The Economist

APRIL 2ND–8TH 2016

Chinese companies go shopping

America turns against free trade

Pakistan's long fight against terror

Venezuela's future: to be Zimbabwe

The kakapo's miserable sex life

Beware the cult of Xi

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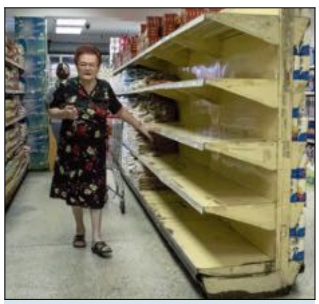

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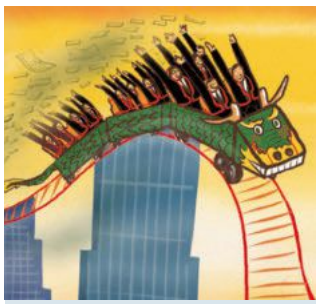

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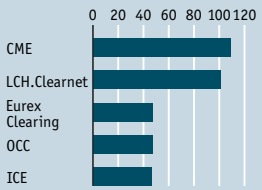

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Politics

In **Pakistan** an Islamist suicide-bomber killed 74 people, including many children, in a park in Lahore, capital of the province of Punjab. Jamaat-ul-Ahrar, a splinter group of the Pakistani Taliban, claimed responsibility, saying that it intended to target Christians. Separately, in Islamabad thousands of protesters who overran the central government's security zone left after extracting assurances that the government had no plans to amend the country's draconian blasphemy law.

China's government launched a high-level investigation into a huge black-market trade in out-of-date and improperly stored **vaccines**. The ringleaders were arrested a year ago, but the Chinese press only recently began to pay attention to the story, which has caused a furore on Chinese social media. It is the country's biggest public-health scandal since 2008, when 300,000 children became sick and at least six died after drinking tainted milk.

A senior **Chinese** journalist, Yu Shaolei, resigned in protest against President Xi Jinping's orders that the media remain loyal to the party. It was the latest sign of opposition to Mr Xi's campaign. Some state-owned newspapers have published calls for more freedom to criticise the government.

The high court in Delhi, **India's** capital, ruled that calling your husband *mota hathi*, or fat elephant, was grounds for divorce.

Looking rocky for Rousseff

The Party of the Brazilian Democratic Movement, the main governing partner of the **Brazilian** president, Dilma Rousseff, quit the coalition. Although some of its ministers may stay, its departure increases the chances that Ms Rousseff will be impeached on charges that she used accounting trickery to disguise the size of the budget deficit.

Venezuela's National Assembly, which is controlled by parties opposed to the left-wing government of Nicolás Maduro, passed a law that would free 70 political prisoners. They include Leopoldo López, an opposition leader who was sentenced to 14 years in jail for inciting violence during protests. Mr Maduro has said he will veto the bill.

Colombia's government and the ELN, the country's second-largest guerrilla group, are to begin formal talks to end half a century of conflict. The two sides agreed on an agenda, including terms for disarming the rebels and their participation in politics. Colombia has been holding peace talks with the largest rebel group, the FARC, since 2012.

Among the ruins

Syrian government troops retook the ancient city of **Palmyra**, captured by Islamic State last May. Although two famous temples at the site were blown up by IS vandals, it looks as though the bulk of the antiquities have survived unscathed. Meanwhile, the Pentagon said that a senior commander in IS had been tracked down and killed in Syria by American special forces.

Human-rights groups criticised **Angola** for jailing 17 youngsters for organising a reading of a book about transitions from dictatorship to democracy. The government accused them of plotting rebellion and a court has sentenced them to jail terms of between two and eight years.

Foreign-owned firms in **Zimbabwe** were given a deadline of April 1st to comply with a law that requires them to hand 51% of their ownership to "indigenous" citizens. Banks and mining firms are among those affected by the law.

Iran's Supreme Leader, Ayatollah Ali Khamenei, declared that missiles, and not just diplomacy, are the key to Iran's future.

Trump thumped

Donald Trump had a bad week. His campaign manager was charged with battery following an encounter with a female reporter last month. Scott Walker and Jeb Bush endorsed Mr Trump's main rival, Ted Cruz, for the Republican nomination. And Mr Trump implied that women should be punished for abortion if it becomes illegal (which he hastily retracted). The Republican front-runner also backtracked on his pledge to support the party's nominee if he fails to win, complaining that he isn't being treated fairly.

The Republican governor of **Georgia**, Nathan Deal, announced that he will veto a bill that would allow religious organisations to withhold the provision of services from gay people. Conservatives were furious, blaming a lobbying campaign from big businesses, which worry that the bill tarnishes Georgia's reputation.

America's **Supreme Court** ruled 4-4 in a case that sought to stop unions taking fees from workers who do not want to pay their dues despite benefiting from collective-bargaining actions. The court's split decision means that the law stands as it is, a deep disappointment to conservatives who were sure they would triumph when arguments were heard in January, before the death of Justice Antonin Scalia. Republicans are still refusing to hold hearings to confirm Scalia's nominated successor, Merrick Garland.

A clean sweep

Ukraine's parliament dismissed the country's prosecutor-general, Viktor Shokin, after months of pressure from international donors who faulted him for refusing to act against corruption. Shortly before his dismissal Mr Shokin in turn had fired his popular, pro-reform deputy. A new nominee for prime minister, Volodymyr Groysman, is seeking allies to form a majority in parliament that would allow the unpopular Arseniy Yatsenyuk to step down.

Radovan Karadzic, the leader of the Bosnian Serb side in the Bosnian war of 1992-95, was found guilty of genocide and war crimes by an international criminal tribunal in The Hague. He was sentenced to 40 years in prison. The conviction instantly sparked a bitter row between the leader of Serbia and the Bosniak (Muslim) leader of Bosnia. Vojislav Seselj, a Serbian nationalist and ally of Slobodan Milosevic, Serbia's president at the time, was cleared in The Hague of committing war crimes.

In **Turkey** the German ambassador was summoned twice in one week after a satirical song about President Recep Tayyip Erdogan, entitled "Erdowi, Erdowo, Erdogan", was shown on German television. The incident hints at tensions between the two countries, which are both key to solving the refugee crisis in Europe.

Business

Tata Steel announced that it was looking at selling off part or all of its business in Britain, just nine years after the Indian company entered the market. Coming a week after an agreement to sell its Scottish facilities, which were mothballed late last year, talk of nationalising Britain's steel industry was in the air again, unsettling the government. The main casualty of Tata Steel's decision is the Port Talbot plant in Wales. As it is losing £1m ($1.4m) a day, it will be difficult to find a buyer, putting 4,300 jobs there at risk.

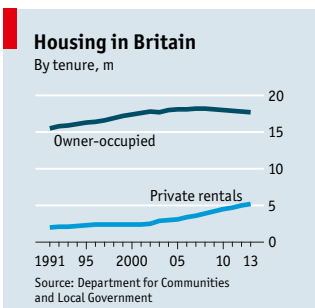
Helping with inquiries

Shell revealed that Dutch investigators had visited its offices in The Hague as part of a probe into a deal that gave it rights to operate in a Nigerian offshore oil block that contains as much as 9 billion barrels of oil. In 2011 Shell and ENI, an Italian oil company, said they paid the Nigerian government $1.3 billion for the block, but the transaction has been dogged by allegations of corruption.

Israel's Supreme Court tore up a government-backed deal to develop the Leviathan gasfield off the country's coast. The project was to be run by Noble Energy of Texas with an Israeli partner, but the court ruled that a clause in the contract that barred the Knesset from changing the terms over the next decade was unconstitutional. The decision sparked a political row; the government wanted to sell the gas to Egypt and Jordan in order to boost relations with those countries.

After renegotiating a lower price for its bid, **Foxconn**, a Taiwanese contract manufacturer which assembles products for Apple and others in China, sealed a deal to buy a majority stake in **Sharp**, a struggling Japanese electronics company, for $3.5 billion. Sharp was an early innovator in LCD TVs, but, as with others in the electronics industry, demand for its mid-range products was squeezed between the likes of Apple and lower-cost rivals.

The shine came off **SunEdison**, a big solar-energy company, after one of its subsidiaries warned of a "substantial risk" of bankruptcy. With more than $11 billion in debt, that would be one of the largest failures outside the financial industry in the past decade.



The Bank of England called for lending criteria to be beefed up for **buy-to-let mortgages**—for example by seeing how borrowing would cope if the minimum interest rate is set at 5.5% (around twice current rates). The central bank is concerned that loose lending practices have fuelled the buy-to-let sector. The British government is also trying to constrain the growing army of part-time landlords. Buy-to-let purchases are already subject to a surcharge of three percentage-points above the current sales-tax rate. From next year tax relief on mortgage-interest payments will be cut and from 2019 capital-gains tax will be due within 30 days, not the end of the financial year.

Janet Yellen, the chairman of the Federal Reserve, scotched any expectations of an **interest-rate** rise in April, and probably June as well, when she urged caution in tightening monetary policy. She also said she expects the pace of rate increases to be "somewhat slower" than expected. Stockmarkets rose in response.

Hotel sweet

The bidding war for **Starwood Hotels**, which counts the Sheraton chain among its brands, escalated. **Anbang**, a Chinese company that owns the Waldorf Astoria in New York, increased its offer to $14 billion, around $400m more than **Marriott** recently proposed after it upped its own bid. Starwood is talking to Anbang again, but favours Marriott's deal, for now.

An American court sided with **MetLife**, an insurance firm, in its battle to remove the government's classification that it is systemically important, or "too big to fail", and thus escape the tougher regulation that label brings. MetLife was seen as a victim of regulatory overreach by many on Wall Street. The decision is an embarrassment for the government, which plans an appeal.

Volkswagen's woes mounted, when America's Federal Trade Commission sued it for an ad campaign that touted the green benefits of its diesel technology. The carmaker faces various investigations in America and Europe for cheating in emissions tests for its diesel vehicles.

Left to its own devices

America's FBI said it had found a way to unlock the **iPhone** used by a terrorist in last December's attack in San Bernardino, thus ending its legal battle with Apple, which had refused to help on the ground that doing so would undermine the iPhone's security protocols. An Israeli forensics-software firm was reportedly assisting the FBI. That still leaves Apple with a problem if the FBI declines to share information about how it was able to get around the iPhone's vaunted security features.

Other economic data and news can be found on pages 76-77

Beware the cult of Xi

Xi Jinping is stronger than his predecessors. His power is damaging the country

"IF OUR party can't even handle food-safety issues properly, and keeps on mishandling them, then people will ask whether we are fit to keep ruling China." So Xi Jinping warned officials in 2013, a year after he became the country's leader. It was a remarkable statement for the chief of a Communist Party that has always claimed to have the backing of "the people". It suggested that Mr Xi understood how grievances about official incompetence and corruption risked boiling over. Mr Xi rounded up tens of thousands of erring officials, waging a war on corruption of an intensity not seen since the party came to power in 1949. Many thought he was right to do so.

Today, however, China is enduring its biggest public-health scandal in years. Tens of millions of dollars-worth of black-market, out-of-date and improperly stored vaccines have been sold to government health centres, which have in turn been making money by selling them to patients.

Mr Xi's anti-graft war has often made little difference to ordinary people. Their life—and health—is still blighted by corruption. In recent days there have also been signs of discontent with Mr Xi among the elite: official media complaining openly about reporting restrictions, a prominent businessman attacking him on his microblog, a senior editor resigning in disgust.

Mr Xi has acquired more power than any Chinese leader since Mao Zedong. It was supposed to let him get things done. What is going wrong?

Credibility gap

In fairness, Mr Xi was bound to meet with hostility. Many officials are angry because he has ripped up the compact by which they have operated and which said that they could line their pockets, so long as corruption was not flagrant and they did their job well.

But Mr Xi has also found that the pursuit of power is all-consuming: it does not leave room for much else. In three and a half years in charge, he has accumulated titles at an astonishing pace. He is not only party leader, head of state and commander-in-chief, but is also running reform, the security services and the economy. In effect, the party's hallowed notion of "collective" leadership (see page 27) has been jettisoned. Mr Xi is, one analyst says, "Chairman of Everything".

At the same time, he has flouted the party's ban on personality cults, introduced in 1982 to prevent another episode of Maoist madness. Official media are filled with fawning over "Uncle Xi" and his wife, Peng Liyuan, a folk-singer whom flatterers call "Mama Peng". A video, released in March, of a dance called "Uncle Xi in love with Mama Peng" has already been viewed over 300,000 times. There have been rumours recently that Mr Xi feels some of this has been going a bit far. Some of the most toadying videos, such as "The east is red again" (comparing Mr Xi to Mao), have been scrubbed from the internet.

Many would take that as a sign that the personality cult is little more than harmless fun. Mr Xi is no Mao, whose tyrannical nature and love of adulation were so great that he blithely led the country into the frenzy and violence of the Cultural Revolution. Although some older Chinese squirm at a style of politics so reminiscent of days long past, there is no suggestion that China is on the brink of another such horror.

But Mr Xi does not need to be as extreme as Mao for his concentration of power to cause harm. He has been fighting dissent with even more ruthlessness than he has been waging war on graft. Not since the dark days after the Tiananmen Square protests in 1989 has there been such a sweeping crackdown on critics of the party. Internet censors have been busy deleting messages posted on social media by outraged citizens in response to the vaccine scandal. These have included posts reminding Mr Xi of his words in 2013 about the party's fitness to rule. Police have also been investigating the appearance early in March of an anonymous letter on a government-affiliated website calling on Mr Xi to resign (raising, among several transgressions, the personality cult and his stifling of the media). Some 20 people have been arrested. Yet this work is never-ending. Even now citizens are pushing back. With the help of the internet, no matter how heavily it is blocked and censored, their voices keep crying out.

No liberal, Xi

By cracking down and puffing himself up, Mr Xi is neither buying himself security nor helping to keep China stable. He is using the party's own thuggish investigators to take on graft. But they have a greater interest in settling political scores than in ensuring laws are applied fairly. That gets in the way of good administration, if only because officials are scared of spending money in case it attracts a probe. By cowing the media, Mr Xi created a press reluctant to challenge officials by exposing the dodgy-vaccine trade as soon as it was discovered at least a year ago. By the time such scandals eventually come to light, they pose even greater threats to the party's, and Mr Xi's, credibility.

Mr Xi has pledged to give market forces a "decisive role", and put "power in a cage" by establishing the rule of law. But he is providing neither the country with prosperity and freedom, nor reassuring the rest of the world with stability. Abroad, anxieties about him keep growing: his muscular efforts to assert control in the South China Sea have been driving countries across Asia closer to the American camp.

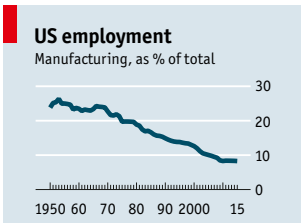
Earlier in Mr Xi's rule, observers had wondered whether, after establishing himself, he would turn to carrying out the reforms that he says he wants. But hopes are fading that a big reformist push will ever materialise. Mr Xi appears to have little time for the politically irksome business of making the party follow the law, closing down loss-making state-owned firms, or bringing about much-needed social changes, such as scrapping restrictions on access by rural migrants to urban public services. The task of preserving his power is a full-time job.

In the past 66 years of Communist rule in China, the most troubled times have usually come about when tensions break out within the elite. Mr Xi's style of rule is only serving to stoke them. The more Mr Xi tries to fight off enemies using scare tactics and brute force, the more enemies he is likely to make. ■

Free trade in America

Open argument

The case for free trade is overwhelming. But the losers need more help



IN 2011 Ronnie Dunn, a country singer, recorded "Cost of Livin'", a poignant song about a former factory worker's search for a job. Sensing there will be many more jobseekers than job openings, his can-do pitch gives way to desperation: "Bank has started calling/ And the wolves are at my door". Similar refrains can be heard all over America's industrial heartland: almost 6m manufacturing jobs were lost between 1999 and 2011.

The scale of these job losses is not itself surprising: America's dynamic economy creates and destroys around 5m jobs each month. But a recent set of studies by economists at leading American universities has found something disturbing. A fifth of that 1999-2011 decline in factory jobs was caused by Chinese competition, and those who lost jobs generally did not find new ones nearby (see page 31). Nor did the newly unemployed go in search of work elsewhere. Instead there was almost a one-for-one increase either in unemployment or, more frequently, in people leaving the workforce entirely—often to claim disability benefits, which 5% of Americans aged 25-64 now receive.

The anxieties that such findings stoke have made trade a touchstone issue in America's presidential election. Donald Trump, the Republican front-runner, promises to slap prohibitive tariffs on imports from China and Mexico. Bernie Sanders, the rival to Hillary Clinton, the presumptive Democratic candidate, wears his opposition to trade deals as a badge of pride. Mrs Clinton has herself backed away from her previous support for the Trans-Pacific Partnership (TPP), a trade deal negotiated by Barack Obama. Freer trade was one of the engines of the prosperous decades following the second world war, in America and beyond. Yet mainstream politicians are now not only afraid to champion it, they pour fuel on the fire. That is lamentable. Free trade still deserves full-throated support, even if greater care needs to be taken of those it hurts.

Toxic topic

Advocates of freer trade have always known that some lose out even as the great majority benefit. In moving for repeal of the Corn Laws in 1846 (a campaign which this newspaper was founded to support), Sir Robert Peel acknowledged concerns about the harm this might do to agricultural labourers. "I wish it were possible to make any change in any great system of law without subjecting some persons to distress," he said. Yet he also argued, correctly, that no one suffered more from tariffs on corn than the poorest farm workers.

What the latest research makes clear, however, is that in America's case the losses from free trade are more concentrated and longer-lasting than had been assumed. In large part, that reflects the speed of China's rise: its share of world manufacturing exports soared from 2% in 1991 to 19% by 2013. The shock caused by China's emergence also exposed fault lines in America's economy. Workers seem less willing to switch jobs or move states than in the past. Part of the explanation may be rising home ownership, by anchoring people to declining areas or pricing them out of vibrant ones. Whatever the explanation, free trade can impose big costs on a few places.

The worst possible response to such fears is the protectionism that Mr Trump is peddling. The surge in cheap imports of clothing, shoes, furniture, toys and electronics from China has greatly increased the spending power of those on low incomes. It has also added to the variety of goods they are able to buy. One study by economists at the University of California, Los Angeles, and Columbia University calculated that median income earners in America would lose 29% of their purchasing power if America was closed to trade, but that the poorest would forfeit as much as 62%, because they spend proportionately more on goods that are traded. Add to the reckoning the eventual benefits of a richer Chinese market for exporters, the spur to innovation in America from global competition and the low-cost inputs for consumer goods, such as the iPhone, that raise the productivity of American designers, and the arguments in favour of free trade are overwhelming.

Displacement activities

But what ought to be done to protect those workers who lose out because of competition from abroad? The safety net provided by trade-adjustment assistance, a federal programme, is threadbare—which is why many displaced American workers opt for more generous disability benefits and leave the job market altogether. In effect, America has imported some of the worst aspects of Europe while ignoring the best. Germany is Europe's manufacturing powerhouse but has successfully absorbed the twin shocks of competition from China and the accession of countries to its east into the European Union. This is in part because Germany has been able constantly to upgrade the skills of its workforce, thanks to its system of apprenticeships. In America community colleges in depressed areas show promise in bridging the skills gap, but there is still too much emphasis on an expensive four-year university education and too little on vocational training.

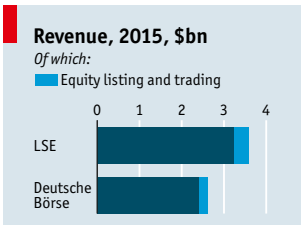
America has also lagged behind other rich countries in "active" labour-market policies. More could be done to help workers who lose jobs to find new ones, through job exchanges and courses to add to skills. In America's panoramic jobs market, there may be a case for providing relocation grants for workers hurt by trade. A big gripe of displaced workers is that an alternative job in the service sector does not pay as well or come with the same health-care or pension benefits that big manufacturers used to provide. That is a strong argument for a system of portable benefits that go with workers when they change jobs. A system of wage insurance might have merit.

Such policies are needed not only in America—workers in Britain's steel plants are confronting the demise of the domestic industry (see page 49). Nor are they required only to smooth trade shocks. Many of these policies are necessary to deal with other sources of disruption, from cheaper robots to new technologies such as 3D printing. Protectionists want to turn back the clock. Far better to reap the permanent overall gains from trade while preparing the workforce for change. ■

Mergers and financial stability

Don't clear the clearers

The merger between Deutsche Börse and the London Stock Exchange should be blocked



AT THE peak of the financial crisis, in 2008, the Office of Fair Trading objected to a merger between Lloyds TSB and HBOS, two big British banks, saying that competition would suffer. The finding was overruled by the British government (on advice from the Bank of England, among others), which judged that a merger would increase financial stability. The ideal response to the proposed friendly merger between Deutsche Börse (DB) and the London Stock Exchange (LSE) would be a mirror image of the treatment of the Lloyds-HBOS tie-up. If Europe's trustbusters bless the deal, governments should block it unless its backers allay concerns about financial stability.

Much of the opposition to the mooted DB-LSE merger draws on predictable arguments: fear of foreigners taking over national stockmarkets and concerns about the new outfit's pricing power. But the real objection to uniting Europe's two largest stock exchanges is more alarming. The fees charged for listing and trading stocks accounted for less than a tenth of the total revenue of the two firms combined last year. The mainstay of both is clearing trades, notably interest-rate derivatives. Clearing-houses, like LSE's LCH.Clearnet and DB's Eurex, stand in the middle of trades, acting as a buyer to every seller and a seller to every buyer. If one party goes bust, the clearer will make the trade good.

Since the financial crisis, when a load of bilateral derivatives trades blew up AIG, an insurer, clearing has become a pillar of the regulatory architecture. Traders in Europe will, for example, be obliged to clear most interest-rate swaps from June. Putting trades through a clearing-house means that a default by a single counterparty is unlikely to ripple through the system. But it also concentrates more risk in the clearing-house itself. If any of the big clearing-houses were to fail, the consequences would be horrendous. Lehman Brothers was a midsized investment bank, yet its failure helped turn a local bust into a once-in-a-century crisis because it was so tightly connected to the rest of the system. The world's big clearing-houses are even more enmeshed: the notional value of interest-rate swaps cleared by LCH.Clearnet in 2015 was $533 trillion.

Too big for sale

Consolidating the big clearing-houses would further concentrate this risk. As if that were not reason enough to give financial regulators pause, one of the benefits for customers that the LSE-DB team is touting should rule a deal out. Clearing-houses require each party to a derivatives trade to make an upfront payment, which rises or falls in size as the market moves for or against each party. This payment, or margin, is part of the defences that a clearer calls upon to make a trade good if either counterparty fails to pay: DB and LSE combined hold €150 billion ($170 billion) in such collateral. If a client goes bust and its margin payments are insufficient, the clearer still has other funds to call on. But it is a step closer to failure.

The exchanges say their clearing-houses will remain separate, but customers of both will be able to offset some classes of derivatives bets that tend to move in opposite directions, and put up less margin as a result (see page 63). Rivals, such as America's CME, already allow this but that is no reason to replicate its risks. In a crisis, the offsetting correlations between different sorts of bets tend to break down.

Regulators have relentlessly jacked up the amount of equity with which big banks must fund themselves so as to protect them from losses. Clearing-houses should be treated with even more care. Unless the LSE and DB pledge to keep their clearing-houses truly separate, with ring-fenced default funds and no skimping on margin, their tie-up should be blocked. ■

A bomb in Lahore

The hard choice for Pakistan

The country is threatened not just by terrorism, but by widespread religious extremism

THE suicide-bombing of a busy park in Lahore on Easter Sunday, which killed more than 70 people, most of them women and children, was not only more lethal than the terrorist attack in Brussels a few days earlier. It also represented a different order of threat to the country in which it happened. Pakistan is engaged in a belated struggle against religious extremism that will determine what sort of country it becomes.

That threat is plain in the bomber's choice of location and timing (see page 23). Lahore is the capital of Punjab, the provincial power base of the prime minister, Nawaz Sharif. Although most of the victims in Gulshan-e-Iqbal park were Muslim, one aim was to kill Christians. The attack happened to come just a few weeks after the execution of Mumtaz Qadri, a police bodyguard who in 2011 murdered Salman Taseer, the governor of Punjab, for his criticism of Pakistan's blasphemy laws. Over 100,000 people attended Qadri's funeral in Rawalpindi on March 1st. On the same day that the Lahore bomber struck, riot police in the capital, Islamabad, were trying to control a 10,000-strong demonstration against Qadri's execution.

The bombing in Lahore was carried out by Jammat-ul-Ahrar, which splintered from the Pakistani Taliban. The religious hatred it represents has been assiduously cultivated in Paki- ▸▸

stan for many years. Saudi money for the building of *madrassas* (religious seminaries) began to flood into Pakistan during the 1980s with the encouragement of the president at that time, General Zia ul Haq, who saw the country's Islamisation as his main mission. There are now some 24,000 *madrassas* in Pakistan, attended by at least 2m boys. Nearly all adhere to the highly conservative Deobandi sect, whose beliefs are similar to Saudi Wahhabism. Tahir Ashrafi, head of the Pakistan Ulema Council, an umbrella group, reckons that 60% of the pupils at *madrassas* were "not involved in any training or terrorist activities". He declines to expand on what the other 40% might be up to.

At least some members of Pakistan's intelligence service and other parts of the "deep state" still regard certain violent and intolerant jihadist groups as useful weapons against India and Afghanistan. But the distinction they attempt to draw between outfits such as the Haqqani network in North Waziristan and the mainly Kashmir-based Lashkar-e-Taiba, which carry out their atrocities abroad, and those, such as the Pakistani Taliban, which concentrate on the homeland, fatally undermines Pakistan's fight against terrorism.

To do justice to Mr Sharif's government and the army's powerful chief of staff, General Raheel Sharif (no relation), they seem to understand the scale of the problem and are trying to tackle it. A turning-point was the massacre by the Pakistani Taliban of 148 children and teachers at an army school in Peshawar at the end of 2014. It was followed quickly by a national action plan to combat domestic terrorism, which is being implemented with some success. The army claims that its anti-terrorist operations have killed 3,400 terrorists and destroyed 837 of their hideouts and much of their infrastructure.

A start, at least

The ultra-violence that saw the deaths of 60,000 civilians over the past decade has abated somewhat. There have been attempts to clamp down on hate speech. The execution of Qadri required political backbone. But there is little to show for the action plan's commitment to "stop religious extremism" and "regularise and reform" *madrassas*. Moreover, many state-run schools are hardly less toxic. The long-standing addiction to using militant groups as proxies in Pakistan's disputes with its neighbours is far from broken. And the country should repeal its vicious blasphemy laws, which are used to attack religious minorities. The horror of Lahore shows that the road ahead is long and hard. But only if Pakistan chooses to follow it will the future hold much promise. ■

Dutch referendum on Ukraine

A hard Dutch kick

Voting down the EU's treaty with Ukraine would hand Vladimir Putin a win

IN November 2013 Viktor Yanukovych, then the president of Ukraine, succumbed to Russian pressure and renounced an association agreement with the European Union that he and his predecessors had spent six years negotiating. Many Ukrainians thought their country's best hope for transforming itself from a corrupt gangster state into an orderly democracy (or, as they put it, a "normal country") had been sacrificed on the orders of Vladimir Putin, Russia's president. Thousands set up camp on Kiev's Maidan, chanting "Ukraine is Europe". Police attacked, touching off a cycle of protest and violence that ended in Mr Yanukovych's flight to Russia, a new government—and the signing of the Ukraine-EU agreement.

Mr Putin then sent troops into Ukraine to win back Russian influence by stealth and force. He succeeded in seizing Crimea, splitting off a few rebel areas and embittering Ukrainians' once-warm feelings towards Russia. Yet the Ukraine-EU association agreement is in trouble again (see page 47). This time the sticking-point is the Netherlands, the only one of the EU's 28 members that has not ratified it.

Dutch Eurosceptics want to stop their government from doing so, and have gathered enough signatures to stage a referendum on April 6th. They argue that what Ukrainians call their "European choice" was actually imposed on them by Brussels. They describe Ukraine as a country "divided" between pro-European and pro-Russian regions; in fact, outside the rebel Donbas, the country has united against the Russian threat. They observe that the past two years have been an economic catastrophe, without acknowledging that it was Russia's embargo and military interventions that did the damage.

The Dutch government and all the main parties are campaigning for a Yes vote in the referendum. Yet the polls point to a No. That would be a tragedy. Ukraine is torn between a corrupt oligarchy and a nascent reform movement; between a moribund post-Soviet economy and the promise of farm exports and computing services for the European market. If Ukraine really is to become normal, it needs Europe to meet it part-way. For that to happen, the Dutch need to vote Yes.

The Dutch worry about being tied to a large, poor, corrupt state (see page 46). When their leaders say that the deal involves little risk, they are reminded of similar promises before Greece was admitted to the EU. But the association agreement is overwhelmingly about trade. It does not allow Ukrainians to work in the EU. It refers to political and military co-operation, but without NATO-like obligations. Ukraine will need decades of reform before it could be a candidate for EU accession.

Chaos v control

For Ukraine, the economic promise of the deal is immense. For the Dutch, the reason to ratify it is to deny Mr Putin the fulfilment of his wish for a corrupt and anti-European Ukraine. Ever since Maidan, Russia has been trying to reassert control by spreading chaos on Ukraine's border. The Dutch learned better than any other country what such chaos can mean, when scores of their countrymen were killed in 2014, in the downing of flight MH-17. When Ukrainians turned towards Europe, their dream was for their country to escape the pit of corruption and chaos. They are still struggling to climb out. Dutch voters should not step on their fingers. ■

Farming in Africa today

"A green evolution" (March 12th) highlighted the things that are getting better in African agriculture. But you underplayed two negative aspects. The first is the pernicious effect of aid. When I was in Tanzania, working for a venture-capital fund, the country had the third-largest cattle population in Africa. Yet there was no indigenous dairy industry, not least because the European Union used it as a convenient place to dump its surplus milk powder. It is hard to compete with free goods.

The second point is that African entrepreneurs, on the whole, do not want to invest in agriculture. Aid programmes may have given potential businessmen an education, but most then choose an urban lifestyle, if they have not moved abroad. Setting up mobile-phone and internet companies in the big city, yes; being farmers out in the bush, no. The absence of domestic go-getters means that farms remain small; the added value of agricultural processing is negligible or absent.

I looked at investing in a farm outside Dar es Salaam run by a doctor who was the medical adviser to many of the city's elite. They all thought him completely bonkers.

ROBERT SATCHWELL
Haarby, Denmark

It is right to point to good governance as the key to sustaining growth in African agriculture. But so too is water resilience and security. Africa's water is shared across 13 river basins that are mostly accessed by five or more countries. Collective action at the local, national and regional level has contributed to the agricultural success story, so far. But with the number of water-scarce countries set to rise over the next ten years, more needs to be done.

Investments in small-scale water technologies such as low-till or zero-till agriculture, supplemental irrigation, groundwater recharge and rainwater harvesting could yield a direct net benefit of up to $200 billion to Africa's 100m farmers.

CALLUM CLENCH
Executive director
International Water Resources Association
Paris

You correctly noted the potential for African farmers to increase their production through the use of hybrid seed and fertiliser. But you also described the challenges facing the industry because of human handicaps. There is an important link between the two. Data from Uganda show that significantly fewer farmers, 10%, are using hybrid seeds and only 3% are using fertiliser. Our research investigating the quality of agricultural inputs found that in local markets, 30% of nutrient is missing in fertiliser. Hybrid maize seeds contain less than 50% of authentic seed.

These shortfalls in quality imply that many of the fertilisers and seeds sold in the market are simply not profitable. Therefore, tackling the issue of substandard inputs is an important step towards increasing productivity in agriculture in Uganda in the near future. Agriculture in Africa is complex and heterogeneous. There will not be a single answer for the whole of the continent.

RICHARD NEWFARMER
Country director for Uganda
International Growth Centre
London

Big problems arising from increased crop production in Africa include tremendous erosion and the depletion of natural vegetation. Traditional shifting cultivation has given way to continuous cropping with few, if any, conservation practices; marginal land is

particularly vulnerable. The results are all too evident: perennial streams are now ephemeral, and massive quantities of topsoil silt up dams and flow into the oceans.

The Economist should stop looking at sub-Saharan Africa through rose-coloured spectacles. The region is doomed to more frequent famines that will be the consequence of diminishing cropland, grazing and water resources.

BRIAN DUNCAN
Gettysburg, Pennsylvania

A common good

My response to whether the Commonwealth is worth it is an emphatic Yes! ("What's the point of it?", March 19th). Most Commonwealth countries often get out more than they put in. When I was heading up the Commonwealth Secretariat, Britain's concerns were dominated by its relationship with America and with Europe, and by the threats, dramas and problems of the Middle East. Thinking about the Commonwealth was well down the pecking order. But British ministers who have understood the Commonwealth, and who have wanted to expand initiatives, have found a ready forum in the organisation. With more than 50 member countries it is a mini UN.

The Commonwealth is no drain on the British taxpayer. A few years ago, my research showed that the cost per British citizen to belonging to the EU was about £60 ($85) a year, to the UN about £10, NATO £2 and the Commonwealth about 17 pence. And never underestimate the 80-plus organisations who carry the name Commonwealth for a variety of linkages and benefits. This grouping is the envy of La Francophonie.

When the Commonwealth moves collectively, that is, when all countries are pursuing the same objective of free and fair elections and good governance, it can act against countries that don't even pay lip service to those values. The fact that Zimbabwe and Gambia are no longer in the Commonwealth is because of a reluctance by the leaders of those countries to accept, adhere, commit and administer those values.

SIR DONALD MCKINNON
Commonwealth secretary-general 2000-08
Pukekohe, New Zealand

Precisely

"More than 40" I get. "Nearly 50" I get. But "Isaac Nabwana has written, directed and edited more than 47 films since 2008," I don't get ("Lights, camera, no budget", March 5th). How many films did Mr Nabwana produce: 48?

MICHAEL ARKIN
Toronto

Political round-up

For months you have written off Bernie Sanders, consistently using punchy language to describe him as "crotchety" or a "septuagenarian", even though he has only a few years on Hillary Clinton and Donald Trump. "Beware the ides of March" (March 19th) went so far as to claim that Mrs Clinton "breezed through" the Midwestern primaries. I would hardly call margins of victory of 1.8 and 0.2 percentage points in Illinois and Missouri solid wins. Mrs Clinton's delegate lead has been amassed from mostly southern states, which she will not carry in November.

These statistics, however, mask the importance of describing a populist movement spreading in America that is the antithesis of Mr Trump's vitriolic message. Mr Sanders is calling for a systemic, pragmatic change and a government that works for all, not the few.

MICHAEL MARZANO
Chicago

In 1935, with fascism on the rise in Germany and Italy, Sinclair Lewis wrote "It Can't Happen Here", a chilling semi-satirical political novel. The book focuses on the rise to power of Senator Berzelius "Buzz" Windrip who, with fantasist promises, wins the presidency. Windrip's campaign strategy is

eerily similar to Mr Trump's: xenophobic and violent and at the same time promoting traditional values. His base of support came from the League of Forgotten Men, made up from the millions who were dispossessed by the Depression. Suffice to say, it does not end well for those who prize democracy and freedom.

RON MCALLISTER
York, Maine

Mrs Clinton is not the first lady to run for president of the United States. That would be Victoria Woodhull in 1872. She was an advocate for free love, famously proclaiming that she had an "inalienable, constitutional and natural right to love whom I may, to love as long or as short a period as I can, to change that love every day if I please".

MATTHEW GOMEL
New York

Predicting American primary elections has always been a mug's game ("Mich-fire", March 12th). In every primary-election cycle some excellent polling firms, which have good records of forecasting general elections, have been badly embarrassed. Extreme volatility, very low turnout and the difficulty of finding likely voters can make even the best polls look bad. Everyone notices a bad prediction, whereas you get little credit for a good one. Which is why we decided, 25 years ago, not to poll primaries.

HUMPHREY TAYLOR
Chairman emeritus
Harris Poll
New York

Overcapacity in China

It is true that the Chinese government has recognised the problem of overcapacity in China ("The march of the zombies", February 27th). There should be no illusion about the problem: overcapacity, including excessive capacity in the steel industry, is a daunting global challenge, but particularly acute in China. The government is thoroughly restructuring the Chinese economy, despite the social costs this entails. Eliminating overcapacity heads the agenda for reforming the supply side. The State Council has urged all authorities across the country to implement its directives on cutting capacity.

Zombie enterprises with redundant capacity are leaving the market. Banks in China are banned from providing loans to them. It is therefore practically impossible for zombie enterprises to manoeuvre the export of their excessive products. Moreover, new projects in the industries with excessive capacities will not be approved any more and both state-owned enterprises and private firms are encouraged not to expand but to merge and cut capacity in order to carry out industrial transformation.

Tackling overcapacity in the steel industry is a telling case. China has reduced capacity by more than 90m tonnes in recent years; last year it cut investment in iron and steel assets by 13%. Steel-production capacity is to be reduced by a further 100-150m tonnes.

China has surpluses, yes, and more may need to be done, but things are moving in the right direction.

YE FUJING
Economic adviser
China's Mission to the EU
Brussels

A promise on migrants

You analysed the feasibility of the Turkey-EU agreement but overlooked why many people are so sceptical of it ("A messy but necessary deal", March 12th). It is not because it is unreasonable—it is because it is unenforceable. The last grand bargain was struck at the EU-Turkey Summit last November. The €3 billion ($3.4 billion) aid package had been contingent on taking action. Within hours Turkey launched the largest sting operation to date, rounding up 1,300 migrants on its beaches.

Since then Turkey has done little to make good on its promise. The police have been overlooking much of the smuggling economy in Izmir. Cesme's beaches are unpoliced, with hundreds departing

to Chios daily.

It is not just that Turkey makes shallow promises. EU membership has been dangled in front of Turkey since negotiations started in 2005, despite the glaring problem of German and Cypriot rejections. Furthermore, visa-liberalisation has been offered at a time of intense debate about the EU's free-movement policy. Granting Turkey "safe country of origin" status comes at Mr Erdogan's most fruitful period of press-censorship.

I wonder who will call whose bluff first.

MARIA WILCZEK
Oxford

Eight days a week

His modesty notwithstanding, George Martin's indelible influence on The Beatles cannot be overstated (Obituary, March 19th). His suggestions transformed "Please Please Me" from a slow, sombre song into a number-one hit. His string quartet turned "Yesterday" into an introspective timeless classic. His genius is evident in the baroque-style piano bridge he wrote and played for "In My Life", in Paul McCartney's deftly multi-tracked lead vocal in "Here, There and Everywhere", and in his thunderous orchestral crescendo for "A Day in the Life". He added a marching band to "Yellow Submarine", a French horn solo to "For No One", and piccolos to "Here Comes the Sun".

He was unquestionably one of the most important and talented producers in music history.

STEPHEN SILVER
San Francisco, California

More on Moore

As a veteran of the semiconductor industry I thoroughly enjoyed your assessment of the state of computing and Moore's law (Technology quarterly, March 12th). I was fortunate enough to work under Moore at the Fairchild research facility and to hear his early presentation on the trend he observed in transistor density at a meeting of local engineers in Palo Alto. At the time, he wondered how all these projected thousands (not billions) of transistors could possibly be utilised.

However, I think you have understated the cost/transistor trend. In the past, shrinking transistor geometry augmented by increased wafer diameter drove the cost of chips ever lower and functionality ever higher, as predicted by the self-fulfilling trajectory of Moore's law. Your curve showing the number of transistors bought per dollar illustrates the incredible cost reduction that we had experienced until about 2012, when the curve actually peaks, and then shows costs increasing.

The electronic revolution has been fuelled by the low cost of memory and microprocessor chips because this opened up the possibility of previously inconceivable cost-effective applications.

Although, as you suggest, clever programming and specialised chip designs can still deliver some interesting products, the main cost-reduction driver will no longer be available and this will undoubtedly have a dampening effect on the future rate of change in electronic innovation.

KEN MOYLE
Beaverton, Oregon

I can't help but think that an "internet of things" will really mean "adverts on everything".

WARREN CULLY
London

Seeing the numerous mentions of computers based on 1s and 0s in your report reminded me of the T-shirt I saw a few years ago at MIT, my alma mater. On the front: "There are 10 types of people in the world". And on the back: "Those who understand binary and those who don't!"

TOM BURNS
Berkeley, California ■

Letters are welcome and should be addressed to the Editor at
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More letters are available at:
Economist.com/letters

Vacancy for the Position of Executive Vice President, Business Development & Corporate Banking

The African Export-Import Bank, "the Bank" (www.afreximbank.com) is a pan-African Multilateral financial institution established in 1993, for the purpose of financing and promoting intra and extra African trade. The Bank is headquartered in Cairo, Egypt, with regional offices in Harare, Abuja, Abidjan and Nairobi. The Bank seeks to appoint an Executive Vice President to assume overall responsibility for supervising the business development and corporate banking activities of the Bank. The position reports to the President & Chairman of the Board of Directors and is based at the Bank's headquarters in Cairo. A full job description for the position and further information on the Bank is available on its website: www.afreximbank.com.

The Position

The Primary purpose of the role is to provide executive oversight and leadership for all matters which impact on the business origination and development, corporate banking, research and knowledge management activities of the Bank, and to manage, motivate, and develop a high-performing team of professionals focused on delivering these activities.

The Candidate

The candidate must be a national of an African state, with sound experience of at least fifteen years in international trade finance with special emphasis on the African continent. Demonstrable management experience and achievements, at board level, within a commercially-oriented financial institution is essential, as is experience of engaging and building rapport with a wide range of high level stakeholders in both government and the private sector in Africa.

To command the respect of senior government officials, African and international bankers, and CEOs of major corporates involved in trade in Africa, the candidate must have a good knowledge of African financial systems and African economies and a keen awareness of the challenges of and opportunities in the continent. Previous experience of providing effective risk management oversight across all types of risk that may arise at customer/ product interfaces is mandatory. Broad experience in managing research and its use in corporate strategy delivery is essential. The ability to communicate and function effectively in a culturally diverse and change-oriented environment is also required, as is previous experience of successfully leading and managing highly skilled multi-disciplinary and multi-cultural teams of professionals to deliver an organisation's business objectives.

The Appointment

The appointment will be made by the President & Chairman of the Board of Directors of the Bank, from candidates selected for shortlist interviews, which will be conducted either at the Bank's headquarters in Cairo or a suitable venue in London. The salary and other items of remuneration are commensurate with those of an executive with similar responsibilities in a comparator international organisation, in addition to diplomatic immunities and privileges upon accreditation by the host country government.

Applications must be received not later than 1st May 2016. Please reply in confidence enclosing full curriculum vitae to our retained consultant at robertbaldwin@willis-partnership.co.uk.

RegionalCooperationCouncil

The Regional Cooperation Council (RCC) promotes regional cooperation and European and Euro-Atlantic integration of South East Europe (SEE). The RCC operates in the following fields: economic and social development; energy and infrastructure; justice and home affairs; security cooperation; building human capital.

The RCC Secretariat is currently seeking experts for the following positions:

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- ***Expert on Competitiveness.***

If interested, please access the RCC jobs page www.rcc.int/vacancies for further details on each position and the application process.

In addition, the RCC is developing **a roster of consultants** for short-term advisory or expert assistance in the following thematic areas: Trade and investment policy; Science and education; Research and innovation; ICT and digital society; Industrial policy and SME development; Energy and environment; Transport; Employment and health policy; Governance and rule of law; International law (multilateral agreements); Programming, monitoring and evaluation.

Full details are available www.rcc.int/tenders

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The World Intellectual Property Organization (WIPO)
is seeking applications for five positions on its
Independent Advisory Oversight Committee (IAOC)

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations, dedicated to the promotion of innovation and creativity through a balanced and effective international intellectual property system, through cooperation among States and, where appropriate, in collaboration with any other international organization, with its headquarters in Geneva, Switzerland.

The Independent Advisory Oversight Committee of WIPO (IAOC) is an independent, expert advisory and external oversight body, which assists WIPO's Member States in their role of oversight and better exercise of their governance responsibilities with respect to the various operations of WIPO.

The IAOC is composed of seven members, representing, to the extent possible, each of the seven geographical regions of WIPO Member States. All members of the IAOC act in an independent non-executive capacity while performing their functions. Once selected, members shall serve in their personal capacity for a term of three years, renewable once.

WIPO is seeking applications for five positions on the IAOC. With a view to representation of each of the seven Groups of Member States of WIPO on the IAOC, priority will be given to candidates from the Member States that are listed in the Vacancy Announcement available at **https://erecruit.wipo.int**

Service on the IAOC is without remuneration, but members shall be provided with travel and subsistence expenses in line with WIPO travel policy to attend quarterly meetings in Geneva.

Applicants should have relevant qualifications and experience, for example in auditing, accounting, risk management, legal affairs, or finance and administration, preferably in an international organization or the public sector, together with other competencies expected to be demonstrated by the IAOC collectively.

Additional information, including an online application form, is available at the following addresses: **https://erecruit.wipo.int** and **https://www.wipo.int/about-wipo/en/oversight/iaoc/**

Deadline for receipt of applications: **April 29, 2016.**

The OPEC Fund for International Development (OFID)

The OPEC Fund for International Development (OFID), based in Vienna – Austria, is a multilateral development finance institution which seeks to promote cooperation between its member states and developing countries as an expression of the South-South solidarity. It does this mainly by providing financial resources to assist the latter group of countries in their economic and social advancement.

By the end of January 2016, the level of cumulative development assistance extended by OFID stood approximately at US$19.1billion. The development assistance involves financial support to the public sector, private sector and trade finance operations, grants, balance of payment support loans, as well as, HIPC initiative debt relief delivery. In pursuit of its organizational strengthening program, OFID has an opening and now seeks to fill the vacancy of ***an Internal Audit Officer***.

OFID offers an internationally competitive remuneration and benefits package, which includes tax-exempted salary, education grant for children, medical and accident insurance schemes, dependency allowance, annual leave, staff retirement benefit, diplomatic immunity and privileges, as applicable.

Interested applicants are invited to visit OFID's website at www.ofid.org for detailed descriptions of duties and required qualifications as well as procedure for applications. Preference is given to applicants from OFID Member Countries.

The deadline for receipt of applications is April 8, 2016.

Due to expected volume of applications, OFID would only enter into further correspondences with short-listed candidates.

Rose thou art sick

LUDWIGSHAFEN, PIRAEUS AND VALLETTA

The centre left is in sharp decline across Europe

"THEY have disappeared. I don't even know if they have premises here any more." In his office overlooking the sun-scorched wharves and cranes of Piraeus, Giorgos Gogos, the head of the dockers' union, is pondering Pasok, the social-democratic party that for decades dominated the politics of this sprawling Greek port. For years its vote here hovered steadily around 45%. Then came the economic crisis. At the insistence of European institutions the Pasok government agreed to privatise the container terminal at Piraeus. Appalled workers abandoned the party en masse for the far-left and -right, slashing the social-democratic vote to 4% in 2015. Traces of this radicalisation are sprayed across the warehouse walls: hammers and sickles; swastikas; "Piraeus Port Authority in workers' hands!". "Why would anyone vote for Pasok now?" asks Kiriakos, a former party activist. "They don't stand for anything."

Greece's economic and political turmoil is unparalleled. But when Mr Gogos jokes that Greece is "Europe on fast-forward" he may have a point. Political scientists looking at Europe's centre left talk of a continent-wide "Pasokification". Support for social-democratic parties is collapsing in an unprecedented way.

Early in this century you could drive from Inverness in Scotland to Vilnius in Lithuania without crossing a country governed by the right; the same would have been true if you had done the trip by ferry through Scandinavia. Social democrats ran the European Commission and vied for primacy in the European Parliament. But recently their share of the vote in domestic (and Europe-wide) elections has fallen by a third to lows not seen for 70 years (see chart 1 on next page). In the five European Union (EU) states that held national elections last year, social democrats lost power in Denmark, fell to their worst-ever results in Finland, Poland and Spain and came to within a hair's-breadth of such a nadir in Britain.

Elsewhere, it is true, the centre left is in power: as an unloved and ideologically vague junior party of government in Germany and the Netherlands and at the helm of wobbly coalitions in Sweden, Portugal and Austria, all countries where it was once a natural party of government. In France, President François Hollande is plumbing new depths of unpopularity and may not make the run-off in next year's presidential election. Matteo Renzi, Italy's dynamic prime minister, is in better shape but his party is still losing support (and possibly, in May, Rome's mayoralty) to the Five Star Movement (M5S), an anti-establishment party founded by a blogger. Former municipal and regional bastions like London and Amsterdam, Catalonia and Scotland have slipped from the traditional centre left's grasp.

Where are all the votes going? Many have been hoovered up by populists, typically of the anti-market left in southern Europe and the anti-migrant right in the north. But alternative left parties (feminists, pirates and greens, for example), liberals and the centre-right have also benefited. And so has the Stay On The Sofa party.

Europe's left has seen losing streaks before; its fortunes fell sharply in the late 1980s and early 1990s. It bounced back under leaders like Tony Blair and Gerhard Schröder, who sacrificed their parties' old affection for rigid labour markets and high taxes in favour of a centrist, "Third Way" combination of social reform, deregulation and good public services funded by the ensuing economic growth. In 1996 Europe's social democrats were doing as well as ever (see maps on later page).

But voters' trust in such parties took a blow in the economic crisis of the late 2000s, to which parties of the centre left responded with cuts all but indistinguishable from those made by the right. At the same time parties of the right (especially in Germany, Britain and Scandinavia) nabbed popular bits of the Third Way—welfare-to-work programmes in Sweden, school reform and the minimum wage in Britain—for themselves.

The howling storm

The euro crisis exacerbated matters. In Europe's north the idea of relaxing austerity came to be seen by many voters as a way of using their money to bail out the spendthrift south. The left's options were thus sharply constrained. Take the predicament Mr Hollande found himself in. Elected in 2012 on the slogan "time for change", he promised to curb austerity and reboot the economy. But a 75% tax rate on the rich was dropped after bringing in paltry receipts. The rest of the euro zone insisted that deficit limits which had previously been ignored now had to be taken seriously. With markets breathing down his neck, unable to devalue and spooked by the prospect of France being lumped in with the EU's struggling south, Mr Hollande cut business taxes and made savings in the budget.

But these circumstantial factors do not fully account for the depth and continental scale of the slump. Four things have made Europe a harsher environment for the centre left: its own success, structural change in the economy, a reduced fear of political extremes and the decline of monolithic class groups.

First, success. Many of the goals of the incrementalist left-wing parties that can be traced back to 1889's Second International, Marxists who favoured the parliamentary process over insurrection, have been met. ▸▸

A credo of universal public services and redistribution that used to be contentious is now so widely accepted as to be easily captured by rival parties of right and left. As Joseph Muscat, the Labour prime minister of Malta, puts it: "Is anyone contesting that people should have a pension?" The sense of a forward struggle, of victories to win rather than losses to be stanched, is gone.

At the same time European economies have changed in ways that make the collectivist policies on which the centre left was built less effective. The transport of goods has become faster, cheaper and containerised; capital more mobile; trade deals (and associated state-aid rules) more far-reaching; and automation more sophisticated. Jobs have gone overseas or just gone altogether; the unionised industries of the Industrial Revolution, mining and steel, are hugely diminished. There has been a fundamental shift away from manufacturing and towards services, and from state ownership towards the private sector.

Fearful symmetry

The fall of the iron curtain in 1989 and the subsequent integration of eastern Europe into the EU hastened some of that change by providing new pools of cheap labour. It also had a deeper effect. The politics of the EU countries had until then been constrained by history: hemmed in by the threat of the Soviet Union on one side and by memories of fascism on the other, social democrats and Christian democrats huddled in the centre ground. A generation later parties can set out their pitch far away from the old mainstream.

This broadening of the political spectrum goes along with the fourth change: a fragmentation of the identities on which the centre left was built. A study published by the BBC in 2013 showed that little more than a third of British voters belong to the traditional working- and middle-classes; the rest are in new, hybrid categories such as "new affluent workers", "technical middle class" and "emergent service workers". Young voters raised on social media create esoteric identities of their own rather than commit themselves to collective ones like class. They prefer movements to parties.

This change poses problems to political parties of all hues. But the situation is particularly vexed on Europe's left, less thoroughly held together by common culture than its right tends to be. The centre left relied on convincing the industrial working class and a significant fraction of the middle class, particularly that in the public-sector bits of the mixed economy, that they wanted the same thing, a trick which was easiest in places where the people involved genuinely started off feeling they had something in common. It is no coincidence that Europe's most reliably social-democratic regions—Emilia Romagna, Andalusia, England's north-east and North-Rhine Westphalia—all have populations with a proletarian self-image that helps politicians appeal to working and middle class alike.

Today a divergence of interests, the decline of heavy industry and the success of places where jobs that demand high skills cluster are widening the split between blue-collar voters in fading industrial towns and progressive white-collar ones in booming cities. Citing a Danish political drama about cosmopolitan media-political types, Simon Hix of the London School of Economics points to "the growing divide...between voters in creative, liberal, 'Borgen' cities like London, Copenhagen and Berlin with those in rusting factory and port towns like Rotterdam, Malmö and Lille."

Where once the Copenhagens and Lilles were united in their support for social-democratic policies, now they are divided by the increasingly salient politics of identity. The Borgen types are internationalist and socially libertarian, their counterparts nationalist and socially conservative; the divide runs deepest on immigration and the EU. And new or revived parties on each side of this divide are eager to sweep up the voters that the strained centre left can no longer hold.

Consider the Netherlands, where support for the centre-left PVDA has collapsed from 25% in the 2012 elections to below 10% today. As René Cuperus, an influential thinker on the Dutch centre left, points out, the party has been losing supporters in the big cities and university towns to D66 (a liberal party of entrepreneurs and professionals) and the environmentalists and libertarians of the Green Party; between them the greens and D66 now get the vote of some four out of five Dutch students. Meanwhile the PVDA's former blue-collar strongholds in places like Rotterdam have veered towards the Party for Freedom run by an anti-immigrant populist, Geert Wilders, who is seeking to do in the Netherlands what Marine Le Pen of the National Front has done in France.

There are parts of Europe where the two diverging groups remain bound together—but it takes a stronger glue than today's centre left can offer. The adhesive that works is a drive for self-determination, as seen in the cross-class appeal of the Scottish National Party and the Junts pel Sí ("Together for yes") coalition in Catalonia.

The invisible worm

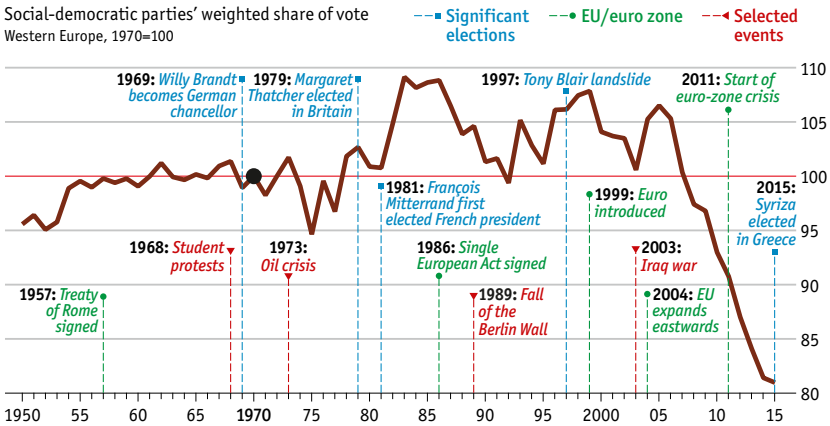
Left in the middle, the social democrats look defensive and indistinct, concerned more with protecting past advances than forging new ones. They are "neither opponent nor engine", as Mr Cuperus puts it. "It is the right that has inherited the ambitious modernist urge to destroy and innovate in the name of a universal project," Tony Judt, a British historian, lamented in "Ill Fares the Land", a paean to social democracy he dictated on his death bed.

The things voters found appealing about social democracy are still on offer: consider Angela Merkel's pension-age-lowering, minimum-wage-introducing, environmentalist brand of centrism. They may also be seen when parties of the harder left come close to, or into, power and find themselves driven to the right by reality. Syriza, elected in Greece as a genuinely left-wing alternative, has found itself enacting policies it once decried: talking to *The Economist* Yanis Varoufakis, Syriza's first finance minister, calls his former party "a new Pasok". Spain's left-wing Podemos moderated its policies in recent coalition talks with the centre-left PSOE.

Some social-democratic policies, and spirit, can be found in new parties like M5S in Italy and Ciudadanos, a youthful liberal party, in Spain, though there are many other things in the mix, too. Other new outfits may also lay claim to traditionally social-democratic territory: in Berlin on February 9th, for example, Mr Varoufakis launched DIEM 25, a leftish "movement" committed to pan-continental democracy and burden-sharing. And the dirigiste economics ▸▸

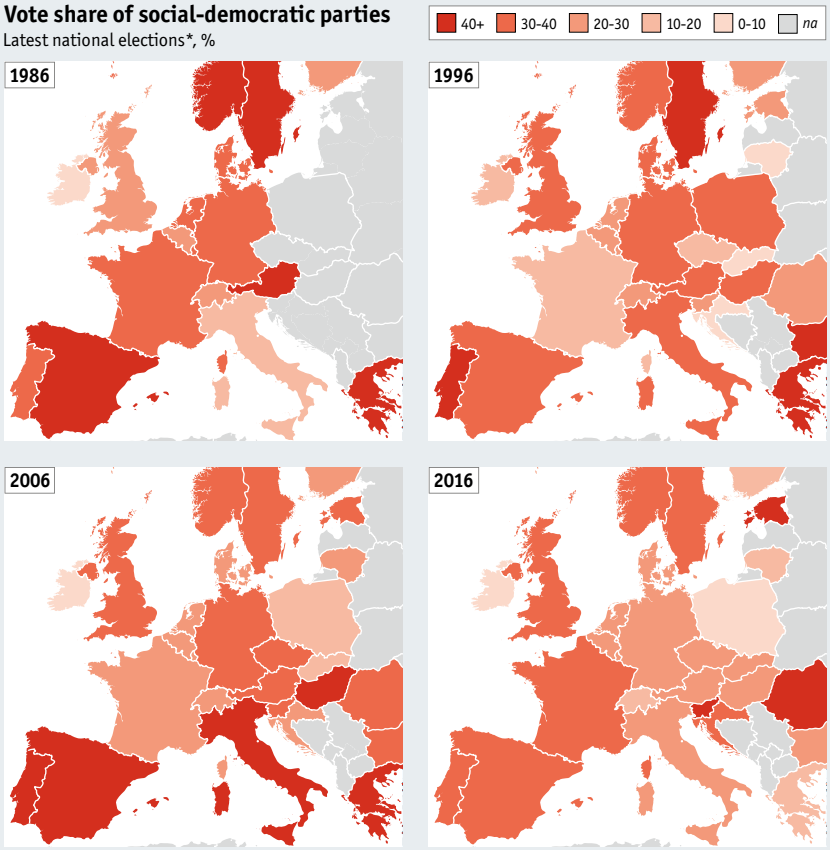
Left behind

Social-democratic parties' weighted share of vote
Western Europe, 1970=100



Sources: Chris Hanretty, University of East Anglia; ParlGov; *The Economist*

Vote share of social-democratic parties
Latest national elections*, %



Sources: ParlGov; *The Economist*
*At beginning of respective years

that Third Way leaders renounced, but many of their comrades stayed fond of, remain on offer from anti-immigrant populists, too: witness the success of Austria's FPÖ, which pitches itself to disaffected centre-left voters as the new "social homeland party" with plans for a "building offensive" on housing. It is on track to surpass the governing Social Democrats at the presidential election on April 24th.

Crimson joy?

What strongholds remain are often tired. Take Ludwigshafen, a south-west German industrial city where tens of thousands of workers—having completed their apprenticeships, of course—commute to well paid blue-collar jobs every day. Ludwigshafen voted for the SPD even when Helmut Kohl, one of its own sons, was Germany's centre-right chancellor in the 1980s. On March 13th, as voters south of the city (in high-tech, environmentalist Baden-Württemberg) and north-east of it (formerly communist Saxony Anhalt) abandoned the party, the stolid voters of Ludwigshafen remained loyal.

Yet at a pre-election rally for Malu Dreyer, a brassy, witty local leader who stands out against her lacklustre peers, the mood was remarkably flat. Ms Dreyer hailed once-social-democratic goodies that all now favour: child care, low unemployment, vocational training ("We want Meisters [foremen] as well as Masters"). A marching band played a foxtrot and "Mack the Knife" for supporters whose average age must have been 60. On the walls were posters with unobjectionable slogans: "Responsibility", "Staying Together". "Just Right For Our Time", read one—but the time was the time of the grandparent.

On their current trajectory, social democrats may well end up like liberals and greens today: subordinate players confined to regional strongholds whose best chance of influence is to nudge other parties in their direction should they get into coalition. But there are still some who are both in power and relatively popular. Their successes offer three lessons.

First, renewal ends with national government; it does not begin there. Mayoralties and regional governments hone precisely the mix of pragmatism and innovative policy thinking that social democrats need if they are to win nationally. In Manchester a dynamic leadership with a "what works" credo keeps Labour dominant in an increasingly globalised city; in Hamburg the SPD parties like it's 1969 thanks to a resilient coalition of low- and middle-earners.

Second, remember that a leader whom people like and even trust—including people beyond the confines of the party—can be a great asset. The continent's most charismatic and credible social democrats are among its most popular: Emmanuel Macron, minister for the economy in France, and Mr Muscat in Malta are two examples; another two, looking back, are Mr Blair and Mr Schröder.

And Europe's social democrats should learn from their North American counterparts, who have so far avoided their gloomy decline by building multifaceted, pluralistic coalitions like that which twice elected Barack Obama, a coalition that ranged from ethnic-minority voters, via urban liberals, insecure service employees and middle-class parents, to industrial workers. To that end Mr Renzi (a former mayor, uncoincidentally) has joined Justin Trudeau, Canada's new prime minister, to take part in an initiative based in Washington, DC, which aims to reinvigorate the centre left worldwide.

Persuading a plurality of voters that their interests are best pursued by a centre-left government means adopting policies that deliver results. Mr Macron has argued for portable and individual benefits that suit a more fluid, Uber-ised labour market. Others champion retraining programmes such as those at which the Nordic countries excel, or new ways of caring for children and the elderly. Such ideas offer more hope than trying to outdo populists of right and left, or returning—as Jeremy Corbyn, leader of Britain's Labour Party, would wish—to the policies of the 1970s.

Perhaps the best available template is Malta. There the Labour Party spent 15 years in opposition, consistently winning working-class port seats but failing to take middle-class votes. Taking the helm of the despairing party in 2008, Mr Muscat ditched the party's Euroscepticism and dirigisme for a focus on social mobility, education and getting more women into work. The party won a landslide victory in 2013 and continues to lead in polls today. "What differentiates us and should differentiate us", he said in a recent interview with *The Economist*, "is not that we represent those in society who are better off, but anyone who wants to be better off." Malta, it is true, is a tiny country with a competitive economy. It nonetheless offers something like a way forward for a continent with few such exemplars.

If they want to keep fighting, Europe's social democrats must reckon with a newly unsentimental, biddable and fragmented electorate and a range of rivals eager to steal their supporters. They will need to combine distinctiveness, credibility and persuasiveness: no mean feat. They are no longer carried forth by the tide of history and are often swimming against it. They must make their own currents. ■

For transcripts of the interviews mentioned in this briefing please visit
http://www.economist.com/ESDmuscat
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Countering terror in Pakistan

The battle for Punjab

ISLAMABAD

The struggle against terrorism moves to Pakistan's largest province

YEARS of terrorism have had a numbing effect on Pakistan. Most of the nearly 10,000 attacks the country has suffered in the past six years took merely hours to fall from the view of politicians and the media. It generally takes child victims or an attack on Punjab, Pakistan's most populous, prosperous and peaceable province, to galvanise attention for longer. A suicide-bombing on March 27th—Easter Sunday—in a park in Lahore, Punjab's capital, had both these elements.

Poorer families had flocked to the Gulshan-e-Iqbal park for the affordable thrills of its fairground rides. After sunset a bomber sauntered in and blew himself up next to the queue for the dodgem cars. He killed 74 people, many of them children, and wounded over 300.

Jamaat-ul-Ahrar, an especially repugnant splinter group of the Pakistani Taliban, was quick to take credit, saying the bombing was intended to target Christians. In fact, most of those killed were Muslims: as if in justification, the group also said that it was avenging the government's assault on militants operating out of Punjab. "We have entered Lahore," it warned Nawaz Sharif, the prime minister.

Mr Sharif has long feared a surge in terrorism in the heartland of his party, the Pakistan Muslim League-Nawaz (PML-N). Punjab is home to half of Pakistan's nearly 200m people, and many militant groups operate in the province's south. Yet it has been spared much of the violence that the Pakistani Taliban, a loose affiliation of terror groups, has inflicted elsewhere. Harder hit have been ethnic-Pushtun areas in Pakistan's north-west, including in North Waziristan, bordering Afghanistan. Punjab's urbane elites regard that region as almost a foreign country.

For years the PML-N was suspected of going easy on Punjab-based militants and even of striking deals with them, which it denies. But after the army launched an operation against militants in North Waziristan in June 2014, Punjab's government, which is headed by Mr Sharif's brother, Shahbaz Sharif, at last began to confront the groups. Public support for anti-terror moves leapt following the massacre of more than 130 schoolchildren in Peshawar in December 2014.

Especially clobbered has been Lashkar-e-Jhangvi (LEJ), one of many Sunni groups spawned in southern Punjab in the 1980s, in part in reaction to the rise of a Shia theocracy in Iran. Last June counter-terrorism police bumped off the LEJ's leader, Malik Ishaq, and many of his top lieutenants in a single night. The police barely pretended that what they had done was anything other than extrajudicial murder. The authorities recently boasted to journalists of the numbers of "jet-black", ie, evil, terrorists killed, as well as of militants and rabble-rousing mullahs arrested. And they are proud of cracking down on expressions of hatred against religious minorities.

But the Lahore attack should give them pause. The army certainly believes that much more is to be done in Punjab. It has demanded legal cover for its operations in the province. The model is Karachi, the capital of Sindh province, where the paramilitary Rangers were given powers to deal with violence. Nearly three years on they have done much to tame the sprawling port city's militant and criminal gangs.

The prime minister is having none of it, and his brother's government has refused to authorise an army deployment (which did not stop the army from conducting a spate of raids of dubious legality in Punjab's major cities immediately after the Lahore attack). The PML-N fears a repeat of the mission creep in Karachi, which saw the Rangers turn their attention to corruption rackets associated with Sindh's ruling Pakistan Peoples Party. The prime minister, who was the victim of an army coup in 1999, will not let his stronghold be taken over by the army. Yet the province's police force seems stretched, whereas the army ▸▸

has experience of the kinds of intelligence operations that will be needed to tackle terror networks and extremist *madrassas*.

Even if the army were to be given a bigger role, a difficulty would remain—its long association with violent groups in Punjab. These are committed, like the army, to destabilising Indian-held Kashmir, which Pakistan has demanded since partition in 1947. They include Lashkar-e-Taiba and Jaish-e-Mohammad (JeM), which is being linked to an attack in January on an air base across the border in India at Pathankot that killed seven Indian servicemen.

That Pakistan rounded up JeM members and co-operated with the Indian investigation into the Pathankot attack may be a sign that its powerful army might, for once, have given its blessing to the prime minister's desire to improve troubled relations with India. Pakistan has also shared intelligence with India about another attack planned from its soil. And, remarkably, this week India invited a Pakistani investigation team into the Pathankot base.

Yet whenever ties with India look like improving too fast, the Pakistani army's intelligence arm finds some means to set things back. On March 29th the army released to the media what it claimed was the filmed confession of a man captured in early March who said he was an Indian spy stoking a separatist insurgency in the southern province of Balochistan.

The colourful details of the spy's tradecraft ("Your monkey is with us" was one of the supposed codes) immediately drew the media's attention. So, separately, did the government's threat to use force against 2,000 hardline Islamists who had established a makeshift camp outside Parliament after storming into Islamabad in protest over the execution of Mumtaz Qadri, a bodyguard who assassinated his charge, a liberal Punjab governor, Salman Taseer, in 2011. Qadri had deplored Taseer's call for Pakistan's draconian blasphemy law to be repealed. The protesters, who left after assurances the law would not be changed, were a reminder to Mr Sharif of how deeply embedded in Pakistani society is intolerance breeding violence. After just two days the massacre of innocents in Lahore was already becoming old news. ■

Social welfare in South Korea

Doubt of the benefit

SEONGNAM

A local experiment to expand handouts ruffles the central government

TO ITS current occupant, Seongnam's town hall, a gleaming glass structure, stands as an edifice to wastefulness. It was built for 320 billion won ($280m) under a former conservative mayor of Seongnam, a city of 900,000 a little to the south-east of Seoul, South Korea's capital. Upon succeeding him in 2010, Lee Jae-myung, the current liberal mayor, declared a moratorium—a first for the country—on repayments of the 520 billion won in debt that he had inherited. Budget cutbacks and an anti-corruption effort have since helped pay down the debt. In 2014 Seongnam was rated South Korea's most financially stable city by its interior ministry.

Yet the central government, led by Park Geun-hye of the conservative Saenuri party, thinks that Mr Lee, in his second mayoral term, is misusing taxpayers' money. Last year Seongnam's local assembly passed a series of social-welfare bills to offer free postnatal care to new mothers; free uniforms to secondary-school pupils; and cash handouts of 500,000 won a year to all of its 24-year-old residents amid high rates of youth unemployment, which it began to distribute in January in the form of vouchers—all to be doled out regardless of income or employment status. Organisers in one neighbourhood of Seongnam, with 18,000 residents, say that most of its eligible youngsters quickly pitched up for the coupons, with many posting snaps on social media of themselves brandishing their vouchers. Local businesses, from hairdressers to pharmacies, accept the coupons, as do most of the stalls at nearby Joongang market. A seller of rice cakes says that around half a dozen people pay with them each day.

Seongnam reflects on its social pool

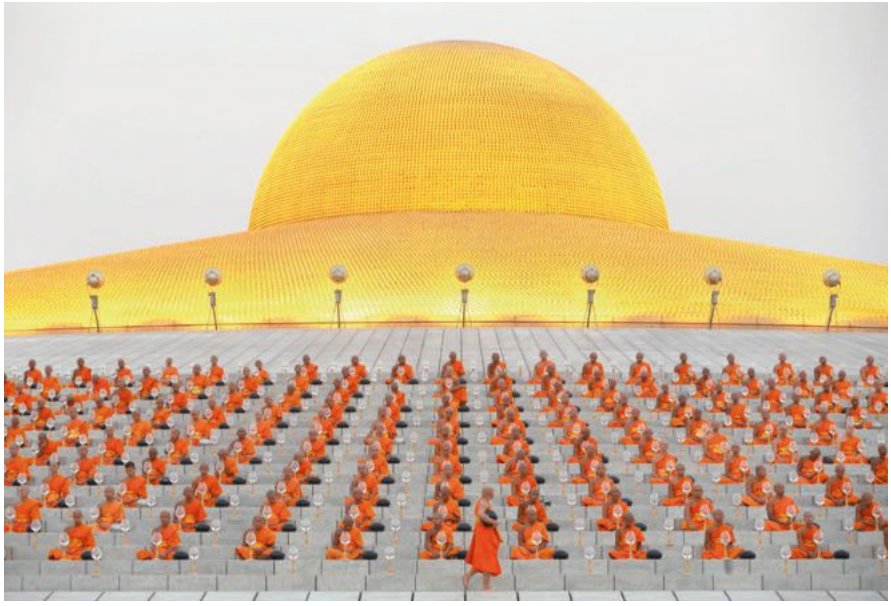
More South Koreans feel the country is now rich enough to build a more robust social safety net. But anxiety over a widening fiscal deficit and sluggish growth has stalled even timid welfare plans under Ms Park. She has rebuked Mr Lee for not getting her government's say-so on his plan. The central government has since revised rules on subsidies to allow a cut in aid to any municipality that makes unilateral changes to its social-welfare schemes. The health ministry has filed a petition with the Supreme Court to halt Seongnam's plan. The Saenuri party's chairman, Kim Moo-sung, says that Mr Lee's populist policies are "the devil's whispers". The city says it is all meddling and scaremongering.

A favourite slogan of Mr Lee's is: "South Korea cannot, but Seongnam can." It helps that the city is an affluent suburb of Seoul, bordering on the capital's glitzy Gangnam district and collecting high property taxes. Most other municipalities rely heavily on central-government subsidies. Taken as a whole municipalities collect just one-fifth of taxes, yet account for around three-fifths of all public spending, says Choe Changsoo at Cyber Hankuk University in Seoul. The centre makes up the difference.

The pressure for more generous spending is growing. In 2011 a liberal mayor of Seoul, Park Won-soon, was elected after his conservative predecessor stepped down having failed to block a programme for free school lunches that had been put to a referendum. Mr Park has recently also faced central-government opposition to a plan for handouts to unemployed Seoulites in their 20s from low-income families, to begin this summer. National elections for the legislature are to be held on April 13th, and welfare is a live issue.

Shin Kwang-yeong, a sociologist at Chung-Ang University in Seoul, says that South Korean policymakers' understanding of welfare is "limited and paternalistic". Social spending has more than doubled in the decade since 2005, to 115 trillion won last year; yet, at 10.4% of GDP, it is still the lowest among 28 members of the OECD, a group of mostly rich countries, and half the average. Taxes, too, are among the lowest. The OECD found in 2011 that South Korea's tax-and-benefit system did worst at reducing inequality and poverty.

Mr Lee argues that the government views welfare as consumption, whereas at least some of it should be seen as investment. At 9.2%, youth unemployment was at a 15-year high in 2015 (compared with 3.6% for South Koreans as a whole). The share of young degree-holders who are not in employment, education or training is a high 25%. It is the first generation of South Koreans, Mr Lee says, to feel less hopeful about the future than their parents did. ■



The politics of Thai Buddhism

Men-at-alms

PATHUM THANI

A squabble in the clergy widens Thailand's dangerous divides

JUST north of Bangkok, the Thai capital, stands an enormous golden stupa designed to last 1,000 years. Its gleaming exterior is made not from smooth tiles but from 300,000 tightly-packed statues of the Buddha; 700,000 more are hidden inside. Just as staggering is the vast apron surrounding the stupa, able to hold 1m worshippers. Worakate, a guide dressed in white, explains that followers of the Theravada school of Buddhism—dominant in Thailand and elsewhere in South-East Asia—have never had a gathering place as large as Mecca or the Vatican. She thinks the monument can be a meeting point for adherents from around the world.

The stupa is the centrepiece of a sprawling religious complex, not all of it quite so bling, inhabited by the Dhammakaya movement. An influential if controversial Buddhist sect, it was founded by a handful of monks in the 1970s and now claims more than 3m followers in some 30 countries. As many as 10,000 mainly middle-class Thais flock to its Sunday ceremonies. One of the temple's senior monks, Phra Somchai Thannavuddho, says that slick modern management has helped. But a big draw, he says, is the purity and clarity of its practices, qualities which many other temples have left behind.

The movement's opponents are numerous and vocal, and tell a different tale. Conservative worrywarts have long warned that the sect is more like a cult, beholden to its septuagenarian abbot, Phra Dhammachayo (who is almost always seen in signature shades). They say that the conventional Buddhist teachings it issues to newcomers conceal wacky theologies unveiled to adherents once they rise in the temple's ranks. And they allege that the temple has grown wealthy by intimating that religious merit may be bought with fistfuls of cash.

The controversy over the Dhammayaka temple is one of several tearing at Thailand's Buddhist establishment. At heart is a battle over who should be the next Supreme Patriarch, the country's chief monk and the leader of its two Theravada Buddhist orders, Maha Nikaya and Dhammayuttika Nikaya. The previous incumbent was 100 years old when he died in 2013; he was cremated in December. Following tradition, the Sangha council—in effect, Thai Buddhism's governing body—announced that the next-most-senior clergyman, Somdet Chuang, should succeed him. But under pressure from dissenters, the junta that has ruled Thailand since a coup in 2014 has declined to submit the nomination to the royal palace for approval—thereby putting the process on hold.

In part, the monks and lay people who oppose the nomination see an opportunity to push through an overhaul of Thai Buddhism's stuffy governance that they say is long overdue. They accuse the Sangha council, hierarchical and gerontocratic, of failing to tackle rising materialism among the clergy, which has lately led to a string of embarrassing revelations involving wayward monks. Somdet Chuang is himself under investigation: police say he accepted as a gift a vintage Mercedes Benz that had been imported without paying the proper dues (his lawyer says he has done nothing wrong). Critics also accuse the council of being unhelpfully silent on contentious modern issues such as homosexuality and female ordination.

But their opposition also has much to do with the Dhammakaya temple, which they say the council has sheltered from investigations into its finances and beliefs. Critics also foster the perception that the temple's top brass are sympathetic to the cause of Thaksin Shinawatra, a populist former prime minister, detested by Thailand's elites, whose parties have won every general election since 2001 but who now lives in self-imposed exile. The insinuation is that the Sangha council and Thai Buddhism more broadly have been captured by Thaksinite forces and must now be liberated.

The temple says this is all nonsense, and that among its visitors and donors are politicians of every hue. The Sangha council is defending itself too. But the brawl is dangerous for the junta, whatever the truth. Lacking a democratic mandate, it would gain a huge boost from the monks' blessing. Instead it finds itself caught between two embittered factions, neither of which it can ignore. The council's opponents include Buddha Issara, a former soldier who is now a firebrand monk. He was influential in the royalist protests that helped to bring the junta to power and is now one of its most outspoken supporters.

In the long run…

Meanwhile, Somdet Chuang's backers include members of an ultranationalist group, the Buddhist Protection Centre of Thailand. In February it helped organise a rally at which monks were filmed scuffling with soldiers (the same day troops also loitered outside Dhammakaya temple, lest any of its clergy were tempted to join the fray). Some clergy warn that the furore over the nomination actually conceals an attempt by monks from the smaller Dhammayuttika Nikiya, traditionally patronised by the elites, to keep down clergy from the larger Maha Nikaya.

The spat is uncomfortable for the junta, but perhaps it can be managed. Khemthong Tonsakulrungruang, a scholar of law and Buddhism at Bristol University, reckons that Thailand's government may try to spin out the present stalemate for as long as possible. It might, in other words, be years before a new Supreme Patriarch is appointed. Whether the present nominee, who is now 90 years old, will be available for the job is another matter. ■

Banyan | Army manoeuvres

Myanmar celebrates a civilian government; the generals carry on as before

IT WAS an extraordinary moment, and seen by many as a happy culmination to a long, often bloody and always wrenching story: this week Myanmar swore in a new president as the titular head of the first civilian-led, democratic government to take office after decades of military-backed rule. It followed a landslide win for Aung San Suu Kyi's National League for Democracy (NLD) in a November election that made crystal-clear what ordinary Burmese no longer wanted: the army running their affairs.

And yet. Look more closely, and the army has not vanished from political life but still lies at the heart of it. Take the matter of the president, who is chosen by the national assembly. Those voting for the NLD in November were really voting for Miss Suu Kyi, daughter of the country's founding father, Aung San, and figurehead of the democratic movement during years of house arrest until her release in 2010. She would have been a shoo-in to be president had the constitution drawn up by the army not disqualified her, for having children with British passports. The ban on foreign spouses and children appears to have been written expressly with her in mind.

The result is that another NLD member, Htin Kyaw, has been sworn in as president. Mr Htin Kyaw, a close ally of Miss Suu Kyi's, is a good egg. But Miss Suu Kyi has made it clear that she will be president in all but name. That is a far from satisfactory arrangement when stronger institutions, more transparency and greater accountability are needed to strengthen Myanmar's weak governance, undermined by years of misrule. Also troubling is the fact that Miss Suu Kyi is taking the post of foreign minister as well—and the ministerial portfolios covering education, electricity and the president's office (making her, in effect, chief-of-staff to herself). It beggars belief that anyone could do justice to so many briefs. The army is not to blame for Miss Suu Kyi's appalling tendency to micromanage. But allowing her to be the formal president would have given the new, inexperienced government a better chance of being effective and accountable.

More worrying is what the army is holding on to in government. Army men fill three powerful cabinet posts, overseeing defence, border affairs and home affairs. They have government experience, and may run rings around the callow democrats. What is more, the army and its affiliated ministries dominate the National Defence and Security Council, which can disband parliament and impose martial law—the constant threat to Myanmar's new dispensation.

What is it the army seeks by maintaining its influence? Foremost, perhaps, the generals do not want ever to be prosecuted for crimes and atrocities committed during their long dictatorship. Then come the material interests of the top 50-odd army families. They wish to hold on to their extraordinary and largely criminal wealth, including big property holdings in Yangon, the commercial capital, without fear of reprisals or confiscation. They will see as their protector the army's appointee as one of the country's two vice-presidents, Myint Swe. He is related through marriage to Than Shwe, a former junta leader. Head of the brutal military intelligence at the time of the bloody repression of a monk-led "saffron revolution" in 2007, he was also until recently chief minister for the Yangon region. Nothing like friends in high places.

The army looks likely to let the civilian government make the running in what one Burmese insider describes as a carefully fenced-off "sandbox": matters of development, education, health care and the like—precisely the areas that for years it oversaw so dismally in this poverty-stricken country. Outside the NLD's playpen, however, the army is unlikely to brook the democrats' involvement. That applies to handling relations with Myanmar's giant neighbour, China, which tweaks the generals' tail by funding some of the myriad ethnic armies involved in low-level insurgencies, mainly in Myanmar's border regions. And it applies above all to the so-called peace process that is supposed to end once and for all the conflicts between ethnic groups and an overweening central state, some of which have rumbled on since the country's independence in 1948.

Resolving the conflicts is Myanmar's most pressing task, since, for all the foreign investment and aid money putting a shine on Yangon, a dirt-poor country cannot develop without a widespread and deep-rooted peace. In the run-up to taking power, Miss Suu Kyi said that her priority was seeking peace and granting the full rights and benefits of citizenship to the disadvantaged ethnic minorities that are spread across a large part of Myanmar. She even called for a second Panglong, referring to the agreement negotiated with ethnic minorities by her father in 1947 but never enacted after his assassination by militarists.

Her implication was a federal union in which a hitherto heavily centralised state, dominated by the ethnic Burman majority, devolves powers. But that is anathema to commanders committed to defending a unitary state. In private they have made it clear they do not want the NLD involved in the army peace process (one that has only increased mistrust of the army among ethnic groups). Miss Suu Kyi has recently said less about a second Panglong.

Road-works ahead

In 2003, confronted by its failures, the junta unveiled what it called a seven-step "road map to discipline-flourishing democracy"—that is, democracy, but only on its terms. The democratic revolution that has swept Myanmar with such enthusiasm since 2010 may give the impression that the road map has been torn to shreds. And certainly the scale of Miss Suu Kyi's victory took the generals by surprise. But the army's continued presence at the heart of the political system makes it clear that Myanmar's democracy is not guaranteed to move forward. The army still holds the power to turn it back. ■

Xi Jinping's leadership

Chairman of everything

BEIJING

In his exercise of power at home, Xi Jinping is often ruthless. But there are limits to his daring

SHORTLY before the annual session in March of China's rubber-stamp parliament, the National People's Congress, two curious articles appeared in government-linked news media. The first, published in a newspaper run by the Central Commission for Discipline Inspection, the Communist Party's anti-graft body, was called "The fawning assent of a thousand people cannot match the honest advice of one". It was written in an allegorical style traditionally used in China to criticise those in power, in this case in the form of an essay praising the seventh-century emperor, Taizong, for heeding a plain-talking courtier. The article called for more debate and freer speech at a time when China's president, Xi Jinping, has been restricting both. "The ability to air opinions freely often determined the rise and fall of dynasties," it said. "We should not be afraid of people saying the wrong things; we should be afraid of people not speaking at all."

The second article, in the form of an open letter, ran—fleetingly—on a state-run website. "Hello, Comrade Xi Jinping. We are loyal Communist Party members," the letter began. It called on Mr Xi to step down and eviscerated his record in office. The president, it said, had abandoned the party's system of "collective" leadership; arrogated too much power to himself; sidelined the prime minister, Li Keqiang; caused instability in equity and property markets; distorted the role of the media; and condoned a personality cult.

No one knows who wrote either the pseudonymous essay or the anonymous letter. But their timing was striking, coming just as China's political elite was gathering in Beijing, and just after several other examples of public criticism had surfaced. The historical essay was reposted on the disciplinary commission's website (where it remains); it was clearly more than the work of a single disgruntled editor. The letter may have been planted by a lone dissident who managed to hack into an official portal, but it raised many eyebrows in China. The police have reportedly detained around 20 people in connection with the case, including several employees of the website. Their response suggested that they feared the letter was more than just a flash in the pan, and that tough action was needed to prevent discontent with Mr Xi's leadership from spilling into the open.

When he became the party's leader in 2012, more was known about Mr Xi's family and personal qualities than about his politics. He was a princeling, as many in China describe the offspring of the first generation of Communist leaders (Mr Xi's late father served as a deputy prime minister under Mao). This helped him get the top job: the veterans who picked him thought that princelings were more committed than anyone else to Communist rule. Mr Xi himself was regarded by his associates as ambitious and incorruptible. But little else was known. Mr Xi had spent almost 20 years in Fujian, a southern province far from political nerve-centres.

Party-chief plenipotentiary

More is now clear. As Geremie Barmé, an Australian academic, puts it, Mr Xi is China's "COE", or chairman of everything. Like his two predecessors, Hu Jintao and Jiang Zemin, Mr Xi is head of the party, commander-in-chief of the armed forces and head of state. But he has also acquired a series of other titles which they did not have, such as head of a committee that he set up to steer "comprehensive reform", and of another one he established to oversee the country's security agencies. Mr Hu was a wooden leader whose rule was overshadowed by the retired Mr Jiang; Mr Jiang, while in power, had to bow to his retired predecessor, Deng Xiaoping; even Deng trod carefully for fear of upsetting fellow party elders. Mr Xi, like Mao, appears unfettered by such concerns.

He wants the country to know it, too. Mr Xi has encouraged the revival of a term that was invented by Deng to describe ▸▸

strong leaders such as himself and Mao: the "core", or *hexin*. Mr Hu had meekly avoided using the term to describe himself, in order perhaps to convey a sense that the party was moving beyond strongman politics. Mr Xi has no such scruples. This year official media have reported on the kowtows of numerous provincial chiefs who have hailed him as the party's *hexin*.

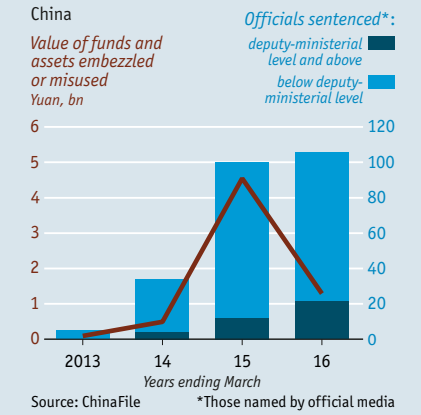
By tolerating, if not encouraging, such flattery, Mr Xi comes close to violating the party's charter, which prohibits "any form of personality cult" (a rule introduced in 1982 to prevent a return to the frenzy and violence once spawned by worship of Mao). Adulation of "Uncle Xi" in the official media looks like an even more blatant transgression. This year's four-hour televised gala for Chinese New Year—one of the country's most-watched shows—included extravagant praise of Xi *Dada*, the sobriquet's form in Chinese.

Mr Xi is no Mao, a man whose whims caused the deaths of tens of millions and who revelled in the hysteria of his cult. But he rules in a way unlike any leader since the Great Helmsman. After Mao's death, Deng tried to create a leadership of equals in order to push China away from Maoist caprices. Mr Xi is turning from that system back towards a more personal one. Indeed, he is more of a micromanager than Mao ever was. Mr Xi tries to maintain day-to-day control over every aspect of government. He might be compared to Philip II of Spain, on whose desk in a palace near Madrid all the problems of his 16th-century empire landed in the form of endless letters requiring response. Unlike Mao, who had a mischievous sense of humour and enjoyed sparring with ideological foes such as Richard Nixon, Mr Xi is reserved and unsmiling—despite a carefully scripted publicity campaign that depicts him as a football-supporting, moviegoing, baby-kissing family man with a glamorous wife, Peng Liyuan (Peng *Mama*, as fawning official media call her).

Most observers have tended to assume that, with all his power, Mr Xi can do more or less as he likes. However, important decisions he has made in recent months suggest something more complex. Concerning high politics, Mr Xi is ruthless and bold, and takes calculated risks. Dealing with society as a whole, he is willing to make changes but is more cautious. And with the economy, he lacks a sense of direction. Policy is confused and there have been numerous mistakes. Mr Xi is not an all-conquering strongman. He gets his way only in some areas. Across a broad spectrum of society, his policies and iron-fisted authoritarianism generate much resentment.

Start where all politics in China does, with the party. As a provincial chief in coastal Zhejiang from 2002-07, Mr Xi had been known for the vigour of his fight against official corruption. Even so, the scale and persistence of the nationwide anti-graft campaign he unleashed in 2012 on becoming China's leader has been surprising. In 2015 alone graft-busters said they had punished 336,000 officials, the highest number in 20 years. The numbers being jailed continue to climb (see chart, which shows named offenders), despite howls of anguish from officials high and low who fear being hauled away. Rather than face the party's sometimes brutal interrogators, who eschew such niceties as lawyers, some have preferred to take their own lives.

Bad times for bureaucrats



Source: ChinaFile *Those named by official media

And though Xi be but little, Xi is fierce

The anti-corruption campaign has involved a radical change in the unwritten rules that have held the party together since the near civil war that Mao inflicted on it. In an attempt to attract recruits and rebuild the party, Deng and his successors had often turned a blind eye when officials (most of whom are members) lined their pockets. Crackdowns tended to be short-lived and rarely affected the most powerful. Mr Xi, by contrast, has been relentless—even banning party members from joining golf clubs (how they must pine for the 1980s, when one general secretary, Zhao Ziyang, was an avid fan of the sport). Lest they whine, Mr Xi has also reminded them that party members are banned from "irresponsibly discussing the party centre's major policies".

The anti-graft campaign is popular with the public, which suffers hugely from officials' corruption, negligence and incompetence (a scandal that came to light in March involved rampant corruption in the state's oversight of the sale and use of vaccines). But it has dismayed officials, many of whom have responded with passive resistance and fear-driven inertia. By the middle of last year, less than half of the government spending budget for the six months had been used up. Huge efforts had to be made to spend more in the rest of the year. Yet some officials are afraid to do anything that might attract graft-busters' attention.

Mr Xi has also sown alarm throughout the 2.3m-member People's Liberation Army (PLA), the collective name for the armed forces. He has arrested generals for graft who were once considered untouchable, announced a trimming of the ranks by 300,000, shaken up the outdated command structure and slimmed down the top-heavy high command. Any one of these moves would have been impressive, given the PLA's ability to make life difficult for political leaders whom the generals do not like. Mr Xi's willingness to take on these tasks simultaneously suggests remarkable confidence (inspired, perhaps, by greater familiarity with the PLA's ways than his two immediate predecessors enjoyed: early in his career Mr Xi was an assistant to a defence minister).

Both in his reforms of the PLA and in his fight against corruption, Mr Xi's actions aim first and foremost at tightening control: both the party's over the army and his own over the party. It is similar in other areas of politics. Mr Xi has presided over the biggest crackdown on dissent since the bloody suppression of the Tiananmen Square protests in 1989, arresting hundreds of civil-rights lawyers, academics and activists. He has tightened controls over the media, including by making it much tougher to use software that allows access to the huge number of websites that are blocked in China. Mr Xi is determined to reimpose discipline on a querulous society that in recent years, thanks to the rapid spread of social media, has become much better equipped to organise itself independently of the party and to evade official controls.

In the war against dissent, however, Mr Xi is facing visible resistance. Ren Zhiqiang, a property mogul turned commentator, said the media should serve readers and viewers, not the party. This was an unusually direct attack on Mr Xi by a well-known party member and a fellow princeling (Mr Ren's father was a deputy minister of commerce under Mao). Censors reacted by closing Mr Ren's social-media accounts and by purging the internet of numerous messages in support of him. *Caixin*, a Beijing-based magazine, responded to the censors' removal of one online story about the need for freer speech by publishing two more about the article's disappearance. Those too were deleted. This week Yu Shaolei, a senior editor of *Southern Metropolis Daily*, a widely read newspaper, resigned in protest against censorship.

In social policy, however, Mr Xi has been trying to cast himself as a liberal, albeit a cautious one. This has been evident in his loosening of controls on family size (all Chinese couples are now allowed to have two children instead of just one) and his limited easing of restrictions on rural migrants' access to urban public services. Both policies urgently required reform: the

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DUBAI

shortage of children means that China's population is ageing fast; the controls aggravated distortions in the sex ratio. The country's household-registration, or *hukou*, system, which is used to define who is given access to subsidised health care and education in cities, has created a huge social divide. It has also broken up the families of millions of migrants whose children cannot go to school where their parents live.

Mr Xi could have removed family-planning controls altogether, as some Chinese demographers have urged. He could have made it easier for rural migrants to obtain urban *hukou*. Instead, he has tinkered, creating a nationwide system of residence permits, and allowing the biggest cities where migrants most want to live (such as Beijing, Shanghai and Guangzhou) to set their own restrictive conditions for being granted *hukou*.

Mr Xi has been even more hesitant in his handling of the economy. Months after taking power, he proclaimed that under his leadership markets would play a "decisive" role. Since last year he has begun to talk of a need for "supply-side" reforms, implying that inefficient, debt-laden and overstaffed state-owned enterprises (SOEs)—ie, most of them—need shaking up. But his approach has been marked by uncertainty, U-turns and, occasionally, incompetence.

It is true that some prices have been liberalised. In the second half of 2015, more market-friendly systems were introduced for setting exchange and interest rates. But the reform of SOEs has barely begun, stymied by the vested interests of SOE managers and their political friends, by fear of increasing unemployment, and perhaps by Mr Xi's own oft-stated belief that the party should keep its hold on the main economic levers. There are few signs yet that loss-making SOEs will be shut down or that any will be subjected to real competition.

Mr Xi's lack of clear focus on the economy, and his unwillingness to let people more expert in such matters (namely, the prime minister, Mr Li) handle it, have caused a series of errors. Policymakers, including Mr Xi, talked up the stockmarket a year ago and then engaged in a doomed attempt to prevent its fall in the summer. They introduced and then hurriedly scrapped ill-designed "circuit-breakers" to calm market jitters. They caused global anxiety when they failed to explain what they were doing when they began tinkering with the exchange-rate regime.

Markets are unpredictable and no Chinese leader (including Mr Xi) has any experience of the way they work in Western economies. But it is also likely that Mr Xi's desire to hog power is partly to blame. This has confused officials. Once they would have sought guidance from the prime minister, who is supposed to be in day-to-day charge. But last year Mr Xi's new task-force on reform was trying to exert control. The mishandling of the stockmarket and currency changes was the result, in part, of leadership confusion.

Mr Xi's diffidence in such areas may stem from the mandate he had from the elders who helped him into the jobs he now holds: a broad spectrum of retired and serving leaders and their powerful families who felt that without a helmsman of his mettle and commitment to the party's survival, the party might collapse. (The Soviet Communist Party ruled for 74 years—a record for communism that China's will reach just after Mr Xi is due to step down in 2022). They wanted someone who would keep the party in power and strengthen its grip on the army. They were less agreed on how far or how fast to proceed with reforms involving huge numbers of people and widely divergent interests. SOE reform could cause millions of job losses. Loosening *hukou* restrictions could overwhelm public services. So, bureaucrats fear, could abolishing family-planning rules.

The solace of smoke-filled rooms

In short, Mr Xi understands power, is not afraid to use it and is willing to take risks. He understands less about the new complexities of a changing society and worries about social unrest, so plays safe. He does not understand the economy well, is not sure what to do and does not trust others to act for him.

The way Mr Xi rules has three broad implications. The first is that problems common to all dictatorships will grow. In such systems, if the man in charge makes mistakes, they are likely to be all the more damaging because they are less likely to be reversed. This was evident in the stockmarket debacle.

Another implication is that it is no longer reasonable to argue that China is a model of an authoritarian country opening up economically without doing so politically. Mr Xi has increased control over the political system, but economic liberalisation has stalled. At the moment, the two are moving in lockstep in the wrong direction, to China's detriment. The third is that Deng's policy of putting "economic construction at the centre" is no longer the country's most hallowed guiding principle. For Mr Xi, politics comes first every time.

Some optimists still argue that Mr Xi believes the time is not yet ripe for bold economic change but that, once he has cleaned up the party, he will be able to turn his attention to economic reform. In this view, a critical period will come after a party congress due late next year. At that meeting, Mr Xi will put many more of his loyalists in positions of authority. But it is just as likely that he will continue to dawdle on reform, because opposition to it will have become entrenched. It is rarely possible to change course sharply after several years in power.

Either way, the success of Mr Xi's rule will rest not just on whether he wins the battles he has chosen to fight, but on whether he has picked the right ones. Seen from the point of view of China as a whole, it does not look as if he has. Mr Xi seems bent on strengthening his party and keeping himself in power, not on making China the wealthier and more open society that its people crave. ■

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America and the world

Trade, at what price?

WASHINGTON, DC

America's economy benefits hugely from trade. But its costs have been amplified by policy failures

SO COMMON is anti-trade rhetoric in the election campaign that you might think America is about to erect a wall on every side. Donald Trump threatens to slap a 45% tariff on Chinese imports and to bully firms into returning their factories to America. Bernie Sanders proudly recalls his unwavering opposition to free-trade agreements, past and current. And Hillary Clinton, having supported the Trans-Pacific Partnership (TPP), the latest trade accord, as secretary of state, now opposes it.

Presidential candidates have taken such positions in the past. Barack Obama, who today peddles trade deals, slammed them in 2008. What makes today's protectionism more potent is that it draws on broader changes in thinking among economists about the impact of trade. Many are now a good deal more critical.

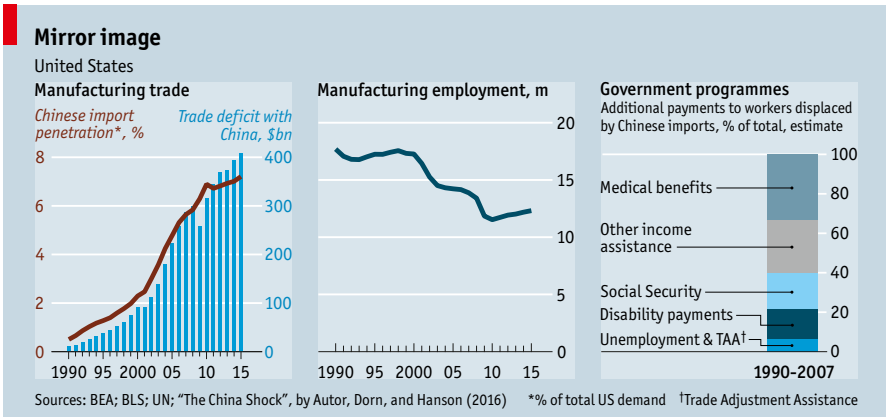
Since the 1980s, America's economy has gradually opened up to cheap imports. This accelerated in 1993, when President Bill Clinton signed the North American Free-Trade Agreement (NAFTA) with Mexico and Canada. The deal, America's first broad trade accord to include a poor economy, eliminated most tariffs on trade between the three countries over a decade. Coincidentally, within a year of the start of tariff reductions, the peso collapsed, making Mexican imports cheaper still. Excluding fuel (which America had to buy from somewhere) imports from Mexico grew by about five times between 1993 and 2013, according to the Peterson Institute, a think-tank. Exports to Mexico grew by about three-and-a-half times. As a result of the disparity, a bilateral trade deficit worth $23 billion (then, 0.2% of America's GDP) opened up within five years.

The small size of Mexico's economy—America's is still well over ten times bigger—limited NAFTA's impact. A greater shock was coming: in 2001 China joined the World Trade Organisation (WTO). Although this did not change any tariffs, a tsunami of cheap Chinese imports followed. "Made in China" labels became ubiquitous on clothes, toys, furniture and, eventually, electronics as Chinese imports surged from 1% of GDP in 2000 to 2.7% by 2015. The best explanation for this sudden inflow is that WTO membership gave certainty to investors in China's export industries; until then, America could impose higher tariffs on China at will.

Many blamed the yuan's peg to the dollar for creating a trade imbalance. By 2014 China had accumulated nearly $4 trillion in foreign currency to sustain the peg. Economists have always struggled to formalise the allegation that China manipulates the yuan. Over time, higher wage inflation in booming China should undermine the advantage of a weak currency. Wages have indeed risen much faster in China than in the West. China's current-account surplus, which reached 10% of GDP in 2007, is often cited as proof of fiddling. But Chinese surpluses and American deficits are—as a matter of accounting—the difference between saving and investment in those countries. So China's vast surpluses in part reflected its extraordinary propensity to save.

In any case, cheap imports were a windfall for American consumers. Excluding food and energy, prices of goods have fallen almost every year since NAFTA. Clothes now cost the same as they did in 1986; furnishing a house is as cheap as it was 35 years ago. More trade brought more choice, too. Robert Lawrence and Lawrence Edwards, two economists, estimate that trade with China alone put $250 a year into the pocket of every American by 2008. The gains from cheap stuff flowed disproportionately to the less well-off, because the poor spend more of their incomes on goods than the rich.

At the same time, trade created new markets for American firms. In 1993 America sold nearly $10 billion-worth of cars and parts to Mexico, at today's prices. By 2013 that had risen to $70 billion. Many American firms have become tightly integrated across the southern border, with low-skilled work done in Mexico and more complex tasks done at home. Exports to China grew by almost 200% between 2005 and 2014, with agriculture and the aerospace and car industries leading the charge. Some workers have benefited from rising exports, because firms that export pay more; one estimate puts the export ▸▸



wage-premium at 18%. Outsourcing low-wage assembly has also increased the productivity of America's high-skilled workers. For example, Apple's ability to assemble its iPhones cheaply in China has made the work of its American designers much more lucrative.

The gain and the pain

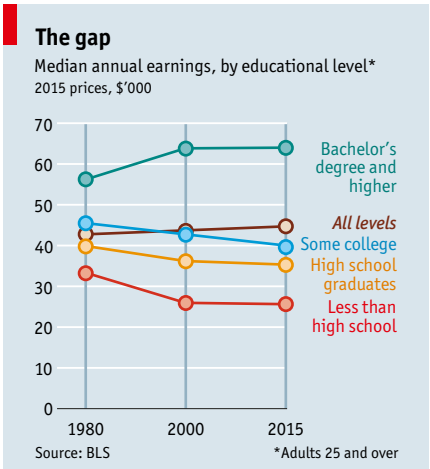
Trade, though, has an acute image problem. Its benefits are hard to perceive directly, spread as they are across large constituencies: consumers, exporters, and workers who may not realise just how much of what they make is shipped overseas. In contrast, its costs are highly concentrated. Cheap imports have been lethal for many American manufacturers, particularly in the midwestern rustbelt and in the South.

Economic theory predicts that trade, though often good for average incomes, will squeeze the pay of those workers whose skills are relatively abundant overseas. A sharp rise in the college premium—the additional wages earned by skilled workers—from around 30% in 1979 to almost 50% by 2000 seemed to corroborate that theory, as it coincided with the first wave of cheap imports (see chart). But for some time there was scant evidence of a causal link between the two trends. In 1995 Paul Krugman, a trade economist, estimated that trade with poor countries explained only a tenth of the growth in the skilled-worker premium in the 1980s. Mr Krugman and others found that technological change was more to blame. That would explain why the return to education increased even in poor countries, which trade theory did not predict.

But by 2008 Mr Krugman had changed his mind, warning that the sheer volume of trade with China and other poor countries was probably increasing inequality. In 2013 an updated estimate of his model showed that trade with poor countries depressed unskilled workers' wages by 10% in 2011, up from 2.7% in 1979, according to Josh Bivens of the Economic Policy Institute, a think-tank. In that time, trade accounted for one-third of the rise in the college premium.

For other economists, the impact of trade on jobs was a growing concern. The sharp decline in American manufacturing employment began in 2000, just as Chinese imports took off (see chart). Yet on the extreme assumption that every dollar spent on imports replaced a dollar spent employing an American, Mr Lawrence calculates that between 2000 and 2007 Chinese imports caused, at most, 188,000 of 484,000 annual manufacturing-job losses. A recent, more detailed, estimate by Daron Acemoglu, David Autor and others chalks up about 1m of 5.5m manufacturing jobs lost between 1999 and 2011 to Chinese competition (with similar-sized job losses in other industries).

This implies that many other factors are in play. Technological change is probably the prime culprit for shrinking manufacturing employment. Productivity increases in the industry have been staggering. For instance, since 1994 carmaking's contribution to GDP—to which outsourced production by American firms does not contribute—has fallen by about 10%. But there are 30% fewer carmaking jobs. This had led to the false impression that America's car industry has outsourced most of its work. Such are the advances in manufacturing technology that if China disappeared tomorrow, far fewer jobs would return to America's shores than left them.



But another recent achievement of trade economists has been to show that trade-induced job losses, while relatively small, are particularly painful: more so than those caused by technology. Until recently, most economists assumed that displaced workers could find new work relatively easily. After all, in June 2007, on the eve of the financial crisis, unemployment was 4.6%—lower than it was before the recession of the early 1990s. Between 2000 and 2007 Americans left 5m jobs a month and started 5.1m new ones. A million or so jobs lost to trade with China over more than a decade seems tiny by comparison.

But many workers displaced by Chinese imports did not simply find another job. Mr Autor and his colleagues have shown that, at local level, employment falls at least one-for-one with jobs lost to trade, and that displaced workers are unlikely to move to seek new work. The lowest-skilled who do find new jobs tend to move to similar, and thus similarly vulnerable, employment. One reason for this immobility could be that the economy is now an unwelcoming place for jobseekers without a university degree. The housing collapse of the late 2000s, which left many Americans trapped in negative equity, may have made things worse. This new strain of research has lent support to the claim of Dani Rodrik, a globalisation sceptic, that "If you are of low skill, have little education, and are not very mobile, international trade has been bad news for you pretty much throughout your entire life."

The losers from trade became reliant on the government. One supposed safety-net was "trade-adjustment assistance" (TAA), a programme dating from 1962 and beefed up after the signing of NAFTA. If the Department of Labour accepts a petition for TAA, workers get an extension to their unemployment-insurance payments. For most of the 2000s, the extension lasted six months. In addition, beneficiaries can enroll in training programmes; if they do, they receive more payments while they train. Workers over 50 also get a kind of wage insurance which pays up to $12,000 over two years to compensate them for starting a new job on lower pay.

Until 2009 TAA was more limited for those displaced by Chinese competition than by NAFTA, notionally because no free-trade deal had been signed with the Chinese. It covered only those whose factories had shut because of direct competition from Chinese imports. It left out those further up the supply chain, or those whose employers had moved factories to China. Some workers decided to claim disability benefits instead. Mr Autor and his colleagues found that in areas affected by trade with China, new spending on disability benefits was more than double new spending on unemployment insurance

and TAA (see chart).

Even for those workers who did qualify for TAA, support was woefully inadequate. Only about a third entered training programmes, perhaps because the budget was so low: just $1,700 per displaced worker in 2007. The wage-insurance scheme was better than nothing, but was not enough to make up for wage losses which frequently exceeded 20%. The workers who lost the most in lifetime earnings—the young—were not eligible for wage insurance. In the aftermath of the recession TAA was improved, and Mr Obama now wants to expand wage insurance. But it is too late for those who lost out in the 2000s.

Obstructing their progress

How does this bear on today's trade-policy debates? Economists were wrong to think in the 1990s that the concentrated costs of trade, which textbooks always predicted, had somehow been avoided. It is now clear that they can be, in fact, worse than first thought. But the gains from trade, which are larger still, were never an illusion. Trade sceptics sometimes seem to suggest that workers were better-off before the 1980s, because protectionism was rife but growth stayed high. Yet living standards today are far higher. Trade barriers, which prevent such advances, are a futile, self-defeating way to help the unskilled.

Today's trade agreements are very different from NAFTA or other deals which have brought down tariffs, because most levies have already been abolished. Only 10% of the projected gains from TPP, for instance, come from tariff reductions. Where tariffs do fall in the TPP, America is primed to benefit. For example, Uncle Sam's carmakers will cheer the end of big Malaysian and Vietnamese tariffs on motors.

The TPP's biggest provisions concern protection for intellectual property, liberalising trade in services and enforcing stricter labour and environmental standards. All this probably helps American workers. Mr Autor and two of his most frequent co-authors support the deal, arguing that the globalisation of manufacturing is a fait accompli. Blocking the TPP or other modern trade deals will not undo the failure to help those who lost out from trade with China.

To the extent that some Americans are harmed, which is inevitable, the projected gains of future free-trade agreements should be more than enough to compensate losers, if only the government can get itself organised. Peter Petri and Michael Plummer, two economists, estimate that the TPP will boost American incomes by $131 billion, or 0.5% of GDP. That is over 100 times what America spent on trade-adjustment assistance in 2009: there is plenty of scope to do more for the losers from trade.

Many gains from trade remain on the table. Some hope that China may eventually join the TPP. China's urban middle class will double over the next decade and seek services, from finance to telecoms, which America could compete to provide. The TPP includes restrictions on state-owned enterprises. China will be welcomed into the agreement only if it curtails subsidies to its national champions.

Europe presents another opportunity. Negotiators hope that the coming Transatlantic Trade and Investment Partnership will harmonise regulatory standards across the Atlantic in industries such as pharmaceuticals, telecoms and transport. Removing all such "non-tariff barriers" could raise America's GDP by up to 3%, according to the most optimistic study. And the world has still to grapple with how best to regulate global flows of data—an issue in which America, as the world's technology hub, has a huge stake.

Americans are not oblivious to these facts. A recent Gallup poll found that 58% see trade as an opportunity; only 34% see it as a threat. But this only reinforces the idea that the costs of trade are concentrated. Research shows that the more local workers compete with imports, the lower the number of votes cast for incumbent politicians—as the presidential hopefuls well know. If America is to go on reaping the gains from trade, it must ensure it compensates those who lose out. You can oppose protectionism, or you can oppose redistribution. It is getting harder to do both. ■

Sin and politics

No, not one

ATLANTA

The link between a scandal in Alabama and the rise of Donald Trump

"IF WE'RE gonna do what we did the other day," Robert Bentley, the governor of Alabama, tells his aide in a recently released recording, "we're gonna have to start locking the door." Explaining himself, Mr Bentley—whose 50-year marriage ended last year—apologised for his "inappropriate" remarks but, despite the tape's evidence, denied any "sexual activity".

Many Alabamians did not expect such antics from a folksy, septuagenarian deacon of the First Baptist church in Tuscaloosa, who has assumed stridently judgmental stances on marriage and abortion. In truth, they shouldn't be surprised. Beginning in 1834, when a congressman shot himself after reading a letter from his wife to Alabama's governor, the office has furnished a rich chronicle of marital strife, paternity suits and phone-tapping. And, in fairness, for all the outrage their peccadillos engender, the politicians are not exactly outliers in Alabama. To a startling degree—and for reasons that may shed light on the presidential race—it and other southern states combine conspicuous religiosity with widespread loucheness.

Alabama ranks third in the nation for weekly church attendance. Of the top eight states, six more are southern: Mississippi, South Carolina, Louisiana, Tennessee, Arkansas and Kentucky. Along with Alabama, those last three are among the five states with the highest proportions of white evangelical Protestants. Yet this devout region also scores impressively badly on a broad range of ungodly indicators. Dirty phone calls are the least of it.

Louisiana's murder rate is comfortably the nation's highest. Mississippi's is second (most of the other states are not far behind). The same pair suffer the country's highest rates of gonorrhoea; Alabama, Arkansas and South Carolina make the top ten. Meanwhile Alabama, Louisiana, Mississippi and South Carolina feature in the top seven for the incidence of single-parent families. All those church-loving southern states rank in the top third for teenage pregnancy; several are prolific in divorce.

There are provisos. John Shelton Reed, a distinguished sociologist, notes that, murder-wise, the South specialises in crimes of revenge and passion, reflecting an anti-institutional tendency to settle grievances privately. Divorce is relatively common, some apologists say, in part because southerners still bother to get married. The standard explanation for the overall picture is poverty, with which many social problems correlate. The destructive effects on black families of slavery and Jim Crow are relevant, too.

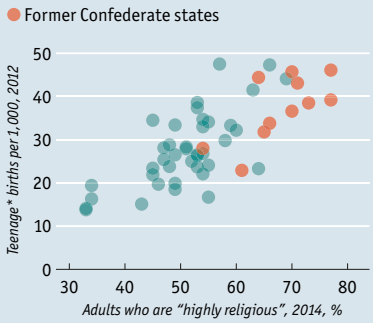
Religion, in such analyses, is incidental. Indeed, for many it is a countervailing force: if there were more of it in schools and communities, these scourges would be ameliorated. Brad Wilcox, of the University of Virginia, offers a nuanced version of that argument. Domestic troubles, he observes, are particularly rife among lapsed Southern Baptists: men (especially) who inherit old-fashioned notions of family life, but drift from the church and are "stranded with traditional beliefs" that are hard to honour in modern America.

Some secularists, on the other hand, think religion is implicated. They maintain that puritanical views repress frank talk and warp natural urges, as in sexual-abstinence programmes (widespread in the South) that sometimes fail to mention contraception. Drinking habits in some of these states may also fit this pattern: on average southerners are less likely to binge-drink than others, but in Louisiana, Mississippi and South Carolina, when they do, they are liable to down a lot.

Another, paradoxical aspect of the evangelical creed may contribute. Like other forms of Protestantism, only more so, it promises salvation by faith alone. Sin, in this schema, is both inevitable and forgivable. Wayne Flynt, a historian and minister, adduces two biblical verses that are impressed on young southern Christians: "There is none righteous, no, not one", and "For all have sinned and fall short of the glory of God." Sinning and seeking forgiveness (so long as they are mainstream sins) is a recognised path to God and mark of faith. Falling short is not a bar to worship but an element of it. That philosophy, and its political advantages, were exemplified in Mr Bentley's comments. "As a human being," he said, "I do make mistakes." His consolation was that "the God who loves me, loves me even through the mistakes."

Practising what they preach?

Religion and teenage births in America by state



Sources: Pew Research Centre; CDC *Mothers aged 15-19

This outlook may help to account for the regularity of scandals in Godfearing places like Alabama, and many voters' willingness ultimately to overlook them. It may also be pertinent to a national enigma: the rise of Donald Trump. One reading of his strong showing among evangelical Christians—he swept all the states mentioned above—is that his supporters are only notionally religious: witness the decline in his ratings among evangelicals who go to church every week. Some may be plumping for a profane braggart because they think him strong enough to guarantee their liberty, like some latter-day Persian king. Or, for some, Mr Trump's yen to turn back the clock may by association imply a resurgence of Christianity, even if his own behaviour doesn't.

But the conviction that no one is perfect—no, not one—may also be a factor in his seemingly contradictory appeal. Think how well he might do among the righteous if he found it in his heart to repent. ■

Indiana's abortion bill

Running against Roe

CHICAGO

The governor has signed the most restrictive abortion law in the country

GAIL RIECKEN, a Democratic state representative in Indiana, is the grandmother of a five-year-old girl with Down's syndrome, a genetic disorder causing intellectual disability and delay in physical development. Ms Riecken's daughter learned about her child's condition when she was pregnant; she decided to carry her to term. Today she is ecstatic about her choice which, Ms Riecken points out, will affect the rest of her life.

Soon women in Indiana will not be able to make such a decision for themselves. On March 24th Governor Mike Pence, a Republican who made his name as pro-life activist in Congress, signed a bill into law that prohibits abortions on the grounds of a diagnosis of Down's syndrome or any other disability—as well as on grounds of race, skin colour, national origin, ancestry or the sex of the fetus. It mandates that an aborted fetus must be disposed of by burial or cremation. And it requires doctors to inform women about perinatal hospice care, a service for babies not expected to survive outside the womb. "It's a mean bill," fumes Ms Riecken. "All it does is punish the woman." The bill was criticised by the American Congress of Obstetricians and Gynaecologists, which represents around 58,000 health-care professionals, because it might encourage a woman to hide facts from her doctor.

The bill will become law in July. When it does, Indiana will have the most restrictive abortion legislation in the country. Seven states ban abortions based on a baby's sex. Arizona's ban extends to abortions based on race, and North Dakota passed a law in 2013 that prohibits abortions because of fetal abnormalities. "Indiana's law is much broader [than other state laws] and clearly runs against *Roe*," says Elizabeth Nash of the Guttmacher Institute, a think-tank that backs abortion choice. The Supreme Court's ruling in 1973 in *Roe v Wade* held that a presumed right to privacy protects a woman's right to decide whether to terminate her pregnancy, whatever her reasons may be.

Supporters of the bill openly admit that it is unconstitutional, according to Dawn Johnsen, who teaches law at Indiana University. They mostly want to prevent as many abortions as possible. Planned Parenthood of Indiana and Kentucky and the American Civil Liberties Union both say that they are working on a legal complaint. This will come not long after the Supreme Court started to deliberate in early March, in *Whole Woman's Health v Hellerstedt*, on how far states may go to make abortion difficult. The case concerns a new law in Texas which, its opponents say, makes access to abortions unduly burdensome. On March 30th Donald Trump added his two cents to the debate, declaring that any woman undergoing an abortion should receive "some form of punishment".

If the legal challenge to Indiana's new law falters, as similar challenges have done, it would still be legal to abort a fetus displaying no genetic abnormalities until the 20th week of a pregnancy in Indiana, but illegal to do so if the test for disabilities comes back positive. This is, to put it mildly, confusing. Yet, argues Charlie Camosy, who teaches ethics at Fordham University, ▸▸

Correction: Our piece on college endowments (March 26th) cited Kevin Weinman, Amherst's chief financial officer, as saying that his university's endowment provides more than $30m to the college budget. The figure he gave was $90m. We apologise for misquoting him.

a Jesuit foundation, this may be a choice women don't want to have. Up to 90% of fetuses with a diagnosis of Down's syndrome are aborted in America, says Mr Camosy. To avoid the dilemma, some pro-life expectant mothers refuse to undergo the test in spite of pressure from doctors and peers.

Yet who will help mothers forced to have a disabled child with the expense of extra care? According to Guttmacher, some 42% of the women in Indiana (and other states) who seek abortions fall below the federal poverty level. Mr Pence, a staunch fiscal conservative, is unlikely to lend them a helping hand. The governor seems to be counting on assistance from a higher power. "I sign this legislation with a prayer that God would continue to bless these precious children, mothers and families," he tweeted on the day he signed the bill. ■

The campaigns

Heard on the trail

Character witness
"I've had talks about being presidential, about toning it down a bit, appealing to a broader group of people."
Ben Carson is advising Donald Trump. Politico

Dad jokes
"Donald Trump has had several foreign wives. It turns out that there really are jobs Americans won't do."
Mitt Romney works on his stand-up routine

Childish things
"With all due respect, that's the argument of a five-year-old."
Anderson Cooper of CNN tries to give Donald Trump a time-out

Keep your enemies closer
"I've never had an event hosted by someone who three weeks earlier publicly called for my murder."
Ted Cruz is amused that Lindsey Graham, who enjoyed imagining him dead on the Senate floor, is campaigning for him. Mr Graham confessed that his party "has gone batshit crazy". Politico

A question for the ages
"Superman is better than Batman."
Bernie Sanders weighs in on last weekend's blockbuster movie, choosing the alien over the trust-fund brat. Los Angeles Times

Arms and the man
"With this irresponsible and hypocritical act of selecting a 'gun-free zone' for the convention, the RNC has placed its members, delegates, candidates and all US citizens in grave danger."
Over 50,000 people have signed an online petition demanding that delegates at the Republican convention in Cleveland should be allowed to carry guns

Atheists in foxholes
"NPR has sent its political reporters to 90-minute hostile-environment awareness training."
Reporters covering Mr Trump now go prepared. Washington Post

Someone's gotta do it
"Some reporters recently watched almost five hours of a certain candidate's remarks to count the number of times he said something that wasn't true…that was a significant sacrifice they made."
Barack Obama praises Politico reporters for their efforts

Hear me roar
"As one of the more than 65m…who voted to re-elect Barack Obama, I'd say my voice is being ignored."
Hillary Clinton slams Republicans for their refusal to vote on Merrick Garland, Mr Obama's Supreme Court nominee

Organised labour

Handed a victory

SAN DIEGO

A split court delivers a tenuous win for public employees

ON JANUARY 11th Rebecca Friedrichs, a California teacher challenging the way public-sector unions do business, bounded out of the Supreme Court wearing a big smile. Ms Friedrichs's lawyer, Michael Carvin, had just argued her case in front of nine justices, five of whom gave her complaint a warm reception. But whilst Mr Carvin and Ms Friedrichs were celebrating beside the fountain on the Supreme Court plaza, they had no inkling that one of the expected votes in their favour would disappear with Antonin Scalia's death in February, or that a court split down the middle would thwart their long-sought victory a month later.

It takes a majority of justices to overturn a lower-court ruling. So on March 29th, when the now eight-member Supreme Court released a terse, one-sentence decision in *Friedrichs v California Teachers Association*, it made all the difference that the ninth circuit court of appeals had turned back the challenge to the unions when it considered Ms Friedrichs's case last year. That decision, the justices wrote in an unsigned ruling, "is affirmed by an equally divided court". A near-certain blow to teachers, police and firemen's unions in about half the country was averted by a vote of 4-4.

Ms Friedrichs's target was a nearly four-decade precedent upholding state laws that allow unions to collect "fair-share" fees from public-sector employees who opt not to sign on as members. In *Abood v Detroit Board of Education*, decided in 1977, the court held that since non-members are represented by unions and profit from their efforts, fair-share or "agency" fees help preserve "labour peace" and prevent workers from free-riding on their dues-paying colleagues. Unions may not force non-members to pay for their overtly political activities (like campaigning for particular candidates), *Abood* said, but it is fine for states to conclude that the cost of bread-and-butter negotiations over salaries and benefits should be shared by everybody benefiting from those endeavours.

Ms Friedrichs and a handful of other teachers challenged this distinction. Discussions about worker compensation and policies like class size, they claimed, address core political issues. By forcing every teacher to write a cheque to the union each month, the plaintiffs contended, the agency-fee regime compels dissenters to support ideas they reject, violating their freedom of speech.

Four years ago Justice Samuel Alito called *Abood* "something of an anomaly", all but inviting a Supreme Court challenge, and the libertarian Centre for Individual Rights quickly obliged. At the oral argument in January, Justice Alito and his fellow conservatives made no secret of their willingness to abandon the agency-fee model. It was all over, or so it seemed, when Anthony Kennedy, often the swing justice, told one of the unions' supporters that the argument for fair-share fees "makes no sense".

A win for Ms Friedrichs and her disgruntled colleagues would have upended the rules for public-sector unions in California and 22 other states, threatening their funding and, possibly, their survival. But the 4-4 vote, the justices' second deadlock since the loss of Scalia, will preserve agency fees until the next promised lawsuit challenging them works its way to the Supreme Court. If the Senate eventually sees fit to hold confirmation hearings on Mr Scalia's successor—something that seems unlikely to happen before the next president is elected—the fate of organised labour will fall to the 113th justice. ■

Crazy Republicans

The biters bit

WASHINGTON, DC

On Donald Trump's latest obscenities

IT TAKES a lot to make a humdinger of a *National Enquirer* exposé look mundane; Donald Trump and his campaign manager, Corey Lewandowski, have just managed it. Mr Lewandowski, a former police officer known for his abusiveness and alleged habit of making drunken advances to female journalists in late-night phone calls, was on March 29th charged with battery against one, Michelle Fields. One of the lawyers hired to defend him, it was alleged, had himself been accused of biting a stripper. Asked to condemn his man, Mr Trump naturally went on the attack.

Ms Fields had accused Mr Lewandowski of grabbing her and barging her out of the way, as she was asking the Republican front-runner a question at a rally in Florida. Mr Lewandowski called her "delusional"; Breitbart News, the pro-Trump publication Ms Fields was working for at the time, seemed to side with him. Yet security-camera footage, released by the police, appeared to corroborate her claims. Unimpressed, Mr Trump suggested Ms Fields had been threatening him. "She had a pen in her hand which could have been a knife, it could just have been a pen, which is very dangerous."

It was unfortunate for the *Enquirer*, which had aired spicy allegations against Mr Trump's main rival, Ted Cruz, on March 23rd, only to see them cast into the shadows by the contretemps. The tabloid newspaper alleged that "Pervy Ted Cruz", as it termed the standard-bearer of holier-than-thou Christian conservatism, was a serial philanderer, with at least five mistresses. Mr Cruz, who denied the veracity of the story (without quite denying that he had been unfaithful to his wife), accused Mr Trump of having planted it; one of the five women the *Enquirer* depicted in blurry photographs did look awfully like one of Mr Trump's spokeswomen, Katrina Pierson. But Mr Trump had a grievance of his own. He accused Mr Cruz of being behind a group that had publicised a naked photograph of his wife, under the headline: "Meet Melania Trump. Your next First Lady". Mr Trump sought revenge by retweeting an unflattering picture of Mrs Cruz's wife, Heidi; whereupon Mr Cruz called him a "snivelling coward". Enough already—yet there will be a good deal more scandal and sleaze on the Republican trail. It has been the currency of Mr Trump's celebrity for three decades.

His supporters—who represent over 40% of the Republican electorate—are unfazed. A Gallup poll released on March 28th suggested they are the most devoted in either party; two-thirds are "extremely" or "very" enthusiastic about Mr Trump. Almost everyone else can't stand him; over 60% of voters have a negative view of the Republican front-runner. That makes it hard to imagine him winning the White House. It may also make it hard for him to secure the Republican nomination if he fails to win a majority of the party's primary delegates. Republican bosses, who would be influential in the horse-trading that would follow, appear increasingly resigned to losing a third consecutive presidential election. Given a choice, however, most would prefer a regular trouncing under the divisive Mr Cruz than the electoral annihilation Mr Trump threatens. ■

Campaign paraphernalia

What's in a badge?

JANESVILLE, WISCONSIN

A lucrative trade in very small objects

CONTACT with this year's presidential politics leaves many Americans hankering for a scrub with carbolic soap. But a hefty minority are relishing the contest so much that the traders who sell souvenirs outside campaign rallies are enjoying their best election in memory.

The most lucrative rallies are those hosted by Donald Trump, whose official campaign symbol is a red baseball cap bearing the slogan "Make America Great Again". But the most revealing sales are of something humbler: political badges, or buttons. These have been a staple of presidential races since 1896, when they were first mass-produced from metal and plastic-covered paper.

A Trump rally on March 29th in Janesville, Wisconsin, drew dozens of itinerant traders. Ron Hillyard, a factory worker from Buffalo, New York, was using his annual leave to sell badges to rally-goers for $5 each, or $10 for three. The most popular featured an unusually benign portrait of the candidate, in a red cap, captioned "Trump for President 2016". Runner-up was an image of Hillary Clinton behind bars and the caption: "Hillary for Prison 2016"—reflecting scepticism about the Democratic front-runner's e-mails. A badge reading: "Trump 2016—Finally Someone with Balls" was also going well.

Mine's "We Shall Overcomb"

Mr Hillyard has been selling election souvenirs since 2008, when Barack Obama stirred up large crowds. But nothing compares to the spending habits of Trump fans, he says: "It's not even close." Setting a personal record, Mr Hillyard sold $4,000-worth of hats, T-shirts and badges at a single rally in Michigan on March 4th (of which his boss, a wholesale dealer from Cleveland, Ohio, took three-quarters).

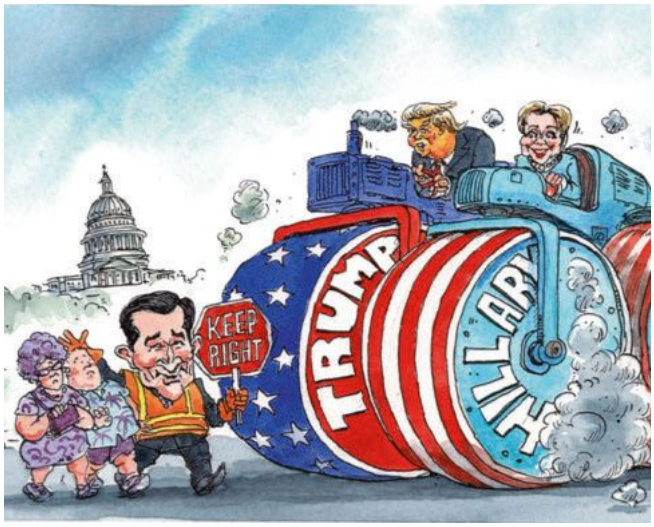
Popular badges are quickly copied. The largest stand outside the Janesville rally belonged to Mike Kriener, whose family has been in the fair-and-carnival business for over a century. He was the first, he says, to make one widely sold badge featuring Mr Trump's favoured counter-terrorism strategy: "Bomb the Shit Out of ISIS". And he credits his nephew with inventing a badge featuring the Republican elephant symbol sporting a Trump-style swoop of yellow hair. "Now everybody has them, but that's capitalism," he observed, philosophically.

On the left Bernie Sanders draws the largest crowds, who snap up badges bearing the motto "Feel The Bern", or imitation Andy Warhol portraits of their hero. Prices are lower at Sanders rallies, with two badges sold for $5, says Tim Engelskirchen, a veteran badge-maker and dealer whose home base is North Carolina. This is because Sanders supporters "have less money", he explains.

They are also fonder of whimsy: after a small bird landed on Mr Sanders's lectern at a rally in Portland, Oregon, delighting the crowd, his campaign rushed out stickers showing a cartoon bird with Sanders-style white hair and glasses, named "Birdie". These began as a gift for small donors: commercial knock-offs followed in hours.

Lexington | Ted Cruz, false hope

The unctuous Texan is squandering a great chance handed to him by Stop-Trump Republicans



THESE are ghastly times for thoughtful Republicans. If Donald Trump is their presidential nominee in November's general election, they increasingly fear that the businessman will lead them to a defeat of epic, Napoleon-in-Russia proportions, after laying waste to their support among women, suburbanites, non-whites and those dismayed by thuggish violence. A growing number have decided that the remaining candidate with the best chance of halting Mr Trump's march to the nomination is Senator Ted Cruz of Texas, who has duly picked up endorsements from such former rivals as Jeb Bush, the ex-governor of Florida, and, most recently, Governor Scott Walker of Wisconsin, whose state holds its presidential primary election on April 5th. But Mr Cruz is an unctuous ideologue whose entire pitch to date has been aimed at the most conservative third of the country, all but ensuring that—if he somehow became his party's candidate—he would lead them to a merely conventional sort of November defeat.

A remarkable chance has been given to Mr Cruz by colleagues who never imagined they would need him so badly. Handed the battle-flag of the Stop Trump movement, he could attempt to rally Republicans of all stripes behind it. Without betraying his own principles, Mr Cruz could unite conservatives against Mr Trump by pointing out that the tycoon's promises are impossible to honour, and amount to a cruel trick played on the most unhappy or frightened voters. Mr Trump says he can bully multinational companies to send jobs home. He pretends that illegal immigration can be ended with a border wall and mass deportations. Mr Trump claims that the obstacles to defeating Islamic terrorism are political correctness and squeamishness, proposing to keep America safe with a Muslim entry ban and torture for terrorists.

In living memory, Mr Cruz has rejected such bad ideas as mass deportations, noting in January that America is not "a police state". He used to be a devoted free-trader. Alas, judging by his rhetoric on the election trail in Wisconsin this week, the Texan is choosing to stick to a narrower path. Trumpeting his second place in the three-man race for the Republican nomination, Mr Cruz calls himself the man to stop Mr Trump. But instead of denouncing Mr Trump's false promises, the senator has moved to borrow them for himself. Like a snake-oil salesman stealing a rival's label and slapping it on his own patent remedy, Mr Cruz now addresses himself to workers "with calluses on your hands" and vows to bring "millions upon millions" of highly paid jobs back from Mexico and China. He promises to spark an economic boom so rapid that young school-leavers will find themselves with "two, three, four, five job offers". Listen carefully though, and the Cruz plan to unleash this miracle is the same that he has always offered: deep tax cuts skewed towards the rich, looser environmental rules and business regulations, the repeal of the Obamacare health law (to be replaced for low-income Americans with cheap but skimpy insurance). His stance on immigration has hardened: he now attacks legal immigration as a job-killer, too.

Addressing a crowd outside a suburban restaurant in Altoona, Mr Cruz rewrote the history of the Reagan era to omit all mention of its spiralling deficits, instead claiming that tax cuts and deregulation triggered an economic boom in the 1980s, funding a military build-up that led to Soviet defeat in the cold war. Mr Cruz promised to pull off a modern-day version of that Reagan miracle with a flat tax and by taking the "boot of the federal government off the neck of small business". This, he says, would generate "trillions" of dollars in new revenues to fund the military firepower to defeat Islamic extremists. Worries about police states behind him, Mr Cruz now talks of patrolling Muslim neighbourhoods.

Campaigning in Wisconsin, Mr Cruz's principal charge against Mr Trump is to cast the Republican front-runner as a phoney conservative who has donated to Hillary Clinton and other Democrats in the past, and to cast himself as a unifier. The audiences at Cruz events are not as united as they look, however. For one thing, nobody at the campaign stop in Altoona, or at a later rally in the smoke-stack town of Rothschild, bought the charge that Mr Trump—a man promising to torture terrorists and deport Mexicans—is a secret liberal. "I don't think [Mr Trump] is a true conservative, but I think he will defend our country," explained Carolyn Carlson in Altoona, summing up her presidential preferences as "Cruz first, Trump if necessary". Most importantly, many Republicans explained that they had come to Mr Cruz only lately, after their favoured candidates had dropped out. They now long for the Texan to woo them. Lisa Nelson, a lobbyist, initially supported her local governor, Mr Walker, and the businesswoman Carly Fiorina. Now, she said, she wants to hear Mr Cruz become "less scary on social issues". The Texan seems uninterested: his stump speech ends with a tribute to "Judaeo-Christian values".

Gambling on Cleveland

A few in Altoona and in Rothschild praised the third-placed Republican contender, Governor John Kasich of Ohio, who is running as a voice of common-sense moderation, but sadly noted that he trails far behind. A striking number of voters at Cruz rallies in Wisconsin sound anxious and unhappy. "I honestly think that Trump might be more electable," worried Pete Heineck, a factory worker from Wausau, speaking for many.

Some Republican grandees might languidly reply that angst among Cruz voters does not much matter—they are not endorsing the Texan because they want him to win. They just need him to deny Mr Trump the 1,237 delegates he must have to win the nomination outright, triggering a contested Republican National Convention in Cleveland at which party bosses dream of imposing a more palatable replacement. That is a big gamble. General-election voters currently see a Republican contest dominated by two men competing to offer the harshest, most divisive rhetoric. Mr Trump is a disgrace, but Mr Cruz is not the solution. ■

Also in this section

Following the Mugabe model

Spot the difference

CARACAS

Venezuela today looks like Zimbabwe 15 years ago

VISITING a supermarket in Venezuela is like entering Monty Python's cheeseshop sketch. "Do you have any milk?" The shop assistant shakes her head. Sugar? No. Coffee? No. Soap? No. Cornflour? No. Cooking oil? No. Do you in fact have any of the products that the government deems so essential that it fixes their prices at less than what it costs to make them? No.

This is hard cheese for the masses queuing outside in the hope that a truck carrying something, anything, will arrive. Yesenia, a middle-aged lady from a village near Caracas, got up at midnight, rode a bus to the capital, started queuing at 3am and is still there at 10am. "It's bad, standing here in the sun. I've had no breakfast, and no water." Why does she think there are such severe shortages? "Bad administration."

That is putting it mildly. The Venezuelan government spends like Father Christmas after too much eggnog, subsidising everything from rural homes to rice. It cannot pay its bills, especially since the oil price collapsed, so it prints money.

Cash machines in Caracas spit out crisp new bills with consecutive serial numbers. The last time your correspondent saw such a thing was in Zimbabwe in the early 2000s. The IMF predicts that inflation will be 720% in Venezuela this year, a figure Zimbabwe hit in 2006. By 2008 Zimbabwe was racked by hyperinflation so crippling that beggars who were offered billion-Zimbabwe-dollar bills would frown and reject them (see chart, next page).

Might Venezuela go the way of Zimbabwe? They are culturally very different, but the political parallels are ominous. Both countries have suffered under charismatic revolutionary leaders. Robert Mugabe has ruled Zimbabwe since 1980. Hugo Chávez ran Venezuela from 1998 until his death in 2013. His handpicked successor, Nicolás Maduro, continues his policies, though with none of Chávez's—or Mr Mugabe's—political adroitness.

Mr Mugabe seized big commercial farms without compensation, wrecking Zimbabwe's largest industry. Chávez expropriated businesses on a whim, sometimes on live television. He sacked 20,000 workers from the state oil firm, PDVSA, and replaced them with 100,000 often incompetent loyalists, some of whom were set to work stitching revolutionary T-shirts.

Mr Mugabe lost a referendum in 2000 but rigged the subsequent election to keep the (more popular) opposition out of power. The *chavistas* lost a parliamentary election in December but have used their control of the presidency and supreme court to neuter the (more popular) opposition.

Mr Mugabe recruited a ragtag militia of "war veterans" to intimidate his opponents. Chávez recruited gangs from the slums, known as *colectivos*, to terrorise his. On March 5th gangsters on motorbikes rode around the (opposition-controlled) National Assembly and sprayed pro-government slogans such as "*Chávez vive*" on its walls. Police stood and watched.

Yet the key similarity between the two regimes is not their thuggishness but their economic ineptitude. Both believe that market forces can be bossed around like soldiers on parade. In both cases, the results are similar: shortages, inflation and tumbling living standards.

Mr Mugabe, who like the *chavistas* professes great concern for the poor, fixed the prices of several staple goods in the early 2000s to make them "affordable". They promptly vanished from the shelves. The subsidies that are supposed to make price controls work have often been stolen in both countries. Suppliers, rather than giving goods away at the official price, prefer to sell them on the black market.

Retail riot police

Ana, a young hawker in Caracas, explains how it works. She holds a bag of washing powder that is supposed to be sold for 32 bolívares. She bought it for 400 and will sell it for 600. Her business is illegal, but she conducts it openly in a crowded square. Nearby, hawkers from the countryside haggle over illicit nappies. The bus ride to Caracas was 13 hours; the hawkers say they come every two weeks.

Outside a state-owned supermarket, a dozen national guardsmen equipped with body armour, truncheons and tear-gas are stopping a pregnant woman from coming in. It's not one of her designated days of the week for shopping, they explain. (You get two.) Shoppers must show their identity cards to enter the store and have their fingerprints scanned before buying their ration of price-controlled goods.

Yet such measures are no match for the law of supply and demand. Suppose you are driving a tanker of subsidised petrol. You can sell the cargo legally in Venezuela ▸▸

for $100, or drive across the border to Colombia and sell it for $20,000. The pitifully paid border police will be easy to square.

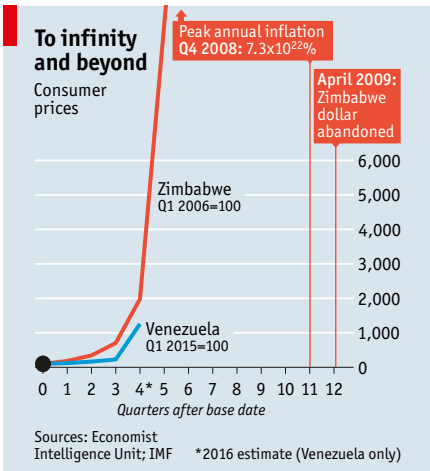
Wily entrepreneurs find ways around price controls without violating the letter of the law. When bread was price-controlled in Zimbabwe, bakers added dried fruit and called it "raisin bread", which was not price-controlled. Venezuelan firms have added garlic to rice, called it "garlic rice" and sold it at unregulated prices.

Ridiculous laws breed bitter comedy. A Venezuelan company boss recalls a time when he could not buy toilet paper. He rang up a friend who ran a paper company. The friend said he couldn't sell him a single pack, but he could sell him a small truckload, company to company. It cost less than the single pack he had initially asked for.

Mr Mugabe has long blamed his country's economic woes on speculators, traitors, imperialists and homosexuals. Mr Maduro, to his credit, doesn't blame gay people. But he insists that local capitalists and their American allies are waging an "economic war" on Venezuela. This is absurd: in both economies the assaults have come from their own governments.

By the most overvalued official exchange rate, ten bolívares are worth one American dollar. On the black market, the same dollar fetches 1,150 bolívares. Zimbabwe abandoned its worthless currency not long after monthly inflation hit 80 billion per cent in November 2008. Zimbabweans now use American dollars and other foreign currencies. Real incomes in Zimbabwe fell by two-thirds between 1980, when Mr Mugabe took over, and 2008. They have partially recovered, thanks to dollarisation and the scrapping of some of the old man's daftest policies.

For Venezuela, the lesson is plain. If it fails to pick a better model than Mugabenomics, things will only get worse. The Venezuelan opposition are keen to change course. Mr Maduro's cluelessness gives them a chance. He says that he is tackling shortages by raising his own chickens—and so should everyone else. ■



Canadian property

Steeples for sale

VANCOUVER

Churches sell up, without completely selling out

WHEN Kurt Marx founded a Lutheran church in 1953 in Vancouver, he moonlighted as a carpenter to earn the salary that his tiny congregation of German immigrants could not pay. By the late 1960s Oakridge Lutheran Church ministered to hundreds with services in German. Today the worshippers are fewer, older and praying in Mandarin. But the property the church occupies is now worth a fortune. A dilapidated bungalow a few blocks away is on the market for C$2.7m ($2m). So Oakridge Lutheran is cashing in. It has asked city hall for permission to tear the church down and replace it with shops, housing and a smaller house of worship. It hopes to start construction this year.

Sales of church property happen in many places, but business is especially brisk in Canada's western metropolis. There are two main reasons: a surge in property prices, which exceeds that in almost every other Canadian city, and an influx of Asian immigrants, who bring their own religious traditions. West-coast hedonism may be a third factor, suggests David Ley, a geographer at the University of British Columbia. Pews in churches with European roots are emptying faster than those in other parts of Canada. They are the principal sellers. All this makes Vancouver's sacred-property market "unique", says Leonardo Di Francesco of Churchrealtors.com, which has sold more than 100 houses of worship over the past two decades.

Often the buyers are burgeoning Asian communities, in part because it is hard to get permission to rezone church property for secular use. Terrorised by drug addicts, the nuns of the Gold Buddha Monastery in Vancouver's seedy Downtown Eastside district sought safer quarters. Mr Di Francesco's firm found them in a Salvation Army unit, whose hostel for jobless men had emptied out and whose programmes for disadvantaged youth attracted fewer participants. Now the main hall at the Salvation Army's former premises is adorned with 10,000 golden Buddhas. The basement bowling alley provides storage for prayer books and ritual drums. This year, a Hindu community in eastern Vancouver sold its temple for nearly C$2m to a growing Chinese Christian congregation; the Hindus wanted even bigger premises.

Whether selling to sacred or secular buyers, churches try not to be greedy. They feel obliged to help their communities, for example by alleviating the shortage of "affordable" housing created by Vancouver's property boom, says Robert Brown of Catalyst Community Developments, a non-profit property developer. The rental housing planned by Oakridge Lutheran, to be built by Mr Brown's company, is to be modestly priced.

For First Baptist Church in downtown Vancouver, the plunge into the market is prompted not by decline but by growth. It plans to invest proceeds from redeveloping land behind its Gothic-style church in expanding its own facilities and building a block of low-rent housing. That will be dwarfed by a 56-storey tower with 300 condominiums. The site will not lose its spiritual aura: the proposed skyscraper is designed to look like a set of organ pipes. ■

Colombia's wars

The second front

BOGOTÁ

The ELN agree to talk peace

THE failure of the government and the FARC guerrillas to meet a self-imposed deadline of March 23rd to sign a final peace accord was greeted by Colombians with a mixture of cynicism and disappointment. A week later came better news: after more than two years of fitful exploratory talks, the second rebel group, the ELN, is to start formal peace negotiations. That holds out the hope that this year will, at last, bring an end to political violence in Colombia.

Officials did not want demands by the ELN, with some 1,500 fighters, to complicate talks with the FARC, which has five times more. But there was a risk that, if still in the field, the ELN could have recruited recalcitrant members of the FARC and disrupted the crucial early months of peace. To make themselves felt, in recent months the ELN staged attacks on security forces and oil pipelines, and kidnapped and

killed civilians. Last month it freed two hostages, which President Juan Manuel Santos had set as a condition for starting formal talks.

Though both the FARC and the ELN purport to be Marxist insurgencies, they are very different. The FARC began as a peasant movement bent on seizing power. The ELN, with roots in the Cuban revolution and liberation theology, sees itself as part of a grassroots "resistance" movement. While the FARC is a disciplined, Stalinist force, the ELN is made up of seven autonomous "fronts". That is reflected in the structure of negotiations: while talks with the FARC take place in Havana, those with the ELN may flit between five countries. Their agenda is a study in vagueness, featuring "democracy for peace" and "transformations for peace".

While talks with the FARC have dragged on for three and a half years, those with the ELN could in theory be brief. Mr Santos made it clear that both groups will have to accept the special tribunal for war crimes agreed with the FARC. The same will go for the mechanisms for handing over weapons and demobilising, which should be agreed with the FARC in the next few months. The ELN may want to make political demands of its own, which risk slowing things down. They face pressure to declare a unilateral ceasefire before the talks begin. While the FARC makes its money mainly from drugs and illegal mining, the ELN gets most of its cash from kidnapping and extortion. That will have to stop, too.

The search for peace has dominated Mr Santos's presidency. The protracted nature of the talks, and the concessions made to the guerrillas (they will escape jail if they confess to crimes), have taken their toll on the president's popularity. But if he succeeds in ending the conflicts once and for all, many Colombians will thank him. ■

Bello | The difficulty of dealing with Trumpery

Mexico needs to stand up for itself in the United States

THE verbal abuse has lasted more than nine months now. Last June in Las Vegas, Donald Trump launched his campaign for the American presidency by accusing Mexico of sending drugs and "rapists" across the border. His pledge on that occasion to build "a Great Wall" and to have Mexico pay for it has become a fixture at his rallies. Declaring that "Mexico is killing us on trade", he would impose tariffs of 35% and stop some American companies building factories there. Oh yes, and he would deport 11m undocumented migrants, half of them Mexicans.

Issues that involve Mexico, such as trade, migration and drugs, have often featured in American elections, but never in such a vitriolic and unfounded way, says Andrés Rozental, a former deputy foreign minister. As Mr Trump's progress towards the White House has gathered pace, so has alarm and anger south of the Rio Grande. At Easter Mexicans gathered for the traditional burning of papier-mâché models of Judas Iscariot. This year Judas assumed the image of Mr Trump.

President Enrique Peña Nieto initially took the view that it was better to ignore the billionaire property developer than to dignify him with a response. After all, he is not yet the nominee. Criticism from the Republican Party establishment has merely acted as a growth hormone for Mr Trump. And Ted Cruz, too, has supported building the border "wall".

Other Mexicans think their country has no choice but to hit back. In February Vicente Fox, a former president, responded in Mr Trump's own lingo: "I'm not going to pay for that fucking wall," he told an American television station. Felipe Calderón, Mr Peña's predecessor, said the same, more politely. Thus prodded, the government opened its mouth. In an interview in March with a Mexican newspaper, Mr Peña declared that Mr Trump was damaging relations between the two countries and compared his "strident rhetoric" to that of Hitler and Mussolini.

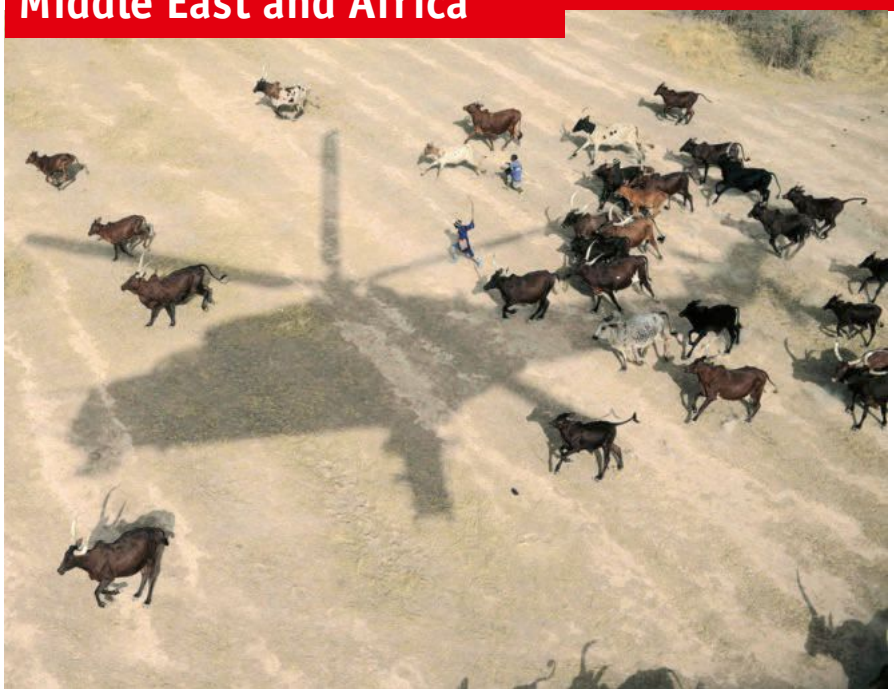
Mr Peña's critics complain that such extemporaneous remarks, delivered for domestic reasons, do not add up to a coherent policy response to a serious international threat to Mexico's interests. Under the North American Free-Trade Agreement, the two countries' economies have since 1994 become ever more closely integrated. Some see in the government's reluctance to speak out a throwback: when it ruled a one-party state until 2000, Mr Peña's Institutional Revolutionary Party had a horror of involvement in the internal politics of other countries, for fear they would poke their noses into Mexican affairs. Others compare the government's reticence to Mr Peña's failure to react effectively to the murder of 43 student-teachers in 2014.

The government has stepped up efforts by its 50 consulates in the United States to encourage up to 5m Mexicans who are legally resident to take out American citizenship and vote—implicitly against Mr Trump. But many foreign-policy wonks believe it should be doing more to debunk Mr Trump's nonsense.

It is not hard to do so. Even as immigration soared in the 1990s, crime rates in the United States began to tumble. The vast majority of the 11m Mexicans there are "hard workers, risk-takers and savers", as a diplomat puts it. The border has never been more secure; net migration from Mexico is now negative, taking into account 100,000 deportations last year (which the Obama administration carried out with Mexico's co-operation). American demand for drugs is literally killing Mexicans, with 60,000 dead in the country's drug war. When Mr Trump points to Mexico's $58 billion trade surplus, he fails to note that every dollar of goods it sends across the border contains 40 cents of Made in America content.

What is missing is an effective messenger. Arturo Sarukhan, a former Mexican ambassador to the United States, says that his country needs both an equivalent of the Anti-Defamation League, which combats anti-Semitism, and AIPAC, America's pro-Israel lobby. Unlike Mexico, Israel can count on enthusiastic backing from Republican politicians, largely because evangelical voters are passionate supporters of the country. Mexican-Americans do not benefit from such Bible-based support; they will have to lobby on behalf of their country of origin themselves.

Mr Sarukhan worries that this campaign will damage the cross-border relationship, and while not destroying it altogether could "rewind it 20 years". Mr Rozental thinks the relationship is less vulnerable. The underlying reality is of more trust and co-operation than ever before, he says. If Mr Trump becomes president, he might just come to realise that in the 21st century his country and Mexico will either fail or succeed together.



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Insecurity in Nigeria

Fighting on all fronts

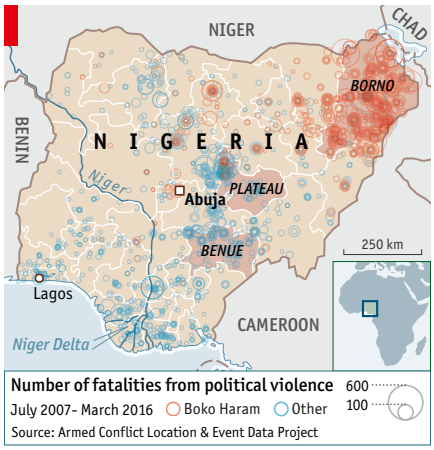
JOS

Bad governance has bred uprisings from Boko Haram to Biafra

THE prayers of Gyang Dahoro take on a decidedly political note. A dozen local chiefs, resplendent in traditional Nigerian dress, nod approvingly as he calls for protection from the "terrorists" who have "made us refugees in our own land". The worshippers are Christians of the Berom tribe, farmers of north-central Nigeria, who have spent 15 years fighting Fulani herdsmen. Homes abandoned in the battle lie strewn across the rocky highlands from which their state, Plateau, derives its name.

Across Nigeria's "middle belt", indigenous tribes like theirs spar with "settlers" who are moving south as the Sahel encroaches on their pastures. Up to 300 people were reported dead after an attack by herdsmen in Benue state in February. The Institute for Economics and Peace, an Australian think-tank, reckons that Fulani militants killed 1,229 people in 2014, compared with 63 the year before. Berom leaders say their attackers are foreign-sponsored jihadists, though there is little evidence to support this, and the fight is not one-sided. Fulani chiefs living deep inside the Plateau claim that they are provoked by farmers who steal their herds—a serious crime in a culture where wealth is measured in livestock. And modern-day bandit groups often cut across tribal lines.

Muhammadu Buhari, Nigeria's president and a former military dictator, takes security seriously. Yet this conflict in the middle belt, a loosely defined region that cuts across central Nigeria, has passed largely unnoticed in the shadow of Boko Haram, a far more murderous, and undoubtedly jihadist, insurgent group. Mr Buhari was elected president last year at least in part on the promise that he would restore security to the north-east, large swathes of which had fallen to Boko Haram. His government has had some success in pushing back the jihadists, but it has not managed to quell the flames. Villages are frequently raided or bombed. More than 840 people have lost their lives in Boko Haram's heartlands since January.



A third uprising also threatens Nigeria, this one in the oil-rich Niger Delta. This part of the country was once paralysed by an armed insurgency, which began when locals protested that little of the wealth generated from the oil extracted on their lands made its way into their communities. In the early 2000s oil production in the Delta fell by half, as militants blew up pipelines and kidnapped oil workers. Many also grew rich by stealing oil. The battle only ended in 2009 when the government offered an amnesty and militants were paid to protect the pipes they used to blow up.

Mr Buhari has now cancelled those contracts, and in January an arrest warrant was issued for a Delta kingpin known as Tompolo, who is charged with laundering $170m. A spate of attacks followed. The worst, an explosion at an underwater Shell pipeline, forced the company to close its 250,000 barrel-per-day Forcados export terminal. Oil-industry executives point out that the attack was well-planned: it used military explosives and hit a part of the pipe that is hard to repair.

Critics accuse Mr Buhari of failing to grasp the mafia-like workings of the Delta, and gloomily predict that deeper trouble lies ahead if militants decide to combine forces with independence protesters in the neighbouring region, formerly known as Biafra. The young people of Nigeria's south have been growing increasingly fractious since a secessionist leader, Nnamdi Kanu, was arrested last year. These discontented people have little in common with criminals in the Delta, but alarm bells started ringing in January when a ship was hijacked by militants who demanded Mr Kanu's release. ▸▸

Diverse as they are, these agitations share some features. An overarching problem is that Nigeria is split between a mostly Muslim north and a predominantly Christian south, with its 180m people belonging to 250 ethnic groups and speaking more than 500 languages. So differences often manifest along religious or tribal lines. Boko Haram's insurgents target Muslims as well as Christians, but are mostly ethnic Kanuri. The campaigners who want to restore independent Biafra are mostly Igbos who believe they have been marginalised by Mr Buhari. Politicians have often fanned the flames by financing thugs or favouring one group over another.

Poverty and population growth exacerbate these tensions. As many as 10m children are out of school and half of all young adults are un- or under-employed. Many of Boko Haram's fighters joined because they were hungry rather than dedicated jihadists. As the oil-dependent economy slows, the number of unemployed and underemployed Nigerians is rising.

Economics plays a part in the other conflicts, too. In central Nigeria, houses have been built across routes used by herdsmen. With no dedicated grazing grounds, herdsmen cut fences and drive their cattle through the crops. In most countries, such disputes would be resolved by the state; but in Nigeria it has been hollowed out by years of corruption. Thousands of policemen are allocated to guarding bigwigs and businessmen. Nigeria's 80,000-strong army is spread thin, so many rural regions exist almost beyond state control. Vigilantes with ancient hunting rifles attempt to assert some kind of order, but their very existence simply emphasises the limitations of the government.

There are some hopeful signs. The army is better organised since Mr Buhari's election. He has clamped down on the corruption that had diverted funds from the armed forces (the former chief of national security is under arrest, accused of bogus arms deals totalling $2.3 billion). A joint civilian-military operation in Plateau has been praised for recovering stolen cattle, mediating between sparring communities and preaching peace in schools.

The government says it will re-establish grazing pathways for nomadic herdsmen, and it is offering amnesty payments in the Delta. Safe conduct home may also be offered to fighters who joined Boko Haram for want of a job and are having second thoughts. Yet the only way to counter the forces that threaten to pull Nigeria apart is to help people out of poverty. Mr Buhari has made a start by raising spending on education. But he also needs to turn his mind to boosting economic growth, which has ground to a pace slower than population growth. Without greater opportunities, the frustrations of the young and uneducated will only worsen. ■

East Africa's used-clothes trade

Let them weave their own

NAIROBI

The government takes aim at well-meaning foreigners

GIKOMBA market, just north of Nairobi's downtown, is a place to buy just about anything. At its entrance, where ragged minibuses splash their way through rutted red mud, stalls sell piles of pillows, plastic toys, cutlery and soap. But the most common wares are second-hand clothes. Piles of old T-shirts and jeans; winter jackets, incongruous in the equatorial heat; dresses and leather shoes; all are watched carefully by stallholders. This market is the biggest wholesale centre of the *mitumba*, or used-clothing, trade in east Africa. The raiments worn by the bulk of Nairobi's population are sourced here.

Yet if the governments of the East African Community, the regional trade bloc which comprises Kenya, Tanzania, Uganda, Rwanda and Burundi, get their way, all will change. By 2019 the EAC wants to outlaw imports of second-hand clothes. The idea is that ending the trade in old clothes—mostly donated by their former owners in rich countries—will help boost local manufacturing. On March 10th Uhuru Kenyatta, Kenya's president, met market traders upset by the idea, and defended the need for "Kenyan manufactured apparel". But the ban seems sure to fail.

Mitumba trading is a big employer for Kenyans, most of whom work in the informal labour market. By one estimate, there are 65,000 traders in Gikomba alone. Imports have increased massively over the past two decades. In 2015, according to UN data, Kenya imported about 18,000 tonnes of clothing from Britain alone. Wholesalers buy bundles for anything up to 10,000 shillings (about $100), and sort the contents by type and quality. Retail traders then come and source stock for their own stalls elsewhere in the city, to be sold on to ordinary Kenyans.

Few traders are happy with the idea of a ban. "Just let them dare," says Elizabeth in front of her stall in a dark corner of Gikomba, piled high with women's dresses, on being informed of the proposal. "How could they! We will remove our clothes, we will demonstrate in the streets, we will take our children." Selling clothes is a relatively lucrative activity. A trader can make 1,000 shillings in profit a day in a part of Nairobi where many people get by on a tenth of that. And it is skilled work: traders have to put their own capital at risk, assessing how likely each item is to sell.

Mr Kenyatta argues that new, better, jobs will be created in the textile industry to make up for these losses. That is not implausible, reckons Andrew Brooks, an academic at King's College London who has studied the used-clothes trade. Kenya had a textiles industry in the 1960s and 1970s; South Africa has a ban, and a substantial textile industry. But to work, it would rely on east Africa's borders being effectively sealed. A more likely outcome is that cheap clothes would simply be smuggled in, and the government would lose the 35% tariff levied on their import.

Many traders think that the proposal is bluster. At Toi market, a warren of shops at the edge of Kibera, Nairobi's biggest slum, where many of the clothes sold at Gikomba go next, Simon Kimondho runs a stall selling smart slacks and jeans. "Nothing will happen, they are just not able," he says. Another trader, Julius Batu, opposite him disagrees. The ban will come in, he says, but he is not worried. "We can just go to China and get new clothes." ■

Recycling at work

Sierra Leone's sea cucumbers

Silver in the deep

BANANA ISLAND

But locals lose out

THE sea cucumber—a warty, sausage-shaped creature that feeds on the ocean floor—can sell for half its weight in silver in the markets of Guangzhou in southern China. This fleshy sea-slug is prized as a delicacy, a traditional medicine reputedly capable of curing joint pain and fatigue, and a natural aphrodisiac. As overexploitation has depleted stocks throughout Asia, merchants have sought the creature further afield. Six years ago, two Chinese traders discovered that the waters around Sierra Leone's Banana Island were teeming with sea cucumbers; islanders have been diving for them ever since.

The leathery echinoderms only emerge from their hiding-places in the dark. So when night falls, Emmanuel Pratt slides out to sea in his brightly-painted canoe. Wearing a wetsuit and flippers, he takes a last drag of his cigarette before pulling a mask down over his face, and slipping into the dark water. Moments later the beam of his waterproof torch appears a dozen feet down as he searches for his new livelihood.

When the Chinese traders, known to the islanders only as Mr Cham and Mr Lee, first turned up, locals say they promised to use some of the profits from the sea-cucumber trade to boost the islanders' quality of life. A motorboat, a community centre, solar panels and water pumps were promised in exchange for being allowed to operate there. Six years on, a group of young men sit on empty petrol cans in the rundown village of Dublin, passing a spliff around in the pitch dark. "They delivered nothing," says another diver. "The traders made a lot of money and we didn't get any of it."

Similar words have echoed throughout Sierra Leonean history. For centuries foreigners have come to buy its resources—gold, diamonds, bauxite—but the country remains one of the world's poorest, with a GDP per head of less than $800 a year. Yet despite the old complaint, most of the island's young men are grateful that the Chinese came. They still get paid about $1 per cucumber.

"I did not have any work before, I had no plans, but now I have a trade. I built my house with the sea-cucumber money," says Mr Pratt. He proudly gestures to his cement house. Painted lime green, it stands out against the other ramshackle clapboard structures. Imagine how much more could be built if the islanders got a grip on their own resources.

Islamic State

Jihadists on the run

MAKHMOUR

Palmyra is retaken as the caliphate is pushed back in Iraq and Syria

LESS than a year after Islamic State (IS) burst onto the scene in June 2014, capturing Mosul and racing towards Baghdad, the jihadists stumbled. In early 2015 IS was pushed out of Kobane, in Syria, and Tikrit, in Iraq. But then its diehard fighters seized Ramadi and Palmyra, as Iraqi and Syrian troops fled.

Predicting the demise of IS is fraught with difficulty. But its opponents in Iraq and Syria now sound increasingly upbeat. Western and Russian bombers have pummelled the jihadists from the air, as local fighters push them back on the ground. Though its motto is to "remain and expand", IS now seems unable to do either in the region. The "caliphate" is thought to have lost 20% of its territory in Syria and 40% in Iraq since its peak.

In fact, IS has not scored a big victory in its heartland since taking Palmyra, the site of Roman-era ruins, in May 2015. The jihadists made a show of destroying the temples of Bel and Baal Shamin, and the iconic Arch of Triumph—acts described as a war crime by the UN. But after weeks of fierce fighting, and with the aid of Russian air strikes, the Syrian army recaptured the city on March 27th. The ancient parts remain largely intact, including the amphitheatre (pictured above) where IS beheaded the city's chief archaeologist last year.

The taking of Palmyra allows Bashar al-Assad, Syria's embattled president, and Russia, his backer, to argue more convincingly that they are fighting jihadists, and not only mainstream Sunni rebels. The city was an important stop on an IS supply line running all the way to Anbar province in Iraq. Mr Assad now has a bigger buffer to his east, from where he is likely to launch more strikes on IS in Raqqa, its "capital", and Deir ez-Zor.

The jihadists, meanwhile, have retreated to the east, towards Iraq—but IS is faring no better there. Ramadi was retaken in December by the Iraqi army, local police and Sunni tribal fighters, backed by American air strikes. More recently, Yazidi and tribal fighters captured an area in the Sinjar region, on the border with Syria, and Syrian Kurds have pushed down to take the town of Shaddadeh. The main route between Mosul and Raqqa has been severed.

Mosul, Iraq's second city, remains the big prize. An ungainly alliance of Kurdish *peshmerga*, Shia and Sunni militias, and soldiers from the Iraqi army are slowly encircling the city. Inside, resistance is said to be mounting. Western officials and the Iraqi government say the offensive has begun. But a big push into the city may not come until much later this year, or next. It will involve intense urban combat, for which few Iraqi soldiers are trained. The army's moves into villages around the city have been slow and messy.

America, which is training the army, is set to increase its own troop numbers in Iraq. In March it killed Haji Iman, IS's second-in-command, and Abu Omar al-Shishani, its minister of war, among other ▸▸

jihadist leaders. "We are systematically eliminating ISIL's cabinet," says Ashton Carter, America's secretary of defence, using another term for the group. An American intelligence report from February estimated that the number of IS fighters in Iraq and Syria had fallen by some 20%, because of deaths and desertions. (More than 400 jihadists are thought to have been killed in the battle for Palmyra alone.)

The loss of territory has also affected IS's finances. It has become harder for the group to export its oil since losing control of key crossing points on Syria's northern border with Turkey. For months Western and Russian air strikes have targeted the jihadists' oilfields, processing plants and stockpiles of cash. Wages have fallen, and tension has risen between local fighters and foreign ones, who are paid more. Recruits are being redirected to Libya, site of another civil war and a burgeoning hub for jihadists.

The retreat of IS has allowed the Kurds to carve out statelets in Iraq and Syria, and Mr Assad to strengthen his hand. If the jihadists are defeated, the difficulty will be to figure out who among its myriad opponents, split along ethnic and sectarian lines, gets to rule liberated areas. Talks to end the five-year-old Syrian war, which has killed at least 250,000 people, are scheduled to resume later this month in Geneva. The future of Mr Assad remains a sticking point. But a ceasefire between his regime and the rebels has allowed more guns to be aimed at IS, which is excluded from a truce that has lasted a month.

Even as it loses ground at home, IS is lashing out abroad—in a desperate attempt to maintain legitimacy, say some. The reason its suicide bombers struck Belgium on March 22nd, killing 32 people, "is that its fantasy of a caliphate is collapsing before their eyes," says John Kerry, America's secretary of state. But the attacks also suggest that control of a state may not be necessary for IS to sow terror. Even if defeated in its heartland, the group seems likely to endure elsewhere. ■

Baghdad's restaurant scene

Signs of happier times

BAGHDAD

Just the place for a night out

IT IS not easy being the only restaurant critic in Baghdad. "Before when I wrote, I would say when something is bad," says Anas al-Sarraf, the entrepreneurial founder of the online Baghdad Restaurant Guide. "But I stopped six months ago because I got a lot of threats. Someone who is spending $2m to open a restaurant can spend $5,000 to order a hit on me."

Mr Sarraf says he has reviewed more than 600 restaurants since starting his hugely popular Arabic-language Facebook page in 2012. These days, he is careful to give less opinionated reviews of new restaurants; he instead invites diners themselves to provide the more candid comments. Other obstacles face the intrepid reviewer. At a restaurant in Baghdad's Sadr City, he once found himself surrounded by security people and had to convince them he was taking photos for a review, not to plan an attack.

Right this way, your table's waiting

Mr Sarraf estimates that a new restaurant—anything from a small café to a multi-level culinary palace—opens in Baghdad every three days. Despite Iraq's current financial crisis, he says, profit margins are around 50%: few of them fail. "Restaurants have become the only way for families to get out and breathe. There's nothing else to do in Baghdad," says Salam Mejbel al-Mohammad, co-owner of a newly-opened restaurant called Scusi in Baghdad's posh Jadriyah neighbourhood. Mr Mohammad says he and his partners have spent $2m on the latest restaurant—their third in Baghdad. A big part of the cost of a new restaurant is land, now selling for $6,000 a square metre in ritzier neighbourhoods, or rent, which can be more than $250,000 a year.

Amid a glut of new eateries, snazzier spots are using attractions other than just the food to draw in diners. Scusi's three floors are filled with Iraqi art, all of it for sale. On the top floor, customers smoke shisha pipes beneath a glass skylight with hanging plants. Other new restaurants offer live music. The restaurant boom also includes Lebanese, Chinese, Turkish and Yemeni restaurants. Competition for good chefs is fierce: Mr Saraf says they can make as much as $9,000 a month.

The Baghdad restaurant boom has also helped other businesses—boosting demand for carpenters, musicians and interior decorators. There are few taxes, and in one of the world's most corrupt countries, few questions about where the money for all these new restaurants comes from. But restaurateurs must face difficulties unknown in other gourmet locations. Some of the parking-lots outside restaurants are run by unofficial security forces who take hundreds of dollars a day in parking fees. One insider confides: "They say if you don't pay we will burn down your restaurant."

Iran's new trains

Joining the dots

TEHRAN

Some treats ahead for railway enthusiasts

THE 10,500km (6,500 mile) journey from Yiwu City in eastern China through Kazakhstan, Kyrghyzstan, Uzbekistan and Turkmenistan was sluggish. But when the first Chinese train pulled into Tehran station after a 14-day haul, Iranian officials hailed a great leap forward. "We're becoming the global hub between east and west," boasted one minister. By April, when the new trans-Kazakh railway opens fully, executives in Iran hope to have cut the journey time to China (see map on next page) to just eight days—a month less than the sea route takes. Should Turkey get on board, the line might even challenge the Suez Canal as a primary Chinese and Iranian route to Europe. Iranian companies will no longer be limited to an 80m-strong local market, President Hassan Rohani's advisers promise, but will be connected to the European Union's 500m.

Other rail links are coming down the line. Within six months Abbas Akhoundi, Iran's British-trained transport minister, will open a track to Afghanistan's mines, which will ship minerals to India via a revamped south-eastern port, Chabahar, bypassing Pakistan. Within two years Iran will have built a bridge over the Shatt-al-Arab river into Iraq and into the Fertile Crescent, he says. Fresh track will open the

way through Azerbaijan to Russia and the Central Asian republics. "When we were inward we had poor cross-border links," says Mr Akhoundi. "If we want to be outward-looking we need to improve them accordingly." Iran also plans to more than double its internal 10,000km rail network over the next decade and replace rolling stock that trundles at 90kph with high-speed trains on electrified lines. Once the upgrades are complete, the 420km journey to Isfahan will take 90 minutes and the 920km trip to Mashhad less than six hours.

The hitch, of course, is finance. In Iran's sixth five-year plan, now awaiting parliamentary approval, Mr Akhoundi wants to spend $28 billion on railways, $20 billion on roads, $50 billion on upgrading the country's Shah-era air fleet and $7 billion on airports (including extending Tehran's main airport, Imam Khomeini, so that the largest modern airliners can land there). Yet the low oil price means that his government can barely pay public-sector salaries, let alone pay for infrastructure. So it has been wooing foreign investors instead.

They seem keen. To finance the Mashhad line, China has reportedly offered a $2 billion loan, apparently underwritten by Iranian oil proceeds it had frozen during the time of sanctions. South Korea is exploring a similar deal. And while Italians recently waited in the wings, French rail executives, model trains in hand, paced the corridors of a Paris hotel waiting to greet Mr Rohani on the first trip by an Iranian president to Europe for 17 years. But with most foreign banks fearful of American fines, raising credit remains difficult.

A "silk rail" between east and west will also require better relations with neighbours who fear Iran's post-sanctions rebound. "The nuclear deal has proved a double-edged sword," moans a member of Iran's Chamber of Commerce. "While relations have improved with the West, they have deteriorated closer to home." Russia suspects that Iran will come to challenge its dominance of regional markets. And the United Arab Emirates, which backs Saudi Arabia in the region's sectarian power struggle, fears that Iran, with its many tourist attractions, might challenge its position as a regional transport hub.

Much will depend on Mr Rohani's diplomatic skills. Turkey's prime minister, Ahmet Davutoglu, visited Tehran on March 4th with six ministers and discussed a high-speed rail link that might bridge Lake Van and triple bilateral trade, despite arguments over Syria. But should tensions persist, Iran is also exploring the seas. In February an Iranian cargo of petrochemicals arrived in Antwerp, the first Iranian ship to offload in Europe for six years. IRISL, the national shipping line, has plans to ship to the Far East, Oman and eventually the Americas; it hopes to enlarge its 160-strong fleet by floating some of its stock by the end of this year. Iran Air might go the same way after two years of restructuring, says the transport minister. Get ready for Iran's reconnection with the world. ■

Arab universities

The kingdom is king

BEIRUT

A snapshot of the region's higher education

IT MAY not be quite the country for the usual university experience: moving out of home; experimenting; dating. Nor does it have Egypt's long history of scholarship, with the likes of the Al Azhar university, which has been going since the tenth century. But Saudi Arabia is gaining an unlikely reputation for learning in the Middle East. Earlier this year it gained three of the top four spots in an annual ranking of Arab universities by *Times Higher Education* (THE), a British weekly magazine. Topping the chart was King Abdulaziz University in the western city of Jeddah, which was founded only in 1967.

The kingdom rarely pulls things off as well as, let alone better than, its more savvy fellow Gulf states. But in higher education it has steamed ahead. One reason is that many Saudis have long gone to study in Europe and America. Some return with top-notch degrees and go into academic teaching. In recent years the kingdom has also had the cash to attract foreign academics on the promise they can carry out research. That has paid off with an increasing number of mentions in academic journals, which is one of the indicators used by THE.

Less surprising was the American University of Beirut's romp into second place. It is one of a handful of private campuses in the region that date back to colonial times; after independence, large state-run institutions became the norm. It has long been seen as the region's university of choice—and not only for the quality of its education, which is conducted in English. Its beautiful, green campus rolls down to the sea in liberal Beirut, where something more akin to the Western freewheeling student experience is on offer. Other Gulf universities and three Egyptian institutions fill the next slots in the top 15; Jordan and Morocco sneak in near the bottom. The war-torn states of Syria and Yemen are, unsurprisingly, absent.

But by world standards, Arab universities do not offer students a very good deal. King Abdulaziz only just made it into the global top 300. Teaching in the Arab world tends to emphasise rote learning rather than developing analytical skills. Facilities often lack the latest technology. Jaidaa Hamada, a lecturer in English at Egypt's University of Alexandria, thinks the main problem is the huge number of students, who are assigned to subjects according not to their own choice, but to their school grades. Medicine, engineering and political science require high results. Low-scorers are concentrated in arts, business and education courses.

The very wealthy send their sons and daughters abroad. Many never come back, contributing to a brain drain in the Arab world. The well-off who keep their children at home for their higher education often prefer to send them to new private institutions with smaller classes. Scores of these have opened across the region in the past decade. But their shiny facilities often mask curriculums and lecturers that are no better than the average public institution. Indeed, many reckon the quality is usually lower.

In one unexpected way, however, Arab institutions are making rapid progress. Women now outnumber men in half of the top 15 Arab universities. Even in Saudi Arabia, where women cannot drive and must have permission from a male guardian to travel, women's faculties are being added to what were all-male institutions. King Abdulaziz's student body has 57 female students for every 43 males. Sadly, female graduates are not going into the workforce in the same numbers as their male peers. ■

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The Netherlands and Ukraine

Dissociative disorder

A Dutch referendum threatens an EU trade deal with Ukraine

UKRAINE'S efforts to reach an association agreement with the European Union have led to revolution, poisoned relations with Russia and caused war with Russian-backed separatists. After years of negotiations, Ukrainian and EU leaders at last signed the agreement in Kiev in March 2014, just after the Maidan revolution. But the deal may yet founder in a surprising place: the Netherlands. Dutch Eurosceptics have forced a plebiscite on whether to ratify it. The EU's other 27 states have already done so; the Netherlands is the lone holdout, and most polls show that on April 6th "no" will probably win.

The referendum is not binding, but the Dutch government will have to respond to the outcome. Rejection would hobble European diplomacy and suggest that the EU is too fractured to maintain a common foreign policy in the face of Russian interference in Ukraine. And it would send a signal to Ukrainians that however much they want to be part of Europe, many Europeans want no part of them.

The campaign to block the association agreement began last summer when GeenPeil, a Eurosceptic social-media group, selected the issue as a test of the referendum law, which came into force on July 1st. It quickly gathered 470,000 online signatures, far more than the 300,000 needed to force a vote. Since the referendum was announced, it has transformed into an active campaign group, using volunteers to ensure that turnout reaches the 30% needed for the result to be valid.

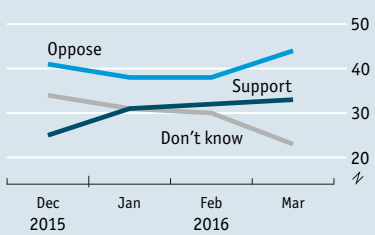
Opponents of the Ukraine agreement regard it as forcing them into an alliance with a corrupt country requiring billions of euros in aid. Though it is largely a trade deal and does not allow Ukrainians to work in the EU, many Dutch, ignoring reassurances from the likes of Mark Rutte, the prime minister, regard it as a step towards EU membership and fear losing jobs to low-wage Ukrainians. "There's a lot of distrust," says Frank van Dalen, a political consultant who is working with GeenPeil. The referendum is, he says, one of the few ways for Dutch citizens to feel that "at least for once we have some control".

The opposition is all the more remarkable, given that the Netherlands has suffered more than anywhere else in the EU from the Russian-backed war of secession in Donbas. In 2014, 193 Dutch passengers were killed when flight MH17 was shot down over Ukraine, most likely by Russian-backed rebels. A furious Dutch public firmly supported EU sanctions against Russia in response. But the referendum campaign has become a forum for those who mistrust the official Dutch government inquiry into MH17, or who subscribe to conspiracy theories about the crash's cause.

Slouching towards rejecting them

"In a referendum, would you support or oppose the ratification of the Association Agreement between the European Union and Ukraine?"

% polled



Source: I&O Research

Others say the association agreement itself caused the Ukrainian conflict, and hold the EU to blame. "It's a very bad scheme that we're imposing on a country where we've either bought or brought oligarchs into our camp by false promises," says Thierry Baudet, a prominent Eurosceptic. In his telling, Ukraine remains divided between pro-Russian and pro-European regions, and it was the West's promises of EU membership that led to the violence. Trade with the EU, he argues, cannot make up for the loss of economic ties with Russia, which in any case is open to a three-way deal; the idea that Ukraine must choose between Russian or EU spheres is "a spin that Eurocrats have been imposing on us, reinforced by the Americans".

In fact it was Russia that ejected Ukraine from its customs union, annexed Crimea and supported separatists in Donbas. In recent decades Europe has been as important a market as Russia for Ukraine, and with exports to Russia now collapsing, the turn towards Europe was inevitable. But even though the "no" camp's claims can be refuted, focus groups convened by supporters of the trade agreement demonstrate that such factual arguments cannot win the referendum. Instead, the "yes" side is concentrating on one message that did show promise: that to block the agreement would be to give Vladimir Putin, Russia's president, just what he wants.

"People are driven by emotions when it comes to referendums," says Michiel van Hulten, a former chair of the Labour Party now heading the "Vote Yes" campaign. "Our main focus in the final ten days is the big choice: do we bow to Putin's will?" Two polls show the "yes" camp may be gaining ground. But most analysts still expect it to lose. Defeat would be felt far beyond the Netherlands' borders. ■

Ukrainian politics

Once more around the bloc

KIEV

A cronyistic prosecutor is fired, but the government is teetering

TWO years ago a Ukrainian blogger, Mustafa Nayem, published a Facebook post calling people onto Kiev's Maidan and launched the protest that toppled the government of Viktor Yanukovych. On March 27th Mr Nayem, who is now a deputy in the Rada, Ukraine's parliament, called people out again—this time to demand the dismissal of the country's prosecutor-general, Viktor Shokin, who had conspicuously thwarted investigations into corruption. "Basta," wrote Mr Nayem. "We once again have to come onto the streets." His indignation was aimed at Petro Poroshenko, the president, who had protected Mr Shokin as a political crony.

Two days later, bowing to pressure from Ukrainian civil society and western donors, the Rada dismissed Mr Shokin. As a parting shot he fired his pro-reform deputy, David Sakvarelidze, who had uncovered corruption within the prosecutor's own office. Worse, the request to fire Mr Sakvarelidze reportedly came from one of Mr Yanukovych's former associates.

The strife in the prosecutor general's office is the latest battle in a continuing war for the country's European future. "We are on a brink of a catastrophe that could kill the state of Ukraine," says Yuri Lutsenko, a former interior minister who was jailed by Mr Yanukovych and now leads the Petro Poroshenko Bloc (BPP) in the Rada. The ruling coalition in the Rada fell apart more than a month ago. The minority government, led by Arseny Yatseniuk, the prime minister, is paralysed. Public support for Mr Yatseniuk is now in single digits while 80% of Ukrainians do not trust the Rada. "Yatseniuk is so discredited that he can no longer absorb all the negative sentiment in the country," says Yulia Mostovaya, the editor of *Zerkalo Nedeli*, a newspaper.

Meanwhile, desperately needed loans from the International Monetary Fund have been put on hold. Ukraine, which is still facing Russian aggression in the east, urgently needs assistance. But first it needs a new government. After a vote of no confidence in Mr Yatseniuk last month failed, the prime minister agreed to step down in favour of Volodymyr Groysman, the chairman of the Rada and a close associate of Mr Poroshenko. In return Mr Yatseniuk's party, the People's Front, will retain important positions, including the interior and justice ministries.

The roots of the crisis go deeper than the failings of Mr Yatseniuk. At bottom is the failure of the political class to let go of the system of oligarchic control and insider dealing that has long plagued Ukrainian politics. For weeks a group of central political figures known as the "strategic seven" has engaged in secretive horse-trading at midnight meetings in an effort to forge a new coalition government. The goal is to avoid having to hold early elections. The danger is that such opaque back-room dealing shuts the public out of politics, meaning that any government that might result would lack legitimacy.

One configuration might be a coalition between the BPP, Mr Yatseniuk's People's Front and the party of the embattled former prime minister, Yulia Tymoshenko. But Ms Tymoshenko's support has been on the rise, and she favours early elections. So does Mikheil Saakashvili, a former Georgian president and now the governor of Odessa, who is leading a popular movement against corruption.

The BPP and the People's Front are trying to recruit enough non-aligned MPs into their factions to form a government without a broader coalition. This may give Mr Poroshenko a short respite and create a semblance of stability. But unless the new government can initiate deep and genuine reforms, it is unlikely to last long. ■

Afghan refugees

Living in limbo

ATHENS, STOCKHOLM AND VAN

The treatment of Afghans shows how Europe's asylum system is collapsing

SWEDEN seems idyllic to Munire, a 19-year-old Afghan asylum-seeker, and her two sisters. The three orphans travelled on their own from Iran, where they were living illegally and had no access to education. Now they live with a foster family and go to school while they wait to hear whether or not they can stay. But the respite may be short-lived. Unlike their brother, who has been a Swedish resident for several years, they could find themselves sent back to a country that, although their birthplace, is no longer their home.

The refugee crisis has created rifts in Europe between countries which have welcomed refugees, such as Germany and Sweden, and those which have not, such as Poland and Hungary. It has also exposed tensions in Europe's asylum system as a whole. A well-designed and relatively effective process has, under the pressure of numbers, started to crumble. Afghans, the second-biggest group of migrants to Europe last year at nearly 200,000, are the most likely to lose out.

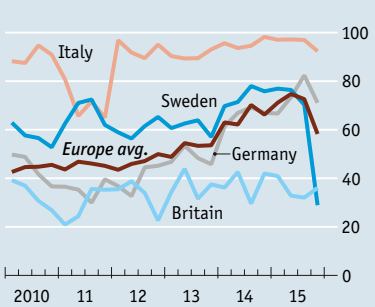
Asylum claims from Syrians, Eritreans and Iraqis are accepted at high rates across the European Union, at 97%, 87% and 85% respectively. For Afghans, the rate last year was only 69%. This prevents Afghans from being eligible for the EU scheme that relocates asylum-seekers in Greece and Italy to other countries, as refugees need to come from a country with a 75% acceptance rate. Those who try to make the journey themselves have become stranded, too. When tighter border rules came in at the end of February between Greece and Macedonia, Afghans were among the first to be refused entry, leaving thousands stuck in squalid tents on the border.

Many countries that were once generous to migrants, such as Sweden, have started to toughen up, with stricter rules on bringing over family members and getting permanent visas. As a result, acceptance rates for Afghans in most European countries have started to fall (see chart). Several countries are trying to dissuade Afghans from making the journey. German officials describe how they have put up billboards in Kabul and Mazar-i-Sharif, emblazoned with "Leaving Afghanistan—are you sure? Thought it through?" A small number have ▸▸

No turning back

Cold shoulder

Asylum acceptance rates for Afghans, % of total



Source: Eurostat

also been sent back: in February 125 Afghans voluntarily left Germany. Sweden is trying to negotiate a treaty with Afghanistan to make such returns easier, says Morgan Johansson, the migration minister.

A recent deal on migrants between the EU and Turkey also does not apply to Afghans (or any other migrants except Syrians). It involves a "one-for-one" policy: for every Syrian returned from Greece to Turkey, the EU will resettle another from Turkey. Afghans stuck in Turkey frequently complain of discrimination. Mohammad Reza, a refugee from Herat province, says that an Iranian friend who joined him on the mountain crossing was given asylum in Europe a long time ago. "I don't even have a file number," he says. Unlike Syrian refugees, who have recently been granted temporary work permits, Afghans have no right to employment in Turkey. On March 23rd, three days after the EU deal came into force, Amnesty International, a human-rights watchdog, reported that around 30 Afghans had been forcibly removed from Turkey and sent back to Kabul, without their applications for asylum being properly processed.

Part of the reason Afghans are disproportionately affected by the squeeze on migrants is that unlike Syria, not all of Afghanistan is at war—and its government is backed by the West. Last year Sweden declared that seven out of the 34 Afghan provinces, including Kabul, no longer met the criteria for internal armed conflict, and so are safe enough to send people back to. But several human-rights organisations disagree, arguing that parts of the country are becoming more dangerous, says Linn Ost Nori, a Swedish asylum lawyer. And armed conflict is only one reason asylum-seekers flee. Minority groups, such as the Hazara, are especially at risk of being targeted by the Taliban or of facing persecution. "We're from the Shia minority, so we were second-class citizens," says Mohsin Nijad, a metalworker from a town near Bamyan who left Afghanistan as a child, and who is now in Athens. Afghans are often treated badly in Iran, too, and struggle to get an education or a job.

Afghans are also being caught by a crackdown on asylum-seekers who have entered through a third country. The statistics are patchy, but a survey in January of 191 Afghans on the Greek islands of Lesbos and Chios by the UN High Commissioner for Refugees found that 26% had lived outside Afghanistan, most of them in Iran, for at least six months before travelling to Europe. In February police chiefs in Austria, Croatia, Macedonia, Serbia and Slovenia signed a joint statement saying that if Afghan asylum-seekers had lived in a third country, such as Iran or Turkey, their claim would not be valid—despite the fact that screening refugees based on nationality alone shows "blatant disregard" for the Geneva Conventions, says Claire Rimmer Quaid of the European Council of Refugees and Exiles, an alliance of 90 NGOs. "Too often the rhetoric at the member-state level is that this group are economic migrants," she says.

Faced with the sheer numbers of refugees making their way to Europe, the EU has had to set some hasty rules. Sorting migrants by nationality is one such. But it is storing up trouble. Many refugees, like Munire and her sisters, will be faced with a new and far harsher asylum system in Europe—but have no family back in Afghanistan to go to. The result, says Elizabeth Collett, of the Migration Policy Institute in Brussels, a think-tank, will be a "population in limbo". ■

Belgium's security problem

No Poirots

BRUSSELS AND PARIS

Belgian police are flummoxed by IS

THE response of the Belgian police to the terrorist attacks that claimed 32 lives in Brussels on March 22nd has displayed elements of farce. Two days after the bombings, officers arrested Fayçal Cheffou, a freelance journalist and Islamist agitator, as he loitered with several other men outside the federal prosecutor's office. He was identified as the "man in the hat" seen on security footage at Brussels' airport next to the two suicide-bombers. Four days later Mr Cheffou was released due to lack of evidence. Mobile-phone tracking placed him at home during the bombings, and his DNA was not found in the apartment where the bombs were made.

Off the grid

"Belgium is the weakest link in the European Union's [security] network," says one EU diplomat. Salah Abdeslam, a suspect in the attacks in Paris in November whose arrest seems to have triggered the Brussels bombings, evaded police for four months before he was arrested in Molenbeek, the Brussels suburb where he grew up. Raids leading to his arrest turned up components of explosives, yet security at vulnerable locations was not beefed up. The Belgians had even been warned by foreign intelligence agencies that leaders of Islamic State (IS) in Syria had sent instructions to bomb the airport and a metro station.

Meanwhile, Turkey said it had deported Ibrahim el-Bakraoui to Belgium in July 2015 and told the authorities that he was suspected of jihadist activity. Yet no criminal proceedings were opened. Mr el-Bakraoui is thought to have been one of the airport bombers. (The other, Najim Laachraoui, is suspected of making the bombs used in Paris and Brussels.) Khalid, his brother, is believed to have been responsible for the metro bombing.

One reason for the bumbling is poor co-ordination between government agencies. The Turkish warning was passed to Belgium's federal police, part of the interior ministry; the justice ministry's state prosecution office, which could have ordered criminal proceedings, was not notified. The federal police division responsible for counter-terrorism is set up mainly to fight organised crime, while the state security service concentrates on foiling spying by foreign states.

"Much of the information was there in advance, but the pipelines are clogged," says Jan Nolf, a legal journalist and former judge. "As a small country with limited resources, we simply can't deal with all the responsibilities of being the headquarters of the European institutions and of NATO."

French police seem to be doing better. Two days after the Brussels attacks they thwarted an "advanced" terrorist plot near Paris, arresting Reda Kriket, a French citizen, and seizing weapons and explosives in his flat. Three suspected accomplices were arrested in Belgium, and Dutch police arrested a fourth in Rotterdam.

Molenbeek, meanwhile, has been known to be a hotspot of IS activity ever since the Paris bombings. Yet security forces have failed to penetrate its jihadist networks. Molenbeek's mayor, Françoise Schepmans, blames laws barring raids on apartments at night and holding terror suspects without charge for over 24 hours, as well as local politics. "When radicals began preaching in the mosques here, it was convenient for local politicians to do nothing," Ms Schepmans says. "Even now, since the Paris attacks, when everyone realises that nothing can be the same again, we haven't received more resources." ■

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Tata Steel

No, thank you

Why it would be wrong for the government to bail out Britain's steel industry

BRITAIN has been a centre of steelmaking since Henry Bessemer developed a method to mass-produce the metal cheaply in the 1850s. British mills, close to rich seams of coal and deposits of iron ore, cornered the global market within two decades. But the days when Britain's furnaces turned out over 40% of the world's steel, exporting it to every continent, are long gone. On March 29th Tata Steel, Britain's biggest producer, said it planned to sell or shut down its British operations, prompting growing pleas for a government bailout. The state of the global steel industry, and Britain's now-peripheral position in it, mean that those calls should be resisted.

Steel production in Britain has more than halved since its peak in around 1970, to some 12m tonnes a year. In 2015 British steelmakers contributed less than 1% of world supply. As British steel mills have fallen quiet, world production has expanded rapidly, almost doubling between 2002 and 2014.

Most of the increase is accounted for by China, which has more than quadrupled its production since 2000. In 2015 China produced over 800m tonnes, or about half of the global total. But its flagging economy has led state-owned steelmakers to sell their growing surpluses on foreign markets. Exports have soared to 112m tonnes a year, overwhelming markets everywhere and leading to a collapse in steel prices (see chart). Prices do not look as if they will soon return to levels that would make most steelmaking profitable in Britain or in much of Europe. The OECD, a rich-country club, reckons global capacity exceeds demand by up to 600m tonnes a year. The Chinese central government plans to restructure its loss-making steel industry, which is probably responsible for half of this excess capacity. But that will encounter resistance and take time.

The commoditised steel products turned out at Tata Steel's main plant at Port Talbot in South Wales have been particularly vulnerable to these trends. The company's announcement this week that it had decided to reject an "unaffordable" turnaround was painful (Tata Steel provides 15,000 of the 24,000 remaining jobs in Britain's steel industry) but it was not unexpected. Other steel companies, too, have been cutting capacity and jobs. In October Redcar steelworks, owned by SSI, a Thai firm, went bust. Some 2,200 employees lost their jobs. Later that month Caparo Industries, with 1,700 employees, called in the administrators. Tata itself slashed 2,250 jobs in October and January.

Most of the world's steelmakers have suffered from China's steel surplus, but Britain's have taken a disproportionate hit. American firms have been helped by their government's willingness to impose tariffs—of almost 500% on some forms of steel—as well as by cheap energy from fracked natural gas. Other European states have taken a less laissez-faire approach when steelmakers have tried to cut capacity, adding to the pressure on their British counterparts. British companies export around 30% of their wares to the continent.

British producers face all the problems of other European steelmakers and more of their own. Their energy costs are the highest in Europe, partly because of levies to pay for climate policies. The strength of the pound last year hammered Britain's exports, while steel mills in the euro area benefited from the euro's weakness.

The clamour for intervention is now growing louder. The British Chambers of Commerce, a business lobby group, and Unite, the country's largest trade union, both want the government to guarantee the steel industry's future. Jeremy Corbyn, the leader of Britain's Labour Party, and even several Conservative MPs have called for Tata Steel's British assets to be nationalised if a private buyer does not emerge.

Some buyers have already bid for parts of the industry making specialised products that are less susceptible to tumbling market prices than Port Talbot's output. In November 333 jobs were saved at the Caparo division that produces steel tubes for the car and aerospace industries. On March 24th two steelworks in Lanarkshire ▸▸

were bought by Liberty House, a metals group. Tata is in talks with Greybull Capital, a turnaround specialist, to buy its Scunthorpe site, which turns out rail lines and steel for construction.

There is no such happy end in sight for Port Talbot, Britain's biggest mill. To tempt a private buyer it would have to be able to pay its way eventually. Even if anti-dumping duties are imposed on Chinese steel, there is little prospect of that. In 2013 Tata opened a new blast furnace at Port Talbot, at a cost of £185m ($266m). It has spent £2 billion covering its British plants' losses and now estimates that they will need at least another £2 billion just to break even.

Any bail-out by the state would run into trouble. The European Commission allows governments to help steelmakers regain competitiveness by, for example, cutting energy taxes. But it bans them from offering aid to rescue or restructure ailing steelmakers. The EU has ordered Belgium's government to recover €211m ($239m) in aid given to Duferco, which operates steel mills in Wallonia. It is also investigating whether Italy acted illegally in spending €2 billion to support the Ilva steel mill in Taranto. Unless the British government wishes to break European rules, and indemnify any future buyer, its ability even to tide over Port Talbot if it thinks a private buyer could in fact be found is limited.

There are other things the government could do, such as cutting energy tariffs. That might not make enough difference, though, and in any event would clash with the national target of cutting carbon emissions by 80% by 2050. The state's energy should now be concentrated not on propping up a waning business but on helping steelworkers move onward and upward.

Located near busy Cardiff and Swansea, Port Talbot's 4,300 workers are luckier than those in other declining industrial towns around Britain. But finding jobs in Cardiff's thriving business-services sector, for example, will be difficult for former steelworkers. The government will need to spend serious money retraining them, helping them into new employment and improving transport links to big cities. Spending to keep the plant itself in business would just prolong the inevitable. ■

Brexit brief: Immigration

Let them not come

Hostility to large-scale European Union migration could decide the referendum

POLLS say immigration is voters' main concern, so the issue was always going to play strongly in the Brexit debate. David Cameron's Tory government has promised to bring net migration below 100,000 a year but the latest number was 362,000. Worse, much of the upsurge is accounted for by a rise in EU immigrants. That is why Mr Cameron fought so hard to win a four-year delay in granting in-work benefits to them in his EU renegotiation.

Despite Mr Cameron's deal, immigration is one subject on which Leave campaigners have a clear lead. The correlation between hostility to immigration and support for Brexit is high, so if they can turn the vote into one about migration, they will win. Yet in trying to do this they not only ignore much economic evidence about the impact of migration but also muddle several unrelated strands of the subject.

They say Britain has lost control of its borders. In fact anyone entering Britain (except from Ireland) must pass through border checks. Or they point to Europe's refugee mess, although since Britain is not in the EU's Schengen passport-free zone, the country has largely escaped it. Some warn that the accession of Turkey will let in hordes of Turks. Yet Turkish membership is many years off and, if it were agreed, would come with tight migration limits. A few Eurosceptics use the terrorist attacks in Brussels on March 22nd to claim that free movement of people lets terrorists into Britain (the government says they show how vital co-operation on security is).

The Remain campaigners are not above their own scaremongering. Some suggest that Brexit might result in the 2m-odd Britons settled in Spain and elsewhere in the EU being sent home. This is unlikely, though questions might be raised over access to health care. Remainers have warned that France might scrap the Le Touquet treaty that places the Anglo-French border in Calais, bringing squalid refugee camps to Dover instead. Some French politicians might indeed want to end this unpopular deal, but it is a bilateral one and not linked to Britain's EU membership.

The real argument should be over the effects of EU migration. It has certainly been bigger than expected. In 2003 one forecast said that up to 13,000 east Europeans a year would come; five times as many turned up. There are now about 3m EU migrants in Britain, the latest inrush from southern Europe. Yet over half of net immigration comes from outside the EU.

A post-Brexit Britain might not be able to stop EU migration anyway. If it wants to retain full access to the EU's single market, it will probably be required to accept free movement of people, as Norway and Switzerland are (both have proportionately more EU migrants than Britain).

Most Brexiteers insist on tougher controls. They say heavy EU migration burdens taxpayers, drives up welfare spending, strains public services like health and education and aggravates the housing crisis. Some argue that migration steals jobs and reduces wages, especially for the lower paid. Those who favour some immigration often prefer an Australian-style points system that would let Britain cherry-pick the best and brightest.

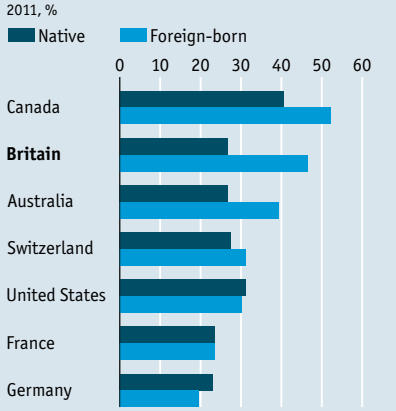
There are good answers to most of these claims. Several studies have found that EU migrants, unlike non-EU ones, are net fiscal contributors. Mr Cameron's benefit cuts are unlikely to deter them (indeed, more may now be lured by the new higher national living wage scheduled to take effect on April 1st). Migration adds to pressure on housing, but the real problem is planning constraints. Britain's employment rate is at a new high, so there is little sign of migrants taking natives' jobs.

As for Australian-style cherry-picking, Jonathan Portes of the National Institute of Economic and Social Research points out that Britain does a lot of this already (see chart). The share of the foreign-born in Britain with tertiary education is higher than in Australia or almost all EU countries, and it is far higher than among the native-born.

Rich countries need migration to thrive, not least to sustain their public services. A growing population can create problems, but a shrinking one is worse. The irony is that the surest way to reduce immigration to Britain is, as one migration adviser puts it, to wreck its economy, and leaving the EU is a quick way to do that. Brexiteers could inadvertently get what they want—but the country would be poorer for it. ■

Brains from abroad

People aged 15 or more with tertiary education 2011, %



Source: OECD

Bagehot | Referendum, what referendum?

Calm and competent, the Remain campaign is haunted by the spectre of indifference

WILL STRAW is a man in a hurry. Shadowing him on a recent visit to York—a whirl of leaps in and out of taxis, impromptu speeches, marches up shopping streets and down corridors—Bagehot was impressed by the energy and seriousness of Britain's chief pro-EU campaigner. But was it all really necessary? York is the sort of well-heeled, studenty place that Remain, which does best among middle-class folk and youngsters, should have in the bag.

Sure enough, at every stop on his tour (apart from a couple of old ladies who shoved their leaflets in a bin) the director of Britain Stronger In Europe (BSE) and his lieutenants seemed to encounter fellow pro-Europeans. A shopper in St Sampson's Square gave campaigners in their rain-sodden "I'm In" T-shirts a thumbs up; a scientist at the Wolfson Atmospheric Chemistry Laboratory waxed Europhile about research grants and freedom of movement; a crowd at the students' union at York University agreed with Mr Straw's every word. "You go to electronics and they'll tell you how much of their funding is from the EU," one told him.

Yet even here BSE has its work cut out. It estimates that around 35% of British voters are for EU membership. About another 35% are undecided. The campaign should surely be able to win over enough of these to cross the 50% line. But it will only succeed on June 23rd if those persuaded actually vote. So the second part of BSE's job is to get them fired up, or at least sufficiently engaged to cast their ballots. Hence Mr Straw's visit to York. "This is the fight of our lives and the other side are incredibly passionate about this issue, so we have to fight that passion," he told the students.

Current polling puts the two campaigns roughly neck-and-neck, with Remain slightly ahead. But in the latest survey by Ipsos MORI support for Remain slips from 54% to 49% when only people who say they are certain to vote are polled.

Why? Consider the difference between the two sides. The Leave campaigns are loud, discordant and spirited, run by people who have obsessed about an EU referendum for decades. They think they can win if they make it a vote on immigration. Thus lurid claims about foreign criminals and "winning back our country" froth forth from Vote Leave and Leave.eu, the two main anti-EU outfits. BSE, by contrast, is calmer and more businesslike. It reckons it can prevail by focusing voters' minds on Britain's economic future and the risks of the unknown. So it has lined up serious establishment types—from businessmen and former generals to theatre directors and educationalists—to make hard-nosed arguments about jobs, investment and security: a virtuous cup of green tea to the Eurosceptics' more stimulating brew.

Demography accentuates Leave's edge. In the general election in 2015 turnout was 78% among the over-65s, who are overwhelmingly Eurosceptic, and 43% among those aged 18 to 24, who are overwhelmingly pro-EU. The Remain campaign's firmest bastions are a list of groups not given to voting. City dwellers vote less than suburban and rural folk. Many students are not registered and, as the vote will take place outside term time, will be away from their usual addresses—at music festivals, for example (there are no polling stations at Glastonbury). Expats too are often absent from records and lose the vote after 15 years anyway. A recent shift from household to individual registration has seen up to 1m voters drop off the lists. A disproportionate number are the sort of young, transient types more likely to vote Remain, adds Matthew Goodwin of the University of Kent.

Combine that with narrowing polls (in Ipsos MORI's surveys Remain's lead has dropped from 26 points in December to seven now), the fact that voters have sometimes veered towards Euroscepticism towards the end of EU referendum campaigns elsewhere and the risk of a terror attack or migration drama grabbing headlines in the weeks before the poll, and it is easy enough to see why Mr Straw is in a hurry. His side may be in the lead, but Britain's EU membership hangs by a thread.

Is he up to the job? Here there are grounds for optimism. BSE is well-run, dynamic and less fractious than its anti-EU rivals, whose passion can hurt them, tipping them into damaging public squabbles and distracting them from the mechanics of the campaign. The Remain campaign recognises the scale of its task, its lieutenants criss-crossing the country geeing up local groups, university chapters (of which there are now more than 50) and student-registration drives. Contrary to Leave's complaints, Remain has mongered more realism than fear—voters deserve to know the real risks of Brexit—and kept its tone broadly sunny. That should help, notes Mr Goodwin, who along with Simon Hix of the London School of Economics has found that the positive Remain arguments are more effective than the (ubiquitous, so priced in) Leave ones.

Waiting for Corbo

Yet all this may not be enough. Only six months old, BSE does not have the local infrastructure needed to overturn its turnout disadvantage. For that it needs the help of political parties. But the Conservatives are divided and, locally, overtly Eurosceptic. So Mr Straw—and for that matter David Cameron—is reliant on the Labour Party, the majority of which is pro-EU, to put its machine at Remain's service. Jeremy Corbyn, its left-wing leader, dislikes the capitalists in Brussels and is at best ambivalent about membership. Thus pro-Europeans in his party, led by Alan Johnson, a former minister, have been given few resources. Its canvassers have not been instructed to expend much effort engaging with its supporters about the EU; almost half of voters do not even know that it is formally for membership. BSE is good, better than some of its critics allow. But it cannot win the referendum on its own. ■

A full transcript of Bagehot's interview with Will Straw is at: http://www.economist.com/blogs/bagehot

Also in this section

Counter-radicalisation (1)

Battle of ideas

VILVOORDE

In the first of three articles about Western countries' attempts to counter Islamist violence, we look at a Belgian programme for disaffected Muslim youngsters

"IT WAS a time-bomb; merely a matter of when," sighs Rafiq, a young man who runs a newspaper shop in Vilvoorde, just north of Brussels. Surrounded by papers with pictures of the bombers who killed at least 35 people in the Belgian capital on March 22nd, Rafiq says he is sure more will follow in their footsteps. "In Molenbeek it's all out in the open. It's well-known that terrorists live there. Here, it's more hidden."

Vilvoorde is less notorious than Molenbeek, a suburb of Brussels that has become synonymous with jihadists and their sympathisers. Yet it has at least as troubling a history. Between 2012 and 2014 it is thought to have produced more recruits for foreign jihadist groups, as a share of Muslim residents, than anywhere else in western Europe. With a big Muslim population, and conveniently located on the Antwerp-Brussels railway line, it proved an easy hunting ground for recruiters for Islamic State (IS). Security officials believe that 28 young locals had left for Syria by May 2014.

Khadija Boulahrir, who now works in Brussels, still cannot believe that her former playmates joined IS. In the town's Grote Markt square, Hamed, an older man, says he understands all too well. "There is nothing to do here for them," he says. "No jobs, no apprenticeships, nothing." Of Vilvoorde's 43,000 inhabitants, 43% are of foreign origin; nearly half of those are unemployed. Many have parents or grandparents who came here as guest workers, before the local Renault factory closed 20 years ago.

But in one respect Vilvoorde is very different from Molenbeek. In 2014 it decided to counter the lure of violent extremism head-on, with a prevention programme aimed at youngsters thought to be at risk. As the investigation into the bombings extends across Europe, evaluating its effectiveness has become a matter of urgency.

The Vilvoorde programme starts from the premise that alienated youngsters are most likely to turn to violent extremism. "We want to give them a stake in society," says Moad el Boudaati, a social worker whose best friend was among those who left for Syria. Most of those who join IS come from broken homes, where the father is absent and the mother has lost all authority, he says. Now he spends much of his time meeting parents, speaking with young people and working with imams.

Tip-offs may come from schools or parents: after the *Charlie Hebdo* attacks in Paris last year many teachers called, alarmed by pupils who called the killers heroes. For each tip-off a team is set up; perhaps a health worker, a religious leader, a social worker, someone from the parent network and a school employee. It may offer therapy, help in finding a job, or housing support or parenting advice for the family. The aim, says Jessika Soors, who runs the scheme, is to "increase resilience, both of the families and the young people".

Relations between the police and local youngsters used to be disastrous, says Mr el Boudaati. Frequent house searches and random frisking on the street bred resentment. Now matters are slowly improving; police hold town-hall meetings to hear young peoples' grievances. But Ms Soors is adamant that police involvement remain limited so as not to jeopardise trust.

Opinions are divided over the effectiveness of showering could-be jihadists with attention and support. (A similar programme in Aarhus, Denmark, is even more generous.) And, like all prevention programmes, this one is hard to evaluate—how to count the youngsters who would have left had it not been for timely intervention? But in a positive sign, authorities think no further recruits have left from Vilvoorde since May 2014. Yet a new challenge is looming. Of the 28 who left to fight before that date, eight are known to have died in Syria (including Mr el Boudaati's former best friend) and three are in prison in Belgium. One who returned and is living in Vilvoorde is intensively monitored and supported by local services.

Hide and seek

Keeping tabs on returning IS fighters is more onerous than preventing someone leaving for Syria in the first place. Both in Belgium and elsewhere, they may live openly, claiming to have volunteered in refugee camps. Others go into hiding: the arrest in Molenbeek on March 18th of Salah Abdeslam, the Belgian-born prime suspect in the attacks on Paris last November, demonstrated the frightening ease with which security services could be evaded. According to the authorities, at least one returned fighter is among the eight suspects in the Brussels and Paris attacks who are still on the run. ■

Counter-radicalisation (2)

Talking cure

NICE

France puts its faith in secular authorities to help fight radical Islamist ideas

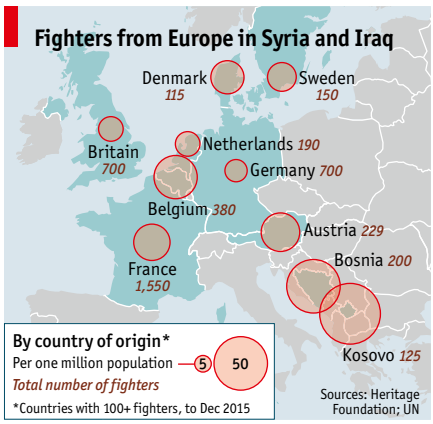
IN THE 15 years since the terrorist attacks of September 11th 2001, many attempts have been made to draw people away from the jihadist world-view, involving health, social and security services; national and local authorities; and secular purveyors of advice as well as religious ones. Saudi Arabia lavishes cash on suspected terrorists who co-operate with its deradicalisation programme, setting them up with jobs, cars and even wives. Efforts by Indonesia's government have been intensive but snarled up in the wider problems of a corrupt prison system; as in many countries, local initiatives have done better than central ones. In Western democracies schemes have targeted both those suspected or convicted of terrorist offences and those thought to be at risk of going down the same path.

Not only the tools, but the aims and terminology vary. Some pundits reject the term "deradicalisation", which became popular in Europe a decade ago, because it seems focused on the individual, ignoring social context. Some make a sharp distinction with counter-radicalisation—attempting to stop people turning to violent extremism in the first place. And in many countries "countering violent extremism" has become the preferred expression for both. It is often stressed that ultra-right fanaticism must be targeted, as well as the Islamist kind.

Whatever they are called, all such programmes now face a growing challenge. By the end of 2015 the number of jihadists from western Europe fighting in Syria had doubled in just 18 months. Governments are scrambling to stop more joining them, and to deal with those who return.

As a share of population, Belgium is the western European country that has supplied the most fighters to IS. But in absolute numbers France is top (see map). Twice targeted by Islamist terrorists and still under a state of emergency, it has turned somewhat belatedly to deradicalisation. Earlier this year it began a compulsory re-education programme in four prisons, where convicted terrorists have been grouped into special units. It is soon to open its first residential centre, for radicalised young adults. Some of the most interesting experiments, however, have emerged at the local level.

Unlikely as it may seem, Alpes-Maritimes, the department that covers the swish Côte d'Azur, has one of the biggest problems with radicalisation outside the Paris region. A short drive from the shuttered façades and palm trees of old Nice, and in the shadow of a raised motorway bearing fast cars towards nearby Monaco, grim concrete tower blocks crowd into the narrow valley. Partly thanks to the efforts of a vigorous local recruiter, Omar Omsen, at least 55 residents from Nice or nearby towns are currently fighting in Syria, including 11 members of one family. Since 2014, the department has recorded 522 alerts about newly radicalised individuals, and it recently closed five underground prayer houses suspected of preaching violent Islamism.



A year ago Alpes-Maritimes put in place a programme that has become something of a model. Thanks to local family-help organisations such as Entr'Autres, the department has trained teachers, social workers, doctors, policemen, prison officers and others to watch for signs of radicalisation and sound the alert. The basis for detection is a grid, devised by the French interior ministry. Signs range from the weak, such as a teenager who cuts himself off from his friends, to the strong, such as a pupil who defends terrorism in the classroom. A national telephone helpline for families also flags local warnings. A counter-radicalisation cell meets weekly to sift cases.

When the system works, alerts have stopped some youngsters leaving for *jihad* in Syria. Last year two teenage boys were hauled off a plane at Nice airport before take-off. Under French counter-terrorism laws, would-be jihadists can be forbidden from leaving the country, and their passports confiscated. Thanks to an extra €425m ($476m) for counter-terrorism in last year's national budget, if such hard-core cases involve minors, they can be referred to counsellors.

"Some young people turn up like blocks of concrete," says Patrick Amoyel, a psychoanalyst and co-founder of Entr'Autres. In a consulting room fitted out with a regulation couch and ample supply of cushions, he sees non-residential patients referred by the counter-radicalisation cell. Analysts follow a three-stage process. First, says Mr Amoyel, they need to forge trust. For an ordinary patient in psychoanalysis this requires a few weeks; with radicalised youngsters it can take months, if it happens at all. Next comes the attempt to "break down their ideological certainties" by finding a weak point in their armour of beliefs. Third, the putative jihadists are confronted with a "counter-discourse", sometimes with the help of (often Muslim) mentors.

Room for doubt

"The objective is to bring someone back from the edge," says Mr Amoyel, "from the point at which the radicalised mind turns to terrorism." Brigitte Juy-Erbibou, co-founder of Entr'Autres, is most hopeful about the young girls, whether Muslim or converts. Some seem to be in the grip less of political Islam, she says, than of an adolescent identity crisis. But Mr Amoyel reckons there is, at best, a 50:50 chance of turning a hardened teenage boy.

Two difficulties mark the French experience. One is linked to the country's strict secular tradition, which keeps religion out of public institutions. Alpes-Maritimes has begun, tentatively, to include local Muslim leaders. Many social workers and teachers, however, remain uncomfortable. Yet excluding religion leaves a big credibility gap. Boubekeur Bekri, an imam in a tough part of Nice, says the youngsters he tries to talk out of extremism have been "exploited by ideas that have nothing to do with our religion", so the fact that he shares their faith is "decisive".

The second issue, shared with other countries, touches fears about confidentiality. Those encouraged to flag trouble do so voluntarily. Yet social workers, trained in child protection, do not want to be seen as informers. There are particular worries about what happens to such information in a country that keeps intelligence files on some 10,500 Islamists and is under a state of emergency. Yet the need to step in and talk to young teenagers, long before they contemplate strapping explosives to their backs, makes it essential to look out for small early-warning signs.

Perhaps most striking, the experience in Alpes-Maritimes reveals a three-way cultural gap between the security-driven tradition of French counter-terrorism, that of psychological therapy, and scholarship on political Islam. If deradicalisation is to mean anything—and some Islamic scholars are sceptical—it needs to link all three. ▸▸

Even the French intelligence services now recognise that a security-driven approach is not enough.

"We should be honest," says David Thomson, author of a book on French jihadists. "These programmes haven't yet deradicalised anybody." A 15-year-old girl from the French Alps recently tried to leave for Syria—after spending time in a deradicalisation programme. Mr Thomson, who is conducting research with returned jihadists, says such teenagers are typically drawn to fight through a sense of social humiliation. Working out the causes of this may be as important a part of the effort as counselling or surveillance. Deradicalisation, says one official, is a "growing industry with lots of exaggerated claims". The aim, he says, "has to be to stop the process of radicalisation in the first place." ■

Counter-radicalisation (3)

A disarming approach

Can the beliefs that feed terrorism be changed?

ACCORDING to Peter Neumann, a terrorism-watcher at King's College London, experience points to three common features in successful efforts to wean someone off extremism. He must already have inner doubts; trusted people, whether imams, friends or relatives, must be involved; and he must be offered an alternative peer group. He may also be more concerned with personal problems or geopolitical grievances than matters of theology.

Still, given that IS's appeal lies in a perverse but seductive form of religion, some of the counter-argument has to be religious. How to persuade a jihadist, or somebody tempted by jihadism, that there might be better, and truer, ways to understand Islam than the murderous fanaticism of IS and similar groups?

One approach is to challenge their vision of the world, according to which a place belongs either to *Dar al-Islam*, the realm where Islam prevails, or to *Dar al-Harb*, where the faith's enemies are to be found. In the land it controls, IS claims to have re-established *Dar al-Islam* with a purity comparable to the first Muslim community. The more idealised his vision of *Dar al-Islam*, the easier it is for an impressionable young Muslim to convince himself that everywhere else is *Dar al-Harb*, a zone of adversaries deserving no mercy.

But a mentor can show that this division has never been binary. There are intermediate situations such as *Dar al-Dawa*, the abode of invitation, where Islam does not predominate but can be practised and preached freely. Another important term is *Dar al-Ahd*, abode of the contract: places which live in established peace with Muslims. Some Muslim scholars say the West is a more comfortable place to practise the faith than many Muslim-majority countries. And Islam has a lot to say about loyalty and obedience to states that allow Muslims to live safely and devoutly.

To the jihadist and the Islamo-sceptical Westerner alike, *sharia* law may conjure up images of cruel religious punishment. To a young Muslim frustrated by the ambivalence of life in the West, there may be something seductive about the idea of swift, ruthless justice, ordained by God and therefore not open to question. But a mentor can suggest returning to the original meaning of *sharia*: a way of promoting the well-being of the individual and the community. The term refers not only to retribution but to Islam's positive guidance for living generously and humbly.

A hardened jihadist may have been swayed by "The Management of Savagery", a kind of manifesto for al-Qaeda and its imitators that was published online in 2004. It calls for merciless violence, especially in Muslim countries where Western countries have some influence. The intention is to foment grievance, force the West to over-react and bring about chaos and collapse from which a true caliphate can emerge. It may be possible to convince the subject that all this is alien to the philosophy of war set out in the Koran and by its interpreters. These emphasise that war should only be waged in response to aggression, treachery or a broken treaty, and that civilians should be spared.

Today's jihadists can also be cast in an unflattering light by drawing parallels with an extremist sect from Islam's earliest days. Known as the Khawarij, they turned against the caliph of the day and assassinated him, because he was emollient enough to submit to arbitration in a conflict with a rival. The Sunni preachers of IS strongly reject the comparison between themselves and the Khawarij. But the defining feature of the Khawarij, shared with today's terrorists, was a fondness for denouncing as infidel any Muslim less fanatical than themselves.

Among Muslims who set out to woo people away from terrorism, none of these points is much disputed. Each is intended to challenge the jihadists' claim to be returning to Islam's purest sources. But that does not mean that the work is free of controversy.

In Britain, especially, there has been bitter argument, not over how to go about mentoring, but over who should do it. Is the job best given to religious teachers who themselves hold quite hard-line theological and political views and can therefore partly empathise with their subjects, or should it be restricted to those who espouse secular notions of liberty and equality, including, for example, gay rights?

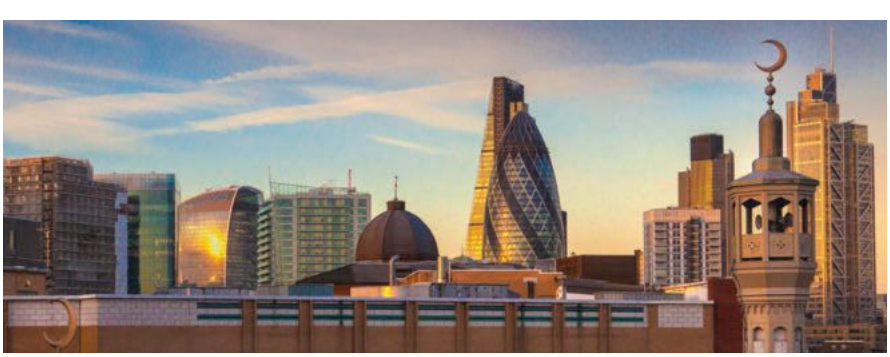
Words and wounds

In recent years, the more restrictive view has prevailed. In comparison with interventions focused on social work elsewhere, Britain's deradicalisation programme, known as Channel, is perceived to be police-led. It is part of an anti-terror strategy known as Prevent, which was denounced this week by a teachers' union for requiring teachers to report on their pupils.

Channel is also theology-heavy—but it only uses mentors who espouse liberal democracy, secular law and Western notions of freedom, tolerance and equality. They must unconditionally oppose attacks on British forces. Rashad Ali, one of those mentors and a fellow of the Institute for Strategic Dialogue, a think-tank in London, argues that deradicalisation can be worse than useless if practitioners, while condemning IS, condone other violence.

The difficulty, insists Alyas Karmani, a British imam who has mentored jailed extremists but has now fallen out of official favour, is that restricting the pool to such impeccably liberal-minded folk disqualifies the great majority of those well-placed to communicate and empathise with their subjects. In particular, imams who share their subjects' anger at Western foreign policy, for example the use of drones over Pakistan and Afghanistan, are excluded.

In Islamic terminology, there is a degree of *ijma*, or consensus, on what to say to a would-be jihadist. But on who should say it there is *fitna*, a state of dangerous strife. ■



Peaceful coexistence

Also in this section

For daily coverage of business, visit
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Artificial intelligence

Million-dollar babies

SAN FRANCISCO

As Silicon Valley fights for talent, universities struggle to hold on to their stars

THAT a computer program can repeatedly beat the world champion at Go, a complex board game, is a coup for the fast-moving field of artificial intelligence (AI). Another high-stakes game, however, is taking place behind the scenes, as firms compete to hire the smartest AI experts. Technology giants, including Google, Facebook, Microsoft and Baidu, are racing to expand their AI activities. Last year they spent some $8.5 billion on research, deals and hiring, says Quid, a data firm. That was four times more than in 2010.

In the past universities employed the world's best AI experts. Now tech firms are plundering departments of robotics and machine learning (where computers learn from data themselves) for the highest-flying faculty and students, luring them with big salaries similar to those fetched by professional athletes.

Last year Uber, a taxi-hailing firm, recruited 40 of the 140 staff of the National Robotics Engineering Centre at Carnegie Mellon University, and set up a unit to work on self-driving cars. That drew headlines because Uber had earlier promised to fund research at the centre before deciding instead to peel off its staff. Other firms seek talent more quietly but just as doggedly. The migration to the private sector startles many academics. "I cannot even hold onto my grad students," says Pedro Domingos, a professor at the University of Washington who specialises in machine learning and has himself had job offers from tech firms. "Companies are trying to hire them away before they graduate."

Experts in machine learning are most in demand. Big tech firms use it in many activities, from basic tasks such as spam-filtering and better targeting of online advertisements, to futuristic endeavours such as self-driving cars or scanning images to identify disease. As tech giants work on features such as virtual personal-assistant technology, to help users organise their lives, or tools to make it easier to search through photographs, they rely on advances in machine learning.

Tech firms' investment in this area helps to explain how a once-arcane academic gathering, the Conference on Neural Information Processing Systems, held each December in Canada, has become the Davos of AI. Participants go to learn, be seen and get courted by bosses looking for talent. Attendance has tripled since 2010, reaching 3,800 last year.

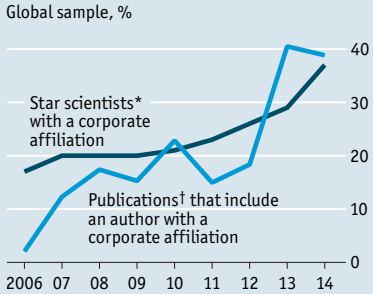
No reliable statistics exist to show how many academics are joining tech companies. But indications exist. In the field of "deep learning", where computers draw insights from large data sets using methods similar to a human brain's neural networks, the share of papers written by authors with some corporate affiliation is up sharply (see chart).

Tech firms have not always lavished such attention and resources on AI experts. The field was largely ignored and underfunded during the "AI winter" of the 1980s and 1990s, when fashionable approaches to AI failed to match their early promise. The present machine-learning boom began in earnest when Google started doing deals focused on AI. In 2014, for example, it bought DeepMind, the startup behind the computer's victory in Go, from researchers in London. The price was rumoured to be around $600m. Around then Facebook, which also reportedly hoped to buy DeepMind, started a lab focused on artificial intelligence and hired an academic from New York University, Yann LeCun, to run it.

The firms offer academics the chance to see their ideas reach markets quickly, which many like. Private-sector jobs can also free academics from the uncertainty of securing research grants. Andrew Ng, who leads AI research for the Chinese internet giant Baidu and used to teach full-time at Stanford, says tech firms offer two especially appealing things: lots of computing power and large data sets. Both are ▸▸

Deep-learning research

Global sample, %



Source: University of Toronto

*The top 100 scientists based on citation-weighted publications
†Citation-weighted

essential for modern machine learning.

All that is to the good, but the hiring spree could also impose costs. One is that universities, unable to offer competitive salaries, will be damaged if too many bright minds are either lured away permanently or distracted from the lecture hall by commitments to tech firms. Whole countries could suffer, too. Most big tech firms have their headquarters in America; places like Canada, whose universities have been at the forefront of AI development, could see little benefit if their brightest staff disappear to firms over the border, says Ajay Agrawal, a professor at the University of Toronto.

Another risk is if expertise in AI is concentrated disproportionately in a few firms. Tech companies make public some of their research through open sourcing. They also promise employees that they can write papers. In practice, however, many profitable findings are not shared. Some worry that Google, the leading firm in the field, could establish something close to an intellectual monopoly. Anthony Goldbloom of Kaggle, which runs data-science competitions that have resulted in promising academics being hired by firms, compares Google's pre-eminence in AI to the concentration of talented scientists who laboured on the Manhattan Project, which produced America's atom bomb.

Ready for the harvest?

The threat of any single firm having too much influence over the future of AI prompted several technology bosses, including Elon Musk of Tesla, to pledge in December to spend over $1 billion on a not-for-profit initiative, OpenAI, which will make its research public. It is supposed to combine the research focus of a university with a company's real-world aspirations. It hopes to attract researchers to produce original findings and papers.

Whether tech firms, rather than universities, are best placed to deliver general progress in AI is up for debate. Andrew Moore, the dean of Carnegie Mellon University's computer-science department, worries about the potential for a "seed corn" problem: that universities could one day lack sufficient staff to produce future crops of researchers. As bad, with fewer people doing pure academic research, sharing ideas openly or working on projects with decades-long time horizons, future breakthroughs could also be stunted.

But such risks will not necessarily materialise. The extra money on offer in AI has excited new students to enter the field. And tech firms could help to do even more to develop and replace talent, for example by endowing more professorships and offering more grants to researchers. Tech firms have the cash to do so, and the motivation. In Silicon Valley it is talent, not money, that is the scarcest resource. ■

Solar energy

Blinded by the light

AUSTIN AND MADRID

Two big potential bankruptcies cast a shadow over the solar landscape

IN SOME respects this is a bumper era for solar energy. Last year, for the first time, the world invested more in photovoltaic cells than in coal- and gas-fired power generation combined. This year, new solar installations in America are expected to more than double (see chart on next page). China, which now has more solar capacity than any other country, plans to triple it by the end of the decade.

Yet this week two of the rich world's most prominent solar-power developers have been flirting with disaster. Cheered on by yield-hungry creditors and investors, they had expanded too quickly, reliant on heavy borrowing and financial engineering. Not for the first time, some energy firms fooled themselves into believing that newfangled technologies and funding mechanisms could let them defy laws of financial gravity.

On March 29th SunEdison, an American firm that calls itself the world's largest renewable-energy development company, was described in a public filing as facing a "substantial risk" of bankruptcy. A day earlier, the *Wall Street Journal* reported the firm was under investigation by the Securities and Exchange Commission (SEC) over accounting disclosures. Its debt exceeds $11 billion, gathered in just a few heady years.

Across the Atlantic, Abengoa, a big Spanish renewable and engineering firm with €9.3 billion ($10.6 billion) of debt, narrowly avoided bankruptcy this week after three-quarters of its creditors granted it a temporary reprieve to allow for the approval of a debt-restructuring plan. After four months of pre-bankruptcy proceedings, the truce was a big relief.

Both firms were emblematic of the excitement over clean energy. They borrowed oodles to build large projects that delivered energy to utilities at increasingly attractive prices. They then sold the assets to publicly listed and tax-efficient offshoots, known as "yieldcos", that funded themselves by issuing shares. Since 2014 the biggest such share sales in America were by SunEdison's yieldcos, TerraForm Power and TerraForm Global, and by the eponymous Abengoa Yield. Each raised over $500m.

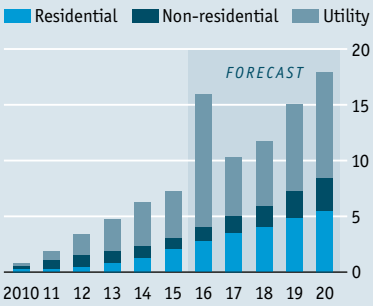
But they were blinded by their own success, says Greg Jones of CreditSights, a financial-research firm. A plunge in oil prices and higher risk premiums for energy firms made it harder for yieldcos to raise money, which violated their promise to shareholders not only to issue steady payouts but also to increase returns. "They assumed there would always be access to capital markets," he says.

SunEdison has become particularly erratic. In the middle of last year its bosses said its shares were substantially undervalued at $32. They have since fallen below $1. Analysts say its combination of acquisitive hubris, operational failures, murky financials and shoddy corporate gover-

Some prospects are still dazzling

Sunny side up

US photovoltaic installed capacity, GW-dc



Source: SEIA/GTM Research

nance cast a shadow over the clean-tech industry, though many firms are far more prudently managed.

SunEdison's problems began last summer with a $2.2 billion merger agreement with Vivint Solar, a developer of rooftop solar controlled by Blackstone, a private-equity group. It hoped to use TerraForm Power to buy Vivint assets, but other TerraForm investors objected that the yieldco was becoming a dumping ground for SunEdison's expensive acquisitions. Vivint ended up scrapping the merger.

In the autumn analysts at CreditSights drew attention to murky debt disclosures, which further battered confidence in SunEdison. The company has twice since delayed filing an annual financial statement and admitted to "material weaknesses in its internal controls over financial reporting". That may explain the SEC's interest, which exacerbates the concern of creditors. "It's like a gigantic layer cake of debt," says Mr Jones.

SunEdison had also upset TerraForm shareholders by saying Brian Wuebbels, its embattled chief financial officer, would become chief executive of the yieldcos, further subordinating their boards to the parent company. On March 30th both yieldcos announced his resignation.

The uncertainty is affecting its business activities. Hawaiian Electric, a utility that agreed to buy power from SunEdison, is trying to cancel the contracts because of the seller's failure to meet financing deadlines, amid fears the projects could be drawn into bankruptcy proceedings.

Like SunEdison, Abengoa can only blame itself for its troubles. Its debt-propelled growth took place under the auspices of the founding Benjumea family, which has strong political connections. Abengoa built €28 billion-worth of projects between 2009 and 2015, including big water-desalination plants. Between 2011 and 2015 its debt-to-earnings ratio ballooned.

Many thought it was too big to fail. But strains grew last summer in Brazil, where it was building power-transmission lines. Abengoa admitted in July it would have to spend more than planned on its Brazilian projects. After denying it needed to raise more from investors, management announced a €650 million capital increase. That dented confidence; the firm's share price slumped and banks pulled credit lines. It asked for preliminary protection from creditors in November. Most of its big construction projects have fallen quiet.

Abengoa hopes to reinvent itself. Under the restructuring plan, creditors would see 70% of debt swapped into equity. Existing shareholders would be left with just 5% of equity. That is painful but better than going into liquidation. The new Abengoa would receive fresh funding and do more "turnkey" construction for others. It would still labour under €4.9 billion of debt, but could at least focus on the type of engineering it does best. SunEdison may not have even that luxury. ■

Telefónica

Hail, César!

MADRID

The fate of Telefónica under César Alierta mirrors Spain's ups and downs

SIXTEEN years was surely too long for anyone to remain as boss of Spain's largest telecoms company, Telefónica. During his spell in charge, César Alierta, 70, who at last agreed to hang up his receiver this week, created a giant. Telefónica expanded far and wide in Latin America and Europe, yet the benefits to shareholders were hard to see.

A former stockbroker who was famously fond of cigars, Mr Alierta became one of the most powerful businessmen in Spain. Under his guidance, Telefónica's debt-fuelled expansion mirrored Spain's own overheated economic boom and subsequent slump. Early on he had shown caution: his tenure began with his cleaning up the mess that resulted from Telefónica's dud investments during the dotcom bubble. Then, like bosses at other big Spanish firms such as Santander, a bank, Mr Alierta was tempted to splurge. Telefónica bought BellSouth's Latin American mobile operations in 2004; acquired O2, a British telecoms firm, in 2006; and invested in China. By 2007 its market value exceeded €100 billion ($150 billion).

Its heft did help Telefónica to weather Spain's financial crisis, but its debt pile also grew. As Spain's fortunes fell, Mr Alierta was forced into retreat, selling investments in Italy, the Czech Republic and Ireland. Last year Telefónica also agreed to sell O2. The firm decided to concentrate on core markets including Germany, where it bought E-plus, a big phone operator, and Brazil, the company's largest market by sales. It also tried to bundle together packages of television, internet, mobile and fixed lines. That required heavy investment in ultra-fast fibre: Spain now has the most extensive fibre-to-home network in Europe.

Under Mr Alierta's guidance, Telefónica invested some €100 billion in all and its customers grew to 322m, from 68m in 2000. That sounds impressive, but it brought shareholders relatively little to cheer. Their returns, including reinvested dividends, amounted to minus 4.7% over the course of his tenure. Reasons exist to doubt his grand promise that dividends are assured for the next decade, as Telefónica will have to pay down debt in the next few years. One consolation is that other former telecoms monopolies, such as Telecom Italia, did even worse. Nimbler rivals such as Vodafone, however, delivered more solid returns.

Spaniards see a generational shift under way in politics, as newcomer parties like Podemos and Ciudadanos show. Might some similar change be in the offing among corporate leaders? Spain's largest firms are run by powerful executive chairmen, men in their late 60s who have been bosses for over a decade. In fact, Telefónica is not ushering in radical change. Its new boss is likely to be a well-liked and slightly younger insider, José María Álvarez-Pallete, who has a notable fondness for endurance running. Given his predecessor's lengthy time at the company's helm, that is not necessarily encouraging.

Mr Alierta found his chair comfortable

Malaysia Airlines

Recovery phase

Two years after flight MH370 vanished Malaysia's flag carrier is still in trouble

DISASTER struck Malaysia Airlines twice in 2014. In March, flight MH370 from Kuala Lumpur to Beijing, a Boeing 777 carrying 239 passengers and crew, disappeared an hour after take-off. Experts think it crashed in the southern Indian Ocean, though no one is sure why. Only a few fragments of debris have turned up, off Africa's coast. Four months later Russian-backed militia in eastern Ukraine shot down MH17, another 777, killing all 298 people on board. Two years on, Malaysia's struggling national carrier is still flying, but its financial health remains under scrutiny.

Both crashes appeared to have been beyond the firm's control but hurt business nonetheless. Customers deserted the airline. Chinese flyers feared it was jinxed: sales in China, a crucial market, fell by 60% immediately after the first crash. Shortly after the second disaster, in August 2014, Malaysia's government renationalised the airline, rescuing it from collapse.

In fact the airline was in a mess before the two tragedies. Malaysia last made a profit in 2010. In 2013 the firm lost $356m. As demand for air travel in the region grew, rivals such as Singapore Airlines and Air Asia, a low-cost carrier, hugely expanded capacity. Malaysia itself went on a shopping spree, buying 15 A330 wide-body jets and six A380 superjumbos from Airbus. But too many seats pulled down fares and profits across South-East Asia.

Malaysia has all the attributes of a bloated national carrier—too many staff and costs that far outweigh leaner low-cost carriers. It has made some cuts. Last year it fired 6,000 of its 20,000 workers. And the government appointed a new boss with a reputation for slashing costs at underperforming airlines. Christoph Mueller, a former pilot, restored the fortunes of Aer Lingus, Ireland's flag carrier, by cutting loss-making short-haul routes and focusing on cheap transatlantic flights. He also proved ruthless at Sabena, the now-defunct Belgian flag carrier.

Mr Mueller plans to shrink the airline to become a regional carrier, giving up on making Kuala Lumpur a global hub. Unable to compete with the likes of Air Asia for the low-cost market or with Gulf airlines for long-haul customers, Malaysia will concentrate on middle-distance routes. In December it announced a tie-up with Emirates, letting it withdraw from most of the long-haul destinations it still serves in Europe. It plans to get rid of aircraft, including some of the superjumbos.

Hoping for a miracle

Malaysia has tried this before. Previous bosses returned it to profitability in 2007, by slashing domestic routes and most of its international flights. Mr Mueller has other plans too. The airline will rebrand itself after improvements such as introducing on-board Wi-Fi, tarting up its lounges and providing tastier food. The aim is to change customers' perceptions of the firm. That seems to have worked for Swiss International Air Lines, reborn from the bankrupt remains of the country's national carrier, and more recently with Eurowings, the new name for Germanwings, which suffered a blow to its reputation after one of its pilots deliberately crashed his plane into a mountainside.

The airline's aim of making profits again by 2018 looks optimistic, however. The low cost of jet-fuel, priced in dollars, is a boon for airlines but the weakening of the Malaysian ringgit, the currency in which the firm earns most revenues, cancels out much of that benefit. China's flagging economy is likely to mean slower growth in passenger numbers in the region. The South-East Asian market as a whole looks difficult. Low-cost airlines have expanded capacity by more than half over the past three years. As a result the biggest 16 airlines in the region barely broke even last year, according to CAPA, a consulting firm. National pride and public money mean Malaysia Airlines will stay in the air, but it will be a bumpy journey. ■

Shareholder value

Analyse this

NEW YORK

The enduring power of the biggest idea in business

WHAT is the most influential contemporary book about the world economy? An obvious choice is "Capital in the Twenty-First Century", a 696-page analysis of inequality by Thomas Piketty, a French economist. There is another candidate: "Valuation", a 825-page manual on corporate finance and shareholder value. Some 700,000 copies of it encumber the bookshelves of MBA students, investors and chief executives around the globe.

Inequality and shareholder value are linked in the minds of many folk, who blame investors and managers for stagnant wages and financial crises. Ruthless corporations are a big theme in America's election campaign. The near-collapse of Valeant, a drugs firm, seems to illustrate a toxic business culture. Its shares have fallen by 73% this year. It is restating its accounts and is in negotiations with its lenders and under investigation by regulators. Valeant describes itself as "bringing value to our shareholders". While there is no indication of fraudulent or illegal practice, the company could end up joining a pantheon of corporate fiascos that includes Enron (which pledged to "create significant value for our shareholders"), Lehman Brothers, ("maximising shareholder val- ▸▸

ue") and MCI WorldCom ("a proven record of shareholder value creation").

Yet the sixth edition of "Valuation"*, published last year, a quarter of a century after the first, is a reminder of why shareholder value is still the most powerful idea in business and why many criticisms thrown at it are unfair. The origins of the doctrine lie in the 1950s and 1960s, when Franco Modigliani and Merton Miller, two scholars, showed that a firm's value is independent of its capital structure and dividend policy. That inspired a new framework for analysis, popularised in the 1980s by Joel Stern, a consultant, Alfred Rappaport, another scholar, and McKinsey & Co, a consultancy, among others.

Company analysis was antediluvian until then. Models were scribbled on paper covered in correction fluid. Profits were cheered, without much regard to the book-cooking done, risks taken and capital used to achieve them. The worth of a firm was estimated by placing its profits or book value on a multiple, whose value was best decided after a three-Martini lunch.

"Valuation" and a few books like it, offered new tools. Cashflow, not easy-to-manipulate accounting profit, mattered. An activity only made sense if capital employed by it made a decent return, judged by its cashflow relative to a hurdle rate (the risk-adjusted return its providers of capital expected). Two newish spreadsheet programs, Lotus 123 and Microsoft Excel, let analysts forecast firms' long-term cashflows and gauge their present value today.

This breathed fresh life into an old idea—that shareholders had the whip hand. Technically, shareholders do not own a company: the firm is a legal person and a share represents a bundle of entitlements to dividends and voting powers. But a doctrine of "shareholder primacy" had been outlined in 1919, when a Michigan court observed that "a business corporation is organised and carried on primarily for the profit of stockholders". The new science of corporate finance revolutionised the pursuit of that goal. Managers realised that by working out where firms employed capital and using it more efficiently they could increase their value. Outsiders had a methodology with which to second-guess incompetent managers.

These ideas lit up corporate America first. In the late 1980s and 1990s, profits relative to GDP were at historic lows and global competition intensified. Managers used the methodology of shareholder value to break up conglomerates and ditch weak business lines. The financial industry was deregulated, creating an army of number-crunchers to scrutinise firms.

By the turn of the century, big European firms were on board. Germany's system of cross-shareholdings between financial and industrial firms was unwound: investors could buy the same exposure and did not need companies tying up capital. The jewels of French industry were privatised and their bosses obliged to think of profitability as well as impressing politicians.

Today shareholder value rules business. Abenomics, the plan to revive Japan's economy, involves prodding firms to use capital better. Fosun, a private Chinese firm, devotes a page of its annual report to calculating the value it claims to have created. The only boardrooms that shareholder value has not reached are those of China's state-run firms, whose party-appointed bosses look baffled if asked about return on capital and buzz for more tea.

Value cremation

Yet at this moment of ascendancy in the business world, shareholder value is under fierce attack beyond it, fuelled by a sense that Western economies are not delivering rising prosperity to most people. The criticism falls into two categories. The first is that shareholder value is a licence for bad conduct, including skimping on investment, exorbitant pay, high leverage, silly takeovers, accounting shenanigans and a craze for share buy-backs, which are running at $600 billion a year in America.

These things happen, but none has much to do with shareholder value. A premise of "Valuation" is that there is no free lunch. A firm's worth is based on its long-term operating performance, not financial engineering. It cannot boost its value much by manipulating its capital structure. Optical changes to accounting profits don't matter; cashflow does (a lesson WorldCom and Enron ignored). Leverage boosts headline rates of return but, reciprocally, raises risks (as Lehman found). Buy-backs do not create value, just transfer it between shareholders. Takeovers make sense only if the value of synergies exceeds the premium paid (as Valeant discovered). Pay packages that reward boosts to earnings-per-share and short-term share-price pops are silly.

Outbreaks of madness in markets tend to happen because people are breaking the rules of shareholder value, not enacting them. This is true of the internet bubble of 1999-2000, the leveraged buy-out boom of 2004-08 and the banking crash. That such fiascos occur is a failure of governance and human nature, not of an idea.

The second criticism is weightier: that firms should be run for all stakeholders, not just shareholders. In a trite sense the goals of equity-holders and others are aligned. A firm that sufficiently annoys customers, counterparties and staff cannot stay in business. Some bosses, such as Paul Polman of Unilever, and Joe Kaeser at Siemens, say that pursuing social and financial objectives is consistent. But it is disingenuous to pretend conflicts do not arise. A firm with a loss-making factory cannot shut it without destroying jobs.

The trouble is identifying a goal that could replace the pursuit of shareholder value. If firms had to promote employment they would be less productive and riskier borrowers, as China is discovering. The objective of maximising wealth is deeply embedded in the global savings system, with asset managers obliged to protect clients' money. Asking firms to adopt objectives to solve inequality loads a giant problem on their shoulders.

For these reasons shareholder value—properly defined—will remain the governing principle of firms. It is still drawing recruits. In August Larry Page, the co-founder and boss of Alphabet (Google's parent), reorganised the firm, partly to "rigorously handle capital allocation" and make a "return above the benchmark". But shareholder value is not the governing principle of societies. Firms operate within rules set by others. Consequences of stagnation could include higher taxes, tougher antitrust policing, more regulation and more rules to protect jobs. How firms respond is an issue for the next bestseller to tackle. ■

* "Valuation: Measuring and Managing the Value of Companies", by McKinsey & Company, Tim Koller, Marc Goedhart, David Wessels

Schumpeter | Tycoonomics

The rising number of emerging-market billionaires is a good thing

IN 1998 Peter Mandelson, a leading member of Britain's then Labour government, said he was "intensely relaxed about people getting filthy rich as long as they pay their taxes." Today Lord Mandelson is more uptight; he worries about the rising inequality and stagnating middle-class incomes brought about by globalisation. His volte-face is typical of the global elite. The head of the IMF, Christine Lagarde, says that rising inequality casts a "dark shadow" over the global economy. A recent OECD report warns that rising inequality will be a "major policy challenge" for all countries.

In a new study, "Rich People, Poor Countries: The Rise of Emerging-Market Tycoons and their Mega Firms", Caroline Freund of the Peterson Institute in Washington, DC, makes an important contribution to understanding this challenge. She draws a distinction between rich-world billionaires and those of the emerging economies, whose numbers have been rising at a faster rate. In 2004 the emerging world accounted for 20% of the 587 billionaires in *Forbes* magazine's annual survey. By 2014 it accounted for 43% of the 1,645 billionaires on the list. In the rich world the share who were self-made, rather than heirs to a fortune, was fairly stable between 2001 and 2014, at about 60%. In the emerging world the self-made proportion rose from 56% to 79%.

Being self-made is not automatically a virtue. Some self-made tycoons acquire their fortunes through cronyish connections. But Ms Freund argues that the fastest-growing group of emerging-world billionaires consists of what might be called "Schumpeterian" entrepreneurs—people building or managing big companies that have to fight for their lives in global markets. The rise of this type of tycoon, she says, can be a healthy consequence of structural transformation and rapid development. When economies expand quickly—as they did in America in the late 19th century, say—they develop big firms that produce concentrations of wealth but that also contribute to broad growth by pioneering productive techniques and creating jobs. Such economies lift up those at the bottom of the income scale as well as enriching those at the top.

Ms Freund scrutinises the lists of billionaires, excludes those whose wealth was inherited and then classifies the self-made billionaires into four categories: those whose wealth came from government concessions and other forms of rent; those in finance or property; the founders of businesses that genuinely compete in the market; and highly paid executives at such Schumpeterian businesses. She treats only the last two categories as real entrepreneurs. In 2001 just 17% of all emerging-market billionaires made it into this classification; in 2014 roughly 35% did.

Among the leading examples is Terry Gou of Taiwan, who founded Hon Hai, an electronics giant (also known as Foxconn), in 1974 with just $7,500. Its massive expansion on the mainland has made it China's biggest exporter, with a workforce of nearly 1m. Dilip Shanghvi founded Sun Pharmaceutical Industries in 1983 with a $1,000 loan from his father. It is now India's largest drugmaker, with 16,000 workers and a market value of $29 billion. Zhou Qunfei started out working on the family farm in Hunan and was then a factory worker in Guangdong before starting a firm that makes touchscreens. Ms Zhou is now the world's richest self-made woman. Her company, Lens Technology, employs 60,000 and is worth close to $12 billion. The American dream of going from rags to riches appears more achievable in developing Asia than in America itself, which seems ever more in thrall to vested interests.

The emergence of these goliaths is similar to the emergence of big companies in the United States and Europe in the late 19th and early 20th centuries, Japan in the 1950s and 1960s, and South Korea in the 1960s and 1970s. The comparison to America during the gilded age is particularly striking. Chinese tycoons such as Jack Ma of Alibaba and Robin Li of Baidu, two internet giants, are becoming fabulously wealthy by learning how to serve a huge new market in much the same way that Andrew Carnegie and John D. Rockefeller did with steel and oil. Tee Yih Jia Foods of Singapore has become a colossus of spring rolls by mechanising their production and improving marketing, much as H.J. Heinz did with sauces and pickles in 1890s Pittsburgh.

Where's the anti-billionaire backlash?

There are significant regional variations in this happy picture. East Asia has the lion's share of Schumpeterian billionaires, whereas Latin America still has a disproportionate share of inheritors, and South Asia and eastern Europe a continuing problem with cronyism. However, the anti-billionaire backlash that is such a marked feature of Western politics is, thus far, much less pronounced in the emerging world. This may be because emerging-market billionaires seem more dynamic: more than half of them are under 60 compared with less than a third in the rich world. But it is partly because ordinary people in the emerging world have been getting richer alongside the billionaires; in the rich world the masses have seen their incomes stagnate.

You can pick holes in Ms Freund's arguments. The line between Schumpeterian and crony firms can be hard to draw in China, where the government exercises huge influence behind the scenes. And if a recent slowdown in emerging economies worsens, it may show that some entrepreneurial stars built their empires on sand. But if anything, she errs on the side of caution. She excludes financiers, even though they can also be wealth-creators; and heirs, even though some—such as Ratan Tata of India, who increased the value of the Tata group enormously—are Schumpeterians. Although cronyism is far from extinct, the emerging world has witnessed a big increase in the number of true entrepreneurs. They are a symptom of economic dynamism, not a cause of rising inequality. ■

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China's M&A boom

Money bags

SHANGHAI

China's global investment spree is fuelled by debt

"WE ARE on a wild ride," Tom Mangas, the boss of Starwood, an American hotel group that owns the Westin and Sheraton brands, wrote to employees this week. He was referring to the bidding war over Starwood between Marriott, another American hotel operator, and a group led by Anbang, a Chinese insurer. Anbang this week raised its offer to $14 billion. But Mr Mangas could just as well have been talking about the wave of China-led mergers and acquisitions that is sweeping over the world economy.

Chinese firms with little international experience and lots of debt have emerged as the biggest buyers of global assets. They have announced nearly $100 billion in cross-border M&A deals this year, already more than their $61 billion of foreign acquisitions last year (see chart). To be sure, announcing deals is not the same as closing them. Between losing out to other bidders and rejection by regulators, China's investment tally could fall. Nevertheless, the trend is unmistakable. In recent years China has consistently accounted for less than a tenth of announced cross-border M&A deals; this year its share is nearly a third.

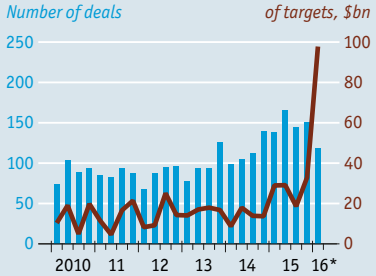
For the world economy this investment boom is, in some respects, a welcome development. Global M&A is on track to fall by 25% in the first quarter of this year from a year earlier. Without China's voracious appetite, the decline would be even more precipitous. The action has also been spread across a wide range of industries, from cosmetics to construction equipment and from film-making to fertilisers. China seems to have outgrown its fixation with commodities and energy.

Politically the deals have also been relatively uncontroversial. According to Rhodium Group, a consultancy, there has been an increase in reviews by the Committee on Foreign Investment in the US (CFIUS), which examines takeovers in America for security threats, but it has been proportionally smaller than the increase in Chinese investments.

Instead, a new concern is growing: that the surge in outbound investment is a sign of weakness in the Chinese economy. This view is easily exaggerated. The yuan's gradual depreciation against the dollar over the past two years has indeed changed calculations, as has slower domestic growth. But rather than sparking a stampede to the exits, it is more accurate to say that these changes have alerted Chinese firms to the fact that they are still woefully underinvested abroad.

Shopping spree

Announced Chinese outbound mergers and acquisitions



Source: Thomson Reuters *Year to date

China's share of cross-border M&A has averaged roughly 6% over the past five years, despite the fact that it accounts for nearly 15% of global GDP. "China punches below its weight in outbound deals and has room to accelerate," says Fred Hu of Primavera Capital, an investment firm that is part of the consortium bidding for Starwood. Chinese insurers such as Anbang are becoming more adventurous, but less than 2% of the industry's assets are foreign.

A senior banker working with Chinese firms says the prospect of a further depreciation of the yuan is at most "a nice add-on" when making deals. Strategic considerations—acquiring technology and brands that China lacks—are more important for buyers, both to bolster their position at home and to speed expansion abroad. When deals are actually completed, they will lead to substantial one-off outflows of capital. But if the investments are any good, they should generate a regular stream of inflows, in the form of profits from the companies concerned.

A second category of concerns, about the financial structure of the deals, is more unsettling. Chinese buyers, by and large, are far more indebted than the firms they are acquiring. Of the deals announced since the start of 2015, the median debt-to-equity ratio of Chinese buyers has been 71%, compared with 44% for the foreign targets, according to *The Economist*'s analysis ▸▸

of S&P Global Market Intelligence data. Cash cushions are generally also much thinner for Chinese buyers: their liquid assets are roughly a quarter lower than their immediate liabilities. The forbearance of their creditors makes these heavy debts more bearable in China than they would be elsewhere. But the Chinese buyers are financially stretched, all the same.

Where, then, are they getting the money for the deals? For many, the answer is yet more debt. Chinese banks see lending to Chinese firms abroad as a safe way of gaining more international exposure. The government has encouraged them to support foreign deals. As long as the firms to be acquired have strong cash flows, the banks are happy to lend against the targets' balance-sheets, bringing debt to levels usually only seen in leveraged buy-outs.

Foreign banks are also getting involved in some of the deals: HSBC, Credit Suisse, Rabobank and UniCredit are helping to arrange syndicated loans for ChemChina, which agreed to buy Syngenta, a Swiss seed and pesticide firm, for $43 billion. When the acquirers' finances look shaky, bankers say they find solace in two things: that the deals themselves will generate returns and that the political pedigree of the buyers, especially that of state-owned companies, will protect them. "You have to trust that the acquirer has become too big to fail," says an M&A adviser.

For the buyers, there are two strong financial rationales for the deals, albeit ones that highlight distortions in the Chinese market. First, debt-funded buyouts can actually make their debt burdens more tolerable. Take the case of Zoomlion, a construction-equipment maker with 83 times more debt than it earns before interest, tax, depreciation and amortisation. It wants to buy Terex, an American rival with debt just 3.5 times larger than its earnings, for $3.4

Buttonwood | Bucking the trend

The dollar's long rally seems to have halted

AT THE beginning of the year the dollar was on a tear. In trade-weighted terms, it had risen by almost 20% since the start of July 2014. With the Federal Reserve tightening interest rates for the first time since 2006, the greenback seemed destined to head higher.

In fact, doubts were already emerging. In mid-December fund managers polled by Bank of America Merrill Lynch thought that being bullish about the dollar was the most overcrowded trade in the financial markets and that the currency was overvalued.

The dollar continued to rise for the first three weeks of the year but then the tide turned: since January 20th, the currency has fallen by 3.8% in trade-weighted terms (see chart). The main reason may be a perceived shift in Fed policy; as the year began, investors were expecting three or four rate increases in 2016. The latest statement from the central bank suggests that only two rises are on the menu.

The dollar's ascent may have played a part in the Fed's stance, since a stronger currency, by itself, represents a tightening of monetary conditions. The central bank has lowered its forecast for growth this year to 2.2%. Even that could be an overestimate: the Atlanta Federal Reserve's GDPNow model, which tracks American growth, points to an annualised increase in output in the first quarter of just 0.6%. In a speech that took a cautious approach to further tightening, Janet Yellen, the Fed's chairman, said this week that worries about global growth were another factor; similar concerns stopped the Fed from pushing up rates last September. Ms Yellen's remarks drove the dollar down and pushed share prices higher.

An exchange rate is the relative price of two currencies, so the dollar's recent decline reflects more than just Fed policy.

Greenback in retreat

Dollar trade-weighted index
January 1997=100

Source: Federal Reserve

First, a pickup in commodity prices has allowed emerging-market currencies to rebound. Capital Economics, a research group, says its emerging-market exchange-rate index is at its highest since November. In some cases, currencies have been helped by tighter monetary policy: central banks in Colombia, Mexico and Peru have all pushed up rates. Another sign of confidence is a decline in the spread (the interest premium relative to Treasury bonds) paid by emerging-market debtors.

Second, recent market reaction to the policy moves of other central banks has been rather counter-intuitive. Normally, you would expect monetary easing by a central bank to lead to a weaker currency. But recent policy shifts by the European Central Bank and the Bank of Japan have sent the euro and the yen higher, not lower. It is not clear why. Some think these market moves indicate that central-bank policy is less effective than it was in the aftermath of the 2008 crisis. Others believe that negative interest rates hurt bank profits, and are thus a poor policy instrument.

This is a tricky area. Negative rates may well be designed to weaken the exchange rate or, at the very least, to stop a currency from strengthening. Other rich countries seem willing to turn a blind eye to a modest bit of depreciation. But if their own currencies appreciate too far, they will respond with monetary easing of their own. This fuels talk of "currency wars".

But if central-bank easing doesn't even have the desired impact on the exchange rate, what next? One answer could be outright intervention: selling the domestic currency and buying foreign assets. The Swiss National Bank pursued such a policy from September 2011, capping the franc's level against the euro, before suddenly abandoning it in January last year.

Japan's economy continues to struggle, more than three years after the launch of Abenomics; the latest figures show that industrial production fell by 6.2% in February. That suggests the Bank of Japan will be concerned about the yen's strength. Mansoor Mohi-Uddin, a currency strategist at Royal Bank of Scotland, says that an appreciation of the yen beyond 110 to the dollar "will substantially increase the risk of the authorities intervening to counter the rise of the currency."

A change in the dollar trend may simply have shifted the problem. A rising greenback was bad news for emerging markets: in those with pegs to the dollar, the appreciating currency weakened their competitive position in export markets; in those with floating currencies, debt-servicing costs jumped for companies that had borrowed in dollars. A weaker dollar makes life more difficult for advanced economies, which are counting on exports to revive their moribund economies (see Free exchange). They may spend the rest of 2016 figuring out what to do about it.

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billion. Even if the purchase consists entirely of borrowed cash, the combined entity would still have a debt-to-earnings multiple of roughly 18, a marked improvement for Zoomlion.

Second, Chinese buyers know that one key financial metric works to their advantage: valuations in the domestic stockmarket are much higher than abroad. The median price-to-earnings ratio of Chinese buyers is 56, twice that of their targets. In effect, this means they can issue shares domestically and use the proceeds to buy what, from their perspective, are half-price assets abroad. This also gives them the firepower to outbid rivals in bidding wars. To foreign eyes, it might look like the Chinese are overpaying. But so long as their banks and shareholders are willing to stump up the cash, Chinese companies see a window of opportunity. ■

Global house prices

Hot in the city

NEW YORK

Valuations in globalised cities are rising much faster than in their hinterlands

GLOBALISATION has created a handful of metropolises that attract people, capital and ideas from all over the world, almost irrespective of how their national economy is doing. House prices in such places, unsurprisingly, outpace the national average. In our latest round-up of global housing, we find that prices have risen in 20 of the 26 countries we track over the past year, at an (unweighted) average pace of 5.1% after adjusting for inflation. Prices in pre-eminent cities in these countries, however, have risen by 8.3% on average.

In a survey conducted last year, fewer than one in nine residents of Amsterdam, Berlin, London, Paris, Stockholm and Zurich thought that it was easy to find reasonably-priced housing. In these cities, house prices have risen at an average pace of 6.5% a year over the past three years (again, unweighted), compared with a national average rise of just 3.2%. The value of homes in four cities on the Pacific—San Francisco, Vancouver, Sydney and Shanghai—has increased by 12% a year over the past three years, twice the average national pace.

The supply of housing is rather inelastic, so in the short term house-price inflation is driven more by demand factors, such as the number of households, disposable income, interest rates and the yield available on other assets. In recent years all of these have helped to push house prices steadily upwards, especially in big cities.

In the conurbations in question, the number of households is rising fast as hordes of ambitious millennials pour in. Two in five of Zurich's residents were born outside Switzerland; 44% are between the ages of 20 and 44. The boom towns also have tight labour markets and therefore relatively high income growth: the unemployment rate in San Francisco and Stockholm is around a percentage-point lower than the national averages. Some are havens for second homes and money seeking safety: foreigners snap up half of London's princeliest dwellings, according to Savills, an estate agent. Finally, they provide a decent return: net yields in Vancouver were 11% in 2015, according to MSCI, a data provider, three percentage points above the average for Canadian housing.

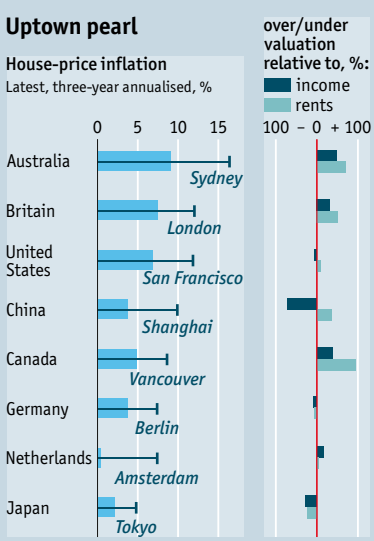
Whenever the supply of a good is limited, there is potential for exuberance. San Francisco's property market is intertwined with the technology sector: since 2008 there has been a 93% correlation between the monthly movements in the NASDAQ and house-price inflation in its metropolitan area. Since bottoming out in early 2012, prices in Silicon Valley have risen by 73%, compared with 31% in America as a whole.

To determine whether homes are fairly valued *The Economist* looks at the relationship between prices and disposable income (an indicator of affordability) and between prices and rents (a substitute for buying a home). If rising prices move these ratios above their long-run averages, then either incomes or rents are likely to rise, or house prices to fall.

Across America house prices, after falling by 25% from their peak between 2007 and 2012, are now at fair value compared with rents and incomes. In San Francisco, too, they are at fair value when compared with rents, but 45% overvalued relative to incomes. Thanks largely to their big cities, housing appears to be more than 40% overvalued in Australia, Britain and Canada, according to the average of our two measures. Between 2002 and 2012 the typical London home sold for seven times the city's average annual salary. That figure has since risen to 12 times.

As property developers from Las Vegas to Limerick will attest, when supply does eventually respond to soaring demand, property prices fall. Restrictive planning laws curb new construction in the area around San Francisco Bay; the narrow peninsula that San Francisco itself occupies compounds the problem. London suffers from an even more severe planning regime. Yet housing starts are at a nine-year high in San Francisco. In London, too, builders are finding a way: construction began on 24,000 new homes in the capital in 2015, the highest rate for ten years. ■

Uptown pearl



Sources: BIS; OECD; Soufun; Teranet; vdpResearch; Zillow; national statistical offices; *The Economist*

Interactive: Compare countries' housing data over time at **Economist.com/houseprices**

Clearing-houses

Double-crossed

Bigger may not be better when it comes to clearing-houses

THE bookmaker on Aldgate High Street, on the fringes of London's financial district, attracts its fair share of risk-takers. But across the road, at the offices of LCH.Clearnet, part of the London Stock Exchange Group (LSE), the really big bets are handled. It and other clearing-houses now occupy a central position in high finance. They ensure that trillions of dollars are paid out on derivatives contracts each day. A decade of dealmaking has created five big beasts of clearing: LSE, Deutsche Börse, CME Group, ICE and HKEX. A planned merger between LSE and the Germans would reduce that to four.

LSE and Deutsche Börse take their names from their respective bourses. But they now make more money from their clearing-houses, LCH.Clearnet and Eurex Clearing. That is because the clearing of derivatives has become central to the modern financial system.

Imagine two banks want to hedge against interest-rate movements, but in opposite directions. They sign a contract that will lead to a payment from one to the other if rates rise, and the reverse if they fall. The potential loss or gain is theoretically unlimited, since there is no ceiling (or floor, as the world is fast learning) to rates. To make sure the other party is able to pay up, the two will often work through a middleman—the clearing-house. For a fee, the clearing-house signs two offsetting but technically separate derivatives contracts with the two parties. As long as both know

that it is good for the money, they know their bets are solid.

But the clearing-house is now left with the risk that the losing party fails to stump up. So it asks the two parties to post collateral, or margin, which it can keep if one of them defaults. That way the clearing-house only suffers if the defaulting party owes more than the margin it has posted.

In theory, this system makes bank failures less contagious and the financial system more resilient. In 2009 the G20, a club of big economies, decided that simple derivatives contracts should all be put through clearing-houses, rather than settled directly between the two parties. As a result, clearing-houses, also known as central counterparties, now handle trades with a notional worth of hundreds of trillions of dollars.

The more margin the clearing-houses take, the safer they are. The required margin is calculated using sophisticated actuarial models, and is heavily regulated. The riskier a trade, naturally, the more margin is needed. LCH.Clearnet and Eurex Clearing hold some €150 billion ($170 billion) in collateral between them (see chart). Deutsche Börse notes that its large margin pool helps to ensure the "safety, resiliency and transparency of global financial markets". But having to put up more collateral is expensive for customers. Clearing-houses, which compete for customers, therefore have an incentive not to take too much.

Banks don't just bet on interest rates, of course. They may also buy derivatives tied to bond yields or currency movements, say. Some of those prices move in relation to one another in predictable ways. Gains on an interest-rate future may offset losses on a bond-price future, for example. Clearing-houses take such correlations into account when setting the overall amount of collateral they demand from their customers, a technique called "cross-margining" or "portfolio margining". CME Group boasts that its portfolio-margining service can cut margin requirements by 54-80%. LCH.Clearnet's "Spider" and Eurex's "Prisma" services do something similar.

All of which gives clearing-houses an incentive to merge. Some clients use LCH.Clearnet and Eurex Clearing to make correlated wagers. If the two entities combined, they could use cross-margining to reduce the amount of collateral such customers needed, gaining an advantage over the competition. (The pair say that initially, at least, they would limit such offsetting to perfectly matching derivatives.)

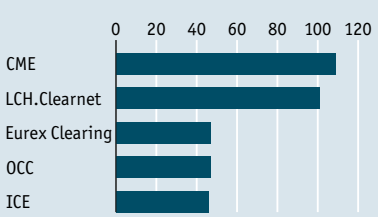
There is a downside, though. The exchange industry is already highly concentrated. Regardless of who gobbles up LSE (ICE may yet enter the fray), the five big groups will soon become four. As they consolidate, the amount of collateral in the system is likely to be reduced.

That could prove risky. Correlations between different asset classes sometimes break down during crises. Such unpredictable movements caused the clearing-house of the Hong Kong Futures Exchange to blow up after the stockmarket crash of 1987, forcing the city's capital markets to close. Such events suggest that models that rely on correlations to trim margin requirements must be ultraconservative.

There is no evidence that any big clearing-house holds too little collateral. Their models are designed to withstand the simultaneous failure of their two biggest customers. They can also tap big default funds if things go wrong. Regulators are untroubled. But it is a worry, nonetheless, that the logic of competition seems to be ever-bigger clearing-houses with ever less collateral. ■

Margin for improvement

Initial margin pool, September 2015, €bn



Sources: London Stock Exchange; Deutsche Börse

African bonds

Ante upped

KAMPALA

Africa discovers the downside of foreign borrowing

TEN years ago African bonds were a rare sight. Of all the countries south of the Sahara, only South Africa had ever sold a dollar-denominated bond to foreign investors. Since then, 16 more have. Excluding South Africa, African countries issued $6.75 billion of dollar debt last year, just short of the record $7 billion sold in 2014. But depreciating currencies, low commodity prices and a rise in interest rates in America are taking the shine off.

Africa's bond bonanza suited both investors and governments. With government bonds in their own countries offering measly returns, rich-country pension funds looked to Africa for higher yields. And by issuing debt in dollars, African governments could avoid the double-digit rates they pay to borrow at home. For a while, optimism reigned. Ghana's debut dollar bond was four times oversubscribed. Zambia, buoyed by a copper boom, did even better: its ten-year bond, issued in 2012, was 24 times oversubscribed, and sold at a yield of 5.6%—lower than the equivalent Spanish bond at the time.

African green

Dollar-denominated bonds issued in sub-Saharan Africa, 2006-15

Source: Bloomberg

Governments were able to issue bonds thanks partly to debt cancellation, which brought down external debt in the region from a peak of 76% of GDP in 1994 to 25% by 2008. Past debts were often owed to official creditors, such as the World Bank, and came with strings attached. Bond markets are less fussy, another reason governments like them. Of 30 African countries that benefited from debt relief, ten have since issued dollar bonds. Ghana, the first to do so, issued its debut bond in 2007, just a year after most of its debts were cancelled.

Africa suddenly seems less creditworthy, however. Regional growth slowed to 3.5% last year, down from 5% the year before. Cheaper commodities have hit government revenue. And the prospect of further rate increases in America is forcing emerging-market governments to pay a higher premium to attract investors. Ghana sold a 15-year bond at a yield of 10.75% in October; Zambia, Angola and Cameroon have also paid more than 9% on new issues. Continuing to borrow in dollars is a mistake, say some—or "madness", in the words of Tidjane Thiam, a former government minister in Ivory Coast who now heads Credit Suisse, a bank.

It is the countries with collapsing currencies that look the most foolhardy. The Zambian kwacha lost 42% of its value against the dollar last year, almost doubling the cost of servicing its debt. Ghana's debut on the bond market was accompanied by an increase in current spending, including a rise for civil servants; its debt has risen above 70% of GDP after three years of double-digit deficits. Ghana turned to the IMF a year ago, and Zambia looks likely to follow suit. Elsewhere bond issues have provoked political rows: in Kenya, opposition leaders claim some of the money raised has been stolen. ▸▸

The problems are not universal. Some countries, such as Ethiopia, continue to grow strongly. The median debt-to-GDP level in the region, though rising, is only 42%. And the structure of bond repayments affords some breathing-space. Their average maturity is 11 years, so until the 2020s most countries need worry only about interest, which is fixed. The annual cost of servicing existing bonds will typically remain below 1% of GDP. "There won't be a huge African debt crisis tomorrow," says Amadou Sy of the Brookings Institution, a think-tank, "but now is the time for governments to get their act together."

One thing they could do is issue bonds in local currency, rather than dollars, and so eliminate the risk of fluctuating exchange rates. But foreign investors are wary of taking on that risk themselves. Most local-currency bonds are issued by just a handful of countries, distinguished by their size (Nigeria) or market development (Kenya, Ghana). Investors worry about small markets freezing up, says Stuart Culverhouse of Exotix, a brokerage that specialises in frontier markets.

Countries can build up domestic institutional investors (at present, banks buy most local bonds). Nigeria, for instance, has worked hard to reform its pension system, and pension-fund assets have grown at a rate of 25-30% over the past five years. Even so, yields on dollar debt are still much lower than domestic rates: Ghana paid 24% on a local-currency bond in November. With tax revenues falling, African governments will need to borrow from somewhere. Dollar debt will become dearer, but it won't disappear. ■

Myanmar's economy

The Burma road

YANGON

A long and painful journey awaits Myanmar's new government

SPEND a day in Yangon, shuttling among new high-rises and bars before retreating to your boutique hotel, and you can almost believe that after decades of isolation, Myanmar is squarely on the road to prosperity. Spend more than a few days, however, and the cracks start showing: intermittent power cuts, ancient sewage systems, insufficient housing for an influx of migrants from the countryside.

The situation is worse in rural Myanmar, where much of the population lives not just in extreme poverty, but also mired in debt. Bad roads make it costly to get goods to market and impede investment. Around three-quarters of the country's children live in homes that lack electricity.

Ripe for investment

Myanmar's voters hope their first freely elected government since the 1960s, which took office this week, will change things for the better.

The task ahead is daunting: within South-East Asia, only Cambodia has a lower GDP per person. Its infrastructure (both physical and financial) is somewhere between crumbling and non-existent; its laws are archaic and, after decades of isolation and underinvestment in education, its skills base is woeful. Government revenue is another problem: corporate and individual tax rates are high, but few people pay. The incoming government of Aung San Suu Kyi's National League for Democracy (NLD) will inherit high inflation, sizeable budget and current-account deficits, a volatile exchange rate and institutions both ossified and hollow after decades of corruption, stagnation and top-down rule.

Still, potential abounds. Myanmar has a young and cheap workforce, a long coastline, abundant agricultural land and an ideal location, wedged between the massive markets of China, India and South-East Asia. Expatriate Burmese are returning in droves, bringing enthusiasm and professional expertise with them.

Meanwhile, the baby steps taken under the outgoing government of Thein Sein have become a proper toddle. Preliminary figures show that GDP grew by around 8.3% in 2015; the Asian Development Bank forecasts much the same this year. Yangon's new stock exchange saw its first listing on March 25th; as many as ten other companies may list this year. Foreign investment, particularly in telecoms and energy, is flowing in. Thanks to Miss Suu Kyi's election victory, Myanmar has the world's goodwill.

Miss Suu Kyi's government says that agriculture will rank among its top priorities, which makes sense: directly or indirectly the sector employs around 70% of the labour force. Before a military junta seized control of Myanmar in 1962 it was the world's leading rice exporter—a title many believe it could reclaim. But most farmers grow low-value crops without decent fertiliser or seeds. Bad infrastructure and Byzantine internal trade rules keep the domestic market fragmented and productivity low: in 2012 average annual income from agriculture in Myanmar was $194 per worker, compared with $507 in Bangladesh and $706 in Thailand.

In the near term, making it easier for farmers to get affordable credit would help. The main (and for decades, the only) source of rural credit is the state-run Myanmar Agricultural Development Bank, which provides only tiny loans. This sends farmers into the arms of informal moneylenders, who charge as much as 10% a month, fuelling a cycle of debt that often ends with farmers losing their land.

Myanmar's new government will also have to tackle land rights: confusing and poorly enforced land-use laws impede foreign investment and leave rural farmers vulnerable to confiscation. The NLD's election manifesto promises land reform, but given that it will require the new government to confront the still-powerful army, that is easier promised than delivered.

That hints at the first of two huge questions hanging over Myanmar's economic reform: will the army and the NLD, inveterate foes until recently, be able to work together? And after 50 years of military rule, will the creaking bureaucracy be able to adapt and at least try to meet the citizenry's high expectations? As one foreign investor in agriculture notes, "The ministers may understand what needs to be done. But there are so many layers below of people who have been living differently for so long that [change] will take a long time." ■

Free exchange | Lean on me

Europe's weak economic recovery is worryingly dependent on exports

EUROPE is hardly bursting with optimism. Threats of different kinds, from coping with refugees to the prospect of "Brexit", weigh on continental minds. For the first time in years, however, the euro zone's economy is not foremost among the worries. It grew in 2015, for a second consecutive year; unemployment rates around the periphery are falling; and "Grexit" has again been averted. Yet some caution is in order. The euro-zone economy remains heavily dependent on exports for its growth. That is both an indicator of the incomplete nature of Europe's recovery and a dangerous vulnerability.

Europe's economic crisis was a stew with many ingredients, from spendthrift governments to inadequate safeguards in the banking system. The stock in which it all simmered, however, consisted of big imbalances in trade and capital flows. Economic integration encouraged high-saving households in slow-growing northern economies to ship their money to the periphery, where potential returns were higher. The flipside of that lending was a parallel imbalance in trade, as peripheral economies consumed more goods and services than they could produce themselves. On the eve of the global financial crisis, Germany was running a trade surplus of 2% of euro-area GDP, while Spain was running a deficit of 1% of euro-area GDP.

Such imbalances are not inherently bad: it makes sense for savings-rich countries to fund investment in poorer ones. Such investment, if sensibly used, should boost growth in the long run, making it easier to repay the debts. But in the euro area too much of the borrowed money paid for consumption or investment in bubbly property. When northern Europeans began pulling money out in the aftermath of the global financial crisis, the periphery had to make an abrupt adjustment. Jobs that had relied on construction and booming domestic consumption evaporated. Investment collapsed amid financial panic and the wobbling of the euro-area banking system. Government spending also faced a squeeze, thanks to pressure from bond markets and austerity-minded politicians in other parts of the euro area. The best hope for peripheral economies was exports, to provide jobs for the jobless and to earn money to repay lenders.

Outside currency unions, rebalancing toward exports is made easier by exchange-rate movements: capital-flow reversals lead to depreciations that make exports cheaper in foreign markets. Yet within the euro area, depreciation was not an option, and no peripheral economy was willing to risk the financial chaos that would have resulted from dropping out of the single currency. Even so, rebalancing could have been made easier if northern Europe, and especially Germany, had shared in the adjustment.

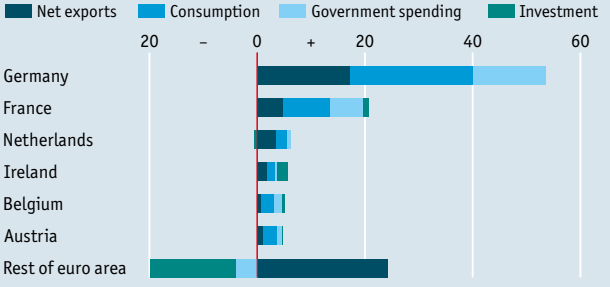
Faster growth in wages might have boosted German consumption and investment while limiting how much wages in peripheral economies needed to fall to make export industries there more competitive. Yet German labour unions asked for only modest pay rises, despite low unemployment. By the same token, had the periphery been able to export more to the core, it would not have needed to slash imports so viciously. But from 2011 to 2015, German imports grew only slightly faster than those of the rest of the euro area, by 10% compared with 7%. Meanwhile, German exports rose faster still, by 17%.

In other words, stronger northern countries did not pick up much of the slack. Poor policy choices contributed to the feebleness of German domestic demand. In 2012 and 2013 German officials lobbied against looser monetary policy; while other big central banks launched asset-purchase programmes, the European Central Bank (ECB) dithered. The German government joined the continent's fiscal austerity drive, closing the country's budget gap even as Germany briefly sank back into recession. Instead, Germany relied on exports as the source of growth.

The rebalancing that has occurred within the euro area is therefore of an odd sort. The periphery has indeed leaned heavily on exports since the onset of the crisis—albeit more to the rest of the world than to other parts of the euro zone. That is because consumption has only grown relatively modestly, and investment scarcely at all, in Germany and the rest of the core. Instead, core and periphery alike have relied on international demand for their exports (see chart). Between 2011 and 2015 the euro area's trade surplus rose from just 0.1% of euro-zone GDP to 3.7%. Even last year, as emerging economies slowed and as Germany enjoyed its lowest unemployment rate in decades, German net exports contributed about as much to the rise in euro-area GDP as German household spending did.

Navy blues

Contribution to euro-area growth, % of total, 2012-15



Source: Eurostat

When you're not strong

It may seem churlish to moan about how the beleaguered euro zone found its way, at last, back to growth. But the dependence on foreign demand carries risks. It places a dangerous drag on recoveries elsewhere. America's trade deficit grew in 2015 despite a spectacular fall in its imports of petroleum; trade subtracted 0.6 percentage points from American GDP growth last year. And Europe's addiction to exports leaves it vulnerable to any deceleration in global growth. Were China's economy to slow more sharply, or America's to return to recession, Europe, too, would see growth wane.

Most importantly, exports' starring role in European growth reveals the pitiful weakness of other elements of the euro zone's economy. Take away the growth, of nearly a percentage point, attributable to trade, and Europe's nominal GDP rose by just 2% last year. The ECB's frantic easing has been sufficient to push down the euro, and thus to boost exports, but not enough to perk up wages or inflation. It is no wonder, then, that consumption is not pulling its weight. Government spending and investment could boost domestic demand directly, but governments in the euro zone remain committed to a course of austerity, despite extraordinarily low government-bond yields. The euro area's weak and distorted recovery is a danger. It is not too late for the fiscal and monetary boost needed to get a real boom going. ■

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Supersonic air travel

Baby boomers

Quieting the sonic boom could help bring back supersonic flight

APART from a gentle nudge in the back as the pilots opened the throttles of its four Rolls-Royce Olympus jet engines, passengers had little sensation that Concorde was accelerating through the sound barrier. Not so for those on the ground. A sonic boom trailing behind the aircraft would rattle windows and dislodge roof tiles in Devon and Cornwall, two western British counties under the aircraft's flight path from London to New York, a journey it could complete in just over three hours.

Supersonic passenger flights came to an end in 2003 after a downturn in air travel and a fatal crash in Paris three years earlier. But Concorde, although a technological marvel for its time, was never a commercial success: the 14 aircraft that saw service were heavily subsidised by British and French taxpayers; they had limited range and guzzled fuel flying subsonically, which they were largely forced to do over land because of their sonic booms. Yet the idea of a Concorde successor has never quite gone away. If a supersonic airliner were to fly again, however, such a noisy footprint would have to be toned down.

Now a group of engineers at NASA, America's aeronautics agency, think they have found a way to do that. Lockheed Martin, an American aerospace firm, has been commissioned by NASA to carry out a $20m design of a small "low-boom" experimental supersonic aircraft (illustrated above). If all goes well, it will be test-flown in 2019 and then begin a series of trials to establish if the sudden and intrusive bang of a supersonic jet passing overhead can be turned into a sound that resembles a soft thump in the distance.

Punching air

Concorde's supersonic boom, and for that matter those from jet fighters and the Space Shuttle, was caused not by one shock wave but the interaction of a series of shock waves radiating from various parts of an aircraft as it flies faster than the speed of sound, which is around 1,240kph (770mph, or Mach 1) at sea level. (These multiple shock waves leaving a supersonic jet fighter can be seen on the next page in a schlieren image, a photographic method which captures variations in the density of a liquid or gas.)

Below Mach 1 the molecules of air in front of an aircraft are pushed out of the way, much as a boat travelling through water creates a bow and stern wave. Once an aircraft accelerates beyond the speed of sound, however, the air molecules simply can't get out of the way fast enough but pile up at certain points on the aircraft. That creates an instantaneous change in pressure, resulting in a shock wave that contains a huge amount of sound energy.

The first shock wave occurs at the aircraft's nose and the others at places such as the leading edge of the wings and the engine inlets. At the rear of the aircraft, a "recompression shock" is formed when the rapid change in air pressure switches back to normal atmospheric levels. As they radiate away, the waves tend to coalesce, forming two main shock waves. This is why a supersonic jet passing overhead is often heard as a distinctive double boom.

If plotted onto a graph, the two peaks in pressure from a sonic boom resemble an "N" shape in time. The idea at NASA is that by tweaking the design of a supersonic jet in various ways it should be possible to smooth out the N-wave of a sonic boom so that it resembles a softer "U" shape.

"We are not shooting completely in the dark," says Peter Coen, head of commercial supersonic technology at NASA's Langley Research Centre in Hampton, Virginia. In an earlier trial the agency used a modified F-5 fighter which had been fitted with an extended nose shaped like a pelican's, to help reduce the noise of a sonic boom. Tests have also been carried out using sonic-boom simulators to see what sorts of sounds people find less intrusive.

The new design is for a single-seat, single-engine jet. Its most obvious feature is a long and slender triangular nose, which is supposed to modify the shape of the shock wave at the front of the aircraft and help disperse it. Other design features include an engine intake sculpted into the upper wing to reduce the intensity of the shock wave that forms there. To quieten things further, the aircraft would also fly a bit slower than Concorde, which had a cruising speed of Mach 2.

To measure the sudden noise of a sonic boom, NASA uses a scale called perceived ▸▸

decibel level, or PLdB. Mr Coen says the experimental low-boom aircraft should produce a sonic boom with a noise level below 70 PLdB, compared with about 100 PLdB for Concorde. The result, he adds, will be a broader, softer sound that people on the ground should find tolerable, if indeed they notice it at all amid the cacophony of modern living. The proof will come in how people react to the noise during the aircraft's test flights.

If the aircraft's quieter boom does prove to be acceptable, then its sound "signature" could become a certification standard that any future supersonic passenger aircraft would have to meet. But is there a realistic possibility that supersonic air travel could ever return?

Mr Coen thinks it will, at first with small, supersonic business jets. A number of groups have plans for such aircraft at various stages of development. Among them is Aerion, a company based in Nevada, which is developing a Mach 1.5 executive jet called the AS2. Airbus, a giant European aircraft-maker, has been lending engineers to assist Aerion. The plan is to have a prototype ready for test flights in 2019.

A supersonic airliner with 100 or more seats would be commercially more risky. And yet, technology moves on. Reducing the sound of a sonic boom is made possible with computational fluid dynamics, which relies on powerful computer systems. Concorde was born in an age of slide rules. New ways of making aircraft, especially with lightweight, carbon-fibre composites, have also been developed.

Ultimately, whatever the technological advances, there has to be a big enough market. With some passengers now seemingly prepared to pay handsomely for super-luxury first-class and even small apartments on long-haul flights, getting to the other side of the world in just six hours might be a tempting proposition for some. ■

A shocking amount of noise

Preventing an extinction

Not an ex-parrot

HAMILTON, NEW ZEALAND

A bizarre bird will have all its surviving members' genomes sequenced

ONE of the problems suffered by a species on the brink of extinction is low genetic diversity. Initially this is caused by lack of numbers, but then it is exacerbated by the inbreeding which inevitably results. Inbreeding brings with it infertility and susceptibility to disease. Hence concern for the kakapo, a nocturnal parrot that lives in New Zealand. Like many other island-dwelling birds, it has become flightless. It is also, at up to 4kg, the world's heaviest parrot. Both of these things make it an attractive target for predatory mammals, which thankfully were absent for most of the 80m years during which it and its ancestors have inhabited the archipelago.

The kakapo's downfall began with New Zealand's first wave of human colonisation, some 700 years ago, by Polynesians. These arrivals hunted it, and also brought rats with them, which ate nestling chicks. The second, European wave of immigrants brought cats and stoats to add to the birds' woes. Humans also destroyed much of their habitat to make way for crops. Conservation efforts are not assisted by the birds' reproductive habits. They feed their chicks on the fruit of the rimu, a tree that produces its nutrient-rich morsels only every two or three years. These trees all fruit simultaneously during what are known as mast years. This means the kakapo can breed only during mast years.

With all these strikes against them it is little surprise that by the early 1970s the kakapo was thought to be extinct. But then two remnant groups were found in the south of the country. These were relocated and now live on three small, predator-free islands. After a troubled start, which saw the population hit a low of 51, this recovery programme has raised it to 123 adults.

That is still a pretty parlous state of affairs, though. So the bird's guardians at the Kakapo Recovery Programme, run by New Zealand's Department of Conservation, have come up with a plan they hope will put the parrot on a more secure footing, by reducing, as far as possible, the risks inbreeding brings.

According to Andrew Digby, the programme's scientist, about half the eggs laid by female kakapo are unviable. One reason for this is a high rate of sperm abnormality, meaning many males that mate never produce offspring. The recovery team recently announced a plan to deal with this, called Kakapo 125 (then the number of adults alive; two have subsequently died). Kakapo 125 is a genome-sequencing project organised by Bruce Robertson of Otago University. Unlike other such species-specific genome projects, this one will not look merely at the DNA of a few representative individuals. Instead, it will sequence the genomes of every living kakapo—and also, if funds allow, of museum specimens too.

Who's a pretty Polly?

Isles of the blessed

Kakapo 125's goal is to identify the genetic bases for infertility and disease. The kakapo are probably the world's most intensively managed species. (Conservationists even sleep near their nests so they can keep eggs warm if the females wander off for too long, triggering an alarm in the process.) Hence there is a wealth of information about each individual's health and fertility with which to correlate and interpret the genetic information. The results should help decide which male-female pairings will produce chicks with a genetic heritage that makes them as disease-resistant and fertile as possible.

Controlling who mates with whom would be a simple matter if the birds could be bred in captivity, but captive kakapo fail to thrive. Instead, that must somehow be done in the wild.

Kakapo mating is theatrical. Uniquely for parrots, they are lek-breeders. This means that the males advertise their eligibility in competitive displays for choosy females. Males scrape bowl-shaped depressions in the ground on a hilltop. Over ▸▸

subsequent nights they sit in or near their bowls, inflate specialised air sacs, and emit deep booms. Females, attracted by the serenades, approach the bowls along tracks the males have prepared by clearing and trimming the vegetation. An interested female may stop and mate with a male. An uninterested one will move on to appraise another suitor.

The recovery team already intervenes in this process. Each adult kakapo wears sensors that transmit information about its behaviour to members of the team. If these sensors show that a female has mated with a suboptimal male, she can, over the course of the next few days, be inseminated artificially with sperm from a more advantageous partner. (The resulting competition between sperm inside the female's reproductive tract is usually won by those from the last mating. This phenomenon, quite common in birds, is known as last-male sperm precedence.) The recovery team do this using information from mating records and simple genetic markers. They also do it if a female has mated only once, because multiple matings boost the chance of fertile eggs.

This year is a rimu mast year, and a particularly abundant one. The breeding season reflects that abundance. At least 120 eggs have been laid. How many will hatch remains to be seen. But by the time the next such season comes around the genetic information garnered by Kakapo 125 will be available. Not a moment too soon. The oldest birds—those which have survived from the collecting expeditions of the 1970s—are starting to die. Such old-timers are likely to have the greatest diversity of all, and the most valuable genetic treasure to pass on to future generations. Knowing these birds' genomes will permit the recovery team to take maximum advantage of whatever time these creatures have left. ■

Drug supplies

Track marks

Chemists find previously unknown sources of cocaine

MOST of the world's supply of cocaine comes from just three South American countries: Colombia, Peru and Bolivia. Much of it is headed for the United States and Europe. Law-enforcement officials from America patrol international waters in the Caribbean and eastern Pacific, hoping to seize cocaine shipments before they reach their intended destinations. When they succeed in nabbing any smugglers, contraband samples are sent to chemists to help determine the source.

The drug's origins can be identified from telltale "fingerprints" formed by the chemical composition of the coca plant, from which cocaine is derived. These compounds vary naturally. The amount of nitrogen-containing compounds, known as alkaloids, differs between coca cultivars. And ratios of stable isotopes (non-radioactive atoms of the same element that contain different numbers of neutrons) are indicative of different regions. Typically, ratios of carbon-13 to carbon-12, which change according to temperature and altitude, and ratios of nitrogen-15 to nitrogen-14, which vary based on precipitation and soil conditions, are examined.

Previously, these data could identify from which of five regions a particular batch of cocaine was produced. But no longer. Over the past 15 years or so coca cultivation has expanded to at least 19 regions, making accurate geographic identification more difficult. Now a team of scientists led by Jennifer Mallette and Paul Beyer of the US Drug Enforcement Administration and their colleagues have come up with a more comprehensive chemical analysis to fill in the gaps. Their results, published in *Scientific Reports*, added two more isotope ratios: hydrogen-2 to hydrogen-1, and oxygen-18 to oxygen-16. Plants incorporate different ratios of these isotopes based upon ambient conditions such as precipitation and humidity, thus providing yet another clue to their geographic origin.

The researchers applied their enhanced technique to build a database of chemical fingerprints of cocaine samples from 572 specimens of coca leaves taken from all 19 known cocaine-growing regions. The cocaine was produced in the laboratory using the same processing methods employed by criminal enterprises.

The final database, combined with statistical models, allowed the team to determine that nearly two-thirds of seized shipments originated in south-west Colombia. But then they were sent another sample that matched nothing in the database. The isotope analysis suggested that this cocaine originated from an area north of the Chapare Valley in Bolivia, a region not previously suspected of coca cultivation. Subsequent intelligence gained from a pilot involved in trafficking the shipment showed the team had fingered the right location, thereby confirming the value of their new drug-hunting technique.

We know where that came from

Coffee and chocolate

A new brew

The genetic diversity of yeasts could produce novel flavours

MORE than 7,000 years ago, people living in the Middle East discovered that they could ferment grapes to make wine. The yeast that they unknowingly harnessed for the process can now be found in every vineyard on the planet. As with wine, the processing of coffee beans and cacao, used to make chocolate, also requires some fermentation. But new research shows that coffee and cacao yeasts are far more genetically diverse than wine strains. This opens up the intriguing possibility of imparting entirely new tastes to the terroir of coffee and chocolate.

Cacao originated in the Amazon and was widely cultivated in Central America before Hernán Cortés brought it to the Old World in 1530. Coffee moved in the opposite direction. From Ethiopia it was disseminated throughout the Middle East by Arab traders during the 6th century and ultimately arrived in the New World during the 18th century, where nascent Americans may have seen drinking it as something of a patriotic duty after the Boston Tea Party.

As Europe's thirst for coffee and chocolate grew, merchants keen to cash in on the crops started establishing vast plantations wherever the plants could be cultivated. In the first part of the 17th century, Dutch traders transported a Yemeni coffee plant to Holland. Shortly thereafter, they began cultivating its descendants in Sri Lanka and on Java and Réunion. Over the next three centuries, other trading nations completed coffee's worldwide dissemination and set it up as a mainstay crop of many of the

world's poorest economies. Cacao was treated in much the same way and is now grown in 33 tropical countries.

Given this history, Aimée Dudley of the Pacific Northwest Diabetes Research Institute, in Seattle, and Justin Fay of the University of Washington and their colleagues, wondered if the yeasts associated with cacao and coffee followed these plants from their places of origin just as yeasts had followed wine from the Middle East. To explore this, they collected unroasted cacao beans from 13 countries, including places as disparate as Colombia, Ghana, Madagascar and Papua New Guinea, and unroasted coffee beans from 14 locations, including Ethiopia, Honduras, Indonesia and Yemen. They then set about studying the yeast found on the beans. As a control, the team also studied the yeasts on grapes from diverse locations.

As they report in *Current Biology*, although all vineyard-yeast strains are extremely similar genetically, there is tremendous diversity among the yeast strains associated with cacao and coffee. More specifically, they discovered that these differences correlated with geography. For example, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. The differences were so great that the researchers were able to use DNA sequences of the yeast strains alone to determine which country a sample of cacao or coffee came from.

Why cacao and coffee yeasts vary so much is unclear, although human behaviour is likely to play a role. The researchers give several reasons why wine yeasts are so similar. Oak barrels are often exported from an established winemaking region to an area of new cultivation, and these serve as reservoirs of yeasts native to the original location. Winemakers also have a long history of using starter cultures of yeast from places that have traditionally produced wines, which makes it nearly impossible for local species of yeast to compete. In contrast, the use of starter cultures is very rare in the processing of cacao and coffee, where growers tend to rely upon the species of yeast found locally.

This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another, the researchers reckon. The yeasts of a Hawaiian coffee bean could, for example, be used to ferment beans being grown in Uganda; or the yeasts from Haitian cacao beans could be used with cacao grown in Ghana. No one knows what the resulting coffee and chocolate might taste like, but if Dr Dudley and her colleagues are correct in their hunch, there will be many new flavours for coffee lovers and chocoholics to savour. ■

Mostafa Tolba

Green giant

A creator of the successful regime to reduce global emissions has died

"PERHAPS the single most successful international agreement to date has been the Montreal protocol," declared Kofi Annan, then head of the United Nations, back in 2003. Agreed 16 years earlier, the mechanism sought to limit damage to the stratospheric ozone layer that protects the planet from harmful ultraviolet radiation. The protocol phased out substances such as chlorofluorocarbons (CFCs)—coolants in devices ranging from air conditioners to refrigerators—which deplete atmospheric ozone. They also contribute to global warming. To date, the agreement has averted the equivalent of more than 135 billion tonnes of carbon-dioxide (CO_2) emissions. One of its most important architects, Mostafa Tolba, an Egyptian scientist, died on March 28th, aged 93.

Educated in Cairo and London, Dr Tolba helped found the institutions of modern climate diplomacy. In 1972 he led his country's delegation to the Stockholm conference from which the United Nations Environment Programme emerged. After a short stint as its deputy executive director, he took full charge from 1975 until 1992. The Vienna Convention for the Protection of the Ozone Layer, the UN agreement accompanying the Montreal protocol, was a personal and public victory for Dr Tolba. It has since been ratified by 197 countries and by the European Union.

Tolba, pulling the world together

No other environmental initiative has achieved as much. Ozone-depleting chemicals in the atmosphere reached their zenith in 1994. The concentration of ozone in the atmosphere should be back to what it was before 1980 by the middle of this century, studies suggest. America's Environmental Protection Agency estimates that up to 2m cases of skin cancer may be prevented globally each year until 2030 because of it.

The UN climate deal struck last year in Paris to limit global warming to "well below" 2°C above pre-industrial temperatures also owes much to the earlier agreement. Even after the failings of the Kyoto protocol, hashed out to curb CO_2 emissions in 1997, and of UN climate negotiations in Copenhagen in 2009, leaders could still point to Montreal. It provided proof of the efficacy of international agreements and of the predictable regulatory environments they can create.

More gains may yet accrue if a new deal is reached to limit other nasties under the protocol's authority. Even if countries make good on all the pledges they made last year to slash emissions, the Paris agreement may still lead to global warming of 3°C. Curbing short-lived pollutants such as hydrofluorocarbons (HFCs), methane and black carbon could be one way to limit warming further. They are between 25 and 4,000 times more potent than CO_2 and linger in the atmosphere for a far shorter time—20 years rather than up to 500—so cutting back now could bring benefits quickly. According to the Arctic Monitoring and Assessment Programme, an intergovernmental group, curbing the emissions of short-lived pollutants could skim 0.2°C off expected global warming by mid-century.

The leaders of America, Canada and Argentina all want to phase out HFCs under the Montreal protocol. Barack Obama has championed the cause. Introduced to replace CFCs as they did not deplete the ozone, cutting these coolants could avoid the equivalent of 100 billion tonnes of CO_2 by 2050. How exactly to help developing countries fund a switch from HFCs remains a sticky issue, particularly as many of them manufacture the domestic white goods which require them. But an amendment to the protocol is needed: HFCs are among the greenhouse gases that are increasing most rapidly. If such a change materialises, Dr Tolba's admirable legacy will grow more impressive still. ■

Also in this section

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Globalisation and inequality

The new wave

Surprisingly little is known about the causes of inequality. A Serbian-American economist proposes an interesting theory

Global Inequality: A New Approach for the Age of Globalisation. By Branko Milanovic. *Belknap; 299 pages; $29.95. Harvard University Press; £22.95*

IT'S a golden age for studying inequality. Thomas Piketty, a French economist, set the benchmark in 2014 when his book, "Capital in the Twenty-First Century", was published in English and became a best-seller. The book mapped the contours of the crisis with a sweeping theory of economic history. Inequality, which had been on the wane from the 1930s until the 1970s, had risen sharply back toward the high levels of the Industrial Revolution, he argued. Now Branko Milanovic, an economist at the Luxembourg Income Study Centre and the City University of New York, has written a comprehensive follow-up. It reinforces how little is really known about economic forces of long duration.

In some ways "Global Inequality" is a less ambitious book than "Capital". It is shorter, and written more like an academic working paper than a work of substantial scholarship for a wider readership.

Like Mr Piketty, he begins with piles of data assembled over years of research. He sets the trends of different individual countries in a global context. Over the past 30 years the incomes of workers in the middle of the global income distribution—factory workers in China, say—have soared, as has pay for the richest 1% (see chart). At the same time, incomes of the working class in advanced economies have stagnated. This dynamic helped create a global middle class. It also caused global economic inequality to plateau, and perhaps even decline, for the first time since industrialisation began.

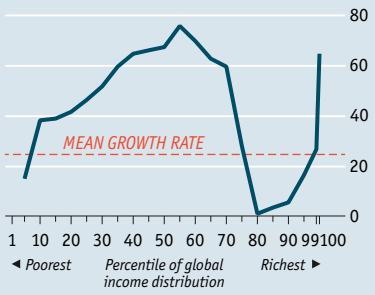
To help interpret these facts, Mr Milanovic provides the readers with a series of neat mental models. He muses, for instance, that at the dawn of industrialisation, inequality within countries (or class-based inequality) was responsible for the largest gaps between rich people and poor. After industrialisation, inequality across countries (or location-based inequality) became more important. But as gaps between countries become ever more narrow, class-based inequality will become more important as most of the differences in incomes between rich people and poor people will once again be due to gaps within countries. He seasons the discussion with interesting comments, such as how incomes and inequality fell over the course of the Roman Empire.

Mr Milanovic's boldest contribution is about "Kuznets waves", which he offers as an alternative to two other prevailing theories of inequality. Simon Kuznets, a 20th-century economist, argued that inequality is low at low levels of development, rises during industrialisation and falls as countries reach economic maturity; high inequality is the temporary side-effect of the developmental process. Mr Piketty offered an alternative explanation: that high levels of inequality are the natural state of modern economies. Only unusual events, like the two world wars and the Depression of the 1930s, disrupt that normal equilibrium.

Mr Milanovic suggests that both are mistaken. Across history, he reckons, inequality has tended to flow in cycles: Kuznets waves. In the pre-industrial period, these waves were governed by Malthusian dynamics: inequality would rise as countries enjoyed a spell of good fortune and high incomes, then fall as war or famine dragged average income back to subsistence level. With industrialisation, the forces creating Kuznets waves changed: to technology, openness and policy (TOP, as he shortens it). In the 19th century technological advance, globalisation and policy shifts all worked together in mutually reinforcing ways to produce dramatic economic change. Workers were reallocated from farms to factories, average incomes and inequality soared and the world be- ▸▸

Up and down

Global cumulative growth rate of real income*
1988-2008, %



Sources: World Bank; Lakner and Milanovic (2015)

*At purchasing-power parity

came unprecedentedly interconnected. Then a combination of forces, some malign (war and political upheaval) and some benign (increased education) squeezed inequality to the lows of the 1970s.

Since then, the rich world has been riding a new Kuznets wave, propelled by another era of economic change. Technological progress and trade work together to squeeze workers, he says; cheap technology made in foreign economies undermines the bargaining power of rich-world workers directly, and makes it easier for firms to replace people with machines. Workers' declining economic power is compounded by lost political power as the very rich use their fortunes to influence candidates and elections.

This diagnosis carries with it a predictive element. Mr Milanovic expects rich-world inequality to keep rising, in America especially, before eventually declining. Importantly, he argues that the downswing in inequality that occurs on the backside of a Kuznets wave is an inevitable result of the preceding rise. Where Mr Piketty sees the inequality-compressing historical events of the early 20th century as an accident, Mr Milanovic believes them to be the direct result of soaring inequality. The search for foreign investment opportunities engendered imperialism and set the stage for war. There are parallels, if imperfect ones, to the modern economy; rich economies seem to be stagnating as the very rich struggle to find places to earn good returns on their piles of wealth.

Mr Milanovic's analysis leads him to consider some dark possibilities as he looks ahead. America looks to be falling into the grips of an undemocratic plutocracy, he says, which is dependent on an expanding security state. In Europe right-wing nativism is on the rise. The good news is that emerging economies will probably continue on their path toward rich-world incomes—though that, he allows, is not guaranteed, and could be threatened by political crisis in China or in other markets.

The book's conclusion is a little unsatisfying. A theory in which rising inequality eventually triggers countervailing social dislocations feels intuitively right, but it also leaves many important questions unanswered. When is war, rather than revolution, the probable outcome of inequality? Are governments at the mercy of the cycle, or can they act pre-emptively to flatten out the waves and avoid crises of high inequality? Mr Milanovic's contributions are ultimately similar to those made by Mr Piketty. The data he provides offer a clearer picture of great economic puzzles, and his bold theorising chips away at tired economic orthodoxies. But the grand theory does as much to reveal the scale of contemporary ignorance as to illuminate the mechanics of the global economy. ■

Girls and sex

Two steps forward, one back

American Girls: Social Media and the Secret Lives of Teenagers. By Nancy Jo Sales. *Knopf; 416 pages; $26.95 and £20*

Girls & Sex: Navigating the Complicated New Landscape. By Peggy Orenstein. *Harper; 320 pages; $26.99*

FOR tips on taking a selfie, talk to teenage girls. Many know that your "good" side is the one without your parting, and that it is slimming to pose with a hand on hip and legs "bevelled" (one straight, the other bent). Not quite pleased with the results? Simply download one of many "selfie surgery apps" to edit blemishes, whiten teeth and shrink noses.

Adolescents have always been keenly aware of how they are seen by their peers. But social media amplify this self-consciousness. Now that nearly three-quarters of American teens have access to a smartphone, many of them while away their days broadcasting their thoughts, photos and lapses in judgment for immediate praise or scorn from hundreds of "friends". Being a teenager was never easy, but this is the first time your charm, looks or popularity have been so readily quantifiable, and your mistakes so easy for others to see. Just how this technological revolution affects young people—and particularly young women—is the subject of two fascinating new American books.

For many girls, the constant seeking of "likes" and attention on social media can "feel like being a contestant in a never-ending beauty pageant", writes Nancy Jo Sales in "American Girls", a thoroughly researched if sprawling book. In this image-saturated environment, comments on girls' photos tend to focus disproportionately on looks, bullying is common and anxieties about female rivals are rife. In interviews, girls complain of how hard it is to appear "hot" but not "slutty", sexually confident but not "thirsty" (ie, desperate). That young women often aspire to be titillating should not be surprising given that the most successful female celebrities often present themselves as eye-candy for the male gaze. "Everybody wants to take a selfie as good as the Kardashians'," says Maggie, a 13-year-old.

Such self-objectification comes at a cost. A review of studies from 12 industrialised countries found that adolescent girls around the world are increasingly depressed and anxious about their weight and appearance. For Peggy Orenstein, an American journalist, these are symptoms of a larger and more pernicious problem: "the pressure on young women to reduce their worth to their bodies and to see those bodies as a collection of parts that exist for others' pleasure". In "Girls & Sex", a wise and sharply argued look at how girls are navigating "the complicated new landscape" of sex and sexuality, Ms Orenstein notes that unlike past feminists, who often protested against their sexual objectification, many of today's young women claim to find it empowering. "There are few times that I feel more confident about my body than when I wear a crop top and my boobs are showing and my legs are showing," says Holly, a college student. "I never feel more liberated."

This hardly seems like progress, particularly when only certain bodies, those that are sexy to men, are allowed to be a source of pride. (Even Meghan Trainor's body-positive anthem, "All About That Bass", celebrates fuller bodies because "boys, they like a little more booty to hold at night.") Yet both authors argue that girls are embracing their own sexualisation in part because they are living in a culture that prioritises women being "hot". Just listen to Donald Trump, America's Republican presidential front-runner, or try to find a female news presenter wearing a dress with sleeves.

Both books also blame the "ever-broadening influence of porn". The internet has made pornography more widely available than ever before. Few view it as realistic, but many consult it as a guide—which makes sense in a country where parents rarely talk candidly about sex with their children, especially their daughters, and few schools fill the gap. Educators commonly advocate abstinence and only 13 states require that sex education even be medically accurate.

The uses of enchantment

The problem is that much of this pornography is not only explicit but also violent, which can influence expectations. A study of Canadian teenagers found a correlation between consuming pornography and believing it is okay to hold a girl down for forced sex. Pornography also tends to present women's sexuality as something that exists primarily for the benefit of men. Ms Orenstein notes that most of the young women she interviewed had removed all of their pubic hair since they were about 14 in order to cater to the fickle, porn-bred tastes of young men. They also tended to prioritise their partners' physical pleasure over their own.

For anyone raising a daughter, these books do not make for easy reading. Expect plenty of stories about binge drinking, random hookups, oral sex and misjudged sexting. Intellectually, many young women believe they can achieve whatever they set their minds to, but most still struggle to obey a sexual double-standard that gives them little room between being chided as "sluts" or "prudes". As one teenage girl tells Ms Orenstein, "Usually the opposite of a negative is a positive, but in this case it's two negatives. So what are you supposed to do?" ■

Self-help for the Ivy League

Getting the most out of one's self

Smarter, Faster, Better: The Secrets of Being Productive in Life and Business. By Charles Duhigg. *Random House; 380 pages; $28. William Heinemann; £20*

Peak: Secrets from the New Science of Expertise. By Anders Ericsson and Robert Pool. *Houghton Mifflin Harcourt; 307 pages; $28. Bodley Head; £18.99*

THE world has quietly been undergoing a performance revolution. In nearly all areas, people are continuously getting better at what they do. This is obvious when measured on running tracks and tennis courts. But it is happening in myriad other areas as well, from surgery to management—and even violin-playing. Better training is largely responsible, by breaking down activities into discrete parts, and measuring how people perform best.

Two new books promise to help people improve their abilities with a generous mix of fascinating anecdotes and a romp through the academic literature. In "Smarter, Faster, Better", Charles Duhigg of the *New York Times* looks at the numerous ways that people can become more effective, whether in improving motivation, setting goals, making decisions or thinking creatively. Basically, Mr Duhigg's is a self-help book for white-collar professionals.

Readers learn how the American army welcomes new recruits who have little drive and teaches them to take responsibility and achieve goals. (The secret: transform mundane tasks into decisions that need to be made.) One learns how organisations like Google and the original cast of "Saturday Night Live", an American comedy show, produce great teams. (The crux: create a feeling of trust so people can freely express themselves; this is more important than having superstars in the group.) And one finds out how Toyota took over one of the worst carmaking factories from GM and turned it into one of the best. (The solution: give line workers more control.)

One of the best vignettes is on the making of the children's film "Frozen". It's 18 months before the release and the creators have hit an impasse: Anna is a bossy brat, Elsa is a jealous prat and Olaf the cynical snowman conspires in a coup d'état. In short, the draft storyline is a wreck. No one sympathises with the main characters. "I f'ing hate Olaf," confesses one writer after an early screening. "Kill the snowman."

How did Disney turn it around? Part of the method, readers learn, was to get the team to tap into their own life experiences, try new combinations and sense what felt right. Such advice is mildly plausible when applied to Hollywood screenwriters; it is doubtful the rest of humanity could employ it successfully. However, another approach rings more true: Disney shook things up by generating even more creative tension: a new co-director was added. A little disturbance to the customary workflow helped turn the grit into a pearl.

Mr Duhigg is an effective storyteller with a knack for combining social science, fastidious reporting and entertaining anecdotes. It is the same technique he used in an earlier book, "The Power of Habit", in 2012. Yet in his latest work the stories jump around so much that they produce mental whiplash. No sooner is the reader knee-deep in Israeli military analyses in the 1970s (to understand goal-setting) than the narrative swerves to General Electric's human-resources woes. And by distilling individual performance down to eight main traits—each with its own chapter—the book oversimplifies its subject.

"Peak" by Anders Ericsson, a psychologist studying expertise, and Robert Pool, a science writer, avoids these shortcomings. The book is a popular-science telling of Mr Ericsson's research. Most notable is the "10,000 hour rule": the idea that anyone can become an expert if they put in the time, a theme popularised by writers like Malcolm Gladwell.

At the heart of Mr Ericsson's thesis is that there is no such thing as natural ability. Not for Mozart, nor for Garry Kasparov. Traits favourable to a task, such as perfect musical pitch, help at the outset but confer no advantage at higher levels. Rather, after a basic ability, it all comes down to effort.

Such mastery is possible because of what Mr Ericsson calls "deliberate practice". This is focused training with an expert who can push an individual to a higher understanding of the craft. The key ingredient is mental representations: the ability to perform a task excellently without needing deliberate thought because similar situations have been so well practised that they seem second nature.

Both books offer an optimistic anti-determinism that ought to influence how people educate children, manage employees and spend their time. Both place stock in developing mental models of activities, aspiring to an ideal form of the task at hand. And both emphasise setting "stretch goals". The good news is that to excel one need only look within—provided one buys the books to learn how. ■

New York theatre

Haves and have-nots

NEW YORK

Putting America's financial inequality on the stage

THERE is something familiar about the Blakes, the American family at the centre of "The Humans", a new play by Stephen Karam that is now on Broadway. Anyone who has navigated the emotional minefield of a family meal will recognise the affectionate way they bicker, their barbs softened with tenderness. But something else about this family will also resonate with a growing group of Americans: each member is struggling financially.

Over the course of the fraught feast, it becomes clear that the youngest daughter (Sarah Steele), an aspiring composer, is working nights as a bartender to pay off her student loans. Her sister (Cassie Beck) is about to lose her job as a lawyer after calling in sick too often. Their parents are in their 60s, but neither can afford to retire, particularly now that they are stuck paying the grandmother's mounting medical bills. The mother (Jayne Houdyshell), a veteran office manager, complains that the 20-something "kids" she works for earn five times her salary "just 'cause they have a special degree." But no one sounds more bitter or frustrated than the father (the excellent Reed Birney), who recently lost his job of 28 years at a school. "I thought I'd be settled by my age, you know, but man, it never ends," he gripes. "Don'tcha think it should cost less to be alive?"

This conversation resembles countless others across the country, as Americans try to make sense of an economy in which working hard is no longer enough to afford a comfortable life. Parents who assumed that their children would surpass their own accomplishments are now startled to find so many of them sweating over rent and saddled with college debt. What does it take to get ahead? Why does the system create so few haves and so many have-nots? These questions are pushing voters towards presidential candidates who promise to blow up the status quo. They are also inspiring a generation of playwrights.

"Hungry", at the Public Theatre until April 3rd, is the first in a trilogy from Richard Nelson to look at a single American family over the course of this odd election year (pictured). Like the Blakes, the Gabriels sit at the kitchen table talking about a country they increasingly have trouble recognising, and an economy that is leaving them behind. In "Hold on to Me Darling", a funny new play by Kenneth Lonergan (at the Atlantic Theatre Company until April 17th), Timothy Olyphant is hilarious as Strings McCrane, a swanning, impulsive, narcissistic celebrity who has more money than he knows what to do with. Without moralising, this play nicely illustrates some of the bizarre consequences of an economy in which the spoils of wealth are in the hands of a lucky few.

Many of these dramas show ordinary Americans grappling with spiralling expenses. In Mona Mansour's "The Way West", produced by the Labyrinth Theatre Company at the Bank Street Theatre, Deirdre O'Connell is magical as an ageing mother who spins yarns about plucky pioneers to distract herself from the problems of her own life. Having lost her job at a tyre shop, she cannot quite remember the last time she paid her bills, nor can she afford to see a doctor about her mysteriously immobile arm. The housing market has just collapsed, and most of her neighbours in dusty Stockton, California, have already abandoned their homes. Her grown-up daughters are helping her file for bankruptcy, but they have financial woes of their own. Their mix of bad luck and poor choices sends them into a situation that seems comically dire. But instead of succumbing to despair, the mother takes a near-delusional comfort in yet more tales of early American fortitude, plainly unwilling to let go of the promise of the American dream.

Other plays ponder what it takes to make it to the top. "Dry Powder", a darkly amusing new work from Sarah Burgess, directed for the Public Theatre by Thomas Kail (who also directed "Hamilton", a popular musical), considers the cunning machinations of the 1%. Hank Azaria plays a private-equity boss who is being "eviscerated" in the press for throwing himself a ritzy party on the very day his firm announced extensive lay-offs. "Of course they're protesting, that's what unemployed people do," quips Jenny (Claire Danes), a particularly ruthless founding partner.

To help improve the firm's "optics", Seth (John Krasinski), another founding partner, has a plan that would create jobs and increase revenues at an American luggage company. Yet the firm also ponders making more money by gutting the company and moving manufacturing to Bangladesh. Ms Burgess has little regard for the way such wheeling and dealing prioritises profits over people. This slick, fast-paced play will not win any awards for nuance, but it is entertaining.

For a more subtle look at the ethical challenges posed by a winner-takes-all economy, Lucas Hnath's taut and profoundly good "Red Speedo", directed by Lileana Blain-Cruz at the New York Theatre Workshop, is on until April 3rd. Alex Breaux cuts a convincing figure as Ray, a lithe, monosyllabic competitive swimmer on the eve of the Olympics trials. For Ray, who lacks an education and lives in his car much of the time, qualifying for the Olympics is his only meal ticket. If he makes the cut he will be sponsored by Speedo in a deal that is worth "a lot of money", assures his brother (Lucas Caleb Rooney), who works as his manager. When the stakes are so high, can Ray be blamed for taking drugs to help him compete? When so many others appear to be bending the rules, what is the value of heeding them? "Don't I deserve a chance?" Ray pleads to his brother in the dark hours before the tryout. "Isn't that the American thing?" ■

Looking up fortune cookies

Business & Personal

Events

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment	Current-account balance		Budget balance	Interest rates, %	Currency units, per $	
	latest	qtr*	2016†	latest	latest	2016†	rate, %	latest 12 months, $bn	% of GDP 2016†	% of GDP 2016†	10-year gov't bonds, latest	Mar 30th	year ago
United States	+2.0 Q4	+1.4	+2.0	-1.0 Feb	+1.0 Feb	+1.2	4.9 Feb	-484.1 Q4	-2.6	-2.5	1.85	-	-
China	+6.8 Q4	+6.6	+6.4	+5.4 Feb	+2.3 Feb	+1.6	4.1 Q4§	+293.2 Q4	+3.0	-3.0	2.55§§	6.48	6.21
Japan	+0.7 Q4	-1.1	+0.8	-1.5 Feb	+0.3 Feb	+0.4	3.3 Feb	+141.0 Jan	+3.5	-6.2	-0.09	112	120
Britain	+1.9 Q4	+1.9	+2.0	+0.2 Jan	+0.3 Feb	+0.7	5.1 Dec††	-134.2 Q3	-4.2	-3.6	1.54	0.69	0.68
Canada	+0.5 Q4	+0.8	+1.6	-2.2 Dec	+1.4 Feb	+1.6	7.3 Feb	-51.6 Q4	-2.9	-1.4	1.23	1.29	1.27
Euro area	+1.6 Q4	+1.3	+1.5	+2.8 Jan	-0.2 Feb	+0.4	10.3 Jan	+346.5 Jan	+2.8	-1.9	0.16	0.88	0.92
Austria	+1.1 Q4	+1.2	+1.3	+1.5 Jan	+1.0 Feb	+1.3	5.9 Jan	+10.7 Q3	+1.8	-2.0	0.51	0.88	0.92
Belgium	+1.4 Q4	+1.3	+1.4	-0.8 Dec	+2.2 Mar	+1.1	7.9 Jan	+1.1 Sep	+0.8	-2.3	0.48	0.88	0.92
France	+1.4 Q4	+1.3	+1.3	+2.0 Jan	-0.2 Feb	+0.4	10.2 Jan	-3.8 Jan‡	-0.4	-3.5	0.48	0.88	0.92
Germany	+1.3 Q4	+1.1	+1.5	+2.3 Jan	+0.4 Mar	+0.6	6.2 Feb	+281.5 Jan	+7.6	+0.4	0.16	0.88	0.92
Greece	-0.7 Q4	+0.5	+1.4	+4.6 Jan	-0.5 Feb	+0.7	24.0 Dec	-0.4 Jan	+2.1	-3.9	8.77	0.88	0.92
Italy	+1.0 Q4	+0.4	+1.1	+3.9 Jan	-0.3 Feb	+0.4	11.5 Jan	+39.5 Jan	+1.8	-2.5	1.22	0.88	0.92
Netherlands	+1.6 Q4	+1.0	+1.7	+2.8 Jan	+0.6 Feb	+0.8	7.9 Feb	+68.8 Q4	+9.8	-1.6	0.24	0.88	0.92
Spain	+3.5 Q4	+3.3	+2.7	+0.6 Jan	-0.8 Feb	-0.1	20.5 Jan	+18.3 Dec	+0.9	-3.4	1.44	0.88	0.92
Czech Republic	+4.2 Q4	-0.2	+2.8	+1.0 Jan	+0.5 Feb	+1.5	6.3 Feb§	+1.5 Q4	-0.1	-1.6	0.49	23.8	25.4
Denmark	+0.5 Q4	+1.0	+1.6	+1.4 Jan	+0.3 Feb	+1.0	4.5 Dec	+20.6 Jan	+6.2	-2.8	0.45	6.56	6.90
Norway	+0.1 Q4	-4.7	+1.5	-0.6 Jan	+3.1 Feb	+2.1	4.8 Jan‡‡	+35.3 Q4	+11.6	+7.2	1.21	8.30	8.02
Poland	+3.7 Q4	+4.5	+3.5	+6.7 Feb	-0.8 Feb	+1.7	10.3 Feb§	+0.2 Jan	-2.1	-1.9	2.86	3.75	3.77
Russia	-4.1 Q3	na	-1.3	+1.1 Feb	+8.1 Feb	+8.3	5.8 Feb§	+65.8 Q4	+3.9	-2.2	9.09	67.3	57.8
Sweden	+4.5 Q4	+5.3	+3.1	+4.6 Jan	+0.4 Feb	+0.9	7.6 Feb§	+29.2 Q4	+6.1	-0.6	0.79	8.13	8.60
Switzerland	+0.4 Q4	+1.7	+1.1	-4.5 Q4	-0.8 Feb	-0.6	3.4 Feb	+75.9 Q4	+9.6	+0.3	-0.39	0.96	0.97
Turkey	+4.0 Q3	na	+3.2	+3.6 Jan	+8.8 Feb	+8.3	10.8 Dec§	-31.9 Jan	-4.6	-1.8	10.02	2.83	2.60
Australia	+3.0 Q4	+2.6	+2.5	+1.9 Q4	+1.7 Q4	+2.0	5.8 Feb	-56.0 Q4	-4.0	-2.0	2.50	1.30	1.31
Hong Kong	+1.9 Q4	+0.9	+2.1	-1.1 Q4	+3.1 Feb	+2.6	3.3 Feb‡‡	+9.7 Q4	+2.6	-0.4	1.33	7.75	7.76
India	+7.3 Q4	+4.4	+7.5	-1.5 Jan	+5.2 Feb	+5.2	4.9 2013	-22.6 Q4	-1.1	-3.7	7.49	66.4	62.7
Indonesia	+5.0 Q4	na	+5.1	+3.2 Jan	+4.4 Feb	+4.4	6.2 Q3§	-17.8 Q4	-2.4	-1.9	7.74	13,268	13,075
Malaysia	+4.5 Q4	na	+5.5	+3.3 Jan	+4.2 Feb	+2.9	3.4 Jan§	+8.7 Q4	+2.7	-3.7	3.82	3.94	3.71
Pakistan	+5.5 2015**	na	+4.8	+5.0 Jan	+4.0 Feb	+5.4	5.9 2015	-1.6 Q4	-0.9	-4.6	8.41†††	105	102
Philippines	+6.3 Q4	+8.2	+6.3	+34.3 Jan	+0.9 Feb	+2.9	5.8 Q1§	+8.4 Dec	+3.6	-2.1	4.27	46.0	44.8
Singapore	+1.8 Q4	+6.2	+2.8	-4.7 Feb	-0.8 Feb	+1.3	1.9 Q4	+57.5 Q4	+20.4	+0.9	1.85	1.35	1.37
South Korea	+3.1 Q4	+2.7	+2.6	+2.4 Feb	+1.3 Feb	+1.4	4.9 Feb§	+106.7 Jan	+7.4	+0.5	1.77	1,151	1,105
Taiwan	-0.5 Q4	+2.2	+2.3	-3.6 Feb	+2.4 Feb	+1.0	3.9 Feb	+76.2 Q4	+12.3	-0.9	0.85	32.3	31.3
Thailand	+2.8 Q4	+3.2	+3.7	-1.6 Feb	-0.5 Feb	+2.7	0.9 Jan§	+34.8 Q4	+2.3	-2.1	2.01	35.2	32.6
Argentina	+2.3 Q2	+2.0	-0.1	-2.5 Oct	— ***	—	5.9 Q3§	-15.9 Q4	-1.9	-2.7	na	14.6	8.81
Brazil	-5.9 Q4	-5.7	-3.2	-13.8 Jan	+10.4 Feb	+8.3	8.2 Feb§	-46.3 Feb	-2.4	-5.4	13.67	3.60	3.26
Chile	+1.3 Q4	+0.3	+3.4	+1.8 Feb	+4.7 Feb	+3.6	5.8 Jan§‡‡	-4.8 Q4	-1.4	-1.6	4.42	673	627
Colombia	+3.3 Q4	+2.4	+3.7	+8.2 Jan	+7.6 Feb	+3.7	11.9 Jan§	-18.9 Q4	-5.1	-1.9	8.02	3,023	2,576
Mexico	+2.5 Q4	+2.2	+2.5	+1.1 Jan	+2.9 Feb	+3.1	4.3 Feb	-32.4 Q4	-2.7	-3.0	5.96	17.2	15.2
Venezuela	-8.8 Q4~	-8.4	-7.0	na	na	+181	6.0 Dec§	-17.8 Q3~	-1.4	-14.4	11.17	9.99	6.29
Egypt	+3.0 Q3	na	+4.0	-11.4 Jan	+9.1 Feb	+8.8	12.8 Q4§	-14.7 Q3	-2.0	-9.6	na	8.88	7.60
Israel	+2.8 Q4	+3.9	+3.7	-0.7 Jan	-0.2 Feb	+1.7	5.3 Feb	+13.8 Q4	+4.3	-2.5	1.87	3.78	3.96
Saudi Arabia	+3.4 2015	na	+2.8	na	+4.2 Feb	+3.8	5.7 2014	-53.5 Q4	+0.1	-8.0	na	3.75	3.75
South Africa	+0.6 Q4	+0.6	+1.0	-1.0 Jan	+7.0 Feb	+6.2	24.5 Q4§	-13.6 Q4	-4.3	-3.3	9.17	14.8	12.1

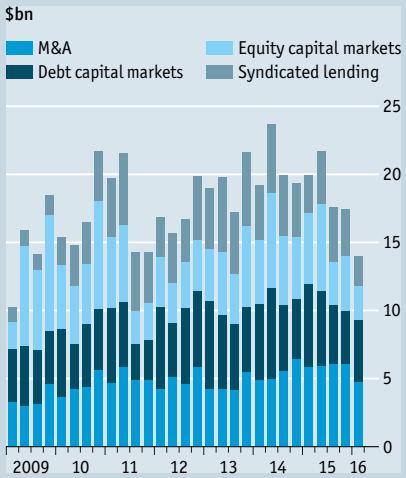
Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014 **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, February 34.15%; year ago 30.0% †††Dollar-denominated bonds.

Markets

	Index Mar 30th	% change on one week	Dec 31st 2015 in local currency	Dec 31st 2015 in $ terms
United States (DJIA)	17,716.7	+1.2	+1.7	+1.7
China (SSEA)	3,140.1	-0.3	-15.2	-15.0
Japan (Nikkei 225)	16,879.0	-0.7	-11.3	-5.1
Britain (FTSE 100)	6,203.2	+0.1	-0.6	-2.6
Canada (S&P TSX)	13,504.0	+0.9	+3.8	+11.4
Euro area (FTSE Euro 100)	1,029.3	+0.1	-5.9	-1.7
Euro area (EURO STOXX 50)	3,044.1	+0.1	-6.8	-2.6
Austria (ATX)	2,275.1	+0.3	-5.1	-0.8
Belgium (Bel 20)	3,419.4	-0.3	-7.6	-3.4
France (CAC 40)	4,444.4	+0.5	-4.2	+0.2
Germany (DAX)*	10,046.6	+0.2	-6.5	-2.2
Greece (Athex Comp)	578.8	+5.0	-8.3	-4.2
Italy (FTSE/MIB)	18,375.3	-0.5	-14.2	-10.3
Netherlands (AEX)	446.2	+0.6	+1.0	+5.6
Spain (Madrid SE)	894.9	-0.7	-7.3	-3.1
Czech Republic (PX)	900.8	+1.2	-5.8	-1.7
Denmark (OMXCB)	853.0	+0.3	-5.9	-1.5
Hungary (BUX)	26,314.3	+2.4	+10.0	+15.6
Norway (OSEAX)	635.0	-0.2	-2.2	+4.3
Poland (WIG)	48,990.5	+2.6	+5.4	+11.1
Russia (RTS, $ terms)	869.9	+0.5	+5.9	+14.9
Sweden (OMXS30)	1,376.8	+0.6	-4.8	-1.4
Switzerland (SMI)	7,845.1	-0.6	-11.0	-7.4
Turkey (BIST)	82,917.8	+3.2	+15.6	+19.1
Australia (All Ord.)	5,081.5	-2.4	-4.9	-0.4
Hong Kong (Hang Seng)	20,803.4	+0.9	-5.1	-5.1
India (BSE)	25,338.6	nil	-3.0	-3.3
Indonesia (JSX)	4,816.7	-0.8	+4.9	+9.0
Malaysia (KLSE)	1,717.8	-0.4	+1.5	+10.5
Pakistan (KSE)	32,922.4	nil	+0.3	+0.3
Singapore (STI)	2,872.8	-0.3	-0.3	+4.8
South Korea (KOSPI)	2,002.1	+0.4	+2.1	+4.0
Taiwan (TWI)	8,737.0	-0.3	+4.8	+6.5
Thailand (SET)	1,410.3	-0.1	+9.5	+11.8
Argentina (MERV)	12,872.9	+3.0	+10.3	-2.5
Brazil (BVSP)	51,248.9	+3.1	+18.2	+29.9
Chile (IGPA)	19,326.2	+1.1	+6.5	+12.1
Colombia (IGBC)	9,759.5	nil	+14.2	+19.9
Mexico (IPC)	46,191.5	+1.2	+7.5	+8.1
Venezuela (IBC)	14,865.5	-0.6	+1.9	na
Egypt (Case 30)	7,485.1	-0.1	+6.8	-5.8
Israel (TA-100)	1,260.0	-1.4	-4.2	-1.4
Saudi Arabia (Tadawul)	6,215.7	-3.8	-10.1	-10.0
South Africa (JSE AS)	52,495.5	-0.1	+3.6	+8.2

Global investment-banking revenue

Pity those bankers. In the first quarter of this year global revenues from investment banking were $14 billion, down by 30% from the same period last year, according to Dealogic, a financial-data provider. Revenues in the quarter were the worst since 2009, when the financial crisis was still raging. Although fees fell in all areas, earnings from equity markets dropped especially sharply—by 52% year on year. This is largely because nervous investors shunned riskier assets. Equity markets only accounted for 18% of total investment-banking revenue in the first quarter, compared with a figure of 26% a year ago. There were only 173 initial public offerings over the period, the fifth-lowest first-quarter total on record.



Source: Dealogic

Other markets

	Index Mar 30th	% change on one week	Dec 31st 2015 in local currency	Dec 31st 2015 in $ terms
United States (S&P 500)	2,064.0	+1.3	+1.0	+1.0
United States (NAScomp)	4,869.3	+2.1	-2.8	-2.8
China (SSEB, $ terms)	374.9	+0.3	-12.3	-12.1
Japan (Topix)	1,356.3	-0.6	-12.3	-6.2
Europe (FTSEurofirst 300)	1,339.9	+0.2	-6.8	-2.6
World, dev'd (MSCI)	1,635.9	+0.3	-1.6	-1.6
Emerging markets (MSCI)	814.8	-0.8	+2.6	+2.6
World, all (MSCI)	394.5	+0.2	-1.2	-1.2
World bonds (Citigroup)	922.6	+0.1	+6.0	+6.0
EMBI+ (JPMorgan)	741.0	-0.3	+5.2	+5.2
Hedge funds (HFRX)	1,147.7§	-0.1	-2.2	-2.2
Volatility, US (VIX)	13.3	+14.9	+18.2	(levels)
CDSs, Eur (iTRAXX)†	76.2	+4.5	-1.2	+3.3
CDSs, N Am (CDX)†	82.5	+2.4	-6.6	-6.6
Carbon trading (EU ETS) €	4.8	-3.6	-42.2	-39.6

Sources: Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §Mar 29th.

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The Economist commodity-price index

2005=100

	Mar 22nd	Mar 29th*	% change on one month	% change on one year
Dollar Index				
All Items	132.4	131.8	+4.8	-6.8
Food	153.4	153.4	+6.4	-2.4
Industrials				
All	110.6	109.2	+2.6	-12.6
Nfa†	116.8	116.8	+8.9	-1.5
Metals	107.9	106.0	-0.1	-17.0
Sterling Index				
All items	169.3	168.0	+2.4	-3.0
Euro Index				
All items	146.6	146.5	+1.7	-10.5
Gold				
$ per oz	1,252.3	1,226.3	-0.6	+0.2
West Texas Intermediate				
$ per barrel	40.1	38.3	+11.4	-26.2

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

One given moment

Johan Cruyff, player and coach at Ajax Amsterdam and Barcelona, died on March 24th, aged 68

THE true beauty of the world's most beautiful game, according to Johan Cruyff, who knew, didn't lie in tricksy technique. If a man could juggle a ball a thousand times, it proved only that he ought to join the circus. Of course, it was great when Rudolf Nureyev said he should have been a dancer. But he was not just using his long, lean body when he played football. He was mostly using his brain. That brain, as well as his famously agile feet, made him a local hero in Holland and Spain and, by extension, all over football-mad Europe.

His rules of the game were simple. (Geometrical, some said, even mystical.) If he had the ball, the space on the pitch had to be made as large as possible. If he didn't have it, the space had to become threatening and small. He adjusted his perspective continually with the movement of the ball. At one given moment—neither too early nor too late, *en un momento dado*, his catchphrase when he shaped Barcelona into the world's top team—the ball and he would meet. And from this, as often as not, came glory. Toon Hermans, his fellow-countryman, eloquently described his almost spiritual enthronement in Dutch hearts:

> And Vincent saw the corn
> And Einstein the number
> And Zeppelin the Zeppelin
> And Johan saw the ball.

He didn't just see it. One piece of wizardry, the Cruyff turn, involved a dummy pass and a back-flick, completely wrong-footing the defender. He invented that in 1974, the neatest of legacies. In another trick, a pretend penalty of 1982, he rolled the ball sideways from the spot to allow an unnoticed team-mate to charge in and score. In 1977 he achieved a phantom goal, leaping up and twisting round, back to the net, so the keeper barely saw it coming. He back-heeled the ball then, but could also score with the laces, inside or outside of either foot. That made him six times as talented, he reckoned, as most modern players.

In 1966-67, his best season for Ajax, he scored 33 goals. In 1974 he almost won the World Cup for Holland. He usually played forward, but his philosophy of "total football"—in which he had been coached himself by Rinus Michels at Ajax, before he became its most celebrated "conductor", as of an orchestra—allowed any player to take any position on the field. Left-wingers could be right-wingers, and a goalie could even be an attacker, using his feet for a change. (Why not? It was a waste of a position otherwise.) Switching and swapping was a neat way to confound the opposition, whether the whirling "carousel" was wearing Ajax white-and-red or bright Holland orange. He had found yet another way to shake up European football.

Match analysts almost made him into a scholar of the turf, "a Pythagoras in boots", as he was called once. For him, it was all just instinct. He was a cocky, all-knowing *Mokummer*, master of the one-liner delivered in best Amsterdam slang: a poor boy from Betondorp, "Concrete Village", who got into the Ajax junior academy mostly because his mother cleaned at the club and his stepfather was a groundsman. At ten, he was putting out the corner-flags and begging players to take pot-shots at him; at 17 his first team-photos showed him open-mouthed and wide-eyed, hungrier for the ball than anyone else. At that point, the mid-1960s, the Dutch football league was becoming increasingly professional. By the mid-1970s, with him playing, Ajax had won six Eredivisie titles and three consecutive European Cups.

For all his talk about teamwork, he didn't naturally fit in. He was a loner who smoked too much, preferred family to team-mates and wore the number 14 on his shirt. When the Dutch national team was sponsored by Adidas he wouldn't wear their boots, and went with Puma instead. At the start of the season in 1973 he suddenly left, following Michels, to play for Barcelona for a spell. He returned to Ajax only to leave again in 1983, convinced that they undervalued him. He was never guilty of that himself. Clubs that took him on later as a director or adviser were berated when things were not done as they had to be, his way. "Before I make a mistake, I don't make that mistake," he said.

Skinny's cathedral

His most lasting triumph, though, was the coaching of Barcelona. El Flaco, as they called him, "Skinny", took the team to the top of La Liga and then, in 1992, to victory in the European Cup. Even more than at Ajax, Barça absorbed his edicts, setting up at his instigation a junior academy, La Masia, like the one he had gone to at Ajax. There a new generation of players—Messi, Iniesta, Xavi and the rest—learned to play in the swift, precise and total Cruyff style. Though he was no more gregarious, and as anti-majoritarian as ever, his separatist head warmed to the Catalans, and they to him. With him they felt they couldn't lose, and in his eight years at the Camp Nou they rarely did.

His most acclaimed successor as coach, Pep Guardiola, talked of him as the architect of a cathedral he could only reverently restore. Others compared his strategic nous to the paintings of Vermeer. It was all a bit highfalutin. But when he was on the ball, in that sweet moment when he was not too early and not too late, when opponents tumbled in astonishment and space sprang open where none had been before, then, yes, he was quite a lot like God. ■

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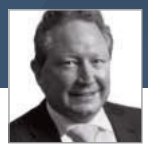

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