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Economist**

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Global consequences

The new politics of anger

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On the cover

The triumph of the Brexit campaign is a warning to the liberal international order: leader, page 9. Britain has its first taste of life unmoored from Europe: leader, page 10. A special section on the political and economic consequences of Britain's vote to divorce from the EU, pages 17-22. Britain increasingly looks like two countries, divided over globalisation: Bagehot, page 53. Everyone feels the pain of Britons in Brussels. But the sympathy won't last: Charlemagne, page 49

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7 The world this week

Leaders

- 9 **Liberalism after Brexit**
The politics of anger
- 10 **Brexit's fallout**
Adrift
- 11 **Assault on Ataturk airport**
Turkey's agony
- 11 **Diamonds**
Shine on
- 12 **Cities**
The right kind of sprawl

Letters

- 14 **On Brexit**

Briefing

- 17 **Brexit**
An aggravating absence
- 20 **The negotiations**
Article 50 ways to leave your lover
- 21 **The economic fallout**
Managing chaos

Asia

- 23 **Central Asia**
Stans undelivered
- 25 **China and Taiwan**
Great stonewall
- 25 **Politics in Japan**
Abe on top
- 26 **Indonesia and the South China Sea**
The Natuna two-step
- 26 **Indian social media**
A pulpit for bullies
- 28 **Banyan**
Our columnist's farewell

China

- 29 **Investment abroad**
Our bulldozers, our rules

United States

- 31 **Trump in the Midwest**
Rustproofing
- 32 **The Supreme Court**
Two left feats
- 33 **Puerto Rico**
Exodus postponed
- 34 **Crime and punishment**
Billy the kid
- 36 **Lexington**
The Bible museum

The Americas

- 37 **Brazilian trade**
Of legumes and liberalisation
- 38 **Colombia's president**
Unpopular peacemaker
- 38 **Argentina**
Cult of the Kirchners
- 40 **Bello**
Spendthrift Latin Americans

Middle East and Africa

- 41 **African entrepreneurs**
Opportunities galore
- 42 **Shopping in South Africa**
Buying on credit is so nice
- 43 **Medical drones in Africa**
Help from above
- 43 **Israel and Turkey**
Let's try again
- 44 **Ramadan economics**
Less work and more pray...
- 44 **Beer in the Arab world**
Brewers and bureaucrats

Europe

- 45 **Istanbul's airport attack**
Soft target
- 46 **NATO's summit**
Trip-wire deterrence
- 47 **Spain's election**
Revolution cancelled
- 47 **Ireland post-Brexit**
Put asunder
- 48 **Repression in Russia**
Prelude to a purge
- 49 **Charlemagne**
Shut the door behind you

Britain

- 50 **Post-referendum politics**
Shifting sands
- 51 **The United Kingdom**
Fragmentation nation
- 51 **Business**
Among the wreckage
- 52 **Cornwall and Europe**
I owe EU
- 53 **Bagehot**
Brexitland v Londonia



Istanbul attack How Turkey has made itself a soft target: leader, page 11. Turkey's friendly turn in foreign policy is punctured by another bombing, page 45



Trump woos the Midwest Can Donald Trump flip the old manufacturing regions? Page 31



Urban sprawl Growing cities in Africa and Asia are bound to spread out. They do not have to do it so messily: leader, page 12. The great cities of Africa and Asia are spreading fast, and in bizarre ways, page 55



The future of the City

Britain's vote to quit means an uncertain future for the financial capital of Europe, page 63. Who made money from the Brexit vote? Page 65. After the shock of the result, the next test will be the economic impact: Buttonwood, page 64. Why European companies have become a fading force in global business, page 57



Asia's transformation In his valedictory despatch our Banyan columnist steps out of the shade: Banyan, page 28



Diamonds Even the ring finger cannot escape the effects of technological change: leader, page 11. A diamond is for ever. But its allure comes and goes, page 58

International

- 55 Urban sprawl**
Bourgeois shanty towns

Business

- 57 Corporate Europe's decline**
From clout to rout
- 58 The diamond industry**
In the rough
- 59 Web browsers**
Window dressing
- 60 Terms-of-use contracts**
Click bait
- 61 Chinese consumers**
From noodles to poodles
- 62 Schumpeter**
The virtues of incrementalism

Finance and economics

- 63 The future of the City**
From folly to fragmentation
- 64 Buttonwood**
Brexit and the markets
- 65 Contrarian investing**
Making money from Brexit
- 65 South Korea's economy**
Faltering flagship
- 66 Tax avoidance**
Grand dodgy
- 68 The AIIB**
The infrastructure of power
- 69 Free exchange**
The economists of alienation

Science and technology

- 71 Planetary science**
By Jove!
- 72 Energy storage**
Sisyphus's train set
- 73 Geolocation**
Addressing the world
- 74 Card games and psychology**
Telling it like it is
- 74 An ancient wing**
Palaeontology

Books and arts

- 75 The Iridium story**
Eccentric orbits
- 76 English football**
Game over
- 77 Franz Liszt**
Piano man
- 77 Memoir of Libya**
Fatherland
- 78 Johnson**
Passive panic

- 80 Economic and financial indicators**
Statistics on 42 economies, plus a closer look at the world's biggest banks

Obituary

- 82 Amjad Sabri**
Hate and love



Interplanetary travel

A mission to Jupiter is designed to investigate the giant planet's history—and the histories of its cousins in other solar systems, page 71

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Politics



In a shock result, the British voted by a slender margin in a referendum to leave the **European Union**. After 33.6m votes were counted, 52% had opted to break away from the union after four decades. Turmoil ensued. David Cameron, Britain's prime minister, never an enthusiast for the EU but who nonetheless campaigned vigorously to remain, announced his resignation. The vote exposed deep divisions in British society, notably over immigration. An e-petition to the government, calling for a second referendum gathered over 4m signatures, mostly from Remainers.

Mr Cameron was not the only party leader whose position became untenable. The opposition **Labour Party** imploded when two-thirds of the shadow cabinet resigned over the underwhelming support Jeremy Corbyn, the party's leader, gave to the Remain campaign. Mr Corbyn lost a vote of no confidence among the party's MPs by 172 to 40 but refused to go, claiming he had the backing of the party's grassroots. Adding to the imbroglio, one new appointment to the shadow cabinet resigned within two days.

The referendum split the country. Many English cities, including London, voted to remain. So did **Scotland**. Its first minister, Nicola Sturgeon, promised to fight for Scotland's place in the EU, but France and Spain suggested they would oppose any kind of subnational deal. Politicians in **Northern Ireland**, which also voted to remain, said they were con-

cerned that the reintroduction of "hard borders" with the south could unravel the province's fragile peace.

In its second election in six months, **Spain** once again voted for a fragmented parliament. Following relatively successful results for his conservative People's Party, the prime minister, Mariano Rajoy, called for a grand coalition—a request that opposition parties have refused. Spain's far-left Podemos party fared badly.



Three suicide-bombers killed 41 people and injured nearly 240 in an attack at **Turkey's** busiest airport. Police fired shots at two of them as they approached the security checkpoint at Ataturk's international terminal. Turkey's prime minister, Binali Yildirim, blamed Islamic State for the attack—the fifth bombing in Istanbul since December.

Frenemies again

Israel and **Turkey** agreed to normalise relations, ending a six-year break caused by the killing by Israeli troops of ten Turkish activists on a ship carrying supplies to the blockaded Gaza Strip. Meanwhile, Turkey's president, Recep Tayyip Erdogan, spoke to Vladimir Putin for the first time since Turkey shot down a **Russian** fighter jet near the Syrian border in November. They promised to meet soon and work to thwart terrorism.

The **Iraqi** government said it had cleared out the last pockets of Islamic State resistance in Fallujah, a city close to Baghdad that is seized in early 2014.

Bukola Saraki, the head of the senate in **Nigeria**, was charged with illegally changing the

rules to get himself elected to the post amid a clampdown on corruption by Muhammadu Buhari, the president. Mr Saraki says he is not guilty.

Gunmen from the Shabab, a **Somali** jihadist group, attacked a hotel in the centre of the capital, Mogadishu, killing 15 people. The group has mounted several assaults on hotels as well as on large army bases in the past few months, even as it has lost ground to forces from the African Union.

The UN agreed to bolster its forces in **Mali** with 2,500 more soldiers (taking the total to about 15,000) to combat jihadist groups.

What a coincidence

Lim Guan Eng, the chief minister of the **Malaysian** state of Penang and a leading opposition politician, was arrested on corruption charges. Mr Lim has been a vocal critic of Najib Razak, Malaysia's scandal-plagued prime minister.

Indonesia's parliament approved a controversial tax amnesty. Supporters say it will boost government coffers; opponents claim the low rates for repatriated funds ahead of OECD disclosure laws in effect reward those with hidden assets.

The Taliban attacked a police convoy on the outskirts of Kabul, the capital of **Afghanistan**, killing up to 40 people.

America, Japan and South Korea held their first-ever trilateral missile-defence drills, one week after **North Korea** tested its intermediate-range ballistic missile.

Free movement of people

Canada's prime minister, Justin Trudeau, said that from December 1st Mexicans will no longer need visas to enter the country. Mr Trudeau's predecessor, Stephen Harper, imposed the visa requirement in 2009 to stop bogus claims for refugee status. Mexico said it would end restrictions on imports of Canadian beef from October 1st.

The expanded **Panama Canal** was officially opened. Started in 2007 and costing \$5.3 billion, the new locks can take ships that are up to 366 metres long and 49 metres wide, which means they can handle around 80% of the world's cargo carriers compared with 45% for the old canal.

Free to choose

America's Supreme Court overturned a law in Texas designed to restrict **abortion**s. The court ruled that Texas had placed an "undue burden" on a woman's right to seek an abortion. The court also unanimously rescinded the conviction of Bob McDonnell, a former Republican governor of Virginia, for corruption. It relied on an absurdly broad definition of "official act".

After a two-year acrimonious and partisan investigation, a committee in the House of Representatives issued its report into the terrorist attack on the American consulate in the Libyan city of **Benghazi** in 2012. It found no evidence that Hillary Clinton, who was secretary of state at the time, had not followed procedure in responding to the incident.



Donald Trump made his strongest attack yet on free trade, threatening to withdraw America from NAFTA and impose stiff tariffs on Chinese goods, if he is elected president. Speaking in the Midwest, which has haemorrhaged industrial jobs and is a crucial battleground in the election, the Republican decried "a leadership class that worships globalism". Visiting Britain the day after Brexit, Mr Trump said the result was a "great thing", because the people have "taken back their country".

Business

The pound against the dollar
2016, \$ per £



Source: Thomson Reuters

A referendum vote in Britain to leave the European Union battered global **stockmarkets**, wiping \$3 trillion off global share-price values over two days. The FTSE 250, a share index comprising mostly British companies and investment trusts, fell by 14% over three days. The **pound** plunged to its lowest level in three decades. The share prices of British housebuilders and banks were hit particularly hard; trading in Barclays and Royal Bank of Scotland was suspended. The **Bank of England** gave assurances that it was prepared to pump £250 billion (\$350 billion) into the financial system if needed and would consider other measures to deal with a “period of uncertainty and adjustment”.

Toast for Brexit

Standard & Poor's stripped Britain of its top AAA **credit rating** after the vote, reducing it by one notch. Fitch also downgraded Britain; Moody's, which already had Britain one notch down, lowered its outlook to “negative”.

By mid-week a sense of calm returned and markets rose cautiously. **Oil prices** also bounced back; Brent crude had dropped 6%, to below \$48 a barrel, following the vote.

Brexit raised questions about the viability of Anglo-European mergers that have been proposed, notably the deal between the **London Stock Exchange** and **Deutsche Börse**. The combined group plans to have its headquarters in London, but some German politicians now want it to be based in Frankfurt. The City's

leading position in clearing trades conducted in euros, a key element in the LSE/DB merger, is also under threat.

The market turbulence spread to **Italy's** already beleaguered banks, which saw their share prices fall further. Matteo Renzi, the prime minister, said that Brexit presented “exceptional circumstances” that would justify bailing them out, a measure that would contravene EU rules limiting state aid to the banking industry.

America's economy grew by slightly more than had been thought in the first quarter: an annualised 1.1%, according to a revised estimate. That was better than the 0.8% recorded in an initial estimate but still the slowest pace in a year.

Nearly all the 33 banks and financial companies subject to the Federal Reserve's annual **stress tests** passed them. Just two had their plans laying out how they would cope in a severe financial crisis rejected: the American units of Deutsche Bank and Santander.

American regulators said that **General Electric** would no longer be classified as “systemically important” to America's financial system. The com-

pany had worked hard to remove its “too big to fail” status—and the restrictions that come with it—by selling off most of GE Capital.

Two of China's biggest steel-makers, **Baosteel** and **Wuhan**, announced plans for a joint “strategic restructuring”, which was interpreted by many as a merger. It is the most significant step yet in the government's push to consolidate the steel industry and reduce capacity in light of the country's economic slowdown.

Car deals

Volkswagen reached a settlement with American authorities for cheating in emissions tests on its diesel cars. The German carmaker will pay \$15.3 billion to settle claims with the Justice Department, California and other states. Around \$10 billion of that is for a programme through which 475,000 car owners can sell their vehicle back to vw or get it fixed to meet emissions standards. vw still faces a possible criminal investigation in America.

vw was not the only blue-chip European company with a bruised image in America this week. **IKEA** recalled 29m chests of drawers after the

products were linked to the deaths of six children by tipping over and crushing them. The chests had not been secured to the wall (as advised in assembly instructions), but the consumer safety commission warned they did not conform to industry standards. A child dies every two weeks in America from furniture or televisions toppling over on them.

Airbnb reportedly launched a new round of fund-raising that could value it at \$30 billion, the latest in a string of similar exercises by privately held startups such as Uber and Didi Chuxing. Meanwhile, the home-rental website sued San Francisco, its home town, over a decision to fine the firm \$1,000 a day for each renter on its site who is not registered with the city. Some 80% of the renters required to register have not done so; Airbnb says it is not responsible for their failure to comply with the law.

A political brew

Boston Beer Company, which owns the Samuel Adams brand, applied for the **Brexit** trademark. It hopes to market a cider under that name.

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



The politics of anger

The triumph of the Brexit campaign is a warning to the liberal international order



MANY Brexiteers built their campaign on optimism. Outside the European Union, Britain would be free to open up to the world. But what secured their victory was anger.

Anger stirred up a winning turnout in the depressed, down-at-heel cities of England (see Bagehot). Anger at immigration, globalisation, social liberalism and even feminism, polling shows, translated into a vote to reject the EU. As if victory were a licence to spread hatred, anger has since lashed Britain's streets with an outburst of racist abuse.

Across Western democracies, from the America of Donald Trump to the France of Marine Le Pen, large numbers of people are enraged. If they cannot find a voice within the mainstream, they will make themselves heard from without. Unless they believe that the global order works to their benefit, Brexit risks becoming just the start of an unravelling of globalisation and the prosperity it has created.

The rest of history

Today's crisis in liberalism—in the free-market, British sense—was born in 1989, out of the ashes of the Soviet Union. At the time the thinker Francis Fukuyama declared “the end of history”, the moment when no ideology was left to challenge democracy, markets and global co-operation as a way of organising society. It was liberalism's greatest triumph, but it also engendered a narrow, technocratic politics obsessed by process. In the ensuing quarter-century the majority has prospered, but plenty of voters feel as if they have been left behind.

Their anger is justified. Proponents of globalisation, including this newspaper, must acknowledge that technocrats have made mistakes and ordinary people paid the price. The move to a flawed European currency, a technocratic scheme *par excellence*, led to stagnation and unemployment and is driving Europe apart. Elaborate financial instruments bamboozled regulators, crashed the world economy and ended up with taxpayer-funded bail-outs of banks, and later on, budget cuts.

Even when globalisation has been hugely beneficial, policymakers have not done enough to help the losers. Trade with China has lifted hundreds of millions of people out of poverty and brought immense gains for Western consumers. But many factory workers who have lost their jobs have been unable to find a decently paid replacement.

Rather than spread the benefits of globalisation, politicians have focused elsewhere. The left moved on to arguments about culture—race, greenery, human rights and sexual politics. The right preached meritocratic self-advancement, but failed to win everyone the chance to partake in it. Proud industrial communities that look to family and nation suffered alienation and decay. Mendacious campaigning mirrored by partisan media amplified the sense of betrayal.

Less obviously, the intellectual underpinnings of liberalism have been neglected. When Mr Trump called for protectionism this week, urging Americans to “take back control” (see

page 31), he was both parroting the Brexiteers and exploiting how almost no politician has been willing to make the full-throated case for trade liberalisation as a boost to prosperity rather than a cost or a concession. Liberalism depends on a belief in progress but, for many voters, progress is what happens to other people. While American GDP per person grew by 14% in 2001-15, median wages grew by only 2%. Liberals believe in the benefits of pooling sovereignty for the common good. But, as Brexit shows, when people feel they do not control their lives or share in the fruits of globalisation, they strike out. The distant, baffling, overbearing EU makes an irresistible target.

Back to the future

Now that history has stormed back with a vengeance, liberalism needs to fight its ground all over again. Part of the task is to find the language to make a principled, enlightened case and to take on people like Ms Le Pen and Mr Trump. The flow of goods, ideas, capital and people is essential for prosperity. The power of a hectoring, bullying, discriminatory state is a threat to human happiness. The virtues of tolerance and compromise are conditions for people to realise their full potential.

Just as important is the need for policies to ensure the diffusion of prosperity. The argument for helping those mired in deprivation is strong. But a culture of compensation turns angry people into resentful objects of state charity. Hence, liberals also need to restore social mobility and ensure that economic growth translates into rising wages. That means a relentless focus on dismantling privilege by battling special interests, exposing incumbent companies to competition and breaking down restrictive practices. Most of all, the West needs an education system that works for everyone, of whatever social background and whatever age.

The fight for liberalism is at its most fraught with immigration. Given that most governments manage who comes to work and live in their country, the EU's total freedom of movement is an anomaly. Just as global trade rules allow countries to counter surges of goods, so there is a case for rules to cope with surges in people. But it would be illiberal and self-defeating to give in to the idea that immigration is merely something to tolerate. Sooner than curb numbers, governments should first invest in schools, hospitals and housing. In Britain new migrants from the EU contribute more to the exchequer than they take out. Without them, industries such as care homes and the building trade would be short of labour. Without their ideas and their energy, Britain would be much the poorer.

Liberalism has been challenged before. At the end of the 19th century, liberals embraced a broader role for the state, realising that political and economic freedoms are diminished if basic human needs are unmet. In the 1970s liberals concluded that the embrace of the state had become smothering and oppressive. That rekindled an interest in markets.

When Margaret Thatcher was prime minister, amid the triumph of Soviet collapse, an aide slipped Mr Fukuyama's essay on history into her papers. The next morning she declared herself unimpressed. Never take history for granted, she said. Never let up. For liberals today that must be the rallying cry. ■

Brexit's fallout

Adrift

Leaderless and divided, Britain has its first taste of life unmoored from Europe



THE campaign to leave the European Union repeatedly urged Britain to “Take back control”. It is now a week since voters narrowly opted for Brexit, and the country has seldom looked so wildly off the rails. The prime minister has handed

in his notice. The leader of the opposition is struggling to survive a coup. The pound hit a 31-year low against the dollar and banks lost a third of their value, before stabilising. Meanwhile there is talk in Scotland and Northern Ireland of secession.

Every one of these calamities was predicted in the event of a Leave victory, and yet still the country seems transfixed by what it has brought upon itself. It is time to snap out of the daze. The country needs a new leader, a coherent approach to negotiating with the EU, and a fair settlement with those nations within its own union that voted Remain. The damage to Britain's prosperity and to its standing in the world is already grave, and will become far worse if the country now fails to “take back control” of its future.

The sick man of nowhere

Brexit's grisly first week, and the misery ahead, have already provoked buyer's remorse. More than 4m people have signed a petition calling for a re-run of the vote. An instant rejection of the result would be wrong. Although we regret the Brexit vote, 34m people have cast their ballot and the result was clear. A straight rematch would be no fairer than allowing England's footballers another crack at Iceland, which inflicted a second humiliation a week after the referendum.

And yet Britain's fate is still highly uncertain. Although Britons opted to leave the EU, Brexit comes in 57 varieties. The mildest sort would be an arrangement like Norway's, involving continuing access to Europe's “single market” in return for the free movement of people from EU countries and a contribution to the EU budget. At the opposite extreme, Britain could cut its ties entirely, meaning no more payments into the EU budget and no more unlimited migration—but no special access to the market which buys nearly half Britain's exports, either. Voters were told they could have it all. They cannot.

The Norwegian option would do the least damage to the economy. It would also be the best chance to preserve the union with Scotland and Northern Ireland, both of which voted Remain. The ruling Scottish Nationalists, who lost an independence referendum in 2014, always said that Britain's leaving the EU would justify another ballot on independence. They are right—especially since in 2014 many Scots voted to stay in Britain in order to remain in the EU. But independence would be painful: it might mean promising one day to adopt the euro and hardening the border with England, with which Scotland trades more than it does with the EU. Under a Norwegian-style deal, Scots might prefer to stick with England. The Nationalists should wait to see a deal before asking for a new referendum.

In Northern Ireland Brexit raises other problems. One is the prospect of resurrecting the border between north and south,

a dismal piece of symbolism which might be avoided if Britain got a Norwegian settlement. Another shamefully overlooked snag is that Britain's exit from Europe will break the Good Friday Agreement of 1998, in which Northern Ireland's peace process was underpinned by the EU. This treaty has kept the peace in the UK's most troubled region for nearly 20 years. Fixing the mess will be an urgent task for the prime minister.

Point of no Breturn

Who should that be? Tory party members, who have the final say, may favour one of the victorious Leave campaigners, a mediocre bunch who have disgraced themselves during the campaign: lying about inflated budget payments and phantom Turkish migrants, before vanishing after the vote when the Brexit hit the fan. None of them would make a worthy prime minister. And yet the very falseness of the prospectus they flogged may be their best qualification for the job. Britain's next leader must explain to 17m voters that the illusion they were promised—all the EU's benefits with none of its obligations—does not exist. Only when the authors of the Brexit fantasy themselves return from Brussels without this magical deal might Leave voters accept that a compromise is necessary.

European leaders are in no mood to negotiate with their bolshe neighbour. That is why Britain should delay as long as it can before invoking Article 50 of the Lisbon treaty, the mechanism for a Brexit negotiation, which sets a two-year deadline. For every extra month that the cost of Brexit sinks in, the possibility of a fudge will increase. Angela Merkel, a champion procrastinator who, like her French and Dutch counterparts, faces angry elections next year, may also feel that accommodating some British demands, such as allowing an emergency brake on the free movement of people during “surges” (perhaps applied across the EU), would be possible, though she may find it hard to sell the idea to other European leaders.

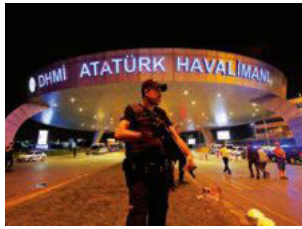
Given that nearly half of British voters did not want out, it is likely that a majority might prefer a Norwegian compromise to complete isolation. Whatever deal takes shape in Brussels will be so far from what was promised by the Leave campaign that it will surely have to be put to the British public again, through a general election, another referendum or both. It is even possible that the whole notion of Brexit may stall. A thin majority have said they would prefer life outside the EU to life inside. But it may be that, when faced with the question of whether to endorse a Norway-like deal that entails many of the costs of being in the single market without having a say in the rules, many would rather stay in the EU after all.

Negotiating over Brexit will stretch the tolerance of both British voters and European leaders. Yet the EU specialises in muddled compromises and talking its way around referendums. After months of economic hardship, and a recession-induced fall in immigration, British voters may be ready to think differently about the balance between immigration, the economy and their place in Europe. By far the most likely outcome of this sorry situation remains Brexit. But it would be wrong completely to discount the possibility of an inelegant, humiliating, and yet welcome, Breversal. ■

The attack on Ataturk airport

Turkey's agony

How Turkey has made itself a soft target



THEY came by taxi, opened fire on innocent passengers and blew themselves up when the Turkish police shot back. Three terrorists assaulted Istanbul's Ataturk airport on June 28th, killing at least 42 people and wounding over 200 more.

The attack on Europe's third-busiest airport was even deadlier than the one in Brussels in March, where both the airport and a metro train were hit. No one claimed responsibility for the carnage, but the evidence pointed strongly to Islamic State (IS).

If so, it demonstrated IS's growing operational sophistication. This was urban commando warfare, much like the attack on Mumbai in 2008 by Lashkar-e-Taiba, a Pakistani jihadist group. Western security agencies have long dreaded the arrival of that kind of terrorism in Europe. The three black-clad terrorists carried automatic weapons and wore suicide vests. By starting their assault outside the airport's security perimeter, they avoided the security checks inside the terminal. Few airports, save Israel's Ben Gurion, have the kind of layered defences that might have thwarted such tactics.

This atrocity could have taken place anywhere in Europe. Yet Turkey has made itself especially vulnerable, due to the misconceived policies of its president, Recep Tayyip Erdogan. We do not mean the deal announced this week to normalise relations with Israel (page 45): that was a rare example of sensible pragmatism on Mr Erdogan's part and happened too recently to be a plausible pretext for this week's attack. (Complex terrorist operations typically require months of planning.)

It is Mr Erdogan's catastrophic Syrian policy that has put his country at risk. In the past nine months nearly 250 people have

been killed in nine terrorist attacks in Turkey. The main culprit is thought to be IS, though some killings were carried out by an offshoot of the Kurdistan Workers' Party (PKK). In October presumed IS supporters blew up 102 people in Ankara. IS grew strong in Turkey after 2011, when Mr Erdogan's government encouraged tens of thousands of foreign fighters to use Turkey as a jumping-off point to enter Syria and try to overthrow its president, Bashar Assad, whom Mr Erdogan detests. Turkey knew that most were hardcore jihadists. Many joined IS, helping to create the monster of today. They were also allowed to establish a terrorist infrastructure inside Turkey, which they are now using to attack their hosts.

Time to get serious about IS

Rather than recognise his mistake, Mr Erdogan has doubled down. His greatest fear is that Syria's Kurds might carve out their own state, from where they could inspire Kurdish separatists inside Turkey. Last year he fanned a needless confrontation with the PKK, which had been started by IS, judging that this would pay electoral dividends—and indeed it has cut support for one of the main opposition parties, the moderate, largely Kurdish HDP. But Mr Erdogan has been wrong about pretty much everything else. As well as dealing with IS, he is now fighting a full-scale guerrilla war in south-eastern Turkey.

If Mr Erdogan is shrewd, he will apply more of the pragmatism he has shown this week both with Israel and with Russia, which received an apology for the shooting down of one of its fighter jets. He should stop stoking conflict within Turkey between Islamic conservatives and Western secularists, and between ethnic Turkish nationalists and Turkish Kurds. He must make defeating IS his priority in Syria. The last thing Turkey needs from Mr Erdogan is more divisive authoritarianism. ■

Diamonds

Shine on

Even the ring finger cannot escape the effects of technological change



BY ANY standards, the journey taken by the Lesedi La Rona, an enormous rough diamond on auction in London this week, has been epic. The stone was forged 2.5 billion years ago in molten rocks hundreds of kilometres beneath the Earth's surface, then thrust up out of the planet's mantle by volcanic eruptions. There, the diamond lay for millennia, while humans evolved, nation-states formed and technologies developed, until it was unearthed last year by miners in Botswana. The vastness of time and the power of nature give diamonds their mystique. But they could not stop the auction from flopping (see page 58). And they cannot protect the industry from a

trio of forces that are upending businesses everywhere.

One is new technology. Synthetic diamonds can be made in laboratories, using either large presses to simulate the pressures and temperatures experienced deep underground, or a process called chemical vapour deposition to grow diamonds as carbon atoms settle on top of each other. Such man-made stones are virtually indistinguishable from the natural sort. They already dominate the market for industrial use; as technology improves and costs decline, they will become more competitive in the jewellery market, too.

That process will be helped by the second force, the rising power of the socially aware consumer. In 2003 the diamond industry responded to concerns that sales of illicit stones were being used to finance warfare in Africa by launching the Kimberley Process certification scheme. This was designed to ►►

▶ make diamonds traceable, but focuses only on the ones that pay for rebel armies. Man-made diamonds spare millennials and others the headache of worrying that they are supporting human-rights abuses under repressive regimes such as Zimbabwe's. Adding Hollywood glamour to the moral appeal is Leonardo DiCaprio, an investor in a synthetic-diamonds startup.

Lucy in the lab with substrates

The third factor is the reshaping of the financial industry in the wake of the 2007-08 crisis. New rules requiring both greater transparency and tighter credit standards have caused banks to pull back from lending to the "midstream" bit of the diamond industry, which trades, cuts and polishes rough stones. Standard Chartered, an emerging-markets bank, this month said it would be shutting down its diamond-financing unit. Other lenders have also cut their exposure.

For consumers, the advantages of having a wider choice of gems are clear. For the incumbents in the diamond industry, however, the temptation is to resist change rather than em-

brace it. Diamond bourses in India and Israel have restricted the trading of synthetics. Some in the industry have argued that the rise of man-made diamonds is more likely to impoverish artisanal miners in Africa than nasty regimes.

In fact, everyone may have a chance to keep some of their sparkle. An inexhaustible supply of cheap lab-grown stones might seem certain to make them all less precious. But true romantics will still balk at making a proposal with a ring made in a lab. A diamond producers' association has already unveiled a new marketing slogan, "Real is Rare", to satisfy another one of the millennials' cravings—for authenticity. That will help the natural-diamond bit of the industry to keep its prices high.

Better still, additional competition from synthetic producers will add to the pressure on the mainstream industry to beef up its certification processes—both to reassure ethical buyers of the provenance of their diamonds and to prove that a pricey diamond is indeed natural. What the Kimberley Process failed to do, technology might. A more legitimate diamond industry might even be one that banks are happier to lend to. ■

Cities

The right kind of sprawl

Growing cities in Africa and Asia are bound to spread out. They do not have to do it so messily



EVERY year the world's urban population swells by about 75m people. That extraordinary growth—equivalent to adding eight Londons—is a wonderful thing. Cities throw people together, encouraging the exchange of ideas. The people

who move there tend to grow richer, freer and more tolerant. What is rather less wonderful is the way in which many of the world's fastest-growing cities are expanding.

The trouble is not, as is often claimed, that cities in poor and middle-income countries are spreading like oil slicks. Most of them need to expand. Western cities can often accommodate their growing populations by squeezing more people in. But many poor cities are incredibly dense already: Dhaka, the capital of Bangladesh, is nine times as tightly packed as Paris, if you include their suburbs. And no Western city has ever added inhabitants as quickly as the poor and emerging-world champions are doing. African and Asian metropolises are bound to sprawl even if sensible pro-density reforms are passed, such as scrapping height restrictions on buildings.

The real problem is that these metropolises are spreading in the wrong way. Frequently, small housing developments or even individual houses are plonked down wherever a builder can cut a deal with a farmer (see pages 55-56). In the huge, jumbled districts that result, far too little space is set aside for roads. Manhattan is 36% road (overall, almost half of that capitalist temple is public space). In some unplanned African suburbs as little as 5% of the land is road. Even middle-class districts often lack sewers and mains water. As for amenities like public parks, forget it.

Suburbs can eventually be retrofitted with roads and sewers. But that will be horrifically complicated and expensive—too much so for poor countries. It would be vastly cheaper and

better to do sprawl properly from the start.

Urban and national officials should begin by admitting two things: their cities are going to become very much larger; and this growth will be too quick to be controlled by comprehensive urban plans. Officials in poor countries often spend many years drawing up detailed plans; by the time they are finished, the city has changed so much that their designs cannot possibly be implemented.

It is wiser to keep things simple. At a minimum, work out where the main thoroughfares and parks will go as the city expands. Again, New York is a good model. In 1811, when the city was still confined to the southern tip of Manhattan, it planned for a sevenfold expansion and laid out a street grid.

Make way

Acquiring rights of way for future roads and amenities can be both costly and politically difficult (though not nearly as much as waiting until it is too late). Almost all fast-growing cities are in countries where landholdings are small, and small farmers do not take kindly to being booted off their land. But a few countries have developed a promising technique known as land readjustment. Instead of evicting farmers in the path of a new road, officials offer to reorganise a whole district. Everybody loses some land, and the biggest winners—those closest to the new road—compensate those who fare less well. Japanese cities used this technique when they were growing quickly. Today the Indian state of Gujarat makes it work.

Increasingly, the world's fastest-growing cities will be African. And those are especially hard to corral. Many African countries persist with some form of collective land ownership, which is anathema to professional developers: why buy land that you cannot formally own? Until farmers are given full rights to their lands, including the ability to transfer legal title, cities are likely to grow in a messy way. Good planning and secure property rights make for a better kind of sprawl. ■

Tough call



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Irreconcilable differences



Your reaction to the result of Britain's referendum on the European Union floats roundly inside the grieving London bubble ("A tragic split", June 25th). More than 17.4m people voted to leave. The distribution of their votes across all of England belies the insulting image being peddled that Brexiters are angry, semi-literate, racist northerners. The middle-class cognoscenti is in shock, unable to comprehend that the entire nation actually does not share their near-fascistic *Weltanschauung*. Had Remain won, no one would now be discussing the need to heal a divided nation. Instead it would be "common sense triumphing over isolationism", "tolerance overcoming hate", and so on. I voted Leave on the basis of Tony Benn's inarguable case regarding democratic accountability and I am delighted with the outcome.

STEPHEN HAND
*Chipping Sodbury,
Gloucestershire*

In the same edition, you reported on excessive executive pay, increasing levels of poverty among low-paid workers and your astonishment at the vote to leave the EU. Perhaps you should have joined the dots.

PETER SWAIN
London

There are various economic, political and financial reasons for the widespread anger across Europe, but foremost among them is the right for workers to live and work in any member country. This has increased the draw of economic migrants from the newest and poorest member

states of eastern Europe and illegal migrants coming from north Africa and elsewhere. Yet the authorities seem unable to determine between refugees and economic migrants. It will wreck the EU.

France and Germany must take responsibility for refusing Greek, Italian, British and others' requests to suspend the entitlement to freedom of movement, at least temporarily. Revoking that right would have almost certainly helped Remain win the referendum, but Brussels gambled, refused and lost. Pride goes before a very large fall.

MARK JEFFRIES
Chichester, West Sussex

Many of the three million European citizens who live in Britain consider it home. The uncertainty we now face is difficult to bear. We receive reassuring messages. Our employers tell us that everything will remain the same until "the government decides otherwise". Will we lose our right to live and work in the United Kingdom? "Not necessarily." That just isn't good enough. Most of us don't care about the immediate future. We care about the end result. Should we remain in the hope that those who live here at the time of the split will be allowed to stay? Will companies be reluctant to hire Europeans as long as the uncertainty lasts? Although I do not want Article 50 to be initiated, it has become unavoidable. And given that it is inevitable, it is better to do it today than tomorrow. We need to resolve this as soon as possible.

DENNIE VAN DOLDER
Nottingham

Either the EU is a club, that member states can join and leave according to their people's wishes, or it is a greater project of political union that sets points of no return. If the latter applies there should be no institutional possibility to leave depending on a popular vote, just as no British county, French *département*, German *Land* or Italian region is free to choose whether to stay or leave its

country. The EU's perpetual inconsistency that on the one hand pursues integration and on the other keeps the hand-brake within reach through procedures such as Article 50 of the Lisbon treaty is what really endangers its survival.

If the EU is to fail it should do so convincingly instead of slowly bleeding to death.

VITTORIO DE VECCHI LAJOLO
Turin

To the 48%: my sincere condolences. I am a convinced European of British origin, cognisant of the failings and weaknesses of Brussels, but wishing to strive for improvement. After 20 years of living and working in France I am now obliged to seek French nationality.

To the political class in Brussels: the model doesn't work! You know it but your preening self-interest, general incompetence and apparent lack of will to change means that nothing advances. Your handling of the refugee crisis is a glaring example. This vote is as much a castigation of you and your shenanigans as it is of any other factors brought to the debate. Recognise it and do something about it. Nationalism is on the rise and you are largely to blame.

I don't think we have even begun to understand the consequences of this dangerous and irresponsible farce in Britain. It is a turning-point in European history.

NIGEL EVANS
Paris

A subsequent referendum would offer the opportunity to continue to leave on a more defined path, or to reconsider the benefits of EU membership from an unexpected, but stronger, negotiating position. It would also better inform those who used their vote to protest against wider issues on June 23rd and now find themselves faced with the unintended consequences.

JAMES DOVE-DIXON
Otterford, Somerset

Votey McVoteface?
VILNIS VESMA
Newent, Gloucestershire

True Englishmen do not flip "a middle finger at the establishment" (Bagehot, "The improbable revolutionaries", June 25th). That's for Americans and their satellites. The English wave two fingers (middle and index), with the back of the hand towards the adversary. The practice started after English bowmen captured by the French had those two fingers cut off so that they could no longer pull a bow.

Free bowmen would stick up their fingers to the French to show they could still do battle.

ROGER BROAD
London

The Economist launched a China section in 2012 to account for the country's increased influence on the world, 70 years after a United States section was started for the same reason. Britain's influence on geopolitics and the world economy has declined over the past half century, and you have pointed out that Brexit would further diminish that influence ("Divided we fall", June 18th). So is it time for *The Economist* to move the Britain section, somewhat ironically, into Europe?

DAN HANRAHAN
Melbourne, Australia

"Brexit will not kill European Utopianism. It was already dead", says Charlemagne (June 18th). European Utopianism was very much alive recently, when the European Parliament announced a proposal to tax robots as "electronic persons".

ELIEZER GREISDORF
Toronto

Hooray! Now we can all go to Tesco and buy bananas again in any shape we want. Just like in the real world. Life doesn't get much better than that.

ROGER LEWIS
Aberystwyth, Ceredigion ■

Letters are welcome and should be addressed to the Editor at The Economist, 25 St James's Street, London SW1A 1HG
E-mail: letters@economist.com
More letters are available at: Economist.com/letters

THE AFRICAN DEVELOPMENT BANK

Appointment of Directors General



AFRICAN DEVELOPMENT BANK GROUP

Established in 1964, the African Development Bank is the premier pan-African development institution, promoting economic growth and social progress across the continent. The Bank's development agenda is to deliver the financial and technical support for transformative interventions that will significantly reduce poverty through inclusive and sustainable economic growth. In addition to providing finance, the Bank is Africa's voice on global economic, financial and development issues, a role that has taken significant importance in light of increasing global integration and interconnected risks.

The Bank has prioritized five major areas (High 5s), all of which will accelerate developmental impacts for Africa: Light Up and Power Africa; Feed Africa; Industrialize Africa; Integrate Africa; and Improve the Quality of Life of the People of Africa. The Bank is building a world class senior management team to lead the successful implementation of the vision.

The Bank is re-designing its operating model to ensure the effective delivery of these strategic priorities. A critical part of this change is the establishment of five regional development and business delivery hubs: West, East, Central, North and Southern Africa. It will appoint new Directors General to lead these regional operations. The Directors General will report to the Vice President for Regional Development, Integration and Business Delivery.

The Directors General will ensure that the Bank operates efficiently, effectively and successfully in the relevant countries, and ensure the full implementation of all aspects of the Bank's work.

Energetic and results driven candidates for these roles will combine regional knowledge with excellence in delivering outstanding results and impact. They will have a proven track record of building effective teams and of cultivating successful partnerships with both governmental and private sector stakeholders.

Russell Reynolds Associates are assisting the African Development Bank with this appointment. For further information about any of these roles and details of how to apply, please visit Russell Reynolds Associates website at www.rresponses.com. **The closing date for applications is 31 July 2016.**



THE AFRICAN DEVELOPMENT BANK

The African Development Bank (the Bank) is the premier pan-African development institution, promoting economic growth and social progress across the continent. The Bank's development agenda is delivering the financial and technical support for transformative interventions that will significantly reduce poverty, through inclusive and sustainable economic growth. It is Africa's voice on global economic, financial and development issues. The Bank will focus its investments around five priority areas, President Adesina's High 5's: **light up and power Africa; feed Africa; industrialize Africa; integrate Africa; and improve the quality of life for the people of Africa.** The Bank is building a world-class senior management team that will lead the successful implementation of this vision.



AFRICAN DEVELOPMENT BANK GROUP

Vice President, Agriculture, Human and Social Development

The Vice President, Agriculture, Human and Social Development (VP, AHSD) will develop and launch the Bank's Africa-wide agricultural transformation agenda. S/he will work with Member countries and the private sector to drive agricultural industrialization and to deliver inclusive and sustainable transformation initiatives.

The VP, AHSD must have a global reputation and expertise in agriculture programme delivery with a proven track-record in leveraging the transformative power of agriculture to achieve broader development objectives. S/he will have the experience and credibility to mobilise stakeholders, convene international partners, and lead major transformation initiatives.

Vice President, Private Sector, Infrastructure and Industrialization

The Vice President, Private Sector, Infrastructure and Industrialization (VP, PSII) will accelerate investments in critical infrastructure and will champion and create the conditions for rapid industrialization. S/he will support countries to improve their business and investment environments; to drive private sector development; to enhance manufacturing capacity and participation in global value-chains; and to develop and promote intra-regional trade.

The VP, PSII will bring senior leadership experience in the private sector with a deep knowledge of infrastructure and financial market development in Africa.

All roles report to the President and require a minimum of 15 years of proven leadership and relevant experience; an advanced degree in a related field of study is also required. Fluency in English and/or French, with a working knowledge of the other language is required.

Russell Reynolds Associates are assisting the African Development Bank with this appointment. For further information about any of these roles and details of how to apply, please visit Russell Reynolds Associates website at www.rresponses.com. **The closing date for applications 15 July 2016.**

Vice President, Power, Energy and Green Growth

The Vice President, Power, Energy and Green Growth (VP, PEGG) will champion the New Deal on Energy for Africa and will lead the Transformative Partnership on Energy for Africa to achieve universal access to energy in Africa. The Bank will invest US\$35 billion in the energy sector within the next 10 years and will leverage a further US\$45 billion to US\$50 billion in investments into the sector.

S/he will be a thought-leader with a track record in large-scale electrification; mega-project execution across borders; and, more broadly, energy systems capacity building.

Vice President, Regional Development, Integration and Business Delivery

The Vice President, Regional Development, Integration and Business Delivery (VP, RDIBD) will drive the implementation and execution of a new development and business delivery model for the Bank. S/he will create and lead five new regional development and business delivery offices. The VP, RDIBD will deepen regional integration by cultivating strategic partnerships with regional economic communities and development banks, and will execute major regional projects to improve trade and competitiveness.

S/he will have broad knowledge of the state of regional integration and development in Africa and the linkages across sectors. S/he will bring senior executive experience in operations in Africa with a record of delivering results in complex project, country and partner arrangements.





**Sector Economic Principal Advisor
Climate Change and Sustainable Development**

Climate investment needs in Latin American and Caribbean region have been estimated at \$75 to \$80 billion per year from 2020 to 2030, representing close to 1.5% of the region's GDP and almost three times its current volume of such investment. As part of its strengthened commitment to climate finance, the **Inter-American Development Bank (IDB)**, the leading source of financing for economic, social, and institutional development in Latin America and the Caribbean, is looking for a **Sector Economic Principal Advisor (SEA)** to oversee the strategic direction and research agenda for Climate Change and Sustainable Development with a particular focus on topics such as rural and agricultural development, climate change mitigation and adaptation, urban development and sustainable cities.

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Candidates must have a PhD degree in Economics, at least ten years of relevant work experience, solid publications track record in peer reviewed journals, and fluency in Spanish and English (Portuguese and French is highly desirable).

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UNITED NATIONS UNIVERSITY

**HEAD OF COMMUNICATIONS (P-4 LEVEL)
OFFICE OF COMMUNICATIONS
(UNU CENTRE)
(DUTY STATION: TOKYO, JAPAN)**

UNU is searching for a Head of Communications to be located at its Headquarters in Tokyo, Japan. The Head of Communications, reporting to the Executive Officer, Office of the Rector, will have responsibility for the development and implementation of the University's worldwide communication and dissemination strategy and for implementing a focused set of activities aimed at enhancing the UNU's media and communications outreach in the University's main host country of Japan.

The Head of Communications will have responsibility for developing, coordinating and energizing UNU communications worldwide and for carrying forward the ongoing efforts to raise the profile of the University, globally, but more specifically in Japan, the University's main host country.

Qualifications: An advanced university degree (Master's degree or equivalent) in journalism and/or communications, or a first university degree with a relevant combination of academic and professional qualifications.

Experience: Demonstrated communications experience of at least seven (7) years, covering areas such as knowledge management and sharing, public policy support and advocacy, website content development and delivery, use of electronic and other media.

Candidates should possess excellent management and communications skills with fluency in English. Knowledge of French or of other official languages of the United Nations is desirable.

CLOSING DATE: 15 AUGUST 2016

For the complete information about this position, please visit <http://unu.edu/about/hr>
The successful candidate is expected to take up the position as soon as possible.



**GLOBAL ICT OPERATIONS MANAGER
(MANILA, PHILIPPINES) – P5 LEVEL**

The International Organization for Migration is looking to recruit at its Manila Administrative Centre a **Global ICT Operations Manager** who shall be responsible for managing the global ICT operations including but not limited to providing technical and project management leadership to conceptualize and implement initiatives in areas such as global IT infrastructure management, global ICT project management support, global user support services, information management services and disaster recovery management in line with the IOM's overall ICT strategies and technology roadmap.

Qualifications and Core Competencies: Master's degree in Computer Science, Information Systems, Mathematics, Statistics, Electrical Engineering or a related field from an accredited academic institution with ten years of relevant professional experience; or University degree in the above fields with twelve years of relevant professional experience. With experience in planning, design, development, implementation and maintenance of computer information systems. Experience in managing a global Service Management organization with exceptional communications skills. Knowledge of Software & Systems Development Life Cycle and experience in managing applications development and/or support teams. IT project planning and leadership, including proven ability to manage medium to large technical projects involving internal and external (outsourced) teams with demonstrated knowledge of project management methodologies (PMI or Prince2) and their practical application. Knowledge of IT Service Management frameworks such as ITIL, COBIT. At least a foundation level certification in ITIL and PRINCE 2 required. Additional certification in service management an advantage. Effective resource management skills, strategic and creative thinking. Gender awareness and gender sensitivity.

Salary: IOM offers an attractive salary package based on the United Nations system at P5 level.

A full term of reference is available at IOM website: www.iom.int candidates should upload their applications at <http://www.iom.int/how-apply>.



An aggravating absence

Also in this section

20 Negotiating the divorce

21 The economic fallout

BERLIN, BRUSSELS, PARIS, ROME AND WARSAW

Britain's decision to leave the European Union will cause soul searching across the continent—and beyond

IT WAS a gathering unlike any the European family had ever seen. In the Justus Lipsius building in Brussels his fellow leaders commiserated with Britain's prime minister, David Cameron (not pictured, above) over his failure to keep his country in the EU. Fractious as the marriage with Britain has sometimes been, there was resigned sorrow and regret at the decision to end it. Donald Tusk, the president of the European Council, who chaired the gathering, described his feelings thus: "I felt as if someone very close to me left our home, and in the same second I felt also how dear and precious this home was to me."

A few hours earlier, in the packed chamber of the European Parliament, the kids had been at each others' throats. The Parliament likes to think of itself as the guardian of the European ideal. But its role as a sump for protest votes means it also provides a European stage and stipends for those who would destroy the union (including some, like Nigel Farage of the UK Independence Party, unable to secure a place in their own nations' parliaments). Unsurprisingly, things can get heated.

Euro-federalists accused Mr Farage of lies like those of Nazi propagandists; Mr Farage, reminding MEPs that they had laughed at him 17 years ago, when he was first elected on a get-Britain-out ticket,

crowed "You're not laughing now, are you?" "Long live free nations! Long live the United Kingdom! Long live France!" declared a jubilant Marine Le Pen, leader of France's National Front (FN). The Brexit vote, she announced, was "by far the most important historic event known by our continent since the fall of the Berlin Wall."

On that she may be right. The EU has suffered many upsets in recent years, including the huge challenges of the debt crisis in the euro zone and the mass influx of refugees and other migrants. But Brexit is qualitatively different. It strikes at the very idea of a union, rather than its shoddy or misguided implementation.

Until the referendum on June 23rd, the EU could always boast that, for all its flaws, it was still a club that many wanted to join and none had left. The union has been fruitful and multiplied since its precursor, the European Coal and Steel Community, was formed by six members in 1951. In 2013 Croatia became the 28th member of the EU; in 2015 Lithuania was the 19th to join the euro. The EU is the world's biggest single market, counting some 500m rich-world consumers. It stabilised new democracies in southern and eastern Europe, and though it failed to bring peace in the former Yugoslavia it has done much to sustain the peace that eventually arrived. The protes-

ters of Ukraine's Maidan were shot holding aloft the union's blue flag with its circle of stars.

And now the British have voted to leave. True, the nation's membership had often been half-hearted. Britain had stayed out of the euro and of the Schengen free-travel area. But that barely softens the blow of the union's second-biggest economy and a leader in some of its major reforms deciding to walk away. The decision leaves more in its wake than regret and resignation. It leaves two big questions. Will anyone else follow Britain out of the union? And what reforms are needed if the institution is to cohere and survive?

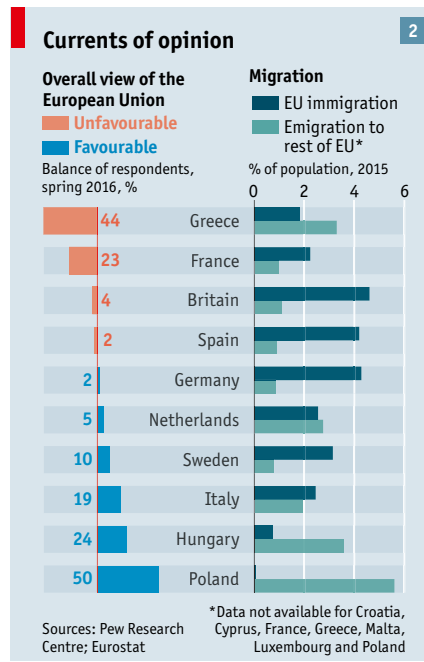
Will the French let her?

Euro-sceptics across Europe are moved by dissatisfactions similar to those of Britain's Leave voters: resentment of globalisation; estrangement from elites; a sense that the EU is distant, undemocratic and overbearing; and, above all, a conviction that the cherished openness of the EU has let in too many foreigners who take away jobs, benefits and national identity (see chart 1 on next page). Popular support for the EU has collapsed across the continent, nowhere more strikingly than in France, where the FN has prepared posters featuring a pair of chained wrists breaking free, ►►

under the caption: “Brexit: and now France!” Ms Le Pen talks of a “People’s spring” in Europe, a phrase redolent, rather unfortunately, of the Arab one on the far side of the Mediterranean.

Once the driving force of the EU, the French are now among its most Eurosceptic citizens. A recent survey of major EU countries by the Pew Research Centre finds that they have a more unfavourable view of the union than is found in any other country bar Greece (see chart 2). Ms Le Pen thinks this national mood could help her win the presidential election next spring. Polls suggest that she will make it into the second round of the election, but until now the assumption has been that she would go on to lose to a candidate of the centre-right because a big enough chunk of left-wing voters would hold their noses and vote for her opponent. Left-wing voters who got behind a centre-right candidate in just this way blocked her bid to win the presidency of a region last December.

The Brexit vote could alter the equation. Ms Le Pen’s strategy has been to win respectability by turning her party, previously seen as a creature of the extremist fringe, into a mainstream nationalist alternative to left and right, and the British vote makes the party’s Euroscepticism seem less exceptional. It puts questions of identity, immigration and national sovereignty at the centre of the debate, where she can shape the agenda and peel away votes from not only the centre-right but the left, too. The FN is already the most popular party among working-class voters, and it will not have escaped Ms Le Pen’s notice that a third of Britain’s Labour Party supporters went against their party’s policy and voted with Mr Farage, whose UKIP did well in many former Labour strongholds at last year’s election. Less of the French left may



be relied on to vote against Ms Le Pen than was once expected.

Voters elsewhere will also soon be making themselves heard. Italy’s centre-left prime minister, Matteo Renzi, has staked his future on a constitutional referendum this autumn. The vote is not directly about Europe; Mr Renzi wants Italy to replace its dysfunctional legislature with a unicameral parliament and an electoral system that produces stable majorities. If he loses and resigns as a result, Italy could fall into political and economic chaos; alarmed markets might trigger a banking crisis (see subsequent article).

Such chaos, and any subsequent increase in austerity, could play to Euroscepticism in Italy and elsewhere. The Five Star

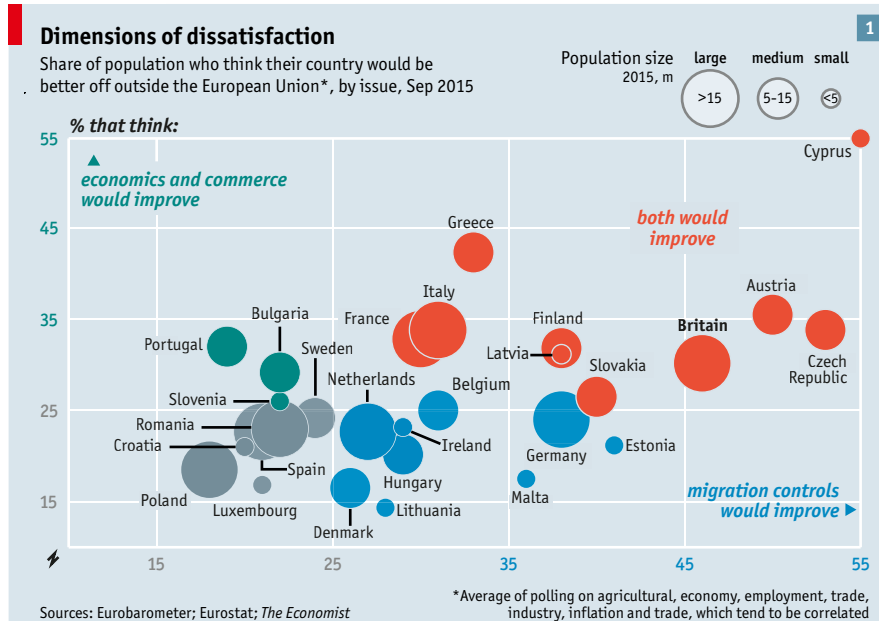
Movement, which recently won control of Rome and Turin, two of Italy’s most important cities, has been fiercely critical of the euro and of the austerity policies associated with it. It has tiptoed away from the frank Euroscepticism of its founder, Beppe Grillo, but could return to it. The Northern League called for a referendum on Italy’s membership of the euro two years ago, and might now up its demand to a full exit. It has not been doing particularly well at the polls of late, but an economic crisis could change that.

Germany and the Netherlands will also have elections next year, and in both populists look set to do well even in the absence of a new crisis. In the Netherlands polls give the anti-EU and anti-immigrant Party for Freedom (pvv), led by Geert Wilders, a comfortable lead; the Liberal party of the prime minister, Mark Rutte, languishes in second place, and the Labour Party, which governs with the Liberals in a centrist grand coalition, has fallen to below 10%. Though Mr Wilders will not win an outright majority, he may end up able to force a referendum on membership of the euro. On current form he seems unlikely to win it. But events could change things. Mr Rutte probably had that in mind when he emphasised in Brussels the heavy cost Britain—frequently his ally in internal EU debates—was paying for its choice: “England has collapsed politically, monetarily, constitutionally and economically.”

Obligations and privileges

Anti-EU movements have made less of an impact in Germany, which has long felt a special reparative responsibility for peaceful European integration. Alternative for Germany, which started life as a protest against the euro and bail-outs for indebted southern states, is polling at 10-14% and will no doubt break into the Bundestag in the 2017 elections. But though the party now takes a hard anti-immigrant stance, too, it still does not want to leave the EU.

If Germany is united in its support for the EU, though, it is to some extent divided over what to do next about Britain—as is the rest of the union. The Social Democratic Party, the junior partner in the grand coalition led by Angela Merkel’s Christian Democrats, wants to see action quickly. In this it is lining up with its fellow socialists in France, who want to see Britain beginning to pay for the “consequences” of its action as soon as possible. At the other end of the spectrum, the Netherlands and Poland are content to give Britain time, perhaps in the unspoken hope that it might yet reconsider. “The quality of the process is more important than timing,” says Konrad Szymanski, Poland’s minister for European affairs. Poland has long regarded Britain as the natural champion of market-oriented easterners, despite its voters’ turn against the free movement of workers.



▶ The ever-cautious Mrs Merkel, keen to keep Britain as a close partner in both trade and geopolitics, tends to the go-slow-and-gentle side of the debate over how to negotiate Brexit (see next article). “There is no reason now to be especially nasty during the negotiations,” she has said. But, as ever, there is also a limit to her willingness to accommodate Britain. “Anyone who wants to leave this family can’t expect to get rid of all obligations while holding on to privileges,” she said on June 28th.

Her stance underlines the fact that, despite differences over presentation and timing, at heart the EU has a fairly well settled, and tough, line on how to treat Britain. Serious splits in the coming months are unlikely. Possibilities such as the creation of alternative forms of membership for reluctant or problematic countries, such as some version of the “privileged partnership” once suggested for Turkey, would be hard to sell; Europe’s leaders are nervous about encouraging halfway houses for fear that existing members might find them attractive, too. “Married or divorced, but not something in between,” says Xavier Bettel, Luxembourg’s prime minister.

Distracting though dealing with the departing Brits may be, holding the remaining EU together will be the highest priority. As always, the instinctive response of many politicians to a crisis is “more Europe”. In a recent joint paper Jean-Marc Ayrault and Frank-Walter Steinmeier, the foreign ministers of France and Germany, called for closer co-operation on defence, security and intelligence-sharing; the joint patrolling of external borders; a common migration and asylum policy, the harmonisation of corporation tax; and euro-zone reforms. They said their countries would “move further towards political union in Europe.”

More Europe, more trouble

Their respective leaders, though, avoided endorsing such extensive commitments. Wolfgang Schäuble, Germany’s finance minister and a longtime champion of integration, says that centralising EU powers further after Brexit would be “crazy”; if anything, he wants to clip the wings of the commission. Others go considerably further in their calls for the repatriation of powers, not to mention a bonfire of EU regulations (of which, in fairness, Brussels now produces far fewer than once it did). Poland has called for a more inter-governmental system, transferring powers from the commission to the European Council, where national leaders sit. More free-wheeling governments, including those of the Netherlands and the Nordic states, would like the EU to focus on growth-promoting liberalisation of markets such as those for digital and other services. They know their cause will be weakened by Britain’s departure (see Charlemagne).



Ms Le Pen is on a roll

Though its direction is not set, there is a general recognition that some kind of reform is unavoidable. At the same time, the obstacles seem insurmountable. Given that most EU policies are delicate compromises, it is hard to reach agreement on which should be altered or abandoned lest a house of cards come tumbling down. And it is inevitable that the core goals of some nations and governments will contradict those of others. France wants a more “social” Europe with higher minimum wages and the protection of workers across the union in order to prevent what it calls “social dumping”. Such ideas are anathema to German conservatives.

Divergent interests have precluded reform in the area which most cries out for it: the single currency. Options from a proper banking union to a common budget and joint Eurobonds were examined in a report last year by the “five presidents”—those of the European Council, the parliament, the European Central Bank, the Eurogroup and the commission. But they have mostly been ignored. Germany resists shared liabilities, fearing it will be left to pay the bill for the fecklessness of others. Instead it emphasises more central control of national economic policies; this is resented in its turn by those who chafe against austerity, such as France, Italy and, obviously, Greece. And any shift in focus to the euro-zone core raises the ire of the nine non-euro countries. The departure of Britain will not magically heal these divisions.

The EU is just one pillar of Europe’s post-war order. Might Brexit also undermine NATO, the military alliance that has its headquarters at the other end of Brussels and joins Europe to America? Philip Gordon, a former American assistant secretary of state in charge of European relations, says the Brexit vote is a “real set-

back”. Though Germany may be richer and France more gung-ho, no other big European country so often shares America’s basic instincts about the world and how to keep it prosperous and safe.

Within hours of the Brexit vote, Britain assured Jens Stoltenberg, NATO’s secretary-general, that the country’s commitment to the alliance was unchanged. Jonathan Eyal of RUSI, a think-tank, believes that Britain will want to “puff up” its NATO role. Perhaps it will make new gestures towards the collective defence of NATO’s eastern border against a resurgent Russian military threat.

Although a reduced British interest in European security would be deeply unwelcome in America, Brexit per se is being presented as something of passing moment. Barack Obama, who publicly (and perhaps counterproductively) urged Britain to remain in the EU, now says that if Britain ends up being “affiliated to Europe like Norway is” the average American would not notice much change. Many on the right greeted Brexit as a welcome display of independence by an old ally.

Russia rejoices

But the last thing that America needs is further economic turmoil and navel-gazing in a major trading partner and an indispensable ally when the “free West” needs to act as one, for instance by sanctioning Russia or Iran. This possibility of such weakened distraction is one reason Russia sees Brexit as a victory—even though it had little to do with it. Dmitry Trenin, the head of the Carnegie Moscow Centre, a think-tank, also expects a Britain-free EU to be less fundamentally close to America—something Russia will welcome.

The Kremlin feels threatened by European institutions that attract former Soviet ▶▶

▶ republics, such as Ukraine and Georgia, and is delighted to see them weakened. Dmitry Kiselev, a television presenter and Vladimir Putin's chief propagandist, greeted the news with a rapture matched only by that of Ms Le Pen: "Brexit is a turning-point in the history of the EU... The number of EU members is declining. All questions about the expansion are closed for a very long time, if not for ever."

In private, some in Brussels will doubtless agree. They may also nod their heads at the assessment of Yang Chengxu, a former Chinese ambassador to Vienna, that the Brexit vote "yet again reflected the drawbacks of Western democracy". National referendums—in France and the Netherlands in 2005, in Ireland in 2008—have stymied integrationists before, though never on this scale. And some of the upcoming votes may well make their lives harder still. The answer, though, is not to avoid the voters. It is to fashion a Europe that they want to vote for. That is not an easy task; nor is it one, in the long run, to which there is a workable alternative. ■

The negotiations

Article 50 ways to leave your lover

There is no deal on offer that will satisfy both Brexiteers and voters

ON JUNE 29th, 27 heads of government convened for the second day of an EU summit. David Cameron was not of their number. It was a harbinger of things to come. European law recognises only one way for a country to leave the EU: by invoking Article 50 of the Lisbon treaty. And this provision gives no vote to the seceding country when it comes to the final terms of departure. They are fixed by a majority in the European Council.

Aware that this stacks the cards in favour of the EU, many Brexiteers want to find some way to put off invoking Article 50 until an outline agreement has been reached. But EU leaders are not willing to countenance such procrastination. They are ready to wait until a new Tory leader and prime minister is in place (see page 50), or until after an election, if one is held shortly thereafter—but not longer.

The negotiations under Article 50, once they get started, will be only one part of the proceedings. As Robin Niblett, director of the Chatham House think-tank, explains, Article 50 is about exit, not about a changed trade relationship; those negotiations will have to be separate. The two sets of talks may proceed in parallel, but a trade deal is likely to take more than the two years fixed by Article 50. It will also require

approval by the legislatures of every member state, as well as the European Parliament. So it is unlikely to be settled before Brexit happens, unless Britain goes for a pre-cooked arrangement, such as joining Norway and some other countries in the European Economic Area (EEA).

Some variant of this option is backed by a number of Leavers. Its advantages would be speed and broadly unchanged access to the European single market for goods and services. But its disadvantages would be huge: Norway and other EEA members make large payments into the EU budget and observe all single-market regulations with no say in drawing them up. And, critically, EEA members accept free movement of labour.

Boris Johnson, a leading Brexiteer, has claimed that Britain could secure limits on migration and still retain access to the single market on broadly Norwegian terms. Yet the EU could not possibly accept this. If Britain got such a deal, it would have to be offered to other EEA countries—some have been refused such consideration when they asked for it in the past—and probably to EU members, too. It would need unanimous agreement, including from places like Poland, Romania and the Baltic trio that would hardly welcome their citizens being treated as second-class. And Brussels hates to be seen giving in to any form of blackmail: if it concedes to Britain on a core principle, countries from Hungary to Portugal might make demands of their own.

This being the EU there could yet be some fudge. Liechtenstein, a tiny EEA country, retains some residence controls; many EU countries also restrict welfare benefits for migrants. An emergency brake on immigrant surges or new controls on benefits might be agreed on. But this is far short of a system that chooses among would-be migrants according to their skills—the sort of system many in Britain

now expect. If British negotiators treat the need for such control as a red line, they will have to accept the loss of full access to the single market. That is what Angela Merkel, the German chancellor, means when she says Britain cannot "cherry-pick" the benefits without the obligations. Among Tory leadership hopefuls, the justice secretary, Michael Gove, says he is fine with that.

Make a new plan, Stan

If not Norway (or Norway-lite), there are only two other options: a Canada-type free-trade deal, which would eliminate most tariffs on goods; or normal World Trade Organisation rules. Either would take time, not least because, since Brussels has taken care of trade negotiations since 1974, Whitehall lacks experience. Neither would cover most services (including, crucially, financial services). In either case banks in London could well lose many of the "passporting" rights that let them trade across the EU—much to the delight of rivals in Paris and Frankfurt (see page 63).

A further complication comes from two of the nations of the United Kingdom having not voted to leave at all (see page 51). Northern Ireland's peace agreement and border with the Republic pose unique problems. And Scotland's first minister, Nicola Sturgeon, visited Brussels this week to talk to the European Commission's president, Jean-Claude Juncker, about how the EU membership of an independent Scotland might be ensured.

Given all the problems, some wonder if the vote might somehow be overturned. Other countries have rerun referendums to produce the "right" result. Yet unless the EU accepts migration controls, it is hard to see how this could work for Brexit. Many countries are fed up with pesky Brits and some want to be shot of them. And angry British voters who backed Brexit would surely be angrier still were their wishes ignored. ▶▶



Ms Sturgeon would like to see more of Mr Juncker

▶ The economic fallout from Brexit (see next story) and the failure of Brexiteers to honour promises such as more money for the health service might lead some voters to regret their choice. Charles Grant of the Centre for European Reform, another think-tank, says it is unwise to talk too soon about a second referendum, since that looks undemocratic. But if a new election were held before Article 50 negotiations

were complete, some parties might campaign, and conceivably win, on the basis of staying in or accepting an EEA deal.

Such a course of events, sadly, remains unlikely. The Israeli diplomat Abba Eban used to say that nations will always do the right thing after they exhaust all the alternatives. Britain and Europe look likely to put his conclusion to a severe test; but exhaustion, at least, can be guaranteed. ■

The economic fallout

Managing chaos

LONDON AND WASHINGTON, DC

How Brexit will affect growth in Britain, Europe and the wider world

BUSINESSES and financial markets hate uncertainty. The vote for Brexit gives rise to a surfeit of it. Ahead of the referendum, most economists agreed that leaving the EU would be costly for Britain's economy in the longer term. Now that the result is in, analysis has shifted to gauging how the economy will react in the immediate future. Forecasts for economic growth are being revised down—markedly for Britain, materially for Europe, and modestly for the world.

A lot depends on the kind of trade deal Britain can negotiate with the EU and how quickly its outline will emerge. The longer this takes, the worse will be the economic impact. No single narrative can hope to do justice to the many permutations that are possible. But three broad scenarios cover most of the terrain.

Begin with the most benign of possible outcomes. The 27 other members of the EU, led by Germany and France, quickly agree on a common negotiating position that seeks to keep Britain as closely attached to Europe as possible without it being a member. In Britain either the leadership contest now taking place in the ruling Conservative party or a subsequent general election produces a prime minister with a strong mandate who can command a parliamentary majority. Both sides converge on a trade deal for Britain similar to the one enjoyed by Norway, with unfettered access to the single market and with some of the burdens of full EU membership (see previous story). The fine details might take years to iron out fully, but agreement on a deal's outline would give enough certainty to businesses in Britain to resume some investment.

In this event, the British economy would suffer a rotten few months, but a bounce-back might be evident by the end of 2016. Sterling would rally in anticipation. The spillovers to Europe and the global economy would be small and trans-



Carney, calming

itory. The path would be similar if Britain could quickly find a way to reverse its decision to leave.

In the second case, which is also the most likely, discussions are considerably longer drawn-out. Both sides come to a settled idea of the deal they each want by the autumn, but they remain divided on issues such as the free movement of labour, payments to the EU budget and compliance with its regulations.

The middle way

In this unsettled state of affairs, businesses in Britain (and, to a lesser degree, other countries with which it has close ties) defer whatever spending they can. The biggest casualties will be capital projects with big upfront costs whose profitability depends either on friction-free trading with Europe, or on access to other export markets which Britain enjoys only because of trade deals negotiated by the EU. The pound remains weak, indeed falls further.

That in turn pushes up the costs of imported goods to the detriment of real incomes. Hours worked and wage growth fall, even if jobs do not immediately go (though hiring freezes are likely): just as companies value the option of holding off on big investments, they tend to hang on to workers for as long as they can during downturns because they are costly to rehire if the economy picks up. Consumer spending power is reduced. In principle Britain's exporters ought to get a lift from a cheaper pound, but recent evidence suggests they might not. Sterling's weakness in the years after the global financial crisis put a brake on consumer spending (because of higher inflation) but appeared to do little to boost exports.

In this middling scenario, the combined effects of business uncertainty and a weaker pound would be likely to cut the economy's growth rate (compared with a situation in which Britain had voted to remain in the EU) by 1-2 percentage points in the next 12-18 months, with the worst impact coming in the second half of this year. A recession in Britain would hurt exporters in the rest of Europe, where some freezing of capital spending is also likely.

A decent rule of thumb is that the reduction in GDP growth in Europe will be between a third and a half as big as the loss to Britain's rate of growth. As long as the reaction in financial markets is broadly commensurate with the hit to the economy in Europe, and panic is contained, further spillover into the world economy will be fairly limited, say forecasters. In the "medium-stress" scenario set out by economists at Morgan Stanley, a bank, the impact of Brexit takes a cumulative 1.5 percentage-points off Britain's growth rate in 2016 and 2017, half as much off growth in the euro area and 0.5 percentage points off global growth. The Bank of England's governor, Mark Carney, and his counterparts will do what they can to underpin confidence and demand in the real economy and to keep banks afloat with cheap funding. The Federal Reserve is unlikely to raise interest rates before December at the earliest.

Yet a worse outcome is all too easy to imagine. Informal trade talks might stall. The politics in Europe could easily sour. Agitation for referendums in other parts of the EU might grow, despite the convulsions in Britain's polity. Were the Brexit vote, or the negotiations with Britain, to stir broader anti-EU or anti-euro sentiment, worried business leaders across Europe would be more likely to cut back on investment. Europe's fragile banks might be spooked by tumbling stock prices into choking credit to firms and householders. As business conditions worsened, anxious consumers would defer planned spending on holidays and big-ticket durable goods until their job prospects were clearer.

▶ If stockmarkets or house prices fall hard

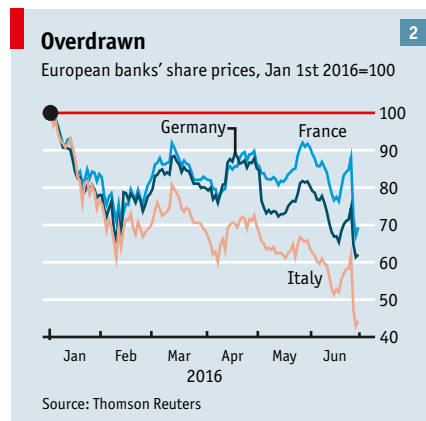
▶ in a panic, that would detract further from spending in countries, notably Britain, where changes in household wealth have a material impact on consumption. Along with Australia and Canada, housing in Britain is already richly valued against rents and incomes compared with the long-run average, thanks in part to brisk demand from foreign buyers (see chart 1). A weaker pound makes British assets tempting to foreign bargain-hunters. But Brexit might just as easily prompt a rethink about the enduring worth of buying property there, especially if London loses ground as a financial centre (see page 63). Even before the Brexit vote, there were signs that the housing market was beginning to lose momentum.

For now many forecasters are treating the Brexit vote as a regional economic event, rather than a global one. Britain accounts for a bit less than 4% of world GDP; it is not big enough to make the global economic weather as America or China can. Even so, there are worries that the Brexit vote might disturb some existing faultlines in the world economy in a way that amplifies its impact. Three concerns in particular are Italy, China and world trade.

Careful with those banks

Start with Italy. It is the weakest big link in the euro-area economy (Greece and Portugal are troubled tiddlers by comparison). Banks are fragile across the currency zone, but Italy's are particularly brittle, weighed down with bad loans built up over a long period of economic stagnation. Brussels has prevented a state-backed "bad bank" from purchasing some of those iffy loans because it would contravene newish EU rules on state aid to banks. This closes off an indirect way of building up their capital. Instead banks must either seek new capital from private investors, which is insufficiently forthcoming, or "bail in" their bondholders in a way that imposes losses. Since bank bonds in Italy are widely held by small depositors, a broad bail-in would be politically impossible.

Matteo Renzi, Italy's reform-minded prime minister, says he will resign if the re-



sult of a referendum on constitutional reform goes against him in October. He is already losing popularity. It is a volatile situation. If Mr Renzi goes Italy will be set adrift again, and fears that it might leave the euro—as both the Five Star Movement and the Northern League wish to do—would return. Brexit might make the economics more combustible, says Laurence Boone, chief economist of AXA, an insurance firm. A weaker economy puts greater pressure on Italy's tottering banks, shares in which plunged in the days after the British referendum (see chart 2). The European Central Bank can smother symptoms of anxiety by buying government bonds, but cannot do much more to cure the underlying problems. If the stresses intensify, the least-bad option might be for Italy to defy the EU and recapitalise its banks. That would reignite fears of EU disintegration.

The line from Brexit to China's economy is less direct and relies on broader financial contagion. The EU imports more from China than anywhere else; weaker growth will be unwelcome when China is wrestling with mountainous debts and oversupply in heavy industry. The degree to which decreased European demand would exacerbate those problems may not be that bad in itself, but there is an additional risk: that European weakness sees the dollar strengthen further as investors flock to the safety of American assets, and that this renews fears about a devaluation of the yuan.

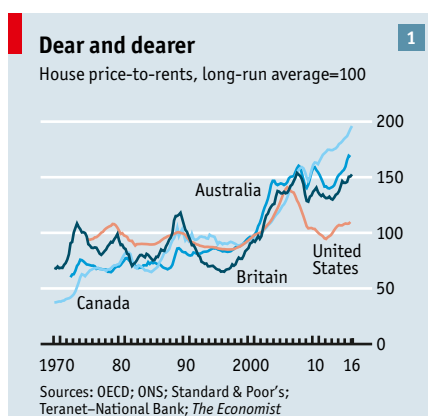
So far, the authorities have allowed the yuan to partly track the falls in the euro and sterling, as part of a strategy to follow a basket of currencies, and not just the dollar. This week the yuan reached its lowest value against the dollar since 2010, without prompting panic. It has helped that the currencies of other exporters, notably Japan, have risen against the euro as hot money flows out of Europe and into Asia.

A third area of global concern is trade. If Britain, long a champion of free trade, can vote to revoke a regional trade deal, how much faith can businesses put in other trade agreements? That alone might have a chilling effect on investment worldwide.

The WTO recently warned that trade-protection measures in the G20 are rising at their fastest rate since 2009, when they were first tracked, in part in response to a glut of global steel capacity, much of it in China (see chart 3). Though the Brexit vote was shaped by concerns about the free movement of labour, rather than of goods and services, the appetite for new trade deals was already weak. The prime minister of France, Manuel Valls, said this week that a long-discussed Transatlantic Trade and Investment Partnership (TTIP) between the EU and America would, in its current form, be "a breeding ground for populism". There is scarcely more enthusiasm on the other side of the Atlantic, where the presidential candidates are either cool or hostile to the Trans-Pacific Partnership (TPP), a trade deal with Pacific-rim nations that has yet to be ratified. The Republican leader in the Senate, Mitch McConnell, says that "by any objective analysis this is, shall I say, a down period for trade agreements around the world."

A silver lining?

A few optimists reckon that if Brexit is sufficiently painful for Britain's economy, it might in time bolster the case for free trade. The fate of other countries that have had to quickly realign their export markets is not encouraging. When Britain joined the EU in 1973 its erstwhile trading partners in the Commonwealth suffered: by 2000 New Zealand had slipped from 8th to 22nd in country rankings of income per person, for instance. Other voices in Washington say there is a potential lifeboat for Britain. The TPP is an "open platform" agreement, meaning that other countries are allowed to apply to join it, once completed. An independent Britain might ask to join and—subject to a vote in Congress and agreement from the pact's other members—enjoy trading access to America, Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, Peru, Singapore, Vietnam and—New Zealand. ■





Also in this section

25 The Taiwan Strait re-freezes

25 Shinzo Abe sitting pretty

26 A rumble near Natuna

26 A pulpit for bullies

28 Banyan: our columnist's farewell

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ASTANA, BISHKEK AND DUSHANBE

The five former Soviet republics struggle to survive the new Great Game

TAJIKISTAN has the vainest ruler in Central Asia. Emomali Rahmon flies what may be the world's largest flag atop what used to be the world's tallest flagpole. His capital boasts that it will soon host the region's biggest mosque, mainly paid for by Qatar. It already has the world's largest teahouse, mainly Chinese-financed and mostly empty; and an immense national library—sadly devoid of books, according to whispering sceptics.

Gurbanguly Berdimukhammedov, a dentist who now runs Turkmenistan, is nearly as big-headed. He calls himself Arkadag (“the Protector”). He moved the 39-foot-tall, gold-plated statue of his predecessor, Saparmurat Niyazov, that rotated to catch the sun, and erected a gold-plated statue of himself, bravely astride a golden horse on a majestic cliff-top (pictured).

Such absurd extravagances can only happen in a dictatorship—and indeed all five of the once-Soviet Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) suffer under repressive, cronyist governments. Their rulers fear “colour revolutions”, which toppled regimes in the former Soviet countries of Ukraine and Georgia as well as a decade ago in Kyrgyzstan (“the tulip revolution”), and they fear jihadism: all five countries are Muslim in heritage. Once the Russian and British empires vied for influence here in what was known as the “Great Game”. Today a more complex bat-

tle for power and wealth in this fractious region is under way between China, Russia and the West.

For Russia, this is something of a home game. In all five countries Russian remains the lingua franca. Two of the five leaders—Nursultan Nazarbayev in Kazakhstan and Islam Karimov in Uzbekistan—were Communist Party bosses. Mr Berdimukhammedov inherited his job from one; Mr Rahmon was a party bigwig. Only Kyrgyzstan has had multiple leaders and two revolutions, but its current president, Almazbek Atambayev, may be even more pro-Russian than his neighbours. As in Russia, power in all five countries rests with small, now obscenely wealthy, cliques close to the president. Their leaders all ruthlessly suppress dissent.



Though most Central Asians wear their religion lightly or not at all, Islamism appeals to a small but growing number of the young and disaffected. In Aktobe, a mining town in north-western Kazakhstan, 25 people (including the assailants) were killed in an Islamist attack in early June. No one knows precisely how many fighters have gone from Central Asia to fight for Islamic State (IS) in Syria and Iraq, but the International Crisis Group, a Brussels-based NGO, has put the figure at up to 4,000. The rulers tend to exaggerate it to justify repression.

Many of the fighters had migrated to Russia for work—as millions of Central Asians have—and laboured in grim conditions for low pay, when they were radicalised by Muslim fanatics with Russian citizenship from the Caucasus. With Russia's economy slumping, many migrants lost their jobs and have been enticed by IS's promises of higher pay, heroism and paradise to follow.

The Fergana Valley, which stretches across the eastern tip of Uzbekistan and spills into Kyrgyzstan and Tajikistan, often seethes with discontent. Uzbekistan and Tajikistan may have contributed more than 1,000 IS fighters each. Human Rights Watch, a monitoring group, reckons Uzbekistan has up to 12,000 political prisoners, many of whom become Islamists in jail. In Tajikistan, whole families have sometimes followed young men to war. Tajikistan's government now tars almost any group promoting Islam, however mild, with the brush of jihadist subversion. The Kazakhs and Kyrgyz, with their nomadic heritage, have been less seduced by IS's puritanical version of Islam, but each has lost several hundred men to Iraq and Syria. Turkmenistan may also be affected. Afghanistan's Taliban are said to have attacked villages in Turkmenistan where the two countries share a border. ▶▶

▶ The big worry is what happens when these angry young men come home. Mr Nazarbayev's foreign minister said he had inspired the Aktobe gunmen. Violent Islamism may have limited appeal, but the more fiercely the non-violent version is repressed, the more appealing extremist jihad seems. And if social discontent rises, the Islamists will latch onto it.

The pretty good game

Against this messy backdrop, talk of a new Great Game has been buzzing for more than a decade. The main players are a militantly nationalist Russia, a mercantile China, an initially hopeful but now bruised America and a warily interested Europe. Turkey, the Saudis, Qatar and perhaps soon Iran are competing in what a senior Kazakhstani official calls "the more dangerous Little Game". Central Asia enjoys its many suitors: "Happiness", says a Kazakhstani minister half-jokingly, "is a multiplicity of pipelines".

America and Europe are more cautious. Chevron still runs the region's most productive oilfield, and EU sanctions against Russia may have piqued European interest in Central Asian oil and gas. But few American or European companies dare enter a market with such weak legal and banking institutions and rampant corruption.

Four of the five (Turkmenistan is the odd man out) are members of the Shanghai Co-operation Organisation, a regional intergovernmental group promoted by China. The same quartet has joined the Asian Infrastructure Investment Bank, a Chinese-led international lender, as founding members. And the region figures heavily in China's "One Belt, One Road" project (see page 29). Though many ordinary Central Asians feel nervous about Chinese economic inroads, most business leaders and politicians encourage them. "I want China to get closer to Central Asia," says Djoomart Otorbaev, a modernising recent prime minister of Kyrgyzstan. China has the same idea: in the past decade its trade and investment have left Russia in second place.

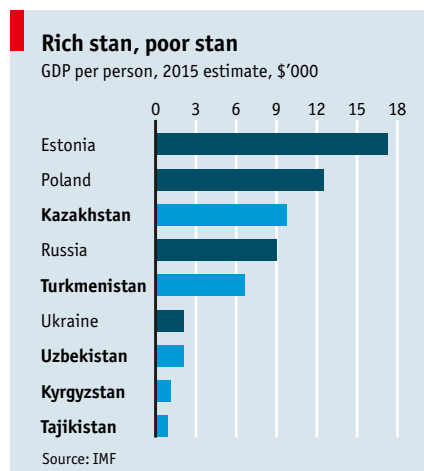
But Russia remains the pre-eminent influence. Most people watch Russian and Russian-language television channels. With the usual programmes comes relentless anti-Americanism, which many locals seem to swallow, along with conspiracy theories claiming that the West seeks to destabilise Central Asia. Indeed, many poorer locals sound nostalgic for the Soviet Union. "We used to have jobs and factories and no goods in the shops," is a common complaint. "Now we have goods but no jobs or factories."

Russia has been wooing the quintet to join the Eurasian Economic Union (EEU), its supposed answer to the European Union (EU), and the Collective Security Treaty Organisation (CSTO), its longer-standing

answer to NATO. The EEU, which Kazakhstan and Kyrgyzstan have joined, may have taken a bit of trade away from China, but it is more a vehicle for Russian influence than a genuine free-trading bloc. Russia remains determined to keep the former republics as reliant as possible on its road and rail routes and pipelines.

It also dominates regional security. Russia operates a huge missile-launching base in south-western Kazakhstan and holds much sway over the country's uranium, of which Kazakhstan is the world's biggest producer. In Kyrgyzstan Russia has an airbase at Kant, near the capital, Bishkek, and tests torpedoes near Lake Issyk-Kul. Russia's biggest military base abroad, hosting 7,000-odd personnel, is in Tajikistan.

The Americans and the Chinese have made some token sallies. John Kerry, America's secretary of state, visited all five countries last year in the hope of "resetting" relations, after America lost access to



the Karshi-Khanabad airbase in south-eastern Uzbekistan in 2005 and was ejected from Manas, near Bishkek, two years ago. China has sold some military stuff, including drones and anti-missile systems.

Though the five countries share a common history, their post-Soviet paths have diverged, and they are often at loggerheads with each other. A former minister from Kyrgyzstan laments: "There is zero harmonisation between us." The Tajiks resent Uzbekistan ruling the great cities of Samarkand and Bukhara that were historically Tajik; all four of his neighbours, to varying degrees, loathe Mr Karimov. Like Turkmenistan, Uzbekistan is increasingly closed and inward-looking.

Greatest country in the world

Kazakhstan and its leader are easily the most impressive of the five (whatever impression you may have gleaned from the film "Borat"). A few years ago Mr Nazarbayev pondered changing his country's name to Kazakh Yeli ("Land of the Kazakhs"), considering the -stan suffix to be

tainted. Its commercial capital, Almaty, is the region's most sophisticated and vibrant city. Last year Kazakhstan's GDP per person overtook Russia's. Mr Nazarbayev has cannily opened up to the West while staying cosy with Russia yet bolstering economic links with China. He encourages students to learn English. A planned financial hub in Astana, the capital he boldly plonked down nearer his country's geographical heart 19 years ago, will be conducted under English law.

But all is not well. Falling oil prices have hit Kazakhstan hard. Outside Astana and Almaty, many cities are grim: Aktobe is one of many to suffer mass lay-offs. The banking sector is ropy, the tax system a Byzantine nightmare. Contracts are insecure, and well-connected Kazakhs often skim 10% off the top of every deal. All of this deters investment.

As the economy falters, discontent is rising, and the ruling circle's corruption is growing more irksome. In April a series of protests erupted against land-reform proposals. Mr Nazarbayev has ruthlessly restricted political space, exiling, co-opting, banning, harassing or imprisoning opponents. He turns 76 next week and has no apparent successor. A daughter is keen.

Yet things are worse elsewhere. Uzbekistan's Mr Karimov is the nastiest and perhaps most paranoid of the five rulers. Tajikistan may be the least stable. Last month its constitution was amended by referendum—with 97% of voters said to assent—to lower the minimum age for a president to 30, paving the way for Mr Rahmon's son Rستم to take over. He currently heads the country's anti-corruption commission (try not to laugh).

Politically, Kyrgyzstan is the freest, but that does not seem to have made people happier. The president, mindful of the turbulence that overthrew two predecessors, sounds increasingly twitchy. Since March seven politicians have been arrested for allegedly plotting various coups. Its troops have occasionally clashed with Tajikistan's along a disputed border, while tension in the Fergana Valley riles all three countries that embrace bits of it.

The level of popular discontent and the degree to which leaders will go to crush its expression vary. But the prospects for prosperity and stability, let alone genuine democracy and human rights, look far less rosy across Central Asia than they did 25 years ago, when the five countries gained their independence. In the past decade many people have got poorer.

Having seen the Arab spring topple rulers to their south and colour revolutions do the same to their west, the countries' leaders are on edge. For now they seem safe. In none of the five does a coherent, competent opposition look able to stage a revolution, nor does any appear close to boiling point. But that could change. ■

China and Taiwan

Great stonewall

TAIPEI

China curbs communications with Taiwan

IT WAS only six months ago that China and Taiwan achieved a symbolic breakthrough in their decades-long standoff: the two countries' presidents met for the first time since the end of the Chinese civil war in 1949, both looking chuffed that they had finally broken the ice. Now it is back to normal. On June 25th China shut down a channel for communication between the two sides because of the refusal of Taiwan's new president, Tsai Ing-wen, to accept that there is but "one China", and that Taiwan is a part of it. A new chill is descending over the Taiwan Strait.

When the news broke, Ms Tsai (pictured) was embarking on her first foreign tour since she took office in May—to Panama and Paraguay, among the very few countries that recognise Taiwan's government, bracketed by transit stops in America. She would not have been surprised. During his meeting with her predecessor, Ma Ying-jeou, China's president Xi Jinping had said his government was willing to have contact with any political party in Taiwan, as long as it accepted a "consensus" that was reached between the two sides in 1992 on the idea of one China. Ms Tsai's Democratic Progressive Party (DPP), unlike Mr Ma's party, the Kuomintang (KMT), finds that notion hard to swallow.

Taiwanese officials say they will keep trying to talk to their mainland counterparts; after all, it is only a channel that opened up in 2014 between China's Taiwan Affairs Office and Taiwan's Mainland Affairs Council that has been shut down. Before then, the two sides had communicated through semi-official bodies; indeed, it was these that agreed in 1992 that there was only one China, and that each side would interpret this as it wished.

But talks about things like cross-strait trade will now be tricky. China has always insisted that the 1992 agreement should be the basis for such discussions. During the previous DPP presidency, from 2000 to 2008, China barely spoke to Taiwan. It was only after Mr Ma took over as president in 2008 that relations warmed again. Conveniently for Ms Tsai, some in her party are not eager to improve trade and investment ties with China, particularly if it involves opening Taiwan's markets to competitors from the mainland.

China has not threatened to roll back any of the trade agreements it reached with Mr Ma's government. But tour operators say there has been a sharp drop in the



I can't talk right now

number of Chinese visitors since Ms Tsai was elected in January. It appears that China's travel agencies, under official pressure, are dissuading people from going to the island. That is a blow: Taiwan's service and retail industries benefit hugely from such tourism.

A greater threat to Taiwan may simply be that an absence of official contacts between the two sides will lead to dangerous misunderstandings in a region bristling with weaponry. A potential flashpoint has become a little more worrying. ■

Politics in Japan

Master plan

TOKYO

Shinzo Abe eyes an expanded majority

LAST year Japan lowered the voting age from 20 to 18. But Minami, a high-schooler from Tokyo, does not plan to vote in an election for the upper house of the Diet, or parliament, on July 10th. Like many Japanese, she finds politics dull. The upcoming election will probably not change their views.

The government, led by Shinzo Abe, is likely to trounce the floundering opposition. Mr Abe's poll ratings have been boosted by the government's competent handling of earthquakes that struck Kumamoto prefecture in April, and by Barack Obama's emotional visit to Hiroshima the following month. Low turnout benefits his Liberal Democratic Party (LDP), which runs an effective get-out-the-vote machine.

Mr Abe also stands to benefit from the post-Brexit-vote financial turmoil. The government can now blame external factors for its economic woes, which include deflation, flaccid consumption and sluggish wages. Before postponing a planned tax hike on June 1st, he warned of an impending economic crisis, and was roundly mocked. Now he seems prudent. Economic upheaval may make his campaign themes of stability and competence all the more appealing.

The opposition, meanwhile, has more to lose. Half of the 242 seats in the upper house come up for re-election every three years. The opposition Democratic Party (DP) still wields power in the chamber, with the seats it now holds, but it fared poorly in the 2013 contest. Michael Cucek of Temple University says that the upper house is the last place where Japan can plausibly claim still to have a real two-party system.

That will probably go: the LDP is likely to win an outright majority of seats in the upper house, as it already has in the lower chamber, for the first time in 27 years. That would expand Mr Abe's authority within his party, and give him more freedom to ignore the views of Komeito, the LDP's pacifist, social-welfare-minded Buddhist-backed coalition partner.

The chief risk for the government heading into the election has been that Mr Abe would speak too much of his ultimate goal: securing a two-thirds majority in the upper house, which would let him propose a referendum amending key articles of Japan's pacifist constitution, which America wrote in 1946. This has long been his goal: Japan lowered its voting age, in fact, because the opposition demanded it as a condition for supporting the bill that allowed a referendum on constitutional change. Mr Abe believes that Article Nine of the constitution, in which Japan renounces war forever, is outdated and dangerous. But revision is unpopular with voters, and Mr Abe is downplaying his wishes on the campaign trail.

The LDP and Komeito already hold a two-thirds majority in parliament's lower house. Their strong showing in 2013 means that in the upcoming election they need only win about 77 seats to come within reach—about as well as they did then. They could then count on the support of two small, right-wing parties, which currently have ten seats.

That may do Mr Abe little good. Public opinion is so strongly against revision that even if the process got under way he would get nowhere. Komeito, too, would dig in against changing Article Nine. But unfortunately for most Japanese, whose priority is the economy, such barriers might not prevent a quest for constitutional change consuming most of the government's post-election energies. ■

Indonesia and the South China Sea

Annoyed in Natuna

JAKARTA

China turns a would-be peacemaker into yet another rival

ON JUNE 23rd Indonesia's president, Joko Widodo, flew to the Natuna archipelago in the South China Sea, along with several ministers, to hold a cabinet meeting on board a warship patrolling the surrounding waters. Only days earlier the same warship had fired warning shots at Chinese trawlers, detaining one of them and its crew, in the latest sign of escalating tensions in the area. Mr Joko, universally known as Jokowi, wanted to send a message to China.

Indonesian diplomats might once have registered their objections in private. But Jokowi has criticised China more openly than his predecessors. After one clash in March, when a Chinese coastguard vessel freed a Chinese trawler from the Indonesian patrol boat that had caught it, Jokowi summoned China's ambassador for a scolding. The recent visit to the warship was Jokowi's most public display of sovereignty yet.

It marks a sharp shift for Indonesia, which for decades positioned itself as a regional peacemaker. Unlike other South-East Asian maritime countries, it claims none of the contested rocks, reefs or islands in the South China Sea. China recognises Indonesian sovereignty over the Natuna islands themselves. But its "nine-dash line" overlaps with Indonesia's 200-nautical-mile exclusive economic zone surrounding the islands. Luhut Panjaitan, Jokowi's chief security minister, says that the government's position is simple: it does not recognise that claim. But Yohanes Sulaiman, a lecturer in government studies at Jenderal Achmad Yani University in Bandung, reckons Indonesia's policy towards China still lacks clarity.



Indonesia's foreign-affairs ministry cheerily insists there is no dispute, even as China's foreign ministry referred to "overlapping claims for maritime rights and interests" in a statement condemning Indonesia's actions during the latest skirmish off the Natunas. The thinking seems to be that acknowledging a dispute would both provoke China, which Jokowi sees as a crucial source of trade and investment, and lend credence to its claims. But Indonesia's uncertain stance seems to be encouraging China to encroach farther into its waters.

Whether Indonesia's armed forces are up to the job remains unclear. Although the country is building up its defences on the Natunas, Ryamizard Ryacudu, the defence minister, seems more preoccupied with fighting the phantom threat of homosexuals and others he imagines are waging a "proxy war" than facing up to the real risk

of conflict.

Meanwhile, diplomatic efforts to check Chinese expansion have floundered. Earlier this month foreign ministers from the ten-nation Association of South-East Asian Nations—of which Indonesia is by far the largest member—issued an unusually strong statement expressing "serious concerns" over developments that "have the potential to undermine peace, security and stability", only to retract it hours later.

On July 12th an international tribunal in The Hague will rule on a petition brought by the Philippines intended to show that China's claims have no legal basis. Indonesia will be watching closely, and insists that the ruling be respected. Mr Panjaitan is proud of his country's good (for now) relations with China. But, he says, "we don't want to be dictated to by any country about our sovereignty." ■

Indian social media

A pulpit for bullies

DELHI

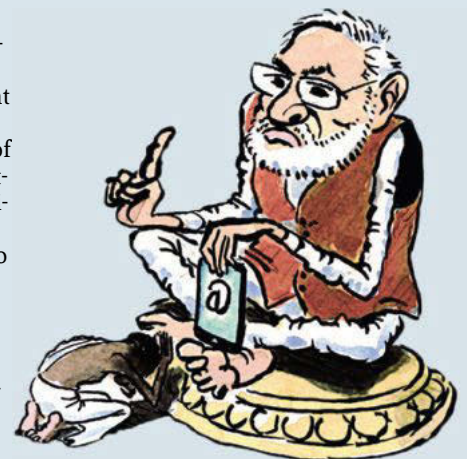
The system tweets back

NARENDRA MODI, India's prime minister, takes social media seriously, and wants members of his Bharatiya Janata Party (BJP) to do the same. A recent report by the BJP's digital unit ranked all of its ministers and MPs by the number of their followers and diligence in propagating his government's message. The implication was clear: those who want to be promoted should do more promoting. So were the results: anodyne obsequiousness. A certain C.T. Ravi, a BJP official from the state of Karnataka, recently tweeted: "Tremendous efforts by Shri @narendramodi & Team has resulted in Positivity trumping Negativity."

Subramanian Swamy, a 76-year-old BJP activist who in April was handed one of the party's upper-house seats, has bucked the trend. He spent weeks tweeting aspersions on the integrity, competence and patriotism of India's respected central-bank chief, Raghuram Rajan. The barrage, which went unanswered by party bigwigs, subsided when Mr Rajan declared earlier this month that he would not seek another term of office.

Mr Swamy then turned his digital guns on Arun Jaitley, the finance minister, who is one of Mr Modi's most trusted advisers. Following a visit to China by Mr Jaitley, Mr Swamy tweet-sneered, "BJP should direct our Ministers to wear traditional and modernised Indian clothes while abroad. In coat and tie they look like waiters."

Faced with silence from the prime minister, Mr Swamy's seeming impunity sparked rumours of growing internal rifts



in the BJP. Some whispered that Mr Modi was using the maverick twitterer to soften public opinion for looming cabinet changes. But on June 27th, some two months after Mr Swamy launched his campaign, Mr Modi broke his silence. Alluding to Mr Swamy, Mr Modi said that "such publicity stunts" were inappropriate: "Anyone who believes he is stronger than the system is wrong."

Predictably, Mr Modi's Twitter feed erupted with praise for his performance. "Never seen such a brilliant interview by an Indian PM. So knowledgeable and aware of even minutest details," gushed one Siddhartha Verma. Mr Swamy's response was uncharacteristically philosophical: "The world is in general equilibrium. A small change in one parameter effects changes in all variables. So Krishna advised".

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Banyan | The forest and the trees

Our columnist steps out of the shade



FOR this writer, a Londoner by birth, the weekly task of producing *Banyan* has been among the happiest spells in a 40-year involvement with Asia that began in August 1976, in what English-speakers then called Peking. China's capital was a city of bicycles and earthquake shelters, of blue Mao suits and tinny propaganda blaring from loudspeakers, of poorly stocked shops and farmland reeking of nightsoil. The next month, Mao died. China soon began the reforms that have turned Beijing into a smoggy, traffic-clogged but dynamic metropolis. Much of Asia is similarly transformed. Hundreds of millions have lifted themselves out of poverty, albeit at dreadful cost to the environment; cities have mushroomed as farmers have left the land in droves; birth rates have plummeted. A continent's parents have mostly been confident their children will lead better lives than they have done.

The "Asia" *Banyan* covers is a European cartographic concoction. It stretches from Kazakhstan in the north-west to New Zealand, and from the Maldives in the south-west to islands Japan disputes with Russia. Despite its arbitrary borders and bewildering diversity, this Asia is growing in coherence. As he moves on after six years, your columnist remains optimistic about the patch he is leaving. The long-term trends are towards greater prosperity and prolonged peace. But, as in 1976, wrenching transitions loom.

In China and India, Asia still has the world's two fastest-growing big economies, and, in Japan, the third-largest overall. A series of economic miracles has made the region the world's engine of growth. The GDP of China alone has more than doubled since 2009, adding output equivalent to two United Kingdoms. In the process, it has become the biggest trading partner for most of its neighbours, including India. Now, with its "One Belt, One Road" vision of land and sea routes to Europe through central and South-East Asia, China wants to insert itself inextricably into the region's economic bloodstream.

All the giants need new miracles. They are at different points on the demographic spectrum. Japan faces a shrinking population and the need for fundamental structural reforms—as well as unprecedented levels of immigration—to sustain its high living standards. China has to cope with a shrinking workforce, curb massive industrial overcapacity, reduce a mountain of corporate debt and shift to a growth model based on consumption rather

than investment. India, on the other hand, still needs to find jobs for the 1m or so who join the workforce every month. So it needs either to make a reality of the slogan of its prime minister, Narendra Modi, "Make in India", or to find a way to prosperity other than the one—a period of labour-intensive manufacturing for export—that served East Asia so well.

Besides binding Asia into ever-closer economic interdependence, China's rise is also uniting its neighbourhood in another way: in apprehension of its strategic ambitions. It disputes territory with India, insists that Taiwan must one day be "reunified" with the mainland and in the East and South China Seas aggressively asserts its claims to contested reefs, rocks and islets. And it is challenging the security architecture which has, broadly, kept the peace in the western Pacific since the end of the war in Vietnam in 1975: one that relies on overwhelming American military superiority and a network of bilateral alliances. The arena China has chosen to make this challenge most explicitly is the South China Sea. In 2009 it submitted to the UN a map including its nine-dash line, apparently claiming sovereignty over almost the whole much-disputed sea. Since then, its fishing vessels and coastguard and builders of massive artificial islands have acted as if might makes right, remorselessly ratcheting up tensions.

China's maritime assertiveness was an important justification for America's self-proclaimed "pivot" or "rebalance" towards Asia. But China has chosen its battlefield well. For now, commercial traffic—and one-third of the world's maritime trade traverses the South China Sea—faces no threat. The territory under dispute is tiny. So, even after a tribunal in The Hague rules on July 12th in a case brought by the Philippines on some aspects of China's claims, America will try to avoid a crisis. It has too little at stake. But China's neighbours will have seen China get away with defying America. The message, and its implications for far more dangerous disputes to come, such as Taiwan, will be noted.

Prospects for peace are also clouded by a pan-Asian (and indeed global) phenomenon—the rise of nationalism. Mr Modi, Xi Jinping in China, Shinzo Abe in Japan, Joko Widodo in Indonesia: all in their very different ways base part of their appeal on the now familiar mantra: Make our country great again! Mr Joko is also an Asian example of another global trend, disenchantment with entrenched elites and the appeal of "outsider" politicians, like Rodrigo Duterte, the Philippines' new president, or Arvind Kejriwal, Delhi's chief minister.

The China question

Economic growth and peace seem precarious but still, mercifully, more likely than the alternative. A march to freedom, too, will eventually see dictatorships from Pyongyang to Bangkok wither. But despotisms are resilient. The past six years have seen another peaceful transfer of power in Indonesia and the ascent of Aung San Suu Kyi from political detainee to de facto ruler of Myanmar. But these are exceptions. In both places, as elsewhere, the old ruling elites still cling on. And in the communist hold-outs—China, North Korea, Laos and Vietnam—repression and one-party rule are as entrenched as ever. Six years ago, *Banyan's* predecessor left with the warning that "political stuntedness" was Asia's biggest problem. That remains true, and China's political future remains the biggest question of all. In August 1976 little suggested that the Asian continent was on the cusp of revolutionary change. The same is true now; but as then, the riddle wrapped in a mystery inside an enigma that is China could shock us all. ■



Foreign policy

Our bulldozers, our rules

BEIJING

China's foreign policy could reshape a good part of the world economy

THE first revival of the Silk Road—a vast and ancient network of trade routes linking China's merchants with those of Central Asia, the Middle East, Africa and Europe—took place in the seventh century, after war had made it unusable for hundreds of years. Xi Jinping, China's president, looks back on that era as a golden age, a time of Pax Sinica, when Chinese luxuries were coveted across the globe and the Silk Road was a conduit for diplomacy and economic expansion. The term itself was coined by a German geographer in the 19th century, but China has adopted it with relish. Mr Xi wants a revival of the Silk Road and the glory that went with it.

This time cranes and construction crews are replacing caravans and camels. In April a Chinese shipping company, Cosco, took a 67% stake in Greece's second-largest port, Piraeus, from which Chinese firms are building a high-speed rail network linking the city to Hungary and eventually Germany. In July work is due to start on the third stage of a Chinese-designed nuclear reactor in Pakistan, where China recently announced it would finance a big new highway and put \$2 billion into a coal mine in the Thar desert. In the first five months of this year, more than half of China's contracts overseas were signed with nations along the Silk Road—a first in the

country's modern history.

Politicians have been almost as busy in the builders' wake. In June Mr Xi visited Serbia and Poland, scattering projects along the way, before heading to Uzbekistan. Last week Russia's president, Vladimir Putin, made a brief visit to Beijing; he, Mr Xi and Mongolia's leader promised to link their infrastructure plans with the new Silk Road. At the time, finance ministers from almost 60 countries were holding the first annual meeting in Beijing of an institu-

tion set up to finance some of these projects, the Asian Infrastructure Investment Bank (AIIB). Like a steam train pulling noisily out of a station, China's biggest foreign-economic policy is slowly gathering speed.

Chinese officials call that policy "One Belt, One Road", though they often eviscerate its exotic appeal to foreigners by using the unlovely acronym OBOR. Confusingly, the road refers to ancient maritime routes between China and Europe, while the belt describes the Silk Road's better-known trails overland (see map). OBOR puzzles many Western policymakers because it is amorphous—it has no official list of member countries, though the rough count is 60—and because most of the projects that sport the label would probably have been built anyway. But OBOR matters for three big reasons.

First, the projects are vast. Official figures say there are 900 deals under way, worth \$890 billion, such as a gas pipeline from the Bay of Bengal through Myanmar to south-west China and a rail link between Beijing and Duisburg, a transport hub in Germany. China says it will invest a cumulative \$4 trillion in OBOR countries, though it does not say by when. Its officials tetchily reject comparison with the Marshall Plan which, they say, was a means of rewarding America's friends and excluding its enemies after the second world war. OBOR, they boast, is open to all. But, for what it is worth, the Marshall Plan amounted to \$130 billion in current dollars.

Next, OBOR matters because it is important to Mr Xi. In 2014 the foreign minister, Wang Yi, singled out OBOR as the most important feature of the president's foreign policy. Mr Xi's chief foreign adviser, Yang Jiechi, has tied OBOR to China's much-touted aims of becoming a "moderately well-off society" by 2020 and a "strong, prosperous" one by mid-century.

Mr Xi seems to see the new Silk Road as a way of extending China's commercial tentacles and soft power. It also plays a role in his broader foreign-policy thinking. The ▶▶



▶ president has endorsed his predecessors' view that China faces a "period of strategic opportunity" up to 2020, meaning it can take advantage of a mostly benign security environment to achieve its aim of strengthening its global power without causing conflict. OBOR, officials believe, is a good way of packaging such a strategy. It also fits with Mr Xi's "Chinese dream" of recreating a great past. It is not too much to say that he expects to be judged as a leader partly on how well he fulfils OBOR's goals.

Third, OBOR matters because it is a challenge to the United States and its traditional way of thinking about world trade. In that view, there are two main trading blocs, the trans-Atlantic one and the trans-Pacific one, with Europe in the first, Asia in the second and America the focal point of each. Two proposed regional trade deals, the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership, embody this approach. But OBOR treats Asia and Europe as a single space, and China, not the United States, is its focal point.

Mr Xi first spoke of a new Silk Road during a visit to Kazakhstan in 2013, a year after he took power. The first contracts bearing OBOR's name—about 300 of them, including a huge hydropower plant in Pakistan—followed in 2014, though many of those deals were already well advanced. The past two years have seen a frenzy of institution-building. Mr Xi has set up a "small leading group" to oversee OBOR. This is an informal high-level body linking government and party organisations. Its boss is Zhang Gaoli, who is a member of the Politburo Standing Committee, the party's innermost circle. It also includes the leadership's chief spin doctor and a deputy prime minister responsible for foreign trade. All the main bits of the bureaucracy have been corralled into OBOR.

A financial structure to support it has also taken shape. In 2015 the central bank transferred \$82 billion to three state-owned "policy banks" for OBOR projects. China's sovereign wealth fund backed a new Silk Road Fund worth \$40 billion and the government set up the AIB with \$100 billion of initial capital. The bank is not formally part of OBOR but the loans approved at its first general meeting—roads in Pakistan, Tajikistan and Uzbekistan, for example—are all in Silk Road countries.

Now the rest of the Chinese state is mobilising. Two-thirds of China's provinces have emphasised the importance of OBOR for their development. For example, Fuzhou, the capital of coastal Fujian province, has told its companies to "start businesses in the countries and regions along the maritime Silk Road"; it has set up a free-trade zone to attract firms from such countries in South-East Asia. Many big state-owned enterprises (SOEs) have an OBOR department, if only in the hope of getting money for their projects.

OBOR galore

Selected One Belt, One Road projects signed, being discussed or under construction

Country	Project	Value, \$bn
Russia	Power of Siberia gas project	55.0
Qatar	Lusail city	45.0
Azerbaijan, Georgia, Turkey	Shah Deniz II gas field	28.0
Indonesia	Trans-Sumatra toll road	27.7
Romania	Cernavoda nuclear power plant units 3 and 4	7.8
Rwanda, Burundi, Tanzania	Dar es Salaam-Rwanda-Burundi railway	7.6
Saudi Arabia	Saudi land bridge	7.0
Mongolia	Oyu Tolgoi mine	4.4
Pakistan	Peshawar-Lahore-Karachi railway	3.7
Kazakhstan	Almaty ring road	0.68

Source: Economist Intelligence Unit

As a result, China's foreign direct investment (FDI) is increasingly going along the Silk Road. In 2015, by official reckoning, its FDI in OBOR countries rose twice as fast as the increase in total FDI. Last year 44% of China's new engineering projects were signed with OBOR countries. In the first five months of 2016, the share was 52%.

China's approach to investment seems to be changing, too. Its OBOR contracts are now more likely to involve Chinese firms managing the infrastructure they build, rather than (as in the past) building them and simply handing them over. In theory, this should give China an interest in working for the long term in Silk Road countries.

Yet while OBOR gathers momentum it is also encountering problems. These are especially glaring in South-East Asia. China is planning a 3,000km (1,900-mile) high-speed rail line from Kunming, in its south-west, to Singapore. But in June talks with Thailand over its section of the line broke down; the Thais said they would build only part of the project, and would finance it themselves. There have been many other such failures.

Also worrying are signs that there are not yet enough viable projects for the vast sums being earmarked. The Silk Road Fund was set up to invest in infrastructure abroad. But two of its first investments were in initial public offerings by Chinese firms in Hong Kong.

Problems have arisen too with OBOR's leadership. Mr Zhang, the most senior person in charge, is thought to be out of favour after blotting his copybook in March by saying that the economy had had "a tremendous start" to 2016. This contradicted the views of people close to Mr Xi who argue that a slowdown is necessary.

The travails of the European Union—and especially of Britain, which has claimed to be enjoying a "golden age" of relations with China—might make Chinese leaders nervous about Europe's willingness to support OBOR, though it might also in the long run make it easier for China to exploit rivalry between European coun-

tries when doing deals with them.

More broadly, China has many competing bureaucratic interests at stake in the Silk Road project. Reconciling them will be tough. OBOR is supposed to extend Chinese commercial influence, reduce the Chinese economy's dependence on investment in infrastructure at home and export a little of China's vast excess capacity in steel and cement. Tensions between these aims are inevitable. Should China give priority to underperforming provinces or underperforming SOEs? Can it help poor western provinces while reducing its spending on domestic infrastructure?

Ready or not, here they come

All that said, there are reasons for thinking the new Silk Road will be paved, albeit not with gold. Most important, Asia needs new infrastructure—about \$770 billion a year of it until 2020, according to the Asian Development Bank. This demand should eventually ease today's worries about a lack of projects. Bert Hofman, the World Bank's chief in Beijing, adds that individual countries will benefit more if they align their plans with one other and with China. It does not pay to plan and build separately.

Next, China needs OBOR. At home, its businesses are being squeezed by rising costs and growing demands that they pay more attention to protecting the environment. It makes sense for them to shift some manufacturing overseas—as long as the infrastructure is there.

Lastly, Xi Jinping needs it. He has made OBOR such a central part of his foreign policy and has gone to such lengths to swing the bureaucracy behind the project that it is too late to step back now.

None of this means the new Silk Road will be efficient, nor does it mean China's plans will always be welcome in countries suspicious of its expanding reach. But the building blocks are in place. The first projects are up and running. OBOR is already beginning to challenge the notion of Europe and Asia existing side by side as different trading blocs. ■

Also in this section

32 Anthony Kennedy's Supreme Court

33 Puerto Rico rescued

34 Crime and punishment

36 Lexington: the Bible museum

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Voters in the industrial Midwest

Rustproofing

ELKHART, INDIANA

Can Donald Trump flip the old manufacturing regions of the Midwest?

“MANY Pennsylvania towns once thriving and humming are now in a state of despair,” said Donald Trump in “Declaring America’s Economic Independence”, a speech he made on June 28th about jobs and the evils of free trade. This wave of globalisation has wiped out the middle class, claimed the presumptive Republican nominee for the presidency, tagging NAFTA “the worst trade deal in history”, and blaming China’s entrance into the World Trade Organisation for “the greatest jobs theft in history”. But it doesn’t have to be that way, he reassured his audience, for he alone can turn things round.

It was no coincidence that Mr Trump chose a Pennsylvania-based company, Alumisource, as the site for his speech, which the frequently unscripted candidate read from a teleprompter, using quotations from Washington, Hamilton and Lincoln and providing no fewer than 128 footnotes for the curious. Winning the rustbelt, especially in Ohio and western Pennsylvania, is central to his 15-state strategy, announced at the end of last month. In the evening of June 28th Mr Trump spoke at a rally at Ohio State University in St Clairsville.

The Midwest matters so much to Mr Trump because his candidacy has repeatedly upended conventional wisdom. Before the primaries, most elected Republicans were sure the party needed to nominate someone palatable to Hispanic

voters. Mr Trump’s proposed wall to deter Mexicans has put habitual swing-states such as Colorado off limits and made Florida, which has plenty of Hispanic voters, look like hostile territory too. To compensate for this, he needs to take back states in the Midwest and north-east that Barack Obama won in 2012.

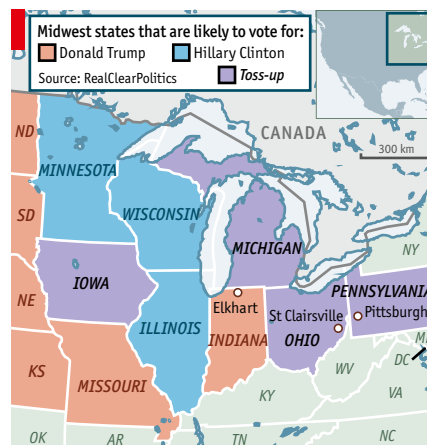
How likely is it that Mr Trump can win over America’s heartland? Places like Elkhart, a town of 50,000 in northern Indiana, explain why Mr Trump’s campaign thinks the Midwest is such friendly turf. Elkhart used to be one of the hardest-hit of the many down-on-their-luck midwestern manufacturing towns. The town lost

24,000 jobs when the recession struck, and unemployment shot up to more than 20% of the workforce. One of the biggest makers of recreational vehicles, Elkhart proudly calls itself the “RV capital of the world”. But its overreliance on one industry making a non-essential product means business dries up very quickly during an economic downturn.

Mr Obama’s first trip to the Midwest after he was elected was to Elkhart, which he intended to make a showcase for his \$800 billion stimulus package. He returned several times in subsequent years. On the face of it, his plan worked like a charm. When he visited again at the beginning of June, to take stock of Elkhart’s economic progress, he found that unemployment stood at just 4.1%, high-school graduation rates had jumped to 88% and the rate of mortgages that were late or about to foreclose had fallen by more than half, to 3.7%. “Today we could easily use another 15,000 workers in the county,” says Mark Dobson of the Economic Development Corporation of Elkhart County.

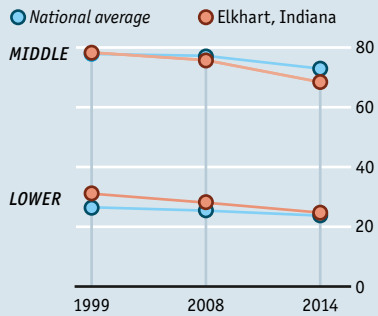
And yet Elkharters, who in the primaries voted in droves for Mr Trump and for Bernie Sanders, the other insurgent candidate, give Mr Obama scant credit for the turnaround. “President Obama had nothing to do with our recovery,” says Kyle Hannon of the Greater Elkhart Chamber of Commerce. He admits that the stimulus funds helped to improve infrastructure and were good for local building companies, but insists “We did it ourselves” when referring to the recovery of the RV industry, which had record sales in 2015 and is expecting another sterling year in 2016.

Many Elkharters still find it frustratingly hard to make ends meet, which may explain their penchant for Mr Trump. Plenty of jobs are available now, but many are ▶▶



That recovery in full

Median household income by income tier, \$'000
United States, metropolitan areas



poorly paid or part-time. An analysis by the Pew Research Centre found that the median household income of Elkharters has dropped by 10%, from \$76,000 a year in 2008 to \$68,000 in 2014 (see chart). Even more startling is that median income was \$78,000 in 1999, which means that incomes have fallen considerably throughout the new century. (Sixty-one percent of local households are middle-income, compared with 51% nationwide.)

Indiana, of which Elkhart is part, begins 2016 in the Republican column (Mitt Romney won the state in 2012). Mr Trump's midwestern strategy depends on winning all such states in the region (the Dakotas, Nebraska, Kansas and Missouri) and then adding some combination of Ohio, Iowa and Michigan. The latter seems like a stretch: Michigan last voted for a Republican presidential candidate in 1988. To make the plan work, says Henry Olsen at the Ethics and Public Policy Centre, a conservative think-tank, Mr Trump would have to take almost all the Romney vote and around 5% of the Obama vote in the Midwest.

Mr Trump's message blasting international trade, illegal immigration and corporate outsourcing go down well in the rustbelt bits of the Midwest, which are on average whiter, less educated and older than the rest of the country—and are still smarting from the loss of 6m manufacturing jobs between 2000 and 2009. "The era of economic surrender will finally be over," promised Mr Trump, vowing to renegotiate NAFTA and to withdraw America from the Trans-Pacific Partnership, a trade deal still in the making.

The plan has three flaws. First, peeling off blue-collar Democratic voters would not on its own be enough if, in so doing, Mr Trump alienates Republicans in the suburbs of midwestern cities who voted for Mr Romney. Second, blue-collar workers of Anglo-Saxon, Italian and eastern European origin in, say, Michigan and Pennsylvania take to Mr Trump much more than those of Scandinavian or German extraction, who are the majority in Minnesota and Wisconsin. Third, the Midwest and the

rustbelt are not one and the same. And Mr Trump's strength in the region is likely to run through the rustbelt, whose centre lies farther to the east. Mr Trump may win Pennsylvania, with its 20 electoral-college votes, but he may also waste votes in those bits of the rustbelt attached to states that lean strongly Democratic: polls put Hillary Clinton up by 20 points in New York.

Even if he is ultimately unsuccessful, Mr Trump's rustbelt rhetoric will affect the sort of campaign his Democratic rival runs. Rather than explain the ways in which the Midwest benefits from trade, Mrs Clinton, who was in Indiana on June 26th and then went on to Ohio and Illinois on June 27th, delighted in pointing out that Trump furniture is made in Turkey, instead of Cleveland, Ohio, and that Trump barware is made in Slovenia, instead of Toledo, Ohio. This is good politics, but it makes a gloomy spectacle for those who think trade makes America, and the world, richer. ■

The Supreme Court

Two left feats

NEW YORK

Anthony Kennedy drifts left to save abortion rights and affirmative action

LAST June, the Supreme Court capped its most liberal term in decades by backing a right to same-sex marriage and rescuing Obamacare from a second near-death experience. One year later, contrary to expectations, the justices have delivered another series of rulings to vex conservatives. These outcomes owe something to the death of Antonin Scalia halfway through the term. But it is unlikely that the court's

rulings in two of the most politicised issues of recent decades—abortion and affirmative action—would have come out the other way had Scalia lived. The justice responsible for steering the court to the left was Anthony Kennedy, Scalia's fellow Ronald Reagan nominee.

On June 23rd Justice Kennedy surprised many when he wrote the majority opinion in *Fisher v University of Texas*, reaffirming the principle that public universities may give limited consideration to race when admitting students. He had never voted before to uphold a race-based affirmative action policy. But by a 4-3 vote (Elena Kagan recused herself), Justice Kennedy and three liberal colleagues rebuffed Abigail Fisher, a white woman who felt she was the victim of discrimination when the University of Texas (UT) rejected her application in 2008. In 2013, when the justices first ruled in *Fisher*, they asked the 5th Circuit Court of Appeals to give UT's admissions policy a closer look. It complied, approving the university's programme anew and prompting Ms Fisher's final appeal.

The admissions protocol at issue in *Fisher* is complex and, as Justice Kennedy writes, "sui generis". For nearly two decades, UT has filled three-quarters of its places with Texas public-high-school students who finished in the top tenth of their graduating classes. In 2005, having achieved only modest success boosting diversity with this measure, UT started considering applicants' race as one factor in the calculation for the remaining quarter of its incoming classes. (Ms Fisher had no quarrel with the top 10% plan; she challenged only the university's consideration of race for those admitted as part of the "holistic review".)

In his opinion, Justice Kennedy dispatched Ms Fisher's arguments before concluding that the admissions scheme was a ▶▶



Justice Kennedy's new friends

▶ narrowly tailored means of advancing the university's interest in cultivating a broadly diverse student body. Justice Samuel Alito, dissenting along with two fellow-conservatives, noted that "something strange has happened since our prior decision in this case". But Mr Kennedy's opinions in race cases show he has been edging towards this stance in *Fisher*. When he dissented from a 2003 ruling in favour of race-conscious admissions at a public law school, Mr Kennedy objected to its "predominant" use of race, noting that more "modest" attempts to bolster diversity posed no constitutional difficulty. In 2014, he deferred to Michigan's voters, who scrapped affirmative-action at publicly funded universities in a referendum, writing that "it is demeaning to the democratic process to presume that the voters are not capable of deciding an issue of this sensitivity on decent and rational grounds." And in 2015 he wrote that "much progress remains to be made in our nation's continuing struggle against racial isolation."

It was again Justice Kennedy to the rescue in *Whole Woman's Health v Hellerstedt*, the most significant abortion ruling the court has handed down in a generation. On June 27th, by a 5-3 vote, the justices struck down the central provisions of a law that Texas Republicans had pitched as a measure to protect women's health. By requiring abortion providers to have admitting privileges at a nearby hospital and mandating that clinics had to be retrofitted as "ambulatory surgical centres", legislators said they were just trying to make the procedure safer.

In the oral argument on March 2nd, however, this goal was exposed as a poorly veiled excuse to limit access to abortion. Since the Texas statehouse passed the law in 2013, the number of abortion clinics in the state has fallen from 41 to 19. Had the justices upheld the law, that number would likely have halved again. In his majority opinion, Justice Stephen Breyer surveyed the record and found nothing showing that the new law advanced Texas's legitimate interest in protecting women's health. Texas imposed an "undue burden" on the right to choose by needlessly placing "a substantial obstacle in the path of women seeking an abortion". The state's lawyer did not help his argument by suggesting at one point that Texan women with no abortion clinics nearby could always drive to neighbouring New Mexico.

Bigger than Texas

The votes of Justice Breyer and the court's three female justices were not in doubt. The question-mark was Justice Kennedy, who refused to kill *Roe v Wade* in 1992 but wrote a widely criticised opinion in a case upholding a federal ban on "partial-birth" abortion in 2007. In *Hellerstedt* he voted with the liberals. The court's decision

bodes ill for recent attempts in many other states, from Louisiana and Mississippi to Kansas and Nebraska, to impose similar regulations on abortion providers.

Though Justice Kennedy dislikes being called a swing justice, the title fits him. No other member of the court can lay claim to saving *Roe v Wade*, affirmative action and marriage equality while also gutting the Voting Rights Act, striking down campaign-finance laws (in *Citizens United v FEC*) and upholding the use of death-pen-

alty drugs that carry a risk of inflicting something that looks a lot like torture. But this jumble of decisions seems odd mainly because justices habitually align their positions more closely with those of one political party or another. Justice Kennedy's refreshing eclecticism reflects a judicial tendency that sidesteps ideology and does not fret unduly about consistency. More than anything, he has a knack for finding himself in the majority: in this term's 75 cases, he has dissented only twice. ■



Puerto Rico

Exodus postponed

WASHINGTON, DC

A last-minute bill seems to have averted an economic disaster

IN RECENT years it has usually been the House of Representatives which has waited until the last moment to avert an economic catastrophe, a government shutdown or a default. This week it was the Senate's turn. On June 29th the upper house passed a bill, already approved by the House and backed by the president, allowing Puerto Rico to restructure its debts, two days before the Caribbean territory was set to default on a \$2 billion payment.

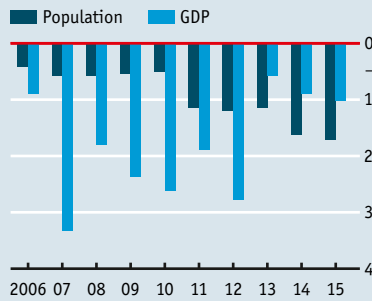
Default was the only option left for the island. The government does not have the money to pay the bill, according to Puerto Rico's governor, Alejandro García Padilla. Nobody sane would lend it to them. But default was not itself the main worry; few will shed tears for the territory's creditors. The real problem is that investors in Puerto Rican debt have filed lawsuits arguing that the island must pay them before buying

things like fuel for police cars and medicine for hospitals. A concurring judge could kill-off the island's public services, which the debt crisis has already wounded badly. For example, the neonatal unit in the island's largest hospital, which Jack Lew, the Treasury secretary, visited in May, can only get hold of supplies if it pays cash-on-delivery. "The government of Puerto Rico is about to collapse" warned Pedro Pierluisi, the territory's non-voting congressman, on June 23rd.

The bill halts the lawsuits until at least February 2017. In the meantime, it permits a debt restructuring, hitherto impossible partly because Puerto Rico is a mere territory (were it a state, its public utilities, which bear much of its debt, could have declared bankruptcy). A two-thirds majority of bondholders will be enough to force all to accept a reduction in what they are ▶▶

What's my credit score?

Puerto Rico, % decrease on a year earlier



Sources: World Bank; Census Bureau; EIU

owed. A “financial oversight board” will chaperone the island through the process and also monitor its budget, rewriting it if that is deemed necessary.

Crucially, the bill covers the so-called “general obligation” bonds which the Puerto Rican constitution says must be paid prior to any other spending. The island is used to avoiding its own rules; a hole in the constitution’s balanced-budget requirement was one of the factors which caused the fiscal crisis in the first place.

In the Senate, the cross-party bill faced more opposition from the left than it had in the House, where over four in five Democrats backed it on June 9th. Just under a third of Democratic senators, including Bernie Sanders, who has yet to end his campaign formally, voted against the deal. They objected to some of the small print, which loosens minimum-wage and overtime regulations, and the rules for appointing members to the oversight board.

Some of these objections are flimsy, especially given the urgent need for the bill. Take the minimum-wage. Currently, firms can pay under-20s \$4.25 an hour, rather than the federal minimum of \$7.25, for the first 90 days of their employment. The bill temporarily broadens the eligibility for this exemption in Puerto Rico to include under-25s—hardly the stuff of laissez-faire dreams. The governor will have the power effectively to drop the 90-day limit for four years, but Mr García Padilla says that will never happen. In any case, a lower minimum wage would probably benefit Puerto Rico, where the median hourly wage is just \$9.61, compared to \$17.40 nationally.

Republican critics, meanwhile, view the bill as unfair to creditors. In fact, it is good for them. The territory’s inhabitants are American citizens; faced with an anarchic lack of services (and, simultaneously, the onset of the Zika virus) they would surely have left en masse for the mainland. To some extent that has already happened: the population has shrunk by 7% since 2010 (see chart). Without a deal, the creditors would have been left picking at a skeleton. With it, Puerto Rico might grow enough to pay at least some of its debts. ■

Crime and punishment

Billy the kid

LONDON, KENTUCKY

A tale of repentance, redemption and reinvention

“EVERYBODY can change,” Bill insists; “everybody has the ability to turn their life around and do something good with it.” His own experience, after a youthful spell behind bars, vindicates that optimism: in many ways he is a heartening model of rehabilitation. In jail he realised that “I need to do better than this”; at liberty, he has “done everything I could to do the right thing.” Those who know him best think he has succeeded. He is “a very giving, caring person,” says his pastor, Charles Shelton, who recalls Bill taking in strangers who had broken down on the road. “Just a good man,” Mr Shelton attests. The only wrinkle is the way he gained his freedom.

That, and his crime, were a secret he guarded for 37 years until, on the evening of June 15th, two local detectives visited his home on the outskirts of London, a small town in Laurel County, Kentucky, in the foothills of the Appalachian mountains. Bill recognised the men and wasn’t alarmed by their appearance on his doorstep: “I didn’t think nothing about it,” he says, “until they told me what they were there for.” Namely, their hunch that the paunchy, grandfatherly 67-year-old was not, in fact, Harold “Bill” Arnold, as his outward life suggested, but Bill Burchfield, who had escaped from prison in Georgia in 1979. At that point, Mr Arnold/Burchfield recounts, he thought, “Here we go.”

Which of his surnames to use is only the most obvious question raised by this tale of redemption and recapture. Bill’s story—a warped parody of the American ideal of self-invention—also underscores

doubts about the purpose of prison, to which he now seems destined to return. Meanwhile the confusion over his name points to deeper mysteries, philosophical rather than legal, concerning the nature of identity and its mutation over time.

Initially he denied being Bill Burchfield, but then the detectives took him into town to be fingerprinted. He followed behind them, obediently driving himself. “It was very strange,” he says in the Laurel County Correctional Facility. Yet, frank in the manner of a man with nothing more to lose, he acknowledges that “in the back of my mind, I expected this to happen.” The fingerprints confirmed that he was Burchfield; he gave up the pretence, and ultimately agreed to be extradited to Georgia.

Prison works

It was in Dalton, Georgia, another town in the Appalachian foothills, that Bill’s wife, Vera Sue, was fatally shot on 5th July 1973. She had two children from a previous relationship, Bill says; according to court records, he was a truck driver with a sixth-grade education and a previous conviction for theft. In his account, it was an accident. He blames himself for having a gun in his hand, but says it went off when she tried to wrestle it away. A bullet hit her in the neck. “I was blessed to have her for a few years,” Bill says, momentarily breaking down—a breach in what, for a man in his bizarre predicament, is impressive composure. Her death was “the most tragic thing that ever happened in my life”. Evidently his metamorphosis did not wipe clean his con- ▶▶



Nabbed: Burchfield in 1975, Arnold in 2016

▶ science: the shooting, he says, is “something you live with every day”.

Bill’s version of those events is hard to assess because there wasn’t a trial. He denied the original accusation of murder, then pleaded guilty to a reduced charge of voluntary manslaughter. “I was young and scared,” he says, devastated by his bereavement and advised by his court-appointed lawyers that, if he didn’t cop a plea, he would never be released. (Of the two defence lawyers named in court papers, one has died and the other says he has no recollection of the case.) The decision “was a terrible mistake”, Bill now believes. The judge gave him 15 years’ hard labour.

That rose to 16 years after he escaped—for the first time—from the Jackson County Correctional Institute in 1975; on that occasion he was soon picked up in Detroit. Then, on October 22nd 1979, he fled again, this time from a work detail at the county landfill. The *Jackson Herald* reported that he asked permission to relieve himself in some bushes, then vanished.

Since he may face fresh charges over the breakout, Bill can’t discuss it. But afterwards, he says, he borrowed a vehicle and drove to California. He slept in the car, then in a cheap motel and took any work he could find. He washed dishes and pumped gas until he landed a job on an oil rig. He had two children. It was a hard life, and when, around 30 years ago, the oil work fell away, he moved back east to London, a quiet town with a picturesque setting and an abundance of churches, and a prosperous one by the hardscrabble standards of eastern Kentucky. It is directly up the interstate from Bill’s old home in Dalton.

Like thousands of Americans who start again in new places, albeit with a twist, he built a different life. He had assumed the identity of a cousin from Georgia, Harold Arnold, who died as a teenager, though informally he retained his first name: a tell-tale clue within his alias that apparently no one clocked. The protracted deceit seems an astonishing exercise in discipline: “That’s a feat in today’s world,” agrees Gilbert Acciaro of the Laurel County sheriff’s office, which collared him. As Bill tells it, though, the striking thing is not how arduous the impersonation was, but—logistically at least—how easy. He applied for a Social Security number in his cousin’s name and got one; nobody ever objected that the real Harold Arnold was dead. He was careful “to stay inside the law”.

Otherwise, fugitive though he was, he lived “like a normal human being. I wasn’t out there trying to duck and dive and hide.” The deceit was “part of my everyday life”. His basic method was to “work hard, and when you get off from work, go home”. He drove trucks, as he had in Georgia; among other businesses he ran a petrol station and café, on a road that winds towards the mountains from the car work-

shops, farm-equipment dealers and anytown drive-throughs on the edge of London. The café was popular with police and US marshals: they gathered there for coffee and for Bill’s fish lunches on Fridays. He wasn’t shaken by the uniforms—“It wasn’t, ‘Oh my God, they’re a cop.’” Most, he says, were “super-nice people”.

He married twice more and had two more children. His first Kentucky wife died of cancer; Bill is said to have cared for her lovingly, as he did for a half-brother who came to live with him and died recently. (Whether and which of his relatives knew the truth is another subject he is wary of.) He and his most recent wife, Jean, divorced but remained on good terms. She answered the door at his home near the café, and before tearfully closing it described him as “the most kind, the most wonderful man you could ever meet. He helped so many people in the community.”

That estimation seems to be widely



shared. When a ghastly crime occurs, it is normal for the suspect’s neighbours to say how mild and considerate he seemed. In this case that sentiment is based on long acquaintance after the offence rather than brief knowledge before it. Sitting beside a fruit stall in his wheelchair, between the café and a little stream, Tim Johnson says that “Bill Arnold is as good a man as I’ve ever met.” Bill, he says, gave him a trailer that he had previously used as a cigarette kiosk: “I never know’d anybody that’d say he’d wronged them.”

By any other name

Mr Johnson and others report that Bill would sometimes give free meals to struggling locals, and that he held Thanksgiving dinners for the indigent. Mr Shelton, the pastor, baptised Bill, who subsequently became a deacon in their church. Bill, he summarises, is “more like a brother to me than a friend”. “I’ve always tried to treat people the way I wanted to be treated,” Bill comments of all the testimonials. “I think my cousin would be proud.”

Still, the affection can’t have been universal: someone had enough of a grudge against him to tip off the authorities in Georgia, though they won’t disclose who and Bill has “no idea”. As a result he may have to serve the ten remaining years of his old sentences, plus any additional punishment for the escape. Contemplating that prospect, he says he considers God’s forgiveness more important than Georgia’s, but hopes that earthly powers may show mercy too. “My health is gone,” he says—he has had several heart attacks, bypass surgery and back problems—“I won’t be around many more years, at the best.” He understands that prisoners can’t simply be allowed to abscond, since “the world is a bad, evil place”, but would like Georgia to say “We don’t want him.”

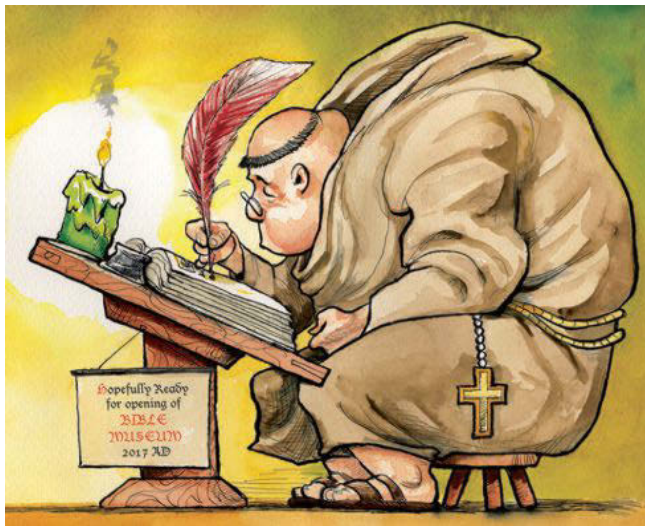
“Shouldn’t [his] debt be mitigated by the life that he has lived?” asks Jason Kincer, his lawyer. And indeed the idea of returning him to jail, harmless and greying as he is, for something that happened 43 years ago, seems perverse. No one would be safer; he is as rehabilitated as he can be. On the other hand, lots of prisoners wind up inside for one-off misjudgments; many leave behind dependents and disregarded good deeds, just as Bill may do now. His case is extraordinary, but the quirks in the penitential system it highlights are routine.

His neighbours seem unequivocal. A petition calling him “a true and faithful friend of all citizens of Laurel County” and requesting his release has garnered hundreds of signatures. At the same time there is the disorientation of learning that he is not quite who they thought he was—another acute instance of a familiar syndrome. “I never had a hint of anything like that,” says Mr Shelton, struggling over which of Bill’s surnames to use. “It’s a different person they’re incarcerating”, he thinks. In all their years of intimacy, Mr Johnson is sure that “at some point he would have mentioned something that big”. He thought the whole farrago was a practical joke, or a mistake, or a miscarriage of justice. “If he is the person they say he is, he is reformed,” Mr Johnson says. “He’s still Bill Arnold to me.”

As perhaps he should be. The law’s view is clear and inevitable, but in other ways Bill’s identity is fuzzy. After all, he has been Bill Arnold for longer than he has ever Bill Burchfield, an incarnation he now believes he has sloughed off, as people often feel of their unrecognisable, younger selves. “You are who people know you to be,” Bill figures. “I’m Bill Arnold, I’m not Billy Burchfield. Maybe not on paper, but in here,” he says, gesturing to his dicky heart through his prison smock. “That’s who I am today, and who I will always be.” If somehow he does scrape through this, there is something he wants to do: change his name officially, eschew Bill Burchfield for ever and live as Bill Arnold, in peace. ■

Lexington | More than a hobby

Steve Green, the man building the Bible museum in Washington, explains what he is up to



WHEN British Jews were asked to bring one treasure representing their faith to a Diamond Jubilee ceremony for Queen Elizabeth, four years ago, they chose a Hebrew Bible from 1189. Long admired as a rare manuscript, its true significance was discovered more recently when scholars pondered clues—distinctively English bookmaking techniques, an Anglo-Norman term for “seagull” in a list of non-kosher birds jotted in a margin—and concluded that this is the only known book to survive from the tiny, embattled Jewish community of medieval England. That history lends poignancy to neat pen-and-ink drawings hidden on a final page, showing two dogs hunting a lion: a coded lament over the persecution of Jews. In the year after that Bible was neatly dated by a scribe, England saw a wave of anti-Semitic riots, ending in the massacre of every Jew in the city of York.

Today that remarkable book lives in a business park near Oklahoma City airport, after its sale at auction last year for \$3.6m. It is one of more than 40,000 biblical texts and artefacts, including fragments of the Dead Sea Scrolls and sections from the Gutenberg Bible, collected since 2009 by the Green family, billionaire owners of Hobby Lobby, a chain of craft shops, in a buying spree without modern precedent. The finest items are destined for a 430,000 square-foot Museum of the Bible to be opened in Washington, DC, in the autumn of 2017. The project has inspired excitement among evangelical Christians. Along with ancient scrolls, Bibles and prayer-books, planned features include “The Nazareth Jesus Knew”, with costumed actors in a recreated first-century synagogue, village square and carpenter’s shop. There will be a rooftop restaurant serving “Foods of the Bible”, walk-through light-shows simulating the parting of the Red Sea, and—for restless teenagers—a flight simulator offering a swooping ride through Washington to see Bible verses on the capital’s buildings and monuments. A live video feed will bring images of an archaeological dig in Israel.

Sceptics worry that the new museum, housed in a converted brick warehouse just off the National Mall and to be topped with a swooping turf and glass roof to resemble an open book, will present a narrow, Sunday School vision of the Bible, downplaying debates about its origins, disputed passages and other ambiguities. Social liberals recall with suspicion the Green family’s

victory in a landmark Supreme Court case in 2014, confirming the right of Hobby Lobby, as a family-run company administered on Christian principles, to opt out of a law obliging employers to offer contraceptives that may target fertilised eggs, such as the morning-after pill. The world of biblical scholarship and archaeology is best described as wary, as artefacts are bought up by the Green Collection and released for study by researchers who join the Green Scholars Initiative, a private academic programme.

Lexington visited the Hobby Lobby corporate campus in Oklahoma, and a discreet building labelled “The Book” where much of the Green Collection is stored. Selected treasures were explained by curators, including that medieval Hebrew Bible with its doodle of a cornered lion: a jarring, haunting cry of anguish to see in a bland conference room, eight centuries later. The host was Steve Green, president of Hobby Lobby and chairman of the Bible museum. Asked if his family’s buying-power alarms some, Mr Green readily agrees. Critics suspect a “proselytising” mission to push his family’s Protestant faith, he suggests, adding that: “If somebody that was of a totally different faith than me started doing this, I would question, OK, what is their agenda?”

Mr Green likes to say that his family are not collectors but educators. They have lent artefacts to travelling exhibitions and to museums as varied as the Vatican and the Creation Museum in Kentucky, with its tales of a 6,000 year-old Earth, denunciations of Darwinian evolution and dioramas showing ancient children with dinosaurs. But his new Museum of the Bible will not espouse any faith, he says. It will “present the facts of this book”, from its origins to its impact on world history, art and literature. A “narrative floor” will tell the Bible’s best-known stories but will not make claims about their truth: the goal, Mr Green says, is to be “respectful” of all visitors including atheists.

Walking the line

Explaining how researchers are selected to work on his family’s collection, Mr Green draws a distinction between scholars who seek after facts and those who try too hard to prove or disprove the Bible—a step that he calls “crossing a line of faith”. He says he avoids scholars that are “antagonistic and are going to come to a conclusion that this book is not what it claims to be. And on the other end, I don’t want those that are going to embellish and say, this proves that it is what it claims to be.”

Arguably, even talking about the “facts” of the Bible is a statement of faith, and one with unusual resonance in America: 31% of Americans call the Bible the “actual word of God” to be taken literally, according to polling by the Pew Research Centre. Mr Green ascribes America’s success to the “biblical worldview” of the country’s Founders—a worldview that, in his telling, overlaps with aspiration and rugged individualism. Without a state church, denominations have had to compete for believers, he says, and that makes churches strong, just as the country has grown strong by embracing economic competition. The Bible talks of private property rights, he adds: “Thou shalt not steal means there are things that are yours, not mine.” It tells believers to be the best they can: “The Scripture says, whatever your hand finds to do, do it with all your might.”

Like many conservatives, Mr Green frets that America is “walking away” from its founding values, and becoming less and less Christian. Maybe. Still, his solution—a spectacular, privately-funded Bible museum that hopes for a million visitors a year—is hard to imagine in any other country. ■



Brazilian trade

Of legumes and liberalisation

SÃO PAULO

A big protectionist economy starts to open up

FEW Brazilians get through a day without eating beans. They gobble up 3.4m tonnes a year, a ladle a day for each person. So when prices rise, as they did by a fifth recently after bad weather damaged the domestic harvest, they gripe. On June 24th the government suspended its 10% tariff on imports. Blairo Maggi, the agriculture minister, hopes that Chinese and Mexican farmers will fill the leguminous gap.

In a country prone to protectionist folly, Brazil's market-minded response to the bean shortage is refreshing. It may portend a greater opening to trade. Though Brazil is the world's ninth-largest economy, its trade is just 1.2% of the global total; in only five countries does trade account for a lower share of GDP. Brazil's new centrist government sees exports as one way to pull the country out of its deep recession. Politicians and company bosses are starting to regard trade as a way to boost productivity, and thus growth, in the long run, too.

Of late, the government has tucked into liberalisation as if it were an appetising *feijoada* (bean-and-meat stew). In April Brazil signed an investment treaty with Peru that, if ratified, will allow firms from both countries to compete freely for government contracts. In June Brazil asked to join 23 members of the World Trade Organisation (WTO) in negotiating a pact on trade in services. The government is preparing legislation to raise the ceiling on foreign ownership of airlines from 20%. Mr Maggi talks of lifting a presidential decree from 2010 that

bars foreign ownership of farms, which discourages foreign investors from lending to farmers. "All the taboos have gone," says Ricardo Mendes of Prospectiva, a consultancy that specialises in trade policy.

Brazil has been a reluctant globaliser. Ever since the 1950s, when many poor-country governments championed domestic production as a substitute for imports, Brazilian industry has been shielded from foreign competition. The left-wing Workers' Party (PT), which governed from 2003 until May this year, continued the cossetting. From 2000 to 2013 Brazil was a party to a tenth of all disputes filed at the WTO, usually as the plaintiff. During that period it erected more trade barriers—from tariffs to subsidies to local-content rules—than most other countries.

Attitudes started to shift in 2012 as the economy weakened, prompting firms to seek growth abroad. Dilma Rousseff, the PT president, began to liberalise trade after her re-election in 2014. The government has enacted two dozen pro-trade measures and just three restrictive ones since the start of 2015, according to the WTO.

Michel Temer, who became acting president in May after Ms Rousseff was forced to step aside while the Senate conducts an impeachment trial against her, is going further. Although his Party of the Brazilian Democratic Movement is close to competition-shy industry, he has a liberal streak. He plans to dismantle local-content rules in the oil-and-gas sector (which force com-

Also in this section

38 Colombia's unpopular peacemaker

38 Eliminating the Kirchner cult

40 Bello: Those spendthrift Latin Americans

panies to use substandard, and often more expensive, domestic technology). He replaced Ms Rousseff's liberalising trade minister but kept the ministry's technocrats to avoid disrupting negotiations.

On June 24th Mr Temer renewed a bilateral automotive arrangement with Argentina for four years (rather than the usual one). For the first time the two countries, the main constituents of Mercosur, a South American trade group, have agreed in principle to free trade in cars and car parts from 2020. Brazil's new trade minister, Marcos Pereira, wants to conclude an ambitious trade deal with Mexico by the end of 2016. Mr Temer took Apex, the export-promotion agency, away from Mr Pereira and gave it to the foreign minister, José Serra, an economist. It has a new mission, "inserting Brazil into global supply chains", which implies greater openness to imports.

Curb your enthusiasm

Brazil opened partially in the early 1990s but later attempts to liberalise fizzled. The government of Fernando Henrique Cardoso signed ten bilateral investment treaties in the late 1990s and ratified none. A Free-Trade Area of the Americas, supported by Mr Cardoso, was blocked by his successor. Industries will not give up protection without a fight.

Another worry is that Brazil's move towards openness comes at a time when its biggest trading partners are moving in the opposite direction. It is safe to say that the European Union's first priority will not now be to conclude its trade deal with Mercosur. One presidential candidate in the United States is a raging protectionist; the other is ambivalent. This makes Brazil's change of attitude all the more welcome. Brazilian businesses will not become competitive unless they compete, acknowledges Mr Maggi. It has taken Brazil a long time to learn that lesson. ■

Colombia's war

Unpopular is the peacemaker

BOGOTÁ

The president has convinced the FARC to make peace. Can he persuade voters?

JUAN MANUEL SANTOS, Colombia's president, could be a candidate for the Nobel peace prize. But a few days after signing a ceasefire agreement with the FARC, effectively ending Colombia's 52-year-war against the guerrilla group, he is eager to talk about his military credentials. He joined the navy at 16, helped lead a military campaign against the FARC as defence minister in the late 2000s and in 2011 ordered a raid that killed their top commander. "No Colombian has hit the FARC harder than I have," insists Mr Santos in an interview at Casa de Nariño, the presidential palace in Bogotá.

The reason for this tough talk is that many Colombians are sceptical of the deal he signed in Havana on June 23rd with the FARC's "maximum leader", Rodrigo Londoño, known as Timochenko. The FARC have massacred Colombians, kidnapped them for ransom, sold cocaine on a grand scale and committed other crimes in the course of a war in which perhaps 220,000 people died (though there are no reliable figures). Guerrillas who confess will be subject to eight years of "restrictions on liberty" (not jail) and community service. That is not punishment enough, many Colombians believe. Álvaro Uribe, who was president when Mr Santos was defence minister and now leads the opposition to him, accuses his former protégé of "wounding" the concept of peace.

The popular mood matters. After a final peace deal is signed, probably this summer, it will be put to a referendum. Polls suggest that "yes" will win. But if the margin of victory is thin, Mr Santos will have difficulty putting into practice the policies required to implement the accord. The government must undertake expensive rural-development programmes; low oil prices and weak economic growth have reduced the revenues needed to pay for them. Mr Santos, whose approval rating after four years of daily dealings with the FARC is a dismal 21%, will have to court further unpopularity by raising taxes.

That makes it all the more vital for Mr Santos to persuade Colombians that the peace is a just one. He has a strong case. The latest agreement sets out details of the FARC's demobilisation to 23 rural zones and the surrender of their weapons. By assenting to ratification by plebiscite rather than by a constituent assembly to rewrite the constitution, the FARC have recognised the legitimacy of Colombian democracy

and the rule of law. The peace deal will mark the first time in any country that demobilised guerrilla commanders have agreed to be investigated and punished. "There is no impunity," Mr Santos insists.

He is not a natural salesman. Though he comes from a prominent political family, which founded *El Tiempo*, Colombia's largest newspaper, he is not a gifted communicator. A friend described a younger Mr Santos as a "cyborg", programmed in childhood to become president. Neither telegenic nor eloquent in public, he seems more comfortable among bankers than peasants. He often stumbles when explaining to Colombians how peace can transform their lives.

A reputation for slipperiness compounds the problem. Mr Santos, who fixes his own political position in "the extreme centre", headed ministries in both Conservative and Liberal governments. He campaigned for the presidency in 2010 as a hardliner on security, then enraged many voters by opening talks with the FARC.

This flexibility helped him secure peace, according to Juanita León, editor of *La Silla Vacía*, a political website. The transitional-justice fudge kept the FARC from abandoning the talks. When crises threatened the peace process, for example in 2014 when the FARC kidnapped an army general, Mr Santos kept a cool head. He is a strategic thinker.

In Bogotá, Colombia's capital, Mr Santos's meeting with Timochenko was broadcast on giant outdoor screens like a World Cup football match. Yet it is in the cities where hostility to the peace deal is strongest. Many urban Colombians admire Mr Uribe, who pushed the FARC into remote mountain and jungle areas. They "no longer feel the war", says Mr Santos. It is different in conflict zones. There "people are enthusiastic about peace."



A strategist, not a salesman

Now Mr Santos faces a showdown with Mr Uribe, whose father was killed by the FARC and who has vowed to campaign against the peace deal in the referendum contest. Mr Uribe "has lived off war", Mr Santos says. "If there's peace in Colombia it is like losing his political oxygen." The battle between them will be one of the toughest Colombia's peacemaking president has fought. ■

Argentina

Erasing the Kirchner cult

BUENOS AIRES

The new president puts his predecessor in her place

WEDGED behind the Casa Rosada, Argentina's presidential palace, the Museo del Bicentenario (bicentenary museum) tells the story of the country's leaders since the revolution against Spanish rule in 1810. Until recently, half its floorspace was devoted to exhibits about Cristina Fernández de Kirchner, who was president when she opened the museum in 2011, and her late husband, Néstor Kirchner, who preceded her in office. On display were Kirchner's trademark loafers and a football shirt emblazoned with the legend "100% K". Founding fathers like Domingo Sarmiento, Argentina's seventh president, were "practically non-existent" says Luciano de Privittello, director of cultural programmes at the Casa Rosada.

On the orders of Ms Fernández's recently elected successor, Mauricio Macri, the museum has undergone a seven-week overhaul; it reopened on June 28th. Mr Privittello claims it is now more even-handed. All of Argentina's former presidents, including brutal 20th-century dictators, are represented with paintings, video screens and artefacts (Sarmiento's desk and the dinner jacket of Carlos Menem, for example). "You can't leave out the ones you don't like," says Mr Privittello.

The rearrangement is part of a broader effort to banish the soft cult of personality that Ms Fernández had created around herself and her husband, who died in 2010. It's a big job—166 public spaces are named after Kirchner, according to *Clarín*, a newspaper. His body lies in a three-storey cement mausoleum in Río Gallegos, in the province of Santa Cruz, which he governed. Visitors can look down reverentially upon his coffin, an idea borrowed from Napoleon's tomb. Last year Ms Fernández inaugurated the Néstor Kirchner Cultural Centre (CCK), housed in a palace in Buenos Aires that once served as the headquarters of the post office.

Rather than knocking the monuments ►►



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down, the government is changing their purpose. It dropped the idea of renaming the CCK, but closed its “Néstor Kirchner experience”, an exhibition that extolled the late president’s deeds. A marble image of Kirchner, unveiled by Ms Fernández at the entrance to the Casa Rosada on her last day in office, has joined the chronologically arranged row of presidential busts (from which the dictators have been culled).

The downgrading extends to figures venerated by the populist Peronist movement, founded by the mid-20th-century strongman Juan Perón, to which the Kirchners belong. Mr Privitello has removed

portraits and photographs of 43 leftist luminaries, including Che Guevara and Venezuela’s Hugo Chávez. Especially painful to Ms Fernández must be the desanctifying of Eva “Evita” Perón, Juan’s popular wife, who died young. Her image, etched on 100-peso notes since 2012, is to be replaced next year by that of a Taruca, an Andean deer.

Kirchneristas detect authoritarian impulses behind the restoration of dictators’ portraits and the removal of leftist imagery. They accuse Mr Macri of erasing the Kirchners from history in order to write his own version. If his government “could ban the letter K from the alphabet, they would”, Ms

Fernández fumed.

Argentines will not soon put back the symbols that Mr Macri is taking down. Ms Fernández and her coterie have been at the centre of corruption scandals since she left office. On June 14th José López, a former public-works minister, was caught by police hurling nearly \$9m in cash over the wall of a convent, apparently intending to bury it on the convent’s grounds. Ms Fernández says this has nothing to do with her, but nearly 64% of Argentines doubt that, according to a recent poll. No one has written a musical about Ms Fernández, but she is in no danger of being forgotten. ■

Bello | Those spendthrift Latins

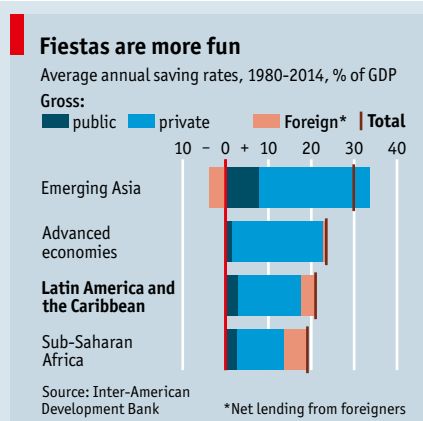
Why the region needs to save more, and how it can do so

LATIN AMERICANS are well known for their love of the fiesta and, when they can afford it, their conspicuous consumption. Perhaps that is one reason why they regularly figure in opinion polls as among the world’s happiest people. Yet economists frown when households—and governments—spend with little regard for tomorrow. Latin Americans save much less than the experts think they ought to. Compared with residents of developed countries, and especially those of emerging Asia, Latin Americans stand out for their lack of thrift (see chart).

Foreigners have often been prepared to lend some of their spare cash to Latin America. But foreign capital is not a perfect substitute for local savings. For a start it can be fickle, disappearing just when the region needs it most, as happened in the late 1990s. Second, in some Latin American countries, including Brazil, reliance on foreign savings helped to push up the value of the currency, killing off otherwise viable businesses, points out Augusto de la Torre of the World Bank.

Many economists believe that if Latin America’s economies are to grow at 5% a year or more, they need to invest around 25% of GDP. Some countries came close to that during the commodity supercycle of 2003-13. But now that the commodity boom is over, growth has slumped and so has investment. Not surprisingly, the attention of economists has turned once again to why Latin America saves so little and how it might save more, and thus invest more. The Inter-American Development Bank (IDB) devotes its latest report to this subject.

The IDB identifies three main problem areas: the financial system, pensions and government spending. Although Latin America’s financial systems are more solid than they were in the past and have



grown, they remain “small, expensive and inefficient”, the IDB says. On average bank loans to the private sector are equal to only 30% of GDP in Latin America, compared with 80-100% in rich countries or in emerging Asia. No wonder Latin American companies find it so difficult to grow.

The pension problem is severe. Although the population is ageing, only 45% of Latin American workers contribute to any kind of pension scheme, the IDB says. In the 1990s, at the urging of neoliberal economists, many countries wound down their traditional pay-as-you-go pension systems. Instead, they switched to a system of fully funded individual pension accounts, managed by private pension funds (known as AFPs in Spanish) in which workers eventually receive a pension depending on the value of their investment.

There were good reasons for the switch. The old systems were often mismanaged. But the new one hasn’t worked as intended: few workers contribute enough to get a pension. “The AFPs have failed,” says Santiago Levy of the IDB. He favours a small universal pension funded by an earmarked consumption tax, augmented by

voluntary schemes.

Another problem is that Latin American governments save too little, and favour current spending over public investment. Subsidies and pay for bureaucrats take priority over transport, energy and water infrastructure.

The region’s low propensity to save has historic roots. Generations of Latin Americans have seen their governments wipe out their savings, either through inflation or by simply confiscating them. That is why so much capital has flown the region over the past half-century. Argentina is a notorious example. Its new president, Mauricio Macri, has tried to bring capital back by declaring an amnesty for people who repatriate undeclared foreign savings. Among the first to reveal their foreign nest-eggs were several of his ministers. As Mr Levy stresses, another factor in low savings is the prevalence of informal jobs. (Underground employers seldom enroll their staff in pension plans.)

Some economists argue that Latin Americans have developed their own common-sense instruments of saving. They invest in building their own houses and in educating their children. They trust that rental income and family solidarity will provide for them in old age. But this kind of saving does not result in capital that the financial system can turn into productive investment.

Awkwardly, nobody really knows whether higher savings are a consequence or a cause of higher growth (they may well be both). Some Latin Americans might thus object that the IDB is putting the cart (higher savings) before the horse (faster growth). No matter. Better banks, better pensions, more prudent governments and more financial literacy would help the region in both good times and bad, even if they mean fewer fiestas.

Also in this section

- [42 Shopping in South Africa](#)
- [43 Testing medical drones](#)
- [43 Israel and Turkey make peace](#)
- [44 The economics of Ramadan](#)
- [44 Microbreweries in the Arab world](#)

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African entrepreneurs

Opportunities galore

RUHENGERI

Africa has enterprising people, but too few businesses

IF ANYTHING explains the poverty in many parts of sub-Saharan Africa, it is not an unwillingness to work hard—most of the continent’s people still sweat to survive tilling fields with medieval tools. Nor is it because of a lack of enterprise and optimism: on the permanently traffic-jammed streets of Lagos, Nigeria’s main commercial city, hawkers gingerly ease their way between cars trying to sell almost anything from snacks to books, pirated DVDs and even toilet seats. Africans are far more likely to be self-employed than people in richer parts of the world, for the simple reason that without social safety nets, many of them must hustle or starve.

Yet for all Africans’ energy and ingenuity, the region struggles to produce enough of the productive and profitable small businesses it needs to lift hundreds of millions of people out of poverty. The World Bank reckons that sub-Saharan Africa has only a quarter as many small businesses as Asia, relative to its population. Members of the OECD, a club of mostly rich countries, have about eight times as many formal small businesses per person.

Part of this is explained by the poor climate for enterprise. Indices of entrepreneurial activity place African countries far below even sluggish European ones such as Greece or Italy (see chart). The gap grows even wider if you look at the number of big firms Africa produces. Apart from a handful from South Africa and Nigeria, few African companies have grown large enough

to expand into markets beyond the continent, or even beyond their hometowns. Africa has produced just one of the world’s 169 “unicorns”, the label given to privately held tech start-ups with a valuation of more than \$1 billion: Africa Internet Group, which adapts foreign business models such as e-commerce and mobile cab-hailing to African circumstances.

Yet the paucity of businesses is not due to a shortage of opportunities to make money. In fact, given a small nudge new

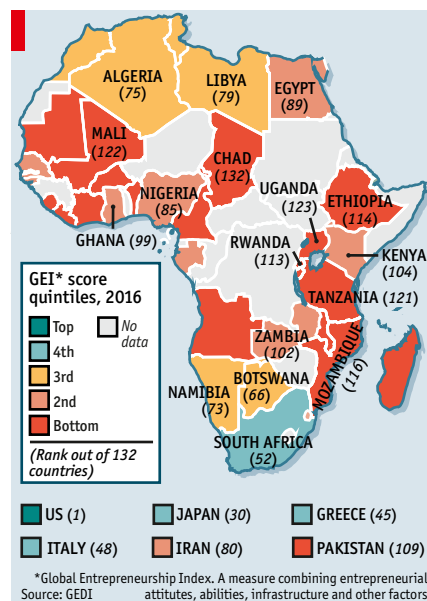
entrepreneurs seem able to make it hand over fist. In a tiny hut a few hours north of Kigali, Rwanda’s capital, just before the land starts lifting steeply towards the volcanoes of the Virunga mountains, a group of men and women in their mid-20s stand proudly around bins of seed potatoes. The group, who were taught how to run their own businesses by TechnoServe, an American non-profit, banded together to borrow money to grow high-quality tubers. The profits from this venture were enough to kick-start others.

Emmanuel Bunani used his winnings to rent a plot of land to grow garlic for export. He now pays two people to work his fields and another three to shell and dry the garlic. He has also come up with a novel way of making sure he gets a good price from the traders he sells to: he has invited them all to a group on WhatsApp, a mobile phone chat service, and gets them to bid against one another when his crop is ready.

On another farm a few hours away Thacienne Ahunkuye (pictured), a shy 26-year-old, looks down at her feet as she explains how a year ago she was unemployed and had sat around for four years doing more or less nothing on her parent’s small homestead. Now she earns some \$300-\$400 a month (in a country with an annual average income of \$700) from an egg farm she started after getting some training and help in applying for a small loan to buy 250 chickens. She sells eggs internationally: twice a month a rickety lorry comes up to collect crates of them to take to the Democratic Republic of Congo.

Yet the success of youngsters such as Mr Bunani and Ms Ahunkuye is also puzzling. If it is really so easy to make money growing garlic or keeping chickens, why aren’t more people doing it? And how can more people be encouraged to do so?

There are many reasons why Africa has failed to produce many profitable small



► firms, never mind larger ones, but high among them is access to finance. “There is a myth out there that every good idea can find funding,” says Goolam Ballim, the chief economist of South Africa’s Standard Bank. “But in Africa that simply isn’t true.” For a start banks in many African countries serve mainly to take savings and channel them into the hands of governments rather than entrepreneurs, since treasury bills often pay juicy rates of interest. Government borrowing drives up interest rates for everybody else. (In much of east and west Africa, for instance, people have to pay eye-watering interest rates of 20-45%.) The easy profits from lending to the state also make banks lazy. Many do not bother to learn how to measure and manage the risks of

lending to businesses when they can simply hold government paper.

This is beginning to change, thanks largely to the spread of mobile phones, which is allowing for new ways of lending cheaply. Take Letshego, a Botswana-based microlender with operations in nine other African countries. It signs up customers using their mobile phones and runs its entire operation from a data centre in South Africa, giving it a cost-to-income ratio (a standard measure of efficiency in banking) that is about half that of traditional banks. Lenders are also experimenting with new ways of measuring how risky borrowers are using data from their phones. One discovered that customers who listed their contacts by both name and surname were

16% less likely to default.

Even if entrepreneurs get access to finance, it is still difficult for them to make and sell things. Ashish Thakkar, an African entrepreneur and philanthropist, says that shortages of electricity, potholed roads and inefficient ports and railways hold back manufacturers. “If someone making shoes in Port Harcourt can’t even get them to Lagos [both are cities in Nigeria] then forget about them going global.”

Yet that too may change as governments and investors channel huge investments into infrastructure and power. TradeMark East Africa, an NGO funded largely by western governments to encourage trade, reckons that improvements in Kenya’s ports and roads have cut by about 60% the time it takes to ship a container from the port of Mombasa to Kampala, the capital of Uganda, lowering costs too.

Access to markets is not simply about physical infrastructure, but also about social networks. In many parts of the continent there are so few successful companies that would-be entrepreneurs seldom see inspiring examples or have trusted friends in business to turn to for advice or as suppliers or customers.

Where such networks exist, for example among Lebanese expatriates in west Africa or Asians in east Africa, business often flourishes. Yet even where they don’t, they can sometimes be replicated using technology. Cherie Blair, a lawyer married to a former British prime minister, has a foundation that helps teach women to run their own businesses. Some, she says, have done so for years but still do not know how to read a balance-sheet, so she connects them with one another and with mentors abroad using an online platform.

Some investors have figured out how to start businesses without the existing chains of suppliers and customers that allow firms to flourish elsewhere. Take H2O Venture Partners, an investment firm that has started several agricultural businesses in Africa. It found that in many cases it is impossible to start one business—an exchange for trading beans, say—without also setting up other firms in the value chain. So it has started a food-processing company to buy and cook beans, and also firms that sell seeds, fertilisers and tools.

Many obstacles remain, not least of which are widespread illiteracy and innumeracy. But there are also many opportunities to be exploited in doing simple things for local markets that may in time lead to bigger ones. Often it does not take much to get these off the ground. Ms Ahun-kuye says that before she was taught how to hatch a business from eggs, she “was waiting for a job but didn’t know where it would come from”. She adds: “I knew it could be a good business because I had seen others doing it, but I didn’t know where to start.” ■

Shopping in South Africa

Buying on credit is so nice

JOHANNESBURG

South Africans love to splash out, but many are living beyond their means

A QUEUE snaked through the first Starbucks shop south of the Sahara, winding out of the door and down the block. It greeted the American coffee chain’s boss, Howard Schultz, when he visited the Johannesburg store for the first time recently. “I have been to many, many Starbucks openings around the world,” Mr Schultz marvelled. “I have never seen a line like this after a week of our opening.” Few of the South Africans shuffling in line had ever tasted Starbucks, but they felt sure it was worth the hour-long wait. “Celebrities are always drinking it,” said Lebo Nkosi, 26, a shop assistant at a nearby mall, as she waited with her friends.

Two months after opening, this Starbucks still pulls impressive queues on weekends. Famous international brands are a bit of a novelty in South Africa. Similarly enthusiastic crowds met the launches of the first Krispy Kreme Doughnuts and H&M clothing shops in Africa late last year. Burger King, which opened in 2013, had long queues for months. For big global brands, South Africa’s market offers avid consumers and a stepping stone to the rest of Africa.

The appetite for venti lattes and grande frappuccinos is remarkable given the parlous state of South Africa’s economy. It is expected to grow just 0.6% this year, down from 1.3% in 2015. So far, though, this hasn’t stopped the country’s aspirational middle class from splurging. When the spiffy new Mall of Africa (home to South Africa’s second Starbucks shop), opened in late April it drew more than 120,000 people and snarled up traffic for miles. It also led to a shoot-out between rival taxi fleets, fighting over who would



We’re worth it

get to pick up shoppers.

Not all who splash out on luxuries are truly well-off. Many of the new middle class are living beyond their means. According to the government, nearly half of South Africans with access to credit are struggling to meet their monthly payments; they may have to stop spending.

Though retail sales beat expectations by rising 4.0% year-on-year in February, they disappointed by growing just 1.5% in April. Burger King opened with a sizzle, but has since scaled back its plans, from 100 stores by the end of June to 75 or 80. With the Mall of Africa’s opening, there may be a glut of retail space. Starbucks was planning to expand slowly. But after seeing the crowds in Johannesburg, a bullish Mr Schultz had second thoughts: “I think this market is going to be larger than we probably thought.”

Medical drones in Africa

Help from above

KIGALI

A new way round an old problem

“LAND of a thousand hills” is an apt nickname for Rwanda. The tiny, landlocked country ripples with steep, terraced hillsides. Under its single-minded president, Paul Kagame, it is also determined to become a technology hub for Africa. It is not, therefore, surprising that Rwanda will soon be a laboratory for one of the most hyped technologies around.

Zipline, a Silicon Valley startup, will start testing delivery drones (otherwise known as Unmanned Aerial Vehicles) at a site 40 minutes drive south-west of the capital, Kigali, in August. If deemed safe by the government, a month or two later the fixed-wing “Zips” will be dropping off blood for transfusions in small boxes with parachutes at 21 hospitals and health centres within a 75km (40 mile) radius. The aim is to open a second hub in the east to cover the rest of the country within a year, and to start delivering vaccines and other medicines as well as blood.

If all goes well, drones could cut a 3.5-hour trip by car to and from one of the country’s five blood banks to less than 45 minutes, a potentially life-saving difference for a mother haemorrhaging after giving birth. Even more time could be saved during the rainy season, when many of Rwanda’s roads become impassable, says Zipline’s co-founder, Will Hetzler.

Another firm, Mobisol, wants to use drones to deliver spare parts for its pay-as-you-go solar-power systems in Rwanda and Tanzania. The quadcopters it is developing would land on roofs, where they could be recharged using customers’ excess solar energy.

Perhaps the most ambitious idea comes from Redline, a 40-person company

founded by Jonathan Ledgard, a former journalist for *The Economist*. Mr Ledgard envisions fixed-wing drones, manufactured for less than \$3,000, carrying up to 10kg (22 pound) loads between small cities and towns that are poorly connected by road. A ‘droneport’, designed by Norman Foster, a British architect, could be built for \$300,000—less, Mr Ledgard claims, than a new petrol station. Rwandan ministers are supportive, and Redline hopes to start test flights by the end of the year.

There are plenty of potential pitfalls. Mr Ledgard’s Flying Donkey Challenge, a competition for drones to carry loads around Mount Kenya, was shelved in 2014, after a series of terrorist attacks meant that a nervous Kenyan government was unwilling to give the go-ahead. In South Africa drones have been used to track poachers and tested out as a crime surveillance tool. But strict regulations imposed in July 2015 mean you have to pass skills and theory tests, and be medically examined by a doctor, to get a licence to fly one.

Malawi’s leaders were keener on a recent study by the UN Children’s Emergency Fund (Unicef) into the feasibility of using drones to transport the HIV test samples of newborn babies. But although all 93 flights in the two-week period in March passed off without a hitch, the cost of the drones from Matternet, another Silicon Valley startup, tends to be more than using motorbikes, thinks Judith Sherman, Unicef’s HIV/AIDS chief in Malawi. “The technology is still immature,” she says.

Nonetheless, Unicef is working with Malawi’s government to come up with a better way to transport lab samples. Drones may turn out to be the best option for islands in Lake Malawi, for example. The country is also interested in using drones in agriculture, forestry and conservation, as well as disaster surveillance. No one pretends that drones can ever be a complete substitute for good roads. But as drones become cheaper, they could help countries with patchy infrastructure and tricky terrain shift light, valuable goods more quickly. ■

Israel and Turkey

Let’s try again

JERUSALEM

An end to years of tension, sort of

THERE was no warmth to the announcements of a rapprochement between Israel and Turkey this week. The two governments have spent the past three years of a six-year period of tension negotiating the deal that restores full diplomatic relations. But when it was finally agreed, prime ministers Binyamin Netanyahu and Binali Yildirim gave separate press conferences. There was no festive summit, just a recognition by two regional powers that they cannot afford to remain at loggerheads during such a volatile period.

Israel agreed three years ago to apologise and to pay compensation for an incident in May 2010, when Israeli naval commandos intercepted a flotilla of boats that was attempting to reach Gaza. It resulted in the deaths of ten Turkish pro-Palestinian activists. (The Israeli commandos were attacked with metal pipes before they started shooting.) Talks then bogged down over each side’s additional demands. The Turkish president, Recep Tayyip Erdogan, eager to present himself as the protector of the Palestinian people, demanded that Israel lift its blockade of the Gaza Strip. Israel insisted that the Turkish government close down a Hamas headquarters in Istanbul which Israeli intelligence officials claim has been used to direct terror operations within Israel.

In the end, both sides were forced to give up most of their demands. The blockade of Gaza remains, though Turkey will be allowed to carry out various building programmes in the beleaguered strip. Hamas offices in Istanbul will remain open and Israel will have to make do with Turkey’s assurances that they will only be allowed to engage in “political” activities.

The agreement will not bring Gaza much immediate relief. Aid supplies and building materials from Turkey will have to go through the port of Ashdod, subject to Israeli inspection. Turkey has ambitious plans to erect a new power station and desalination plant. These will be useful to the 1.8m people of Gaza, currently suffering daily electricity outages, and will supply much-needed jobs. However, these plants need constant maintenance and supplies, hard to ensure at a location which has seen air strikes from Israel on average every couple of months over the past decade. Another obstacle is division among the Palestinians: the Fatah-controlled Palestinian Authority refuses to co-operate with its rivals Hamas, who rule Gaza. ▶▶



Blood from the sky

▶ Although the two governments will appoint ambassadors immediately following the agreement's ratification, it is premature to hope that Israel and Turkey will once again be the close allies they were for decades. There is still much lingering suspicion—Israel's security establishment is wary of ties built up in recent years between Erdogan loyalists placed at the head of Turkey's intelligence services, and Iranian officials. "It is hard to see how we can resume the level of relationship we once had while Erdogan is still at the top of the pyramid," said one senior Israeli officer recently. In the past the armed forces of both countries have carried out joint exercises, while Israel used Turkey's territory for surveillance and intelligence operations against Syria and Iran. That is not on the cards any time soon. ■

The economics of Ramadan

Less work and more pray...

CAIRO

...make Muhammad poorer but happier

IN MOST Muslim countries life slows down during Ramadan, the holy month in which the faithful fast during daylight hours. Many people nap during the day and feast at night. Working hours are reduced. Businesses open later and close earlier. In general, less gets done.

There is much anecdotal evidence that Ramadan, which ends on July 5th, has a negative economic effect on Muslim countries. But until recently, no one had properly studied the question. "There is a sensitivity when it comes to Islam," says Romy Hasan of the University of Sussex in Britain. But the holy month's features actually make it easier to study.

The Islamic calendar is lunar, so Ramadan rotates through the seasons. In Egypt, for example, the holy month now falls during the long days of summer. But in 15 years, it will occur in winter, when the days—and, therefore, the fasts—are shorter. The opposite is true for Muslims in southern locales. This cycle, unrelated to other factors that might affect the economy, "presents a kind of naturally occurring experiment", wrote Filipe R. Campante and David H. Yanagizawa-Drott of Harvard University in the *New York Times*. "Religious practice is precisely varied and everything else is left in place."

In a study published last year in the *Quarterly Journal of Economics*, Messrs Campante and Yanagizawa-Drott looked at data from nearly every country over the past 60 years and found that longer fasting times had a deleterious effect on economic

Beer in the Arab world

Of brewers and bureaucrats

BEIRUT

The obstacles faced by craft beers aren't only what you think

MAZEN HAJJAR likes to say that barley was first domesticated—in the Middle East, mind you—for the purpose of brewing beer, not baking bread. Bread is now the region's daily staple; beer barely registers. But the founder of 961, a Lebanese microbrewery, thinks there is a fertile market in the Fertile Crescent. "There is too much light fizzy tasteless stuff," he says.

In Lebanon the trend is growing. Colonel Brewery in Batroun, a Christian seaside town, serves its beers in its garden and sells more to 70 Lebanese bars. Beirut Beer is another brand made by a winemaking family. Schtrunz is the latest to join, made by a family with Czech roots. But Lebanon is not the rest of the region. Is there room elsewhere?

Yes, say producers. Israel has a flourishing craft beer scene, and in the West Bank Taybeh ("tasty" in Arabic) has been producing a range of craft beers since the 1990s. Even Jordan has its own microbrewery, Carakale. Some brews are flavoured with regional herbs and spices such as sumac and thyme.

Most Arabs are Muslim and most Muslims agree that the Koran bans alcohol. But not all of them shun it, and Lebanon, Jordan and Palestine have sizeable Christian populations. Brewers say there is room to grow. Beer is still underappreciated in a region where wine, arak and whisky hold sway.

In other Muslim countries, craft brews could replace bad beer. Egypt's Stella and Sakara could use some competition, as could Morocco's four tasteless local

brands. If alcohol were allowed into Iran or Saudi Arabia, craft beers could displace secretly-produced (and often horrible) home-brews.

The biggest obstacles to wannabe brewers are the same ones that face any company trying to operate in the Middle East: red tape, lousy infrastructure and sluggish economies. When 961 started to look for export markets, sending a sample abroad with DHL required special government permission. Electricity is unreliable. Carakale took two years to get permission to set up.

The lure of expanding into virgin territory outweighs those concerns for now, says Jamil Haddad, the founder of Colonel. "I thought about opening in London or Europe," he says. "But here it's a new concept and I can do something unique."



Yes, colonel!

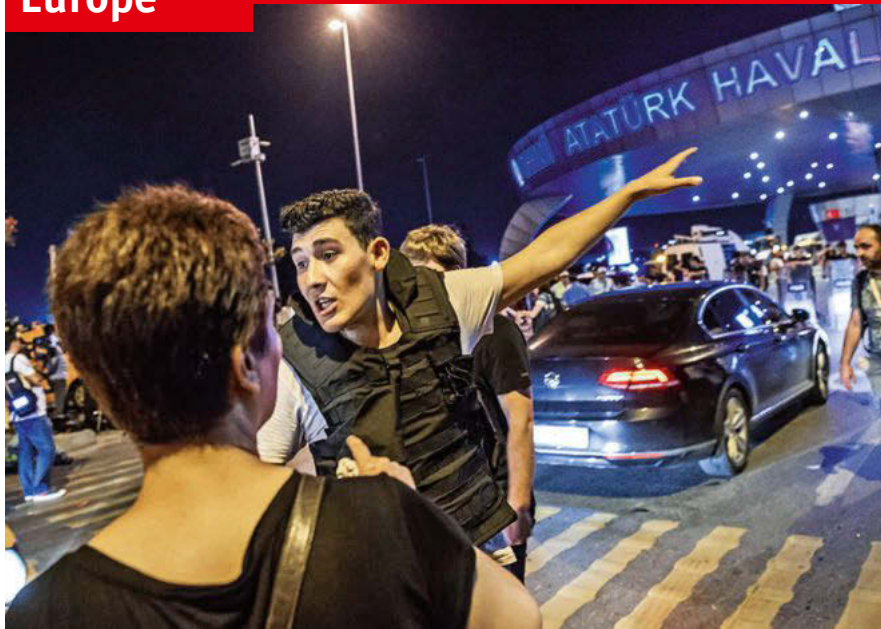
growth in predominantly Muslim countries—not just during Ramadan, but throughout the year. If, say, the average Ramadan fast were to increase from 12 hours to 13 hours, output growth in that country for the year would decline by about 0.7 of a percentage point, they found. "It is a robust negative relationship," says Mr Yanagizawa-Drott.

Other research suggests that Muslims are less productive during Ramadan. A study by Heather Schofield of the University of Pennsylvania showed that fasting by Indian agriculture workers led to a 20-40% drop in productivity when the holy month fell in the planting or harvesting season. Office workers are said to put off meetings and decisions until after Ramadan, during which trading activity tends to decline on stockmarkets in the Middle East.

But Messrs Campante and Yanagizawa-

Drott found that the most important reason for lower growth was that Muslims choose to work fewer hours. They are seemingly no less productive in years when fasts are longer. Surveys indicate that during those years they value work less and religion and leisure more. "You could say it is a healthy shift in attitudes," says Mr Yanagizawa-Drott. Indeed, fasting Muslims report being happier in years when the days are longer, despite the economic costs.

Many merchants do better around Ramadan thanks to an increase in consumption. In this way, it is like holidays everywhere. But making more thorough comparisons is difficult because it is hard to isolate the economic effect of, say, Christmas. Ramadan's variability gives researchers something to chew on, even as their subjects go without. ■



A terrorist attack on Istanbul's airport Soft target

ISTANBUL

Turkey's friendly turn in foreign policy is punctured by another bombing

THE morning after the suicide attack at Istanbul's Ataturk International Airport on June 28th, a grim silence hung over the terminal. Taxi drivers waved down the few shocked passengers trickling out of the bomb-scarred building. In contrast with the long closure that followed the attacks at Brussels' airport in March, flights had already resumed. Turkey is doing its best to maintain an air of normalcy. But with the prime minister, Binali Yildirim, suggesting that Islamic State (IS) was behind the attack, Turkey may find itself drawn ever further into the war in Syria.

The three suicide bombers who attacked the airport killed at least 42 people and left more than 200 wounded. One struck in front of the arrivals hall entrance on the ground floor. The two others forced their way into the departures hall upstairs, shooting travelers with machine guns. One of them headed back downstairs before detonating his suicide vest. Security-camera footage showed one of the bombers being shot by police, then blowing himself up.

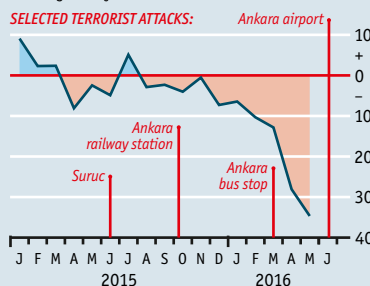
If IS was responsible, the attack is the latest in a wave of bombings by the terror group that has killed nearly 200 people in Turkey since last summer. The jihadists last struck in late April, when a suicide bomber killed two people outside a police station in Gaziantep, in the country's south. The interior ministry claims to have foiled dozens of other attacks, including a plan to

bomb bars and night clubs in Ankara, the country's capital, on New Year's Eve. Prosecutors early this week demanded life sentences for 36 people suspected of involvement in an IS bombing that killed 101 people in Ankara last October. In addition to the terror attacks, rockets fired from IS strongholds in Syria have killed 21 people in Kilis, a town near the border.

Apart from the murders of at least five Syrian activists, IS has not claimed responsibility for any of its attacks inside Turkey. Its publications and social-media accounts, however, have vilified Turkey ever since the country decided last year to open its airbases to coalition jets operating against IS in Syria. Turkey launched a belated crackdown against home-grown IS

Staying out of range

Tourist arrivals in Turkey
% change on a year earlier



Source: Ministry of Culture and Tourism

Also in this section

- 46 NATO's summit
- 47 Revolution postponed in Spain
- 47 Ireland post-Brexit
- 48 Putin's new enemies
- 49 Charlemagne: And shut the door behind you

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sympathisers in early 2015 and has begun using its Syrian proxies to dislodge the extremists from areas just south of the border. Aside from artillery strikes against the group's strongholds, however, it has avoided challenging IS inside Syria, preferring instead to wage war against Kurdish insurgents at home. Its fighter planes have remained grounded since last autumn, ostensibly for fear of being hit by Russian missiles.

By targeting Ataturk Airport, one of the world's busiest, the attackers appeared determined to damage Turkey's \$30 billion-a-year tourism industry. Hotels and resorts are already reeling from a Russian boycott, earlier IS bombings and the war in the Kurdish southeast, as well as attacks by an offshoot of the outlawed Kurdistan Workers' Party (PKK). Foreign arrivals were down by 35% in the year to May, the largest such drop in decades.

The days leading up to the attack offered hope of a respite. On Monday Mr Yildirim announced a deal to restore diplomatic relations with Israel after a six-year hiatus (see page 43). On the same day, Turkey's president, Recep Tayyip Erdogan, signed a letter apologising for the downing of a Russian plane last November. That incident prompted Moscow to impose an embargo on Turkish food products and restrict travel to the country. In a phone call with Mr Erdogan on Wednesday, Vladimir Putin, Russia's president, agreed to repair ties and lift the tourism sanctions. It may be too late. For Turkish tour operators, the summer season is lost.

To some in Turkey, the timing suggests that the bombing was a response to the agreement with Israel. Yet security experts find it hard to imagine that the attackers could have planned and pulled off an attack as complex as this one in a matter of days. "It may be that they had this going ▶▶

▶ and decided to accelerate,” says Selim Koru, a researcher at the Economic Policy Research Foundation of Turkey, a think-tank. If it does take credit for the attack, says Mr Koru, IS is likely to use the Israel deal to paint Turkey as part of what it calls the “crusader alliance”.

If the rapprochement with Israel raises Turkey’s profile as a target for IS militants, the one with Russia frees its hand to go after them. Turkish planes have less reason to worry about being shot down over Syria. More importantly, the attack on June 28th should compel Turkey to crack down harder on jihadists at home and to accept the urgency of defeating IS in Syria, says Henri Barkey, a Middle East expert at the Woodrow Wilson Centre. Doing so may require Mr Erdogan to turn a blind eye to American support for the PKK’s Syrian affiliate, which is the coalition’s most trusted partner in Syria. Turkey’s ruler may now have no choice left but to take the fight directly to IS—or let the Kurds do it for him. ■

NATO’s summit

Trip-wire deterrence

An ageing alliance hopes that Russia will get the message it is serious

A LOT of work goes into preparing for NATO’s biennial summits. So the hope is that next week’s summit in Warsaw is not dominated by Brexit. Nobody will be keener than David Cameron, Britain’s soon-to-be-ex-prime minister, to present a picture of business as usual for the 28-member alliance. And there is plenty to do, most of it about Russia. Since Vladimir Putin annexed Crimea in 2014, relations have grown dramatically more antagonistic.

That year’s summit, in Wales, returned NATO to its cold-war role of territorial defence. The Warsaw summit will, above all, be a progress report on the steps the alliance has since taken, known as the Readiness Action Plan, to reassure its nervous eastern members and re-establish effective deterrence.

There are also security issues in the south: the threat of Islamic State terrorism, and helping the European Union tackle people-traffickers and illegal migrants. But the summit will be dominated by the threat from Russia. NATO is especially worried about its Baltic enclave of Kaliningrad, which borders Poland and Lithuania. Russia is pouring in mechanised brigades, tanks, long-range air-defence systems and nuclear-capable missiles, making it one of the most militarised parts of Europe.

The new plan consists of a series of interlocking components. The high-readi-

ness NATO Response Force has been tripped in size to 40,000 and given more punch. A spearhead force (known as the Very High Readiness Joint Task Force) of 5,000 ground troops supported by air, sea and special forces, which can be deployed within 48 hours, has been established. Supplies, including heavy weapons, are being pre-positioned in the east. Air policing over the Baltics has been stepped up, as has NATO’s naval presence in the Baltic Sea, the Black Sea and the Mediterranean.

Additionally, in June the alliance agreed to deploy four multinational battalions in the three Baltic states and Poland. America, Britain and Germany are to lead three of the battalions, which will each have about 1,000 troops, while Canada could lead the fourth. The White House has promised a fourfold boost in funding for the Pentagon’s European Reassurance Initiative to \$3.4 billion next year, which will be spent on increasing American forces in the region and pre-positioning more heavy weaponry, including tanks and artillery.

Yet the eastern members worry that this is little more than the bare minimum. A report by the RAND Corporation, a think-tank, earlier this year concluded after a series of war games that without a big new NATO presence in the Baltics, a Russian invasion force could reach Tallinn (the capital of Estonia) and Riga (the capital of Latvia) within 60 hours. That would leave NATO to choose between escalating the conflict and accepting a fait accompli that would destroy the alliance. In RAND’s view, for real deterrence, NATO needs a force of about seven brigades (each with about 5,000 soldiers), three with heavy armour, on the ground, ready to fight.

NATO disagrees, insisting that the four battalions are a tripwire for engaging the whole alliance. They will send the message, said one official, that should Russia “try anything”, it will face “a multinational force that includes two nuclear-armed



member countries”. They also believe that good intelligence would provide time to respond if deterrence were to fail.

Jonathan Eyal of RUSI, a London-based think-tank, reckons that there is “no escape” from tripwire deterrence, which worked for 40 years of the cold war when West Berlin was never defensible. The key will be the speed of decision-making. As much as possible, says Mr Eyal, decisions should be in the hands of the Supreme Allied Commander, General Curtis Scaparrotti, rather than the Atlantic Council, NATO’s lumbering parliament.

A bigger concern is the queasiness some NATO members are already showing about standing up to Russian bullying. Italy, Greece and Spain are less than enthusiastic about a build-up; Germany’s foreign minister, Frank-Walter Steinmeier, delighted the Kremlin earlier this month by deploring large-scale NATO exercises in eastern Europe as “war-mongering” and “sabre-rattling”. Mr Steinmeier’s remarks drew a swift response from the alliance’s secretary-general, Jens Stoltenberg. “Strong defence, strong deterrence and NATO unity are the best way to avoid a conflict,” he said. But the damage was done. ■



Feeling lucky, Putin?

Spain's election

Revolution cancelled

MADRID

Another centre-right government, but a weaker one

THE idea of re-running a vote when the first result is unsatisfactory has been getting a bad press recently. But Spain's second general election in six months, on June 26th, showed that if the goal is to break a political deadlock, do-overs can be useful. The big winners were Mariano Rajoy, the prime minister, and his centre-right People's Party (PP). Though they failed to get an absolute majority, they took 33% of the vote, up from 29% in the December election, which was so splintered that no party could form a government. Now, with 137 seats in the 350-member Cortes (parliament), Mr Rajoy is set to remain prime minister, albeit at the head of a coalition or minority administration.

The election's big surprise was that Podemos, a new far-left party dedicated to reversing austerity and defenestrating the traditional political class, stalled. Contrary to all poll forecasts, it failed to overtake the more moderate Socialist Party to become the largest force on the left. Podemos had merged with the old Communists of the United Left party for this election, but the merged force won 1m fewer votes than its constituent parts did last time.

The long faces of Podemos's young leaders as the results came in were eloquent. The Socialists did poorly compared to the past, winning 22.7% of the vote and 85 seats (down five). But it felt like a victory for Pedro Sánchez, the party's leader, who almost certainly did enough to keep his job. Ciudadanos, a new liberal party which won 32 seats (down eight), paid the price for having tried to form a government with Mr Sánchez after the December election. Some of the former PP voters who had supported it switched back.

Mr Rajoy became prime minister in 2011 with Spain deep in recession. He has set it on the path to economic recovery, cleaning up the banks and reforming the labour market. Budget cuts and corruption scandals hurt the PP, but it has proved resilient. Outwardly stolid and unimaginative, Mr Rajoy is a shrewd strategist who has repeatedly defied rivals and expectations.

The prime minister wants the Socialists to join him in a German-style "grand coalition". Socialist leaders have rejected that. The left and right have never worked together in Spain, and the Socialists fear leaving Podemos to monopolise the fruits of opposition. A pact with Ciudadanos and moderate regional parties would put Mr Rajoy within one seat of a majority. But

Albert Rivera of Ciudadanos would have to drop his demand for Mr Rajoy to resign.

Weeks of talks among the party leaders lie ahead. Mr Rajoy can expect at least the abstention of Ciudadanos, and perhaps of the Socialists, to let him form a minority government. Nobody wants a third election. There will be a government by early August, Mr Rajoy said. But it may not be strong enough to push through the reforms—of regional government and the judiciary, for example—that Spain needs.

Yet Mr Rajoy has reason to be cheerful. "Spain has moved to the right," says Pablo Simón, a political scientist at Carlos III University in Madrid. One reason, he says, is that whereas in December voters were preoccupied by the PP's corruption scandals, this time the run-up to the vote was dominated by the failure of the left to reach an agreement to govern.

The turbulence prompted by Britain's decision to leave the European Union seems to have influenced the vote. Spain's stockmarket fell by 12.4% on June 24th. Some who had been prepared to back Podemos seem to have stayed at home, while others switched to the Socialists. Nationalist adventurism in Britain thus deters left-wing adventurism in Spain. As a result, the country's traditional political class has been given a new lease on life. ■

Ireland post-Brexit

Put asunder

DUBLIN

No country has more to lose from Britain leaving the EU

THE road-blocks and army watch-towers that once dotted the 499-kilometre (310-mile) border dividing Northern Ireland from the Irish Republic were among the most hated symbols of its long-running civil conflict. But since the Good Friday peace agreement of 1998, crossing that border has come to mean nothing more than changing currency and remembering that road signs switch between miles and kilometres. The two societies have intertwined, making the question of whether Ireland should eventually be reunited seem less important, and helping to forestall any return to violence.

All that has been put at risk by Britain's vote to leave the European Union, and Ireland is worried. The border may return, even more forbidding than before. Post-Brexit, it will be the only land crossing between the United Kingdom and the EU. If migration to Britain is to be controlled, as the Leave campaign promised, not just security and customs checkpoints will be needed, but passport and visa controls.



All along the watch-tower

The Leave vote, said Enda Kenny, Ireland's *taoiseach* (prime minister), was a "political earthquake". His government had supported the Remain campaign. It is, for now, not reproaching Britain or issuing dire predictions of what an exit may entail, but instead trying quietly to find a way to keep the border open afterwards. It hopes that once negotiations begin in earnest, the contradictions between free trade and restrictions on migration, both promised by the Leave campaign but together unacceptable to the EU, will be resolved in favour of free movement. Mr Kenny regards the pressure from some European governments on Britain to move quickly as a mistake: he wants time to mediate.

A version of Brexit that ends free trade would hit the Republic's economy hard, too. That was signalled by market turmoil in Dublin: the Iseq index of Irish shares fell almost a fifth in the first two trading days after the vote. Though 34% of its exports of goods and services go to the euro zone, 16% go to Britain, the most for any single country. A study by the Economic and Social Research Institute in Dublin suggested that firms moving from Britain to Ireland in order to stay in an English-speaking EU member would be unlikely to make up for other jobs lost. And within the EU—where it is determined to stay—Ireland cannot strike a separate free-trade deal with Britain.

The days since the Leave vote have seen a flood of Britons apply for Irish passports. Birth anywhere on the island of Ireland grants eligibility, as does an Irish parent or grandparent. By some estimates a tenth of Britons are entitled to one. As Britain and Ireland, north and south, grew closer within the EU, few bothered to apply. That so many are now scrambling to do so is an ominous sign of divisions to come. ■

Repression in Russia

Prelude to a purge

MOSCOW

The Putin regime finds new enemies at home

IT LOOKED like a scene from a crime drama. First, the pictures of a burly Russian governor caught at a sushi restaurant in a swanky Moscow hotel, with wads of specially marked euros leaving fluorescent stains on his hands. Next, footage of the same governor in handcuffs, being escorted into the investigator's office by balaclava-clad, Kalashnikov-wielding agents of the FSB, Russia's secret police. The arrest on June 24th of Nikita Belykh, the liberal-minded governor of the Kirovsk region, was headline news on Russian state television. It even preceded the report on Vladimir Putin's triumphal visit to China.

Mr Belykh is accused of receiving a €400,000 (\$445,000) bribe and faces up to 15 years in jail. He has launched a hunger strike to protest against the charges. In the best Soviet tradition, the state media have reported his guilt long before any trial. Mr Belykh claims he was set up. He is the third governor in 15 months to be arrested on corruption charges; there have been similar arrests in Komi and Sakhalin. "This is the Kremlin's new way of exercising control over regional elites," says Kirill Rogov, a Russian political analyst.

After street demonstrations in 2011-2012, the government was forced to restore regional elections that had been abolished in 2004. Meanwhile United Russia, the regime's dominant political party, proved too weak to provide the Kremlin with effective control over the regions. The security services have evolved as the main tool of governing the country, Mr Rogov argues.

Some regional bosses remain untouchable, including the all-powerful president of Tatarstan, a predominantly Muslim republic. Mr Belykh, a former businessman, was an easy target: he had neither powerful patrons in the Kremlin nor strong backing from local businessmen. He was not a member of United Russia, and had once led the Union of Right Forces, a liberal party dismantled by the Kremlin. Yet his arrest did not stem from political dissent; he was not an outspoken critic of the government. Rather, it was a sign of the realignment of Russia's power centres.

The Kremlin's growing reliance on the security services represents a shift both from late Soviet practice and from the early years of Mr Putin's reign. Under Soviet rule, the regions were mainly controlled through Communist Party structures. After the death of Stalin, who subjected the party to mass purges by the secret police,

the Soviet leadership took special care to restrict the powers of the KGB. Mr Putin has made the security services far more powerful than any political party. For the regional elites, the FSB's new brazenness signals that the rules are changing. The governors now "understand that they're not really in charge in their own regions", says Mikhail Vinogradov of the St Petersburg Politics Foundation, a think-tank.

Russia is due to hold parliamentary elections in September. While not truly democratic, they remain a marker of legitimacy for the regime, and local officials will be expected to deliver the desired results. In the early 2000s the Kremlin mainly used soft power—especially money—to buy elites' loyalty. Now, with the economy in recession and oil revenues in decline, regional authorities are getting "sticks instead of carrots", says Nikolai Petrov, an expert on regional politics.

The FSB is also Mr Putin's answer to growing accusations of corruption within the Kremlin and its entourage. This week, the Spanish Civil Guard arrested half a dozen Russian citizens with alleged ties to high-ranking Russian officials and Colombian drugs cartels, according to *El Mundo*, a Spanish newspaper. Exposing corrupt officials at the federal level, as the Kremlin had attempted to do in 2012, makes ordinary Russians think the whole system is dirty. Going after regional governors, by contrast, makes it look like only local politicians are crooked and the Kremlin is doing its best to clean things up. This is a handy

distraction at a time when Russian living standards are plummeting.

Last week the Duma, Russia's parliament, passed sweeping "anti-terror" bills which expanded the FSB's powers yet further. The new laws criminalise failure to report a crime, and introduce "prophylactic lists" that let officials "put people on special watch lists arbitrarily", says Tanya Lokshina of Human Rights Watch, a watchdog. The Kremlin need not engage in mass repression: targeted arrests are enough to spread fear. A human-rights activist was charged this week with failing to comply with a law on "foreign agents". Last week the FSB pressed a library in St Petersburg to stop hosting a popular lecture series. Nikolai Solodnikov, one of the organisers, said the FSB saw it as "extremist activity aimed at undermining social stability".

Report thy neighbour

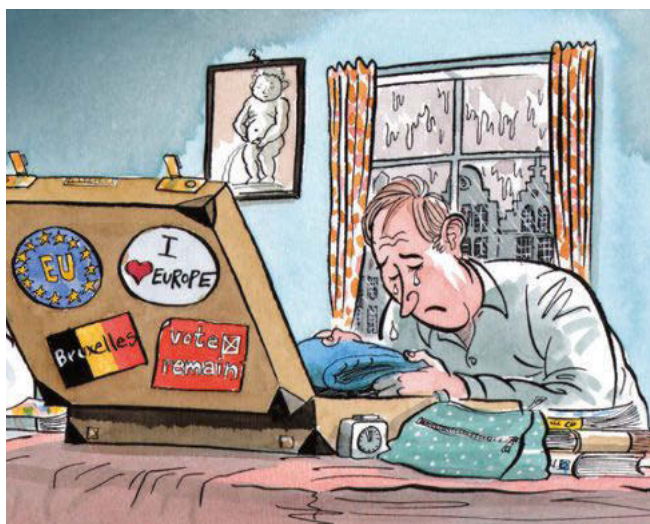
At United Russia's party congress a few days later, Mr Putin warned of the threats facing the nation ahead of the elections: "Direct betrayal of the country's interests...born out of nothing more than a desire to destabilise the situation, divide society and claw a way to power".

Mr Putin has long portrayed dissidents as traitors. He may now be gearing up for a purge. His popularity ratings and dominance of Russian politics has always depended on keeping the public occupied with televised news dramas, pitting his regime against a succession of enemies. Previous such dramas have included the war in Ukraine and the bombing of Syria. Pursuing internal enemies and purging the ranks of local governors and officials may be the Kremlin's way of giving audiences a fresh storyline. In a video of Mr Belykh's arrest which the prosecutor's office released (before hurriedly taking it down), a voice behind camera can be heard saying: "We've already written the script." Mr Belykh replies: "You wrote it badly." ■



Charlemagne | And shut the door behind you

Everyone feels the pain of Britons in Brussels. But the sympathy won't last



IN THE prelapsarian days before Britain kicked itself out of the European Union, a charming campaign called “Hug-a-Brit” was waged in Brussels. Designed to convince wavering British voters that they were wanted in Europe, it was only after the referendum that the idea took hold. Since that difficult day Brits in Brussels have been love-bombed by their European counterparts. Colleagues from countries with long histories of bloody tyranny have showered sympathy upon British friends for their country’s self-inflicted wound. Thoughtful Romanians stand ready to adopt British “Remainians”. Greeks, who endured their own referendum-related traumas one year ago, have been especially understanding. Rarely has your columnist felt so appreciated.

Yet if Britain’s citizens are now the subject of pity abroad, its government has become a target for contempt. There is a hint of steel to comments from some officials, particularly French or Italians. We feel your pain, they say, but if you’re leaving do not linger. Such sentiments have slipped into the speeches of hawkish EU officials. When Jean-Claude Juncker, president of the European Commission, slams David Cameron, Britain’s departing prime minister, for reaping the fruits of years of Euroscepticism, his words find a ready audience across Europe.

Perhaps, then, it is no surprise that it has not taken long for Brussels to be bleached of British influence. A day after the referendum result Jonathan Hill, Britain’s commissioner, resigned. Mr Cameron says he will appoint a replacement, but Mr Hill’s financial-services portfolio has already been reshuffled; his successor can perhaps look forward to a temporary job managing paperclip distribution. MEPs warn that English may no longer be the *lingua franca* of European business. The thousands of Britons who work for EU institutions fear for their futures; even if they are allowed to stay on beyond Brexit, they can wave goodbye to promotions.

Eurosceptics will shrug all this off. Britain is a bit-player in Brussels, they say. Its ministers are always on the wrong side of votes, the euro zone can gang up on everyone else and the EU is turning into a federal superstate with a power-crazed Germany bossing everyone else around. And as for those British Eurocrats, it’s about time they got proper jobs.

In recent years Britain’s influence in Brussels has indeed diminished. This is partly the work of the euro and refugee crises,

neither of which touched Britain directly but which consumed vast amounts of everyone else’s political energy. It is also the result of bad decisions by Mr Cameron, including an ill-chosen battle over Mr Juncker’s appointment, and a general diplomatic disengagement. The steady dwindling of Britons in the upper ranks of the commission, the institutional heart of the EU, has reduced British reach; Brexit will accelerate the decline.

But draw the camera back and a different picture emerges. The EU may have been formed to bind France and Germany together but in its later decades it has been shaped at least as much by British values, ideas and vigour. Its ambitious expansion eastward, the steady construction of an integrated single market, the focus on international trade—all EU projects that improved the lives of millions and were made in Britain. And yet during the referendum the Remain camp never fully advanced this case, perhaps because it was felt that Brussels-boosting was not a vote-winner.

At their Brussels summit this week the EU’s leaders quickly arrived at a common line: Brexit must be Britain’s problem, not Europe’s. It is the British economy that will suffer, its currency that will slide, its politics that have already been turned upside-down. (The grisly sight might also help deter Eurosceptics elsewhere.) Some Europeans are even starting to dream again: Matteo Renzi, Italy’s prime minister, told his parliament this week that Brexit offers the beleaguered EU a chance to reset itself. Without the Brits blocking the tracks, the European train can puff back into gear.

Perhaps. But there is another side to the story. A Europe with the Britain sucked out of it will take a distinctly *dirigiste* turn, warns Toomas Hendrik Ilves, Estonia’s president. Its ambitions on trade, the digital single market and energy—precisely the sorts of programmes the low-growth EU ought to be focusing on—will shrink without their largest champion, and the band of smaller liberal northern countries who have traditionally looked to Britain for a political steer will find themselves exposed to the protectionist instincts of the southerners. Add to that the time, resources and energy that will be poured into the extraordinarily complex task of disentangling the two partners of this 43-year-old relationship, and it becomes clear that Brexit is good for no one.

Brexit on ice

It may be for this reason that Project Denial is in full swing throughout Europe. When the moment comes, say some, no British prime minister will pull the trigger pointing towards his or her head. Others wonder if a lifeline might be thrown to Britain in a year or two; perhaps a concession on migration could be sold to voters in a second referendum. Meanwhile Brexiters such as Boris Johnson, a possible successor to Mr Cameron, persist in the illusion that they can secure an exit deal for Britain that contains everything they want, including access to the single market, and nothing they dislike, such as free movement for EU workers.

Europe’s other leaders laugh at that idea. Perhaps they suffer from ideological rigidity; perhaps they are defending core European values. Either way, it illustrates the gulf of mutual incomprehension that has finally doomed this gainful but troubled relationship. Alas, there will be lots more misunderstanding in the years ahead, as Britain attempts to extract the maximum advantages from its withdrawal and the remaining countries close ranks. The best hope for both sides is that they can reach an arrangement that resembles but falls well short of what they have left behind. That will be a sad requiem for a partnership that once promised, and delivered, so much. So don’t forget to hug a Brit. ■



Also in this section

51 The Disunited Kingdom

51 Brexit busts business

52 Cornwall and the EU

53 Bagehot: Brexitland versus Londonia

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Post-Brexit politics

Shifting sands

Britain's political parties plunge into crises of leadership—and philosophy

“THE will of the British people is an instruction that must be delivered.” With these words David Cameron, flanked by his wife Samantha, announced his resignation on the morning of June 24th. There followed a vacuum. For a couple of days, neither the prime minister nor any of his colleagues had anything to say. George Osborne, the chancellor of the exchequer, was silent. Chaos reigned. The pound tumbled. Firms reviewed their positions.

The situation has since stabilised. But Britain is nonetheless living through a period of turmoil. Both main parties are now picking new leaders. In the Conservative fold, Mr Cameron is a lame duck; his replacement will be appointed by September 7th. In the Labour camp Jeremy Corbyn has been rejected by three-quarters of his MPs and is clinging on. Britain's party structures are straining, and may not last.

Boris Johnson, a Conservative former mayor of London, was the first out of the traps after the referendum. He had backed Brexit, probably opportunistically: Tory party members are Eurosceptic and will choose the next leader of the party from two candidates shortlisted by MPs.

Yet many Tories doubted Mr Johnson was up to the job. His spell in City Hall was marked by a lack of attention to detail, poor management and a tendency to say what a given audience wanted to hear. In recent years he has swung wildly between Europhilia and Euroscepticism.

For that reason Michael Gove, the Brexit justice secretary, announced on June 30th that he would stand, citing doubts

about the former mayor's abilities. Many had expected Mr Gove to back Mr Johnson. Instead, his decision to enter the race caused Mr Johnson himself to announce hours later that he would not run. That will surely benefit Theresa May. The home secretary is competent and serious, if dull. A poll by YouGov on June 29th put her fractionally ahead of Mr Johnson among the electorate. She backed Remain, but stayed quiet about it during the campaign and melds a certain social liberalism (she backed gay marriage before most of her colleagues) with an authoritarian streak (she clamped down on immigration, making it harder for foreign students at British universities to stay in the country after graduating).

Then there is Stephen Crabb, the wel-

fare secretary. He is backed by Sajid Javid, the free-market business secretary. Both have impeccable personal stories: they grew up in tough circumstances and are self-made men. Yet Mr Crabb is unlikely to make the final two.

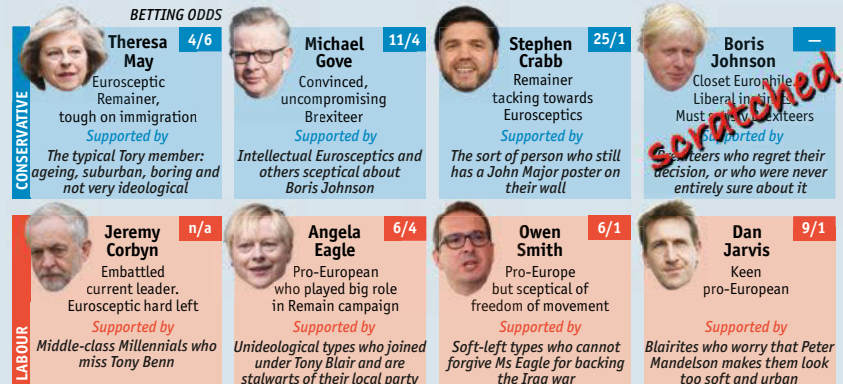
Meanwhile Labour is tearing itself apart. On June 28th Mr Corbyn lost a vote of no confidence among Labour MPs by 172 to 40. He is facing a leadership challenge, probably led by Angela Eagle, the former shadow business secretary, who has resigned, along with two-thirds of her shadow cabinet colleagues, in protest at their leader's incompetent leadership and tepid role in the anti-Brexit campaign.

Whether Mr Corbyn survives depends on whether he makes the ballot. Without nominations from his MPs, his best hope is that the party's lawyers will rule that he has an automatic place on it (the rules are vague). If he clears this hurdle he may win. That would surely produce a formal split, with moderate MPs declaring independence and electing their own leader.

In other words, Britain's political spectrum is in flux. The left-right system is giving way to something different. For that reason the Liberal Democrats (who have ▶▶

Who will take back control?

BETTING ODDS



Source: William Hill

laid claim to the pro-EU mantle) and the UK Independence Party (now poised to soak up popular resentment at the compromises Britain's negotiators must reach) are upbeat. The former claims its membership has risen by 10,000 since the referendum.

Eventually the two main parties will sort themselves out. Labour may split into a pro-market, pro-EU social democratic party and a hard-left, Eurosceptic one. The Tories may end up focusing on Leave voters, and on putting UKIP out of business. Or they may seek to play up their pro-EU credentials and pitch for the centre ground. That depends on the Brexit negotiation process, and how complete a separation is agreed. In any case, the identity crises of its parties, and the uncertainty of its future role in Europe, will intermingle and influence British politics for years to come. ■

The United Kingdom

Fragmentation nation

BELFAST AND EDINBURGH

The vote to leave the EU spells trouble for Scotland and Northern Ireland

FEW of the English people who voted to leave the European Union on June 23rd considered that in doing so they might trigger the break-up of another union: their own. Supporters of the EU in Scotland and Northern Ireland—both of which returned healthy majorities for Remain—are unhappy at being dragged out of Europe by the English. Some now believe the best remedy would be to leave the United Kingdom.

Scotland's Nationalist government argues that Brexit provides grounds for a second independence referendum. One reason why 55% voted "no" to independence in the last one, in 2014, was the claim that remaining in Britain was the only way Scotland could stay in the EU. In fact, remaining within the UK has turned out to be a ticket out of Europe. Polls over the past week suggest that some 54-59% of Scots now support independence.

Yet Nicola Sturgeon, the leader of the Scottish National Party and Scotland's first minister, is in no rush. Her aim, she told the Scottish Parliament on June 28th, is to "protect Scotland's relationship with, and place in, the EU" and to secure "continued access to the single market". She knows that, as happened with Quebec's push for independence from Canada, losing a second referendum would be fatal to her cause. The slump in the oil price means the financial arguments for independence are weaker than in 2014. Severe austerity would be needed to reduce a deficit of 9.7% of GDP. And an independent Scotland might not inherit Britain's EU opt-outs and

would thus have to join the euro.

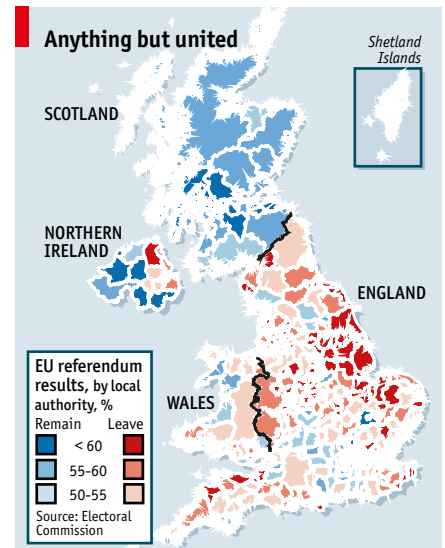
So Ms Sturgeon has a two-track strategy: try to get Scotland a deal with the EU to secure the free movement of goods and people, and at the same time prepare for another independence referendum which, she says, is now "highly likely". She is doing this with her customary political skill, in stark contrast to the floundering of party leaders in Westminster. She has reached out to Fabian Picardo, the chief minister of Gibraltar, a British dependency on Spain's southern tip, where 96% voted to Remain, and Sadiq Khan, the mayor of London, another pro-EU stronghold. Yet Spain and France have made clear that they oppose the EU negotiating with Scotland. "If the UK leaves, Scotland leaves," said Mariano Rajoy, the prime minister of Spain, who has no desire to embolden Catalan separatists at home.

Much will depend on the kind of deal that Britain does with the EU. Under a Norwegian-style arrangement, allowing the free movement of people, an independent Scotland could be a full member of the EU without needing to set up a hard border with England—something few Scots would want, since Scotland exports four times as much to England as it does to the EU. At the same time, however, such a deal might dampen calls for independence, since a Norwegian deal would not harm Britain's economy as badly as would total isolation from Europe.

Twelve miles across the Irish Sea, Brexit is causing other problems. In Northern Ireland, 56% voted to remain in the EU. Most of the support came from Nationalists, largely because EU membership strengthens the north's links with Ireland.

Following the result Sinn Féin, the main nationalist party, immediately called for a referendum on Northern Ireland's reunification with the south, a move that was ruled out by London and Dublin. Yet Brexit presents many other problems. If Britain exits the EU and ends the free movement of people, the hard border between north and south could come back. The psychological and practical impact of reinstating checkpoints would be great on both sides. And the region would lose not just cross-border trade and EU farm payments but billions of pounds of other EU grants that have helped build a foundation for peace.

The Good Friday Agreement, the 1998 deal in which Northern Ireland's peace process was underpinned by the EU, was predicated on free movement between north and south, part of a compromise that persuaded those on both sides to put down their weapons. The moment that Britain leaves the EU it will be in breach of that agreement, which sets out how the governments in Westminster and Dublin are to co-operate in matters pertaining to Northern Ireland. It is "inconceivable" that Sinn Féin, the main nationalist party,



would not make representations to the UN, says Jonathan Tonge of the University of Liverpool.

The power-sharing Northern Ireland Assembly, which is still in reasonable shape despite years of crises, must now be protected. It will face many challenges in any post-Brexit world because of the possibility of new Anglo-Irish tensions, border-security issues and threats to the economy. Northern Ireland is facing its most delicate political moment in years. It will require the full attention of the new British prime minister—whose attention, of course, will be entirely elsewhere. ■

Brexit, business and the economy

Sifting through the wreckage

As firms mull a move to the continent, policymakers' options are limited

ONE of the first results to be declared on referendum night was that of Sunderland, in north-eastern England. Remarkably, 61% voted to leave the EU, despite the fact that 7,000 local jobs depend on the city's Nissan car plant, which exports just over half its cars to Europe. Nissan had warned about the risks to carmaking in Britain if the country were to leave the EU, but few listened. It summed up a disastrous night for business and the economy.

Cars are not the only industry at risk. Banks are talking about moving jobs abroad (see page 63). Airlines are charting new courses: Ryanair will divert \$1 billion of investment in new aeroplanes from Britain towards the rest of the EU, and Wizz, a Hungarian rival, says it will make no more investments in Britain after the winter.

Pharmaceutical firms are nervous. ►

▶ Brexit would restrict access to European research funds worth \$1 billion. Stéphane Boissel, the boss of TxCell, a French biotech company, says he will no longer team up with British researchers, for fear of losing EU funding. The drug industry will suffer from stricter immigration policies. In Cambridge, one-third of researchers are foreign nationals. Much regulatory work in pharma is undertaken by the European Medicines Agency, an EU body based in London—though perhaps not for long.

An index of big housebuilders has fallen by one-tenth in the past week. Their shares were due a correction: the house-price-to-earnings ratio is over seven to one, well above the long-term average. But they may struggle to find housebuyers as consumer confidence dwindles. The collapse in their shares is consistent with a 5% fall in house prices next year, based on historical data, according to Samuel Tombs of Pantheon Macroeconomics, a consultancy.

Everywhere companies are drawing in their horns. The Institute of Directors says one-quarter of its members plan to halt recruitment, and 5% plan redundancies. Adzuna, a jobs website, had one-quarter fewer new listings the Monday after Brexit than it had the previous week.

As businesses pull back, Britain is heading for a Brexit-induced recession in the second half of this year. Standard and Poor's, which downgraded Britain's credit rating on June 27th, forecasts a "significant slowdown" in 2016-19. The difference between yields on short- and long-term government bonds has narrowed, suggesting that investors think that the economy will slow and that the Bank of England will cut short-term interest rates.

This may seem surprising: following the sharp depreciation of the pound—down by one-tenth over the week—imports will get more expensive, and inflation may breach the bank's 2% target. That would argue for higher rates, which might also help sterling recover. But a one-off depreciation in sterling would generate only a short-term jump in inflation, points out George Buckley of Deutsche Bank. The Bank of England's rate-setters have ignored this sort of inflation before.

There is little room for manoeuvre. The base rate is 0.5%, the lowest on record. In the past the bank has been sceptical of pushing rates into negative territory, fearing financial instability: negative rates pose a threat to building societies, which are almost entirely funded by deposits and whose assets are mainly mortgage lending. So the bank may once again deploy quantitative easing (or QE, meaning printing money to buy bonds). Analysts at Barclays Bank foresee a round of QE worth £100 billion-150 billion (\$134 billion-202 billion), on top of the £375 billion of QE that the bank has conducted in the past. The bank could also expand the "funding for lending"

scheme, which offers cheap money to banks if they boost credit to the "real economy"—that is, firms actually making things, as opposed to fancy finance.

Brexit will whack the public finances, forcing the government to raise taxes and cut spending, sucking further demand from the economy. Its self-imposed "fiscal charter" obliges it to balance the books by 2020. If growth falls below 1%, as is likely, then the chancellor is allowed to loosen the purse strings. But Britain's deficit is already 4% of GDP; widening it may unnerve skittish financial markets. What would help the economy more than anything is clarity. That may be a long time coming. ■

Cornwall and Europe

I owe EU

REDRUTH AND TRURO

Why did the region that benefits most from EU membership vote against it?

REDRUTH, a hardscrabble town of 14,000, was once at the heart of Cornwall's mining industry. It sat atop the most bountiful earth in the "old world", a local museum boasts: to the east, the "Copper Kingdom" of Gwennap; to the west, the Central Mining District. The county was hit by the collapse of mining in the 1980s, and few areas suffered as much as Redruth. It is still among the poorest places in Europe.

That has made it eligible for hefty support from the European Union. In 2007-13 the EU poured €654m (£534m or \$890m) into Cornwall; another €600m or so is due by 2020. The county is the only part of England to qualify for "convergence funding", which goes to places whose income per person is below 75% of the EU average. The money has helped to pay for roads, a university and high-speed internet.

Yet on June 23rd 57% of voters in Cornwall opted to leave the EU. Local business owners are "shell-shocked", says Kim Conchie, head of the Cornwall Chamber of Commerce. Many feel let down by their

MPS, almost all of whom supported Brexit. Some businesses have stopped recruiting amid the uncertainty. The council has begged for funding to continue (to some scorn from parts of the country that voted to Remain). As a holiday spot for rich urbanites, Cornwall may look affluent. But "there are areas of great deprivation", says John Pollard, the council's leader.

Steve Double, a local Conservative MP and Brexiteer, remains sanguine. He notes that leading Leave campaigners pledged that post-Brexit there would be enough money around to match EU support, at least until 2020. Others point out that the same funds have been promised elsewhere. Most reckon that European money comes with fewer strings attached, takes a longer-term view and is less reliant on political patronage than Westminster cash. "We've bitten the hand that feeds us," decries one business owner.

Yet when asked if they are worried by the consequences of Brexit, Cornish voters demur. The economic situation isn't a big concern, says one pensioner, since "in two years' time it will all be ironed out anyway." Some reckon the area will benefit from the removal of EU fishing quotas and from no longer having to fund high-living Eurocrats. They are unconcerned by warnings from on high: "Everyone is fed up with scaremongering from the government," complains Harvey Weeks from behind the counter of a greengrocer's. Those who are worried tend to be those who voted to Remain. Waking up on Friday, "I just thought, 'My God, you stupid bastards, you've gone and done it!'" says one shopkeeper.

As elsewhere, much of the debate was about immigration. Cornwall has few migrants, admits Mr Double, but people have been warned by those who moved in from other parts of the country, he claims. Demography partly explains Cornwall's enthusiasm for leaving: its population is old (24% are over 65, against 18% nationwide) and fewer than average have a university education. Some reckon a sense of Cornish separateness also played a role. "The Cornish are quite anarchic," says Mr Conchie. They "took the opportunity to give the elites a damn good kicking". ■



Cornish pasties

Bagehot | Brexitland versus Londonia

Britain increasingly looks like two countries, divided over globalisation



NOWHERE in Britain voted for Brexit as keenly as Boston. On June 23rd 77% of the Lincolnshire town's eligible voters participated in the referendum, fully 76% of them voting to quit the EU. Why? One explanation is obvious. On the train from Grantham, rattling through the big-skied cabbage fields towards Boston, four young men swigging from beer cans joked about its reputation: "You are now entering Boston, one of the worse places in the country for immigration," said one in a silly voice, adding: "That's what you would say if you were a tour guide, wouldn't you?" The town has a higher proportion of EU incomers among its population than any other in Britain (13%), mostly Poles and Lithuanians who work on the surrounding vegetable farms.

In the marketplace, or "mart" in local slang, no one would talk Brexit without mentioning immigration. "I have a family that comes here, they don't speak a word of English," one stallholder told Bagehot. "Rents are going up, schools, hospitals," riffed Ann, a pub landlady. Several drinkers in The Eagle talked of petty crime and reckless driving: bangers with Polish plates bombing along the Fen roads, their drivers clipping the boggy curbs and flipping into drainage ditches.

Seen from this perspective, the vote for Brexit looks like—and to some extent is—a cry of fury by those who have borne the burden of European integration without benefiting proportionally from its advantages. In the words of Sue Ransome, a councillor for the UK Independence Party, people have "had enough with the huge numbers" as there has been "no money for infrastructure as a result of mass migration". Two old codgers chatting on the edge of the mart reckoned everything would change: "We'll get £1 billion back just from the European Parliament alone."

Yet even here, in what newspapers hyperbolically call the most divided town in Britain, Euroscepticism is about more than the transactional costs of immigration. It goes beyond rents and hospital beds. It is unmistakably cultural; ineffably emotional. That side of the story has two parts that define those places that voted for Brexit, whatever their level of immigration.

The first is a sense of decline. "What a shithole!" hooted one of the lads on the train as it pulled into Boston. That was unfair. The town's centre is beautiful, faintly Dutch (for centuries these parts had closer links to the Netherlands than the rest of England); the

medieval spire of St Botolph's church ("the Stump") soaring above Boston's roofs like something from a Van Eyck painting. But the place has seen better days. At £21,500 (\$29,000), the median annual wage is about 80% of the national average. Seven out of ten people are educated only to age 16. The docks are sleepy. Musty memories of better times perfume the town like the whiff of the brassicas.

The second is a feeling that the world is increasingly unknowable and uncontrollable. In Boston, it is true, this is partly to do with the sudden materialisation of new languages on the streets, of new shops and cafés with names like "Polski Sklep" and "U Ani". Locals recall the apocalyptic noise when, in 2011, an illegal vodka factory on an industrial estate blew up and killed five. But it also has to do with the wider world: fears of terrorism, the erosion of national identity, the erasure of borders, politicians in the grip of shadowy international forces (not for the first time in recent weeks, your columnist was informed that Goldman Sachs pulls the strings). The Leave campaign won because it harnessed these fears: "It's time we took back control," said Harold, a Brexit-voting pensioner, echoing its endlessly parroted slogan: "Vote Leave. Take Control."

This potent cocktail—a sense of nostalgia and a thirst for the stable and knowable—defines the 52% of Britons who voted to leave the EU. According to polling by Lord Ashcroft, a Conservative peer, opposition to multiculturalism, social liberalism, feminism, the green movement, the internet and capitalism all translated into votes for Brexit. Leavers distrust experts and politicians. Their main motivation was "the principle that decisions about the UK should be taken in the UK". They are older, poorer and less educated than average; they live in rural areas and provincial towns like Boston, Rotherham and Clacton. Call it "Brexitland".

Just as those who have lost out from globalisation, or at least believe they have, are newly motivated by cultural politics, so too are those in the Remain camp, 4m of whom have signed a petition calling for a new referendum. The 48% who opposed Brexit tend to be young, well qualified, socially liberal and relatively confident in the global order. They are concentrated in London and other cities that share the capital's thrusting dynamism, like Bristol, Manchester and Cambridge. Call these "Londonia".

Londonia calling

Britain, then, is now two nations. And the gap between them is not just more salient; it is expanding. Using data from the British Election Study, Will Jennings and Gerry Stoker of the University of Southampton have shown that the rift between "cosmopolitan" and "backwater" places has grown since 1997: on everything from immigration and equal opportunities to national identity and trust in politics, Clacton and Cambridge are drifting apart.

Bagehot suspects this cultural divide will now define British politics. After 150 years, the left-right axis no longer provides a natural structure for debate and conflict. Margaret Thatcher, with her credo of mass ownership, dug its grave. Tony Blair, abandoning the Labour Party's commitment to common ownership, read its last rites. June 23rd may go down in the history books as the moment the doctors switched off the ventilator. The debates unleashed by that vote—What sort of EU deal should Britain seek? What status should immigrants have? Is Britishness still an inclusive identity?—will dominate the country's politics for years, maybe decades. Where once the essential battle was capital versus labour, now it is open versus closed. Get used to it. ■

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Urban sprawl

Bourgeois shanty towns

DAR ES SALAAM AND HANGZHOU

The great cities of Africa and Asia are spreading fast, and in bizarre ways

INSIDE, Essa Mwaitulo's house on the edge of Dar es Salaam is the picture of middle-class African domesticity. The sofas are luxurious; the curtains are golden; the walls are shocking pink; the floor, on which Ms Mwaitulo's daughter has crashed out, is polished stone. "We are free, actually," she says contentedly, sounding like anyone who has ever moved from a rented city-centre flat to a suburban house of her own. "I can do whatever I want."

Step outside, though, and the impression of harmony and control dissolves. The scene around Ms Mwaitulo's house in Mikwambe is chaotic. Houses are rising higgledy-piggledy. Many are half-finished and look abandoned, although they are not: one has no floor and a tree growing inside. What appears to be a small village square turns out to be a plot on which the owner has not yet got around to building. The neighbourhood has only one paved road, no central water supply and no sewer. It is a kind of bourgeois shanty town.

A huge and growing number of people live somewhere like Mikwambe. Between 2005 and 2015 the world's cities swelled by about 750m people, according to the UN. More than four-fifths of that growth was in Africa and Asia; specifically, on the fringes of African and Asian cities. With few exceptions, cities are growing faster in size than in population. Lagos, the capital of Nigeria, is typical: it doubled in population

between 1990 and 2010 but tripled in area. In short, almost all urban growth is sprawl.

In some ways African and Asian cities are following American and European ones. London, Paris and New York all sprawled in the 19th and early 20th centuries while their inner-city slums hollowed out, as though giant hammers were beating the cities from above. The population of Paris increased almost 20-fold between 1800 and 2000 as the metropolis expanded more than 200 times. Commentators wrung their hands: London was likened to an invading army and a giant octopus.

Not like Levittown

Next to today's fast-growing cities, though, it was a rather tame octopus. London took two millennia to grow from fewer than 50,000 people to almost 10m; Shenzhen in China managed that within three decades. And most African and Asian cities are growing more chaotically. Although no two are quite the same, their suburbs tend to be unplanned, with scant space for roads, let alone public parks. Many new suburbanites have a weak claim on the land they build upon. To planners the sprawl seems haphazard, and it has bad consequences, especially in Africa. But it has a logic of its own, and in any case cannot be wished away. Like it or not, this is how the great cities of the 21st century are taking shape.

Dar es Salaam is a case in point. The British governors who ran Tanzania (then called Tanganyika) until the 1960s envisaged it as a small, orderly city. With 5m people, population growth of more than 5% a year and some of the world's worst traffic jams, it is now neither of those things. And the colonial rulers made another assumption, with great consequences for the modern metropolis, says Wolfgang Scholz of the Technical University in Dortmund. The city was to be planned, with Western-style owner-occupied homes on large plots, at least in the European areas. The countryside beyond was to be unplanned and African, with property owned collectively.

Dar es Salaam has swelled so much that almost all building is now in what is technically countryside. Land there can be bought and sold, but only informally; commercial developers will not touch it. The buyers, largely families moving out of the city centre, cannot encumber land that they do not truly own, so they cannot obtain mortgages. They build slowly, adding bricks when they can afford them. The urban fringe is littered with "almost houses" and shops selling building supplies. Ms Mwaitulo's house, which was financed partly by personal loans, was built in four years—fast by local standards.

If house-building is slow, installing roads and other infrastructure is much more so. When Ms Mwaitulo arrived, Mikwambe was always dark at night. Homes now have electricity but little else. She gets water from a private borehole and sells some to neighbours. Residents cut informal deals over public space. Aisha Hassan, a farmer who sold most of her land but still lives in Mikwambe, says she asked the homebuilders who bought from her to leave space for a road. The narrow track will be woefully inadequate when the ►►

▶ neighbourhood fills up with car owners.

It is a typical arrangement. Shlomo Angel of New York University has studied seven African cities in detail: Accra, Addis Ababa, Arusha, Ibadan, Johannesburg, Lagos and Luanda. He calculates that only 16% of the land in new residential areas developed since 1990 has been set aside for roads—about half as much as planners think ideal. And 44% of those roads are less than four metres wide.

“First the people come, then the development comes,” explains one resident of Mikwambe, a teacher in a madrasa. To an extent this is true. As the suburbs of Dar es Salaam fill up, their residents will gain officials’ ears. But retrofitting chaotic districts with roads and sewers will be slow, hard and pricey: some homes must be knocked down and their owners compensated. Dar es Salaam’s new suburbanites are less secure, and less free, than they believe.

Urbs in rure

Almost 10,000 km away, in the Chinese province of Zhejiang, another city is spreading. Working the till at a petrol station not far from where she grew up, Chen Xiaomei remembers how, two decades ago, most of Xiaoshan was farmland inhabited by peasants who seldom travelled to the city of Hangzhou, about 20km away. Now Xiaoshan is a sprawling suburb which grew from 1.77m people in 2005 to 2.35m last year. It looks nothing like Mikwambe; nor does it remotely resemble a European or American suburb.

Homes in Xiaoshan are a mixture of grubby apartment blocks and grandiose four- and five-storey homes decorated in joyous combinations of pastel colours. Locals call these “villas” and many feature European gabled fronts or Chinese pagoda roofs (or both). They are connected to the electricity grid, the sewer system and the road network. Roads account for fully 29% of land area in the newly developed suburbs of Hangzhou, according to Mr Angel.

The western edge of Xiaoshan even has a subway line.

For the past two decades Zhejiang’s economic performance has been among the best in China. Hangzhou’s GDP per person reached \$17,000 last year—more than double the national average. Local people who abandoned farm work for city jobs have grown richer, as have migrants from elsewhere in China. Yuan Hong, one of many people who migrated to Xiaoshan from Anhui province, north-west of the city, came to open a small electronics factory in 2004. His pot belly and the gold chain around his neck testify to its success, as does his four-storey house with an exterior of baby-blue tile.

Xiaoshan looks fairly orderly. Most roads follow a grid pattern, and buildings line the roads. Close to the urban core it has sprouted factories, car dealerships and the odd high-end apartment block. (“Money and cars,” says one shopkeeper. “That’s what we have here.”) On the fringes, though, Xiaoshan is taking on a deeply strange form. Behind the lines of tightly packed houses and apartment blocks are large fields divided into strips. A lattice of urbanity has been overlaid on an agricultural landscape.

Xiaoshan is hardly a farming titan: vendors at a nearby market say their produce is trucked in from elsewhere. The fields remain because government policy makes it hard to convert farmland into housing. So residents build their homes as large as they can and rent rooms to city workers for extra income. Although it would have been roundly condemned as ideological heresy in the days of Chairman Mao, Mr Yuan chuckles at the suggestion that peasants have become landlords. “Yes,” he says, “I suppose you could put it that way.”

Though prices have wobbled in the past few years, housing in Hangzhou is expensive. Residential floorspace sold for an average of about 16,000 yuan (\$2,400) per square metre last year, roughly double the

going rate in Hefei, a lower-tier provincial capital in Anhui. As a result, the pressure on land is enormous. Some people in Xiaoshan admit to having built on open land without permission, knowing that they face the risk of demolition without compensation if enforcement toughens.

So Xiaoshan is not as different from the fringes of Dar es Salaam as it appears. In both, rural areas are turning urban far faster than planners expected, making land-use laws seem ridiculous. Yan Song, who follows Chinese city planning at the University of North Carolina, says that until recently many Chinese cities were spreading because of administrative and zoning changes pushed by the central government. These days much pressure comes from below, driven by the desires of mobile people. Urban sprawl is slipping out of the government’s control.

The suburbs of Europe and North America, with their well-ordered streets and parks, increasingly seem like exceptions to the global rule. They emerged in strange circumstances: property rights were strong and rural estates were large enough to allow big housing developments. A few suburbs in the emerging world resemble them. Nuvali, south of Manila, is inspired by Irvine in California; Beijing even has a development called Orange County. But such clones tend to be for the rich, whereas the whole point of Western suburbs is that they provided middle-class people with the space and privacy once available only to the elite.

Perhaps the biggest difference is that Western suburbs emerged fully formed. Willingboro Township, on the edge of Philadelphia—the classic American suburb that Herbert Gans wrote about in “The Levittowners”—still looks much as it did when it was built in the 1950s and 1960s. Mikwambe and Xiaoshan cannot but change drastically over the years. They are opening gambits in a long, unpredictable urban game. ■

Patterns of sprawl

Diagrams of representative suburbs



Source: Google Earth



Europe v America

From clout to rout

Why European companies have become a fading force in global business

IT FEELS indelicate to raise it at a time like this, but European business has a bigger problem on its plate than Britain's decision to leave the European Union. After a decade of stagnation the continent's firms have suffered an alarming decline in their global clout. Europe's slide down the corporate rankings has been brutal, even before the market rout in the wake of Brexit. Of the 50 most valuable firms in the world, only seven are European, compared with 17 in 2006. No fewer than 31 are American, and eight are Chinese (few other emerging-market firms are really big yet). It's past time that Europe's bosses, investors and governments paid attention.

At the turn of the century it seemed natural that European firms would compete head to head with American ones, dividing the world between them, especially given that Japan's once-aggressive multinationals were in retreat. In the following years Europe's weight rose, relative to America's, measured by the profits and value of listed firms. It peaked before the financial crisis (see chart 1 on next page).

How things have changed. The seven European firms that do make the cut are often oddities: three are Swiss, suggesting there really is something special about mountain air and rösti; another, AB InBev, a beer firm, is run by Brazilians who happen to have picked Belgium for their main share listing. The continent's traditional heavyweight champions have become middleweight journeymen. In Britain BP, HSBC, Vodafone and GSK have all slid to the middle of the global rankings of their

respective industries. So too have France's equivalents: Total, BNP Paribas, Orange and Sanofi-Aventis.

A European firm occupies the top spot in only one out of 24 global sectors (Nestlé in food). European leaders are typically much smaller than their rivals across the Atlantic. Unilever's market value is three-fifths of Procter & Gamble's, Airbus is about half as big as Boeing and Siemens is a third of the size of General Electric. Deutsche Bank's market value is a tenth of JPMorgan Chase's. Walmart is ten times bigger than Tesco or Carrefour, two of Europe's largest supermarket chains.

Europe and America have economies of a similar size, but the aggregate market value of the top 500 European firms is half that of the top 500 American firms. Aggregate profits are 50-65% smaller, depending on the measure used. Of these firms, the median American company is worth \$18 billion, with net income of \$746m in the past year. The median European firm is worth \$8 billion and earned only \$440m.

It wasn't meant to turn out like this. In the 1980s corporate Europe was held back by a patchwork of national boundaries, the heavy hand of the state and cross-shareholdings with banks and insurance companies. Starting in the late 1980s new ideas emerged to reinvigorate European business. There was a trend towards privatising industries and making them answerable to investors. There was a push to create pan-European firms that would compete across the EU's single market using, in most countries, a single currency.

Also in this section

58 The diamond industry

59 Web browsers

60 Terms-of-use contracts

61 One China, two consumers

62 Schumpeter: Incrementalism

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And there was a drive to take European firms global, exploiting the historical links of their home countries around the world.

These ideas had an electrifying effect in the 1990s and early 2000s. There were intra-European deals aimed at bulking up that created GlaxoSmithKline, Sanofi-Aventis, TotalFinaElf and Air France-KLM. Other deals aimed for global reach. In Spain, Telefónica, Santander, Repsol and BBVA made huge investments in Latin America, aiming to build a second "home" market. Some went shopping in North America. BP bought Amoco, Vivendi bought Seagram and Unilever purchased Best Foods. Europe even put up a respectable fight against Silicon Valley. As late as 2000 the old continent was dominant in mobile technologies, many of which had been invented there. Nokia, Ericsson and Alcatel were among the most valuable firms in the world.

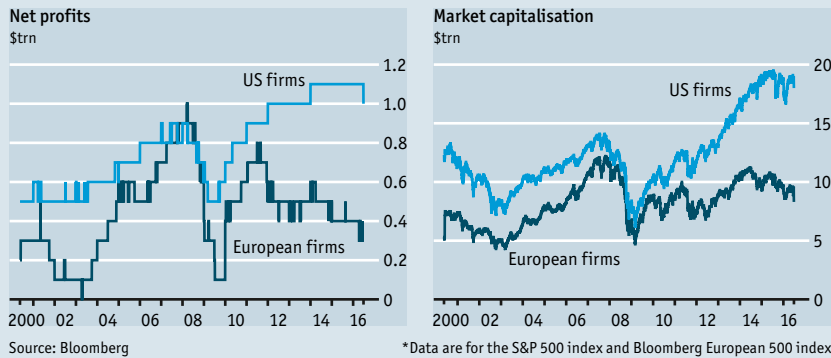
Relegated from the big league

What went wrong? Slow growth in Europe has not helped, and a strong dollar has made American firms' domestic operations more valuable. But four other factors also explain the slide. First, Europe picked the wrong businesses. It focused on old industries such as commodities and steel, and on banking, where new rules have caused a depression in cross-border lending. Europe has gone backwards in technology—it hasn't created any firms of the scale of Facebook or Google. From the early 2000s its tech-and-telecoms incumbents proved to be poor at reinventing themselves, even as American contemporaries, including Cisco and Microsoft, learned how to evolve.

The second explanation is that Europe focused on the wrong parts of the world. The continent's firms are skewed towards emerging markets, which generate 31% of their revenues, according to Morgan Stanley, a bank. For American firms the figure is 17%. As the developing world has slowed, it ►►

Firmly in second place

Performance of the top 500 European firms v the top 500 American firms



▶ has hit corporate Europe disproportionately hard, from banks to cognac distillers and makers of luxury handbags.

Third, Europe stopped doing deals even as the rest of the world continued to consolidate. The share of global deals by European acquirers fell from a third before the financial crisis to a fifth after it (see chart 2). Meanwhile, American firms have continued to bulk up at home, seeking to dominate their huge domestic market.

Last, European managers' less aggressive attitude towards shareholder value may account for the difference in market values between Europe and America. European firms generate a lower return on equity and return less cash to shareholders through dividends and buy-backs. That may explain why for every dollar of expected profits and of capital invested, European firms are awarded a lower valuation.

One response to all of this is that raw size is not the same thing as global heft. Several of America's most valuable firms, including AT&T and Berkshire Hathaway, are largely domestic. Many others are huge as a result of their businesses at home, but weaker abroad. P&G may be far bigger than Unilever, but its emerging-market business is smaller than that of its Anglo-Dutch rival. Germany's medium-sized engineering firms dominate specialised product categories without having multi-billion-dollar market capitalisations.

Yet corporate Europe's waning scale is still a concern. Investment in research and development (R&D) tends to be disproportionately done by multinational firms. Of the world's top 50 R&D spenders only 13 are European (down from 19 in 2006) while 26 are American.

A lack of scale may also make firms vulnerable as takeover targets. GE's purchase in 2014 of most of Alstom, a symbol of French engineering prowess, is a case in point. Of the firms in Britain's FTSE 100 index, about a fifth have received bids in the past three years or are viewed as possible targets, among them AstraZeneca, a drugs firm, BP and IHG, a hotel group. Moreover, American companies have a strong incen-

tive to buy overseas because of tax rules that encourage them to stash cash abroad.

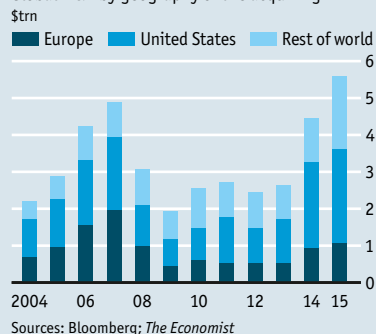
Free-traders may be relaxed about this but foreign ownership could become a political problem. Europe will attract more controversial Chinese deals. Pirelli, an Italian tyre company, was bought by ChemChina in 2015, which is now buying Syngenta, a Swiss seeds firm. A bid for Kuka, a German robot maker, by a Chinese firm has caused a political stink. Europe's fights with Google, over the right to be forgotten, antitrust and tax, are a sign that the continent's emerging status as an American technology colony will not be pain-free.

An obvious response is a renewed push for consolidation within Europe. But such deals are often a nightmare because nationalist emotions boil over. The attempted takeover of BAE Systems, a British defence firm, by Airbus in 2012 collapsed after political arguments; the proposed takeover of the London Stock Exchange by Deutsche Börse could be cancelled after the Brexit vote. The union last year of Lafarge and Holcim, a French cement firm and a Swiss rival, has been mired in rows.

The difficulty of pushing through recent transactions echoes the past. Many careers have been wrecked by pan-European deals. Of the 50 biggest such transactions attempted in the past 20 years, about a third have failed to materialise. The rest have often been bruising to implement.

On the back foot

Global M&A by geography of the acquiring firm



There are some signs of a new wave of European deals. Shell, now the continent's most powerful energy company, bought BG, a rival, in 2015. A few tycoons are reinvigorating the 1990s idea of European empires. Vincent Bolloré, who controls Vivendi, a French conglomerate, is now investing in Italy and wants to create a European media giant to take on the empires of the Murdoch clan and Netflix.

But if it wants to create giants, Europe may have to restrain more than its nationalist instincts—it may have to temper its tougher approach to antitrust, too. The secret of some big American firms is that they have created oligopolies at home. For example, America has allowed broadband provision to be dominated by a few firms, and profits are high. Europe has scores of operators and its regulators have pushed prices and margins lower.

By allowing companies to merge, Europe might be entering a Faustian pact. Helping its firms re-establish global clout could be bad for consumers if competition is diminished. But there is an even worse possible outcome: that Europe's corporate weakness will eventually lead to a defensive protectionism and the continent will close itself off from the outside world. ■

The diamond industry

In the rough

A diamond is for ever. But its allure comes and goes

"I'VE seen grown men with tears in their eyes" in front of it, an auctioneer from Sotheby's said as he opened bidding on June 29th on the 1,109-carat Lesedi La Rona, the biggest diamond to be discovered in over a century. Within minutes the tears were, if anything, of embarrassment. Bidding, which started at \$50m, was desultory. A rough stone that Sotheby's had put in the same league as the 3,107-carat Cullinan diamond, discovered in South Africa in 1905, failed to make its \$70m reserve. "I'm a bit disappointed. There were no private buyers and the diamantaires stayed away," said Lukas Lundin, chairman of Lucara Diamond, a Canadian firm that unearthed the stone in Botswana last year.

It was the latest disappointment to befall an industry that has had little to celebrate. Two days before, William Lamb, Lucara's chief executive, said he believed the auction would symbolise the allure of diamonds and their promise for African development. He hoped to "dispel the rumour that all diamonds are bad". That rock of notoriety has clung to the industry in recent years, especially among the millenni- ▶▶



“Real is rare”, bidders were rarer

► al generation that came of age as evidence of “blood diamonds” emerged from the war in Sierra Leone in the 1990s.

Since 2003, about 75 countries linked to the diamond supply chain have allied with non-governmental organisations in the Kimberley Process (KP), which aims to ban the export of diamonds to fund conflict. It is still considered a badge of honour within the industry, but this year NGOs have boycotted it, accusing the chair country, the United Arab Emirates, of leniency toward the sale of conflict diamonds from the Central African Republic.

Financial stresses are also mounting, especially on “sightholders”, the family-run middlemen who buy rough diamonds and ship them to places like Antwerp and Mumbai for cutting and polishing. Since the financial crisis, banks have come under pressure to ensure they are not lending to businesses associated with money-laundering, transfer pricing and terrorist financing. The publicity-shy middlemen have been caught out by the pressures to improve transparency. “Their corporate structures look like bowls of spaghetti,” says Faz Chaudhri, a diamond-industry consultant.

In June Standard Chartered shut down its \$2 billion diamond-financing business, saying it was beyond the bank’s new “risk tolerance”. De Beers, an industry leader, re-

cently told the 80-odd sightholders authorised to buy its rough diamonds to shed an aura of “secrecy and discretion” and from next year produce consolidated accounts under international standards. It said more than \$12 billion of bank credit would be subject to tighter norms.

The reputational headaches have been compounded by a glut of diamonds caused by a slump in consumer demand in China. That has dragged prices of top-quality cut diamonds down from about \$12,000 per carat to \$7,400 in five years, according to Rapaport-RapNet Diamond Trading Network, a price index.

Against this backdrop, a technological challenge is also emerging that could make it harder for the industry to win over the millennial customers on whom future sales depend. From China to California, boffins are improving their ability to cultivate diamonds in labs. They are looking beyond the billions of carats of synthetic diamonds produced under high temperature and pressure that are used in industries such as oil drilling. Now they are perfecting gem-quality stones for jewellery.

Since last year, California-based Diamond Foundry has been producing lab-grown rough diamonds of a quality almost indistinguishable from those dug up from the ground, produced using chemical-vapour deposition, a technology common in semiconductor factories. In a plasma reactor as hot as the sun, atomised gases produce carbon atoms that attach to the crystal lattice of a natural diamond seed, or substrate, enabling a new diamond to grow. Martin Roscheisen, the firm’s boss, says productivity is the essence; his firm can grow 150-300 gems in a two-week batch, rather than just a handful previously. They can be cut as exquisitely as any diamond and are only slightly less expensive, he says.

The firm seeks to bolster their appeal by attacking traditional miners at their weakest point—ethical sourcing. The impact is more deeply felt because one of its backers is Leonardo DiCaprio, star of “Blood Dia-

mond”, a film released in 2006. Selling its diamonds as “morally pure” should play on the social conscience of millennials. Diamond miners chuckle at the thought of slipping a lab-grown diamond onto an engagement finger as a symbol of eternal love. But Mr Roscheisen says that buyers will at least know where his stones came from (even if it is California). Buyers of mined diamonds will not.

Sales of such diamonds are still minuscule compared with the \$14 billion of rough stones dug up each year. Frost & Sullivan, a consultancy, estimated in 2014 that they could grow strongly, especially as traditional mines are exhausted (see chart). Industry veterans, however, believe that as production soars, values will plummet.

Yet the ethics-based marketing still troubles the industry. It tars all miners with the same brush, possibly unfairly. It also feeds the industry’s insecurity about the tastes of millennials, who may prefer spending on stunning experiences rather than diamonds, and who are taking longer to forge committed relationships. This month, the Diamond Producers’ Association, an industry body, came up with a slogan, “Real is rare,” aimed at such consumers.

This may lack the resonance of De Beers’s “A Diamond is Forever”, one of the great slogans of the 20th century. But, by paying a backhanded compliment to the threat from synthetics, it shows the industry is becoming less complacent. These days, any industry that thinks anything can last forever is ripe for topping. ■

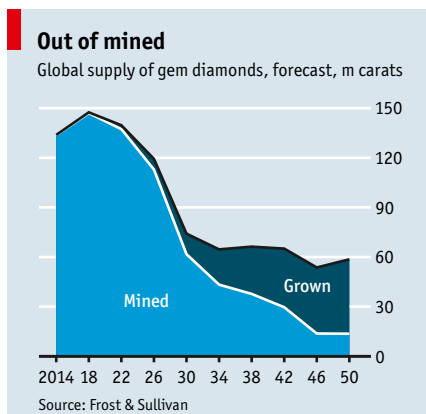
Web browsers

Window dressing

The world’s most popular computer programs are becoming less boring

BROWSERS, pieces of internet software that people probably spend more time with than they do in bed, have long been boring affairs. Save for occasional innovations such as tabs, these programs have remained fundamentally the same since the release of Mosaic, the first mainstream browser, nearly a quarter of a century ago. Just four browsers account for nearly all users: Apple’s Safari, Google’s Chrome, Microsoft’s Internet Explorer and Mozilla’s Firefox. It is difficult to tell them apart.

New, more interesting browsers have started cropping up. In August internet users will be able to download the first full version of Brave, the brainchild of a co-founder of Mozilla. Mozilla itself is working on a new type of browser which will give users suggestions on where to navigate next. Both are only the latest in a series ►►



► of such efforts: last year Microsoft unveiled Edge, meant to replace Internet Explorer; March saw the release of Cliqz, a browser developed in Germany; a month later came Vivaldi.

If most browsers are boring and unwieldy, it is because they are expected to do more than ever before: not just surfing the web, but editing documents, streaming music and much more besides. As a result, priority is given to stability and ease of use. Too many fiddly buttons could scare away novice users. Innovation is outsourced to developers of “plug-ins”, which add features to a browser.

Building a new browser from scratch is a fiendishly difficult and expensive undertaking. Only Apple, Google and Microsoft have the money and resources to throw at developing a fast “engine”, as the core of a browser is called. Their dominance also scares off investors. Few venture capitalists are foolhardy enough to invest in a product that needs to take on three of the world’s most powerful tech companies. Mozilla is a non-profit which partially relies on volunteer developers and donations.

Insurgents are trying to overcome the obstacles in three ways. To reduce development costs, their products are based on existing open-source projects, such as Chromium, which also powers Google’s Chrome. They get money from angel investors, who have an appetite for risk. And most important, they aim their products at niche segments. Brave, for instance, is for surfers who prize privacy. It can block annoying online advertisements and privacy-invading “trackers”, which lurk on websites to follow users around. Cliqz also blocks trackers and is integrated with a new search engine. Vivaldi pitches itself as a browser for “power users”. It is packed with customisable features and comes bundled with an e-mail client.

Such small browser-makers do not need the scale of their competitors to make money (Chrome has more than 1 billion users). Both Vivaldi and Brave say they can break even with a few million users apiece. The easiest source of revenue is search deals. Companies such as Google pay roughly one dollar per user per year to be the default search engine on rival browsers. Vivaldi is also experimenting with charging firms to be featured on its home page. Brave is trying to subvert the dominant online-advertising model: it blocks intrusive advertisements such as self-starting videos, replaces them with less irksome ones and shares the revenues with publishers and users.

The market for browsers has grown large enough to sustain such niche players. But the chances that these small fry will turn into big businesses are low. Most people will continue using the boring browsers—if only because they are too lazy to install a slightly more interesting one. ■

Terms of use

Ticking all the boxes

NEW YORK

A fight over baffling online contracts is heading for the courts

IF A prize were to be awarded for the world’s clunkiest prose, the paragraphs of indecipherable text that make up “terms of use” agreements would surely win. These legal thickets are designed to protect companies from litigious online shoppers and users of web services. Some firms require agreement, as when users are asked to click a box before creating an Apple ID. Other sites explain their policies without seeking customers’ explicit consent. Few consumers read these terms, let alone understand them. Because they involve no negotiation between customer and company, firms often insert language conferring broad protections to lower their risk of liability. But in a new twist, legal disclaimers designed to limit lawsuits are now unleashing litigation.

A surge of lawsuits in America claims that companies’ online agreements violate consumers’ rights. Consumers are banding together in class actions against targets including Apple, Avis, Bed Bath & Beyond, Toys R Us and Facebook. The cases have a tinge of the bizarre, citing a law passed before companies even had websites. And the lawsuits accuse companies of illegally limiting lawsuits, a convoluted argument even by the standards of American jurisprudence. Nevertheless, the litigation could have broad implications for the firms involved and for future class actions.

The suits seek to exploit the Truth-in-Consumer Contract, Warranty and Notice Act, enacted in New Jersey 35 years ago.

This was intended to prevent companies that do business in the state from using contracts, notices or signs to limit consumer rights protected by law.

Trial lawyers only recently began to use the TCCWNA to target online agreements. “All firms that seek to represent consumers are constantly mining different data fields for potential ways consumer rights are being violated,” explains Gary Lynch, of Carlson Lynch Sweet Kilpela & Carpenter, a law firm. James Bogan of Kilpatrick Townsend & Stockton, which has defended companies in class actions, describes the use of the TCCWNA as “very creative”. But class-action lawyers such as Mr Lynch may have struck gold.

The lawsuits vary, but generally include allegations that online terms violate consumers’ rights to seek damages as protected by New Jersey law and fail to explain which provisions cover New Jersey. Unusually in American law, plaintiffs need not show injury or loss in order to sue but merely prove violation of the TCCWNA. Moreover, the lawsuits are aimed not only at firms headquartered in New Jersey but all manner of companies that merely do business in the state. Gavin Rooney of Lowenstein Sandler, another law firm, counts about 40 TCCWNA cases in the recent surge. What is more, the TCCWNA entitles each successful plaintiff to at least \$100 in damages, plus fees to lawyers and so on. If a website has millions of visitors, the costs to a company could be staggering.

Whether the lawsuits will succeed is unclear. Whatever the outcome of individual claims, the barrage of litigation will probably prompt firms to adjust their online terms. “Don’t overreach” Mr Rooney advises clients. For example, a company might no longer add words to terms-of-use agreements that seek to limit liability from gross negligence or fraud.

That would be good news for consumers. But changes to terms of use do not always serve their interests. A growing number of firms, emboldened by favourable Supreme Court rulings, have adopted clauses that limit class-action suits. Consumers are instead restricted to resolving disputes individually, in arbitration. The TCCWNA cases may inspire more firms to add such caveats. That might limit frivolous suits. But consumers with grave complaints would be unable to sue, either. In the end lawsuits over restrictive contracts may make them more restrictive still. ■



Clicking your rights away

Chinese consumers

From noodles to poodles

TIANJIN

The tastes of China's consumers are rapidly changing

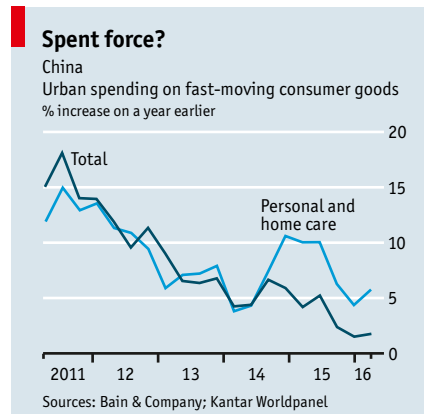
SOARING sales of instant noodles have for years been a reliable indicator of the insatiable appetites of China's rising consumer class. China is the world's biggest market for these flash-fried snacks infused with monosodium glutamate (MSG), a chemical that makes flavourless food more palatable. Locals slurp down over 40 billion packets each year. Now comes news of a nasty noodle meltdown. It is less a sign that China's long consumer boom is waning than that Chinese tastes are changing.

The volume of instant noodles gobbled last year fell by 12.5%, according to a new report on China's consumer market from Bain, a consultancy, and Kantar Worldpanel, a market-research firm. The consequences for firms such as Tingyi, whose Master Kong noodles are found everywhere from railway canteens to kitchen cupboards, have been severe. Profits for China's biggest instant-noodle firm fell by 36% in 2015, to \$256m, as hungry Chinese consumers turned their backs on its wares. Even more shocking, the volume of beer sold in China—the world's biggest guzzler—fell by 3.6% last year, largely because of plunging sales of cheap brands.

The news is not as dire as it might appear at first glance. Across all categories of fast-moving consumer goods, such as soft drinks and processed foods, growth is slowing rather than going into reverse (see chart). Bain and Kantar reckon that the market for such products increased by 3.5% last year, though that is still the slowest pace of growth in five years. This mix of contraction and expansion reflects a two-speed consumer market.

Brands that cater to blue-collar workers, like instant noodles and bottom-of-the-barrel brews, are being squeezed as a painful downturn in the industrial economy hurts workers in those sectors. This slowdown is affecting sales of many basic consumer goods, ranging from toothpaste to packaged foods.

But these days non-industrial activities account for more than half of China's economy. These businesses are faring rather better than the factories of China's rust belt. Most company bosses remain confident about China's future. A survey of over 1,200 chief executives worldwide recently published by KPMG, a consulting firm, finds that bosses still consider China the most promising growth market, along with India. Of the 129 bosses surveyed that are running firms in China, half said investing



in innovation and launching new products will be the main priority to ensure growth over the next three years—hardly signs of a sinking consumer market.

The middle classes in the country's bigger cities, confident urban professionals with jobs in service industries, are indeed still splashing out. This explains a trend towards premium goods from fancier brands. Sales of make-up grew by over 15% last year, for example, and skincare products by 13%, driven by demand for pricier cosmetics to pamper and primp China's better-off consumers.

Many such consumers are upgrading, experimenting and exploring. A report released on June 30th by Oliver Wyman, a consultancy, predicts that Chinese will

make over 130m trips abroad this year, up from some 120m in 2015, and spend roughly \$1,200 each time on shopping. Seduced by the country's soap operas and K-Pop teen bands, many will visit South Korea. Chinese tourists return home with a taste for cosmetics brands based there, such as Laneige and Innisfree, which are now more popular than European competitors. South Korean cosmetics exports to China surged by 250% last year.

Brands that promise healthy lifestyles are also thriving. In a recent survey, the top complaint by Chinese consumers was poor food safety and the next biggest grouse was shoddy health care. These attitudes have helped restaurants and supermarkets with names like "Element Fresh" and "Pure and Whole" spread like organic mushrooms across the land. Yoga and running are all the rage (in March thousands of entrants suffered injuries trying to finish a marathon in Qingyuan, a southern city), and fitness firms are booming. Adidas, a German sportswear company, saw sales rise by 18% in China last year.

The sort of indulgences common among young Western urbanites are also now growing fast in China. "Functional drinks", favoured by the health-conscious, are going down well. Sales of yogurt rose by over a fifth last year, a striking development in a country full of people who are lactose-intolerant. Tingyi recently introduced Master Soup with no MSG to cater to healthier slurpers.

A new China is emerging, then. But companies that wish to serve it must remember that the old one has not gone away. Sales of pet food rose by nearly 12% in 2015, a reflection of a softening of Chinese attitudes toward animals. Yet in the southern city of Yulin crowds still flocked recently to an annual festival of lychees and dog meat. ■



Pots of money no more?

Schumpeter | Squeezing the tube

Instead of disrupting their industries, firms should look for opportunities under their noses



BUSINESS theorists routinely instruct managers to look over the horizon. “Blue Ocean Strategy” is the most successful book on business master-planning in recent years. In it W. Chan Kim and Renée Mauborgne of INSEAD, a business school in France, argue that companies should trawl for profits in “blue oceans” that their rivals ignore rather than “red oceans” that they squabble over. Companies often search for ways to disrupt their industries lest a rival or new entrant does the same and pulls the rug from beneath them. But reinventing a business from the ground up, to avoid being consumed by the fires of new technology, comes with huge risks as well as a potential for great rewards.

Ships that set sail for blue oceans are often becalmed in the middle of nowhere. AOL-Time Warner’s catastrophic merger in 2000 failed to remake the media business for the internet age. News Corp’s foray into social networking ended with the sale of Myspace for a small fraction of its purchase price. Sometimes being cautious, incremental and pragmatic when others are gambling on bold and visionary thinking is more sensible. Why take the chance when there is lots of money to be made closer to home? That is the argument of “Edge Strategy”, a new book by Alan Lewis and Dan McKone from LEK Consulting. They argue that before turning themselves upside down firms should think harder about profiting from the “edges” of existing businesses.

The authors focus on three such edges. The first is products: how can you stretch merchandise so that it generates more income or appeals to more people? An obvious way is to make accessories. Apple is praised as revolutionary but one secret of its success is its tight control of the bits and pieces that adorn its main products. Once purchased, an iPhone or iPad needs a fancy leather case or fashionable headphones. Apple’s own accessories come at considerable expense to the user and give the firm a steady revenue stream.

Another is to link services to products, a tactic made easier by the internet of things. Cars are increasingly connected. Onstar is an in-car service offered by General Motors whose features include automatic calls to emergency services after a crash and over-the-air diagnosis of mechanical problems. Caterpillar can monitor the performance of its excavators, bulldozers and other equipment via sensors, in return for a monthly fee.

The second edge is the “customer journey”. This sounds nebulous but is, in fact, simple. Customers usually buy goods and services to solve a problem. They purchase pneumatic drills because they want to dig a hole in the road, not because they like the way they look. The authors argue that firms have lots of opportunities to make money if they walk in customers’ shoes and keep their eyes open. ESAB, a company that sells welding equipment, also sells general education in welding, training for specific products and engineering consulting. Whole Foods Market, a swanky grocery store, used to specialise in the raw ingredients needed for healthy eating. It now gets around a fifth of its revenue from selling ready-to-eat foods from an ever-expanding range of sushi bars, barbecue stands, Mexican-food stations and espresso bars.

The third edge is exploiting underused parts of the enterprise. One example would be farmers renting out marginal land to energy companies for wind turbines: the farmer stays in the business of agriculture but also boosts income by finding a new use for some of his acres. Many firms routinely collect data in the course of running core operations. Sensible ones use the data to provide more services (or sell them to third parties, with due protections for privacy). Cargill, a commodity-trading firm, has used its agricultural expertise and data to develop software that guides farmers on how best to plant their fields on the basis of 250 variables such as soil type, weather conditions and seed performance. Toyota, a Japanese carmaker, sells traffic information generated by its vehicles to local governments and businesses.

Many of these edge businesses started as an afterthought but have become vast sources of revenue. In the early 2000s Amazon started building servers for its own business. Today it makes \$5 billion a year selling cloud-computing capacity to Netflix, Pinterest and the CIA, among many others. UnitedHealthcare sells information culled from its enormous database, OptumInsight, to various customers. OptumInsight’s revenue increased from \$956m in 2006 to \$6.2 billion in 2015, a much faster rate of growth than its parent company.

Living on the edge

The strategy is not new: visit the cinema and you will spend more on popcorn and Coca-Cola than on tickets. Buy a car and a wily salesman will engage in a frenzy of “upselling” leather seats or after-sales services. But that is the point. The authors say that firms risk forgetting about long-established sources of growth in the pursuit of disruption. Rather than obsessing about the new, firms need to make the most of their existing businesses.

Firms must resist the temptation merely to charge for what hitherto has come free, however. American airlines dramatically increased revenues by charging customers to put their bags in the hold. This scheme earned them \$3.5 billion in baggage fees in 2014 alone but came with heaps of complaints from unhappy customers. Lots of other firms are also charging for services formerly included in the price: having paid more than \$400 for a hotel room in Manhattan recently, Schumpeter was then asked for an extra \$10 to store his bag for a few hours between checking out and going to the airport. What next? Extra charges for soap and sheets?

In its customer-friendly forms, however, edge strategy is a valuable corrective to the obsession with transformational ideas. Firms are right to worry that their businesses are about to be shaken up by the digital revolution or by upstarts from emerging markets. But their priority should be squeezing more money out of their existing assets, not taking a leap into the unknown. ■



Also in this section

- 64 **Buttonwood: Brexit and the markets**
- 65 **Making money from Brexit**
- 65 **Reviving South Korea's economy**
- 66 **Corporate tax avoidance**
- 68 **The AIIB starts to lend**
- 69 **Free exchange: The economists of alienation**

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Brexit and the City of London

From folly to fragmentation

Britain's vote to quit means an uncertain future for the financial capital of Europe

THE bleeding stopped on the third day: sterling steadied and stockmarkets perked up on June 28th, after two sessions of carnage (see Buttonwood). By then Britain's vote on June 23rd to leave the European Union had taken a heavy toll (see chart). The shares of Lloyds and the Royal Bank of Scotland, Britain's biggest domestically oriented banks, were down by around 30% and those of Barclays by slightly more. Continental institutions were clobbered too: BNP Paribas, Deutsche Bank and Santander all lost 20%-plus and Italy's beleaguered UniCredit 30%-odd. American banks with big operations in London also suffered, though not as much. Nor was the damage confined to banks: American insurers copped double-digit losses and Invesco, a big asset manager, shed 22%. A merger of the London Stock Exchange and Deutsche Börse, its German rival, looks likely to collapse.

Markets are worried that growth will slow in Britain and the euro zone, pulling interest rates and bond yields even lower. That would squeeze banks' margins, and insurers' and fund managers' prospective returns—all thin already. Beyond the immediate turmoil is a longer-term concern: what harm might Brexit do to London as a financial centre?

According to TheCityUK, a trade body, London boasts 250 foreign banks and 200

foreign law firms. Finance and ancillary trades employ 730,000—perhaps surprisingly, more than in 2007-08, when the financial crisis struck. An abundance of clever people—adept in English law as much as in finance—draws in banks, fund managers and so forth; the wealth of employers, in turn, attracts more workers.

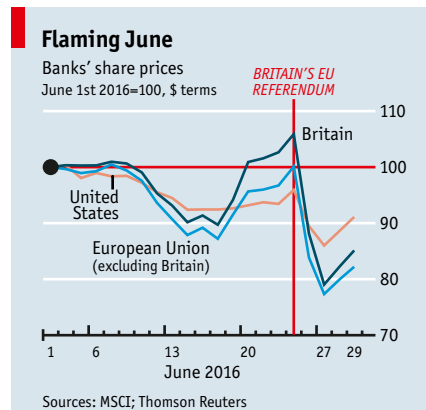
Brexit threatens this happy balance. Britain has not only become politically unstable, with no government or opposition worthy of the name; it also no longer affords the regulatory predictability that investors crave. How the City fares depends on how, and how soon, order is restored.

The main worry is that financial firms

will no longer be able to serve the whole EU from London when Britain leaves, perhaps two years after the formal start of exit talks. Companies from one EU country have “passports” to do business in the other 27, with no need for local branches or subsidiaries. Thus equipped, banks from both outside and inside the EU have made London their second home. Goldman Sachs, for example, has 6,000 of its 6,500 European staff there, against just 200 in Frankfurt. Insurance is more localised, but passporting still matters to some, such as America's MetLife, which saw its share price fall by 17% in the two days after the vote. London's asset managers sell mutual funds (UCITS, in Eurojargon) across the whole union; they managed more than €1 trillion (\$1.1 trillion) last year.

A deal that preserves passporting is imaginable, even though no non-member of the EU enjoys full rights at present. In theory, Norway (to some, the most promising model for Britain) has unfettered access to the EU's single market, although most of the EU's post-crisis regulation has yet to be incorporated into its deal. But access to the single market requires freedom of movement, which Brexiteers reject. And Norway has no say in setting the EU's rules.

Without a Norway-like deal, some wonder whether MIFID 2, a directive that comes into force in 2018 and that allows non-EU members to enjoy some access to the single market, might open a back door to Europe. But the surest way to serve the EU would be to do so from other places. Asset managers would no longer be able to sell UCITS from London. One, M&G, has been planning to replicate funds in Dublin, and will move some staff; another, Columbia Threadneedle, is applying to expand in Luxembourg. Some banks may have to ac- ▶▶



quire new licences elsewhere, which takes months. It would mean shifting some people. And European regulators would surely want entities on their patch to have their own capital. No bank has yet said it will move anyone, but these are early days. Before the vote HSBC said it could transfer 1,000 of its London staff to Paris and JPMorgan Chase warned that up to 4,000 of its 16,000 jobs in Britain could go. Morgan Stanley has denied a report that it is already working on moving 2,000 investment bankers to Dublin and Frankfurt.

A second concern is that London could lose its status as the main centre for clear-

ing trades in euro-denominated securities. Around 70% of trading in euro interest-rate swaps takes place in London, four times the share of France and Germany, even though London is outside the euro zone. LCH, part of the London Stock Exchange, clears the lion's share. The European Central Bank has long wanted clearing in its currency to take place on its turf, in case it ever needs to provide liquidity to a clearing-house in a hurry. Last year the British government won a case at the European Court, thwarting a four-year attempt by the ECB to bring euro-clearing home.

The ECB has a currency-swap agree-

ment with the Bank of England, to provide liquidity if needed. But it would surely prefer direct oversight. If it tried again, a post-Brexit Britain would no longer have recourse to the European Court. A promise of non-discrimination against EU countries outside the euro zone, negotiated by David Cameron, Britain's prime minister, before he called the referendum, will be null. It is "unlikely", writes Angus Armstrong of the National Institute of Economic and Social Research, a think-tank, "that a major central bank would permit a swap line to support such a volume of transactions to take place offshore".

Buttonwood | Awaiting the data

After the shock of Brexit, the next test will be the economic impact

SHOCK, followed by frantic recalculation. That was how astonished financial markets reacted to the British vote to leave the European Union.

The initial phase saw a worldwide sell-off in riskier assets, such as equities, and a flight to safe ones, prompting further declines in government-bond yields. After the sell-off, equities started to bounce again on June 28th, in part because central banks may respond with easier monetary policy (or, in the case of the Federal Reserve, slower tightening); in part because Brexit may not have much of an impact on, say, the Chinese economy.

The biggest casualty of the vote was sterling, which was edging towards \$1.50 on Thursday but on June 27th briefly dropped below \$1.32, a 31-year low. In trade-weighted terms, the pound has fallen by 11% this year (see chart). Britain has a large current-account deficit (7% of GDP in the fourth quarter of 2015), which needs financing. A big drop in the pound, to make British assets more appealing to foreign investors and imports less appealing to Britons, is a necessary adjustment.

Equities have not suffered as much. Many companies in London's FTSE100 index—the oil and mining giants, for example—have little connection with the British economy. Since much of their income is in foreign currencies, sterling's weakness will be good for profits. The more domestically oriented FTSE 250 index took the bigger hit, falling by 14% in two days.

Now the initial shock has passed, investors need to work out what the economic impact will be. David Cameron, Britain's lame-duck prime minister, did not immediately trigger Article 50—the provision in European treaties about a member state leaving the EU—bequeathing that decision to his successor. That will only prolong the uncertainty over

what kind of deal will emerge from the negotiations between Britain and Europe.

One question is whether consumption will suffer because of the Brexit vote. A survey by Retail Economics found that more than half of consumers planned to reduce their spending on non-essential items. Shares in estate agents, housebuilders and budget airlines have all been hit.

However, this might be a short-term effect. The biggest risk to consumption was a crisis in the gilts market that forced up mortgage rates. But gilt yields have fallen, partly because of their risk-free status and partly because the markets anticipate further rate cuts from the Bank of England.

The bigger worry is investment. There have been lots of hints about jobs or corporate headquarters moving abroad, but nothing concrete so far. Many companies may be waiting to see whether Britain decides to join the European Economic Area, alongside Iceland and Norway, which would keep it in the single market. If it does, then the temptation will be to stay.

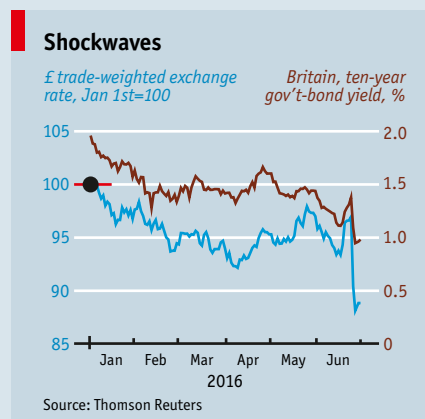
But since that deal would require freedom of movement, it seems unlikely that the next prime minister will accept it. In the

meantime, of course, the uncertainty means that few businesses will be inclined to invest in new projects. And the longer it takes for a deal to emerge, the longer the hiatus.

Almost three-quarters of economists polled by Bloomberg think that Britain is headed for recession either this year or next. But the many anecdotal reports of cancelled contracts may not show up in the economic data until the third-quarter numbers are released; the more detailed estimate is not due until November 25th. Markets may get earlier indications of the trend in business surveys, such as the purchasing managers' index. That will be the next big test for British equities.

In the longer term, some hope that the departure from the EU will turn Britain into a more vibrant economy. Chris Watling of Longview Economics is one of the few analysts to spell out what this might mean in practice. He suggests the immediate announcement of trade talks with the rest of the world, the abolition of corporation tax and the creation of new towns to ease the housing shortage. The first would take a long time to achieve; the second would stir fierce political opposition; and the third, both. Again, investors will want to see some concrete plans if they are to believe the campaign promises of some Brexiteers of a more open Britain.

For the rest of Europe, the question is whether Brexit will encourage other anti-EU movements. The indicator to watch is the German ten-year Bund yield, since it is the safest asset on the continent. It has dropped further into negative territory, hitting -0.12%. That yield needs to move well into positive territory before the risks of the British vote can be said to have been contained.



▶ Another worry is whether London can hang on to its lead in new areas of activity, such as fintech. No one knows what will happen, says Marta Krupinska of Azimo, an online money-transfer service used mainly by migrant workers. But she points to three possible problems: restricted access to the EU market; an inability to look abroad for talent (three-quarters of Azimo's London staff are non-Britons); and the feeling that Brexit will make Britain a less attractive place to work. "A place perceived as not welcoming and insular will not attract the right talent."

Britain's efforts to make itself a hub for trading in Chinese assets are also in question. London has been the European focal point for China's plans to internationalise its currency. But reports from China say it may now shift more toward other European cities. The link between the Shanghai and London stock exchanges, announced when China's president visited London last year, is also likely to be delayed, though officials say it will still go ahead.

Undaunted Brexiteers promise an energising cull of regulation. Some hedge funds hope to see the end of the Alternative Investment Fund Managers Directive, which they regard as costly and bureaucratic. Freed from red tape, some fund managers hope to tap fast-growing sources of wealth in Asia, or recall the growth in European issuance of dollar bonds in the 1970s, which bypassed American regulation. But most of London, if it wants EU clients, will have to play by the EU's rules. And lifting the cap on bankers' bonuses—another European imposition—may be popular in the City, but much less so among British voters.

Meanwhile, other cities are hoping to gain from Brexit. The French have long had their eye on euro-clearing, and are pressing their case anew. François Hollande, France's president, has already said that it must leave London. "I'm very anglophile and very sad for Britain," says Valérie Pécresse, president of the greater Paris region, "but I absolutely want as many jobs as possible to move to Paris." Hubertus Vāth of Frankfurt Main Finance, which promotes the local financial centre, reports plenty of interest from property brokers. He thinks Frankfurt could take some derivatives-trading business and regulatory activity from London. One European banker recalls that long before the vote a senior Irish politician tried to persuade him to move business to Dublin, using Mr Cameron's promise of a referendum as an argument.

The City is not about to crumble. Other centres lack its scale and sheer concentration of expertise. But some business will go elsewhere and Europe's financial industry will become more fragmented and less efficient. The Brexit shock may already have reduced London's allure. The longer the political and regulatory vacuum lasts, the more harm it will do. ■

Contrarian investing

Prophets and profiteers

Who made money from the Brexit vote?

FOUR out of five hedge-fund managers had expected Britain to vote to remain in the European Union, according to a poll by Preqin, a data firm. But a handful saw Brexit coming and invested accordingly. They made hundreds of millions by betting against assets that were likely to suffer from an Out vote. Crispin Odey's London-based fund, which manages around \$10 billion and has had a terrible year, jumped nearly 15% on the day after the vote. That was thanks to short positions on the shares of a number of British firms (including Aberdeen, an asset manager, and Berkeley Group, a builder) and a big investment in gold. Others, such as Atlantic Investment Manage-

ment, prospered by betting against sterling, which fell this week to its lowest value against the dollar since 1985.

Another successful approach was to do what hedge funds were originally set up to do: hedge (not many do these days). "Did we see it coming? No," admits Lukas Daalder of Robeco, a Dutch asset manager, who says he was able to limit damage by recognising the vote was too close to call. He tried to surprise-proof his portfolio by betting that sterling would fall against the dollar and by investing in so-called "flattener trades" (in his case, offsetting bets on 30-year bonds and ten-year ones).

Many of the funds that rely on quantitative models or automatic trading seemed to perform better than those at which humans were in charge. The Nu-Wave Matrix Fund, whose trades are based on historical market patterns, surged by around 12% on Friday. Some funds simply did well because they always do well in volatile times. Quadratic Capital Management's unusual strategy of investing almost exclusively in options means that it makes money during upheaval because the price of options increases with volatility. And then there was a tried-and-tested approach to uncertainty: sit it out and look for buying opportunities in the aftermath. Michael Hintze of CQS, another asset manager, had advised those without a view on the outcome of the vote to raise cash and be ready to buy.



Reviving South Korea's economy

Faltering flagship

SEOUL

The impact of a \$17 billion pick-me-up is likely to be short-lived

HOW best to prop up the companies that power South Korea's export-driven economy as the rest of the world slows? The government's previous answer, the so-called "one-shot" bill, aims to help the worst-affected industries to restructure by offering tax breaks for firms that sell subsidiaries and by reducing the red tape around mergers. Parliament approved it in February; it will come into effect in August. But Park Geun-hye, South Korea's president, thinks more is needed. On June 28th she proposed a stimulus of

20 trillion won (\$17 billion).

South Korea's exports have fallen every month year-on-year since January 2015. In early June the central bank trimmed its benchmark interest rate by 0.25 percentage points, taking it to an all-time low of 1.25%. Nonetheless the government this week revised down its forecast of GDP growth this year from 3.1%, which it predicted in December, to 2.8%. Ms Park said that the economic situation inside and outside the country was "more serious than ever".

Britain's recent decision to leave the ▶▶



A soggy outlook in the shipyards

▶ European Union, South Korea's fourth-biggest market for exports, has rattled it. But the economy, Asia's fourth-biggest, has been struggling for some time. Growth has slowed from an average of 4.4% between 2001 and 2011 to 2.8% since then. The slowdown in China, the destination for a quarter of South Korea's exports, has been especially painful. Low oil prices, meanwhile, have hammered shipbuilders, which build lots of rigs and other equipment for the offshore oil industry.

This week the government said 60,000 people might lose their jobs in the shipbuilding sector, which employs 200,000 in total and accounts for 7.6% of South Korean exports. Earlier in June Ms Park had urged "bone-crushing" efforts to overhaul the industry and prop up its three biggest yards—Hyundai Heavy Industries, Daewoo Shipbuilding & Marine Engineering and Samsung Heavy Industries (which last year reported combined annual losses of 6.4 trillion won)—promising to pump 11 trillion won into state-run lenders saddled with loans to them.

All this is expected to weigh on already-feeble consumer spending. The interest-rate cut should help a bit, mostly by lowering households' high debt-servicing costs. Much of the stimulus will go towards retraining and wage subsidies for the long-term unemployed. Some is also aimed at boosting consumption through tax breaks. Lee Doo-won, an economics professor at Yonsei University in Seoul, the capital, says that if the latest injection is delivered promptly, it could add up to 0.4 percentage points to GDP growth this year.

But the frequency of such packages—three since Ms Park took office in early 2013—suggests that they are hardly cure-

alls. A 41 trillion won stimulus in 2014 was followed by another 22 trillion won last July, after an outbreak of Middle East Respiratory Syndrome dampened consumption. Given South Korea's relatively low debt-to-GDP ratio compared with other rich countries, at around 37%, it could afford to make the latest spree three times bigger, says Frederic Neumann of HSBC, a bank. Moreover, the government has not been quite as loose with its money as the occasional splurges suggest: half the latest package will be financed either with money left unspent from last year's budget or with this year's higher-than-expected tax receipts.

Mo Jongryn, also at Yonsei University, says the money being used to bail out old manufacturers would be better spent goading under-employed South Koreans, such as women and early retirees, into the workforce. There is also scope for greater investment in services, where the productivity of workers is half that in manufacturing; a more dynamic sector would help to ease the strain on traditional exporters.

In a recent survey of South Koreans by Choson Ilbo, a local newspaper, almost 60% said they expected the economy to be as bad this year as it was in the Asian financial crisis of 1997-98. South Korea has had the worst consumer-confidence levels in the world for four straight quarters, according to Nielsen, a pollster. Yet household credit grew by 11% in the period from January to March compared with the same period last year, one of the fastest rates in the region, according to HSBC, suggesting South Koreans are borrowing to maintain their standard of living. The "extraordinary" measures for which Ms Park called this week are still needed. ■

Tax avoidance

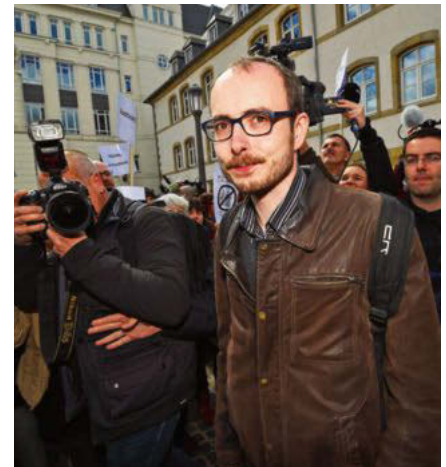
Grand dodgy

The good deeds of the Luxembourg leakers do not go unpunished

JUNE 29th was judgment day in a case that has changed the face of corporate tax-planning. Antoine Deltour (pictured) and Raphaël Halet, two ex-employees of PwC, an accounting firm, and Edouard Perrin, a French journalist, had been tried in Luxembourg for their role in leaking documents that revealed sweetheart tax deals of the Grand Duchy had offered to dozens of multinationals. The defendants denied the charges, which included theft of documents and violation of secrecy, arguing that their exposure of dodgy tax practices was in the public interest. Luxembourg insisted the deals were both legal and unremarkable.

The whistle-blowers faced up to ten years behind bars. However, the prosecutor—perhaps sensitive to the strong public and, in some places, political support for them abroad—called for suspended sentences of 18 months. In the end the judge handed Messrs Deltour and Halet suspended sentences of 12 months and nine months, respectively. But a conviction is a conviction; Transparency International, an anti-corruption group, called it "appalling". Mr Perrin, who had published an article that drew on the leaked documents, was acquitted.

The "LuxLeaks" affair has highlighted the role played by certain European Union countries, including Ireland and the Netherlands as well as Luxembourg, in facilitating tax avoidance. Luxembourg is not a typical tax haven levying no or minimal income tax; its statutory rate is 29%. Instead, it is a haven "by administrative practice", argues Omri Marian of the Universi- ▶▶



The tax-dodgers are being scrutinised too

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Whether their vision is of top-down enforcement or bottom-up transformation, the fisheries initiatives most likely to succeed are characterised by an integrated approach to reform and the transition to sustainable management.

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► ty of California, Irvine, who has studied LuxLeaks in detail. Its tax authority in effect sold tax-avoidance services to large firms by rubber-stamping opaque arrangements that helped them to cut their tax bills dramatically in both their countries of residence and their countries of operation.

The leaks helped propel multilateral efforts to overhaul international corporate taxation, led by the OECD. Its mostly rich members and a dozen developing countries agreed last year to a raft of reforms. These include increased country-by-country reporting by multinationals of profits, taxes paid and so on, and tighter rules on transferring intellectual property between subsidiaries as a means of parking profits in tax havens. Governments are now expected to make these proposals law.

In June the European Union agreed on an anti-avoidance directive that incorporates parts of the OECD's agenda. The EU's executive, the European Commission, has launched numerous probes targeting cushy tax deals offered by the bloc's own members to firms such as Apple, Fiat and Starbucks. It argues these could amount to illegal state aid. The commission is expected to announce the results of its probe into Apple's tax arrangements in Ireland in July. The firm could be forced to pay billions of euros to Dublin.

Apple denies breaking any laws. It has a point when it says the problem is not corporate illegality or immorality but disparities between national tax systems, which invite gaming. Hence the need for a multilateral approach. But that is hard to achieve. Countries guard their tax sovereignty jealously, even as they rail against tax minimisation. And they still disagree about a lot. America is unhappy with the commission's investigations, which mostly target American companies. An American official complained recently that they are based on "expansive reinterpretations" of European competition law and have created an "extraordinary mess".

Divisions are evident within the EU, too. Member states that like tax competition, such as the Netherlands and Britain (it has not left yet), have pushed to weaken anti-avoidance measures, including the new directive. Diarmid O'Sullivan, a tax-policy expert with ActionAid, a charity, says the directive was "a feeble compromise". Proposed EU rules known as the "common consolidated corporate tax base", which would remove many of the national differences that multinationals have exploited to pay less tax, have been diluted to make them more palatable.

Nevertheless, firms acknowledge that enthusiastic tax avoidance is becoming harder to get away with. Cosy deals with the taxman are under more scrutiny. Convicted criminals though two of them may now be, the LuxLeaks Three deserve praise for their role in bringing that about. ■

The AIIB

The infrastructure of power

Reasons to be enthusiastic about China's answer to the World Bank

CHINA'S growing global clout can be unsettling for the incumbents who must make room for it. At the same time, China's recent financial tumult has been unnerving for the investors exposed to it. This combination of vastness and vulnerability has left some people afraid of China and others afraid for it. Both groups have found reason to worry about the Asia Infrastructure Investment Bank (AIIB), which has just held its initial annual meeting in Beijing and approved its first \$509m-worth of projects.

The AIIB reflects China's new eagerness to institutionalise its official lending abroad, which has been generous but contentious. Another example is the sprawling "one-belt, one-road" initiative, which aims to revivify trade routes across and around the Eurasian landmass (see page 29). Harking back nostalgically to the Silk Road, it envisages a web of bilateral agreements between China and the beneficiaries of its largesse. The AIIB is more modern and multilateral in character. It is billed as China's "21st-century" answer to lenders like the World Bank (always led by Americans) and the Asian Development Bank (dominated by Japan).

To its critics, the AIIB is early evidence of China's determination to work around existing institutions rather than through them. Where some see aggression, others see hubris. The AIIB was conceived when China's foreign-exchange reserves seemed

headed inexorably towards \$4 trillion. Since then, China's yuan has fallen and capital has fled. Having lost over \$500 billion of hard-currency reserves in 11 months, can China really afford to lend dollars to Tajikistan?

Neither fear stands up to scrutiny. China's financial commitment to the AIIB is equivalent to less than one percent of its remaining reserves. Almost 70% of the institution's \$100 billion of capital is drawn from its other 56 participants. It will also raise money by issuing bonds of its own. Far from being a fair-weather folly, the AIIB appears well-timed. Global capital has retreated from emerging markets, leaving a gap the AIIB will help fill. By the same token, the retreating dollars are sheltering in safe assets, such as the highly rated bonds the AIIB proposes to sell.

Unlike the World Bank, which is pulled hither and thither by its members, the AIIB will keep a tighter focus on infrastructure. It has no sitting board or permanent branch offices in borrowing countries. It is also quick, approving four projects within six months of its launch date. More established multilateral lenders can take a year or two to do the same. Some fear the AIIB will deviate from prevailing norms in other, more troubling ways—undercutting environmental standards, say. But of its first four projects, three are joint ventures with existing institutions, subject to their protocols. Its \$217m project to improve slum-life in 154 Indonesian cities, led by a veteran of the World Bank, seems alert to the dangers of soil erosion and groundwater pollution. Likewise, its road-improvement plan in Tajikistan, administered by the European Bank for Reconstruction and Development, will tactfully relocate a monument to Avicenna, a Persian polymath who memorised the Koran by the age of ten.

Any assessment of the AIIB's safeguards must also consider the alternative. If the new institution did not exist, China would presumably lend the money bilaterally, escaping any scrutiny by its peers. It has instead invited outside participation, precisely because it wants the respectability such partnerships confer.

But if China is happy for its new bank to work with existing lenders, why not simply work within them? One reason is that they have been painfully slow to accommodate it. The IMF, for example, agreed in 2010 to give emerging economies a bigger say. But by the time America's Congress ratified the deal five years later, China's economy had grown by 80% (and Japan's had shrunk by a quarter) in dollar terms. If international financial institutions make room for China, it may bypass them anyway, but if they do not, it definitely will. The AIIB's first solo venture will bring electricity to 2.5m rural homes in Bangladesh. That is not the only kind of power distribution that needs modernising. ■



AIIB careful with Avicenna

Free exchange | The consensus crumbles

The economists who foresaw the backlash against globalisation



AFTER the second world war, the leaders of the Western world tried to build institutions to prevent the horrors of the preceding decades from recurring. They sought to foster both prosperity and interdependence, to “make war not only unthinkable but materially impossible”. Their work has borne fruit. There has been no armed conflict in western Europe since. Expanded global trade has raised incomes around the world. Yet, as the Brexit vote demonstrates, globalisation now seems to be receding. Most economists have been blindsided by the backlash. A few saw it coming. It is worth studying their reasoning, in order to work out whether a retrenchment is inevitable or might be avoided.

Even economists realise that free trade can be a hard sell politically. The political economy of trade is treacherous: its benefits, though substantial, are diffuse, but its costs are often concentrated, giving those affected a strong incentive to push for protectionism. Since 1776, when Adam Smith published “The Wealth of Nations”, those pressing for global openness have won more battles than they have lost. Yet opposition to globalisation seldom disappears, and often regroups. And a position once considered near-heretical, that globalisation itself seems to create forces that erode political support for integration, is gaining currency.

Dani Rodrik of Harvard University is the author of the best-known such critique. In the late 1990s he pointed out that deeper economic integration required harmonisation of laws and regulations across countries. Differences in rules on employment contracts or product-safety requirements, for instance, act as barriers to trade. Indeed, trade agreements like the Trans-Pacific Partnership focus more on “non-tariff barriers” than they do on tariff reduction. But the consequences often run counter to popular preferences: the French might find themselves barred from supporting a French-language film industry, for example.

Deeper integration, Mr Rodrik reckoned, will therefore lead either to an erosion of democracy, as national leaders disregard the will of the public, or will cause the dissolution of the nation state, as authority moves to supranational bodies elected to create harmonised rules for everyone to follow. These trade-offs create a “trilemma”, in Mr Rodrik’s view: societies cannot be globally integrated, completely sovereign and democratic—they can opt for only two of the three. In the late 1990s Mr Rodrik speculated that

the sovereignty of nation states would be the item societies chose to discard. Yet it now seems that economic integration may be more vulnerable.

Alberto Alesina of Harvard University and Enrico Spolaore of Tufts University presented a different but related view of the trade-offs entailed by global economic integration in “The Size of Nations”, published in 2003. They note that there are advantages to being a large country. Bigger countries can muster more resources for national defence, for instance. They also have large internal markets. But bigness also carries costs. The larger and more heterogeneous a country, the more difficult it is for the government to satisfy its citizens’ political preferences. There is less variation in political views in Scotland, to take one example, than across Britain as a whole. When policy is made by the British parliament (rather than in Edinburgh, Belfast and so on) the average Briton is slightly less satisfied with the result.

Global integration, Messrs Alesina and Spolaore argue, reduces the economic cost of breaking up big countries, since the smaller entities that result will not be cut off from bigger markets. Meanwhile the benefits of separatism, in terms of being able to cater better to the preferences of voters, are less diminished. So the global reduction in barriers to trade since the second world war, the pair contend, at least partly explains the simultaneous growth in the number of countries, even if national fractures often involve, or lead to, political instability and violence.

And then there is the question of how the benefits of globalisation are shared out. Joseph Stiglitz, a Nobel prizewinner, has warned that rent-seeking companies’ influence over trade rules harms workers and erodes support for trade liberalisation. Raghuram Rajan, the head of India’s central bank, has argued that clumsy government efforts to compensate workers hurt by globalisation contributed to the global financial crisis, by facilitating excessive household borrowing, among other things. David Autor, David Dorn and Gordon Hanson have documented how the costs of America’s growing trade with China has fallen disproportionately on certain cities. And so on.

Open and shut

Branko Milanovic of the City University of New York believes such costs perpetuate a cycle of globalisation. He argues that periods of global integration and technological progress generate rising inequality, which inevitably triggers two countervailing forces, one beneficial and one harmful. On the one hand, governments tend to respond to rising inequality by increasing redistribution and investing in education; on the other, inequality leads to political upheaval and war. The first great era of globalisation, which ended in 1914, gave way to a long period of declining inequality, in which harmful countervailing forces played a bigger role than beneficial ones. History might repeat itself, he warns.

Such warnings do not amount to arguments against globalisation. As many of the economists in question are quick to note, the benefits of openness are massive. It is increasingly clear, however, that supporters of economic integration underestimated the risks both that big slices of society would feel left behind and that nationalism would continue to provide an alluring alternative. Either error alone might have undercut support for globalisation—and the six decades of relative peace and prosperity it has brought. In combination, they threaten to reverse it. ■

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Planetary science

By Jove!

A mission to Jupiter is designed to investigate the giant planet's history—and the histories of its cousins in other solar systems

IN 1543 Nicolaus Copernicus proposed, in a mathematically rigorous way, that the Earth is not the centre of the universe, and thus that all things do not revolve around it. In fact, only the Moon does so. Seven decades later Galileo Galilei provided more direct proof of Earth's lack of specialness. He looked at Jupiter through a primitive telescope and found that the planet had four moons of its own.

Four centuries after Galileo's discovery, it remains impossible to understand the solar system without understanding Jupiter. The sun accounts for 99.8% of the solar system's mass. But Jupiter, which is more than twice as massive as the other seven planets put together, makes up most of the rest. Its heft shapes the orbits of the other planets, the structure of the asteroid belt and the periods of many comets. And the four moons observed by Galileo (seen to the left-hand side of Jupiter in the picture above) have proved merely the biggest members of an entire solar system in miniature: at the moment Jupiter has 67 known satellites.

The picture was taken on June 21st by *Juno*, a probe belonging to NASA, America's space agency, that is named after the Roman goddess who was both Jupiter's wife and his sister. If all goes according to plan, *Juno* will become a 68th satellite of Jupiter on July 4th, arriving almost five years after it was launched. Though Jupiter has had other man-made visitors, all but

one of them simply flew past it on their way elsewhere, taking a few photographs to send back home while they gathered energy from the Jovian gravitational field in a so-called slingshot manoeuvre, to speed their journeys up. Only *Galileo*, which arrived in 1995, has previously gone into orbit around the place.

Dancing with death

Doing so is a risky business. *Juno*, which is, at the moment, moving at around 250,000 kilometres an hour, is one of the fastest man-made objects ever built. When it arrives its guidance computer will have just over 30 minutes to slow the craft down and thread it into a series of long, looping orbits that will cause it to swoop to within 4,500km of the tops of Jupiter's clouds and then zoom out again to a distance of more than 2.5m km. If anything goes wrong during this deceleration, the probe will have to fix the problem itself. Assistance from Earth will be impossible, for radio signals from mission control in California take nearly an hour to reach it.

Yet a fix may be needed. Jupiter is a hostile place. Its enormous magnetic field traps and accelerates high-energy particles (mostly protons and electrons) thrown off by the sun. That gives it the fiercest radiation belts of any planet in the solar system. Such radiation plays havoc with electronics. *Galileo* suffered more than 20 radiation-related glitches over the course of its

Also in this section

72 Using trains to store energy

73 A global address system

74 Card games and psychology

74 An ancient wing

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eight-year mission. These included repeated resets of its main computer, glitches in its cameras and problems with its radio.

Juno's electronics are protected by a 200kg titanium vault that has walls a centimetre thick. Its looping orbits are designed to minimise the time it spends in the most radioactive zones. Even so, the radiation will take its toll. NASA expects the craft's visible-light camera and infra-red instruments to endure for eight orbits or so. Its microwave sensor is rated for 11. Then, in February 2018, when its circuits are on their last legs, it will fire its engine one final time, propel itself into the Jovian atmosphere and destroy itself—a fate already suffered by *Galileo*. NASA is required by law to ensure that there is no chance any hardy Earthling microbes could hitch a ride to the Jovian moons—especially Europa, which is thought to have beneath its icy surface a liquid-water ocean that might conceivably support life. *Juno's* immolation will avoid any possibility of contamination in the future.

All of this drama is to serve the study of a planet that remains mysterious. Last time, with *Galileo*, “we learned enough to realise that we don't understand a lot of things”, says Scott Bolton, an experimental physicist who is the *Juno* mission's chief. One particularly mysterious thing is Jupiter's origin.

Jupiter belongs to a class of planets called gas giants. (Saturn is another such, and many more have been identified in planetary systems surrounding stars other than the sun.) Researchers know that it was formed from the same primordial cloud of hydrogen and helium (with a scattering of other, heavier elements) as gave birth to the sun. But how exactly this happened is unclear.

A theory called “core accretion” holds that a rocky core formed first, assembling ►►

▶ itself under the influence of gravity from dust grains, then pebbles, then boulders and so on. Once this core acquired sufficient mass, it began attracting hydrogen and helium from the primordial cloud, and would have enough gravity to hold onto them. If this view is correct, Jupiter might be thought of as a rocky planet similar in a way to Earth, but with an absolutely humongous atmosphere. The core-accretion theory, though, has a timing problem. Light exerts pressure, and the pressure of light from the infant sun should, calculations suggest, have driven off most of the hydrogen and helium of the primordial cloud before Jupiter had a chance to grab it.

A rival hypothesis argues that Jupiter formed without the need for a large rocky core, from a knot in the gas cloud itself. That would make it quite a different beast from an overblown terrestrial planet. One of *Juno's* jobs, then, is to try, by measuring subtle variations in Jupiter's gravitational field, to determine whether the planet has a core, and if so how big it is. This will not, of itself, be enough to resolve the question of how it formed. But it should narrow the range of possibilities.

Jupiter's atmosphere is another part of the puzzle. Back in 1995 *Galileo* dropped a probe into that atmosphere, and this probe reported back comparatively larger helpings of certain heavy elements, including nitrogen and argon, than are found in the sun. This suggests either that Jupiter formed in the cool outer reaches of the early solar system, where such elements would have been more abundant, before migrating to its current position, or that the heavy elements in question were supplied by comets and asteroids from those outer reaches. But there was much less of one heavy element—oxygen—than there should have been. The probe detected little water, the compound into which gas-cloud oxygen is overwhelmingly bundled. So, either astronomers' theories of why Jupiter is blessed with so many heavy elements are wrong, or else, by sheer bad luck, *Galileo's* probe dropped into a particularly dry part of the planet's atmosphere.

There is evidence that something like that may, indeed, have happened. Observations by terrestrial telescopes suggested that the probe, which survived for less than an hour before contact was lost, ended up in the downdraft of a giant atmospheric convection cell. This might well have been drier than the surrounding atmosphere because much of the water in it would have condensed and fallen as rain or snow when it was on the upward side of the convection cell.

Either way, says Dr Bolton, "all we can do is go back and do it again". And *Juno* will attempt just that, sampling a different part of the atmosphere with each of its diving loops. Combining measurements from all over the planet should help sort the theo-

retical sheep from the goats.

Nor is it theories of the formation of Jupiter alone that are at stake. The chance to poke and prod a gas giant up close could help to shed light on how planetary systems other than the sun's have formed. One of the big surprises of exoplanetology, as the study of such systems is called, has been the discovery of a type of planet known as "hot Jupiters". These are gas giants which orbit close to their parental stars—in some cases having orbital periods measured in mere handfuls of days. (By contrast, the orbital period of Mercury, the planet closest to the sun, is 88 days.) Every-

thing researchers think they know about planet formation suggests such worlds could not have formed in their present locations. The radiation from their parent stars would have disassembled them as fast as they formed.

The assumption, then, is that they must have come into being elsewhere and then migrated closer to their stars. But how that happens, or how common it is, is still unclear. Reconstructing the history of the solar system's own biggest gas giant could help astronomers understand how billions of other planets in the galaxy came into being, too. ■

Energy storage

Sisyphus's train set

A novel idea for storing electricity

THE easiest way to squirrel electricity away in times of plenty, for use when it is scarce, is to pump water uphill with it. Such pumped storage is widely employed where local geography and hydrology permit, but it does need two basins, at different heights, to act as reservoirs, and a supply of water to fill them. At least one of the basins is likely to have to be artificial. The two must be connected by a tunnel that lets water flow between them. And the tunnel must house turbines attached to electrical devices that can do double duty—as motors to turn the turbine blades when they are pushing water from the lower reservoir to the upper one, and as generators when the blades are rotated in the opposite direction by an aqueous downrush

after the upper sluices are opened.

Where geography does not favour pumped storage, though, the search is on for alternatives. These range from giant batteries, via caverns filled with compressed air, to huge flywheels made of carbon-fibre composites. But one firm looking into the matter eschews all these. It has stuck with the logic of pumped storage, which is to move large amounts of matter up and down hills. The difference is that in its case the matter is solid.

The firm in question calls itself ARES, which stands for Advanced Rail Energy Storage. A more apt figure from Greek mythology than the god of war, though, might be Sisyphus, who was condemned by the gods to push a rock to the top of a mound ▶▶



Ready to rock and roll

tain, only for it to roll back down again so that he had to repeat the punishment for eternity. ARES does indeed push rocks uphill, only to let them roll down again.

The rocks stand in for the water in a pumped-storage system. They are carried up- and downhill by a train that is thus the equivalent of the turbines. The track the train runs on is equivalent to the tunnel. And the motors that drive the train act, like the electrical kit of a pumped-storage turbine, as generators when they run in reverse as the train rolls backwards downhill, pulled by gravity.

ARES built a prototype of this arrangement in 2013, near a wind farm in Tehachapi, California. Linking a storage system with an intermittent source of supply such as a wind farm is useful, because it can be employed to bolster the farm's output when the wind is not strong enough, a process called load balancing.

The prototype proved the principle, and now the company has bigger plans. In March it received approval from America's Bureau of Land Management to lease land to build a track near Pahrump, Nevada. This would run larger trains than those at Tehachapi, and these would carry their rocks in concrete boxes, rather than loose. Once at the top of the track, the boxes would be raised by jacks built into the wagons carrying them, rotated and then lowered back down onto supports on either side of the track, so that they straddled the track above the height of a train, like bridges. Freed of their burdens, the trains would then run back downhill to fetch more loads. When the time came to generate power, the process would be reversed.

The hill ARES has chosen has a gradient of about 8%. The track itself is just under 9km (about 5½ miles) long. The company estimates that its proposed system will be able to store 12.5 Mwh of energy, and deliver it back to the grid at a rate of up to 50Mw. That is still small compared with pumped storage (the Dinorwig facility in Britain, for example, has a capacity of 10.8Gwh and a maximum output of 1.8GW), but ARES's engineers think it is enough to make commercial sense, at least in principle. And if principle turns to practice, it can be enlarged.

Such a Sisyphean solution is unlikely to beat pumped storage in places where that is possible, but in parched landscapes like Nevada's it has every chance of doing so. And, since deserts often host power stations that rely on the renewable but intermittent fuel of sunlight, this might give it quite a comfortable niche in a world where using fossil fuels to generate electricity is increasingly frowned on. At the moment, ARES's plan is simply to draw power from the grid when it is cheap and sell it back when it is expensive. But the logical end of the line for such a railway is as a load-balancer for local solar-power stations. ■



Geolocation

Addressing the world

How to find anywhere on the planet

LAST year, a brush fire threatened the home of Ganhuyag Chuluun Hutagt, who lives in Mongolia's capital, Ulaanbaatar. Instead of giving the fire brigade his address, though, Mr Ganhuyag had to guide them to the blaze by describing a series of landmarks along the way. That was because, like most buildings in Mongolia, his house does not have an address. Road names and building numbers are so sparse there that fewer than 1% of Mongolians do. But Mr Ganhuyag, who is on the board of the country's post office, Mongol Post, proposes to do something about it.

Thanks to his urging, Mongol Post is adopting an ingenious new system of addresses that can locate any place in the country—and, indeed, in the world. Instead of house number, street name, town, province and so on, or the unwieldy co-ordinates of latitude and longitude, this system, the brainchild of Chris Sheldrick, boss of What3Words, a firm based in London, divides the Earth's surface into nine-metre-square blocks. Each block is then given names consisting of trios of randomly selected, unrelated words. One patch of Siberia, for example, is called, in English, "mirroring.surrendered.epidemics". But it also has nine other names, in other languages, including Russian.

Divvying up Earth's surface into nine-

metre-square blocks requires nearly 57 trillion addresses (to be precise, 56,764,364,951,858 of them). That sounds a lot, but Mr Sheldrick realised that 40,000 words would be enough to do the job—indeed, more than enough, since that number actually yields 64 trillion three-word combinations. Moreover, places that are at sea have only English addresses. The other languages, restricted to the land, thus require a mere 25,000 words each. When drawing up a list in a new language, What3Words' linguists toss out homophones, and also any words that may create offence, such as "fondle", in English, or, in Arabic, words for alcoholic drinks. Otherwise, words are selected based on their familiarity and frequency of use.

A way with words

Besides nailing down locations in Mongolia, Mr Sheldrick's system is also proving useful in the *favelas* of Rio de Janeiro. That city's government has, according to Sila Vieira da Silva, failed to generate addresses fast enough to keep up with the new shacks and alleyways appearing in these shanty towns, and does not bother to bring post into at least 11 of them anyway. Mr Vieira da Silva is one of the owners of Carreiro Amigo, a company that has delivered letters in Rio's *favelas* since 2000 by com- ▶▶

► piling directions to residents who pay for the service. Now, using software licensed from What3Words, Carteiro Amigo is converting to three-word addresses.

Rich countries, too, can benefit, says Peter Atalla, the boss of Navmii, a London firm that has folded What3Words' software into navigation apps for motorists. One search in ten that uses Navmii's app is for a What3Words address. Not only are

they easy to memorise, type out and communicate by phone, Mr Atalla says people also like the precision of directing others to, say, a specific entrance rather than an entire building, or to a picnic spot instead of the whole park. Direct Today Couriers, another British outfit, reports that converting standard addresses into What3Words ones has reduced the number of missed deliveries by 83%. Watch.this.space. ■

Card games and psychology

Telling it like it is

A person's gaze changes when he is adding up the points in his hand

VINGT-ET-UN, known to Americans as blackjack, is a card game in which players must decide whether the value of the two-card hand they are dealt is likely to be enough to beat the dealer's unseen hand, or whether they should risk going bust by adding to it, one card at a time, as they seek to get as close as possible to a permitted maximum of 21 points. (Court cards are worth ten; aces score either one or 11, at the holder's discretion.)

Making constant calculations is thus an essential part of this game—a fact that Kevin Holmes, a psychologist at Colorado College, in Colorado Springs, has used to test his hypothesis that such calculation will cause players to give away, by their eye movements, the sorts of hand they have. As he reports in *Psychonomic Bulletin and Review*, it turns out that they do.

Dr Holmes knew from studies by others that when people are asked to perform a mental calculation and then to point to the location of the answer on an unmarked horizontal line (known as a number line) whose left-hand end represents a numerical value, such as zero, and whose right-hand end represents a larger one, such as 100, they have a tendency to get it wrong. Specifically, they point to the left of the correct location on the line if the problem was a subtraction and to the right if addition was involved. This applies even when the calculations in question result in the same answers. He suspected that this phenomenon might reflect an underlying mental process that would manifest itself in other ways, too—such as the direction of a person's gaze to the left or to the right while calculating. Since vingt-et-un involves just such calculations, it seemed to him a good basis for an experiment to try the idea out.

He and his colleagues therefore asked 58 volunteers to play a version of the game on a computer while having their eye movements tracked. Volunteers were told the game's rules (which differed slightly

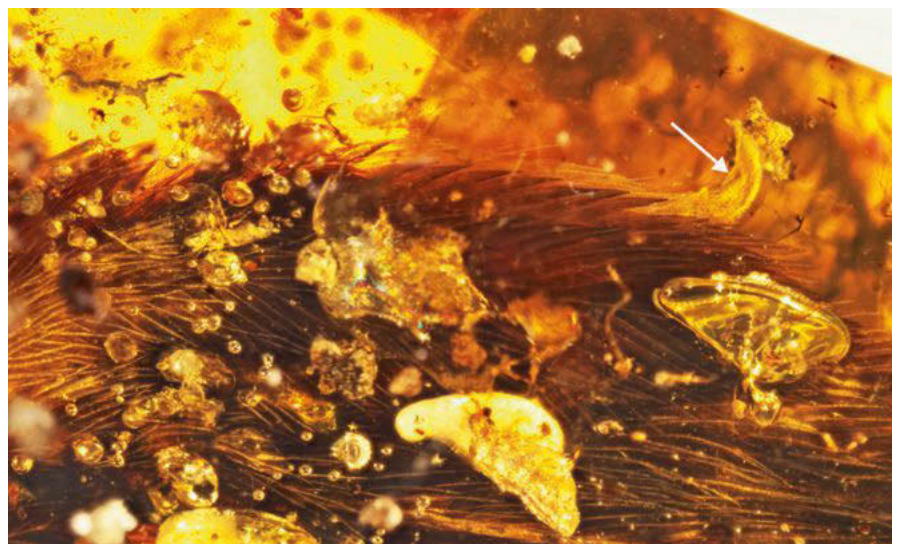
from the normal ones, in that the initial hand was a single card and aces always counted high). They were also told that their objective was to accumulate as many wins as they could, before being sat in a darkened room in front of a computer screen. After six practice games, to ensure that they understood what was going on, they were presented, one hand at a time, with 52 preset hands in random order.

The volunteers, all students, played well. They averaged 18.1 points per game, indicating both that they understood the rules and that they were engaged with the problem. And the eye-tracking data re-

vealed that their gazes did indeed shift as the value of their hands grew. Hands of a mere two or three points (ie, an initial deuce or trey) actually caused a leftward veering of the eyes, albeit by a mere 0.1°. As the value of a hand increased, though, the holder's eyes veered rightward until, if he was lucky enough to accumulate 21 points, they were pointing 0.4° off-centre in that direction. Vertical eye movements, in contrast, showed little relation to hand value.

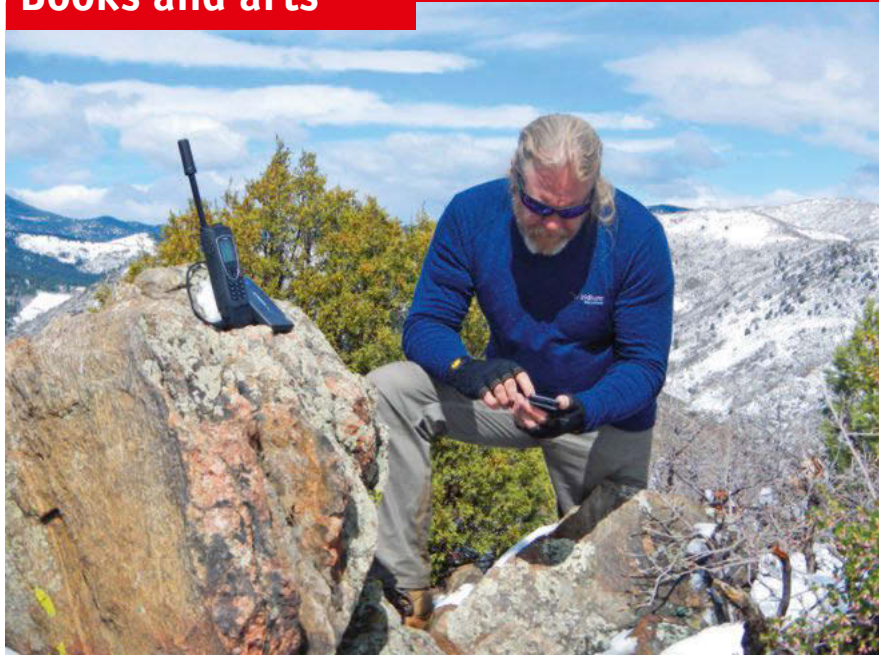
To be sure that volunteers were responding to the growing value of a hand, rather than the growing number of cards in it, Dr Holmes and his colleagues checked it really was the accumulated value which was driving the process. They found it was. Volunteers' gazes inclined no farther to the right if, for example, they held four twos rather than two fours. Nor was the value of the most recently dealt card pertinent. Receiving a high-value card like a ten did not provoke a strong rightward glance unless it followed, say, a seven or an eight, and thus resulted in a reasonably high score.

The upshot, Dr Holmes believes, is that something about the process of mental arithmetic does indeed involve a left-right mental shift, perhaps along an imaginary number line in the brain, and that this is reflected in involuntary bodily actions. Sadly for gamblers, the involuntary "tell" he has discovered is of no practical use in winning a game, since the dealer's hand is blind to everyone, dealer included, until all others have played. Casino owners everywhere can breathe a sigh of relief. ■



An ancient wing

This photograph is of part of a bird wing preserved in amber from northern Myanmar. It dates from 99m years ago, during the Cretaceous period, and is described in this week's *Nature Communications* by Lida Xing of China University of Geosciences, in Beijing, and her colleagues. It is one of two wings, the first known to have been preserved in amber, that her team discovered. Both belonged to juveniles of a group called the *Enantiornithes* that had claws on their wings (one such is marked with an arrow), probably to help them grip trunks and branches when they climbed trees.



A tale of technology

Highs and lows

The strange story of the Iridium project and how it was brought back from the dead

IRIDIUM was among the most ambitious projects in the history of technology. Yet it soon led to one of the world's biggest bankruptcies. Today, 17 years on, Iridium is a remarkable comeback story: a global communications tool of last resort for soldiers, sailors and others who happen to find themselves in the nine-tenths of the world that does not have terrestrial mobile-phone reception and probably never will. The company has nearly 800,000 paying customers who generate annual revenues of more than \$400m.

In the early 1990s global satellite-phone systems had investors enthralled. No fewer than ten different constellations of these systems were supposed to be built, each costing billions of dollars. If all had been launched as planned, the skies would now be teeming with what are essentially flying wireless base stations.

The most ambitious of them all, technically, was Iridium. Instead of plastering the Earth with millions of antennae, the idea went, why not put them on a constellation of satellites that could cover the entire planet with a wireless signal? John Bloom's "Eccentric Orbits", an exhaustive account of the plan, shows how after years of research in the late 1980s, three talented engineers at Motorola, a tech giant, found an impressive solution: 66 satellites in low orbits. Each would move at nearly 17,000 miles (27,360km) an hour 485 miles above

Eccentric Orbits: The Iridium Story. By John Bloom. *Grove Atlantic*; 537 pages; \$27.50

the planet. Despite the speed, they could still communicate with each other and with handsets anywhere on Earth, meaning that a call could be routed around the planet without using a terrestrial network.

The launch of the constellation took place without major hiccup. The technology worked largely as planned, too. But as a business Iridium was a disaster: less than a year after the first commercial call the company filed for bankruptcy. It was done for by its big phones with their even bigger antennae, costing \$3,795 each, calling costs of \$4 per minute and a much cheaper terrestrial mobile-phone system. By the time its bosses went to the bankruptcy court in August 1999, Iridium had cost more than \$6 billion to build. It had just 63,000 customers and revenues of a few million.

Not surprisingly, no deep-pocketed buyer emerged. Motorola, Iridium's biggest shareholder and operator, would have unceremoniously destroyed the constellation had it not been for Dan Colussy, an American businessman who had previously worked for Pan Am, a now-defunct airline, and restructured United Nuclear Corporation. Almost single-handedly he persuaded a hotch-potch of investors (in-

Also in this section

76 England's football dreams

77 Franz Liszt, musical prodigy

77 A memoir of Libya

78 Johnson: Passive panic

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cluding an elusive Saudi prince and an American media mogul), Motorola, the Pentagon and ultimately the White House to give Iridium a second chance. In November 2000 Mr Colussy took control of Iridium for \$25m.

The side plots in the book are even more interesting. One is the role of America's military-industrial complex. Iridium would never have seen the light of day without defence spending. The communications system that links the satellites was a child of Ronald Reagan's "Star Wars" programme. The Pentagon, which needed a portable system to communicate with troops, signed a sizeable contract that allowed Mr Colussy to convince his colleagues to invest. Incidentally, Iridium seems also to be a great global surveillance tool, suggests Mr Bloom: half-a-dozen "government operatives" were stationed at the control centre of the reborn company. ("Colussy didn't know exactly what they did, and didn't want to know," he writes.)

Iridium is also a stark reminder of how rapidly tech giants can decline. A pioneer of everything from car radios to mobile phones, Motorola had been the Apple of its time. But by the time it launched the satellites, it had become a company dominated by lawyers and accountants. When it set up Iridium as a separate company, Motorola burdened the firm with a monthly operations charge of \$45m—and refused to reduce it even in the face of mounting financial troubles.

Chance too played an important role in Iridium. Only off-the-shelf parts were used for the satellites, which meant that they were equipped with a fuel tank that holds about eight times as much as needed. But engineers then filled them up to the limit, a big reason why the constellation has survived until now, instead of having to be ►►

replaced after a few years. Similarly, if Mr Colussy had not joined a friend on his yacht and listened to complaints that his Iridium phone had stopped working because of Motorola's de-orbiting plans, he would probably never have thought about buying the system.

Could the world, under the right circumstances, have ended up dominated by wireless phone systems in the sky, rather than on Earth—the original vision behind Iridium and other such systems? Perhaps. But it is hard to imagine a constellation of satellites big enough to serve billions of smartphones and other untethered devices that exist now. Instead of competing with mobile networks, satellite-phone systems have become a complement.

Most important, the Iridium story will not be over when the original constellation finally starts falling out of the sky at the end of the decade. The firm plans to launch the first next-generation satellites in September—thanks to the French government, which has guaranteed the financing. Exhausting details aside, "Eccentric Orbits" not only offers good corporate drama, but is an enlightening narrative of how new communications infrastructures often come about: with a lot of luck, government help and investors who do not ask too many questions. ■

Football

The time of their lives

Fifty Years of Hurt. By Henry Winter. Bantam Press; 388 pages; £20

Out of Time: 1966 and the End of Old-Fashioned Britain. By Peter Chapman. Wisden; 268 pages; \$30. Bloomsbury; £18.99

When We Were Lions: Euro '96 and the Last Great British Summer. By Paul Rees. Aurum Press; 328 pages; \$28.99 and £18.99

ALMOST exactly 50 years ago, England won football's World Cup for the first and only time. Since then, much effort has gone into repeating this feat. There have been near-misses, in 1990 and 2002, but as Henry Winter notes in "Fifty Years of Hurt", England have failed to qualify for these tournaments more often than they have reached the semi-finals. For a football-mad country, he argues, this constitutes a national disgrace. Following their ignominious exit on June 27th from Euro 2016, two questions are raised: why is the team now so mediocre, and how did it once become the best in the world?

Peter Chapman turned 18 and was living in London in 1966. "Out of Time" is a



Football Manager: Game Over

gentle and affectionate portrait of the capital's gradual awakening to the charm of pop culture at that time. Mr Chapman's World Cup anecdotes reveal a quaint, even naive, event. England were not expected to do well. The visiting Brazilians were concerned about being accused of doping, owing to the amount of caffeine they drank. On the day of the final, the *Times* ran a football story on its front page, but it concerned a former international, Stanley Matthews, who had suffered minor injuries in a car crash. When the tournament started, no one thought much of England's chances. But by the final, this had changed. Mr Chapman was certain England would beat West Germany. His confidence was explicable: England had played eight games against the Germans and won seven.

Mr Chapman and Mr Winter saw 1966 as a triumph for the England coach, Alf Ramsey. He combined European intellectualism with English brawn. Until then tactics were viewed as "devious plans" employed by "foreigners", but Ramsey disregarded this prejudice. He was also tough. He threatened to resign if the Football Association interfered with team selection. After an uncertain build-up, Ramsey coaxed the best from creative players, such as Bobby Charlton and Martin Peters, while Alan Ball and Nobby Stiles harassed their opponents into submission.

Thirty years later, England hosted the 1996 European Championships. As in 1966, the home team were unfancied and interest in the tournament was tepid. Paul Rees, in "When We Were Lions", says Euro 96 threatened to fall between two stools. "The supporter base was still the working classes, and they were in the process of being priced out of the game. But a bigger, more affluent replacement audience had not yet

been tempted." England, under the tutelage of Terry Venables and soundtracked by the ubiquitous "Three Lions", were irresistible, or at least until they had to play the Germans.

Yet it was the Premier League—thanks to the savvy marketing of BSKYB—not the England team that benefited from Euro 96. Ticket prices rose, foreign players were lured in and the grounds sanitised. Mr Rees summarises this transformation succinctly: "In 1985, Chelsea chairman Ken Bates threatened to erect electric fences to deter hooligans from invading the pitch. Thirteen years later he would open a four-star hotel on the site."

The success of the Premier League is a problem for England, according to Mr Winter. His book is in two halves. The first runs through a potted history of the England team. His excellent contacts have brought him interviews with key players. In turn, he allows them plenty of airtime and quotes them verbatim. This works well with the articulate Gary Lineker; less so with the garbled Chris Waddle. The second half analyses where the old pros think they went wrong. Many of these arguments are well trodden: the number of foreign players has diluted the talent pool; national-team coaches are suspicious of flair and try to stifle these players with restrictive tactics; players' appetite for representing England has been diminished by the glamour of the Premier League.

Mr Winter finds fresher material when speaking to Colin Gordon, a player-turned-agent, who has witnessed some of the vampiric practices of the business. To a promising youngster, his competitors "offer jobs, cars, houses, money. They'll message 14-year-old kids: 'What's going on? Have you got an agent? We've got so-and-so, will you meet us?'" Noting the life-changing financial impact of having a child prodigy in the family, even well-intentioned parents have their heads turned.

There is an elegiac tone to all three works. English football is now unfathomably rich, drawing in the world's best players. Roy Hodgson (pictured) was comfortably the highest-paid coach at the Euros. But this money has yet to deliver success for the England team. The 1966 win was unexpected, a happy coming together of "spirit, virtuosity and tactical organisation", according to Mr Winter. Mr Rees quotes Noel Gallagher of Oasis, who hit their peak in 1996 with two enormous concerts in the English countryside: "We flew into Knebworth in a helicopter, but we were all wearing Adidas trainers. It was still a little bit unprofessional. Once [guitarist] Bonehead and [bassist] Guigsy became millionaires, I think they wanted out." There is an obvious parallel here. English football used to be driven by ambition, even if it was ragged at the edges. Now it has grown fat, its hunger sated. ■

Musical biography

Piano man

Franz Liszt: Musician, Celebrity, Superstar.

By Oliver Hilmes. Translated by Stewart Spencer. Yale University Press; 353 pages; \$38 and £25

AN INFECTIOUS disease swept through musical Europe in the mid-19th century. It was christened “Lisztomania” by Heinrich Heine, a German poet. Women were its main victims, with fetishism and erotic fantasies the presenting symptoms; the lady who devoutly poured the dregs from Franz Liszt’s tea cup into her scent-bottle was one case. Moreover, clad in black and tossing his shoulder-length locks as he swayed histrionically over the keyboard, Liszt too was addicted to playing his part in this communal rapture.

Oliver Hilmes oddly suggests at the end of his book that the “real Liszt” may never have existed, and that his personality consisted of “irreconcilable opposites”. But lifelong narcissism combined with a deep sense of artistic purpose would seem to furnish a perfectly adequate explanation for his switchback career. At 16, while earning fabulous sums as a recitalist, he later wrote that he felt sick of being “a performing dog” and yearned to join the priesthood; at 20 he gaily dived into salons in Paris while immersing himself in proto-Marxist philosophy; when he was 35 and at the height of his fame, he suddenly abandoned his virtuoso career to devote himself to conducting, teaching and playing in concerts for charity; at 54 he took orders to become an abbé, but that in no way inhibited his brilliantly successful talent for self-publicity, or for bewitching the female pupils who continued to pursue him almost to the end of his days. Charismatic Olga Janina, like Liszt a cigar-smoker, laid siege to him armed with a revolver (to dispatch him, if he didn’t yield) and bottles of poison (to dispatch herself).

If this book has a once-over-lightly feel, that is because there were many intertwined strands in Liszt’s extraordinary life, each of which could merit a book in itself. As a musical biography, Mr Hilmes’s account is superficial compared with Alan Walker’s three-volume “Franz Liszt”, which authoritatively analyses Liszt’s achievements as composer, conductor and polemicist, and demonstrates his pivotal importance in the development of European music.

But Mr Hilmes is illuminating on the emergence—and continuance into old age—of Liszt’s preternatural gifts as a pianist. And by drawing on hitherto unpublished documentary sources he pro-

vides a riveting chronicle of the composer’s tangled relationships. He spent 11 sexually tempestuous years with the Countess Marie d’Agoult, followed by 39 tormentedly religious ones with the intellectually formidable (and immensely rich) Princess Carolyne von Sayn-Wittgenstein; his flings on the side tended to be quite serious too.

But the real tragedy lay in Liszt’s relationship with his daughter Cosima. She waited half her life to punish the father who had deserted her mother and then placed his daughters under a pathologically cruel governess. As wife of the egotistic Richard Wagner, whose music Liszt loyally championed for 40 years, Cosima contemptuously reduced her father to the status of a lackey in the Wagner establishment, denying him all affection in his helpless dying days. ■

A memoir of Libya**O mio babbino caro**

The Return: Fathers, Sons and the Land In Between. By Hisham Matar. Random House; 276 pages; \$26. Viking; £14.99

“**E**VEN today,” writes Hisham Matar (pictured) of Libya’s troubled history, “to be Libyan is to live with questions.” The same, of course, could apply to those Western politicians who applauded the fall of Qaddafi, and now see a failed state just across the Mediterranean from Italy, providing fresh territory for Islamic State and exporting desperate migrants to seek a better future in Europe.

Mr Matar’s questions, however, go well beyond politics. This beautifully written memoir deals with the nature of family, the emotions of exile and the ties that link the present with the past—in particular the son with his father, Jaballa Matar. Is Jaballa still alive somewhere in a post-Qaddafi dungeon, or did he die in the 1996 massacre of 1,270 inmates of Tripoli’s notorious Abu Salim prison? Can the son contrive some certainty from the scraps of conflicting information garnered over the decades since 1990, when his father was kidnapped in Cairo by Egypt’s secret police and handed over to the Qaddafi regime?

Ultimately, there is no certainty. The snapshots of the past are blurred with age: the heroic father, escaping in 1980 first to Chad and then to Egypt, where he joined his wife and children, and then at times slipping back into Libya in disguise in order to see his own father; the meetings with relatives in Cairo, London and Nairobi, all of them places of exile—and then the return to a Benghazi temporarily euphoric after the death of Qaddafi.

The search for Jaballa is an obsession that takes the son into the corridors of power. David Miliband, then Britain’s foreign secretary, is “warm and jovial”; in the House of Lords, Peter Mandelson “seemed deliberately without emotion”; Lord Rothschild, formerly an adviser to the Libyan Investment Authority, asks his son Nathaniel to arrange a meeting with his friend, Saif al-Islam—Qaddafi’s favourite son. The press and various human-rights organisations call for information. Desmond Tutu, a Nobel laureate, appeals to Qaddafi “to urgently clarify the fate and whereabouts of Jaballa Matar”. Only Nelson Mandela (“too indebted to Qaddafi to risk upsetting him”, in Mr Matar’s wound-up phrase) is unwilling to help. ▶



Grief is the price he paid for love

► Could Saif al-Islam (now detained by one Libyan militia and sentenced to death in absentia by one of the country's rival governments) have answered Mr Matar's questions? Quite probably—but Saif's promise to help was too conditional to be relied on, and was soon overtaken by the uprising against the regime. As one expert from Amnesty International had once warned Mr Matar: "There is no country where the oppressed and the oppressor are so intertwined as in Libya."

This book is not the first time that Mr Matar has explored "the land in between" in his search for his father. Much of his

memoir appeared in an article in the *New Yorker* three years ago. But what gradually emerges from this longer version is a more nuanced portrait of the author himself: born in New York, where Jaballa had been posted as a diplomat in the early days of Qaddafi's rule, but living for most of his life outside a Libya he remembered only as a child. The cities in his life are just temporary anchors as he studies architecture before becoming a poet and writer so talented that his first novel ("In the Country of Men") was shortlisted for the Man Booker prize, Britain's most coveted literary award. In his memoir he is both the agent

and the observer of a life without roots.

Should he still hope for certainty? One of Mr Matar's habits as a poor young man was to study a single painting in the National Gallery. For a time the painting was a work by Velázquez. But at 25, he abruptly switched his attention to Manet's "The Execution of Maximilian"—unaware that it was the very day of the Abu Salim massacre. With post-Qaddafi Libya in bloody turmoil, it is tempting to wonder what might now capture his attention. Picasso's "Guernica" is an obvious possibility, but perhaps a better choice would be Cézanne's portrait of his father reading *L'Événement*. ■

Johnson | Passive panic

In partial defence of an unloved grammatical tool

PITY the passive voice. No feature of the grammar of English has such a bad reputation. Style guides, including that of *The Economist*, as well as usage books like the celebrated American "Elements of Style", warn writers off the passive, and automated grammar-checkers often suggest that passive clauses be redrafted. There are just two problems with this advice. One is that a diminishing proportion of the world's pundits seem to know what the passive voice is. And the other is that the advice is an unwieldy hammer, when not every writing problem is a nail.

The proper brief against the passive is twofold. One is that it can obscure who did what in a sentence. Barack Obama said recently that "There is no doubt that civilians were killed that shouldn't have been," the passive voice hiding who did that killing: drones under the president's command. Donald Trump, the presumptive Republican nominee to replace Mr Obama as president, tried to slip away from the controversy of his racist comments about a Mexican-American judge: "Questions were raised" about the judge's impartiality, said Mr Trump. Who raised those questions? Why, Mr Trump.

The other criticism of the passive voice is that it recurs in the worst kind of prose: leaden academic and bureaucratic writing in particular. A scientific paper often describes how "Participants were selected for certain characteristics...it was noted that they behaved in a certain way... results were analysed..." Besides being dull, these relentless passives make the process seem oddly disembodied, as though the research somehow performed itself.

But critics of the passive often go wrong. Stephen King, a horror novelist, in an entertaining rant against the passive in his autobiography, refers to it several



times as the "passive tense". It isn't a tense. Tense has to do with when things happen in time. Voice structures who did what to whom in a sentence. In the typical active sentence, the subject is the doer of the action: he kicked the ball. In the typical passive sentence, the recipient of action becomes the subject: the ball was kicked.

Where critics have gone wrong is in diagnosing all kinds of vagueness as passive voice, even when there's no grammatical passive to be found. Mark Carney, governor of the Bank of England, said recently that "there are no immediate plans for the £50 note...The feedback is that the notes need to be smaller; different sizes, but smaller." A critic in America's *National Review* carped: "Excellent use of the passive voice, Governor." Except that there is no passive at all: "there are no immediate plans...the feedback is..." may be flabby, but passive they aren't.

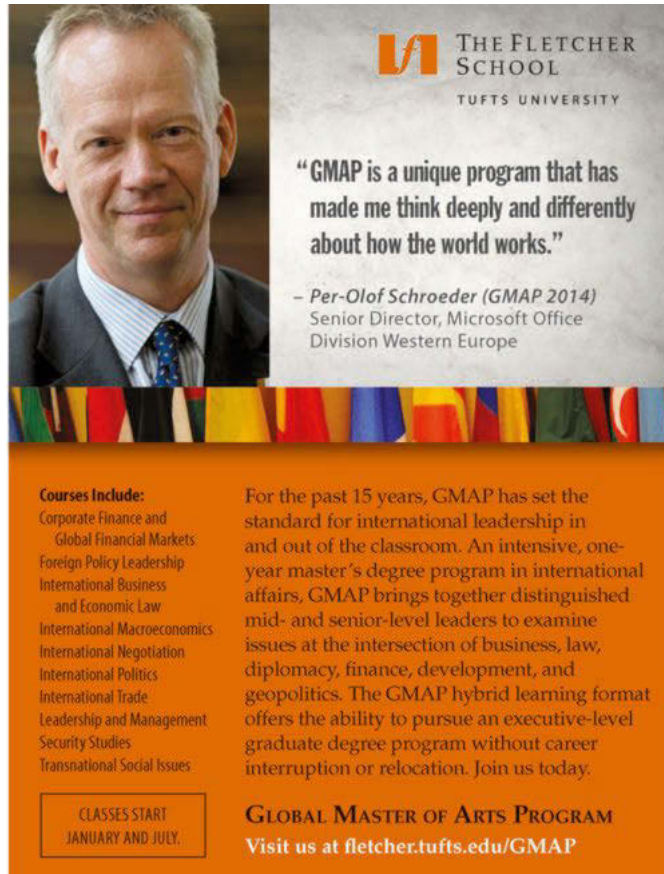
The problem is in confusing action and

vigorous writing with the active voice, and weak, vague sentences with the passive. Voice has little to do with content. "The journalist dozed on his desk" is active. "London was destroyed by aliens" is passive. Nor is clarity always an issue. The active voice can be vague: "Someone ate my cake." The passive can be quite clear: "My cake was eaten by the neighbours' kids." (Only the "short passive" omits the miscreant: "The cake was eaten.")

The passive can be useful. "I'll never forget the day my pet hamster was run over" emphasises the speaker's emotion, and the poor hamster. Only if the villain needs emphasising should this be "I'll never forget the day Steve ran over my hamster." And the passive can be good for connecting things: "Jim loved nothing more than his oboe. Then one day it was stolen." The oboe is the last thing mentioned in the first sentence. While fresh in the readers mind, it should be the subject of the second.

The advice needed is stylistic, not grammatical. The problem with the "short passive" is that it can be incomplete: where full information is important, the real advice should be "include all needed information" rather than "never use the passive." Where passive voices plod one after the other, the writer should vary sentence structure and where the passive results in awkward flow, use sentence structure to link information sensibly for the reader's sake.

Inexperienced writers can certainly overdo the passive, which can feel "grown up", serious. Telling them to prefer the active would be good advice. But to demonise a useful grammatical tool takes things too far. Many mistakes have been made in castigating the passive; not to name names, but it is time the language mavens improved their advice.



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Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance % of GDP 2016 ^f	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$	
	latest	qtr* 2016 ⁱ	2016 ⁱ		latest	2016 ⁱ		latest 12 months, \$bn	% of GDP 2016 ^f			Jun 29th	year ago
United States	+2.1 Q1	+1.1	+1.8	-1.4 May	+1.0 May	+1.4	4.7 May	-473.1 Q1	-2.5	-2.5	1.46	-	-
China	+6.7 Q1	+4.5	+6.6	+6.0 May	+2.0 May	+1.9	4.0 Q1 [§]	+293.5 Q1	+2.7	-3.1	2.70 ^{§§}	6.65	6.21
Japan	+0.1 Q1	+1.9	+0.6	-0.1 May	-0.3 Apr	nil	3.2 Apr	+157.2 Apr	+3.4	-6.1	-0.19	103	123
Britain	+2.0 Q1	+1.4	+1.8	+1.6 Apr	+0.3 May	+0.7	5.0 Mar ^{††}	-146.9 Q4	-4.8	-3.6	1.13	0.74	0.64
Canada	+1.1 Q1	+2.4	+1.5	-0.2 Mar	+1.5 May	+1.6	6.9 May	-47.6 Q1	-2.7	-1.7	1.13	1.30	1.24
Euro area	+1.7 Q1	+2.2	+1.5	+2.0 Apr	-0.1 May	+0.3	10.2 Apr	+367.5 Apr	+3.0	-1.9	-0.12	0.90	0.90
Austria	+1.6 Q1	-0.7	+1.3	+2.4 Apr	+0.6 May	+1.1	5.8 Apr	+9.6 Q4	+2.2	-1.9	0.27	0.90	0.90
Belgium	+1.5 Q1	+0.9	+1.3	+2.3 Apr	+2.2 Jun	+1.5	8.7 Apr	-0.1 Dec	+1.2	-2.4	0.26	0.90	0.90
France	+1.3 Q1	+2.6	+1.4	+1.9 Apr	nil May	+0.2	9.9 Apr	-19.9 Apr [‡]	-0.5	-3.5	0.24	0.90	0.90
Germany	+1.6 Q1	+2.7	+1.6	+1.2 Apr	+0.3 Jun	+0.4	6.1 May	+301.0 Apr	+8.0	+0.4	-0.12	0.90	0.90
Greece	-1.3 Q1	-1.9	+1.2	+2.9 Apr	-0.9 May	+0.4	24.1 Mar	+1.3 Apr	+2.1	-3.9	8.19	0.90	0.90
Italy	+1.0 Q1	+1.0	+1.0	+1.8 Apr	-0.3 May	+0.2	11.7 Apr	+43.3 Apr	+1.9	-2.5	1.30	0.90	0.90
Netherlands	+1.5 Q1	+1.8	+1.7	+2.8 Apr	nil May	+0.5	7.6 May	+62.0 Q1	+9.7	-1.6	0.13	0.90	0.90
Spain	+3.4 Q1	+3.1	+2.8	+8.9 Apr	-0.8 Jun	-0.4	20.1 Apr	+17.1 Mar	+1.2	-3.5	1.33	0.90	0.90
Czech Republic	+2.6 Q1	+1.4	+2.6	+4.2 Apr	+0.1 May	+1.2	5.4 May [§]	+2.7 Q1	nil	-1.5	0.47	24.4	24.4
Denmark	+0.1 Q1	+2.2	+1.2	+2.0 Apr	+0.1 May	+0.7	4.3 Apr	+18.5 Apr	+6.0	-2.8	0.11	6.70	6.69
Norway	+0.7 Q1	+4.0	+1.5	+6.0 Apr	+3.4 May	+2.5	4.6 Apr ^{††}	+29.3 Q1	+11.2	+6.8	1.05	8.39	7.90
Poland	+2.5 Q1	-0.4	+3.5	+3.5 May	-0.9 May	+1.2	9.1 May [§]	-2.3 Apr	-1.9	-2.1	2.93	3.98	3.76
Russia	-1.2 Q1	na	-0.9	+0.7 May	+7.3 May	+7.5	5.6 May [§]	+51.3 Q1	+3.3	-2.5	8.39	63.7	55.4
Sweden	+4.2 Q1	+2.0	+3.5	+3.5 Apr	+0.6 May	+1.0	7.6 May [§]	+28.2 Q1	+5.6	-0.5	0.36	8.50	8.26
Switzerland	+0.7 Q1	+0.4	+1.2	+1.0 Q1	-0.4 May	-0.6	3.5 May	+71.9 Q1	+9.6	+0.3	-0.50	0.98	0.93
Turkey	+4.8 Q1	na	+3.3	+0.6 Apr	+6.6 May	+7.7	10.1 Mar [§]	-28.6 Apr	-4.6	-1.8	9.42	2.89	2.69
Australia	+3.1 Q1	+4.3	+2.6	+4.8 Q1	+1.3 Q1	+1.6	5.7 May	-62.3 Q1	-4.0	-2.0	1.99	1.34	1.31
Hong Kong	+0.8 Q1	-1.8	+2.0	-0.3 Q1	+2.6 May	+2.6	3.4 May ^{††}	+11.9 Q1	+2.7	-0.4	1.00	7.76	7.75
India	+7.9 Q1	+9.6	+7.5	-0.8 Apr	+5.8 May	+5.1	4.9 2013	-22.1 Q1	-1.1	-3.7	7.44	67.7	63.9
Indonesia	+4.9 Q1	na	+5.1	+1.6 Apr	+3.3 May	+4.3	5.5 Q1 [§]	-18.2 Q1	-2.4	-1.9	7.45	13,162	13,345
Malaysia	+4.2 Q1	na	+5.5	+3.0 Apr	+2.0 May	+2.8	3.5 Apr [§]	+7.0 Q1	+2.6	-3.7	3.74	4.04	3.78
Pakistan	+5.7 2016**	na	+4.8	-3.1 Apr	+3.2 May	+5.1	5.9 2015	-2.5 Q1	-0.9	-4.6	8.03 ^{†††}	105	102
Philippines	+6.9 Q1	+4.5	+6.2	+10.5 Apr	+1.6 May	+2.6	6.1 Q2 [§]	+6.7 Mar	+3.5	-1.9	4.35	47.0	45.2
Singapore	+1.8 Q1	+0.2	+2.3	+0.9 May	-1.6 May	+1.0	1.9 Q1	+54.8 Q1	+20.6	+0.9	1.90	1.35	1.35
South Korea	+2.8 Q1	+2.1	+2.6	+4.3 May	+0.8 May	+1.3	3.7 May [§]	+103.1 Apr	+7.0	+0.4	1.46	1,160	1,125
Taiwan	-0.7 Q1	+3.1	+1.9	+1.9 May	+1.2 May	+1.0	4.0 May	+74.8 Q1	+12.5	-0.9	0.76	32.3	31.0
Thailand	+3.2 Q1	+3.8	+3.5	+1.5 Apr	+0.5 May	+2.4	1.0 Apr [§]	+39.6 Q1	+3.0	-2.2	1.97	35.2	33.8
Argentina	+0.5 Q1	+2.0	-0.7	-2.5 Oct	— ***	—	5.9 Q3 [§]	-15.0 Q1	-2.6	-2.8	na	14.9	9.08
Brazil	-5.4 Q1	-1.1	-3.7	-7.2 Apr	+9.3 May	+8.3	11.2 May [§]	-29.5 May	-1.4	-5.7	12.15	3.24	3.14
Chile	+2.0 Q1	+5.3	+3.1	-3.4 Apr	+4.2 May	+3.6	6.4 Apr ^{§††}	-4.7 Q1	-1.4	-1.8	4.52	660	638
Colombia	+2.5 Q1	+0.6	+3.3	+8.4 Apr	+8.2 May	+4.7	9.0 Apr [§]	-16.9 Q1	-5.3	-1.9	7.53	2,910	2,595
Mexico	+2.6 Q1	+3.3	+2.3	+1.9 Apr	+2.6 May	+3.0	4.0 May	-30.5 Q1	-2.9	-3.0	6.01	18.5	15.7
Venezuela	-8.8 Q4~	-8.4	-7.7	na	na	+220	7.3 Apr [§]	-17.8 Q3~	-1.7	-15.5	11.54	9.99	6.30
Egypt	+4.0 Q4	na	+3.8	-12.7 Apr	+12.3 May	+9.8	12.7 Q1 [§]	-16.8 Q4	-2.7	-9.8	na	8.88	7.63
Israel	+1.9 Q1	+1.3	+3.4	+1.2 Apr	-0.8 May	+1.0	4.8 May	+14.7 Q1	+4.2	-2.5	1.63	3.85	3.78
Saudi Arabia	+3.5 2015	na	+2.5	na	+4.1 May	+3.8	5.6 2015	-59.5 Q1	-2.4	-9.6	na	3.75	3.75
South Africa	-0.2 Q1	-1.2	+0.7	+1.8 Apr	+6.1 May	+6.4	26.7 Q1 [§]	-13.4 Q1	-4.2	-3.3	8.74	14.8	12.3

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, May 37.09%; year ago 26.74% ^{†††††}Dollar-denominated bonds.

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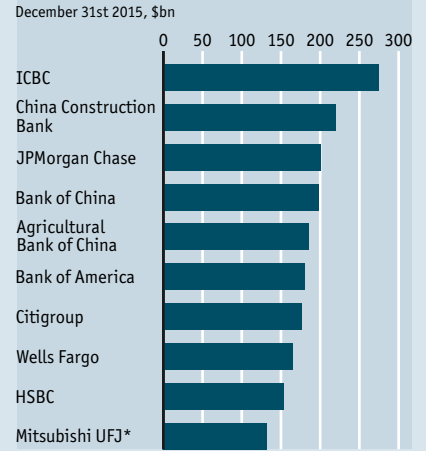
Markets

	Index Jun 29th	% change on		
		one week	in local currency	in \$ terms
			Dec 31st 2015	
United States (DJIA)	17,694.7	-0.5	+1.5	+1.5
China (SSEA)	3,068.6	+0.9	-17.2	-19.1
Japan (Nikkei 225)	15,566.8	-3.1	-18.2	-4.2
Britain (FTSE 100)	6,360.1	+1.6	+1.9	-6.5
Canada (S&P TSX)	14,036.7	+0.2	+7.9	+15.3
Euro area (FTSE Euro 100)	962.8	-4.4	-12.0	-10.1
Euro area (EURO STOXX 50)	2,832.2	-4.9	-13.3	-11.4
Austria (ATX)	2,077.0	-6.2	-13.3	-11.4
Belgium (Bel 20)	3,297.8	-4.5	-10.9	-8.9
France (CAC 40)	4,195.3	-4.2	-9.5	-7.5
Germany (DAX)*	9,612.3	-4.6	-10.5	-8.5
Greece (Athex Comp)	541.9	-11.4	-14.2	-12.3
Italy (FTSE/MIB)	15,946.9	-7.9	-25.5	-23.9
Netherlands (AEX)	430.1	-2.5	-2.7	-0.5
Spain (Madrid SE)	815.0	-6.9	-15.6	-13.7
Czech Republic (PX)	808.2	-5.1	-15.5	-13.9
Denmark (OMXCX)	844.2	+0.4	-6.9	-4.5
Hungary (BUX)	26,383.3	-1.5	+10.3	+12.4
Norway (OSEAX)	661.1	-0.7	+1.9	+7.4
Poland (WIG)	44,807.2	-3.0	-3.6	-4.4
Russia (RTS, \$ terms)	931.4	+0.4	+7.3	+23.0
Sweden (OMXS30)	1,309.6	-2.6	-9.5	-10.2
Switzerland (SMI)	7,979.0	+0.1	-9.5	-7.6
Turkey (BIST)	76,711.9	-0.7	+6.9	+8.0
Australia (All Ord.)	5,221.0	-2.4	-2.3	-0.9
Hong Kong (Hang Seng)	20,436.1	-1.7	-6.7	-6.9
India (BSE)	26,740.4	-0.1	+2.4	+0.1
Indonesia (JSX)	4,882.2	-0.3	+6.3	+11.3
Malaysia (KLSE)	1,642.2	+0.3	-3.0	+3.1
Pakistan (KSE)	37,786.6	-1.0	+15.1	+15.2
Singapore (STI)	2,792.7	+0.2	-3.1	+2.0
South Korea (KOSPI)	1,956.4	-1.8	-0.3	+0.8
Taiwan (TWI)	8,586.6	-1.5	+3.0	+4.6
Thailand (SET)	1,442.7	+1.3	+12.0	+14.4
Argentina (MERV)	14,608.3	+6.3	+25.1	+9.0
Brazil (BVSP)	51,001.9	+1.7	+17.7	+43.9
Chile (IGPA)	19,647.2	-0.4	+8.2	+16.2
Colombia (IGBC)	9,758.0	-1.3	+14.2	+24.6
Mexico (IPC)	45,466.4	-0.7	+5.8	-1.4
Venezuela (IBC)	12,832.4	-8.1	-12.0	na
Egypt (Case 30)	6,942.5	-3.0	-0.9	-12.6
Israel (TA-100)	1,211.9	-2.3	-7.8	-7.0
Saudi Arabia (Tadawul)	6,500.4	-0.5	-6.0	-5.9
South Africa (JSE AS)	51,890.4	-3.1	+2.4	+7.1

World's biggest banks

Industrial and Commercial Bank of China (ICBC) was the biggest bank in the world at the end of last year, according to *The Banker*, which ranks the top 1,000 banks by Tier-1 capital holdings (mostly common stock and retained earnings). Chinese banks now occupy four of the top five places, as Agricultural Bank of China displaced Bank of America to become the world's fifth-biggest bank on this measure. That was the only change to the top ten ranking from the previous year. Although Chinese banks were more profitable than those of any other country last year, accounting for 32% of the total profit pool, performance has peaked. Profits fell by 3.5%, the first drop since 2004, and bad loans are rising.

By Tier-1 capital



Source: *The Banker*

*March 31st 2016

Other markets

	Index Jun 29th	% change on		
		one week	in local currency	in \$ terms
			Dec 31st 2015	
United States (S&P 500)	2,070.8	-0.7	+1.3	+1.3
United States (NAScomp)	4,779.3	-1.1	-4.6	-4.6
China (SSEB, \$ terms)	346.8	+1.2	-16.7	-18.7
Japan (Topix)	1,247.7	-2.9	-19.4	-5.5
Europe (FTSEurofirst 300)	1,290.9	-3.8	-10.2	-8.2
World, dev'd (MSCI)	1,599.1	-4.1	-3.8	-3.8
Emerging markets (MSCI)	805.2	-2.9	+1.4	+1.4
World, all (MSCI)	386.1	-4.0	-3.3	-3.3
World bonds (Citigroup)	960.0	+0.5	+10.3	+10.3
EMBI+ (JPMorgan)	781.3	+0.9	+10.9	+10.9
Hedge funds (HFRX)	1,148.4 [§]	-1.2	-2.2	-2.2
Volatility, US (VIX)	17.0	+21.2	+18.2 (levels)	
CDSs, Eur (iTRAXX) [†]	85.8	+10.6	+11.2	+13.6
CDSs, N Am (CDX) [†]	81.0	+2.6	-8.3	-8.3
Carbon trading (EU ETS) €	4.5	-20.5	-45.4	-44.1

Sources: Markit; Thomson Reuters. [§]Total return index. [†]Credit-default-swap spreads, basis points. [§]June 27th.

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

The Economist commodity-price index

2005=100

	Jun 21st	Jun 28th*	% change on	
			one month	one year
Dollar Index				
All Items	140.2	139.5	+1.6	-4.5
Food	168.3	166.1	+1.1	-2.6
Industrials				
All	111.0	111.9	+2.5	-7.2
Nfa [†]	119.8	119.0	+0.9	-4.3
Metals	107.3	108.9	+3.3	-8.6
Sterling Index				
All items	173.8	190.5	+11.1	+12.8
Euro Index				
All items	154.7	157.0	+2.4	-3.7
Gold				
\$ per oz	1,270.6	1,311.8	+8.0	+12.2
West Texas Intermediate				
\$ per barrel	49.0	47.8	-2.2	-19.4

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

Ageing Societies

Reaping the longevity dividend

November 29th-30th 2016, London



Hate and love

Amjad Sabri, Pakistan's favourite qawwali singer, was killed on June 22nd, aged 45

HIS father, Ghulam Farid Sabri, sang that way. His uncle, Maqbool Ahmed Sabri, sang that way. His ancestors had done so too, right back to the time of Mian Tansen, a favourite musician at the Mughal court, who received 100,000 gold coins for his first performance. The Sabri house in Karachi was full of the wheeze of portable harmoniums, the patter of drums and the joyous, repetitive mantras of *qawwali*, the songs of the millions of South Asian followers of the mystical Sufi strain of Islam. So it was no wonder that from early childhood Amjad Sabri joined the chorus, hauled out of bed by his father at 4am to wash, say his prayers, fetch his instrument and sing the first *raga* of the dawn. The long preparation was worth it, to feel one with the sunrise.

He knew this was not ordinary music. It was a love song to the prophet Muhammad, to Ali, his son-in-law and closest disciple, to the Sufi saints and above all to God directly, music being the only sure way to evoke and approach Him. *Qawwali* was a plea to be noticed at the court of heaven, admitted to the presence, absorbed into the heartbeat and the breath, as in his father's most famous song, "Tajdar-e-haram", "King of the Holy Sanctuary":

What should I tell you, O Prince of Arabia,
You already know what is in my heart,

In our separation, O Untaught One,
Our sleepless nights are so hard to bear
In your love I've lost all consciousness
Tajdar-e-haram, tajdar-e-haram

As he or his relations sang, the audience would start to sway, clap, sing along, dance and lose themselves in the ecstasy of God. His father would cry "Allah! Allah!" in the midst of his singing, an invocation so powerful that even non-Muslims would start to shout it after him. In adulthood Amjad, always careful to preserve his father's modulations, did this too, enjoying the effect it had on his listeners. Indeed, his whole performance radiated calm, confidence and joy: a big, burly man with luxuriant long black hair, brown *karakul* hat, one small gold earring and many chunky rings, effortlessly smiling and gesticulating through his glorious baritone singing. "Bhar do Jholi" was his most famous song, "Fill my Bag", or "Fulfil my Wish":

Fill my bag, O Lord,
Fill all our bags, O Lord,
Fill the bag, O Guide,
Fill my bag, O Lord of Medina,
I won't return empty-handed!
Bhar do jholi, bhar do jholi...

He was not doctrinaire about this. He would sing in Sufi shrines, cross-legged on a mat with a skull-capped chorus, or perform like a rock star, standing at a mic un-

der bright lights in a flamingo-pink cotta. On tv he sang regularly for the morning shows, especially during Ramadan, and would take part in the silly games too, if the presenters asked him. He sang all over South Asia (being a star in India and Bangladesh as well) and took *qawwali* to Europe and America, where he performed backed by saxophones. Bollywood invited him, and he was happy to sing on film; Bollywood actresses posed with him. The only problem with all his globetrotting, for he liked his food, was the difficulty of finding good halal meals, but he taught himself to cook a fine *aloo gosht*, beef-and-potato curry, to keep himself going.

Filling the wine-cup

Much larger obstacles reared their heads at home. To the Pakistani Taliban the wildness of Sufism, its decadent Persian origins, its veneration of saints, its reminders of an Islam disseminated through art, music and dance, were all anathema. So was its easy openness to all faiths and people, demonstrated in the way its greatest living *qawwal* would stroll around the narrow, teeming lanes of Liaquatabad in Karachi, shoot a piece or two on the carrom boards, treat some hapless batsman to his off-spin, chat to the man in the cigarette booth and, indeed, mix Hindu *ragas* naturally with his songs. He also declared that his own favourite *qawwal* was Aziz Mian, who played on the much-loved Sufi metaphor of drunkenness in God's love to cry "Let's drink! Fill my wine-cup to overflowing!"

So Sufi shrines began to be bombed by the Taliban, and singers shot at. The establishment failed to take the Sufis' side, preferring to blazon its respect for orthodox religion. It was the high court, not the Taliban, that accused Mr Sabri of blasphemy in 2014 for singing a song that mentioned members of Muhammad's family on one of those morning shows. The threats came closer, extra-legal this time: six months ago three men burst into his house, retreating only because they did not find him there. Some friends said he had asked for protection; others thought he never would. His last song on tv included the refrain "When I shudder in my dark tomb, dear Prophet, look after me."

He was on his way to do another morning show when two men on a motorcycle riddled his car with bullets. The Pakistani Taliban declared that they had done it, killing a blasphemer. It happened close to the underpass that had been named after his father in more tolerant times.

His father had sung that way. His uncle had sung that way. And his 12-year-old son defiantly performed his "Karam Mangta Hun" ("I ask for Kindness, Lord") in tribute to him; for the greatest message of Sufi Islam to the world is the unshakable primacy of music, peace and love. ■

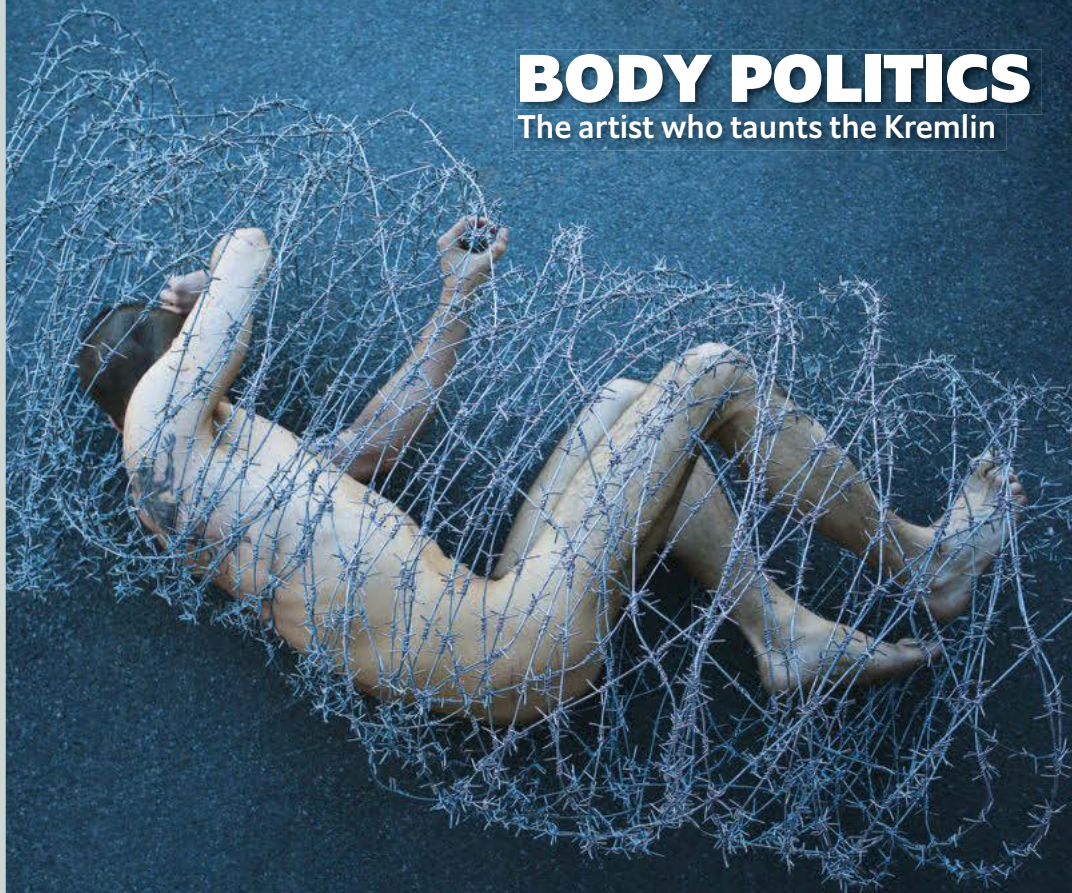
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BODY POLITICS

The artist who taunts the Kremlin



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