9 Aug	+0.4	8.5 Jul	+12.1 Mar	+1.7	-2.6	1.14	0.89	0.77
France	+1.0	02	nil	+1.1	-0.8 Jul	nil Aug	+0.2	10.4 Jul	-6.0 Jul [‡]	-0.7	-4.1	1.14	0.89	0.77
Germany	+1.6	02	+1.8	+1.7	+0.4 Jul	+0.2 Aug	+0.4	6.4 Aug	+280.5 Jul	+7.6	+0.7	0.78	0.89	0.77
Greece	+1.7	02	+3.7	+0.5	-1.3 Jul	-1.5 Aug	-1.0	25.2 Jun	+2.1 Jun	+2.6	-3.8	8.75	0.89	0.77
Italy	+0.7	02	+1.3	+0.6	+2.7 Jul	+0.2 Aug	+0.2	12.0 Jul	+45.6 Jun	+2.0	-2.9	1.92	0.89	0.77
Netherlands	+1.6	02	+0.3	+1.8	+0.6 Jul	+0.8 Aug	+0.4	8.5 Jul	+91.4 Q1	+9.2	-1.8	0.92	0.89	0.77
Spain	+3.1	02	+4.1	+3.0	+5.9 Jul	-0.4 Aug	-0.3	22.2 Jul	+15.8 Jun	+0.8	-4.4	2.13	0.89	0.77
Czech Republic	+4.4	02	+4.0	+3.1	+4.6 Jul	+0.3 Aug	+0.3	6.2 Aug [§]	+2.4 Q2	-0.1	-1.8	0.85	24.0	21.2
Denmark	+2.0	02	+0.9	+1.8	+0.8 Jul	+0.5 Aug	+0.7	4.6 Jul	+21.1 Jul	+6.8	-2.9	1.06	6.61	5.75
Norway	+2.2	02	-0.4	+0.7	+4.0 Jul	+2.0 Aug	+1.6	4.5 Jun ^{††}	+37.8 Q2	+9.3	+6.0	1.61	8.15	6.40
Poland	+3.6	02	+3.6	+3.4	+3.7 Jul	-0.6 Aug	+0.2	10.1 Jul [§]	-1.8 Jul	-1.4	-1.5	3.06	3.72	3.23
Russia	-4.6	02	na	-3.6	-4.2 Aug	+15.8 Aug	+14.8	5.3 Jul [§]	+68.7 Q2	+4.9	-2.8	11.18	65.5	38.4
Sweden	+3.3	02	+4.6	+2.7	-1.9 Jul	-0.2 Aug	+0.1	6.4 Aug [§]	+35.1 Q2	+6.5	-1.2	0.77	8.26	7.12
Switzerland	+1.2	02	+1.0	+0.7	-2.5 Q2	-1.4 Aug	-1.0	3.3 Aug	+53.6 Q1	+7.2	+0.2	0.01	0.97	0.93
Turkey	+3.8	02	na	+2.8	+1.5 Jul	+7.1 Aug	+7.3	9.6 Jun [§]	-45.0 Jul	-4.7	-1.6	10.65	3.00	2.20
Australia	+2.0	02	+0.7	+2.4	+1.2 Q2	+1.5 Q2	+1.7	6.2 Aug	-47.4 Q2	-3.2	-2.4	2.80	1.39	1.10
Hong Kong	+2.8	02	+1.6	+2.3	-1.3 Q2	+2.5 Jul	+3.1	3.3 Jul ^{†‡}	+5.9 Q1	+2.8	nil	1.77	7.75	7.75
India	+7.0	02	+7.0	+7.5	+4.2 Jul	+3.7 Aug	+5.3	4.9 2013	-25.9 Q2	-1.2	-4.1	7.76	66.2	61.0
Indonesia	+4.7	02	na	+4.8	+5.7 Jul	+7.2 Aug	+6.4	5.8 Q3 [§]	-21.6 Q2	-2.4	-2.0	8.89	14,396	11,995
Malaysia	+4.9	02	na	+5.5	+6.1 Jul	+3.3 Jul	+2.6	3.1 Jun [§]	+8.8 Q2	+3.4	-4.1	4.18	4.25	3.23
Pakistan	+5.5	2015**	na	+5.7	+3.9 Jun	+1.7 Aug	+4.1	6.0 2014	-2.2 Q2	-0.6	-5.1	9.00 ^{†††}	104	103
Philippines	+5.6	02	+7.4	+6.6	-0.5 Jul	+0.6 Aug	+2.6	6.5 Q3 [§]	+14.5 Mar	+4.1	-1.9	3.77	46.5	44.2
Singapore	+1.8	02	-4.0	+3.1	-6.1 Jul	-0.4 Jul	+0.4	2.0 Q2	+69.5 Q2	+21.3	-0.7	2.85	1.40	1.26
South Korea	+2.2	02	+1.3	+2.6	-3.3 Jul	+0.7 Aug	+0.9	3.4 Aug [§]	+104.3 Jul	+7.8	+0.4	2.27	1,170	1,037
Taiwan	+0.5	02	-6.6	+3.4	-3.0 Jul	-0.4 Aug	+0.2	3.7 Jul	+72.8 Q2	+12.8	-1.1	1.25	32.4	30.2
Thailand	+2.8	02	+1.5	+3.5	-5.3 Jul	-1.2 Aug	+0.8	1.0 Jul [§]	+20.8 Q2	+2.4	-2.0	2.98	35.9	32.2
Argentina	+1.1	01	+0.8	nil	+0.6 Jul	— ***	—	6.6 Q2 [§]	-6.0 Q1	-1.4	-3.3	na	9.38	8.40
Brazil	-2.6	02	-7.2	-1.9	-9.0 Jul	+9.5 Aug	+8.6	7.5 Jul [§]	-89.4 Jul	-4.1	-5.8	15.17	3.83	2.33
Chile	+1.9	02	nil	+2.9	-1.7 Jul	+5.0 Aug	+3.8	6.6 Jul ^{§††}	-0.3 Q2	-1.3	-2.0	4.67	677	592
Colombia	+3.0	02	+2.4	+3.3	+0.3 Jul	-4.7 Aug	+4.2	8.8 Jul [§]	-20.7 Q1	-6.6	-2.1	7.88	2,967	1,974
Mexico	+2.2	02	+2.0	+2.5	+0.7 Jul	-2.6 Aug	+2.9	4.3 Jul	-25.3 Q2	-2.5	-3.4	6.13	16.6	13.2
Venezuela	-2.3	03	+10.0	-4.2	na	+68.5 Dec	+76.4	6.6 May [§]	+10.3 Q3	-1.8	-16.5	10.48	6.30	6.35
Egypt	+4.3	04	na	+4.2	+6.0 Jul	+7.9 Aug	+9.9	12.7 Q2 [§]	-12.2 Q2	-1.4	-11.0	na	7.83	7.15
Israel	+1.9	02	+0.3	+3.4	+5.0 Jun	-0.4 Aug	-0.2	5.3 Jul	+11.7 Q1	+4.8	-2.9	2.43	3.86	3.64
Saudi Arabia	+3.5	2014	na	+2.7	na	+2.1 Aug	+2.7	5.7 2014	+39.7 Q1	-2.4	-12.1	na	3.75	3.75
South Africa	+1.2	02	-1.3	+1.8	+5.6 Jul	+5.0 Jul	+4.8	25.0 Q2 [§]	-15.6 Q2	-5.1	-3.8	8.46	13.3	10.9

Source: Haver Analytics. *% change on previous quarter, annual rate. [†]The Economist poll or Economist Intelligence Unit estimate/forecast. [§]Not seasonally adjusted. [‡]New series. ^{**}Year ending June. ^{††}Latest 3 months. ^{†††}3-month moving average. ^{§§}5-year yield. ^{***}Official number not yet proven to be reliable; The State Street PriceStats Inflation Index, July 27.18%; year ago 37.89%. ^{††††}Dollar-denominated bonds.

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Markets

		% change on			
	Index Sep 16th	one week	Dec 31st 2014 in local currency terms		
United States (DJIA)	16,740.0	+3.0	-6.1	-6.1	
China (SSEA)	3,302.1	-2.8	-2.6	-5.1	
Japan (Nikkei 225)	18,171.6	-3.2	+4.1	+3.9	
Britain (FTSE 100)	6,229.2	nil	-5.1	-6.6	
Canada (S&P TSX)	13,763.8	+1.7	-5.9	-17.9	
Euro area (FTSE Euro 100)	1,081.9	-0.5	+4.3	-2.8	
Euro area (EURO STOXX 50)	3,251.8	-0.6	+3.3	-3.7	
Austria (ATX)	2,292.8	-0.2	+6.1	-1.1	
Belgium (Bel 20)	3,480.0	-0.4	+5.9	-1.3	
France (CAC 40)	4,645.8	-0.4	+8.7	+1.3	
Germany (DAX)*	10,227.2	-0.7	+4.3	-2.8	
Greece (Athex Comp)	692.4	+3.5	-16.2	-21.9	
Italy (FTSE MIB)	22,059.2	-0.3	+16.0	+8.1	
Netherlands (AEX)	438.5	-1.3	+3.3	-3.7	
Spain (Madrid SE)	1,009.0	-0.8	-3.2	-9.8	
Czech Republic (PX)	1,002.3	-0.6	+5.9	+0.9	
Denmark (OMXCB)	846.3	-1.5	+25.3	+16.5	
Hungary (BUX)	21,107.4	nil	+26.9	+19.7	
Norway (OSEAX)	628.2	-1.6	+1.4	-7.4	
Poland (WIG)	51,532.7	+1.4	+0.2	-4.3	
Russia (RTS, \$ terms)	837.4	+5.1	+18.2	+5.9	
Sweden (OMX30)	1,483.7	-1.6	+1.3	-4.4	
Switzerland (SMI)	8,871.2	nil	-1.2	+0.8	
Turkey (BIST)	74,149.4	+3.0	-13.5	-33.3	
Australia (All Ord.)	5,123.6	-2.2	-4.9	-16.9	
Hong Kong (Hang Seng)	21,966.7	-0.7	-6.9	-6.9	
India (BSE)	25,964.0	+1.0	-5.6	-10.2	
Indonesia (JSX)	4,332.5	-0.3	-17.1	-28.7	
Malaysia (KLCSE)	1,647.2	+2.7	-6.5	-24.1	
Pakistan (KSE)	33,345.6	-1.4	+3.8	nil	
Singapore (STI)	2,868.7	-2.0	-14.8	-19.5	
South Korea (KOSPI)	1,975.5	+2.1	+3.1	-4.5	
Taiwan (TWI)	8,333.3	+0.6	-10.5	-13.1	
Thailand (SET)	1,381.8	-1.0	-7.7	-15.7	
Argentina (MERV)	10,702.0	-4.1	+24.7	+12.8	
Brazil (BVSP)	48,553.1	+4.1	-2.9	-33.2	
Chile (IGPA)	18,419.3	+0.8	-2.4	-13.8	
Colombia (IGBC)	9,678.6	+2.3	-16.8	-34.8	
Mexico (IPC)	43,269.6	+1.2	+0.3	-11.9	
Venezuela (IBC)	13,298.9	-9.7	+245	na	
Egypt (Case 30)	7,266.4	+3.1	-18.6	-25.7	
Israel (TA-100)	1,393.4	-0.4	+8.1	+8.3	
Saudi Arabia (Tadawul)	7,525.3	-2.9	-9.7	-9.6	
South Africa (JSE AS)	51,029.2	+2.6	+2.5	-12.0	

GDP and household income

Since 2007 household disposable income has risen faster than GDP in the OECD, a mostly rich-country club. Gross household disposable income per person increased by 8.1% between early 2007 and early 2015; GDP per person increased by only 3.2%. This is partly because GDP fell at the start of the financial crisis, at the same time as automatic stabilisers like welfare payments propped up household income. Norway is a good example of how GDP growth figures are not always the best measure of material well-being: high wages and labour-participation rates have boosted disposable income per person, while GDP per person has fallen over the eight-year period because of declining oil and gas production.

Per person, Q1 2007-Q1 2015, % change



Source: OECD

*Gross

Other markets

		% change on			
		Index Sep 16th	one week	Dec 31st 2014 in local currency terms	
United States (S&P 500)	1,995.3	+2.7	-3.1	-3.1	
United States (NAScomp)	4,889.2	+2.8	+3.2	+3.2	
China (SSEB, \$ terms)	305.2	-0.7	+7.8	+5.0	
Japan (Topix)	1,472.6	-2.3	+4.6	+4.4	
Europe (FTSEurofirst 300)	1,427.6	-0.6	+4.3	-2.8	
World, dev'd (MSCI)	1,634.0	+0.4	-4.4	-4.4	
Emerging markets (MSCI)	806.8	-0.3	-15.6	-15.6	
World, all (MSCI)	393.7	+0.3	-5.6	-5.6	
World bonds (Citigroup)	876.5	+0.2	-2.9	-2.9	
EMBI+ (JP Morgan)	701.0	+0.1	+1.3	+1.3	
Hedge funds (HFRX)	1,200.8 ^s	nil	-1.4	-1.4	
Volatility, US (VIX)	22.3	+26.2	+19.2	(levels)	
CDSs, Eur (iTRAXX) ^t	70.5	+1.7	+10.2	+2.6	
CDSs, N Am (CDX) ^t	77.7	-3.2	+21.5	+21.5	
Carbon trading (EU ETS) €	8.2	-0.6	+12.2	+4.5	

Sources: Markit; Thomson Reuters. *Total return index.

^tCredit-default-swap spreads, basis points. ^sSept 14th

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

The Economist commodity-price index

		% change on		
		Sep 8th	Sep 15th*	one month
Dollar Index				
All Items	129.6	131.6	-1.0	-15.6
Food	147.5	151.2	-2.2	-10.3
Industrials				
All	111.0	111.1	+0.8	-22.2
Nfa [†]	108.9	109.8	-3.9	-17.3
Metals	111.9	111.7	+3.0	-24.0
Sterling Index				
All items	153.4	155.8	+0.9	-10.9
Euro Index				
All items	144.1	145.1	-3.1	-3.2
Gold				
\$ per oz	1,122.8	1,104.6	-1.0	-10.4
West Texas Intermediate				
\$ per barrel	45.7	44.6	+5.3	-52.9

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

[†]Non-food agriculturals.



Priestly spirit

Max Beauvoir, biochemist and high priest of Haitian voodoo, died on September 12th, aged 79

FOLK religions rarely have leaders or articulate their doctrines. And until Max Beauvoir felt its call, voodoo's main achievement was survival. Hollywood sensationalised it; Christian missionaries out-competed it; Haiti's corrupt rulers co-opted it, and America used it as evidence of barbarity to justify invasion. Uniquely among religions, even its name has pejorative overtones: "voodoo economics".

But its charms, ceremonies and beliefs, rooted in west African animism and topped up with elements of Christianity, gave comfort and identity to the people of the poorest country in the western hemisphere. Mr Beauvoir's aim was to turn voodoo from a downtrodden and semi-secret cult into a proud and public religion.

He was an unlikely candidate. A biochemist, he studied in New York and at the Sorbonne in Paris, and patented a method for synthesising steroids. He returned home in 1973 to try to extract cortisone from sisal. But a year later his dying grandfather, a *houngan* or voodoo priest he had not seen for 20 years, pointed a wavering finger and told him: "You take over."

Though puzzled that he, rather than any of the 20-odd cousins round the deathbed, had been chosen, he at once agreed. The cultural side of the religion fascinated him; he could at least study the herbology, he

reasoned. He was happy to explain spirits, potions, dances and trances to the curious; they included Bill and Hillary Clinton, honeymooning in Haiti 1975. His French wife gamely joined in, becoming a priestess. They began holding ceremonies, initially for family and friends, and soon for hundreds of fee-paying devotees. But only in 1976, when he first experienced spirit possession, did he begin to believe in voodoo's supernatural element, he said.

It was a good life. But voodoo was tightly tied to the Duvalier dictatorship, which had recruited *houngans*, once the country's elite, into the fearsome secret police, the tontons-macoutes. To terrify believers, "Papa Doc" Duvalier styled his diction and appearance on Baron Samedi, the debauched master of the dead in the voodoo pantheon. When the regime fell in 1986, mobs lynched scores of voodoo priests, and besieged Mr Beauvoir's home.

Mr Beauvoir blamed the Vatican for that, and his anti-Catholic views meant he soon fell out with Jean-Bertrand Aristide, the firebrand ex-priest who became president. Amid death threats, the Beauvoirs moved to Washington, DC—to minister to the spiritual needs of exiled Duvalierists there, critics said. It was a sad comedown. The police, unimpressed by voodoo spirits' power to bend the world to their will,

stopped him holding ceremonies in Rock Creek Park. He drew a small flock to the Temple of Yehwe, the spare room in his two-bedroom flat on Connecticut Avenue, but the building manager complained about the noise.

Internationally, he remained a celebrity exponent of his faith. It was not black magic, and had nothing to do with sticking pins into dolls, he explained. The real name was Vodou, derived from a word meaning "Spirit" or "God" in the Fon language of Benin. It was monotheistic, but its many recognised spirits were important messengers and helpmeets for the deity. It healed mind, soul and body, guiding "all of our actions and all of our thoughts". Sacred trances did not create the monstrous zombies of Hollywood depiction: they result from the sacramental administration of tiny doses of nerve poison, which enabled the spirit to leave the shackles of the body and talk directly with God.

But untangling voodoo's spiritual and political significance from its practices was hard. Zombie powder, according to a book written by a Harvard ethnobotanist, Wade Davis, with Mr Beauvoir's help, contained a hallucinogenic plant called datura, crushed skull from a toddler's decomposing corpse, freshly killed blue lizards, and a large dried toad with a dried sea worm wrapped around it. Later research cast doubt on the efficacy of this preparation in producing lasting trances.

In 2008 the *houngans* decided they needed a leader who would settle disputes and make their case in public. They chose Mr Beauvoir to head their new federation, as the "Ati" or high priest of voodoo. He returned to Haiti, and, walking across white rose petals strewn on a crimson carpet, he ascended a varnished throne carved out of a giant tree trunk, to his new role as voodoo's titular head.

Mind over matter

No longer was the religion to be secret or shameful: it epitomised the spirit of the great slave revolt of 1791 and was the best antidote to the corruption that plagued Haiti, he argued. The 60,000 voodoo priests should play a role in politics: they were closer to the people than the cosseted elite with their corrosive dependence on foreign values and money. Voodoo exemplified solidarity and self-help—a spirit that was sorely needed after the devastating earthquake of 2010.

Not everyone was impressed. His showmanship struck some as hucksterism and the lavish, choreographed ceremonies at his temple seemed redolent of a nightclub. But he smoothly dismissed his critics as prejudiced and ignorant: Haitians wanted voodoo and should not be ashamed of it. Like his country, he would not yield without a fight. ■

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