THE DELUSIONS OF BREXIT: A SPECIAL REPORT ON BRITAIN AND THE EU

The Economist

OCTOBER 17TH–23RD 2015 Economist.com

China's left-behind children

Hillary wins big in Vegas

Piggy in your middle: gene-edited organs

Europe's embattled banks

Dell, EMC and the cumulus effect

The new game

ROLEX


From figuring it out to getting it done, we're here to help.
Bring us your problems. Your challenges. Your just about anything. Because we're not just in the shipping business, we're in the problem solving business. It doesn't matter if you're a big company or you're just you, we'll help make it happen. We're 400,000 people around the world serving more than 220 countries and territories, ready to roll up our sleeves and get to work. So bring us your ideas, your questions, your boldest business plans yet. ups.com/solvers
ups united problem solvers™
Copyright ©2015 United Parcel Service of America, Inc.

Contents

On the cover
The power of the United States is being challenged: leader, page 15. China no longer accepts that America should be Asia-Pacific's dominant naval power, page 64. Russia sticks a first toe into Iraq, page 51. An airliner shot down by a missile was a wake-up call for Europeans unprepared for war, page 58

The Economist online

Daily analysis and opinion to supplement the print edition, plus audio and video, and a daily chart
Economist.com

E-mail: newsletters and mobile edition
Economist.com/email

Print edition: available online by 7pm London time each Thursday
Economist.com/print

Audio edition: available online to download each Friday
Economist.com/audioedition

The Economist

Volume 417 Number 8960

Published since September 1843
to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

Editorial offices in London and also:
Atlanta, Beijing, Berlin, Brussels, Cairo, Chicago, Lima, Mexico City, Moscow, Mumbai, Nairobi, New Delhi, New York, Paris, San Francisco, São Paulo, Seoul, Shanghai, Singapore, Tokyo, Washington DC

Brexit The risk of Britain leaving the European Union is growing. It needs to be countered: leader, page 16. Though Britain has always been rather half-hearted about the EU, its membership has been beneficial for all concerned, argues John Peet. See our special report after page 50. British attitudes to Brexit, page 62

China's left-behind children There are 70m reasons to ease China's curbs on internal migration: leader, page 18. Children bear a disproportionate share of the hidden cost of China's growth, pages 26-28

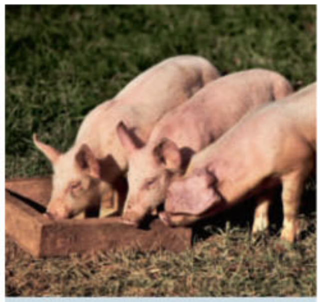
Hillary wins big On the evidence of the first debate, the Democratic primaries will not be much of a contest: Lexington, page 38

Contents continues overleaf

Cloud computing The computer industry's shift to the cloud brings many benefits—but don't ignore the risks: leader, page 17. The merger of Dell and EMC is further proof that the IT industry is remaking itself, page 67

European banks Europe's dithering banks are losing ground to their decisive American rivals, page 75

Angus Deaton The winner of the Nobel prize has brought economics back to the real world: Free exchange, page 80



Animal-organ transplants Genome engineering may help make pig organs suitable for putting into people, page 82

Subscription service

For our latest subscription offers, visit **Economist.com/offers**
For subscription service, please contact by telephone, fax, web or mail at the details provided below:
Telephone: **1 800 456 6086** (from outside the US and Canada, **1 636 449 5702**)
Facsimile: **1 866 856 8075** (from outside the US and Canada, **1 636 449 5703**)
Web: **Economistsubs.com**
E-mail: **customerhelp@economist.com**
Post: **The Economist Subscription Services, P.O. Box 46978, St. Louis, MO 63146-6978, USA**

Subscription for 1 year (51 issues)

United States	US$160
Canada	CN$165
Latin America	US$338

Principal commercial offices:
25 St James's Street, London SW1A 1HG
Tel: 020 7830 7000

Rue de l'Athénée 32
1206 Geneva, Switzerland
Tel: 41 22 566 2470

750 3rd Avenue, 5th Floor, New York, NY 10017
Tel: 1 212 541 0500

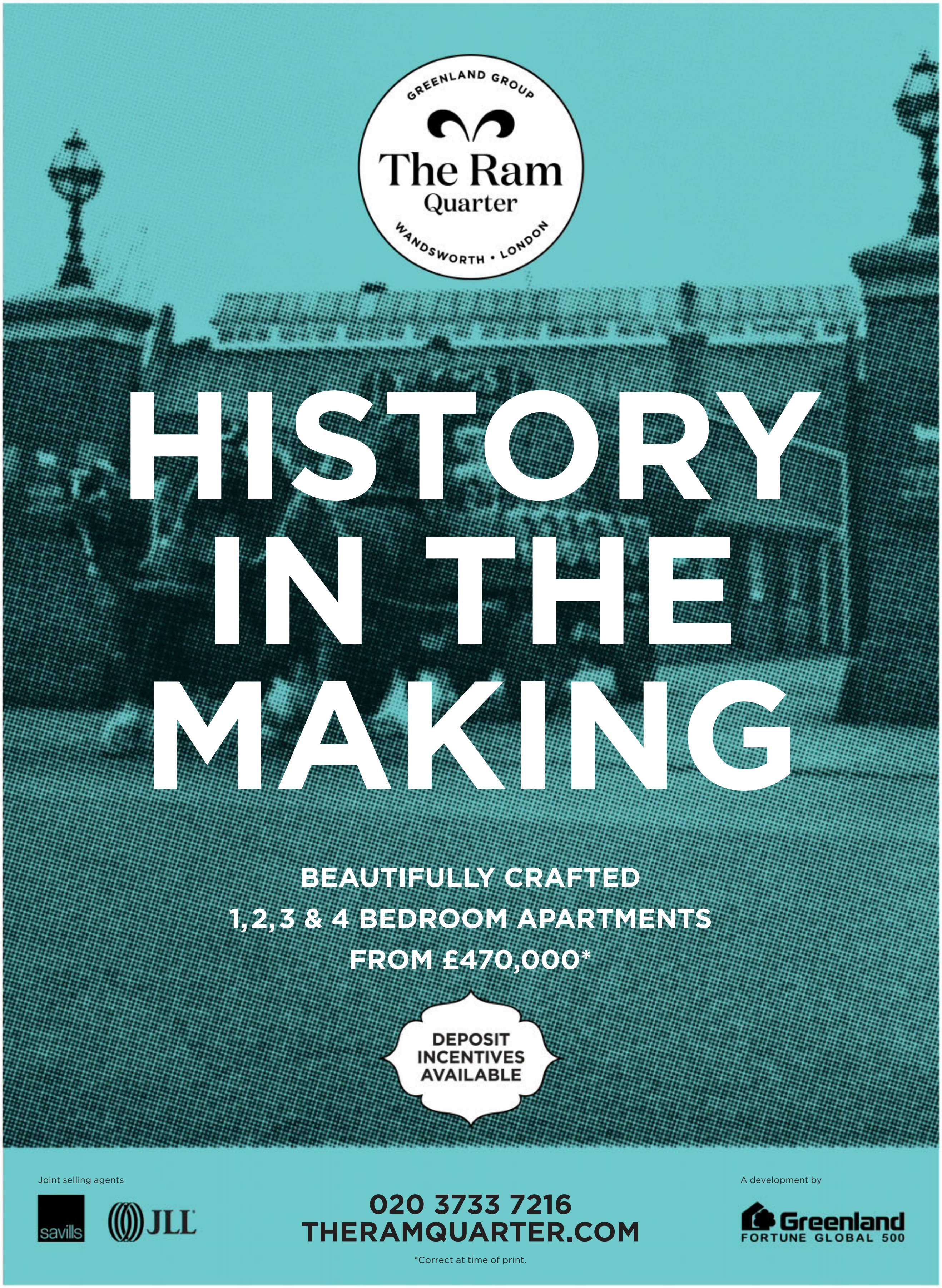
1301 Cityplaza Four,
12 Taikoo Wan Road, Taikoo Shing, Hong Kong
Tel: 852 2585 3888

Other commercial offices:
Chicago, Dubai, Frankfurt, Los Angeles, Paris, San Francisco and Singapore

PEFC/29-31-58

PEFC certified
This copy of *The Economist* is printed on paper sourced from sustainably managed forests certified to PEFC
www.pefc.org

recycle


GREENLAND GROUP
The Ram
Quarter
WANDSWORTH • LONDON
HISTORY
IN THE
MAKING
BEAUTIFULLY CRAFTED
1,2,3 & 4 BEDROOM APARTMENTS
FROM £470,000*
DEPOSIT
INCENTIVES
AVAILABLE
Joint selling agents
savills
JLL
020 3733 7216
THERAMQUARTER.COM
*Correct at time of print.
A development by
Greenland
FORTUNE GLOBAL 500

Politics

Two suicide-bombers attacked a peace demonstration in Ankara, **Turkey's** capital, killing at least 99 people and wounding hundreds more. The bombing, probably carried out by Islamic State, led to national demonstrations of mourning. It also deepened divisions between Turkey's ethnic Kurdish minority and the country's government, which has been escalating its war on the Kurdish PKK militia.

Dutch air-safety investigators released a report on the downing of Malaysian Airlines **flight MH17** in July 2014, finding that it was hit by a Russian-made BUK rocket over Ukraine. The investigation did not attempt to pin blame on either the Russian-backed rebels or the Ukrainian government. That is for a criminal investigation next year. The rocket's maker released its own report disputing the conclusions.

Alexander Lukashenko won a fifth consecutive term as president of **Belarus**. Opposition parties and candidates are essentially non-existent. But the EU suspended its sanctions against Belarus, noting the vote had taken place without violence. Western politicians view Belarus as a potential strategic asset in their stand-off with Russia.

Correction Last week we reported that nine of Malaysia's sultans had called on the prime minister, Najib Razak, to step down. They did not. Rather, they called for a quick and transparent investigation into 1MDB, a state-investment fund overseen by the prime minister. His failure to resolve allegations of corruption, they said, had created a "crisis of confidence". We are sorry for the mistake.

Tit-for-tat

A spate of stabbings and shootings continued in the **West Bank, Gaza** and **Israel**. Seven Israelis and 32 Palestinians have so far died in two weeks of apparently unco-ordinated violence. Israeli security forces have started to deploy road-blocks in East Jerusalem. The violence seems neither to be escalating nor petering out.

Eight officials of **Islamic State** were killed in an air strike in the west of Iraq. The group's leader, Abu Bakr al-Baghdadi, is not thought to have been among them, though he may have been injured.

Iran's parliament and its powerful Council of Guardians both formally approved the deal reached with six world powers on the country's nuclear programme. America's Republican-controlled Congress has not ratified the deal, but has also failed to block it.

An Iranian court convicted **Jason Rezaian**, a correspondent for the *Washington Post*, of espionage, the country's official media reported.

A presidential election in **Guinea** was endorsed by the European Union as generally clean, but the opposition accused President Alpha Condé, who was first elected in 2010 after decades of dictatorship, of rigging the vote to win a second term.

A deputy minister said that **South Africa** planned to leave the International Criminal Court, though it was unclear how certain it was to happen. The government was embarrassed in June when a South African court sought to arrest **Sudan's** visiting president, Omar al-Bashir, whom the ICC has accused of genocide. He may want to visit again in December.

Three suicide-bombs set off by the jihadists of Boko Haram in **Nigeria's** main north-eastern city, Maiduguri, left at least seven people dead. President Muhammadu Buhari's regime has yet to get on top of the insurgency. America said it would send troops to neighbouring Cameroon to help fight Boko Haram's operations there by providing reconnaissance support.

The middle option

Barack Obama changed course and proposed a plan to keep 5,500 American troops in **Afghanistan**, to help with counter-terrorism operations, into 2017. This came after a review of the country's worsening security situation.

A court in **China** sentenced Jiang Jiemin, the former head of China National Petroleum Corporation, to 16 years in prison for taking bribes. Dozens of other company officials have also been arrested. Mr Jiang was an ally of China's former security chief, Zhou Yongkang, the most senior official convicted so far in a broad anti-graft drive.

The governor of **Japan's** Okinawa prefecture, Takeshi Onaga, revoked a permit allowing an American military base to move to a new site. The central government says it plans to proceed with the project, which is widely opposed by Okinawans.

Myanmar's government signed a ceasefire with some of the country's smaller ethnic rebel groups. It also said it would go ahead as planned with elections on November 8th. There had been talk of postponing them because of flooding and landslides.

Down to the wire

In **Canada** the centrist Liberal Party pulled ahead of the Conservative Party, which is led by the prime minister, Stephen Harper, in the closing stages of the campaign before the general election on, October 19th. Polls suggest that the Liberals will not win a majority, but they could govern with the help of the left-leaning New Democratic Party, which lies third.

Chile's president, Michelle Bachelet, began work on a new constitution. The current one was drawn up during the dictatorship of Augusto Pinochet and took effect in 1981, though it has since been amended. The reform will begin with a campaign of "civic education".

A party in disarray

Republicans in the House of Representatives cast around for a viable candidate for Speaker after the shock withdrawal of Kevin McCarthy from the contest to replace John Boehner. Mr McCarthy, the favourite, pulled out when congressmen affiliated with the Tea Party mustered enough votes to block him.

The **Democrats** running to be their party's presidential candidate held their first televised debate. A combative Hillary Clinton was deemed the winner, and said she relished the opportunity to appear shortly before a committee in Congress to explain her use of a private e-mail-server while secretary of state.

An **aunt sued her nephew** for jumping into her arms, causing her to fall and break her wrist. She said her busy life in Manhattan had been ruined and she found it hard to hold a plate of hors d'oeuvres. The jury didn't embrace her arguments and took just 15 minutes to decide that the boy was not negligent.

Business

After increasing its bid to $104 billion and enhancing the cash portion of its offer, **Anheuser-Busch InBev** at last persuaded **SABMiller** to agree to a merger. The deal, the third-largest corporate acquisition to date, will create a company that produces a third of the world's beer, bringing familiar brews such as Budweiser, Stella Artois, Grolsch and Peroni together under the same roof. To satisfy competition regulators SAB is expected to sell its 58% stake in its American business. Molson Coors, which owns the remaining 42%, is the most likely buyer.

Grape expectations

Treasury Wine Estates, based in Australia and one of the world's biggest wine producers, bought the American and British wine operations of **Diageo**, the world's biggest drinks company.

America's big banks began reporting their earnings for the third quarter. JPMorgan Chase said net profit rose by 22% compared with the same quarter last year, to $6.8 billion, and at Wells Fargo income inched up to $5.4 billion. Bank of America posted a profit of $4.5 billion. But growth in underlying revenues was disappointing across the board.

Benefiting from the decline in oil prices, **Delta Air Lines** reported a quarterly profit of $1.3 billion, up from $357m in the same three months last year, as its fuel expenses dropped by 38%.

China's exports fell by 3.7% in September, in dollar terms, compared with the same month last year and imports were down by 21%, raising more concerns about the country's slowing economy. However, China's imports of some commodities, such as copper, have increased by volume on some measures, adding to the uncertainty about how fast the economy is actually growing.

Britain dipped back into deflation in September, as consumer prices fell year-on-year by an annualised 0.1%. Core inflation, which excludes energy, food, alcohol and tobacco, rose by 1%. The unemployment rate fell to 5.4%, the lowest since 2008.

Walmart

Share price, $

Source: Thomson Reuters

Walmart's share price plunged after it forecast a sharp fall in profit next year. The retailer's wage bill is rising after its decision to pay workers a higher hourly rate. It is also spending more on e-commerce, as a greater amount of sales come from online, and investing in smaller neighbourhood stores, which have lower profit margins than the big supercentres.

Valeant, a drug company which found itself in the news recently after Democrats in Congress launched an investigation into big price increases on certain pills, said it had been asked by federal prosecutors to submit documents on a range of pricing issues.

Dell buoyed

In the biggest deal to date in the tech industry **Dell**, a computer-maker, agreed to buy **EMC**, a data-storage company, for $67 billion. The acquisition shows how Dell, which went private two years ago, is transforming itself into a corporate IT provider in response to the rise of cloud computing.

The mushrooming of cloud computing was underlined by **Intel's** latest quarterly results. It reported a fall in sales from the chips it makes for PCs, but strong growth in the revenue it gets from chips for data centres (though it cut its forecast of future growth in that business because of uncertainties about the world economy).

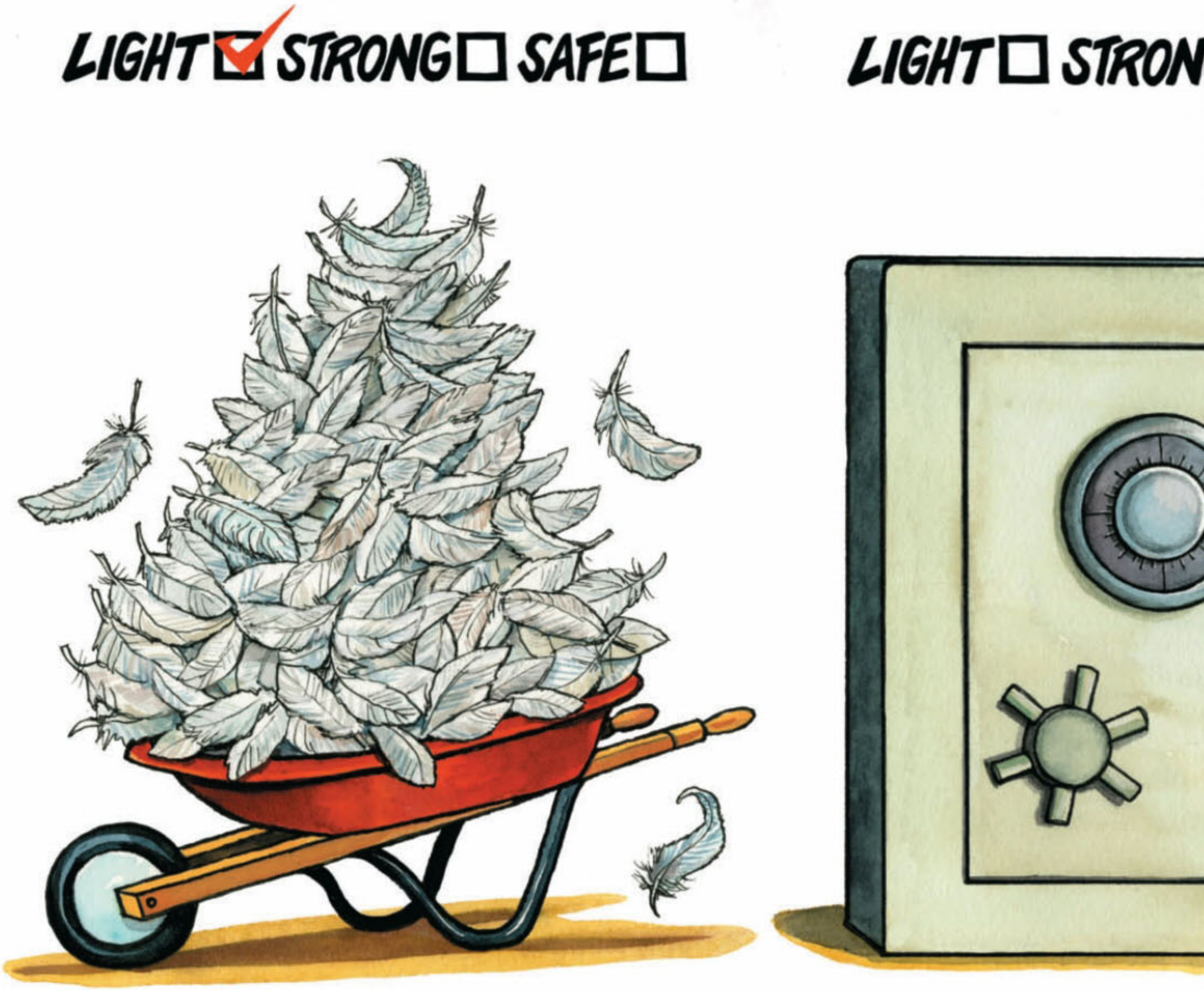
Gartner, a market-research firm, said that shipments of PCs fell by 8% in the third quarter compared with the same period last year. The **computer industry** had hoped that the release of Windows 10 would provide a boost, but Gartner found that this had a "minimal impact" in the quarter.

Just a few days after being appointed chief executive at **Twitter**, Jack Dorsey unveiled several measures to bring back users who no longer tap into their Twitter feeds. He also announced Twitter's first big job cuts. Around 8% of its staff, or 336 employees, are to go, mostly in its product and engineering teams. The company also appointed a new executive chairman: Omid Kordestani, whose job as chief business officer at Google was phased out recently. Meanwhile **Square**, a mobile-payments startup that is also led by Mr Dorsey, filed for an IPO in New York

The fight back

Axel Springer took the most aggressive action yet by any publisher against software that blocks ads on media websites by forbidding people who install **adblockers** from reading the online version of *Bild*, Germany's bestselling daily. Instead it wants readers to pay a monthly fee of €2.99 ($3.40) for a version of the newspaper with fewer ads. Around 200m people use adblockers losing publishers $22 billion in advertising revenue, according to a study by Adobe and PageFair.

Other economic data and news can be found on pages 96-97

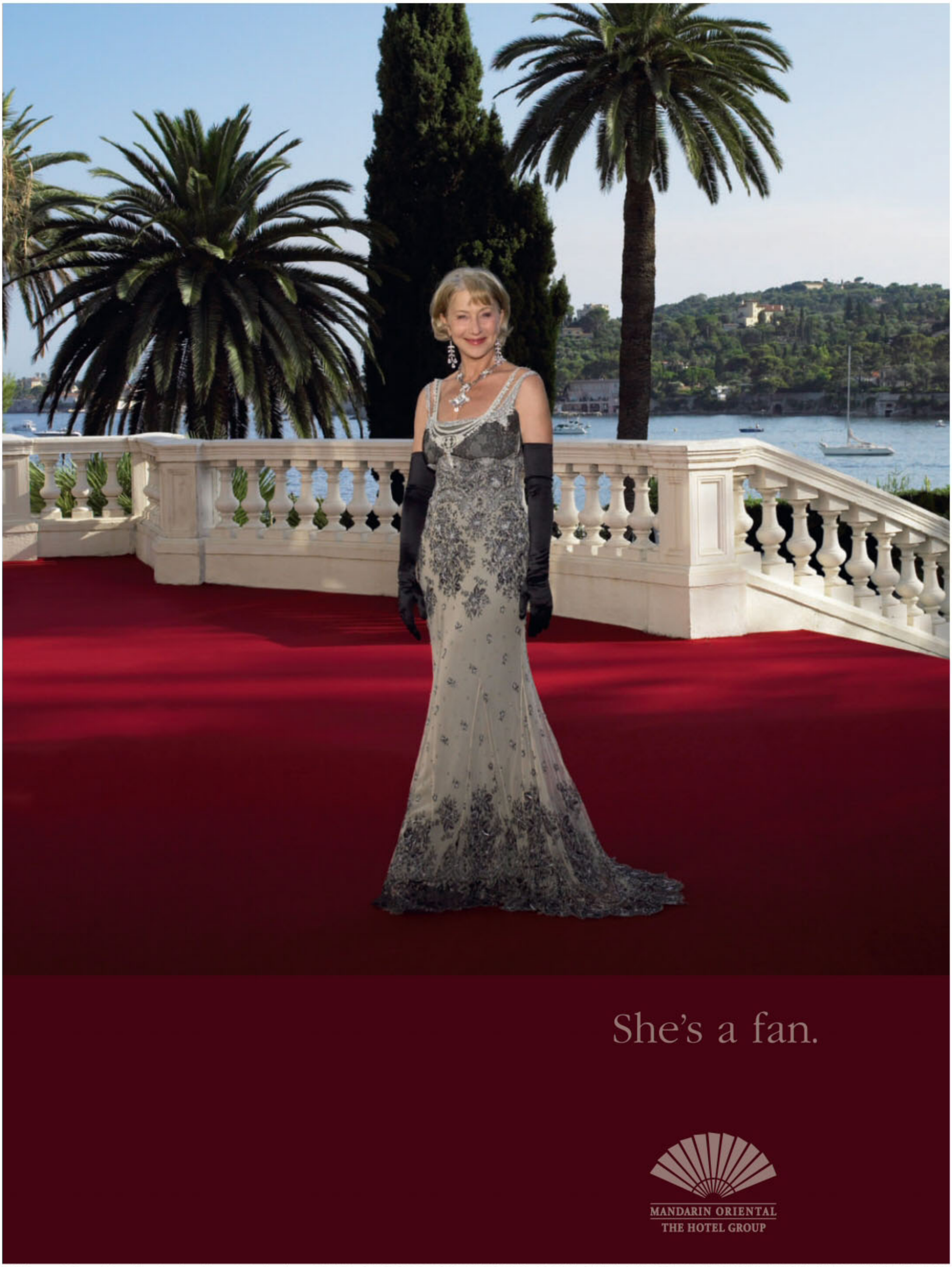


LIGHT STRONG SAFE
LIGHT STRON

G SAFE

LIGHT STRONG SAFE

HYUNDAI | NEW THINKING. NEW POSSIBILITIES.


She's a fan.
MANDARIN ORIENTAL
THE HOTEL GROUP

The new game

American dominance is being challenged

A CONTINENT separates the blood-soaked battlefields of Syria from the reefs and shoals that litter the South China Sea. In their different ways, however, both places are witnessing the most significant shift in great-power relations since the collapse of the Soviet Union.

In Syria, for the first time since the cold war, Russia has deployed its forces far from home to quell a revolution and support a client regime. In the waters between Vietnam and the Philippines, America will soon signal that it does not recognise China's territorial claims over a host of outcrops and reefs by exercising its right to sail within the 12-mile maritime limit that a sovereign state controls.

For the past 25 years America has utterly dominated great-power politics. Increasingly, it lives in a contested world. The new game with Russia and China that is unfolding in Syria and the South China Sea is a taste of the struggle ahead.

Facts on the ground

As ever, that struggle is being fought partly in terms of raw power. Vladimir Putin has intervened in Syria to tamp down jihadism and to bolster his own standing at home. But he also means to show that, unlike America, Russia can be trusted to get things done in the Middle East and win friends by, for example, offering Iraq an alternative to the United States (see page 51). Lest anyone presume with John McCain, an American senator, that Russia is just "a gas station masquerading as a country", Mr Putin intends to prove that Russia possesses resolve, as well as crack troops and cruise missiles.

The struggle is also over legitimacy. Mr Putin wants to discredit America's stewardship of the international order. America argues that popular discontent and the Syrian regime's abuses of human rights disqualify the president, Bashar al-Assad, from power. Mr Putin wants to play down human rights, which he sees as a licence for the West to interfere in sovereign countries—including, if he ever had to impose a brutal crackdown, in Russia itself.

Power and legitimacy are no less at play in the South China Sea, a thoroughfare for much of the world's seaborne trade. Many of its islands, reefs and sandbanks are subject to overlapping claims. Yet China insists that its case should prevail, and is imposing its own claim by using landfill and by putting down airstrips and garrisons.

This is partly an assertion of rapidly growing naval might: China is creating islands because it can. Occupying them fits into its strategy of dominating the seas well beyond its coast. Twenty years ago American warships sailed there with impunity; today they find themselves in potentially hostile waters (see pages 64-66). But a principle is at stake, too. America does not take a view on who owns the islands, but it does insist that China should establish its claims through negotiation or international arbitration. China is asserting that in its region, for the island disputes as in other things, it now sets the rules.

Nobody should wonder that America's pre-eminence is being contested. After the Soviet collapse the absolute global supremacy of the United States sometimes began to seem normal. In fact, its dominance reached such heights only because Russia was reeling and China was still emerging from the chaos and depredations that had so diminished it in the 20th century. Even today, America remains the only country able to project power right across the globe. (As we have recently argued, its sway over the financial system is still growing.)

There is nevertheless reason to worry. The reassertion of Russian power spells trouble. It has already led to the annexation of Crimea and the invasion of eastern Ukraine—both breaches of the very same international law that Mr Putin says he upholds in Syria (see page 60). Barack Obama, America's president, takes comfort from Russia's weak economy and the emigration of some of its best people. But a declining nuclear-armed former superpower can cause a lot of harm.

Relations between China and America are more important—and even harder to manage. For the sake of peace and prosperity, the two must be able to work together. And yet their dealings are inevitably plagued by rivalry and mistrust. Because every transaction risks becoming a test of which one calls the shots, antagonism is never far below the surface.

American foreign policy has not yet adjusted to this contested world. For the past three presidents, policy has chiefly involved the export of American values—although, to the countries on the receiving end, that sometimes felt like an imposition. The idea was that countries would inevitably gravitate towards democracy, markets and human rights. Optimists thought that even China was heading in that direction.

Still worth it

That notion has suffered, first in Iraq and Afghanistan and now the wider Middle East. Liberation has not brought stability. Democracy has not taken root. Mr Obama has seemed to conclude that America should pull back. In Libya he led from behind; in Syria he has held off. As a result, he has ceded Russia the initiative in the Middle East for the first time since the 1970s.

All those, like this newspaper, who still see democracy and markets as the route to peace and prosperity hope that America will be more willing to lead. Mr Obama's wish that other countries should share responsibility for the system of international law and human rights will work only if his country sets the agenda and takes the initiative—as it did with Iran's nuclear programme. The new game will involve tough diplomacy and the occasional judicious application of force.

America still has resources other powers lack. Foremost is its web of alliances, including NATO. Whereas Mr Obama sometimes behaves as if alliances are transactional, they need solid foundations. America's military power is unmatched, but it is hindered by pork-barrel politics and automatic cuts mandated by Congress. These spring from the biggest brake on American leadership: dysfunctional politics in Washington. That is not just a poor advertisement for democracy; it also stymies America's interest. In the new game it is something that the United States—and the world—can ill afford. ■

Britain and Europe

The reluctant European

There is a growing risk that Britain will leave the European Union. It needs to be countered

SIX months ago the chances that Britain would leave the European Union—Brexit—were remote. Today, largely because of Europe's migration crisis and the interminable euro mess, the polls have narrowed (see page 62). Some recent surveys even find a majority of Britons wanting to get out.

David Cameron is partly responsible, too. Fresh from his election victory, the prime minister has embarked on a renegotiation to fix what he says is wrong with the EU and is committed to holding an in/out referendum by the end of 2017. But Mr Cameron is in a bind. It is fanciful to believe that the small changes he may secure will convert those who instinctively favour Brexit. And yet he can hardly argue that the EU is just fine as it is—otherwise his renegotiation would be needless.

Mr Cameron is hoping to emulate his Labour predecessor, Harold Wilson, who also renegotiated and then won a referendum on Britain's membership in 1975. But this time more Tory MPs want to leave than Labour MPs did then. More newspapers are Eurosceptic: in 1975 only the communist *Morning Star* backed the Outs. The Out campaign is better organised and financed. And the rival In campaign, which was launched on October 12th, is coming to the debate late. If Britain is to avoid Brexit, the time has come to expose the contradictions in the Eurosceptic case for leaving. Fortunately, they are glaring.

Brexit delusions

The Utopia of globally minded Eurosceptics is a British economy set free from burdensome Brussels regulation, retaining access to Europe's single market, no longer paying into the EU budget, trading freely with the rest of the world and setting its own limits on immigration. Yet as our special report this week sets out in detail, every part of this ideal is either questionable or misleading.

Take regulation. The Paris-based OECD club of mostly rich countries says that Britain has the least-regulated labour market and second-least-regulated product market in Europe. The most damaging measures, such as planning restrictions and the new living wage, are home-grown. Post-Brexit Britain would almost certainly choose not to scrap much red tape, since the call for workplace, financial and environmental regulation is often domestic and would remain as strong as ever.

Moreover, if Britain wanted full access to the European single market, it would have to observe almost all the EU's rules. That is the case in Norway and Switzerland, non-members that both also pay into the EU budget (in Norway's case, roughly 90% of Britain's net contribution per head). Eurosceptics who dream of reclaiming lost sovereignty need to explain how they advance their aims by advocating an alternative that would require Britain to apply rules it has no say in making—and to pay for the privilege.

If, instead, Britain wishes to escape the EU's rules, it will lose full access to the single market. The argument that, because Britain imports more from the EU than the other way round, it is in a strong bargaining position is unconvincing: the EU takes almost half of British exports, whereas Britain takes less than 10% of the EU's. A free-trade deal in goods might be negotiable, but it would not cover services (including financial services), which make up a rising share of British exports. And one thing is sure: if Britain establishes a precedent by leaving, the rest of the EU will not rush to reward it.

Next is the assertion that a post-Brexit Britain could trade more with dynamic economies beyond Europe. Leave aside the fact that German exports to China are three times as big as Britain's. The broader objection is that a Britain in search of free-trade deals with these giants would lose the negotiating clout of belonging to the world's biggest single market. A prime example is the Transatlantic Trade and Investment Partnership being negotiated by America and the EU (see Charlemagne). A post-Brexit Britain would be excluded from TTIP.

Then there is migration, today's most emotive issue. Switzerland's and Norway's experience suggests that if post-Brexit Britain wants full access to the European single market, it will have to accept the free movement of people from the EU. Leaving the EU would not stop refugees from crowding into Calais, but they would be harder to manage, because co-operating with France would become more problematic. Liberal Eurosceptics favour more immigration and a more global Britain. But that is a pipe-dream. If Britain leaves the EU it will be precisely because a lot of voters mistrust foreigners and globalisation. After Brexit, they will expect a more inward-looking Britain that imposes tougher immigration controls.

The final contradiction is over British influence. Eurosceptics say that Britain must leave because it counts for nothing in Brussels and is constantly outvoted on policy. Yet at the same time they argue that, with the world's fifth- or sixth-biggest economy, a post-Brexit Britain would punch well above its weight internationally and be able to strike favourable commercial deals around the world, including with the EU it had just voted to leave.

Influence peddling

In fact Britain has influenced the EU for the better. The European project it joined in 1973 had obvious flaws: ludicrously expensive farm and fisheries policies, a budget designed to cost Britain more than any other country, no single market and only nine members. Thanks partly to British political clout, the EU now has less wasteful agricultural and fisheries policies, a budget to which Britain is a middling net contributor, a liberal single market, a commitment to freer trade and 28 members. Like any club, it needs reform. But the worst way to effect change is to loiter by the exit.

Mr Cameron is waking up, belatedly, to the threat of an Out vote. Were it to happen, he would surely have to resign, to be replaced by a more Eurosceptic Tory leader. In Scotland the first minister has again made clear that if Britain leaves the EU she will seek a vote for independence (she would probably win). The break-up of the United Kingdom and the end of Mr Cameron's premiership: Brexit would produce large political fallout. Mr Cameron must fight harder to prevent it. ■

Cloud computing

The sky's limit

Shifting computer power to the cloud brings many benefits—but don't ignore the risks

ELECTRICITY was once generated where it was used; now it comes from the grid. So it is with computing power, once the province of mainframes and personal computers, and now moving into the "cloud"—networks of data centres that use the internet to supply all kinds of services, from e-mail and social networks to data storage and analysis.

The rise of cloud computing is rapid, inexorable and causing huge upheaval in the tech industry. The old guard is suffering: this week's $67 billion merger between Dell and EMC, makers of computers and storage devices respectively, was a marriage forced by the rise of the cloud (see page 67). Disruptive newcomers are blooming: if Amazon's cloud-computing unit were a stand-alone public company, it would probably be worth almost as much as Dell and EMC combined.

The gains for customers have been equally dramatic. Compared with older IT systems, cloud computing is often much cheaper. It adds tremendous flexibility: firms that need more computing capacity no longer have to spend weeks adding new servers and installing software. In the cloud they can get hold of it in minutes. Their applications can be updated continually, rather than just every few months. Individual users can reach their e-mails, files and photos from any device. And cloud services also tend to be more secure, since providers know better than their customers how to protect their computing systems against hackers.

But cloud computing makes one perennial problem worse. In the old IT world, once a firm or a consumer had decided on an operating system or database, it was difficult and costly to switch to another. In the cloud this "lock in" is even worse. Cloud providers go to great lengths to make it easy to upload data. They accumulate huge amounts of complex information, which cannot easily be moved to an alternative provider.

Cloud firms also create a world of interconnected services, software and devices, which is convenient but only for as long as you don't venture outside their universe. Being locked in to a provider is risky. Firms can start to tighten the screws by increasing prices. If a cloud provider goes bust, its customers may have trouble retrieving their data.

These risks have already triggered a debate about whether the cloud needs stricter regulation. Some European politicians want to force cloud providers to ensure that data can be moved between them. That is too heavy-handed, not least because rigid rules will inhibit innovation in what is still a young industry. The history of computing suggests that common standards may well emerge naturally in response to customers' demands—just as in personal computers, where it is now much easier to use the same files on different systems.

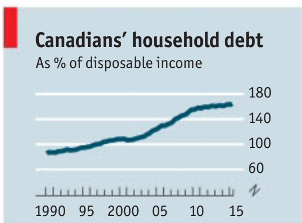
Be quick, be nimbus

In the meantime, a few commonsense measures can reduce the risk of lock-in. Firms that use more than one cloud provider to host their data are less vulnerable. So are those that keep their most important information in their own data centres—General Electric jealously guards its most valuable data, Walmart has a phalanx of its own developers so that it can move its data from cloud to cloud. Consumers can take precautions, too. Some services are better than others at enabling users to move data between providers (Google does well on this score). Cloud computing promises its users many benefits, but don't mistake it for some sort of digital heaven. ■

Canada's election

Living dangerously

The next prime minister will have to deal with a shaky economy



CANADIANS are not a people of excess. "Why did the Canadian cross the road? To get to the middle," they joke. Temperance served them well during the global financial crisis. While property bubbles burst from Miami to Malaga and governments bailed out the banks that had puffed them up, Canada's prudent financial institutions carried on, largely unaided by the taxpayer. Its economy recovered quickly, helped by higher prices for oil, one of its main exports.

But something unCanadian has been happening of late. While consumers in post-bubble economies have been working off debt, Canadians have been piling it on. Consumer debt is a record 165% of disposable income, not far from the level it was in America before the subprime crisis. Most of that borrowing has been spent on houses. Canadian housing is now 34% pricier than its long-term average, when compared with disposable incomes.

The housing bubble has not figured much in the campaign leading up to Canada's election on October 19th (see page 41). That is not surprising. None of the three contenders to be prime minister—Stephen Harper, a Conservative who currently holds the job; Justin Trudeau, leader of the centrist Liberal Party; and Thomas Mulcair of the left-leaning New Democrats—wants to tell voters that their houses are probably worth less than they think. Yet the winner may well have to deal with the consequences of a housing and debt bust.

Canada has already flirted with recession this year. The ▸▸

downturn in oil prices caused GDP to shrink in the first half. Growth has since resumed, but the economy remains vulnerable. The burden of consumer debt, which is manageable at the moment, would become unaffordable if interest rates or unemployment were to rise sharply. Canada is counting on America's recovery, coupled with a decline in the value of its currency, to boost exports and growth. If these things fail to happen, debt could drag down Canada's economy—though probably not its well-capitalised banks (see page 44).

This will not be the only economic worry facing the next prime minister. Growth has been a plodding 2% since 2000 and is likely to slow as the population ages. Labour productivity has grown at less than half the American rate. The many causes include creaky infrastructure, low levels of business innovation, barriers to trade—both within Canada and between it and other countries—and a complex tax system.

None of the three main candidates to be prime minister has proposed a comprehensive programme for correcting these deficiencies. Granted, the prime minister's powers are limited: removing internal barriers to trade, for example, requires co-operation from the powerful provinces. And good ideas can be found in the programmes of all three parties. Mr Trudeau has said he would run temporary deficits to invest in infrastructure. Mr Mulcair wants to offer low-cost child care, which would bring more women into the workforce. Mr Harper would probably be the most vigorous champion of the proposed Trans-Pacific Partnership, a trade deal among a dozen countries, which would give the economy a competitive jolt.

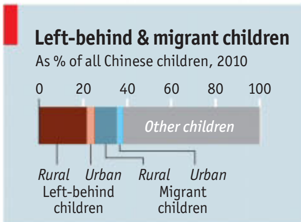
But the candidates are hawking some bad ideas as well. All three want to cut taxes for small businesses, which already get a lower rate than big ones. That would sharpen their incentive to stay small, one reason for Canada's poor productivity.

In the short run, there is not much the next prime minister can do to ward off the dangers facing the economy. The federal government can further tighten rules for mortgage insurers to rein in the housing market, but (rightly) it cannot tell the Bank of Canada how to set monetary policy. That makes it all the more important that the election's winner, in concert with the provinces, should promote competition, innovation and new infrastructure with supremely unCanadian zeal. ■

China's left-behind generation

Pity the children

There are 70m reasons to ease China's curbs on internal migration



IMAGINE you are a young married man or woman in rural China. There are no jobs, so you find work in a big city, perhaps 1,000 miles away. But government restrictions mean that if you take your children with you they will almost certainly not be able to attend schools where you live, or visit a state doctor. And if your parents come to share the child care, their pension will be too small for them to live on. What do you do?

For the parents of 61m Chinese children, the answer is to leave them behind in the villages where they were born, to be looked after by grandparents (often illiterate) or other relatives. Another 9m are left in one city by parents working in another. The 70m total is almost the number of all the children in the United States.

These so-called "left-behind children" are a dark facet of China's shining economic development. They make up a disproportionate share of the population in the countryside, where children are four times as likely to be short for their age as urban ones, a measure of malnutrition. A survey this year for a charity called Growing Home found that left-behind children were more likely than their peers to be depressed or emotionally unstable. Researchers in Shanghai found that left-behind children underperform at school, and that their emotional and social development lags behind. Stories of abuse and suicide are rife; evidence suggests that left-behind children are more at risk of turning to crime.

This is a common pattern in other countries where parents move away from their families for work. Studies from the Philippines show that children of mothers working abroad struggle at school. In Sri Lanka left-behind children are almost twice as likely to be underweight as the average. But China's problem is both much larger—it has more left-behind children than the rest of the world put together—and largely self-inflicted, the result of restrictions on migration within the country.

China could transform the prospects of its left-behind children by abolishing *hukou*—a kind of internal passport that gives people and their children subsidised schooling and health care, but only in the place where they are registered. There has been a modest easing of restrictions, allowing skilled workers to change *hukou* and unskilled ones to move to smaller cities. But far more radical reforms are needed so that migrant labourers in the big cities benefit, too. China's government should also give those living in the countryside the same property rights as urban residents. This would allow them to sell their homes, and thus help more of them to move to cities with enough cash to settle with their families.

Stop the self-harm

More could also be done to help the most vulnerable children. Numerous recent cases have come to light of sexual abuse of left-behind children in rural schools, suggesting that teachers are failing them, or worse. In a country with almost no child-welfare system, the government is training "barefoot social workers" to find children who have been not so much left behind as abandoned. But this programme is to reach only 250,000 children, which hardly scratches the surface.

Companies that employ migrant workers could also contribute by, for example, making it easier for parents to phone their children during working hours or even setting up schools on site. At a time when many factories struggle to find workers, helping their families makes business sense, too.

As China becomes richer it is producing a disturbed, and perhaps disturbing, generation. Some social dislocation may be the cost of wild growth and mass movement from farms to factories. But China should at least stop the self-harm. ■


WEARABLE TECHNOLOGY
NIMBLE MOVEMENT
BUILDING A NEW HOME

The Vulnerable 20

"It's getting hotter" (October 3rd) rightly pointed to evidence demonstrating the impact of the rise in the planet's temperature and the devastating effects of climate change. You mentioned the potential losses to investors. The World Bank provides a more holistic estimate of damages: the cost of climate and weather-related disasters around the world has increased to $850 billion over the past decade.

Recently in Lima, Peru, the Philippines joined 19 other countries that are most vulnerable to the effects of climate change to launch the V20 as a new mechanism for dialogue and co-operative action.

We believe climate change is a human-rights issue. Short-term investor gain cannot come at the expense of those living in the most vulnerable corners of the world who have a right to breathe clean air, to drink clear water and to live on a sustainable planet. These are not challenges that will arise in the future. People in the V20 are living through the financial and human impact of climate change today.

CESAR PURISIMA
Secretary of finance for the Philippines and chair of the V20
Manila

The dollar deficit

Regarding your special report on the dollar's role in the world economy (October 3rd), a big part of today's global monetary problems arise because the exchange rate for the dollar is no longer determined by current-account trade in real goods and services, as it was in the 19th century and part of the 20th. Instead, it is now set by financial trade in dollars and dollar-based assets. Consequently, any correspondence between the dollar's market-exchange rate and the rate needed to balance America's trade on its current account today is a rare accident.

This fundamental paradigm shift is central to America's excessive trade deficits, to its foreign debts and to the global "glut of savings" that has built up as trade surpluses in countries like China, and now contributes directly to financial booms and busts in America and elsewhere.

JOHN HANSEN
Former economist at the World Bank
Hendersonville, North Carolina

As unsafe as houses

Why would institutional investors, who account for just 1% of residential landlords in England, want to get into the property business ("Build it and they will rent", September 19th)? There is an impression in Britain that house prices will continue rising for ever. Private individuals, who account for 89% of landlords, invest in housing partly because they envy the success of others who have made gains in the past. The capital returns seen on investment in residential property have been fuelled, in a Ponzi style, by the next wave of investors rather than by anything that may be justified in economic terms.

Gross rental yields have fallen from around 16% in 1996 to less than 3% today. Residential property, being a serviceable asset, often leaves an investor with less than 2% net return at current levels. Unsophisticated investors focus on the myth of ever-increasing capital returns. Professional investors are not so easily fooled, which is why they account for less than 1% of residential landlords. Why would they get into a highly leveraged residential property bubble that is almost certain to pop when interest rates rise?

JAMES EMANUEL
London

The fundamental reason why there has been a decades-old boom in British property is that owner-occupiers are not liable to pay capital-gains tax. The original income tax taxed the assumed rental income from the main place of residence based upon periodic surveys. This meant there were no house-price bubbles. Capital-gains tax was introduced by a Labour government in 1965, with an exemption for someone's primary place of residence. The middle class soon realised that they could speculate on the value of their homes.

This is an privilege enjoyed by owner-occupiers. Whereas taxpayers expect a benefit in kind for the right of the state to collect money from them (defence, schools and so on), tenants or successors in title fund, from their stagnating real incomes, some of the capital gains enjoyed by landlords.

What is to happen to this rising impecunious generation when they reach retirement age? They cannot save for the future and have a roof over their heads at the same time, but they must save since low interest rates rob pensions of the advantages of compounding. This problem could prove to be a potentially crippling challenge to the British state, and an existential crisis for millions. It may already be too late for many.

JAMES DREVER
Haxted, Surrey

Too close

Writing about Russia's intervention in Syria, you said that "not since the Boxer rebellion in 1900 have Russian forces fought in such proximity to American ones" ("A new spectacle for the masses", October 3rd). In fact, during the Russian revolution American troops, alongside their allies, were deployed to northern Russia and Siberia and fought against the Bolsheviks. This was informally known as the Polar Bear Expedition.

KEVIN LANG
Chicago

In terms of air war, American and Soviet planes flew over Poland and Germany in 1942-45 and in one operation during the summer of 1944 the Americans landed in Soviet territory after bombing Axis targets. That was certainly close. It was closer still in Vietnam, where the Soviets supposedly shot down some American jets in August 1965. Since then, it has been mainly proxy wars which are safer. Overall, this merely emphasises that your argument about the present dangers is right on.

DAVID ALAN WARBURTON
Berlin

Heroes and villains

You call for statues of leaders of the Confederate South to be removed from public squares and open places and put in museums ("Museum pieces", October 3rd). I would be happy to destroy one Confederate statue for the destruction of one statue of Bomber Harris, who implemented the policy of area bombing German cities in the second world war.

However, I consider the memorial to Stonewall Jackson on the grounds of the Virginia legislature in Richmond to be a holy relic and sacrosanct for ever. It was donated by British admirers.

JOHN KENNY
Kenmore, New York

It's all about tai sabaki

"As a *judoka*", you say, Vladimir Putin "knows the art of exploiting an opponent's weakness" ("Putin dares, Obama dithers", October 3rd). In fact, the distinctive skill of judo is turning an opponent's strength against him. So far, there is little sign of that being the Russian president's strategy, but then, like any good practitioner of martial arts, Mr Putin is often able to surprise.

PAUL MOSS
London ■

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

McKinsey&Company

Opportunities in Oil & Gas Consulting

McKinsey & Company is the pre-eminent global management consulting firm. Our Oil and Gas consultants support most of the top leaders in the world's leading energy companies and public institutions on their strategic, operational, organizational and technical challenges.

We are looking for outstanding candidates with industry experience in Oil and Gas capital projects, upstream operations (production optimisation, drilling, well services, maintenance, surface facilities management or project management) and downstream operations and strategy, gained working at an Oil and Gas operator, service provider, or professional services firm. Doctoral and advanced degree candidates in energy policy, geology, geophysics, engineering, and related disciplines are welcome to apply.

To apply, please visit our website at www.mckinsey.com/careers, choose "Search & Apply", select "Consulting", "Subject Matter Experts", and "Oil & Gas" Industry. Scroll down and look for the Oil & Gas positions. Please refer to "The Economist" in your application.

McKinsey & Company is an equal opportunity employer.

Scaling Up Nutrition (Sun) Movement Coordinator

Scaling Up NUTRITION

ENGAGE • INSPIRE • INVEST

The United Nations Secretary-General, Ban Ki-moon will appoint a new Coordinator of the Scaling Up Nutrition (SUN) Movement
Location: Geneva
Closing Date: 16 November 2015

The SUN Movement, established in 2010, promotes a country led, multi-stakeholder, multi-sectoral approach to ending hunger and malnutrition. 55 countries and the Indian state of Maharashtra are members of the SUN Movement. Following an evaluation of the Movement, the Lead Group of the SUN Movement has decided that a new phase will commence in January 2016 and a new SUN Movement Coordinator be recruited.

The Coordinator, at Assistant Secretary-General Level, will direct the implementation of the SUN Movement Strategy to ensure the Movement catalyses change and impact at scale. By coordinating members across SUN Countries and supporting SUN Networks, he or she will encourage nutrition champions, at global, national and community levels, to build the momentum garnered to date.

The Coordinator will be a leader with strategic vision, impeccable professional integrity and the capability to harness opportunities within challenging country contexts. He or she will build partnerships through trust, will uphold the SUN Movement's core constitution and its principles of engagement, whilst working between the different stakeholders groups across the global movement. He or she will lead the SUN Movement Secretariat and coordinate the network of SUN Government focal points, the Movement's networks of supporters and the providers of assistance to countries. The appointment is for two year with possible extension.

Qualifications:

- Graduate degree or equivalent in economics; business or public administration; public finance; international relations; social sciences or humanities. Major experience in management, programme and administration.
- Extensive experience in handling complex multi stakeholder and multi sectoral issues: relevant experience in a political environment – handling multiple interlinked issues with a range of constituencies, in varied and changing contexts so as to identify, anticipate and avert potential challenges.
- Extensive experience at a senior managerial level with significant experience in the international environment with a proven record of managing and motivating diverse teams in complex environment. Field experience in multi-sector rural development or food and nutrition security programmes and policies is an asset.
- Fluency in oral and written English is required. Knowledge of other UN languages is highly desirable.

To apply, send your application, including a **United Nations Personal History Form (available on UNICEF web site www.unicef.org)**, quoting **SUN Movement Coordinator** to: **SUN.coordinator@unicef.org**
Visit us at **www.scalingupnutrition.org**

GROWAFRICA

Executive Director

The Grow Africa Partnership was co-founded in 2011 by the African Union Commission (AUC), the New Partnership for Africa's Development (NEPAD) and the World Economic Forum (WEF). It works to increase private sector investment in agriculture, as well as accelerating the execution and impact of investment commitments. More information about Grow Africa is available on https://www.growafrica.com/

Grow Africa is recruiting its Executive Director, to be based at the NEPAD Agency in Johannesburg, South Africa. The successful candidate will:

- Provide leadership to the management of the Grow Africa Partnership, with oversight of the development and implementation of the Grow Africa strategy
- Hire and manage the core secretariat team
- Lead and oversee fundraising and financial management for Grow Africa, for a budget of USD 5-8m per year
- Manage partnership governance, coordinating and serving as an ex-oficio member of the Grow Africa Steering Committee
- Drive and strengthen relationships with stakeholders and potential partners through frequent interaction with senior business executives, investors, government officials, civil society and development partners
- Provide the vision and thought leadership on a range of key issues

Candidate experience:

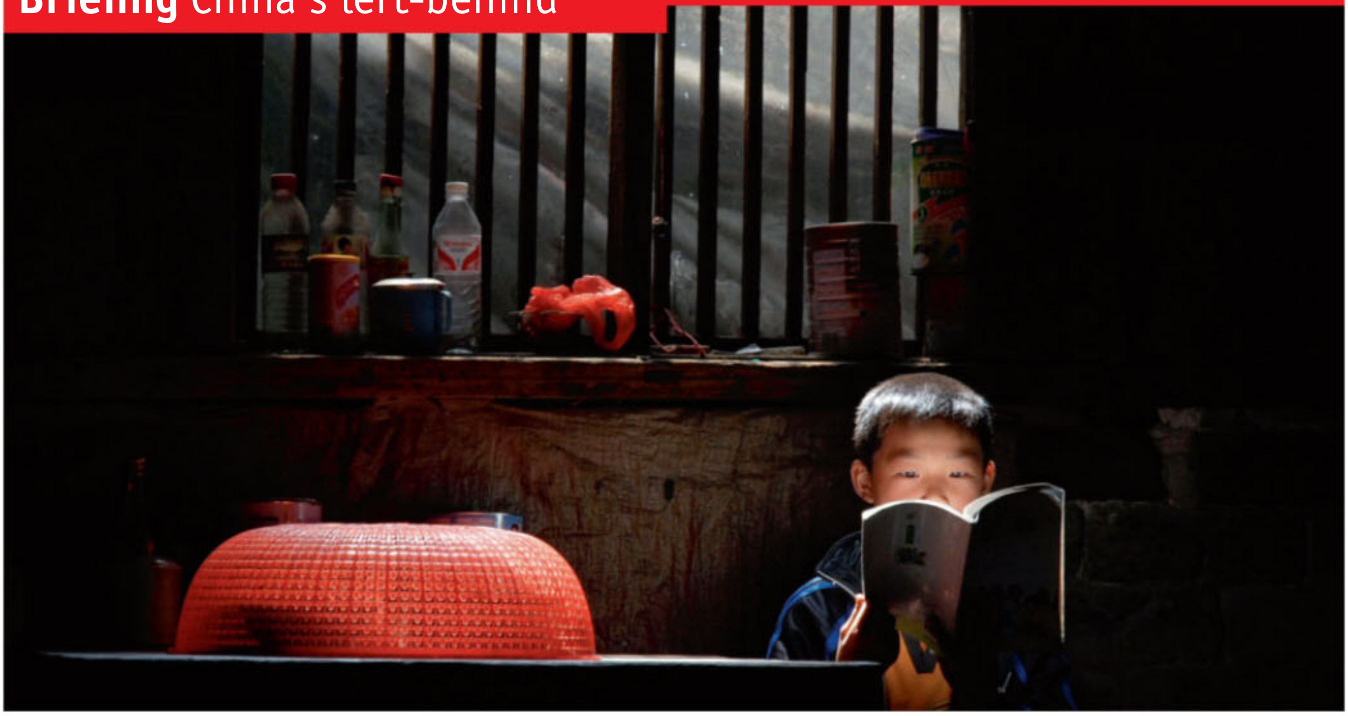
- Public-Private Partnership expertise in the regional agricultural, food or finance sectors as well as an understanding of public policy in Africa
- Established networks and credibility with government officials, business leaders and experts in academia, international organisations and NGOs
- Strong management skills with a track record in programme management, financial management, fundraising, operational oversight and multi-cultural team leadership
- Entrepreneurial mind-set and ability to innovate and engage across sectors
- Highly motivated and dynamic leader with excellent communications skills

Finally, the Executive Director will be required to build partnerships with media, investors, and external stakeholders such as government and Africa's agriculture communities. S/he should have a combination of executive presence and hands-on approachability with teams.

Grow Africa retained executive search firm Egon Zehnder. Applicants are invited to send their CV to johannesburg@egonzehnder.com. Applications that meet the criteria must arrive by email no later than midnight on 31 October 2015. Only the most qualified candidates will be contacted.

NEPAD TRANSFORMING AFRICA

WORLD ECONOMIC FORUM



Little match children

BEIJING

Children bear a disproportionate share of the hidden cost of China's growth

TOWARDS the end of "Jude the Obscure", Thomas Hardy's final novel, comes one of the most harrowing scenes in English literature. Jude, an itinerant labourer struggling to feed his family, returns home to find his eldest son has hanged himself and his younger siblings from the coat hook on the back of the door. A note says "Done because we are too menny."

In June this year China suffered a real-life variant of this terrible scene. In a rural part of Bijie township in Guizhou province, in south-west China, a brother and three sisters, the oldest 13, the youngest five, died by drinking pesticide. They had been living alone after their mother had disappeared and their father had migrated for work. The 13-year-old boy left a note saying, "It is time for me to go—death has been my dream for years."

Three years before that, also in Bijie, five street children died of carbon-monoxide poisoning after they had clambered into a roadside dumpster and lit charcoal to keep themselves warm. Chinese social media drew parallels with the little match girl in Hans Christian Andersen's story of that name: afraid to return home because she has not sold any matches, she freezes to death in the winter night, burning match after match because the light reminds her of her grandmother. It is a well known tale in China because it is taught in primary schools as an example of the uncaring nature of early capitalism.

Over the past generation, about 270m Chinese labourers have left their villages to look for work in cities. It is the biggest voluntary migration ever. Many of those workers have children; most do not take them along. The Chinese call these youngsters *liushou ertong*, or "left-behind children". According to the All-China Women's Federation, an official body, and UNICEF, the UN organisation for children, there were 61m children below the age of 17 left behind in rural areas in 2010. In several of China's largest provinces, including Sichuan and Jiangsu, more than half of all rural children have been left behind (see map on next page). In effect, some villages consist only of children and grandparents. This is a blight on the formative years of tens of millions of people. Alongside the expulsion of millions of peasants from the land they have farmed and the degradation of the country's soil, water and air, this leaving behind is one of the three biggest costs of China's unprecedented and transformative industrialisation.

Just over half of the 61m counted in 2010 were living with one parent while the other spouse was away working; 29m had been left in the care of others. Mostly the carers were grandparents, but about 6m were being looked after by more distant relatives or by the state (that number includes orphans and children with disabilities who have been abandoned). There were 2m children who, like the little match children of Bijie, had been left just to fend for themselves.

Not all parents who up sticks to look for work leave their kids behind: in the 2010 figures 36m children had gone to live with their migrating families in cities. But this has its own problems; very few of these children can go to a state school or see a state doctor at subsidised prices in their new homes. Moreover, their hard-working parents often cannot look after the children. Without grandparents or a state school to keep an eye on them, such migrant children can be just as neglected as those left behind in the country.

A damaged generation

On top of that there were about 9m left behind in one city when one or both parents had moved to another. Add it all up and, in 2010, 106m children's lives were being profoundly disrupted by their parents' restless search for jobs. For comparison, the total number of children in the United States is 73m. And the proportion of these children who were left behind, rather than migrating with their parents, grew a great deal in the late 2000s (see chart 1 on next page).

The experience of those left with one parent while the other is away working is perhaps not so different from that of the children of single parents in the West. But a study by a non-governmental organisation, called the Road to School Project, reckons that 10m left-behind children do not see their parents even once a year and 3m have not had a phone call for a year. About a third of left-behind kids see their parents ▸▸

only once or twice a year, typically on Chinese New Year.

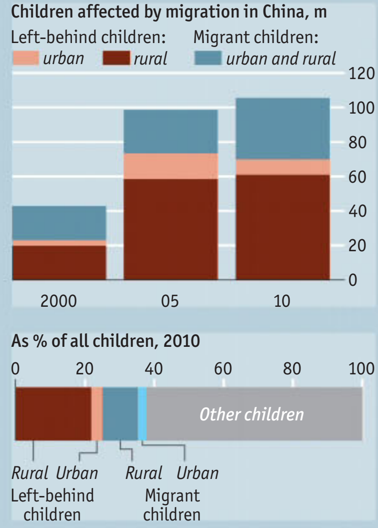
Though any child may be left behind, there are some patterns. The youngest children are the most likely to be left, and girls are slightly more likely to be left than boys. This preference for taking boys along means that in cities the preponderance of boys over girls that has been produced by sex-selective abortions is exaggerated further. Anecdotal evidence suggests that an unusual number of left-behind children have siblings. One reason for this is that China's one-child policy has been implemented less strictly in the countryside, and so more rural families have two children to leave behind.

It is not yet possible to say whether the phenomenal level of leaving behind found in the late 2000s persists. There is some evidence that with the slowdown in the economy migrant labourers are starting to drift back to their villages. But even if the trend has slowed, the dislocation still represents a third blow to the traditional Chinese family. First came the one-child policy. Then the enormously distorted sex ratio. Now a mass abandonment.

Being left behind damages children in many ways. In Cangxi county, Sichuan province, in south-west China, the local education authority (as part of a study) gave eight- and nine-year-old left-behind children video cameras and taught them to film their lives. Sun Xiaobing, who is eight years old, is in the charge of her grandparents, but she is left alone for days on end. She shares her lunch with a stray dog to attract its companionship. Her two days of video consist almost entirely of her conversations with farm animals; she has no one else. Wang Kanjun's film is about his little sister. The five-year-old girl spends most of her time at home playing with the phone; she is waiting for her mother to call.

Most left-behind children are lonely. Many live in rural boarding schools far from their villages because, in an attempt to improve educational standards in the countryside, the government shut many village schools down in favour of bigger institutions. About 60% of children in the new boarding schools have been left behind. A non-governmental organisation, Growing Home, surveyed them this year and found that they were more introverted than their peers and more vulnerable to being bullied; they also had "significantly higher states of anxiety and depression" than their peers. Many say they do not remember what their parents look like. A few say that they no longer want to see their parents.

Sorry state 1



Source: School of Sociology and Population Studies, Renmin University of China

In 2010 researchers at the Second Military Medical University in Shanghai studied over 600 children in 12 villages in Shandong province, in the north-east, half left behind and half not. The difference in the physical condition of the children was minor. But the difference in their school performance was substantial and so was the emotional and social damage to them, as measured by a standard questionnaire (see chart 2 on next page). "The psychological effect on left behind children is huge," argues Tong Xiao, the director of the China Institute of Children and Adolescents. "The kids will have big issues with communications. Their mental state and their development might suffer."

Being brought up by grandparents is a common experience worldwide, and by no means necessarily harmful. But China's rapid development does make it more of a problem now than it was in the past. Unlike their parents, the left-behind children's grandparents are often illiterate; their schooling can suffer accordingly. According to the All-China Women's Federation, a quarter of the grandmothers who are looking after small children never attended school. Most of the rest had only primary education. In one school in Sichuan visited by Save the Children, an international charity, an 11-year-old girl spent most of the lesson caring for her infant sister. As the visitors started to leave, though, she ran up and begged them to look at her homework: she seemed torn between being *in loco parentis* and a normal 11-year-old.

There are few studies of the health of left-behind children. But given that they account for almost half of all rural children, rural health indicators are a proxy. These are worrying: 12% of rural children under five in China are stunted (ie, are short for their age)—four times as many as in urban areas; 13% of rural children under five are anaemic, compared with 10% for urban children.

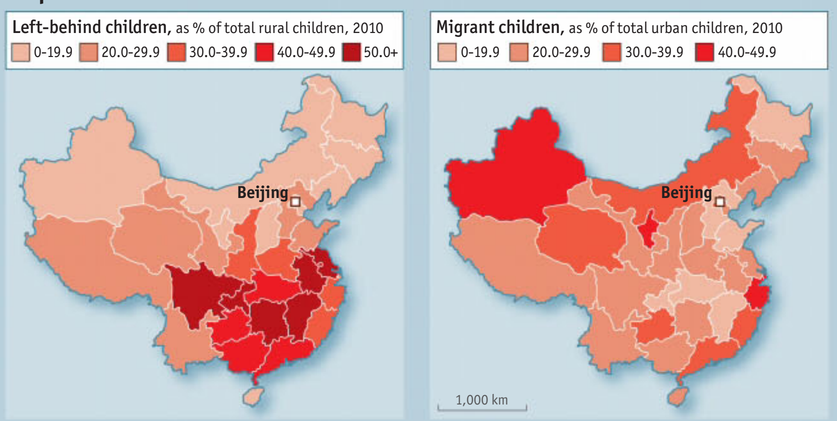
Little father time bomb

Breastfeeding rates in China are low; only two in seven Chinese children are exclusively breastfed at six months, compared with half in South-East Asia and two-thirds in Bangladesh. Part of the explanation must be that so many infants are brought up by grandparents. International studies show that breastfeeding during a child's first 1,000 days has lifetime benefits. Children who are not breastfed or get poor food early on do worse at school, are more likely to suffer from serious diseases and have worse job prospects.

Lastly, left-behind children are vulnerable to sexual and other abuse. Back in Bijie, two more left-behind children were found dead in August. One, a disabled 15-year-old girl, had been repeatedly raped by two of her distant relatives. Fearing discovery they had murdered both her and her 12-year-old brother.

Child abuse is distressingly common anyway. An analysis of 47 studies in Chinese and English this year estimated that over a quarter of Chinese children are physically abused at some point in their lives. The left behind are among the most vulnerable to such abuse, especially those in boarding schools, because any adults who might speak up for them are far away. ▸▸

Misplaced



Source: School of Sociology and Population Studies, Renmin University of China

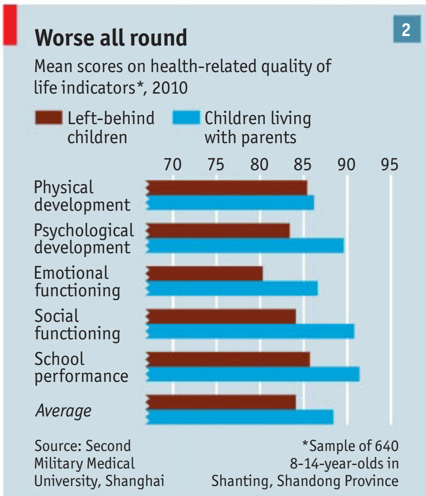
In May a teacher in one such school in Gansu province in the north-west was executed for abusing 26 primary-school students. In Ningxia province in June, a teacher got life in prison for raping 12 of his pupils, 11 of whom had been left behind.

Those left behind can be perpetrators of crime as well as victims. Earlier this year a prostitution ring was broken up in Macao. The alleged ringleader turned out to be a 16-year-old boy from Chongqing. Juvenile offences are rising in China, which may well in part be because of the increased numbers of left-behind children. Two-thirds of all Chinese juvenile offenders came from rural areas in 2010, up from half in 2000. When they are brought before the law, left-behind or migrant children are much more likely to go to jail than other children because courts are reluctant to grant probation in the absence of a guardian. In Shanghai, the children of migrant labourers get probation in only 15% of cases, compared with 63% of cases involving local juveniles.

Given the harm that being left behind does to children's health, education and emotional development, it is not hard to imagine that the damage will be felt not just by the left-behind themselves but by society as a whole. The phenomenon is sufficiently recent that there is little compelling evidence of increased criminality, anti-social behaviour and so on. And adding to the burdens of the left-behind by prejudging them to be miscreants would clearly add injustice to injury. But in other countries—South Africa, where apartheid often broke families up, is one example—being left alone has been found to be a risk factor in children turning to crime.

Leaving such broader consequences aside, the decision to leave behind a child is a hard one. Why do so many migrants make it? A survey by the Centre for Child Rights and Corporate Social Responsibility, an NGO, put the question to 1,500 workers in the Pearl River Delta in the south and Chongqing in the south-west. Two-thirds said they would not have enough time to look after them while working in the city; half said it was too expensive to bring up children there.

The long established and valued role Chinese grandparents play in bringing up grandchildren doubtless makes the decision easier for many. And if grandparents are the solution, then leaving behind is a necessary corollary. In principle migrants might take along their grandparents rather than leaving behind their children. But the restrictions of the *hukou* system make that almost impossible. The *hukou* or household-registration document is a bit like an internal passport, giving people access to various services. When registered in the country, grandparents get a lower pension than urban dwellers—and the money is not enough for them to live in the city.



The *hukou* system also exacerbates things by making it very hard for children registered in a rural area to get state schooling or health care in the city. Private schools that exploit the opportunity this presents are often crowded, substandard and constantly threatened with closure by city governments. On top of this vital school-leaving exams have to be sat where a child is registered. So even if children accompany their parents to the city, they are almost always sent back again at the age of 14 to prepare for the exam.

Wanted: several million social workers

Millions of parents defy the *hukou* system; less than a third of those questioned in the Pearl River Delta survey cited it as an issue. The objective problems of city life are harder to ignore. Many migrant labourers work 12 or more hours a day on construction sites or in export-oriented manufacturing companies. They may commute for four hours more; they may live in dormitories with no provision for children, or where children are not allowed. Understandably, most fear that they will not have enough time to look after their kids.

Grandma holds the fort

Zhao Yanjun, who is from Anhui province in eastern China but works in Fujian province most of the year, sums up the problems: "I'm really torn about this. I could go back [to Anhui] but I won't have the opportunities and connections I have here. If I bring my son and my wife [to Fujian], one of us will have to quit to look after him, or we'll have to hire a nanny or bring his grandparents here. Any of these choices would be a heavy burden for us."

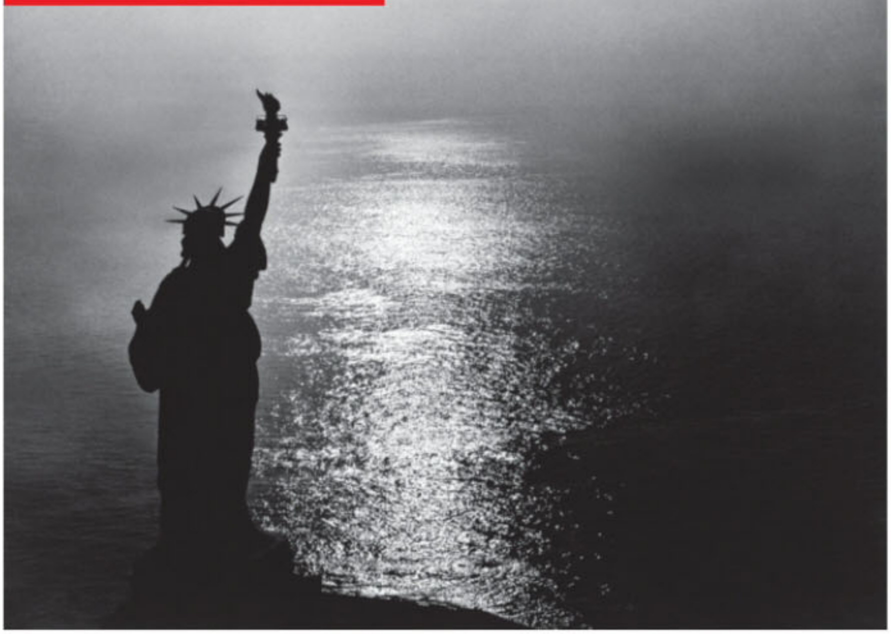
Reform of the *hukou* system—already under way, in a piecemeal fashion—can address some of the problems of the left-behind and those who leave them. But given the underlying factors at work a full response will require China to build a child-welfare system almost from scratch.

China's government long assumed that the family would look after children's needs, so no child-welfare system was needed. As recently as 2006, there was no nationally recognised qualification for social workers. To its credit, the government has started to make up for lost time. It has set up a pilot programme to train "child-welfare directors", otherwise known as barefoot social workers, in five provinces.

The social workers are a bit like China's barefoot doctors: villagers trained in a few simple skills to take the social-welfare system into remote villages. Each looks after between 200 and 1,000 children. So far, the results of the pilot projects are promising. In 120 villages more than 10,000 extra children were enrolled in the state medical scheme between the start of the programme, in 2010, and 2012. The share of children who had not been registered under the *hukou* system and were therefore not eligible for help fell from 5% to 2%. The school drop-out rate fell by roughly the same amount. The government is expanding the pilot programme into three more provinces and twice as many villages.

But this only scratches the surface. Even in its expanded form the programme will reach roughly 250,000 children, less than 0.5% of all rural left-behind children. A response proportionate to the problem would not just see such interventions hugely increased and the *hukou* system relaxed a great deal more; it would entail more job-creation in areas where migrants can take all their family members.

At its heart, the problem of the left-behind is one of misplaced hopes. Like so many parents, China's migrants are deferring pleasure now (that of raising their children) for the hope of a better life later (to be bought with the money they earn). One result has been the stunning growth of cities and the income they generate. Another has been a vast disruption of families—and the children left behind are bearing the burden of loss. ■



Also in this section

For daily analysis and debate on America, visit
Economist.com/unitedstates
Economist.com/blogs/democracyinamerica

Refugees in America

Yearning to breathe free

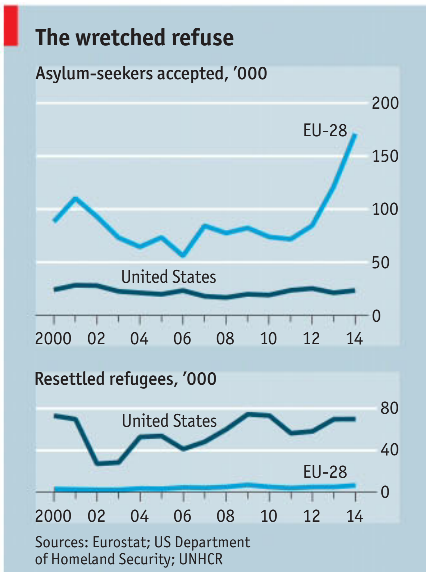
CHICAGO

America should reclaim its role as a beacon for those fleeing persecution and war

JOSEPH, an Egyptian Copt who now lives in Chicago, fled for his life when his apartment in Egypt was vandalised and his car set on fire. Three years ago he travelled to America with his family under the pretext of a business trip and applied for asylum. His hearing at the Chicago Immigration Court, which was supposed to take place this month, has been postponed until February 2017. Joseph, who asked for his surname to remain anonymous in case he is sent back to Egypt, would like to go to university but cannot apply for financial aid as long as his case is pending; so he makes do by working as a cashier at a petrol station and as a taxi driver at night. His case is not unusual: some asylum-seekers in Chicago have hearings scheduled for 2020. Half of them will be turned down.

For much of its history, America has been generous to refugees and asylum-seekers from all over the world. After the second world war the country took in more than 650,000 displaced Europeans. After the fall of Saigon in 1975 it welcomed hundreds of thousands of Indo-Chinese refugees. Since the passage of the Refugee Act in 1980 America has taken in another 3m refugees, more than any other country. It is the biggest contributor to both the World Food Programme and the UNHCR.

In the current refugee crisis, though, America is on the sidelines (see chart). In recent years it has taken in just under 70,000 refugees a year on average (would-be refugees apply while in other countries; asylum-seekers once they are in America). The number of asylum applications approved tends to be less than half that figure. This pales in comparison with the 1.5m asylum-seekers, many of them Syrian, expected in Germany this year. The White House recently promised to increase the intake of refugees to 85,000 in the next fiscal year (10,000 will be from Syria) and to 100,000 in the one after that. Even this modest increase has been contested: Michael McCaul, a Republican from Texas who chairs the House Homeland Security Committee, has introduced a bill to "rein in" the administration's plan to admit more Syrian refugees.



Sources: Eurostat; US Department of Homeland Security; UNHCR

Two factors are responsible for the change of heart. Refugees and asylum-seekers have become ensnared in a partisan fight in Congress over immigration. And the 9/11 terrorist attacks have changed the perception of refugees from vulnerable to threating, which has in turn had a deadening effect on the bureaucracies that process their claims.

Refugees apply for resettlement at American embassies or through the United Nations. If they pass that first hurdle, they are screened by outposts of the Department of State all over the world. They undergo investigations of their biography and identity; FBI biometric checks of their fingerprints and photographs; in-person interviews by Department of Homeland Security officers; medical screenings as well as investigations by the National Counter-terrorism Centre and by American and international intelligence agencies. The process may take as long as three years, sometimes longer. No other person entering America is subjected to such a level of scrutiny.

Refugee resettlement is the least likely route for potential terrorists, says Kathleen Newland at the Migration Policy Institute, a think-tank. Of the 745,000 refugees resettled since September 11th, only two Iraqis in Kentucky have been arrested on terrorist charges, for aiding al-Qaeda in Iraq.

Asylum-seekers have to navigate through a similar bureaucratic tangle. The decision to grant asylum is made by a Citizenship and Immigration Services (USCIS) ▸▸

officer. If that officer finds that the applicant did not make his case convincingly, he receives a "Notice of Intent to Deny" (NOID) as long as his immigration status as, say, a tourist or student is still valid. He is then allowed to submit further evidence to bolster his case, though such decisions are rarely reversed. If the applicant's immigration status is no longer valid, he is placed in deportation proceedings before an immigration court. The applicant then has a second chance to make his case in court while a government lawyer argues that he should be deported. In March this year, USCIS had 82,175 asylum cases pending. Last year each immigration judge handled, on average, 1,500 cases a year, double or even triple the caseload of other judges.

Kludged to death

The decisions that this system churns out often have little to do with the merit of individual cases. Joseph was unlucky because after his arrival in America he fell into the hands of a fraudulent translator pretending to be a lawyer, to whom he paid thousands of dollars for help with the asylum interview. As Joseph's case was so badly presented, the officer denied his request and referred him to an immigration court for deportation.

In theory, as a signatory of the UN convention of 1951, America has a legal obligation to protect refugees. In practice the public is not willing to accept the boundless consequences of this commitment, so the federal government limits the overall number by presenting refugees and asylum-seekers with an overwhelming show of bureaucratic kludge. One idea to ease the worry about the cost of refugees is to adopt private sponsorship of them, as Canada does. Since 1979 Canada's privately financed programme has resettled more than 200,000 refugees. Community organisations, churches and members of ethnic minorities pool funds to pay for refugees to come to Canada and to help them settle and find work. A study of the Canadian programme in 2007 suggests that privately sponsored refugees become self-sufficient more quickly than those supported by Canada's government.

"We have a history of openness to immigrants and refugees, which has been good for us, and made the DNA of our country" says Richard Haass, head of the Council on Foreign Relations, a think-tank. Mr Haass argues that it is in America's interest to help Germany, one of its staunchest allies, with the seemingly never-ending stream of asylum-seekers pouring into the country. Unfortunately, most contenders for the presidency do not agree. Only Martin O'Malley, the former governor of Maryland and one of the least likely winners of the Democratic Party's nomination, has unequivocally said that America should do more for Syrian refugees. ■

Feuding Republicans

The new McCarthyites

WASHINGTON, DC

Congress's majority party cannot decide whether or not to govern

THE job of Speaker of the House of Representatives is, on the face of it, a pretty good wicket. It is third in line to the presidency and comes with a quarter-million-dollar salary, fat pension and endless other perks. The outgoing Speaker, John Boehner, a chain-smoking Republican from Ohio, will be entitled to a million dollars a year, for five years, to "facilitate the administration, settlement and conclusion of matters pertaining to" his five-year tenure. So it may seem odd that his party, despite having its biggest majority in the House for almost a century, is struggling to find someone to replace him.

Mr Boehner's anointed and expected successor was Kevin McCarthy, the House majority leader. Yet on October 8th, just as he was about to be rubber-stamped as the Republican nominee, he withdrew from the contest. This was dramatic; Mr McCarthy had been lobbying his colleagues only moments earlier and his rivals, Daniel Webster and Jason Chaffetz, respectively of Florida and Utah, had so little support that Mr Boehner postponed the vote.

In a sense, the explanation was prosaic. Mr McCarthy had the backing of a majority of House Republicans, but not the 218 votes he would have needed to be confirmed by the House. Yet, even by the Republicans' recent standards, this was taking indiscipline in the majority party, and the threat it represents to America's political order, to a new extreme.

Mr Ryan would rather eat wasps

In fact the Republicans' majority is illusory, because it depends on around 40 Republican congressmen who disdain the party whip and, in this case, would not have supported Mr McCarthy even had he won his party's backing. Elected at the height of anti-establishment feeling after the financial crisis, these members of the House Freedom Caucus consider any compromise to their right-wing agenda a betrayal of their livid supporters.

Hence their hatred of Mr Boehner, who understands that compromise between the often, as now, feuding executive and twin branches of Congress is implicit in America's constitution. "They seem to have a problem with James Madison," quips Charlie Dent, a Republican from Pennsylvania. Hence, in turn, Mr Boehner's resignation last month, after it became clear that he could not get a bill to fund the federal government through the House without Democratic support.

The Freedom Caucus had demanded that Mr McCarthy sign up to a ten-point reform agenda, which would, among other things, increase its members' representation on congressional committees and force the Speaker to introduce bills by popular demand. "This is not about a conservative agenda but a reform process," says Mick Mulvaney, a Caucus member from South Carolina. Indeed, he suggests, the proposed changes could make it easier for moderate Republicans and Democrats to find common ground. But if that is true, it is hard to see how the reforms would improve on the current, creaking, system of party loyalty and majority rule; or, therefore, to avoid the conclusion that Caucus members mainly want a bigger soapbox to impress their constituents with, and hang the tedious business of lawmaking.

Mr McCarthy showed willingness to accede to the hardliners' demands. They rejected him, nonetheless, because they considered him tainted by his association with Mr Boehner. "We need a new face," he concluded. In other words, any serious candidate to be third-in-line to America's nuclear button must be politically multi-jointed and have no previous leadership experience. Who could that be?

Most House Republicans, and some Democrats, hope it will be Paul Ryan, a congressman from Wisconsin and former vice-presidential candidate. He is less reflexively conservative than the die-hards would like—showing, for example, a worryingly pragmatic openness to immigration reform. Yet, as the chairman of the House Budget Committee, he has a reputation for being clever and hard-working to set against that foible. Some members of the Freedom Caucus, including Mr Mulvaney, say they could support him, provided he accepted their demands. The job is his if he wants it; he is brave if he does. ■

Gang shootings

Sagas by the Strip

LAS VEGAS, NEVADA

Churches across the country are trying to broker Thanksgiving ceasefires

MODERN police work in America often resembles science fiction as much as a *film noir*. Mapping software guides police to neighbourhoods suffering from spikes in crime. Grizzled detectives are urged to follow data rather than their gut instincts, and—in some city districts plagued by gun crime—to focus efforts on small groups of individuals (often young men), who turn out to be linked to a startling proportion of shootings. The scientific approach has shown results: from 1993 to 2014 national murder rates fell by half.

In the past year or two, however, some big cities have seen violent crime rates tick back up. As police and community leaders try to contain this trend, some of the toughest urban areas in the country are placing a bet on a technique that could hardly be lower-tech. Put simply, the new approach involves asking criminals not to shoot one another, notably in the first 12 to 72 hours after one of their peers has been attacked and cries for revenge are loudest.

In such cities as Las Vegas—a sprawling, transient place that draws gamblers of all sorts—the technique seems to work best when ceasefire requests comes from religious leaders. Brian Medina—an 18-year-old whose choirboy looks belie a youth full of fights, street gangs and trouble with the law—was shot eight times in May by a car-full of unknown attackers, as he pushed his bicycle up a hill near his home. Following a protocol that has been rolled out across Las Vegas in the past few years, those alerted to the shooting included not just the police and Mr Medina's family but a local clergyman, Pastor Troy Martinez of the East Vegas Christian Centre.

The drill is familiar to Mr Martinez, one of a corps of ministers who stand ready for an "activation" by city police commanders or hospitals. He is used to finding shooting victims surrounded by angry family and friends—who often display the clothes and tattoos that signal gang membership. Those shot are "full of tubes and blood, and it smells, and the emotions are off the charts," explains the pastor.

Mr Medina himself admits to high emotions as he awoke in hospital. He felt "really angry" at being attacked when he was a relative beginner in gang life, compared with his "homies" who had done far more. His assailants were unknown, but gang comrades were undeterred: they told the wounded Mr Medina that their plan was to take revenge on "anybody that we had a

Call the pastor

problem with". Then Mr Martinez arrived, asking the young victim whether he really wanted someone else harmed on his behalf—especially when that might drag in Mr Medina's 16-year-old brother, who until then had not been involved gang life.

"I didn't expect no pastor," says the 18-year-old, shyly fidgeting with a baseball cap while recalling that first meeting in hospital. Nor did he expect a pastor like Mr Martinez, a burly 54-year-old with a walrus moustache, who as a young man was—by his own account—an exceptionally brutal gang member in Los Angeles. Mr Martinez was first jailed at the age of 15, before advancing to the ranks of a "shot caller", a term for those who control foot soldiers on the streets. Mr Medina is now planning a career in air-conditioning, his father's trade. He is honest about the temptations that still surround him: many local youngsters admire his bullet scars, or "warrior wounds", he concedes, and some "can't wait to hit jail, to be the most they can be".

It will take more than a few tough ministers to transform Las Vegas, which is home to an estimated 20,000 gang members. Its police district covers 1.8m residents, and by October 13th had seen 100 murders this year (compared with 103 by the same date in 2014). But moving to stop cycles of revenge is a start, says Mr Martinez. In June his church and others in the city worked on a week-long ceasefire, or "Season of Peace", dreamed up by Rebuilding Every City Around Peace (RECAP), a national organisation founded by a Boston-based minister, the Rev Jeffrey Brown. Mr Martinez took his ceasefire call to some 70 violent criminals inside Clark County Detention Centre, a prison not far from the casinos and bars of the Strip. He was joined by a second evangelical pastor, Jon Ponder, who underwent his own conversion while jailed in Pennsylvania for robbing banks. Both men worked with local police chiefs on "peace walks" in dangerous neighbourhoods and meetings aimed at improving relations with the police.

A longer ceasefire is now planned between Thanksgiving and December 31st, in cities from Salinas and Oakland in California to Baltimore and Boston on the east coast. The aim is twofold, says Mr Brown, RECAP's founder. When churches can make ceasefires hold, even partially, they gain credibility with police chiefs and the public. Asking local criminals to stop shooting each other also buys time for them to pause, says the Boston-based minister. Often street gangs that live side by side are locked in a revenge cycle but "can't see how it started".

Tom Roberts, deputy chief of the Las Vegas Metropolitan Police Department, is sure that lives have already been saved since police commanders began working closely with local churches to halt revenge killings. More murders are cleared up today, after years of "deplorably low" detection rates caused by intense mistrust between residents and police. Mr Roberts hopes that the coming "Season of Peace" will convince some old-school officers of the value of crime prevention, admitting that it is a struggle to change policing. Las Vegas, a city built on sin, will never be violence-free. But this Thanksgiving it will try a seemingly fantastical idea—asking its most dangerous residents to stop killing each other. ■

Juveniles in prison

Parsing sentence

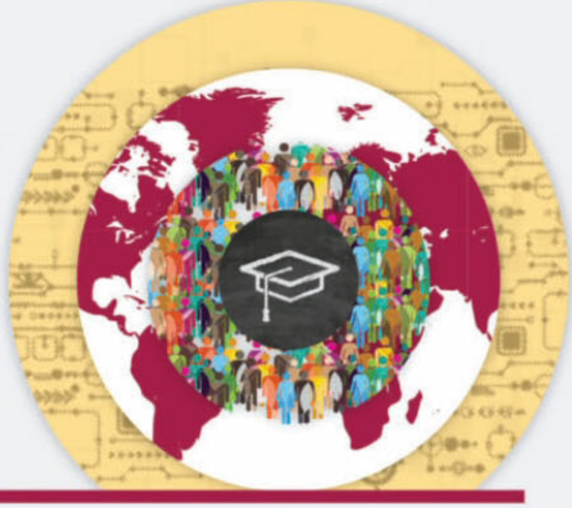
WASHINGTON, DC

The Supreme Court considers reversing life sentences handed to minors

HENRY MONTGOMERY was 17 when, in 1963, he shot and killed a white police officer in East Baton Rouge, Louisiana. With racial tensions high in America's Deep South, the black defendant was called "Wolfman" in court and by the media and received a death sentence after his conviction for murder. Two years later, the Louisiana Supreme Court revisited Mr Montgomery's case, noting that Ku Klux Klan activity and cross burnings had created an "atmosphere…[that] prejudiced the defendant". After another trial, he was sentenced to life in prison without parole.

Now the Supreme Court, nearly half a century later, is considering giving Mr Montgomery a chance to contest that sentence, too. In *Montgomery v Louisiana*, which the justices heard on October 13th, the question was whether a ruling three ▸▸

The Economist Events



Re-inventing Higher Education
Personalised education
September 17th 2015

On September 17th, The Economist Events brought together university and business leaders to explore the impact of technology on the future of higher education.

As massive open online courses (MOOCs) become increasingly popular, digital education platforms like edX and Knewton are racing to personalise the learning process for each individual student within a class of thousands—and sometimes millions—of fellow learners. Institutions of higher education, like Arizona State University, are not immune to the disruption, offering degree programmes online, taught by the same faculty who teach on campus.

In contrast to the traditional campus university lecture model, personalised learning platforms give educators precise information about how students are navigating the curriculum. On edX, for example, mathematics professors can see the answer distribution for every single problem in real time. And a recent MIT study of computer-science students used machine learning to predict which students would drop a MOOC—and when.

"The data we're gathering can not only help prevent drop outs ... it can help instructors do a better job of improving the content so students can do better with better outcomes," said Anant Agarwal, chief executive of edX.

Personalised education models also provide students with instant feedback, which helps them to perform better according to several studies. And while self-paced programmes lead to higher levels of mastery over a particular subject, this approach is impossible to scale in the 250-year-old "one-size-fits-all" tradition.

"How does a single teacher teach 100 students each at their own pace?" asked Agarwal. "I don't see a practical way of doing that, short of adding 100 tutors."

Adrian Sannier, chief academic technology officer of ASU Online, emphasised that a blend of online and offline methods is ideal. "I think that we have a false dichotomy a lot of times when we talk about e-learning," he said.

Digital learning isn't about replacing educators with machines—it's about making the process more accessible and effective for each student, according to Sannier. With new technology, instructors can now understand what particular problem an individual is having before interacting with that student one-on-one.

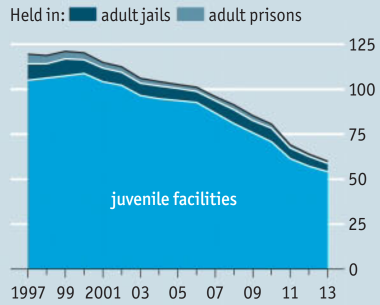
Personalised learning will not only transform how students learn, but also how potential employers will evaluate them. In the not-so-distant future, students will have a portfolio of "micro credentials" that demonstrate what they know and what they can do rather than what grade they received in a finite selection of courses. According to Knewton's chief executive, David Liu, countries like China already "understand that new global currency is your learning proficiency data."

Because education is a 7 billion dollar industry with myriad stakeholders, all three panellists agreed it would continue to be a challenge for the industry to adapt and scale at the pace of new technology. Curriculum writers, for example, will have to break down their lessons in a way that algorithms can be used to recommend particular components to individual students. And learning platforms themselves must continue to evolve to address the needs of different disciplines, from the humanities to quantitative subjects like maths and computer science.

But regardless of how change manifests in the future, all three panellists agreed it's inevitable. "It's happening because the world demands it," Agarwal said.

Minor victory

America's inmates below the age of 18, '000



Source: Bureau of Justice Statistics

years ago banning mandatory life sentences for juveniles applies retroactively to Mr Montgomery and up to 2,000 other inmates sentenced to die in prison for crimes committed before they were 18.

Miller v Alabama, the ruling of 2012 currently under the microscope, marked the retreat of a theory that criminologists proclaimed in the 1990s. In 1995 a Princeton professor, John DiIulio, predicted that young "superpredators" would number in the hundreds of thousands by 2010. With Mr DiIulio and other social scientists forecasting bloodbaths caused by remorseless miscreants rampaging around cities, state after state toughened sentencing guidelines for juvenile offenders. Many began trying children as adults. The gravest offences were punished with mandatory life sentences with no possibility of parole.

Lock up your children

But the superpredator theory fell on hard times rather quickly as data showed sharply declining rates of juvenile mischief. According to the Department of Justice, after peaking at 107,000 in 1999, the number of minors behind bars fell year after year until it was cut nearly in half by 2013 (see chart). Ashley Nellis of the Sentencing Project, a think-tank, attributes the drop to a number of factors: alternatives to incarceration that reduce reoffending, improved community policing and "smaller institutions that prove to be much more effective at 'treating' juvenile crime than large congregate care prisons that are typical for adult offenders."

With the alarm bells of the 1990s muffled by reality, the myth of the ruthless juvenile was buried by its own creator. Mr DiIulio joined a friend-of-the-court brief in *Miller* to argue that there is "no empirical basis for any concern" that juvenile crime would spike if mandatory life sentences without parole were found to be unconstitutional. By a 5-4 vote, the court built on earlier rulings saying that children should be subject to neither capital punishment nor life sentences for crimes less than homicide. "[J]uveniles have diminished culpability and greater prospects for reform," Justice Elena Kagan wrote, and "are constitutionally different from adults".

At the hearing this week Mr Montgomery's lawyer, Mark Plaisance, said that his client "deserve[s] a chance at redemption". And that timing shouldn't matter: Mr Montgomery is "not more morally culpable merely because his case became final prior to *Miller*, and he does not deserve to die in prison without consideration of the unique attributes of youth prior to sentencing simply because he was convicted more than 50 years ago."

No one explicitly disputed this principle at the Montgomery hearing. But the highly technical oral argument leaves unclear whether the justices will afford Mr Montgomery an opportunity to adjust his sentence. In order to allow new hearings for inmates like Mr Montgomery, the justices will have to resolve a tricky question about court jurisdiction and determine whether the circumstances of the case make it an exception to a norm against applying new rules of criminal law to old cases. Ms Nellis hopes they do: "The court has an obligation," she says, "to apply its ruling to the thousands…who were sentenced under the belief that they were a finished product by their teenage years." ■

Selling cannabis

Mother of all highs

DENVER

A determined push to win over moms is under way

AT A soirée on the outskirts of Denver, Colorado, one woman greets her fellow guests with a delicate bowl of vanilla sea-salt caramels, each one laced with marijuana. "It's quite subtle," she insists. "I just keep a few in my bag for when I'm feeling stressed out." Over light chat about family and work, the group quickly cleaned up the bowl.

It is a scene Americans will be accustomed to by about 2025, according to Jazmin Hupp, head of Denver's Women Grow society. "Once moms are on board, that's it," she explains, taking a drag on a hot pink e-cigarette filled with cannabis oil. Her battle cry explains the recent surge in products such as vegan weed bonbons, cannabis kale crisps, cannabis spiced almonds and "high tea".

Cannabis is now legal for recreational use in four states and the District of Columbia, and for medical use in another 21. Colorado collected $44m in recreational marijuana taxes last year, and $72.5m in the first eight months of 2015. The state is on course to collect $109m for the year. But one crucial, and highly influential, group remains unconvinced.

Mothers do not fit neatly into the story of cannabis, which has as its protagonists Mexican drug lords, layabouts and rappers—all of them male. Even now, the leading figures in the legalisation movement are businessmen. Perhaps this is unsurprising. A drunk teenage son is one thing, but stoned as well?

Even so, those hoping to take the drug mainstream know they have to get mothers on their side. One way to do so is to emphasise the health benefits of the weed. According to a recent estimate, a third of American adults use alternative medicines. More and more research papers now promote cannabis as a natural substitute for pharmaceuticals. It has been credited with treating everything, from lethargy to cancer, simply by stimulating nerves. The federal government recently awarded $69m to the University of Mississippi to expand marijuana growth for medical research.

All this will count for little, however, so long as spliffs remain a cheeky teenage habit. Cue a new crop of faces on the market. Mary's Medicinals sells fragrant lotions with a stylish leaflet on "the science behind cannabinoids"—chemical compounds inside the drug which, research suggests, have a soothing effect on the nervous system. Jill Amen and her son Trey are behind House Of Jane, a multi-state chain of cafés that offer "gourmet coffees, herbal teas, and fine edibles" laced with marijuana, with the tagline "medicate responsibly". Alison Ettel's Treatwell Health sells blueberry almond granola for customers in California. And Krystal Kitahara of Yummi Karma incorporates a small dose into condiments, sauces and spices to sprinkle on an evening meal. "I want it to feel like you could see it on a shelf at Trader Joe's," says Ms Kitahara, in reference to her balsamic vinaigrette, for which she has designed a delicate and colourful bottle.

Winning over mothers has long been a ploy to turbocharge sales, according to Maria Bailey and Bonnie Ulman, co-authors of "Trillion Dollar Moms". Mothers control $1.6 trillion of direct consumer spending and influence the buying habits of their entire household. In politics, it was the soccer moms, newspapers declared in 1996, that returned Bill Clinton to the White House. And mothers tend to make a family's medical decisions. If matriarchs can be persuaded that marijuana boosts rather than imperils health, cannabis caramels may one day be found stuck to the teeth of a grateful nation.

Films in the South

That old zombie charm

SAVANNAH, GEORGIA

After Georgia vanquishes Louisiana, Savannah eyes Atlanta

GAZING across the shrubland and pine trees of his 1,500-acre site outside Savannah, Jake Shapiro envisages star-struck tourists milling around movie backlots, plus a helipad, man-made water features and an amphitheatre. True, the current denizens of the land (leased on generous terms from Effingham County) are wild pigs, turkeys and snakes; but within five years, Mr Shapiro says, or thereabouts, Hollywood A-listers will swarm on 30 new sound stages, making Moon River Studios one of America's biggest film-making facilities. Construction is imminent, he says; shooting will begin next year.

Everything is in place, insists Mr Shapiro, who is from New Jersey. The woes of the Chinese stockmarket will help the project find investors. Georgia is cheap: you can build an ersatz New York office, he quips, for less than you can rent one in the city itself. And Moon River's intention to make its own pictures, back-to-back like the great studios of yore, will yield huge savings. Counting the inevitable foreign-distribution deals—and Georgia's bounteous tax-incentive scheme for producers—the pictures will practically pay for themselves. The ructions following last year's ejection of the previous boss have subsided (his plans were too extravagant, Mr Shapiro explains). Neither the near-zero value of shares in the holding company, FONU2, nor the rental payment of around $500,000 due soon, are reasons to worry.

Stranger things have happened, particularly in Savannah. And at least some of the advantages Mr Shapiro cites are real—and are helping Georgia prevail in its struggle with Louisiana for the sobriquet "Hollywood South". This contest began in earnest when "Ray", a biopic of (Georgian) Ray Charles released in 2004, was lured to Louisiana by tax incentives. In a footloose industry, such sweeteners are decisive. Ariel Vromen, a director, says he filmed his recent mobster flick, "The Iceman", in Louisiana for tax reasons, despite the hassle of making Shreveport look like New Jersey in the 1970s. In 2008 Georgia retaliated with a package that reimburses up to 30% of eligible expenses via tradable tax credits.

According to Joseph Henchman of the Tax Foundation, a think-tank, last year 36 states offered such incentives to film and television companies. Sceptics gripe that many of the jobs they create are temporary and low-paid, and that claims for the economic impact of productions tend to be flaky and inflated. Belatedly, perhaps, some legislatures have been swayed by these arguments. North Carolina has trimmed its programme—as has Louisiana, Georgia's main competitor (excluding California and New York). A budget shortfall spurred Louisiana's politicians to cap and rejig its incentives. They were always controversial: a scam involving the sale of fake credits ensnared the New Orleans Saints' quarterback, among others. In the summer, when the reform was passed, Louisiana's film lobby threatened to sue. More diplomatically, Robert Vosbein of the Louisiana Film and Entertainment Association now hopes the changes will be reversed after the imminent election for governor.

Gone south

But while some states are withdrawing, others are doubling down. The total amount of taxpayers' cash funnelled to filmmakers is rising, last year reaching $1.9 billion, according to the Tax Foundation. Georgia's scheme is among the most enticing: Lee Thomas of the Georgia film office reckons around 40 films and shows are in production at any one time. Investment in Georgia may have reached the point at which movies become a genuine industry rather than a fly-by-night circus. Marvel, a subsidiary of Disney, is making action films such as "Ant-Man" at a huge new complex owned by Pinewood. "The Walking Dead", a hit zombie series, is credited with revitalising the moribund town of Senoia, where much of it is filmed. The governor has established a training programme for technicians, as has Atlanta's mayor.

Atlanta and its environs host most of the action. But as more productions defect from Louisiana and elsewhere, Savannah (and not just Mr Shapiro) is angling for more of it. Adam Sandler has just finished shooting "The Do Over", a comedy, in Savannah; Mark Wyrick, the production's accountant, thinks it spent around $40m in the city (some of that, others say, was on the extra air-conditioning Mr Sandler required). The Savannah College of Art and Design offers whizzy facilities in a converted meat factory in exchange for apprenticeships. This week the Savannah Economic Development Authority (SEDA) announced new tax breaks for firms and relocation help for technicians totalling up to $1.5m a year. Stratton Leopold, a producer who returned to Savannah to run his family's ice-cream shop—installing an antique camera and film posters opposite the tubs—points to the queue outside as evidence of movies' knock-on effects for tourism. That economic rationale may indeed be stronger in Savannah than, say, Detroit.

Savannah may not have Atlanta's airport, says its boosters, but nor does it have the traffic. And Atlanta lacks Savannah's beaches. "You can't get Florida in Atlanta," says Beth Nelson, a locations manager; "we're not just wrought-iron and Spanish moss." The big prize, says Ralph Singleton, a twinkly Hollywood veteran hired by SEDA to market the city, is the repeat business of a big-budget TV series. That might provide the screen equivalent of "The Book", as "Midnight in the Garden of Good and Evil", a totemic bestseller set in Savannah, is reverentially known. "Atlanta won't always be the hub," Mr Singleton says, with some of Mr Shapiro's optimism. ■

Just add flesh-eating cadavers


DBOX

Lexington | One-horse race

On the evidence of the first debate, the Democratic primaries will not be much of a contest

THE best question asked at the first debate for Democratic presidential candidates on October 13th was submitted by a member of the public. It concerned the frustrations of governing a divided country, and it was put to Senator Bernie Sanders of Vermont, a leftist who has become an unexpectedly successful challenger to the front-runner, Hillary Clinton. President Barack Obama has struggled to get Republicans to compromise on "just about every agenda", the questioner asked: how would a Sanders administration be any different?

Mr Sanders offered hope rather than a real answer. Yes, the snowy-haired senator agreed, Republicans have been "terrible, terrible" obstructionists. But if millions of young people and workers come together and demand such policies as free college tuition or a near-doubling of the federal minimum wage to $15 an hour, then, he averred, Republicans will realise that they are outnumbered and buckle. Indeed, flying in the face of all evidence, Mr Sanders was not even willing to concede the near-certain reality that Republicans will control the House of Representatives after 2016, if not the Senate as well.

Mrs Clinton took a different tack in this opening debate of the primary season, held in the gilded, chandeliered bowels of a Las Vegas casino resort. In place of hope the former secretary of state offered experience, and a promise that she knows how to turn progressive wishes into laws, even when Congress teems with Republicans. Recalling her work alongside Mr Obama as well as her policy work as First Lady from 1993 to 2000, Mrs Clinton touted her "tenacity". Asked if she is a moderate or a progressive, she replied: "I'm a progressive who likes to get things done."

To politicians, pundits and donors, Mrs Clinton was the clear debate winner. Her answers were confident and polished. More than once she turned tough questions into chances to stress how historic it would be to have a woman president. For his part, Mr Sanders struggled. After months of adoring Bernie-mania at campaign rallies, he seemed flustered under fire on the debate stage. He was testy when defending his Senate record of opposing curbs on the gun trade—a record that he ascribed to the political realities of representing a rural state, rather than to principle. Some focus groups showed voters relishing his fiery rhetoric—but there is a ceiling to his support, and he did nothing to raise it.

There were three other men on stage. They mattered hardly at all. The only coherent speaker among the also-rans, Martin O'Malley, a former governor of Maryland, is the wrong candidate for this moment. He has enough governing experience to fall foul of a widespread anti-politics mood, and not enough to challenge Mrs Clinton's in a game of résumé trumps.

More usefully, the clash offered some important clues about how the coming election will be fought, in a country plagued by dysfunctional government. The causes of that dysfunction look increasingly structural. On one day every four years turnout rises and the country turns into a competitive battleground with a distinct Democratic edge, thanks in part to millions of low-income, young and non-white voters who tune into politics only when the White House is up for grabs. In between times, and notably in election contests for congressional and state offices, America is a collection of mostly safe districts and seats, in which Republicans enjoy a hefty majority. The result is a country that has handed Democratic candidates for the presidency a plurality of the popular vote in five of the six last contests, while handing Republicans some of their largest majorities in Congress since the Depression. The consequence is gridlock.

Mr Sanders, a self-described democratic socialist who cites Denmark and Norway as role models, insists that gridlock can be avoided if millions of apathetic Americans can be lured into the electorate, revealing a natural majority for economic populism and redistribution. As the senator put it on debate night, his campaign is sparking excitement all over this country, and: "Democrats at the White House on down will win, when there is excitement and a large voter turnout." In this Mr Sanders echoes a core belief among hardline Republicans, who insist that sweeping conservative majorities are within their party's grasp, if only their leaders would offer policies ferocious enough to fire up millions of disgruntled right-wing voters or social conservatives who have sat out recent elections and stayed home.

The Copenhagen consensus

In contrast, Mrs Clinton offered a pitch to those Americans who actually vote, and who currently insist on forcing the two parties to share power. On debate night, on the most polarising issues she appealed to Democrats alone, judging that those who take a conservative line on gun rights or abortion are lost to her. But where she could appeal to centrist sensibilities and talk about working with Republicans, she did so. She took a harder line than Mr Obama on countering Russia, arguing for the creation of "safe zones" for embattled civilians in Syria. In a nod to Mr Sanders and his scepticism about modern capitalism, she suggested that the solution is not Nordic social democracy, but reforming American capitalism to save it from its own excesses. "I love Denmark," Mrs Clinton noted drily. "But we are not Denmark."

The Vegas debate made for a curious evening. Typically, presidential debates reveal which of the politicians on stage is a viable candidate. The first debate showed that Democrats have only one viable candidate, Mrs Clinton (and that if Vice-President Joe Biden is minded to jump into the race, he needs to hurry). She was on good form, and clear-eyed about the challenges of divided government. The former First Lady could yet stumble: she has her share of flaws and vulnerabilities, starting with ongoing federal probes into the security of a private e-mail server she used when running the State Department. But until then, Democrats will not be holding debates so much as auditions for Mrs Clinton. ■

ADVERTISEMENT

Do You Suffer From:

- Heel Pain
- Joint Pain
- Back or Knee Pain
- Neuropathy
- Plantar Fasciitis
- Arthritis
- Diabetes
- Obesity
- Achilles Tendinitis
- Bunions
- Hammertoe
- Heel Spurs

G-DEFY
EXTORA II

Enjoy the benefits of exercise without harmful impact on your joints!

Boost energy

Combat health issues

Increase mobility

Relieve pain

WIDE WIDTH AVAILABLE
X-WIDE WIDTH AVAILABLE

Extora I
Men Sizes 7.5-15
- White TB9006MWS
- Black TB9006MBL

Women Sizes 5-11
- White TB9006FWS
- Black TB9006FBL

Extora II
Men Sizes 7.5-15
- Black TB9007MBL
- White TB9007MWS

Women Sizes 5-11
- Black TB9007FBL
- White TB9007FWS

~~$149.95~~ $119.95

Whether it's health-related or caused by an injury, discomfort can occur in anyone at any age—and there's no excuse to exercise less. In fact, being active with discomfort is the most natural way to keep your joints moving smoothly. Experience a better life with Gravity Defyer footwear—ease your discomfort and rediscover movement! The moment you put on a pair of Gravity Defyer shoes, you'll get flashbacks of the days where nothing could stop you.

Each Gravity Defyer shoe is exclusively designed with patented VersoShock® Technology, a system of springs that simultaneously work together to absorb harmful shock and return energy throughout the body. Get rid of that "I-can't-do-anything-anymore" attitude and let Gravity Defyer give you the relief you need while boosting your endurance and confidence. Transform your life right now and invest in a pair of Gravity Defyer shoes today!

$30.00 OFF Your Order

Free Exchanges • Easy Returns

Promo Code: PJ2KGA5

gravity defyer®
COMFORT FOOTWEAR TECHNOLOGY

Call 1(800) 429-0039
GravityDefyer.com/PJ2KGA5
Gravity Defyer Corp.
10643 Glenoaks Blvd. Pacoima, CA 91331

A+ Rating BBB ACCREDITED BUSINESS

Don't Forget
to check out our other products to relieve discomfort:

Men's Dress

Women's Sandals

G-Comfort Insoles

VersoShock® U.S Patent #US8,555,526 B2. This product has not been evaluated by the FDA. Not intended to treat, cure or prevent any disease. Shoes must be returned within 30 days in like-new condition for full refund or exchange. Credit card authorization required. See website for complete details.

The Economist Events

BRAZIL SUMMIT

OCTOBER 27TH 2015 • SÃO PAULO

FIGHTING FOR THE FUTURE

Brazil's economy has slowed dramatically, prompting key leaders to re-examine their strategies for growth.

On October 27th, domestic and international business executives, leading government officials and editors from *The Economist* will explore the key economic, social and political issues affecting Brazil today. The Brazil Summit will provide international context and suggest ways of overcoming the difficulties facing the country and of reshaping its future.

SÉRGIO MORO
Federal judge
BRAZIL

NIZAN GUANAES
Chairman
GRUPO ABC

HUGO BARRA
Vice-president
XIAOMI

PEDRO DE ANDRADE FARIA
President
BRF S.A.

LIMITED SPACE AVAILABLE. REGISTER TODAY.

+1.212.541.0539 | 11 4200-0672 | brazil.economist.com | event-tickets@economist.com

SPONSORSHIP INFORMATION:
EVENTSPONSORSHIP@ECONOMIST.COM

PR AGENCY

cdn comunicação

Also in this section

Canada's election

Struggling to stay afloat

OTTAWA AND TORONTO

Stephen Harper's long tenure as prime minister may be nearing its close

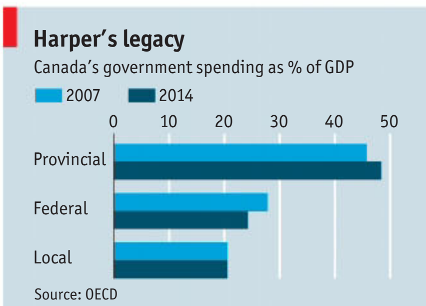
THIS summer visitors to Ottawa were treated to a free sound-and-light show beamed against the neo-Gothic façade of Canada's parliament and its "peace tower". To lush violins and a tremulous soprano, "Northern Lights" recounted the high points of Canadian history, from the "first great collaborations" between Europeans and indigenous folk to 20th-century wars.

The patriotic extravaganza said more about the prime minister, Stephen Harper, than about the country, some Canadians grumbled. In his ten years in power he has tried to put a swagger into the easy-going affection Canadians feel for their country. Canada is not merely good, he wants them to believe, but great. He manipulated national symbols in subtle but telling ways. The Canadian Museum of Civilisation became the Canadian Museum of History, reflecting a shift in focus to national identity. The Maritime and Air Commands were given their old names: the Royal Canadian Navy and Air Force (ties with Britain matter in Mr Harper's notion of Canada).

The navy's royal status is not a big issue in the campaigning for Canada's national election on October 19th. Mr Harper and his main rivals, Justin Trudeau, leader of the centrist Liberal Party, and Thomas Mulcair of the left-leaning New Democrats (NDP), are competing over who can steady the economy and reassure a nervous middle class. But the prime minister's gold-braid patriotism, like his tax-cutting conservatism and personal support for the death penalty, crystallises the feeling of many that the Harper era has been a rupture with Canadian tradition. His rivals promise a return to old virtues. Voters want "a government that is a reflection of our fundamental goodness", declared Mr Mulcair in a recent television interview.

Although two-thirds want Mr Harper out, he could hang on, becoming the first prime minister since 1908 to win four consecutive terms. Economic weakness, caused largely by falling oil prices, could work in his favour: he saw Canada through the financial crisis. Critics say he deftly exploited a lone-wolf terrorist attack a year ago, and (more cynically) a controversy over Muslim women veiling their faces at citizenship ceremonies, to keep voters worrying about security and terrorism.

The alternative to five more years of Mr Harper is an experiment. The NDP has never governed the country. Mr Trudeau, the son of a glamorous prime minister, is charismatic but inexperienced. Still, odds are growing that Mr Harper will be voted out of office. The Liberals have pulled ahead of the Conservatives and the NDP, and look set to win the largest number of seats in parliament. They are likely to fall short of a majority but will probably find a way to work with the NDP, bringing Mr Harper's reign to a close. He used his decade in power to nudge Canada toward lower taxes, smaller government and more reliance on enterprise and individual initiative. If he loses, his successor will nudge it some way back. The symbolism of the Harper era is more easily reversed than its substance.



Texan of the north

Until Mr Harper, right-of-centre politicians were gentlemanly sorts who fought elections under the banner of the Progressive Conservative Party. His edgier conservatism comes out of Alberta, the oil-producing western province to which he moved as a young man. There he helped found the populist Reform Party and eventually united the right to form today's Conservatives. He polarises opinion much like Margaret Thatcher, whose ideology and abrasiveness he shares. Yet he never had a hope of changing Canada as much as Thatcher did Britain: Canadian provinces and territories outspend the federal government by nearly two to one.

His main achievement was to contain the growth of federal government. Although total government spending is higher as a share of GDP than in 2007, the first full year of Conservative government, the federal portion has shrunk (see chart). He cut value-added and some business taxes, while squeezing the unemployed and the provinces. The state pension age is about to rise from 65 to 67.

Mr Harper refused to meet the provinces' powerful premiers as a group, perhaps fearing that they would trap him into ▸▸

letting them spend more federal money. He capped the federal contribution to health care, the biggest item in their budgets. He reluctantly backed a fiscal stimulus to shield Canada from the global financial crisis, then set out to reverse it. He balanced the federal budget in the last fiscal year and plans to do so again this year.

Mr Harper's other coup was to end a 20-year drought in big trade deals. He closed a deal with South Korea and has concluded one with the European Union. This month Canada joined 11 other countries in negotiating a Trans-Pacific Partnership.

On immigration he gave a conservative twist to the traditional Canadian welcome, favouring immigrants with job prospects over refugees and people who want to join family members. Canada continues to take in 250,000 permanent residents a year.

Some opposition to Mr Harper is a reaction to his smaller-government agenda. But what angers his critics most is his way of wielding power and pandering to the prejudices of a narrow political base. He has concentrated power in his own hands—he is the first long-serving prime minister since 1977 to dispense with a deputy—and has treated other branches of government with disdain. Presented with omnibus bills hundreds of pages long, a docile House of Commons has had little choice but to wave them through.

He brought to Ottawa an oilman's attitude to climate change and a sheriff's approach to law and order. In 2011 Canada became the only country to withdraw from the Kyoto protocol, an agreement to limit carbon emissions. The government muzzled scientists, critics contend, in case they drew attention to the problem. It enacted minimum sentencing laws to fight a non-existent crime wave.

Canada's modest contribution to the American-led fight against Islamic State ji-

Bello | The persistence of Peronism

Argentina's dominant political brand is defined by power, not ideology

IF YOU can't beat them, join them. That seems to be the thinking of Mauricio Macri. On October 8th he unveiled a statue of Juan Perón, the army colonel who gave his name to what remains, more than four decades after his death, Argentina's dominant political movement. What made this ceremony remarkable was that, of the three main presidential candidates in the election on October 25th, Mr Macri is the only one who is not a Peronist.

Argentina finds it hard to live without Peronism. Of the presidential elections since 1946 in which Peronists were permitted to run, they won nine, losing only two. They have governed for the past 12 years, under Cristina Fernández de Kirchner since 2007 and before that under Néstor Kirchner, her late husband. Ms Fernández's candidate, Daniel Scioli, leads the opinion polls; Mr Macri trails by about ten percentage points.

Peronism is a brand rather than a party. Its official vehicle is called the Justicialist Party (PJ). To the extent that it has an ideology it is a vague blend of nationalism and labourism, expressed in the PJ's founding "three banners" of political sovereignty, economic independence and social justice.

This has not prevented Peronist presidents swerving between radically opposed policies. Perón himself, when in power from 1946 to 1955, gained the lasting gratitude of Argentine workers by granting wage rises and paid holidays. But he also helped industrialists. He forged a coalition of labour unions, conservative provincial political bosses and nationalist army officers. It was the closest to fascism—of the corporatist, Mediterranean variety rather than the German version—that Latin America ever saw. Re-elected in 1973 after exile in Franco's Spain, Perón tolerated violence as a political tactic,

which contributed to a renewed breakdown of democracy and a bloodier military dictatorship in 1976.

In the 1990s Carlos Menem, another Peronist, pursued a very different course, opening the economy, privatising state companies and aligning Argentina with the United States. The Kirchners returned to economic nationalism and near-autarky, and extended welfare benefits to those thrown out of work by Argentina's economic collapse in 2001.

Rather than ideas, Peronism embodies a consistent set of political emotions and practices. Perón declared in 1951: "The masses don't think, the masses feel and they have more or less intuitive and organised reactions. Who produces those reactions? Their leader." His second wife, Eva Duarte, touched the hearts of the masses. Ms Fernández has proved to be an accomplished disciple: she has ruthlessly pursued popularity by postponing inevitable economic belt-tightening, by exploiting her widowhood and by associating herself with Pope Francis, an Argentine who has Peronist roots.

Sergio Berensztein, a political scientist, says that today Peronism is "a conception of politics—the idea of power as an end in itself". That makes it like Mexico's PRI or Brazil's PMDB, the permanent holder of the balance of power in Brasília. Its exercise of power is characterised by the strong leader and by control of the Argentine street. Almost all Peronist presidents have concentrated power in their own hands, brooking no internal rivals. Mr Scioli, the governor of Buenos Aires province, has often had to bite his tongue to keep the backing of Ms Fernández. But nobody will be surprised if he breaks with her and many of her policies if he reaches the Casa Rosada, the presidential palace.

This exclusionary leadership, together with the ideological shifts, has contributed to Argentina's notorious political and economic instability. It has also meant that Peronism itself has become increasingly fragmented. This is the fourth consecutive election that has seen two or three Peronist candidates. If that has not mattered, it is partly because the Peronists' historical rivals, the Radicals, have all but disappeared, but mainly because the Kirchners had the good fortune to exercise power when high world prices for Argentina's farm exports led to rapid economic growth, rising wages and a boom in middle-class consumption.

But now the economy has stalled. Whoever wins will have to devalue and cut subsidies. Mr Scioli seems tantalisingly close to the 40% and ten-point lead he needs to avoid a run-off. He is the favourite. But he is finding it hard to woo the middle class, which has fallen out of love with Ms Fernández. Mr Macri may have a chance, if he can only poach votes from the third candidate, Sergio Massa, a dissident Peronist. The Casa Rosada, it seems, is worth a statue to the founder of the most protean of political movements.

hadists fits with Mr Harper's belief that terrorism is a serious threat to Canada. It may be the least radical feature of his foreign policy. His diplomacy shifted away from its "non-partisan foundation", laments Roland Paris of the University of Ottawa. Earlier leaders sought to strengthen Canada's influence by working with international organisations; Mr Harper spurned them. In 2010 Canada humiliatingly failed to win a seat on the UN Security Council. And his relations with the American administration have been "chilly at best", says Mr Paris, making it more difficult to win American co-operation on Canadian priorities, such as approving a pipeline to carry oil from Alberta's tar sands.

If the main point of Harperism was to rouse animal spirits, it has not worked. Real growth has averaged less than 2% a year since 2006; labour productivity in the business sector has grown just 1% a year, less than half the rate of that in the United States. Instead of investing Mr Harper's tax cuts, businesses are sitting on some C$680 billion ($525 billion) of cash. The commodities boom, which masked weak underlying growth, hastened the decline of manufacturing by pushing up the currency. And now the boom has ended, leaving the economy fragile (see next story).

This is not entirely Mr Harper's fault. Canada's workforce is ageing. It has invested too little in infrastructure for 25 years, at all levels of government. Bottlenecks for trade across the Canadian-American border reduce GDP by 1-2%. Taxes on small firms are lower than on large ones, which discourages them from growing. That is a big cause of Canada's low productivity. The government invests plenty in research and development; businesses invest too little. Provinces sap Canada's economic oomph, for example by thwarting trade between them. A builder in Ottawa may not cross the river to work in Quebec.

Voters do not fume about things like barriers to inter-provincial trade, but they resent their consequences. The young are especially pessimistic, says Frank Graves of Ekos, a pollster. More than 40% of 25-to-44-year-olds say they earn less than their fathers at the same age. "Restoring middle-class progress is the key issue in this election," Mr Graves believes.

No candidate has presented a programme that would do the job completely. Partly that is because much would have to be done by firms and the provinces. Both opposition candidates promise relief from Mr Harper's government-trimming regimen, but in different ways. Mr Trudeau would run a budget deficit until 2019 to pay for infrastructure spending of C$60 billion over ten years. Mr Mulcair's pet project is a plan to offer 1m child-care places at a cost to families of C$15 a day. But he joins Mr Harper in promising balanced budgets.

Both challengers would reverse some cuts to the welfare state. But the biggest changes would be felt elsewhere. A government led either by Mr Trudeau or Mr Mulcair would scrap the British-style first-past-the-post voting system, a huge change to the way democracy functions. It would take climate change more seriously, and at least scale back Canada's deployment in the Middle East. It would be friendlier to parliament and the provinces, and might decriminalise marijuana. If the Harper era ends, Canada will feel very different. ■

Canada's economy

Late to the party

An economy renowned for sobriety has binged on debt

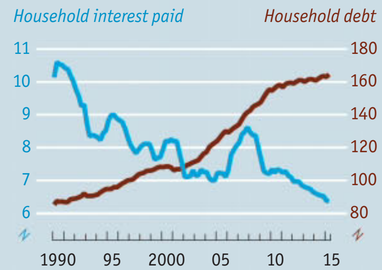
WHEN Lehman Brothers collapsed in 2008 and the world economy entered its worst slump since the Great Depression, Canada stood out as a haven of tranquillity. Its economy contracted along with those of other rich countries. But Canadian borrowers and banks had not indulged in the subprime follies of the United States and parts of Europe. Its recession was milder and its recovery stronger, partly thanks to higher oil prices. Canada performed so well that Britain poached its central-bank governor, Mark Carney, to run the Bank of England.

Now there is reason to wonder whether Canada, rather than holding back from the revels, just showed up late. With encouragement from ultra-low interest rates, Canadian consumers are on a borrowing spree. Consumer debt is a record 165% of disposable income (see chart). Most of that borrowing has gone into buying houses, which now look scarily overpriced. Against disposable income they are overvalued by 34% compared with their long-term average, according to *The Economist*'s house-price indicators. Compared with rents, the overvaluation is 89%.

Now the economy is shaky, which makes inflated debt and housing values more dangerous. The 50% fall in oil prices since 2014 battered the energy sector. Overall, the economy contracted slightly in the first half of 2015; the downturn was worst in oil-producing Alberta. The economy is now growing again and forecasts are relatively cheery. The oil slump pulled down the Canadian dollar, which makes exports more competitive; the United States, by far Canada's biggest market, is growing.

Tomorrow's headache

As % of Canadians' disposable income



Source: Statcan

But household debt casts an ominous shadow. At present, borrowers can pay; interest costs have fallen in relation to disposable income. But that could quickly change. Any shock in the form of inflation, which could force interest rates up quickly, or a recession in emerging markets or the United States, would be magnified by Canada's overblown debt.

Even so, an American-style financial crisis looks unlikely. That is because, despite the binge, Canadians have remained relatively sober. About 5% of Canada's mortgages are subprime, compared with nearly a quarter of America's before the crash. Two-thirds are insured by the government-owned Canada Mortgage and Housing Corporation or one of its smaller private competitors. For uninsured mortgages, lenders typically demand that home buyers put up half of a property's value.

Unlike American borrowers, Canadian ones do not use their homes as ATMs to pay for consumption. Banks do extend home-equity loans, but they are almost always the same banks that extended the mortgages; they therefore have a full picture of the customer's finances, says David Beattie of Moody's, a credit-rating agency.

Canadian self-restraint is encouraged by the cosiness of its banking market. Half a dozen banks hold 95% of the assets. Competition among them is not cut-throat and profit margins are thus comfortable. Even if economic growth slows sharply or interest rates rise rapidly, "I don't see massive losses impacting the capital bases of Canadian banks," says Mr Beattie.

That does not mean Canadians can just relax and enjoy themselves. For one thing, the banks' protection is the government's exposure. The availability of publicly guaranteed insurance helps fuel the rise in house prices, and puts taxpayers at risk should the market crash. A study by the C.D. Howe Institute, a think-tank, found that in a severe housing crash the government would have to put up C$9 billion ($7 billion) to recapitalise mortgage insurers. A bigger risk is that banks would abandon private insurers, which have less government protection, further destabilising the market. The government has been trying to restrain the rise in house prices by tightening standards for mortgage insurance.

An economic downturn might not spell catastrophe. But the debt binge ensures it would be very unpleasant. ■

Also in this section

For daily analysis and debate on Asia, visit
Economist.com/asia

Indian elections

The battle for Bihar

PATNA

In a much-watched election, politicians reach for every available weapon

RISING on the south bank of the Ganges, Patna is a mix of new and old: glass-faced IT training-centres and bamboo-canopied rickshaws. Right now the capital of Bihar is thrumming with an electoral battle for control of India's third-most-populous state. Enormous images of India's prime minister, Narendra Modi, glare from saffron-coloured billboards over the grimy streets. Nearby the titans of the local rough-and-tumble politics answer him with slogans printed across billboards of yellow, green and red—fists raised in defiance.

The election for the state assembly kicked off on October 12th. It will continue in five phases over the next month, with the final result tallied on November 8th. Above all, it is a test for Mr Modi (some of whose supporters in Bihar are pictured above). For all his prestige in Delhi, the capital, his Hindu-nationalist Bharatiya Janata Party (BJP) and its friends control only two-fifths of India's states, where power often lies. He has set his heart on dominating them. If Mr Modi can make it in Bihar to the east with its more than 100m people, or nearly 8% of the population—he can make it anywhere.

When Mr Modi swept to office in May 2014 he redefined national politics, taking an unprecedented 282 seats of 543 for the BJP. He ran a presidential-style campaign, aroused voters' hopes with a story of economic development and fulfilment of personal dreams, and scored majorities in every region of the country. Yet opposition in the upper house, whose composition is largely determined by the balance in states, has checked his promised reforms, notably a land-acquisition bill and a national goods-and-services tax. In February the BJP suffered a startling defeat to an upstart party in the assembly elections for the territory of Delhi. Of four states due to vote in 2016, none can be expected to elect a BJP-led government. So Bihar matters. If Mr Modi's wave ebbs here, he and his fearsome political strategist, Amit Shah, will face a hard reckoning.

The BJP has stiff opposition in Bihar. The most prominent opponent is Nitish Kumar, the incumbent chief minister, who came to office in 2005 with the BJP backing his Janata Dal (United) party. Their coalition was fruitful and Mr Kumar was re-elected comfortably in 2010. Mr Kumar broke the alliance in 2013, saying Mr Modi was responsible for an anti-Muslim pogrom in Gujarat 11 years earlier when he was chief minister there. Yet both men ran their states in similar fashion, stressing development. Long a byword for poverty, Bihar's double-digit growth rate has routinely surpassed that of wealthier Gujarat.

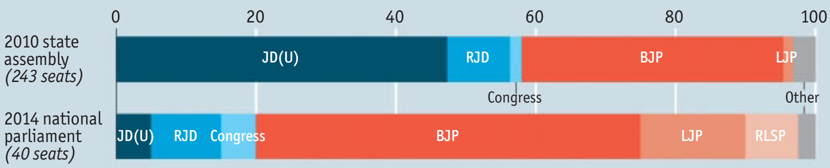
But the wild card in Bihar's polls is a former enemy-turned-ally of Mr Kumar, "Lalu" Prasad Yadav. Wildly charismatic, Lalu was among the first chief ministers to make a virtue of coming from one of the "other backward classes", as defined by the government, which are guaranteed quotas in higher education and public service. He promoted the interests of his Yadav caste, who are traditionally cow-herders. He held office for 15 lawless years, sometimes by proxy while under criminal investigation for corruption. The period was derided as the "jungle raj". While the rest of India flowered, Bihar withered. Lalu's misrule laid the groundwork for Mr Kumar's technocratic turnaround. The two have now joined forces. With a rump from the Congress party, they form Bihar's "grand alliance".

Mr Kumar and Mr Modi both hope to win voters with promises of betterment through economic growth. But their choice of coalition partners is also driven by low-minded calculations of caste and religion. As in other states, the BJP's natural supporters are upper castes. But the party's coalition, the National Democratic Alliance (NDA), also includes groups representing the most disadvantaged Hindus, the Dalits or those formerly considered "untouchable" (see chart).

Mr Kumar's grand alliance appeals more to the middle of the caste hierarchy, including most of the "other backward classes", who are probably the majority of ▸▸

Three makes a trend

Bihar elections, % of total seats won by: Grand alliance parties; National Democratic Alliance parties



Sources: Election Commission of India; Office of the Chief Electoral Officer the population. Most Muslims, who are 17% of Bihar's population, see the BJP as a party of Hindu chauvinists. They generally plump too for the grand alliance.

Electoral wrestling can turn ugly. Lalu has managed to keep his fellow Yadavs aligned with the Muslims in his Rashtriya Janata Dal (RJD) party, giving him a powerful store of votes. The NDA needs to lure swing-voting Hindus away from the grand alliance. They have arguments on their side: look how well all the BJP-led states have fared, and consider how Lalu would make any coalition unstable. But the fact is that a cruder tactic—driving a wedge between Hindus and Muslims—could also help the BJP, as it did in parliamentary elections in next-door Uttar Pradesh (UP), India's most populous state, in 2014.

A gruesome reminder of communal tensions was the lynching on September 28th of a Muslim man in UP. He was accused by a Hindu mob of having slaughtered a calf (cattle are sacred to Hindus) and eaten its meat. Some BJP politicians jumped to make inflammatory remarks in sympathy with the killers, and a nationwide row ensued, with further violence.

The lynching—and the reaction to it—generated national alarm. Yet the prime minister stayed silent for eight days. When Mr Modi finally spoke, it was to offer a vague homily and later to call it a "sad" incident. With his eye on Bihar, some say, he wants to encourage cattle-revering Yadavs to see themselves as Hindu first and foremost. In protest at the Modi government's apparent insouciance, dozens of Indian writers have returned their national awards. The Bihar election is coming to matter as much to India as a whole as to the state itself. ■

Okinawa

Island warrior

TOKYO

Okinawa takes on the governments of Japan and America

AFTER returning to power in December 2012, Shinzo Abe, Japan's prime minister, worked hard to persuade reluctant leaders in Okinawa to abandon their resistance to the long-mooted construction of a new military base for American marines at Henoko, a pristine beach on the prefecture's main island. He, and the Americans, hailed it as a breakthrough when a building permit was issued the following year. Now the governor of Okinawa, Takeshi Onaga, who was elected in 2014, has revoked the permission. Mr Abe, and the Americans, will not be happy.

Many Okinawans had doubted whether Mr Onaga, a former member of Mr Abe's party, would have the guts for all-out opposition. But now he has placed himself firmly at odds with fellow conservatives in the ruling Liberal Democratic Party (LDP), and in particular with Mr Abe, who recently won a battle to secure the passage of controversial security bills aimed at giving greater freedom to Japan's armed forces to operate abroad with allies. Mr Onaga justified his move by pointing to the findings of an independent legal panel. It said there had been grave flaws, relating to environmental protection, in the granting of the original permit.

Okinawa has less than 1% of Japan's land, but nearly one-fifth of it is occupied by American bases and their 26,000 troops. Mr Abe sees America's presence on the island as a crucial underpinning of the security that his bills are intended to reinforce. The central government has promised to take legal action to reverse Mr Onaga's decision. But Gen Nakatani, the defence minister, said his ministry would meanwhile suspend work on the base.

The remote facility at Henoko is intended to replace Futenma, a particularly unpopular base in a densely populated area (see map). Many Okinawans fear the new one, built on reclaimed land, would harm the environment and violate an area that is hallowed in ancient lore. At the UN Human Rights Council in Geneva last month, the governor asked whether his country could claim to share the values of freedom, equality, human rights and democracy with its rich-world peers while refusing to guarantee such values in Okinawa. Japanese officials, however, dismiss Okinawan opposition to the new base as a disguised attempt to win fatter economic subsidies (in return for hosting the bases, Okinawa receives large quantities of central-government funds).

In the end, most observers expect the central government to win in the courts. Yet Mr Onaga's defiance will embarrass Mr Abe. He has already flinched once. As his approval ratings fell during the summer as a result of strong opposition to his security bills, the government suspended work at Henoko for a month in order to facilitate talks with Mr Onaga and boost Mr Abe's image with a public—not just in Okinawa—that is deeply suspicious of the prime minister's hawkishness. The talks failed to produce any sign of retreat by either side.

Mr Onaga says there are plenty of means to hamper construction of the base, even if work continues. He says he could use such tactics as were recently deployed by the mayor of Nago City, near Henoko, who refused legal permission for the government to install a conveyor belt to transport earth and sand to the construction site, forcing it to use trucks.

The governor's cause appears to enjoy considerable support elsewhere in Japan. According to a recent poll in *Asahi Shimbun*, a newspaper, just over half of Japanese disapprove of the central government's handling of the base's move. Now it is likely that the number of protesters around the construction site will swell. So far the demonstrations have been peaceful. But there is a growing possibility that frustrated islanders will clash with the police. Japanese media say Mr Onaga has hinted in private conversations that his insistence on peaceful tactics may not be resolute. If violence does flare, Mr Abe will face even greater public pressure to reach some form of compromise. ■

Insurgency in the Philippines

Fruits of peace

DAVAO

Struggling with violence and investment in Mindanao

IF YOU want a reason to be optimistic about the future of Mindanao in the southern Philippines, a region long racked by poverty and insurgency, look at Sasa port in the city of Davao. On a weekday morning it is bustling. Cranes stack the hold of a massive green ship with containers holding bananas, pineapples and coconuts—all bound for China's hungry consumers. The Philippines is the world's third-leading exporter of bananas. Three-quarters of the country's production of the fruit comes from Mindanao, long known as the Philippines' food basket. Between 2010 and 2014, the value of the country's banana exports grew by 256%—faster than anywhere else in the world. Plantations in Mindanao played a big part.

But if you want a reason to be pessimistic, look across the harbour to Samal, a small island studded with beach resorts and marinas. On September 21st kidnappers snatched four people—two Canadians, a Norwegian and a Filipina—and reportedly took them to Sulu, an archipelago in the Autonomous Region in Muslim Mindanao (ARMM), a patchwork of territory which Abu Sayyaf, an Islamist separatist group, has long used as a base. Philippine officials insist the kidnapping was an isolated case, but on October 7th an Italian businessman was abducted in Mindanao's Zamboanga peninsula. A day earlier troops had foiled a plot by Abu Sayyaf to bomb Jolo, in Sulu; two days earlier bombs had toppled two power-transmission towers in central Mindanao.

Local officials remain sanguine, and investors do not appear to be running for the hills—yet. But efforts to achieve peace between the central government and the rebels of the Moro Islamic Liberation Front (MILF), the region's largest separatist group, appear to have stalled. And though both sides appear to remain eager to reach a peace accord, delay raises the risk of more violence.

It was not always so gloomy. On March 27th last year the central government and the MILF signed an agreement on setting up a new autonomous region called Bangsamoro in majority-Muslim western Mindanao, to replace ARMM. In exchange the MILF would abolish its armed wing—thus, it was hoped, ending decades of armed struggle and capping a peace process that began 18 years earlier. President Benigno Aquino submitted the Bangsamoro Basic Law (BBL), which enacts the agreement, to Congress in September 2014.

Even before that, the MILF had stopped fighting. International lenders such as the World Bank had begun funding roads and development. Investment and central-government funds poured into Mindanao, which offers numerous advantages over the rest of the Philippines: abundant available land, comparatively low electricity rates, a location just outside the normal reach of typhoons and proximity to the large markets of Malaysia and Indonesia. Between 2010 and 2014 investment into Mindanao increased more than sixfold; between 2011 and the current fiscal year Mindanao's allocation in the national budget more than doubled. Mr Aquino has allocated more in his single six-year term for desperately needed upgrades of infrastructure in Mindanao, such as roads and irrigation, than his predecessors did in the previous 12 years. In the Bangsamoro region, investment this year is likely to be more than five times the amount in 2013. Many people in Bangsamoro have traded guns for ploughshares.

In January, however, 44 policemen died in a botched raid on a rebel group in Maguindanao. Since then, the BBL has failed to make progress in the Philippine Senate, where it will probably continue to languish for the eight months left in Mr Aquino's term. Supporting it will win few votes and could cost plenty.

Whether the BBL becomes law after that depends on whether Mr Aquino's successor decides to refile it. Presidential hopefuls have until October 16th to submit their candidacy papers. A front-runner is Grace Poe, a senator, who opposes the BBL in its current form. This does not end hope for a durable settlement; the next president may remain open to negotiation. But the MILF risks splintering as it loses credibility with younger fighters, some of whom seem to be losing patience. And the virtuous cycle of peace spurring investment and development, which leads to a deeper peace, risks turning vicious. ■

Disabled sports in Japan

Fight club

TOKYO

A Japanese pro-wrestling outfit challenges prejudices

THE symptoms of cerebral palsy mean that when Shintaro Yano wrestles, he cannot move fast or easily get a hold on his opponent, but that matters little in Doglegs, a 20-strong band of severely handicapped wrestlers in Tokyo. A brawl between Mr Yano and another handicapped man inspired Yukinori Kitajima, an able-bodied disability worker, to start the league in 1991.

The aim, both men say, is to entertain people, as well as to "destroy" the passive image of disabled people in Japan. Although the way they are treated has improved in recent years, disabled children are still shunted into separate schools. Families often keep such adults at home.

Some complain that Doglegs is not only dangerous (wrestling is considered too extreme even for the Paralympic Games), but evokes a cruel Japanese tradition of "sideshows" of the deformed. But other campaigners for disabled rights approve. Doglegs' shock value may do more to change attitudes than the usual lobbying, says Koji Onoue of the Tokyo branch of Disabled Peoples' International, an NGO.

The group is still little-known in Japan, but a recent documentary in Japanese by a film-maker from New Zealand, Heath Cozens, is starting to draw larger audiences of the able-bodied. The disabled wrestlers take on not only each other but able-bodied contenders with their legs or arms pinned. Mr Yano has demanded to fight Mr Kitajima on many occasions, and had his face beaten bloody.

Doglegs sometimes aims to amuse, as when Koji "L'Amant" (The Lover) Ohga, who can barely move, appears in the ring wearing a skirt. He wrestles "because it is fun", he says. As his wife carried him away after his latest fight, the match's commentator said Mr Ohga and his family should go to the Tokyo 2020 Olympics wearing Doglegs T-shirts.

True mettle

Soothsaying in Sri Lanka

Name your price

COLOMBO

Sri Lankans buy alphabetical advice

AT HER home in a quiet residential compound, Sanda Samanthie Ahubudu runs a thriving business. She sells her clients lists of suggested names for everything from shops to babies. Staff are almost constantly on the phone to customers. Clients who visit Ms Ahubudu in person have to take a number and wait, as at a doctor's surgery. On one recent morning, more than 40 of them turned up. "It's not always this busy," said an assistant, before reeling off details of Ms Ahubudu's bank account to an eager parent on the phone.

Demand, says Ms Ahubudu, is growing for the service, for which she charges 500 rupees ($3.56). Her patrons are mostly Buddhists, who make up a majority of Sri Lanka's population. But they also include Catholics, Hindus and Muslims. Some are actors and actresses, politicians or media workers who want new names for themselves, believing (as many do in Sri Lanka) that names can shape destinies.

When a child is born many consult an astrologer, who will suggest auspicious letters to be used in the baby's name. Parents then choose names beginning with the letters. This is where the likes of Ms Ahubudu come in. She will propose names intended both to sound mellifluous and to convey a sense of what the parent hopes the child will become. Names "must merge with the universe as a positive vibe," says Ms Ahubudu. Those she devises are often of her own invention or her father's, who started the practice. She claims thousands have benefited from them.

Naming has not always been so commercial. Traditionally a family elder, the chief priest of a local temple or an erudite villager would provide the service. Often names would reflect the baby's caste. It was fine to suggest a child's glorious future, as long as this did not imply the infant would break free from that shackle.

Such conventions began to loosen in the 1950s. Parents now look increasingly for novelty. That the names chosen do not always bring the desired results appears not to deter them. In 1992 Ranasinghe Premadasa, then president, changed the first syllable of the country's name in English from Sri to Shri on the advice of soothsayers. They predicted it would improve the nation's fortunes. The following year he was assassinated. The former spelling was restored.

Mahinda Rajapaksa, another former president, famously named a budget airline after himself, reportedly because he thought having his name in the sky would bring him good fortune. He stepped down in January after a surprise election defeat. The planes still fly under the same name. ■

Punishment in Thailand

Adjustment disorder

BANGKOK

Generals try novel tactics to change the minds of dissenters

THE generals who took over Thailand in mid-2014 have settled in for the long haul and watched the economy slump. They have stifled dissent and defended their grip on power by arguing that they are needed to restore "public order and morality".

For those who dare criticise them, the generals have devised what they euphemistically call "attitude adjustment" sessions. These are aimed at instilling a proper sense of "understanding" and respect for Thai institutions, including their favourite one, the monarchy. The sessions sometimes consist merely of being locked up for a few days. But sometimes the wayward are sent to something more in the style of an academic seminar, interspersed (to demonstrate generosity) with occasional offers of Australian wine and games of football with their captors.

Since last year's coup, the authorities have "summoned" nearly 800 people for attitude adjustment, according to iLaw, a Bangkok-based NGO. They include Sakda "Sia" sae Aew, a well-known cartoonist, who was called in on October 4th because of an illustration that poked fun at the prime minister, General Prayuth Chan-ocha. Pichai Naripthaphan, a former energy minister, has been summoned seven times.

The campaign of intimidation has had a chilling effect. For now, the only former politician who openly ridicules the generals' rhetoric about moral revival is Chuwit Kamolvisit, a former massage-parlour billionaire who is on a crusade against unjustly acquired wealth.

This month students at Suan Sunandha Rajabhat University in Bangkok were handed over for attitude adjustment by their own university's rector. The transgender students of film had created an online uproar with a video they posted on Facebook: it showed them fully dressed, performing in pairs a college hazing ritual involving joyous mock-copulation. The rector, Leudech Kerdvichai, asked the authorities to send the students to a three-day boot camp at a marine base. The armed forces, who have long regarded it as their job to keep the nation on the right moral path, obliged. Mr Leudech and two colleagues paid the bill.

The army is less brutal than we thought

Also in this section

For daily analysis and debate on China, visit
Economist.com/china

Politics

A very Chinese coup

BEIJING

Li Keqiang is the weakest Chinese prime minister in decades

TO MANY foreigners, Li Keqiang's appointment as prime minister in 2013 was a reassuring choice for a job they assumed would involve day-to-day running of the world's second-largest economy. A trained economist, he had played a big role in helping the World Bank and a government think-tank produce a joint report calling for bold economic reforms. A few years earlier, as a provincial leader, he had helped two areas achieve faster growth (which he daringly calculated by measuring electricity consumption, rail cargo and loans—rather than by using the government's "man-made" statistics). Likonomics, as even some state-controlled media took to calling it, looked pretty likeable.

This summer it seemed less so. Apparent blunders by economic policymakers shook global confidence in China. In July the Communist Party clumsily attempted to prop up the country's plunging stockmarkets—a largely futile move which it eventually abandoned. Soon after, without warning or immediate explanation, the People's Bank of China devalued the yuan by 2%, triggering a wave of panic selling across world markets.

These events had little impact on China's real economy: the stockmarkets represent a small share of it and the devaluation was small. But they sharpened questions about the ability of China's leaders to maintain steady growth while carrying out the much-needed reforms they had promised. Did Mr Li, who had warned that reform would be like "cutting off one's limb", have the skill to achieve it? Or were these problems a sign that he was not really in charge of the economy, and that incompetents were?

Prime ministers have long presented China-watchers with a conundrum. In theory they run the government, while the general secretary—today, Xi Jinping—runs the party (except for a brief period after the death of Mao Zedong in 1976, when Hua Guofeng served as party chief as well as prime minister). But there is no clear divide between party and government. The actual power of prime ministers has ebbed and flowed depending on the title-holder.

Not so impressive

In the late 1990s the then prime minister, Zhu Rongji, supervised sweeping closures of loss-making state-owned enterprises, resulting in millions of job losses. His predecessor, Li Peng, had played a central role in the crushing of the Tiananmen Square protests in 1989. Earlier in the 1980s Zhao Ziyang had helped to pioneer the reforms that made China the economic giant it is today. It was often difficult to make out exactly how much each of these men was responsible for important decisions, but they all made a mark. Wen Jiabao, Li Keqiang's predecessor, played less of a prominent role, but was noted for his occasional (ineffectual) calls for bolder political reform.

Mr Li (pictured, right, with Mr Xi, left) is more marginal than his forerunners. This was apparent during the summer, when neither he nor other leaders publicly explained the decision to intervene in the stockmarkets. In April the *Financial Times* quoted Mr Li as saying that China did not want to devalue the yuan—four months before it did so. When world markets plummeted in response to the unexpected fall of the yuan, Mr Li talked in generalities rather than commenting on the issue. As for limb-cutting reforms, despite some encouraging moves in the financial sector and talk of more involvement by private firms in industries hitherto dominated by the state, little blood has been drawn.

It may be that Mr Li is less of a whizz than he was made out to be. His critics point out that his record in the provinces was flawed. As the leader of the central province of Henan around the turn of the century, he was blamed for covering up the government's complicity in a blood-buying scheme that infected hundreds of people with HIV. Even the *People's Daily*, the party's main mouthpiece, has taken an indirect swipe at him. In June it disparaged his unconventional method of calculating GDP growth (often referred to, even in China, as the Keqiang index).Mr Li's problem, however, is not so much incompetence as impotence. He is officially ranked second in the party hierarchy, but it is ever more apparent that Mr Xi largely excludes him from day-to-day decision-making on economic policy. That is a striking change of fortune for a man once thought to be a possible candidate for the role that was eventually filled by Mr Xi, who took over as China's leader in 2012. Mr Li is the son of a middle-ranking party official from the central province of Anhui who rose through the Communist Youth League as a protégé of Hu Jintao, Mr Xi's predecessor. He is serious, low-key and somewhat professorial in manner (he has a PhD in economics from Peking University). But personal net- ▸▸

works often matter more than policymaking and management skills. Mr Xi had the right ties, as a "princeling" whose father had been one of Mao Zedong's aides. Mr Li has no such impressive pedigree.

Within months of Mr Li's appointment in March 2013, rumours began circulating that he had been sidelined. The prime minister has been allowed to tinker with some experiments—such as the Shanghai Free Trade Zone, which opened in September 2013 to much fanfare but disappointing effect. His grander schemes to boost urbanisation and reform the *hukou* system, China's restrictive household-registration policy (see page 26), have made unimpressive headway.

Since assuming power Mr Xi has pushed Mr Li to one side and taken direct oversight of economic policy. In December 2013 he created a new committee, the Central Leading Group for Comprehensively Deepening Reform—and put himself in charge of it. He also chairs the Central Leading Group on Financial and Economic Affairs, which commissions research and makes policy. Mr Li probably approved the intervention in the stockmarkets, but the decision was mostly likely taken by Mr Xi's financial leading group. The prime minister was excluded from the drafting of Mr Xi's flagship economic reforms, which were endorsed by the party's Central Committee in November 2013. He is similarly unlikely to have been heavily involved in drawing up a new five-year economic plan, which the Central Committee will approve at its four-day annual meeting beginning on October 26th.

Mr Li's role has been further eclipsed by a relatively unknown economist, Liu He, Mr Xi's chief economic adviser. Mr Liu owes his position to Mr Xi, with whom he may have played as a child. He is the brains of the financial leading group. A talented technocrat and a liberal reformer, Mr Liu probably shares many of Mr Li's views on economic policy. But some speculate that it is to the somewhat more cautious Mr Xi that he tailors his advice.

There are even rumours that Mr Li may not get a second term as prime minister in 2018, as convention would grant him. But since most policy already bypasses Mr Li, and he presents no direct challenge to Mr Xi's position, the prime minister will probably hang on to his job. He still has valuable allies in the Central Committee and he remains the public face of China's economic policy—the man who does the most handshaking with foreign business leaders. (His command of English helps, a skill that Mr Xi lacks.) Removing him would risk further shaking confidence in the economy. It may prove useful for Mr Xi to retain him as a fall guy, in case a bigger crisis hits.

Having assumed charge of the economy, however, Mr Xi finds his attention divided. His fierce anti-corruption drive is probably absorbing much of it: mismanaging the campaign would risk a dangerous backlash from fellow members of the elite who are among his targets. But the events of the summer show that the economy can produce unexpected shocks, too. And strong growth will still be needed to shore up the party's legitimacy. Mr Xi cannot afford to take his eye off the economy either.

After Deng Xiaoping rose to power in the late 1970s, the Communist Party adopted a more collective style of leadership than the destructive autocracy of Mao. Mr Xi is taking a different approach, apparently believing that a Putin-style strongman is needed to push through difficult changes. So far, however, he has done far better at accumulating power than executing reforms. The risk for Mr Xi is that if the economy sputters and the party's credibility slumps, Mr Li will prove far from adequate as a scapegoat. ■

Ideology

Avoid failing Marx

BEIJING

A foreign ideology gets a boost from fading reds

IN THE 1960s Mao Zedong decried the "phoney communism" of Nikita Khrushchev, the Soviet leader who had supposedly defamed socialism by "completely negating" Stalin. To avoid such apostasy, Mao wrote, China had to train successors who would "continue to march along the correct road laid down by Marxism-Leninism." This, he argued, was vital for ensuring that China and its Communist Party would sustain their ideology "for a hundred, a thousand, nay ten thousand years".

China has another eight years to go before it matches the record set by the Soviets for keeping a Communist Party in power (74 years). But its colour has long since changed. The political system remains Leninist, but there are few vestiges of Marxism in the country's economic policies. Workers' rights are often ignored. "Vanguard", the term so beloved of Marxists when describing the party's position, is now the (English) name of a Chinese supermarket chain. Class distinctions are sharpening; the better-off enjoy speculating on property and flipping stocks like true capitalists.

The party frets about this. In 2004 it launched a "Marx Project" aimed at reviving study of his philosophy (the project was originally supposed to last four years, but was extended indefinitely because of "dwindling Marxism awareness", according to *Global Times*, a newspaper in Beijing). Since he became China's leader in 2012, Xi Jinping has been especially keen to promote Marxism (as well as a home-grown philosophy, Confucianism). Hence Peking University this month hosted a two-day international conference on "Marxism and the Development of the Human Race". Hundreds of Chinese and foreign scholars attended. Xinhua, a state news-agency, called it the biggest such event ever held in China.

The university is already planning an even larger one in 2018 to mark the 200th anniversary of Marx's birth. It is constructing a new building named after him (with the help, oddly, of a donation of more than $15m from a small bank). But students are apathetic. Earlier this year the government hinted at its frustration. It ordered every university "without exception" to submit data on their usage of 27 Marxist textbooks—as well as contact details of those teaching them.

A forgotten corner

The Economist

SPECIAL REPORT

BRITAIN AND EUROPE

October 17th 2015

The reluctant European

The reluctant European

Though Britain has always been rather half-hearted about the European Union, its membership has been beneficial for all concerned, argues John Peet. It should stay in the club

THE QUESTION THAT will be put to British voters, probably in the autumn of 2016, sounds straightforward: "Should the United Kingdom remain a member of the European Union, or leave the European Union?" (The final clause was added last month at the insistence of the Electoral Commission, which decided the question might look biased without it.) When David Cameron, Britain's Conservative prime minister, first proposed a referendum in early 2013, he was hoping that the answer would also be straightforward. Once he had successfully renegotiated some of Britain's membership terms, the electorate would duly endorse him by voting to stay in.

But referendums are by their nature chancy affairs, as a string of previous European examples have shown (see box later in this article). Mr Cameron is well aware that the September 2014 referendum on Scottish independence, an issue about which he said he felt far more strongly than he does about the EU, became a closer-run thing than expected. There is no guarantee that the EU referendum will go his way, and if voters chose to leave it would cause great uncertainty not only for business and the economy but for Mr Cameron himself. Assuming that he campaigns for Britain to stay in, which seems a near-certainty, it is hard to see how he could remain prime minister if he lost the vote. Moreover, the Scottish Nationalists have said that if Britain were to withdraw from the EU, they would press for another referendum on Scottish independence, which they might expect to win. So Brexit could, in due course, lead to the break-up of the United Kingdom. The EU referendum will thus become a defining moment not just for Britain's relationship with the rest of Europe but for the future of the country itself.

When Mr Cameron became Tory leader in 2005, and then prime ▸▸

ACKNOWLEDGMENTS

Besides those mentioned in the text, the author would like to thank the following for their help: Andy Bagnall, Matthew Baldwin, Steven Blockmans, Stephen Booth, Hugo Brady, Helen Campbell, Martin Donnelly, Monique Ebell, Matthew Elliott, Jonathan Faull, Maurice Fraser, Henri Gétaz, Sarah Gillett, John Grant, David Hannay, Peter Hargreaves, Simon Hix, Sara Hobolt, Kate Hoey, Martin Howe, Bernard Jenkin, Richard Jones, Jyrki Katainen, John Kerr, Anand Menon, David Moran, Jon Moynihan, Jesse Norman, Vivien Pertusot, Gerhard Pfister, Emma Reynolds, Roland Rudd, Raoul Ruparel, Laura Sandys, Stefano Sannino, Martin Schulz, Pierre Sellal, Nigel Sheinwald, Gisela Stuart, Frans Timmermans, Christa Tobler, Stephen Wall, Manfred Weber and Peter Wilding.

CONTENTS

A list of sources is at **Economist.com/specialreports**

An audio interview with the author is at **Economist.com/audiovideo/specialreports**

Who's for ever closer union?

minister of a Tory-Liberal Democrat coalition government in 2010, he had a moderately Eurosceptic reputation. As part of his leadership campaign he pledged to pull the Tories out of the European People's Party, the umbrella organisation for the centre-right in the European Parliament, and in 2009 he did so. That decision helps explain why Mr Cameron has often found it hard to form alliances with other European centre-right leaders, notably Germany's Angela Merkel. Yet although Mr Cameron has also urged his party to stop "banging on about Europe", his Eurosceptic backbenchers, scared witless by the rise of Nigel Farage's virulently anti-EU UK Independence Party (UKIP), have constantly hassled him to adopt a tougher line with Brussels. His response has generally been to appease them.

One early morsel he threw them was the 2011 European Union Act, which requires any EU-wide treaty that passes substantive new powers to Brussels to be put to a British referendum. That sounded like a big concession, but no new treaties were then in prospect. Another was to launch a wide-ranging review by the British government of the "balance of competences" between the EU and national governments, in hopes that it would favour some shift of powers back from Brussels. Unfortunately for Mr Cameron, the review concluded that the present balance was about right, so the Tories quietly buried it.

We will do such things...

In 2012 Mr Cameron offered the Eurosceptics another sop: he promised to deliver a big flag-waving speech on Britain and the EU in a continental European city. He eventually gave it at the London headquarters of Bloomberg, an international media group, in January 2013, promising that, if the Tories were re-elected in May 2015, he would renegotiate Britain's membership and hold an in-out referendum by the end of 2017. He later declared that the renegotiation provided a chance to "reform the EU and fundamentally change Britain's relationship with it" and that, to underpin this, he would aim for "full-on treaty change".

Yet the reforms that Mr Cameron has since gone on to propose, most recently at an EU meeting of heads of government in June, hardly match this rhetoric of fundamental change. That may be why his government has been coy about setting them out in much detail ahead of the EU summit in December that is meant to agree to them. Still, his proposals can be summarised under six broad headings.

First, migration. Mr Cameron is seeking to put a stop to "welfare tourism" by limiting some benefits for new immigrants. In particular, he wants a four-year ban on benefits, including those paid to people in work, being claimed by migrants who arrive from the rest of the EU. Second, he is looking for a general reduction in EU regulation, and in some cases a repatriation of regulatory powers from Brussels to national capitals. Third, he would like to see a stronger push to complete the single market in such fields as services, digital technology and energy. Fourth, he is demanding some form of opt-out for Britain from the treaties' objective of "ever closer union among the peoples of Europe". Fifth, he is determined to give national parliaments, which he calls the true source of democratic authority in the European project, greater powers to block EU legislation. And finally, he wants a guarantee that an increasingly integrated euro zone will not act against the interests of EU countries that remain outside it.

These demands have been carefully calibrated to ensure they have a chance of success. For example, Europe's recent migration and refugee crisis may have made limiting welfare benefits for migrants more acceptable to public opinion in several other member countries, including Germany. Two recent cases in the European Court of Justice suggest that migrants who have not lived in a country and contributed to its welfare system might be legally stopped from claiming benefits as soon as they arrive. Britain (and maybe others) could impose some minimum length-of-residence requirements that should avoid charges of discrimination against other EU nationals.

In the same vein, the European Commission under Jean-Claude Juncker has already announced plans to cut red tape and unnecessary regulation; indeed, it has withdrawn some 80 draft directives and is considering repealing others already in force. It has also launched new efforts to complete the single market for energy, digital technology and services, and to add a capital-markets union. Even the Netherlands, which has traditionally been in favour of the EU, has said that the era of ever closer union is over, and the European Council conceded in June last year that the phrase could be interpreted in different ways. The Dutch and Scandinavians also want to enhance the role of national parliaments, as does Frans Timmermans, a commission vice-president and former Dutch foreign minister. And the eight other EU countries besides Britain that are not in the euro will also be keen to ensure that the euro zone does not act against their interests.

Even more important, no EU country and none of the Brussels elite actively want Britain to leave. Everybody understands that Brexit would inflict grave damage on the EU (though some reckon that the damage to Britain would be greater still). As one of Europe's most important powers in foreign policy and defence, Britain would be missed. Yet it is also clear that there are limits to the concessions other countries are willing to make to persuade it to stay. And Mr Cameron is well aware that the reforms he is looking for will need the assent not just of the governments of all 27 other EU countries but, in most cases, of the European Parliament as well.

He also knows that treaty change is unpopular, difficult to achieve and slow to implement. That means he may have to settle for a protocol or some other binding declaration that will be formally ratified only if and when a future treaty is in the works (this is sometimes called a "postdated cheque", modelled on concessions offered to Denmark and Ireland in the past and ratified only later). David Lidington, Britain's Europe minister, says the government is insisting only that the eventual deal must be "irreversible and legally binding".

Sensibly enough, Mr Cameron has decided not to demand things that he cannot get, such as an end to the free movement of labour, a veto for the House of Commons over all EU laws or a restoration of Britain's opt-out from all social and employment laws. Leaving aside opposition from other countries, he realises that if he insists on big changes to social legislation he might lose the backing of Britain's trade unions and perhaps even of the Labour Party under its new far-left leader, Jeremy Corbyn.

Even so, several of the changes on Mr Cameron's wishlist will be tricky to secure. A recent study by the European Council on Foreign Relations, a think-tank, concluded that two-thirds of Mr Cameron's proposals lacked sufficient support from other member governments to pass. Promises to complete the single market and cut back future regulation are vague enough to be endorsed across the EU, but any British attempts to water down existing rules will be resisted, most strongly by the French and the European Parliament. East European countries will fight restrictions on benefits for migrants within the EU, and even Spain and France are not convinced they are a good idea. Euro-enthusiasts may not want to offer a legally watertight British opt-out from ever closer union, however malleable the phrase may be in practice. And the European Parliament may oppose efforts to give national parliaments greater powers to block EU legislation.

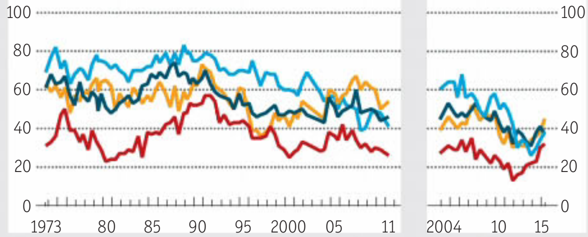
Yet most EU experts in national capitals expect that, perhaps after some stage-managed rows at EU summits in the small hours, it should be possible to agree on a set of reforms that are reasonably close to what Mr Cameron is asking for. And most also believe that this should be enough for him to persuade Britons to vote for remaining in the EU.

1975 and all that

If that sounds optimistic, it is at least based on a clear precedent: the referendum in June 1975, when Britons voted to stay in what was then the European Economic Community (EEC). In effect, Mr Cameron is trying to repeat a trick pulled off by his Labour predecessor at the time, Harold Wilson, though the parties' starting positions have been more or less reversed. In 1974-75 Wilson faced a deep split over EEC membership within his party, whereas the Tories were largely united in favour. Today it is the Tories that are deeply split, whereas most of Labour wants to stay in. Wilson solved his internal party problems by promising a renegotiation of Britain's membership terms, followed by an in-out referendum. He then asked for mostly minor concessions (on the EEC budget he got nothing of any substance, leaving it to Margaret Thatcher to secure a genuine improvement a decade later). Mr Cameron has adopted the same strategy, but is also seeking treaty change. Wilson did not, yet although the changes he secured were widely derided as "cosmetic", he won the 1975 referendum convincingly.

Odd man out

Feeling towards the EU, % polled



Source: Eurobarometer

Mr Cameron can take comfort not only from this precedent, but also from the fact that he is starting in an apparently stronger position. In early opinion polls after Wilson's 1974-75 renegotiation a majority was in favour of withdrawing from the EEC, yet after a vigorous Yes campaign two-thirds voted to stay. This time round most opinion polls were strongly in favour of remaining in even before Mr Cameron had won the election (see chart), though the lead has decreased sharply in the past few weeks and some recent polls have shown majority support for leaving.

So it would be a huge mistake for the government to be complacent. There are also some big differences with 1975. One is that the Out campaign will be better run and financed than it was last time. Business for Britain, one of the best-organised groups, has already produced an impressive 1,030-page book, "Change or go: How Britain Would Gain Influence and Prosper Outside an Unreformed EU".

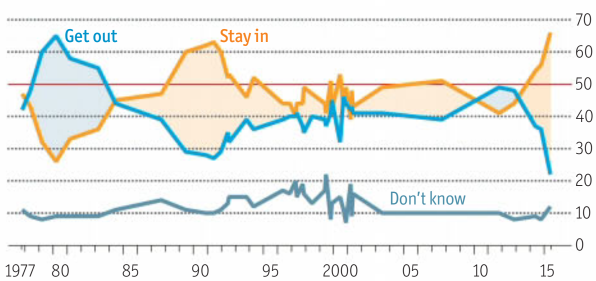
Second, some of Britain's most influential newspapers (the *Daily Mail*, the *Daily Express*, the *Daily Telegraph*, perhaps even the *Sun* and the *Times*) may be campaigning to leave this time, whereas in 1975 only the *Morning Star* advocated withdrawal. In 1975 the government and the In campaign managed to present the Outs as a bunch of woolly extremists. That will be much harder now, for two additional reasons.

One is the relative economic performance of Britain and the rest of Europe. In 1975, as in the early 1960s, when a British government first applied for EEC membership, continental Europe's economies were widely thought to be doing a lot better than Britain's. Indeed, it was the desire to catch up with West Germany and France that lured Britain into joining the club in the first place. Now Britain is generally felt to be well ahead of the rest of the EU, especially the euro zone. The long-drawn-out euro crisis, the recent savage treatment of Greece and the continuing failure of countries like France and Italy to embrace economic reform have done much to strengthen the Out campaign, despite the fact that Britain is not in the single currency.

The second, even more important, issue is immigration, which according to opinion polls is now the biggest concern of British voters. Before the 2010 election, and then again before the 2015 one, Mr Cameron promised to reduce net migration into Britain "from the hundreds of thousands to the tens of thousands". Yet the latest figures, for the year to March 2015, put it at

EU okey cokey

*Should Britain remain in the European Union?**, % responding



Source: Ipsos MORI
*Question in early years referred to the Common Market

330,000, a record high. Worse, the largest year-on-year rise was in the numbers of migrants from other EU countries, who now account for roughly half the total. The European crisis over migrants and refugees from Syria in recent months has made things harder for the In campaign, even though Mr Cameron has refused to join an EU-wide scheme to spread the load and has offered to take just 20,000 of them over five years.

Against this background, Mr Cameron's promise merely to set limits on benefits for migrants seems tame. Eurosceptics like Mr Farage have pointed out that it is impossible to control migration from Europe so long as Britain remains in the EU. If the Out campaign can persuade voters that the referendum is not really about the EU but rather about whether they want more or less immigration, it will greatly boost its chances of winning.

The Labour Party's new leader, Mr Corbyn, could also make life harder for Mr Cameron. He is by instinct a Eurosceptic, even if a substantial majority of his party is not. He sees the EU as a capitalist, liberal club that is too fond of austerity, and also as a possible threat to his plans to renationalise the railways and utilities. Although he has said he will campaign to remain in, he is unlikely to do much to help Mr Cameron win his referendum.

That makes it all the more pressing to understand the roots of British Euroscepticism. As many in Brussels lament, hostility to the EU and doubts about the euro have spread from Aalborg to Athens and from Paris to Prague. The drawn-out euro crisis, in particular, has sapped trust in the EU everywhere (see chart, previous page). Yet of all the EU's 28 members, only Britain is seriously considering leaving the club altogether. Why? ■

Herding cats

Referendum results are notoriously unpredictable

IN MARCH 1975 Margaret Thatcher called referendums "a device of dictators and demagogues", quoting Clement Attlee, the immediate post-war Labour prime minister. She was criticising the in-out referendum proposed by the Labour prime minister of the day, Harold Wilson. Whether or not referendums are quite as bad as that, recent history shows they are unpredictable. Over the past 25 years, voters in different European countries have repeatedly given the "wrong" answer, even when all political parties have campaigned on the other side. And all too often they have voted not on the issue itself but to punish unpopular governments.

Denmark rejected the EU's Maastricht treaty in June 1992. It was subsequently offered several opt-outs and reversed its vote a year later. Similarly, the Irish have twice rejected EU treaties, most recently the 2008 Lisbon one, only to be made to vote a second time to ensure a "yes". However, when the French and the Dutch in 2005 voted down a treaty that sought to establish a draft constitution for the EU, it was unceremoniously dumped (although most of its provisions reappeared in the Lisbon treaty).

The Danes also said no to Europe's single currency, and the Swedes rejected it in September 2003. More categorically, the Norwegians twice voted against joining the European project in the first place, in 1972 and again in 1994. The Swiss, much given to referendums and citizens' initiatives, also declined to be part of the EU, and in 1992 even rejected membership of the much looser European Economic Area.

Polls can be misleading. In Britain's 1975 referendum on continued membership of the European Economic Community they initially suggested that voters would choose to leave, but on the day two-thirds of the voters decided to stay in. Douglas Carswell, UKIP's only MP, argues that it would take a rise of only nine points in Out supporters to turn round the numbers now. He also notes that during the Scottish independence referendum an initial large lead in favour of union narrowed so much that at one stage the result was too close to call before the unionists regained ground.

A tricky question

Selected referendums on Europe

Where and when	About what	Result, % ✗ Against ✔ In favour	
Denmark (Jun 1992)	*Maastricht treaty*	50.7 ✗	Reversed a year later, with Danish opt-out
Ireland (Jun 1992)	*Maastricht treaty*	68.7 ✔	A rare bout of Irish enthusiasm
France (Sep 1992)	*Maastricht treaty*	51.1 ✔	Mitterrand's "petit oui"
Switzerland (Dec 1992)	*EEA* membership*	50.3 ✗	Ten more years of talks for bilateral arrangements
Denmark (Sep 2000)	*Euro membership*	53.2 ✗	DKr has been "shadowing" the euro since
Ireland (Jun 2001)	*Treaty of Nice*	53.9 ✗	Reversed a year later, with small concessions
Sweden (Sep 2003)	*Euro membership*	56.1 ✗	A shock, with all parties and the establishment in favour
Spain (Feb 2005)	*European Constitution*	76.7 ✔	Spain shows itself a long-time Euro-enthusiast
France (May 2005)	*European Constitution*	54.9 ✗	The French vote against Chirac and the Polish plumber
Netherlands (Jun 2005)	*European Constitution*	61.5 ✗	The Dutch show anger in first referendum since 1808
Luxembourg (Jul 2005)	*European Constitution*	56.5 ✔	A vote for a treaty that is already dead
Ireland (Jun 2008)	*Treaty of Lisbon*	53.2 ✗	Again, reversed a year later with small concessions

Source: *The Economist* — *European Economic Area

One thing most referendums have in common is that they tend to deliver victories for the status quo. In an EU referendum, says Peter Kellner, the boss of YouGov, a pollster, perhaps 25-30% of voters may feel strongly that they want to leave and 20-25% may feel equally strongly that they want to stay. After excluding non-voters, that leaves 35-40% who will be undecided. This middle group is more likely to shift towards staying in because they will feel more comfortable with the devil they know.

Such fears of a status quo win have prompted the Out campaign to object to the proposed rules for the EU referendum. Points in contention have been the question itself (which has been changed to make it sound more neutral), rules restricting government endorsement in the last four weeks of a campaign (which will now be observed), permission for ministers to campaign for Brexit (which will probably be given), money (in fact the Out campaign may spend more than the In one) and votes for 16- and 17-year-olds (which Labour and the Liberal Democrats favour). Some ministers have asked business organisations, including the Confederation of British Industry, not to campaign on the In side to avoid undermining Britain's negotiating position. What seems clear is that, should the Ins win by a narrow margin, the Outs will call foul—and demand a rematch in the future.

Euroscepticism and its roots

The open sea

Pass me my handbag

Why British opposition to the EU goes deep

BRITISH EUROSCEPTICS TEND to see the late Lady Thatcher as their inspiration. But it was an earlier Tory prime minister who first suggested that Britain would stand aside from post-war moves towards European integration. His stance helps explain why the country remains ambivalent today. In Zurich in September 1946, Winston Churchill called not just for reconciliation between France and Germany but also for a "kind of United States of Europe". But he made clear that this would not include Britain: as he once told Charles de Gaulle, if forced to choose between the continent and the open sea, Britain would always go for the second.

Yet historically it seems strange that Britain should want to stand apart from the rest of Europe. It is not just that the British repeatedly fought wars to stop French (and later German) domination of the continent. In the 18th century the Hanoverian kings added an even more direct connection through marriage. And the story of Britain throughout the 18th and 19th centuries, including its acquisition of an overseas empire, grew out of its rivalry with other European powers. Going further back, Robert Tombs points out in his book, "The English and their History", that after the Battle of Hastings in 1066 and the Norman conquest England had a direct link to the western part of the continent for over 400 years, longer than it has been joined with Scotland.

Glory days

Even so, it was understandable that in the early 1950s Britain should have decided not to join other countries in the nascent European project. Almost alone in Europe, the British felt that the second world war had been glorious for them. Thanks to imperial preference and the war, the country's trade was strongly oriented to what became the Commonwealth; in 1950 only 10% of Britain's exports went to the six countries that formed the European Coal and Steel Community (ECSC), whereas last year 45% of its total exports of goods and services went to the EU. Remarkably, given today's Eurosceptic complaints about excessive social regulation in the EU, in the 1950s there were fears that Britain's generous welfare state and its high taxes would expose its companies to lower-cost competition from the continent.

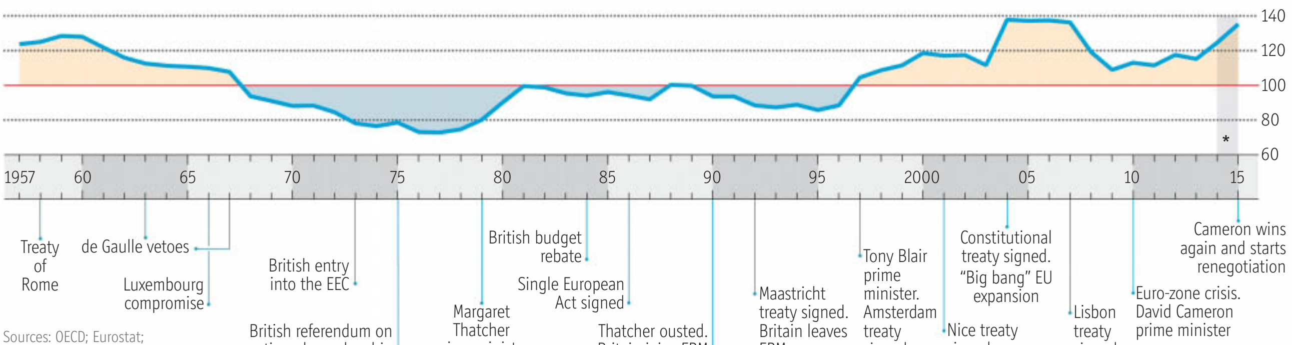
France also played a slightly devious role, consulting the West Germans and the Americans extensively in advance of setting up the ECSC but inviting the British only at the last minute. And Herbert Morrison, Labour's deputy prime minister and grandfather of Peter Mandelson, a Blairite MP and later a European commissioner, dismissed the whole idea because "the Durham miners will not wear it."

Britain's concerns about the Commonwealth, the welfare state and sovereignty also led it to miss the boat at the Messina conference in 1955, when the ECSC countries decided to form the European Economic Community, the precursor of today's EU. Instead, in 1960 Britain cajoled six much smaller European countries into forming the European Free-Trade Association (EFTA). But in 1961 a Tory government under Harold Macmillan, impressed by the EEC's superior economic performance, decided to submit the first of several British applications to join, only to be vetoed by de Gaulle in January 1963. De Gaulle also vetoed a second application in 1967, but Britain eventually joined in 1973 under Edward Heath, a rare Europhile (see timeline below).

The history of Britain's European connections in the 1950s ▸▸

Britain's life and times in Europe

British GDP per person, as % of EEC/EC/EU average



Sources: OECD; Eurostat; IMF; *The Economist*

*IMF estimate

and 1960s shows how different it is from its continental cousins. To the British the European project has essentially been a transactional business. They sought to join (and have so far stayed) mainly because a cost-benefit analysis indicated that this was their best course. It was a matter of the brain. For the original six, and later for the Mediterranean countries and for central and eastern Europe, the project has always been a matter of the heart, with a strong emotional element. The political and security dimensions are also important. Support for the EU, especially in eastern Europe, has risen sharply since Russia's Vladimir Putin annexed Crimea and invaded eastern Ukraine.

I do not like thee, Doctor Fell

Some of the roots of today's Euroscepticism can also be traced to the 1960s and 1970s. Many Britons still fret over lost sovereignty, recalling the warning in 1962 by the Labour Party's leader, Hugh Gaitskell, that to join the "Common Market" would mean the end of 1,000 years of history. More seriously, the EEC that Britain joined in 1973 had many features that were against its interests, from the common agricultural policy (CAP) to the EEC budget, from protectionist trade rules to the common fisheries policy. Ironically, part of the explanation for a rising tide of hostility to Europe goes back to the battles the British subsequently fought to change the rules to their advantage, especially under the Thatcher government of 1979-90. For example, they obtained a special rebate on Britain's excessive budget contribution and directly inspired the 1992 programme that established the single market for internal trade.

But the biggest boost to British Euroscepticism came in the late 1980s, beginning in 1988 when Jacques Delors, the commission president, addressed Britain's Trades Union Congress and promised to create a social dimension alongside the single European market, which his audience lapped up. In a speech in Bruges later that year Thatcher angrily declared that "we have not successfully rolled back the frontiers of the state in Britain only to see them reimposed at a European level." Contrary to popular belief, it was her hostility to further EU integration, not the poll tax, that toppled her as Tory leader in November 1990.

The creation of the euro increased Britain's aversion to the EU even further. The country won an opt-out from the single-currency provisions of the Maastricht treaty in 1992, as well as from its social chapter. When Labour's Tony Blair became prime minister in 1997, he opted back into the social chapter but kept Britain out of the euro. During the Blair years Tory leaders from William

Not what it was

Why British influence is fading

ONE OF THE contradictions in the Eurosceptics' case for British withdrawal from the EU concerns influence. To those who fret that a post-Brexit Britain would lack clout in the new world order, they say it has the world's fifth- or sixth-biggest economy, a growing population, nuclear weapons and a seat on the UN Security Council. Yet they also insist that, although Britain is one of the EU's three biggest members, it has little influence in Brussels—and even what it has is declining.

In reality Britain's presence in Brussels has made a huge difference. But in numerical terms its clout in the EU has indeed lessened because the club has got bigger (though it is worth noting that Britain strongly supported its enlargement). Owen Paterson, a Tory Eurosceptic MP, points out that when Britain joined the EEC in 1973 it had two commissioners out of 13, 20% of the votes in the European Parliament and 17% of the votes in the Council of Ministers. Now it has one commissioner out of 28, 9.5% of the votes in the parliament and 8% of those in the council (though favourable demographics may enhance its weight in future).

Britain's absence from the euro, the EU's biggest economic project, was bound to push it somewhat to the periphery; and it has been isolated further by the failure of successive British governments to engage closely and form alliances with other EU countries. Mr Cameron has too often assumed that all he needs is a deal with the German chancellor, Angela Merkel—and has sometimes been proved wrong, most recently when he tried to stop Jean-Claude Juncker from becoming president of the commission.

Near-invisible

Senior British officials in the European Commission
% of total

Source: European Commission

British influence in the parliament, too, has clearly shrunk. UKIP now has 22 MEPs, who often fail to turn up in Strasbourg and, when they do, mostly focus on attacking the EU. Tory MEPs, for their part, have been more isolated since 2009 when Mr Cameron foolishly pulled them out of the main centre-right block, the European People's Party. It also means he misses out on the EPP leaders' summits held just ahead of most European Council meetings.

Above all, the number of senior British officials in the European Commission has declined steeply, meaning the country has less say in the early stages of EU lawmaking. Its share of senior Eurocrats who are involved in policymaking is now only 5% (see chart), lower than Poland's. Young British civil servants are understandably reluctant to move from Whitehall to Brussels when their country's EU membership is in doubt. Several of the most senior British officials in the commission have recently retired or will do so soon, leaving their country less well represented in the Berlaymont.

These failings in Brussels are matched by widespread indifference at home. Britain's political and business elite is surprisingly ignorant about the EU. And whereas Whitehall's civil servants quickly became attuned to the way the EU works, politicians at Westminster often cannot be bothered with it. Chris Heaton-Harris, a Tory MP who co-chairs the party's Eurosceptic "Fresh Start" group, would like to see a more powerful European committee, of the sort familiar from Scandinavian parliaments, but this seems unlikely to come about.

It would help, too, if more of the political elite took the trouble to visit Brussels occasionally. Ironically it was the prospect of having to renegotiate Britain's membership terms that recently forced Mr Cameron to make the round of many EU capitals and meet leaders from the European Parliament. That grand tour bolstered not just his chances of success but also his broader EU credentials.

Hague to Michael Howard turned Euroscepticism and the need to keep the pound into totemic issues. David Cameron, too, presented himself as a Eurosceptic to become party leader in 2005, even though he felt that voters in general were less concerned about Britain's EU membership than were most Tory MPs.

A Eurosceptic's tale

British Eurosceptics now have the opportunity to make their case ahead of the promised referendum. They paint an idealised picture of a Britain outside the EU which Europhiles do not recognise. It shows a British economy set free of the burdensome social, employment and environmental regulations from Brussels. Escaping from the EU's grip will allow the government to join world trading and standard-setting organisations in its own right, they say, not just as part of a 28-country block. The reintroduction of border controls will let Britain pick and choose its own immigrants. The country will no longer have to put up with the lunacies of the CAP and the common fisheries policy. It will be able to use the money saved by scrapping its annual £10 billion ($14 billion) net EU budget contribution to compensate farmers, universities, poorer regions of the country and research scientists who will have lost access to EU funds. And a liberated Britain will be able to sign free-trade deals with America, China and India while retaining full access to the EU single market.

To voters who want less immigration, the Eurosceptics say: you can have it only if you leave the EU. To small businesses fed up with too much red tape, their message is: so long as you do not trade with the rest of the EU, you can tear it all up. To people who worry about being shackled to a continent still suffering from the aftermath of the euro crisis, they offer a nimble Britain that can shift trade to faster-growing markets in Asia and the Americas. And to believers in democracy at national level, they promise that once Britain has escaped the clutches of the European Commission and the European Court of Justice, its lawmaking will return to where it belongs, the Westminster parliament. They also throw in the need to escape from the pernicious European Court of Human Rights, even though it has nothing to do with the EU.

It sounds too good to be true, and it is, for these arguments are full of inconsistencies. It beggars belief that after a Brexit inspired largely by anti-immigration feeling Britain would remain an open free-trading economy. And its access to the single market would not be guaranteed. The next section explores the costs as well as the potential benefits of Brexit in more detail. ■

Costs and benefits

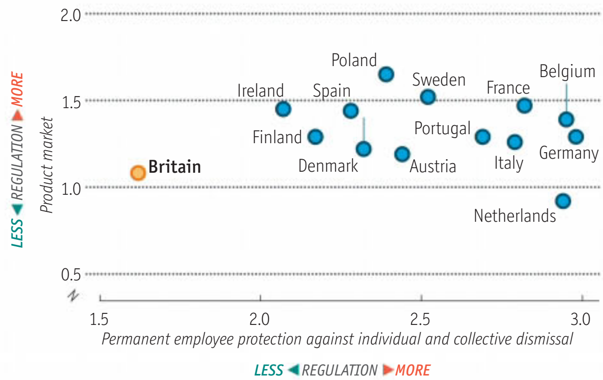
Common market economics

Better off in or out?

IN ALL THE arguments over Brexit, nothing generates as much heat as the economics of it. Being part of a large customs union brings gains from increased trade, but it can also divert trade from better non-EU markets and more efficient non-EU suppliers. Access to the world's biggest single market offers clear economic benefits, but they come at the cost of regulatory burdens imposed by Brussels and a large net contribution to the EU budget. And there is no counterfactual: nobody knows what a Britain outside the EU would be like, or what sort of relationship it would have with the EU. The four biggest economic concerns are regulation, trade, foreign direct investment and migration.

Regulation is for others

Labour- and product-market regulation indicators, 2013
0=least restrictive, 6=most restrictive



Source: OECD

Regulation is perhaps the Eurosceptics' biggest bugbear. When trying to show how much Britain might gain from leaving the EU, they tot up all the costs of EU regulation, assert that there are no benefits from it and assume that, after Brexit, the whole lot could be scrapped. Yet the cost of that regulation is offset by benefits in fields like the environment, product safety and food standards. Regulation is also essential to apply common minimum rules across the EU that are at the heart of the single market, as even Thatcher realised when she signed the Single European Act in 1986. Similarly, completion of the single market in services would require more, not less, regulation at EU level.

Pram-makers beware

This is not to deny that EU regulation, like domestic regulation, can be excessive, although in Britain the biggest complaints are often caused by home-grown "gold-plating" when directives are transposed into national rules with excessive zeal. Some of the strongest supporters of Business for Britain, the Eurosceptic group, have more specific gripes. For example, James Dyson, an inventor and maker of appliances, was upset that his vacuum cleaners fell foul of EU environmental regulations, and Alan Halsall was unhappy that his Silver Cross prams were banned in France on dubious product-safety grounds. The EU's working-time directive, which limits the number of hours employees can be required to work, has caused problems for many businesses and for Britain's National Health Service (NHS), though a system of opt-outs has reduced its impact.

So has Britain's EU membership caused it to be over-regulated? The OECD club of mostly rich countries has compared the extent of regulation in product and labour markets among its members and finds that Britain is among the least regulated countries in Europe (second only to the Netherlands on the first measure and to none on the second, see chart). Indeed, Britain compares favourably with non-EU countries such as America, Australia and Canada. And there is little to suggest that, if it were to leave the EU, it would tear up many rules: in areas ranging from the environment to financial services, British lobbyists have been in the forefront of those calling for more regulation, and Brexit would be unlikely to change that.

Moreover, if a post-Brexit Britain wanted to retain full access to the single European market, it would almost certainly have to stick with most of the accompanying rules. Eurosceptics have suggested that the 90% of British small businesses which do ▸▸

not export to the rest of the EU should be exempted from all single-market regulation, but that would simply not work, since many of them supply bigger businesses that do export to the EU; and they also face competition within Britain from small firms elsewhere in the EU.

Besides, by far the most intrusive and costly regulations for business are those imposed at home, not by the EU. Jonathan Portes, director of the National Institute of Economic and Social Research, a think-tank, reckons that restrictive planning rules and the new living wage recently proposed by the Cameron government constitute a far bigger (and more expensive) interference in the market than all the EU's regulations put together. And domestic factors such as poor education and inadequate infrastructure represent far bigger obstacles to faster growth and employment than rules made in Brussels.

Trade follows the EU flag

The second big economic issue is trade. British trade with other EU countries has risen rapidly since 1973, though as the European economy has slowed, its share of the total is declining (the EU now takes over 51% of British exports of goods, see chart next page, and close to 45% if services are added in). Yet whether Britain is in or out, the EU will be a key partner. For non-members such as Norway or Switzerland, trade with the EU makes up a bigger share of the total than it does for Britain. The effects of EU membership on trade patterns are difficult to measure, but John Springford of the Centre for European Reform, another think-tank, and colleagues have carried out a modelling exercise which concluded that Britain's trade with the rest of the EU was 55% greater than it would have been if outside.

The Eurosceptic case is that, after Brexit, Britain would not only retain full access to the EU's single market but would be able to sign free-trade deals with many other countries, including America, China and India. Mr Paterson, the Eurosceptic Tory, argues that EU membership prevents Britain doing such deals, so that its trade with Asia, in particular, is lower than it should be. Yet this is not convincing. If EU membership is such a huge obstacle, how can Germany's exports to China be three times bigger than Britain's? Germany even sells more to India, part of the Commonwealth, than Britain does.

As for free-trade deals, Britain on its own would lack the bargaining clout of the world's biggest trade block. Moreover, the EU and America are now deep in negotiations on a Transatlantic Trade and Investment Partnership (TTIP) that, if successful, will set the standards for a large chunk of future world trade. Trade negotiations are now more about regulations and standards than about tariffs, which gives more sway to big trade blocks than to individual countries. Indeed, the TTIP talks have made European countries outside the EU increasingly fretful.

Britain's EU membership has also boosted inward investment. Over the past 20 years the country has been remarkably successful at attracting foreign direct investment (FDI). At least some of that came to Britain because the country was inside the EU's single market; indeed a rising share of it (now almost half) comes from the rest of the EU. The car industry, all but moribund in the 1980s, is a good example: Britain now has more car factories (almost all foreign-owned) than France, and exports of cars and car parts, mostly to the rest of the EU, are at record levels. Some foreign investors, including Nissan, have stressed the importance to them of Britain's access to the EU single market.

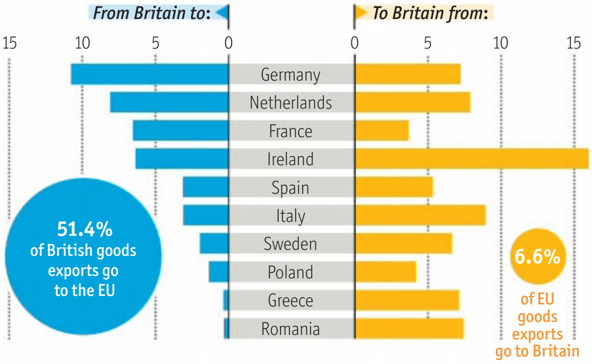
In the financial-services industry this matters even more. It accounts for as much as half of all FDI into Britain, and half of that in turn comes from the rest of the EU. FDI in financial services is more mobile than that in plant or machinery. And, given the broad integration of wholesale financial services across the single market, it seems clear that if Brexit were to create any barriers to exports of financial services to other parts of the EU, some of that investment would move. Two global financial-services giants, Deutsche Bank and Goldman Sachs, have already hinted that they might have to move some operations out of London.

Lastly, leaving the EU could have a significant effect on migration. As an EU member, Britain cannot block the movement of people from other EU countries—and migration from elsewhere in the EU now makes up half the British inflow. The government remains committed to reducing overall immigration from the hundreds of thousands to tens of thousands. Yet most businesses and economists agree that migration brings more benefits than costs. The number of EU migrants living in Britain,

By far the most intrusive and costly regulations for business are those imposed at home, not by the EU

They need each other

Exports of goods between Britain and EU, 2014, % of national totals



Source: IMF Direction of Trade Statistics

at around 1.8m-1.9m, is roughly the same as that of Britons living in the rest of the EU. But many of the British are retired and impose health-care costs on their hosts, whereas younger EU workers in Britain pay more taxes than they consume in benefits. If a post-Brexit Britain were to block or even just to reduce migration between Britain and the EU, which seems highly likely, that would certainly impose a net cost on the economy.

Adding it all up

What, then, would a Brexit mean for the British economy, allowing for all the regulatory, trade, investment and budgetary effects? Different people have done the sums in a variety of ways and the results have often been remarkable, not to say incredible. Some advocates of staying in have claimed that 3m jobs would be lost if Britain left, and some who want it to leave have talked of a potential 25% gain in GDP per person. More soberly, the Confederation of British Industry in 2013 estimated that the net benefits of EU membership might be in the order of 4-5% of GDP.

A recent report by Open Europe, a broadly Eurosceptic think-tank, summarises the results of studies carried out by others before adding its own. A NIESR paper in 2004 concluded that Brexit would reduce GDP by 2.25%, mainly because FDI would be lower. A report produced for the government by the Centre for Economic Policy Research in 2013 reckoned that annual GDP would be 1.24-1.77% smaller if Britain left, depending on what trading arrangement it was able to make with the EU. A 2014 paper for the more Eurosceptic Institute of Economic Affairs suggested that British GDP might rise by a net 0.1% because the benefits of less regulation and a lower budget contribution would outweigh trade and FDI losses. Open Europe itself reckons that a realistic range for the annual effect on GDP of Brexit would be between -0.8% and +0.6%, though the positive outcome would depend on the right mix of policies.

A fair conclusion might be that the economic consequences of Brexit may be negative but not that large. As Norman Lamont, a Eurosceptic former chancellor, puts it, Britain could do perfectly well outside the EU. Yet there are clear downside risks. It is a heroic assumption that a post-Brexit Britain would be an open economy pursuing the dream of free trade, liberalisation and open borders; more plausibly, it would turn inward and more protectionist, with tighter controls on immigration. It is also clear that Brexit would create huge uncertainties for business. Eurosceptics retort that they heard much the same when Britain chose to stand aside from the euro. But even that decision is now forming part of the government's renegotiation. ■

The euro zone

Insider dealing

Euro outs fear that euro ins might do them down

THERE IS ONE issue where Eurosceptics may have a more persuasive case for leaving the EU: the relationship between those inside and outside the euro zone. In November 2014 the EU's voting rules changed so that the 19-strong euro zone constitutes a "qualified majority" that could in theory legislate for the entire EU. George Osborne, Britain's chancellor, has said that his priority in the renegotiation is to ensure that euro members cannot gang up on non-members. As he put it in a speech to the Open Europe think-tank in January 2014, if the countries outside the euro feel their collective interests are not being protected, "then they will have to choose between joining the euro zone, which the UK will not do, or leaving the European Union".

That sentiment is echoed by many Eurosceptics. Nigel Lawson, a former chancellor who is now leading the Out campaign, sees the arrival of European economic and monetary union as a watershed in Britain's EU membership. It has long been clear, he argues, that EMU cannot work without some form of political union. But Britain is outside EMU and will never want to sign up to a United States of Europe. John Redwood, a Eurosceptic former cabinet minister who was always against EMU, agrees that the euro zone has embarked "on a wild ride to political union" which will harm Britain, making withdrawal a better option.

The argument over ins and outs has been made more pertinent by the euro crisis of the past five years, a roller-coaster ride that began with the first Greek bail-out in May 2010, just days before the British coalition government led by Mr Cameron took office. There are many disputes over the decisions taken during the euro crisis, but Europhiles and Eurosceptics can agree on one key lesson: that if the euro zone is to survive, it needs deeper political integration, a bail-out fund, a central bank that acts as a lender of last resort, and a proper banking union.

Among insiders there is now also talk of a euro-zone finance minister and some central fiscal capacity to make transfers from more prosperous to poorer countries. Others want new institutions, even a euro-zone parliament. Some of these ideas were echoed in a recent "five presidents" report, drawn up by the heads of the European Council, the European Commission, the euro group, the European Central Bank and the European Parliament. True, voters across Europe show little enthusiasm for a great federalist leap. But all sides agree that more political and economic integration is essential to make the euro a success.

In the waiting room

What can the countries outside the euro zone do to protect their interests? For a long time the common response in Berlin and Brussels was to present this as a purely temporary problem: it would disappear when all those still outside joined the euro, as they should. Most of the nine non-euro countries are, after all, technically "pre-ins", waiting to join. Only Britain and Denmark have legal opt-outs from the single currency. Sweden does not, but its voters decided against joining in 2003. The other six countries all plan to come on board, even if Poland, the Czech Republic and Hungary, in particular, seem in no hurry.

Euro-zone members put forward a different argument to soothe the nerves of worried outsiders: that the ins are so numerous and so diverse that they are quite unable to agree on anything among themselves, let alone impose their collective will on anyone else. Ireland, for instance, will never accept tax harmonisation. Luxembourg is anxious to protect its own financial-services industry. And the partnership at the heart of both the EU and the euro, between Germany and France, is working badly. If even France and Germany disagree so much, why should non-euro countries worry about hypothetical unanimous decisions taken by the euro-zone members?

Yet this is complacent. For one thing, Britain, the biggest out, is home to much the largest financial centre in the EU, which also handles the lion's share of wholesale cross-border euro business. Within the euro zone this is widely seen as anomalous. The European Central Bank tried at one point to insist that clearing houses for euro securities trading should be based in the euro zone, although in March the British government won a case against this in the European Court of Justice. The British government cites other examples of interference, including a successful campaign by the European Parliament to cap bankers' bonuses and a so far unsuccessful attempt to impose a financial-transfer tax on transactions. And in August the euro zone, acting as a qualified majority, overturned a European Council ruling to draw on an EU-wide bail-out fund, the European Financial Stability Mechanism, to lend money to Greece without telling non-euro countries.

Protecting the City

Given such examples, Britain is understandably worried about possible threats to the City of London. As Charles Grant of the Centre for European Reform puts it, "other EU countries that know little about finance—or that seek to favour their own financial centres—could vote for rules that harm [the City's] competitiveness." It was this concern that lay behind a late-night attempt by Mr Cameron in December 2011 to threaten a British veto of the EU's planned fiscal-compact treaty. He wanted to add new clauses that would, in effect, have required British agreement to future financial regulations. But the other countries rejected his demands and sidestepped his threatened veto by signing an intergovernmental treaty outside the EU framework.

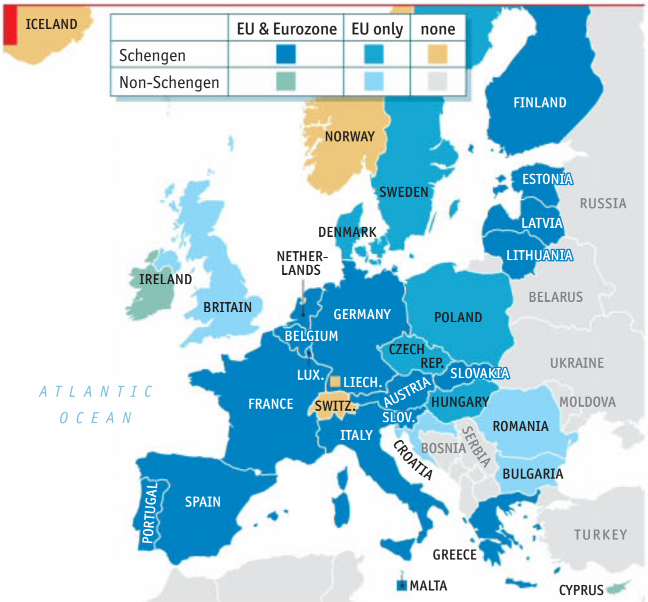
Mr Cameron is no longer asking for any kind of veto for the City of London, but he does want broader reassurances. One possible model might be that used by the European Banking Authority, which is based in London. Under British pressure it was agreed that EBA decisions should be taken by "double majority": that is, they need a majority of both euro and non-euro countries to take effect. The trouble with the EBA model is that as more countries join the euro it will lose credibility. If, eventually, only Denmark and Britain remained outside the euro, the British would, in effect, have a veto over what the entire euro zone could do, which would not be acceptable.

The main concern about the euro zone is that it could turn into the central pillar of the EU, devaluing membership of the wider club

Britain's concerns might be met in a number of ways. One would be formally to agree to drop the treaty requirement, for old and new members alike, that all (barring Britain and Denmark, which have specific opt-outs) are at least in theory obliged to adopt the euro. A second could be some declaration, perhaps to be incorporated in a subsequent treaty change if and when it happens, that the euro zone must never take any decisions that adversely affect the broader EU single market. A third idea is to give non-euro countries observer status at euro-zone ministerial meetings, and perhaps even to add an informal right to refer any euro-zone decision that they strongly disagree with to a meeting of the wider European Council.

The question is whether any of these would be enough to protect British interests in the longer term. The main concern about the euro zone is that, especially as it takes in ever more members, it could turn into the central pillar of the EU, devaluing membership of the wider club. In the early years of the euro crisis Angela Merkel strongly resisted this idea and did not even want euro-zone heads of government to meet formally without their colleagues outside. But more recently she has made clear that, if faced with a choice between saving the euro and keeping non-euro countries happy, she will plump for the euro. For Germany this has become the most important European project of all. A Britain that remains on the outside might start to feel almost as excluded as it did in the 1950s and 1960s before it became a member.

The Eurosceptics say that this is precisely why Britain should leave the EU altogether. But there is another way of looking at the issue: that the euro has merely entrenched something that was already happening before it came along. The EU is now moving not just at different speeds but towards different destinations, a state of affairs that is known in Brussels as variable geometry.



The idea that not all EU countries should pursue the goal of ever closer union at the same speed, or even at all, has a long history. In the early 1990s Wolfgang Schäuble, now Germany's finance minister, and a colleague wrote a paper suggesting that a "hard core" of countries should proceed to closer political integration without waiting for laggards (such as Britain). Later a French president, Jacques Chirac, talked of the possibility of "pioneer groups". Subsequent treaties allowed "flexibility", giving smaller groups of countries licence to pursue joint projects that others were not ready to join.

Geometric progression

Variable geometry is now in evidence right across the EU (see map). Four member countries are neutral (and not in NATO). Two have chosen not to be in the Schengen passport-free zone, and four others have not yet been admitted to it. Two have opted out of chunks of the EU's justice and home-affairs provisions. And, as noted earlier, the euro itself excludes not only Britain and Denmark, with their opt-outs, but also Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania and Sweden. What is striking about all these different groupings is that Britain is on the outer fringe far more often than any of the others. If the EU is a Swiss cheese with lots of holes in it, Britain's version seems to have more holes than cheese.

Even so, it is not obvious why this should mean that Britain ought to leave the EU altogether. Mr Lidington, the Europe minister, hopes that one outcome of the government's renegotiation will be a wider acceptance that countries which do not want to sign up to a single currency and are not ready to move towards political union can still have a useful place in the EU. In any case, he notes, many EU countries will remain outside the euro for years to come, so Britain is unlikely to find itself relegated to a club of just one or two in the foreseeable future.

With that in mind, the most sensible policy for Britain would surely be to remain in the EU, with safeguards, and see how its variable geometry develops. Only if being outside the euro became clearly and overwhelmingly disadvantageous might it have to face the choice between leaving the club and joining the single currency. But it is never too soon at least to consider the alternatives, which are mostly unpalatable. ■

Britain's post-Brexit options

Alternative lifestyles

By all accounts, it's cold outside

MOST OF THE alternatives to full membership of the EU are unattainable, unappealing or both. The EU will not disappear as an institution or a big market. A post-Brexit Britain will have to form a set of trading and institutional relationships with it. The uncertainty is over what these would be—and how long they might take to negotiate. Article 50 of the Lisbon treaty, which allows a country to leave, talks of two years for a deal, but to anyone who knows Brussels that seems optimistic.

Broadly, there are five models to choose from. The first is to join the European Economic Area, a solution adopted by all but one of the EFTA states that did not join the EU. But the EEA now consists of just one small country, Norway, and two tiddlers, Iceland and Liechtenstein. The second option is to try to emulate Switzerland, the remaining EFTA country. It is not in the EEA but instead has a string of over 20 major and 100 minor bilateral agreements with the EU. The third is to seek to establish a customs union with the EU, as Turkey has done, or at least to strike a deep and comprehensive free-trade agreement. The fourth is simply to rely on normal World Trade Organisation (WTO) rules for access to the EU market. The fifth, preferred by most Eurosceptics, is to negotiate a special deal for Britain alone that retains free trade with the EU but avoids the disadvantages of the other models.

In his Bloomberg speech Mr Cameron expressed doubts that either the Norwegian or the Swiss model would be in Britain's best interests. At first sight that seems surprising. A visitor to the Norwegian capital, Oslo, finds himself comfortably ensconced in one of Europe's richest and most successful countries, and one that controls its own fisheries to boot. Switzerland is almost as rich (even though it lacks Norway's oil and gas), its capital, Bern, is prettier and the food is better. Over the past 20 years both countries have grown faster than the EU average. Yet the visitor also hears that both are on the brink of recession, and neither is satisfied with its relationship with the EU. Most politicians in both countries urge Britain not to follow their example.

The EEA option at least has the merit of being potentially available to a post-Brexit Britain (although Norwegians might not be happy with a large new member unbalancing their small club). Norway has full access to the EU single market for goods and services without having to participate in the CAP or the common fisheries policy. But in return it must abide by all the EU's single-market rules without having any say in drawing them up. It is also, as a member of the Schengen area, obliged to accept free movement of people from the EU. And even though it is not a member of the club, it has to make so-called solidarity payments into the EU budget which, in net terms per person, add up to roughly 90% of Britain's own contribution.

Norway's beefs

Many Norwegians are unhappy with this. A few years ago the government invited a group of academics under the chairmanship of Fredrik Sejersted (now the country's attorney-general) to examine Norway's relationship with the EU. Mr Sejersted and his colleagues reported that it raised serious democratic concerns because Norway was forced to implement laws that it had no say in making. One way to put this right would be to join the EU, but Nor- ▸▸

way has twice rejected that option. Ulf Sverdrup, director of the Norwegian Institute of International Affairs, who was secretary to the Sejersted committee, notes that over 70% of the Norwegian public are still against joining.

The practical disadvantages of EEA membership can be striking. Vidar Helgesen, Norway's Europe minister, says that because his country is not represented in the Brussels institutions, it often finds it difficult even to discover what laws are being proposed and adopted. Kristin Skogen Lund, director-general of the Confederation of Norwegian Enterprise, cites the example of OSO Hotwater, a maker of hot-water tanks, which faced considerable challenges a few years ago because an EU directive unilaterally discriminated against large electric water heaters.

The EU also tends to ignore Norway's special interests, notably the Arctic, and the country's fishing industry is benefiting less than it had hoped from remaining outside the EU's common fisheries policy. That was a key reason why Norway rejected full membership in 1972 and again in 1994, but a shift from wild to farmed fish has meant that exports to the rest of Europe have become a lot more important to its fishermen. Under the EU-Canada trade accord and the prospective Transatlantic Trade and Investment Partnership (TTIP) deal, its rivals Canada and America may win better access to the EU fish market than Norway itself. No wonder that Mr Helgesen, like Mr Sejersted, advises the British to steer clear of the Norwegian model at all costs.

What about Switzerland? The Swiss rejected EEA membership in 1992. Since then they have laboriously negotiated two sets of bilateral deals with the EU, one adopted in 1999 and a second in 2004, that give them partial access to the EU single market. This arrangement, unlike the EEA, is not dynamic: changes in the rules have to be separately negotiated and implemented, and there is no procedure for adjudicating disputes and no provision for sanctions. (Indeed, that is one reason why the EU would be extremely reluctant to negotiate anything similar with Britain.) And yet, as one pro-European MP, Christa Markwalder, puts it, the Swiss are in practice obliged to pursue a path she dismissively describes as the "autonomous implementation of EU regulations" over which they have no say. Switzerland also has to pay a tidy sum into the EU budget, though its net contribution per person is only about half as big as Norway's.

A Swiss role

Worse, unlike Norway, Switzerland does not have free access to the single market, notably for services, including the financial sort (except for non-life insurance, which is covered by a separate agreement). This means that big Swiss banks have to establish separately capitalised subsidiaries inside the EU, usually in London, to sell services inside the single market. Smaller Swiss financial firms find it increasingly hard to do cross-border business in the EU. Given the weight of financial services in Britain's economy, the loss of automatic access to the EU market would be a big drawback.

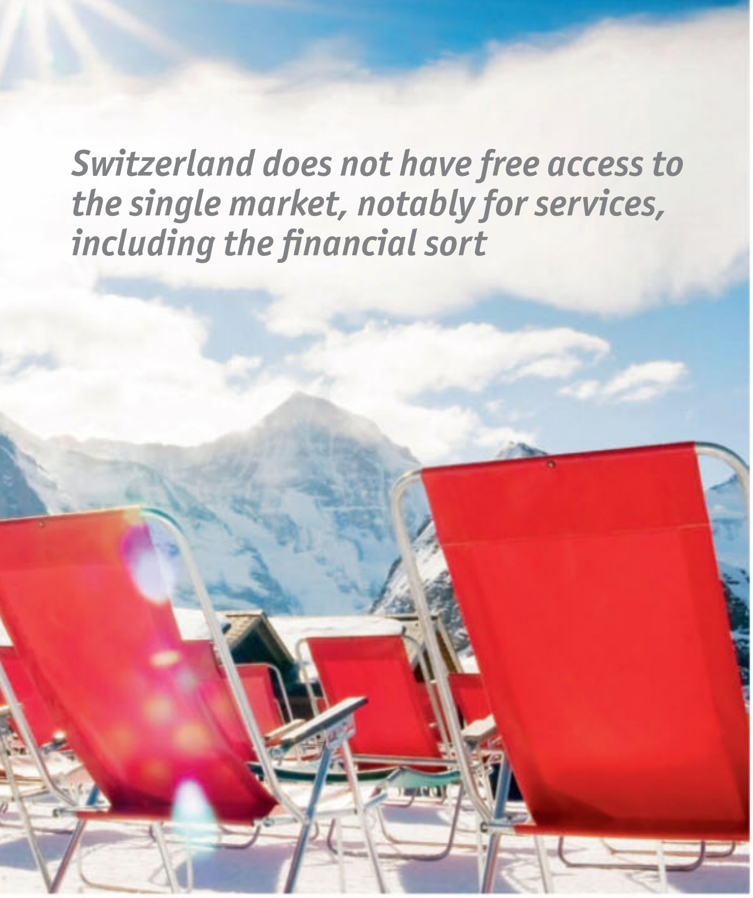
Part of the price of even the limited access Switzerland has to the EU market is that, like Norway, it has to accept the free movement of people from the EU. In both countries the share of the population that has come in from the EU is a lot bigger than in Britain. In a referendum in February 2014 the Swiss voted to restrict immigration from the EU, starting in February 2017. That has landed their country in big trouble with Brussels. Their government says it is negotiating with the EU, but its bargaining position is weak. The EU refuses to accept the restrictions, and the Swiss know that if they impose them unilaterally, many of their other bilateral deals will lapse. The flow of student finance and research money from the EU has already been interrupted. The EU is playing it tough partly because it knows that any concessions to the Swiss on free movement would quickly be seized on by the British government. It has also insisted that Norway and Switzerland must take a fair share of the asylum-seekers now pouring into the EU, or face penalties.

Would a customs union like the one with Turkey offer more attractive prospects? The Turkish deal was designed as a precursor to possible EU membership. On its own, it would be unsatisfactory. Tariffs and other trade rules for third countries are set in Brussels without any Turkish input; services are largely excluded; and Turkey has to comply with all EU trade arrangements and apply most EU single-market directives and regulations. If it fails to do so, it can lose market access or face anti-dumping duties.

A deep and comprehensive free-trade deal (like those struck by some east European countries that are not in the EU) might be better for Britain, but it would have drawbacks of its own. The deeper and more comprehensive it set out to be, the more the EU would insist on full compliance with single-market rules and regulations. It would cover goods, notably manufactured goods, but not most services. To retain access to the EU for financial services, in particular, would require Britain to apply almost all the EU's laws and regulations for the industry. The advent of TTIP would complicate matters even further. Yet again, it would require observance of standards and trading rules over which Britain would have had no say.

The fourth option is for Britain simply to apply the normal trading rules of the WTO, as most other countries do with the EU. It would not be obliged to implement EU rules and regulations or to accept the free movement of people, nor would it have to pay into the EU budget or be part of the CAP or the common fisheries policy. But there would be many disadvantages. Services, including financial services, would not be covered. Non-tariff barriers would be harder to resist. And although tariffs themselves are much lower than they used to be, some significant ones remain: the EU currently imposes an import tariff of 10% on cars and 5% on car components, along with around 15% on food and 11% on clothing, among others. If Britain relied only on a WTO-type relationship, it would not be able to avoid these tariffs.

That is why those who want Britain to leave the EU are touting a fifth option: a new special deal tailored to Britain's size and



Switzerland does not have free access to the single market, notably for services, including the financial sort

importance. A post-Brexit Britain would be the biggest single market for the rest of the EU. The Out crowd reckon that, as the world's fifth-biggest economy, it would have far more clout than Switzerland, Norway or Turkey. They also point out that Britain runs a large current-account deficit with the rest of the EU: as one Eurosceptic puts it, since they sell more goods to us than we do to them, they have an even stronger interest in a free-trade deal than we do. The German car industry, says another, would soon put paid to any talk of tariffs on cars. In short, the Eurosceptics believe Britain would be able to negotiate a form of EEA lite: full access to the single market without observing all the EU's rules or contributing heavily to its budget.

It does seem likely that a post-Brexit Britain would be able do some free-trade deal with its largest trading partner. Yet judging by the Swiss example it could take many years to negotiate, and it might not be anything like as favourable to Britain as Eurosceptics hope. The argument about the current-account deficit is misleading, for two reasons. First, what matters is the relative size of the market, and the EU would be almost half of Britain's export market, whereas Britain would be only 10% of the EU's. Second, almost all of Britain's deficit with the EU comes from trade with Germany and the Netherlands; other countries depend much less heavily on exports to Britain, but every one of them would have to approve a new special trade deal.

There is another consideration. All the EU's trade deals with its neighbours, including Norway, Switzerland and Turkey, were done on the assumption that they might eventually lead to full membership. A post-Brexit Britain would be travelling in the opposite direction (and also depriving the club of a chunk of money). Just as a book club offers a free book only to those who might join, not to those who have left, the EU would have little incentive to be generous to Britain. Indeed, it would have an incentive not to be, lest it encourage others to make for the exit as well.

So at best, Britain's relations with the EU after Brexit would be deeply uncertain, which would discourage foreign investors. At worst, they could prove more unsatisfactory than they are now, leaving both Out and In campaigners dissatisfied. ■

The wider world

The geopolitical question

Most of Britain's friends in the world would prefer it to stay in

BREXIT WOULD BE more than a matter of economics and a loss of British influence; it would also have a geopolitical impact. Over the past two decades the EU has become a significant part of the West's foreign and security structure, alongside NATO. It was the EU that joined America in devising and implementing sanctions against the Russians after they annexed Crimea and invaded eastern Ukraine. It is the EU that, in fits and starts, has grappled with the continent's recent influx of refugees and migrants.

All this strongly colours third countries' view of the risks of Brexit. Eurosceptics often float the idea that Britain should become part of an "Anglosphere" that would bring together such like-minded countries as America, Canada, Australia, New Zealand and other big members of the Commonwealth. Yet in reality all these countries would much prefer Britain to remain in the EU. Barack Obama has been explicit about this, as have the leaders of Australia, Canada and New Zealand. One reason may be that they think the EU benefits from Britain's liberal, pro-free-trade views. In any event, the only political leader who would be certain to cheer Brexit is Russia's Vladimir Putin.

Britain's fellow members of the EU may find it an annoying partner, but none would welcome Brexit. Traditional allies like the Dutch, who fought hard to get Britain in, and the Scandinavians would be dismayed to see it leave. The east Europeans, who saw the British as their best friends when they joined, have lost some enthusiasm and now look more to Germany. Germany itself would be unhappy, as would France, in part because for both sides of this central partnership in the European project Britain has often been a useful foil.

Above all Brexit would be a disaster for Ireland, the only country that shares a land border with Britain. The still fragile Northern Ireland peace process depends critically on both countries remaining members of the EU. And the thought of introducing border controls between north and south, or of erecting trade barriers, is the stuff of nightmares in Dublin and Belfast.

Besides, as Jean-Claude Juncker, the president of the European Commission, conceded in his state-of-the-union speech in September, the EU is already in bad shape. The latest rows over refugees revealed an ugly new nationalism in previously Europhile countries. The long euro crisis had already sapped confidence in the entire project, not just in Greece but across the continent. The elections to the European Parliament in 2014 suffered from a record low turnout and produced a strong showing for anti-European parties in many countries. Brexit would be a big additional blow.

Staying on

So what can Mr Cameron do to keep Britain in? He will have to work at it. The Out campaign's simple message about Britain restoring control over its own destiny sounds seductive, as Charles Grant of the Centre for European Reform points out. He also notes that the new Labour leader, Jeremy Corbyn, like the more left-leaning trade unions, seems less than committed to Britain's EU membership. Mr Corbyn has said he will campaign ▸▸

against Brexit, yet he (and some trade unions) could easily change tack if Mr Cameron significantly waters down the EU's social and employment rules—as his own Eurosceptic backbenchers are demanding. The timing of the referendum, too, could be hit-and-miss: the government needs to give at least four months' notice, easily long enough to be caught out by a sudden renewed bout of euro nerves, say, or more quarrels over migrants and refugees.

All this may tempt the government to run a negative campaign, pointing mainly to the doubts and uncertainties associated with Brexit. Most businesses, big and small, would worry about the effects. Trade and employment could suffer and foreign investment would be at risk. The alternatives to membership are at best uncertain. A post-Brexit Britain may face the unpalatable choice of keeping access to the single market but having to observe rules in which it has no say, or losing access and facing tariffs and non-tariff barriers. To top it all, there is a fair chance that if Britain were to leave the EU, Scotland might leave the United Kingdom.

Be positive

Such a negative campaign, harping on the risks of independence, eventually worked in Scotland last year, but it was given an extra push in the closing stages by sudden promises of more self-government. A body as slow and ungainly as the EU cannot repeat that sort of trick. So a better strategy would be to emphasise the positive reasons for Britain staying in, starting with the EU's foreign-policy and security role in confronting Mr Putin, the fight against terrorism or the joint effort to tackle climate change, all areas where many Britons appear to favour collaboration at the European level. Yet a Tory government that has devoted so much effort to appeasing Eurosceptics by attacking the EU might find it hard to convey a positive message about the project with any credibility.

So here is an alternative suggestion: let the campaign focus on explaining how much the European project has benefited from Britain's membership, and how much more suitable for Britain it has become as a result. Sir Bill Cash, a veteran Eurosceptic Tory MP, voted yes in the 1975 referendum (Mr Corbyn voted no). Yet in many ways the club of which Britain decided to remain a member at the time offered a far worse deal than it does now. The protectionist CAP pushed up the price of food and created butter and beef mountains. The common fisheries policy seemed almost designed to destroy fish stocks. The British budget contribution was set to top everyone else's. There was no single market. Brussels was full of talk about building a Fortress Europe. Competition policy was in its infancy. All members, including Britain, had signed up for both monetary and political union by the end of the 1970s. And there was little enthusiasm for further enlargement. The project was essentially run by the French, who made sure that their interests were fully taken into account.

Forty years on, the EU ought to look rather more appealing to British eyes. Although the CAP is still too expensive, its worst excesses have been curbed. The fisheries policy has been substantially reformed. And thanks to Thatcher's rebate, Britain no longer pays a grossly unfair share of the budget; some of its contribution might be seen as aid to eastern Europe. The EU's competition and standard-setting policies have turned it into a global free-market referee. The club has become bigger, with almost the whole of Europe now in. English has become the dominant language. And EU membership acts as a bulwark against the anti-globalisation lobby.

Forty years on, the EU looks rather more appealing to British eyes than it did in 1975. Its transformation owes a great deal to Britain's influence

This transformation of the EU into a more liberal pro-market organisation owes a great deal to Britain's influence. In Paris many politicians complain that the EU has turned into a passionate proselytiser for Anglo-Saxon capitalism. That was one reason why the French voted down the constitutional treaty in 2005, and it also helps explain the Europhobe appeal of Marine Le Pen's National Front.

All of the above suggests that the case for leaving was a good deal stronger in 1975 that it is now. And yet even then Britain did better by remaining in the club and trying to improve it than walking out and losing any chance of influencing its development. If Mr Cameron is lucky enough to win his decidedly risky referendum, that would still be the best course for Britain to follow. ■

Reprints

Reprints of this special report are available at US$7.00 each, with a minimum of 5 copies, plus 10% postage in the United States, 15% postage in Mexico and Canada. Add tax in CA, DC, IL, NY, VA; GST in Canada. For orders to NY, please add tax based on cost of reprints plus postage.
For classroom use or quantities over 50, please telephone for discount information.
Please send your order with payment by cheque or money order to:
Jill Kaletha of Foster Printing Service
Telephone 866 879 9144, extension 168
or email jillk@fosterprinting.com
(American Express, Visa, MasterCard and Discover accepted)

For more information and to order special reports and reprints online, please visit our website
www.economist.com/rights

Future special reports
Colombia October 31st
Climate change November 21st
Technology Quarterly: New materials December 5th
Turkey December 12th

Previous special reports and a list of forthcoming ones can be found online:
economist.com/specialreport

Also in this section

For daily analysis and debate on the Middle East and Africa, visit
Economist.com/world/middle-east-africa

Russia and Iraq

Putin, champion of the Shias

BAGHDAD

Russia sticks a first toe into Iraq

AT CHECKPOINTS across the country, Iraq's many and various security forces cheer Russia's arrival as an answer to their failure to turn the tide after 16 months battling the jihadists of Islamic State (IS) in north-western Iraq. "The US and its coalition did nothing," says a policeman, back from a month on the front. "Finally we'll have a real coalition with the clout to contend with IS."

Late last month, Iraq signed an intelligence-sharing agreement with Russia which infuriated the Americans. Days later Russia's generals established an operations room with America's two regional foes, Iran and Syria, inside Baghdad's Green Zone, which houses America's embassy. Then Russia fired missiles from the Caspian Sea through Iraqi airspace en route to Syria. Haider al-Abadi, the Iraqi prime minister (pictured, left, with Vladimir Putin), has appealed to Russia to expand its air campaign from Syria to include IS targets in Iraq. His forces also proudly show off their Russian tanks. Some officials even talk of giving the Russians an airbase. "We want a full-blown military alliance," says a senior security official.

America has reacted with consternation to the notion that, after it has expended hundreds of billions of dollars and thousands of lives, Russia might regain the hold on Iraq it last exercised at the height of the cold war. Until now Mr Abadi, the prime minister America shoehorned into place last year, has been dutiful. Iranian military overflights destined for Syria have dwindled from 20 a day to a handful, says a Western diplomat in Baghdad. But his threat to reach out to the Russians, coupled with his failure to do anything significant to implement a promised anti-corruption drive, has prompted some Western powers to start looking for alternative leaders.

Filling a vacuum

Mr Abadi's men argue that beggars cannot be choosers. Iraq spends a quarter of its budget fighting IS, despite a government deficit made worse by falling oil prices. A bond issue marketed overseas earlier this year failed to attract punters, despite offering an interest rate of 11%. And while America insists it remains on course to "degrade and destroy" IS (in Barack Obama's words), the Iraqis suspect it has merely set its sights on containing the caliphate rather than rolling it back. That would amount to a permanent division of their country.

From a position of weakness, Mr Abadi is trying to play America's coalition off against the putative Russian one. American aid has fallen by over 80% since the surge of troops it sent in against IS's precursors, al-Qaeda in Iraq, in 2007; and the government's limited resources mean that it delivers weapons to its forces late and in a trickle. "We were expecting the international coalition, the Americans, to bring massive air power to protect our forces," Mr Abadi has said. "We haven't received that."

The gamble may be paying off. The threat of an enhanced Russian role seems to have stirred America into action. In recent days the coalition has intensified its strikes on Baiji and Ramadi, providing air cover as Iraqi forces have girded themselves for a fresh push against IS lines. Never before has IS faced such multiple offensives, says an American official.

But there are also dangers. The region's sectarian problems risk getting worse and broadening. Iraq's cartoonists now portray Mr Putin as a Shia tribal hero, giving the region's Shia powers (currently led by Iran) a global reach. Meanwhile, Sunni powers still look grudgingly to America, despite Mr Obama's nuclear deal with Iran. After months of waiting, some of Syria's rebels have at last received an American arms drop (ostensibly to fight IS, not the Syrian regime). In Iraq, America is again arming and training thousands of tribesmen, adding a Sunni flank to the Iranian-dominated fight against IS. On the street and in parliament, some Sunnis have denounced Russia's return to Iraq's stage as vehemently as Shias have championed it. One cartoonist summed up IS's response: "Bring back America's bombs and spare us Russia's!"

Not all Sunnis and Shias are so entrenched, however. Militiamen loyal to Muqtada al-Sadr, a powerful Shia cleric, insist they will fight Russians as fiercely as they once fought Americans. And Sunnis hopeful of returning to Mosul, Iraq's second city now in IS's hands, doubt Mr Obama is up to the job. To retake Mosul, we'll need the Russians," says Mishaan al-Jabbouri, a Sunni politician and tribal leader who was briefly Mosul's mayor. ■

Austerity in Saudi Arabia

The start of something

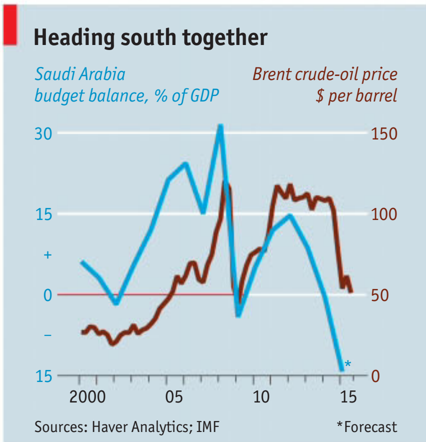
CAIRO

But will it be enough?

MONEY is the glue that holds Saudi Arabia together. To maintain a loyal citizenry and counter radicalism, the kingdom's rulers pamper their subjects with lavish benefits and cushy government jobs. In times of uncertainty, such as during the Arab spring, workers are handed pay rises and bonuses. The last big payout, after the coronation of King Salman in February, cost more than many governments spend in a year.

Such largesse, along with wars in Yemen and Syria and aid to states such as Egypt, has swelled public spending. Oil-rich Saudi Arabia is used to big bills. But for the past year the kingdom has aimed to keep the price of oil low by increasing production in an effort to undermine rivals and gain market share. As the price has collapsed, so too has government revenue, some 90% of which comes from the sticky stuff. The result is a budget deficit that is expected to exceed 20% of GDP this year.

There are now creeping signs of parsimony in the kingdom. Since July Saudi Arabia has borrowed some $15 billion from its citizens through local bonds, its first issuance of debt since 2007. While more borrowing is expected, the government is also "working on cutting unnecessary expenses", says Ibrahim al-Assaf, the finance minister. Leaked memos hint at urgency.



Heading south together

Sources: Haver Analytics; IMF *Forecast

Switch it off!

One dated September 28th, purportedly from King Salman to Mr Assaf, instructs ministries to stop new projects and cease buying cars, furniture and equipment. Another, from the ministry of finance, suggests they will stop payments in mid-November, six weeks earlier than usual.

The government has not confirmed the authenticity of the documents, but analysts think they reflect the royals' concerns. The trajectory of Saudi finances is alarming. Government spending has quadrupled since 2003, raising the break-even price for oil—at which the government can balance its books—to over $100 per barrel. With the actual price sitting at around $50 per barrel, big deficits are expected well into the future. The shortfall "is too large to pretend that it's business as usual", says Simon Williams of HSBC, a bank.

The kingdom's wealth gives it some capacity to absorb the fiscal shock. In the past year it has burned through over $80 billion of its foreign reserves, but it still has over $650 billion left. Public debt, which was around 100% of GDP in 1999, is now a paltry 2%. "It has plenty in its armory to withstand the situation," says Jason Tuvey of Capital Economics, a research firm.

Drastic measures are therefore unlikely. Analysts do not expect Saudi Arabia to start taxing individuals, although the Gulf Co-operation Council, of which it is a member, is mulling a region-wide value-added tax. Nor is it expected to relax fuel subsidies, as other Gulf states have, or cut the public payroll.

During the oil glut of the 1980s, Saudi Arabia slashed capital spending, while leaving sensitive handouts largely untouched. Although the IMF has advised the opposite approach—maintaining capital spending and cutting handouts—the kingdom looks set for a repeat. It is said to be reviewing plans for new infrastructure and may delay or scale back some projects. It has already trimmed plans to build 11 new football stadiums. Next year's budget, due in December, will show if the government has really turned thrifty.

Fixing the economy will take more than counting pennies, though. The government no longer creates enough public jobs for new workers, so more are pushed into the private sector. But these "Saudisation" efforts, such as setting quotas for Saudi employees in firms, have made little progress. Expats still hold most private-sector jobs, which often demand more and pay less than government work. After a crackdown on illegal foreign workers in 2013, Saudis did not want many of the unskilled positions left open. Companies, meanwhile, complain of too few qualified workers because the schools teach mostly religion.

For over 40 years the government has tried to boost the private sector and diversify the economy. But while the non-oil sector has grown, diversification is "a bit of a mirage", says Mr Tuvey. Much of the growth has occurred in industries that depend on oil (eg, petrochemicals), rely on cheap energy or are supported by the government's oil-fuelled spending. Oil still accounts for an overwhelming share of the country's export earnings and nearly half of GDP. The pain of lower prices will be felt widely until adjustments are made. ■

Israel-Palestinian violence

On the edge

JERUSALEM

Any talk of a third intifada is still premature

ON THE morning of October 14th the Israeli border police set up road blocks at three exits from Jebel Mukaber, a Palestinian neighbourhood in south-eastern Jerusalem. At one exit they prevented residents from leaving, at another they merely checked papers, while the third remained wide open. It was a tellingly muddled reaction to a spate of attacks the previous morning, when three men from Jebel Mukaber carried out two simultaneous shooting and stabbing attacks in Jewish areas of the city, killing three Israelis and wounding 12. For Israelis, it was the worst episode in a wave of violence in which 32 Palestinians and seven Israelis have been killed since the beginning of October. The government seems to have little idea how to respond.

The majority of Palestinians attacking Israelis in Jerusalem and other cities with- ▸▸

in the "green line" (Israel's pre-1967 borders) have been residents of East Jerusalem, whose Israeli-issued identification papers allow them to travel relatively freely. In the wake of Tuesday morning's attacks, Jerusalem's mayor, Nir Barkat, demanded the closure of the Palestinian neighbourhoods (where nearly 40% of his city's residents live). Some 35,000 workers cross into western Jerusalem daily to work; without them the city's economy would grind to a standstill. Nevertheless, the mayor was followed by cabinet ministers demanding drastic measures including widespread closures, preventive arrests, withholding Palestinian funds held by Israel and even starting work on new settlements in the West Bank in retaliation for any further attacks.

Israel's security cabinet met at night on October 13th, but authorised only a fraction of these demands, deploying hundreds more security personnel in Jerusalem and other cities, and allowing police to impose local closures according to operational needs—a power they had anyway. The cabinet had already decided a week earlier to expedite the demolition of homes of families of Palestinians accused of murdering Israelis, a method originating during the British Mandate in the 1920s that an Israeli military committee found in 2005 was ineffective at curbing terror.

Binyamin Netanyahu, the prime minister, seems increasingly isolated—under relentless criticism from the opposition, from within his own coalition cabinet and from the Likud party he lead—for failing to protect Israeli citizens. But there is little he or Israel's security forces can do to stem the attacks, which are being carried out mainly by individuals, many of them teenagers, without the operational support of any Palestinian movement.

The attacks seem born of a growing frustration among young Palestinians, disillusioned by the failure of both their own and Israel's leaders to offer any prospect of ending Israel's 48-year occupation of the West Bank, East Jerusalem and the Gaza Strip. Mr Netanyahu's security chiefs have been warning him since 2010 that the current status quo is untenable. But, while paying lip-service to a two-state solution and to a currently non-existent diplomatic process, the prime minister has practised an approach that many of his ministers openly describe as "conflict management".

This policy was plausible as long as the Palestinian Authority, based in Ramallah, whose leaders have their own political and financial interests in keeping the peace, was capable of doing so. In recent days, though, the Palestinian president, Mahmoud Abbas, has become a bystander, neither condemning nor endorsing the attacks. The official Palestinian media, however, have pandered to popular opinion by praising teenagers who stab Israelis as heroes and martyrs. Mr Abbas's security apparatus has remained largely on the sidelines.

Mr Abbas's rivals, the leaders of Hamas in Gaza, have declared a "Jerusalem Intifada," exhorting Palestinians there to continue the attacks while encouraging civilians in Gaza to storm the border fence around their strip. Nine Palestinians have been shot there this month in clashes with Israeli soldiers; scores have been injured.

Mr Netanyahu deserves some credit for facing down his ministers. But six and a half years since he returned to office, he cannot avoid his share of the blame for having taken no serious steps towards a lasting solution. His accusations of Palestinian incitement to violence contain some truth. But it is Israel that holds nearly all of the cards. ■

Iraq's Christians

Nour's list

AMMAN

A priest is saving thousands from Islamic State

"WE CAME to Jordan because of the priest. He helps everyone." So says Haytham, a Christian Iraqi accountant, who fled from his home in Qaraqosh in the middle of the night along with his wife and children when Islamic State (IS) took nearby Mosul in June 2014. By the time the family reached Jordan in August their largely Christian town was under IS control. "We all fled, Muslim and Christian," says Haytham. He pulls out a picture of the bodies of some of those who failed to leave in time.

In 2014 alone an estimated 2.2m Iraqis were internally displaced; fewer than 200,000 of them had sought refuge abroad by June 2015. Unlike Syrians entering Jordan, Iraqis do not automatically get refugee status or aid. They must instead try to obtain a visa, weeks in advance. This involves paying for a return ticket to Iraq or finding a sponsor within Jordan. Many of Haytham's friends and relatives remain trapped.

Had it not been for Father Nour al-Qusmusa, a 35-year-old priest living in Jordan but originally from northern Iraq, Haytham and his family would still be there too. They spent weeks sleeping in the garden of a church in Erbil. But when the church put them in touch with Father Nour, they found a way out. After a meeting with King Abdullah last year, the priest brokered a deal with the Jordanian government to streamline the application process for Iraqi refugees. He sponsors their entry to the country, and Caritas, a Catholic charity, helps with food and shelter. So far, 2,200 people have fled IS to Jordan thanks to the priest.

Father Nour worries about the future of his community, and sees no hope of going home. "We became like strangers in our land after the American occupation," he says. "Sectarianism only grew then." Life is not easy in Jordan either: Iraqi refugees may not work, and cannot receive the same subsidised health care as Jordanians. Their children cannot attend free government-run schools.

In order to receive aid they must pass UNHCR's "Refugee Status Determination" test to determine if they are really fleeing persecution. This takes months, and many are refused. "There is no future for Iraqi Christians in the Middle East," says Father Nour. "I ask for the prayers of my people to be fulfilled." Those prayers centre on a common desire to migrate to Europe, America or Australia; but so far, only a handful of refugee families have been accepted.

Private security in Nigeria

Rent-a-cop

LAGOS

Private security is hollowing out Nigeria's security forces

FIVE years ago Lionel Rawlins pitched up in Yola, north-eastern Nigeria, to run security for the American University there. This was a dangerous spot even before Boko Haram's jihadist insurgency gathered momentum, yet the former marine found only "a ragtag team of guards who couldn't protect anyone from anything". Rather than clean up the mess, he had another idea: to set up his own private security force instead. Today the university is guarded by a hundreds-strong force of his well-turned-out recruits.

Private security is big business in Nigeria. The country suffers bombings in the north, sectarian violence in the centre and simmering insecurity in the oil-producing south-east. Red24, a Scottish security firm, says more than 600 people are kidnapped in the country every year, putting it among the five worst for that sort of crime.

Companies know better than to risk employees' lives, or litigation, so they hire guards to scan bags at banks and shopping malls or to vet visitors to private residential estates. For about $1,500 a month, khaki-clad police units escort fat cats through the grinding Lagos traffic. Police and army stand to attention outside fortified embassies in Abuja or oil installations in the Niger delta. Between 2007 and 2009, while an insurgency seethed in the fuel-rich region, Shell splurged $383m, 40% of its global security budget, in Nigeria.The last comprehensive study of the sector, conducted a decade ago, found between 1,500 and 2,000 private security companies in Nigeria. The figure has probably risen.

Because they cannot legally carry weapons, armed units must be hired from national forces. This can breed indiscipline: "When there is corruption at the top, you expect it at the bottom," notes one security provider. He recalls sending a police guard back to headquarters for shaking down passers-by. Another company experienced a run-in with a mobile police unit whose men liked to fire their guns to "announce their arrival". "We don't control them," sighed an oil executive in Port Harcourt after waiting an hour for an escort.

Private companies pay the security forces handsomely. But that also encourages commanders to hire out their men. The result is a privatisation of public security, reckons Rita Abrahamsen, a professor at the University of Ottawa. In 2011 a retired deputy inspector-general estimated that up to 100,000 police officers (about a third of the country's total) were working for "a few fortunate individuals", and questioned what that meant for regular Nigerians. Martin Ewence, a British naval commander turned consultant, reckons that the navy in effect has "given over its maritime security responsibilities".

In the worst cases, the private-security culture fuels conflict. Oil companies in the Niger delta have been criticised for arming Nigeria's Joint Task Force in a bid to secure their assets. The task-force's combination of police, army and naval personnel, whose houseboats are moored in the delta's greasy creeks to "tax" passing barges, are accused of human-rights abuses and involvement in the theft of oil.

Things may improve. Mr Rawlins believes that the arrival of his force has forced other security providers to up their game. The new president, Muhammadu Buhari, wants some security contracts cancelled and has told police to stop serving as dogsbodies for political bigwigs and business tycoons. He thinks they should spend more time solving crime. ■

Democracy in West Africa

Fingers crossed in Guinea

LAGOS

Things could turn nasty after a disputed poll

DEMOCRACY does not run as deep throughout west Africa as it does in Nigeria, but there have been signs of progress since the region's biggest country marked its first electoral transfer of power in March. Last month democrats thwarted a coup in Burkina Faso, putting it back on track for elections later this year. And on October 11th Guineans turned out in their millions to vote in only their second democratic presidential ballot in over 50 years.

Having previously endured decades of dictatorship under Ahmed Sékou Touré and his successors, Guineans are heartened. Their president, Alpha Condé, who won the country's first free vote in 2010, can take some credit for pulling soldiers off the streets and returning them to barracks. He has improved electricity supplies and made mining contracts more transparent. Yet low commodity prices and a crippling battle against Ebola have dented his popularity and invigorated the opposition.

Condé faces the voters

The latest poll, like the one that preceded it, pitted Mr Condé against Cellou Dalein Diallo, the main challenger among seven. Guinea's young democracy is still ethnic in nature, and this vote has exposed many of the same tensions as the last. Human Rights Watch, a pressure group, reckons that at least seven people were killed during the 2010 presidential election campaign. Another 50 died in the run-up to a legislative election in 2013. Several people lost their lives in pre-polling clashes this time, and locals worry about more fighting, particularly if the president pulls off a victory in just one round. Opposition parties argue that would be impossible without rigging.

They already feel cheated. Rival candidates asked for (and were refused) a delay, claiming unfair distribution of voter cards and the presence of children on the electoral register. Their complaints have only grown louder since the votes were cast, and all seven candidates have demanded an annulment. Observers have not validated these claims. An EU delegation cited "massive deficiencies" ahead of polling, but says it is impossible to work out who was helped by them. In its post-election report the EU mission concluded that the process overall was indeed "valid".

This failed to convince the opposition. On October 14th, Mr Diallo said he was withdrawing from the race, and would not accept its result. Analysts had been expecting Mr Condé to win another term once the votes were counted, which will take a few days, though a second round may be needed. If Mr Diallo is not going to contest a second round, it is unclear what will happen. He has said his people will protest. A repeat of 2013's violence may still lie ahead.

Somaliland

Going it alone

HARGEISA

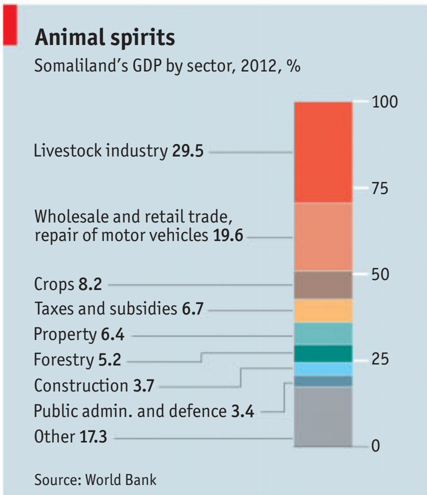
A functional part of a dysfunctional country

SAHRA HALGAN, a musician, fled Hargeisa in northern Somalia in 1991. The city she left was a smoking ruin; most of the population was scattered. But in 2013, after 22 years living in France and working as a cleaner, she felt the urge to return. "I love France, but my country is called Somaliland," she says. And so she set up a restaurant. At weekends, it fills up with Coca-Cola-sipping young men in smart shirts and women in bright silk head-dresses. Musicians strum the lute-like *oud* and sing folk songs, as plates of camel meat and spiced rice circulate and the audience hold up their iPhones to take selfies.

Stories such as Ms Halgan's abound in Hargeisa, the capital of Somaliland, a breakaway region which declared independence from the rest of Somalia in 1991. Unlike Mogadishu, the capital of Somalia proper, Hargeisa is broadly safe, and undergoing a remarkable economic boom. On its dusty streets, goats compete for space with Land Cruisers; new businesses such as "the English Beauty Salon" and "the Scandinavian hotel" are everywhere. In cafés Somalis with accents from London, Minnesota and Amsterdam sip frappuccinos. The boom is an indicator of how successful other parts of Somalia could be if the fighting could be stopped. But it also comes with tensions that could undermine the fragile peace.

Almost every building in Hargeisa has been constructed in the past two decades. In the city centre a Russian-built MIG is mounted on a crudely painted plinth: a relic from the Somali civil war, which ran from the late 1980s until 1991, when the city was comprehensively destroyed by Siad Barre, Somalia's last military dictator. The war convinced many that they wanted nothing to do with any government in Mogadishu. On the plinth is the date "26th June", the day on which, in 1960, Somaliland gained its independence from Britain, five days before it formally joined Somalia, newly independent from Italy. Most Somalilanders think the union was a mistake.

Recovery began with refugees sending money home through the *hawala* system (see related article on page 78). It accelerated dramatically in 2009, when Saudi Arabia lifted a nine-year ban on imports of livestock from Somalia. Last year some 5m animals were exported, more than for 20 years. The animal trade generates money which can be spent on consumer goods: shops are full of Vietnamese clothes and Chinese electronics. That in turn creates opportunities for investment, and so diaspora Somalis who had previously mostly sent money home began to set up businesses. They have helped to build a world-class mobile-phone network, a fibre-optic broadband link to Djibouti and a mobile-money system which is one of the most widely used in Africa.



Mahdi Abdi moved to Hargeisa in 2013 from the suburbs of Washington, DC; he had left Mogadishu in the 1970s as a teenager. In his American twang, he jokes about his mid-life crisis. "I had the house in the 'burbs, the dog, the business, everything." But Hargeisa seemed more exciting. In his dental clinic he proudly shows off imported equipment with which he can build proper crowns and dentures—unknown until now in Somaliland.

Those who have lived abroad have plenty of advantages. Those with foreign passports can travel to business meetings. In a country where the local currency is traded in brick-sized bundles, they have greater access to foreign money (almost all large transactions are dollarised). Most of all they have education, which, 20 years after the civil war, is sorely lacking. More than a dozen universities have opened in Hargeisa over the past decade or so, hawking degrees to hopeful youngsters (the median age in Somalia is around 17). But few trust their quality.

But not all members of the diaspora are welcome. Newcomers are buying up land, pushing up property prices—which, in a country with a creaking legal system, can lead to bloody disputes. Their teenage children, whom Somalilanders often send home for the summer, are accused of flashing money around, flirting and generally making a nuisance of themselves. And tension simmers between two different diaspora groups: Westerners, and those from Saudi Arabia, Yemen and the other Gulf states. Like Mr Abdi and Ms Halgan, Westerners tend to get busy setting up businesses such as cafés, restaurants and clinics. Those back from the Gulf, by contrast, are more involved in the import and export trades, livestock and the construction industry—through which they can exert a worrying political influence.

"This society used to be half-African, half-Muslim, not too deeply religious," says one well-connected Somalilander. "Now the Wahhabis are everywhere." The country's early democracy has faltered: an election in Somaliland planned for this year has been delayed, ostensibly because of problems organising it. Corruption is endemic, and the media is seldom critical. Dissent is increasingly dangerous, particularly on the fraught issue of national identity. On September 27th, four musicians were arrested on their return to Somaliland: they had apparently waved a Somalian flag at a gig in Mogadishu. They were released only after widespread protests.

Still, life remains much better than in Mogadishu, where car-bombs and shootings continue to punctuate the night. The question is what happens next. Independence, most think, is a pipe-dream: politicians in Mogadishu are unlikely to want to lose a substantial chunk of the country. African neighbours such as Ethiopia, whose troops guarantee security in much of the rest of Somalia, will not approve either; nor, for that matter, will the West. No country has yet recognised Somaliland's self-declared independence. But for a million or so Somalis living abroad, Hargeisa offers a model for how they might return to their homeland and to try to rebuild. If only the rest of Somalia could catch up. ■

She can always dream

Also in this section

For daily analysis and debate on Europe, visit
Economist.com/europe

Turkish extremism

Heightening the contradictions

ANKARA

Islamists were probably behind the bombing in Turkey, but it has increased hostility between Turks and Kurds

THREE days after a double bombing in Turkey's capital killed at least 99 people at a peace rally, the prime minister, Ahmed Davutoglu, and a group of government officials laid flowers at the scene of the carnage, carefully cordoned off for the occasion. The low-key ceremony was a pale reflection of the tide of grief and anger that has swept through Turkey since the massacre. At funerals across the country, thousands expressed their anguish. In many cities police blocked large gatherings to honour the victims. Unions called for a two-day strike, and students at several universities boycotted classes to show dissatisfaction with the state of the country.

The attack, perpetrated by two suicide bombers carrying TNT and metal balls to amplify the explosive's effect, has not been claimed by any organisation. Wildly differing interpretations have taken root in a deeply polarised country. Recep Tayyip Erdogan, the president, acknowledged evidence of a tie to Syria and Islamic State (IS), the presumed source of similar bombings in the past. But he went on to link the attack to his government's war with Kurdish pro-autonomy fighters, including those of the Kurdistan Workers' Party (PKK) in the country's south-east. One government minister, Beril Dedeoglu, implausibly suggested that the bombing could have been a joint effort by the PKK and IS, even though they are sworn enemies.

For its part, the Peoples' Democratic Party (HDP), a pro-Kurdish political movement that lost two parliamentary candidates and dozens of supporters in the blasts, blamed the state for failing to protect the rally and turning a blind eye to IS. The prime minister denied that security was lax. In a televised interview, he said the authorities had a list of potential suicide-bombers, but that in a state governed by the rule of law it is impossible to arrest them before they act.

So far the investigation focuses on a small network of Turkish IS recruits. Its members are said to come from the city of Adiyaman in the south-east and may have been behind two earlier attacks, one at an HDP rally in Diyarbakir on June 5th and another in Suruç, near the Syrian border, on July 20th. DNA tests are being carried out on relatives of 21 residents thought to have joined IS in Syria.

The question is why IS would strike Ankara now. Turkey is part of the American-led coalition fighting IS in Syria and Iraq. But even after opening its Incirlik airbase to coalition aircraft for use in air strikes in July, it has played only a small part in the campaign against IS. Instead the government has mainly focused on bombing the PKK, described by Mr Erdogan as a greater threat. In Syria a PKK-affiliated militia, the People's Protection Units, is considered the most effective force against IS. It is co-operating with America, much to Turkey's discomfort. If IS carried out the bombing, the aim was probably to inflame the tension between Turkey and the Kurds.

The Kurds' growing political strength is the underlying reason for the government's campaign against them. In parliamentary elections on June 7th the HDP won 13% of the vote. This deprived the ruling Justice and Development Party (AK) of a majority. Instead of forming a coalition government, the AK opted for new elections, to be held on November 1st. It hopes to regain a majority and, ultimately, to change the constitution to give Mr Erdogan more power. But polls suggest few voters are changing sides.

Meanwhile, the lack of arrests or convictions after previous bombings has undermined public trust in the government's determination to fight jihadists. In Ankara the police chief was suspended following the attack. The government's most immediate response, however, was to restrict media coverage. Footage from the railway station in Ankara where the bombing took place could not be shown, even if it had been shot before the blast. Critics of the government have suffered harassment. Journalists are detained for expressing unwelcome views, and dozens of HDP officials have been arrested for alleged terrorist links. Pushed off mainstream television channels, HDP has turned to social media to reach voters.

The HDP has stopped holding rallies because of fears about security. "We may not be able to conduct electoral activities, but this nation is not stupid," said Selahattin Demirtas, a co-chairman of the party. Even if the HDP does not appear in the media, "the people can see what's what."

The government says that the elections will go ahead as planned regardless of worries about safety. It is continuing its military campaign against the PKK, even though the group announced a ceasefire in ▸▸

order not to interfere with the election.

To counter the growing mistrust of the state and its institutions, fair elections are crucial. Ballot-stuffing seems unlikely: Vote and Beyond, a volunteer organisation that deployed 55,000 monitors across the country at the last election, will again monitor the polls.

Yet whatever the outcome, Turkey's next government will be faced with a bitterly divided society. At a football match between the Turkish and Icelandic national teams on October 13th, when organisers called for a minute of silence to honour the bombing victims, Turkish chauvinists in the crowd booed and shouted religious slogans. If even the mourning following Turkey's deadliest-ever terrorist attack cannot bridge differences between social groups and convince political parties to work together, what can? ■

How Spain deals with migrants

Forward defence

DAKAR AND MADRID

What other Europeans can learn from Spanish efforts to limit illegal migration

THE rubbish-strewn beach at Hann, a suburb of Dakar, Senegal's capital, is packed with colourful, canoe-like pirogue fishing boats, ideal for smuggling lucrative human cargo. A dozen years ago the first ghastly scenes of drowned bodies washing up on European beaches featured pirogues from Hann and elsewhere that set out for the Canary Islands, a Spanish archipelago just 60 miles (100km) off the African coast. In 2007, 32,000 migrants reached them by sea. By 2010 the flow had slowed to a trickle, with fewer than 200 reaching the Canaries by sea most years since then. None came from Senegal.

With hundreds of thousands of migrants now arriving elsewhere in Europe, that sounds magical. "Spain has accumulated experience that no other country has," says Carmen Gonzalez, a migration specialist at the country's National Distance Education University. But can that experience be applied to today's surge?

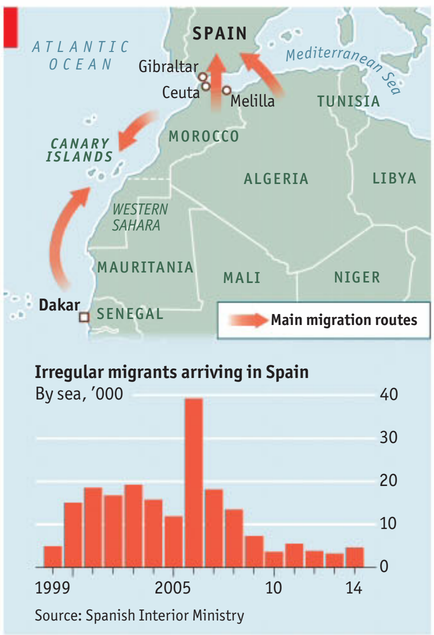
The secret of Spain's success was co-operation with transit countries such as Senegal, Morocco and Mauritania, says Gonzalo Robles of AECID, the government's aid agency. As a former secretary of state for immigration, Mr Robles drew up agreements that helped block Morocco as a departure point both for the Canaries and Gibraltar. They included joint maritime patrols backed up by a sophisticated radar system that could detect boats leaving Morocco's Mediterranean coast, just nine miles away from Spain at its closest, and tip off police.

Patrolling the 2,395km of Atlantic coastline shared by Senegal, Mauritania and the Moroccan-run Western Sahara (not to mention Morocco's own, long stretch) is a task of another order. But the aim is still to catch boats as they leave. Spain has achieved this with only a few dozen of its own frontier police deployed in Africa. Most work is done by local police, who receive Spanish money, equipment and training. "A trained officer can always spot a migrant boat," says Nicolás Meca, the Spanish police commissioner in charge of the operation in Senegal.

Poorly paid local police, once easy targets for traffickers' bribes, now receive daily allowances from Spain when on migration watch. That is vital, says Mr Meca, giving him eyes all along the coast. Thirty-metre patrol boats operated by Spain's Civil Guard police, or donated to their Senegalese and Mauritanian counterparts, are maintained with Spanish money. And a Spanish helicopter with Senegalese police on board watches from the air. A generous development-aid programme has bought additional goodwill.

Traffickers' boats are intercepted and forced back to shore. Though migrants are rarely arrested in Senegal, their stories of failure and wasted money spread quickly, stemming the flow. One of the few to get through in the early days of the crackdown was 31-year-old Ibrahima Dieme, whose pirogue slipped secretly out of Hann carrying 75 migrants from several African countries. The experience was terrifying and pointless. "From the beach, you think it is calm in the ocean. But you go into the sea and the ocean is huge: the waves are deadly; the storms are deadly," he recalls.

The crackdown made Mr Dieme's journey far tougher than the coast-hugging trips of early migrants, as the smugglers tried to dodge patrols by sticking to open sea. A promised 72-hour trip took ten days as fuel ran low. The crew smoked marijuana and jittery passengers threatened to jump overboard. Mr Dieme eventually landed in the Canaries, but fell foul of Spain's repatriation agreement with Senegal. After spending over two weeks in detention, he was sent home with some money, a sandwich and a bottle of water. The roughly $900 he gave the traffickers is ten times the monthly salary he now earns helping young people find work.



Spain's economic crash in 2008 further put job-seeking migrants off. With seaborne migration close to zero and a swelling budget deficit, Spain could have shut the operation down. But the agreements signed in 2006 have been renewed each year, blocking the path to new migrants from Syria, Eritrea and elsewhere—enhancing Spain's relationship with border forces in a region with other security threats, such as Islamist terrorism. Maintaining the programme has required Spain to turn a blind eye to its partners' dubious democratic credentials. A coup in Mauritania in 2008, later followed by elections, did not change the agreements there.

Money has also gone to helping transit countries patrol their land borders, forming barriers further down the routes that criss-cross northern Africa. And the transit countries have taken a more active approach to managing migration. Last year Morocco gave residency papers to some 18,000 sub-Saharan Africans, making them easier to monitor and integrate. Mauritania, with a population of just 3.5m, expelled 6,463 immigrants last year, up from 713 the previous year.

Mr Robles reckons the lessons learned by Spain can be applied elsewhere. Wide-ranging bilateral agreements that cover policing, aid and the buttressing of state institutions in transit countries are, he says, the key to success. But economic migration from Africa and a flood of refugees from war-torn countries such as Syria are very different, Mr Robles concedes. So, too, is dealing with a shattered state like Libya. On October 15th European leaders were due to discuss a deal with Turkey, including the readmission of failed asylum-seekers.

So far Spain, which has the advantage of being at the far end of the Mediterranean, has avoided Europe's current migration headache. But it is seeing migrant detention centres in Ceuta and Melilla, two African enclaves encircled with barbed-wire fences, fill up with Syrians who slip through with fake Moroccan documents. Some who have reached the Canaries in small boats that have dodged sea patrols and radars in recent weeks also claim to be Syrian. Officials will not say how much its anti-migration effort costs. But it is much less than Italy or Greece is spending. ■

The MH17 report

Crash course

GILZE-RIJEN, THE NETHERLANDS

An airliner shot down by a missile was a wake-up call for Europeans unprepared for war

ELSEMIEK DE BORST was 17, about to enter her final year of secondary school. She enjoyed playing the piano and worked part-time at a pancake house near her father's home outside The Hague; she dreamt of one day becoming an architect. But first came the summer holidays. On July 17th 2014 she packed her suitcase (purple, with red flowers) and set out with her mother, stepfather and half-brother for a package tour to Malaysia. As she left that morning, she sent her father, Hans de Borst, a message on WhatsApp: "The taxi is coming here at 9, and at 12 o'clock we fly. Bye bye." It would be the last time Mr de Borst heard from her.

Along with 282 other passengers and 15 crew, Elsemiek boarded Malaysian Airlines flight MH17 at Amsterdam's Schiphol airport. Nearly three hours later a surface-to-air missile darted through the sky over eastern Ukraine, where Russian-backed separatists had been waging war with the Ukrainian government for several months, and met MH17 head-on. The plane came down with such force that "the earth receded", said a local from the town of Hrabovo, where the main parts of the airliner crashed. When this correspondent got to the crash site, the passengers' bodies were strewn across the fields like macabre modern art, surrounded by sunflowers and the ephemera of arrested lives: half-finished books, scrunched-up toothpaste tubes, hotel bookings. Others simply called the scene "hell".

As hellish as the crash may have seemed to locals, it was far worse for the loved ones of those on board. "Every day you think about that," Mr de Borst says. "It's a stone in your body, lying there."

On October 13th the Dutch Safety Board made public the results of a 14-month investigation into the physical cause of MH17's crash. As expected, it concluded that a Russian-made BUK missile brought the plane down. The report is an exemplar of European technocratic neutrality. The board mapped out a 320-square-kilometre zone from which the missile might have been launched, but did not offer a theory about who fired it. The attempt to allocate blame will come next year, when a separate criminal investigation completes its work. But the safety board's chairman, Tjibbe Joustra (pictured), told the Dutch newspaper *de Volkskrant* that the launch area it identified had been controlled by the rebels at the time of the crash.

For all its neutrality, the report is another point of contention in the stand-off between Russia and the West. Russia has accused the investigators of bias, and has relentlessly muddied the waters. The Russian-backed rebels threw up unpredictable obstacles at the crash site. To carry out the investigation and recover its dead citizens, the Dutch government was forced to negotiate patiently while local Ukrainian miners laboured to collect the bodies. In July a proposal for a UN-mandated tribunal to try those responsible was blocked by a Russian veto. In advance of the Dutch report, the Russian company that makes the BUK released a report of its own purporting to show that the missile had been fired from government-controlled territory and that Russia no longer operated that model at the time. (*IHS Jane's Defence Weekly*, an authoritative security publication, said Russia still did.)

The struggle to establish guilt has made it clear that, on the day the plane went down, the structures of post-war European security crashed, too. For many across Europe, MH17 showed that the war in Ukraine was more than an incomprehensible bloodbath somewhere far to the east—that the breakdown of a stable security order would have consequences for them as well. "What we forgot is that all kinds of risks don't fit into the image of a well-organised society," says Gabriel van den Brink, a professor at Tilburg University and editor of a new book about the meaning of MH17. "What happens if some groups aren't prepared to follow the rules?"

In the world Elsemiek grew up in, systems were supposed to work, and dangers were supposed to have regulated solutions. "When the Berlin Wall fell down, we all thought the world is getting a bit better," says Mr de Borst. Instead, he has been left to conjure Elsemiek from memory. He keeps a makeshift shrine in his study; sometimes he sits in her room and looks up at her posters, or talks to the poster of her hanging in the living room. "The strangest part for me is that every day thousands of planes go into the sky," he says. "Why did this particular plane with her in it have to be shot down? That's the question I will never get an answer to." ■

Italy changes its constitution

Not just hand-waving

Italian government was a byword for instability and indecision. No more?

WHAT if Italy were the most stable country in Europe? The notion would once have seemed absurd. But after the Senate's approval on October 13th of a sweeping constitutional reform, it is less so. The bill, which should have little difficulty passing the lower Chamber of Deputies, removes a feature of the Italian political system that has had reformers gnawing their knuckles in frustration for decades: the two houses of parliament have equal powers. That is why bills so often end up circulating between the chambers until they are neutered or liquidated.

The reform would turn the Senate into a 100-member house of regional and municipal representatives with the power to question, but not veto, legislation. Combined with an electoral law that guarantees a majority to the winning party in the lower house, the reform should mean future Italian governments get five crisis-free years to implement their programmes.

"For us, it is a Copernican revolution," says Maria Elena Boschi, minister for reform in Matteo Renzi's left-right coalition. Just as revolutionary as the bill itself is the fact that Mr Renzi entrusted the task of steering it through parliament to Ms Boschi. The 34-year-old lawyer had not even served as a local councillor before her election to parliament.

"I'm not Wonder Woman," Ms Boschi demurs. Yet her task, as the bill entered its decisive journey through the Senate, might well have daunted even a super-heroine: she had to persuade 315 elected senators, most of them well-versed in parliamentary obstructionism, to vote themselves out of a job. And she had to do so in the teeth of opposition from a minority in Mr Renzi's own Democratic Party. "Everyone was telling us we didn't have the numbers, that it was an impossible task," says Ms Boschi, who speaks with a lawyer's crystal clarity, while deploying a range of hand gestures expressive even by Italian standards.

The passage of the reform was tempestuous. The right-wing Northern League's chief whip used an algorithm to table an astonishing 82.7m amendments. Two senators were suspended for miming obscene acts at female opposition members. Most of the bill's critics left the chamber for the final ballot. In the end the reform was approved by 179 votes to 16. Detractors say it will turn Italy into a democratic dictatorship. Ms Boschi replies that Britain and other countries have similar arrangements, and that prime ministers will be constrained by the extensive powers of Italian presidents and judges.

Arguably, the bill was saved by the defection of a group of lawmakers from Silvio Berlusconi's Forza Italia party. Still, its approval was a triumph for its sponsor, and evidence of genuine change in a political environment that until recently was as gerontocratic as it was misogynistic.

Ms Boschi has always said that she wants to be judged by what she achieves—to little avail. The media concentrates less on her talents than on her youth and looks. Yet that may be changing. "Beyond the image, there is substance," wrote Pierluigi Battista in *Corriere della Sera*, a newspaper, after the vote. "And the substance is that, with her graceful manners and a smile on her lips, Boschi has hung tough in the trenches."

The constitutional reform will be put to a referendum next year. And Ms Boschi? Until recently she was saying, even privately, that she had no political ambitions and intended to return to legal practice. But the morning after her triumph she saw things rather differently. "I'm just at the start," she said. "I hope to be able to lend a hand in the next parliament, too." ■

Crimea's empty spas

Muddling through

SAKI

Running a hot spring in a frozen conflict

SOME find it relaxing to be covered head to toe in black, smelly mud. Others become a bit gloomy, particularly when the spa is half-empty and is in disputed territory. The job of Lieutenant Doctor Igor Aleksandrovich Dovgan, director of the gracelessly named Saki Military Clinical Sanatorium N.I. Pirogov, is to keep his guests on the relaxed side—the paying ones, at least. The spa, on the sunny shores of the Black Sea, pampers private clients, while taking a boot-camp approach to the wounded veterans it treats at the expense of the Russian state.

Dr Dovgan has run the sanatorium ever since it was seized (like all other state-owned property) from the Ukrainian defence ministry after Russia annexed Crimea in March 2014. It is in good shape, with friendly staff and functional, if somewhat military-looking, equipment. The gardens are immaculate: no sooner does a rose shed a petal than a gardener rushes to pick it up. A plaque commemorates the night in 1945 when the spa sheltered Franklin Roosevelt and Winston Churchill on their way to meet Stalin at Yalta.

When Crimea was Ukrainian the sanatorium was fully booked. Now it seems to run at half-capacity. Crimea is on the back burner of global diplomacy these days, but Russia is finding occupation much more costly than it expected. Western sanctions mean credit cards do not work, mobile phones do not roam and some software does not upgrade. There are frequent blackouts. The peninsula's isolation from the Ukrainian mainland has recently been made worse by a blockade of food-importing trucks imposed by Crimean Tatars from Kiev. A lone ferry line connects it to the remote part of the Caucasus that is the closest bit of Russian land.

Ukrainians have stopped coming to Crimean spas. Well-heeled Russians mostly head for Turkey, Thailand or Egypt. So the Pirogov sanatorium must target Russia's budget travellers. It has a distinctly Soviet feel: an exhibition entitled "Afghanistan—We Remember" shows photos of veterans, and down the corridor patients in wheelchairs trade stories of exploits in Dagestan and Abkhazia. Another exercises his spine, wounded in what Russians call the "First Chechen War" in 1994-96. The entertainment is strictly Brezhnev-era. As one visitor noted approvingly on TripAdvisor: " Pirogov is so 'Back to the USSR'."

Up the road the former Lenin Sanatorium, now known as Sakropol, is taking a different path to profit. It offers more intimate massages: "vacuum-laser massage for correction of erection" costs a mere 356 roubles ($5.80). On the shores of Lake Saki, those who cannot afford any of Crimea's almost 150 sanatoria simply grab handfuls of muck and smear themselves for nothing. Among them are a police officer from Smolensk who suffers from oedema, a paediatric nurse from Kiev and two Chechen ex-fighters with bullet wounds. Coated in mud, everyone is equal.

In Crimea, Russia has mucked it up

Charlemagne | The TTIP of the spear

Selling Europe's trade agreement with America as "strategic" has problems

IT IS becoming hard to remember a time when Europe was not in crisis. The European Union doused the Greek fire (though the embers still glow) only to be confronted with flows of refugees it could not manage. Relations with Russia, already gravely wounded by the invasion of Ukraine, are now further complicated by the Kremlin's deployment in Syria. And Britain's long-dormant "renegotiation" of the terms of its EU membership is about to blow up into a high-stakes affair that could end in Brexit (see our special report in this issue).

Next to this house of horrors, striking a trade deal should have been easy. So Europe's leaders thought when they gave the European Commission a mandate to negotiate the Transatlantic Trade and Investment Partnership (TTIP) with America in 2013. The EU could do with a jolt of growth, and America is a natural partner; there should have been no rows about cheap goods undermining European workers. Yet TTIP has run into a wall of opposition. Polls show majorities oppose it in several countries. Local authorities across Europe have (meaninglessly) declared themselves "TTIP-free zones". On October 10th at least 150,000 Germans marched in Berlin to register their disapproval.

What explains the fears? Friends and foes agree on one point: TTIP is not your grandparents' trade deal. As with the Trans-Pacific Partnership (TPP), a recently concluded agreement between America and 11 other countries, eliminating tariffs is the smaller part of TTIP because there are few left to cut. Modelling is hard, but the European Commission reckons slashing "non-tariff barriers" would account for four-fifths of the 0.5% boost to European GDP that an "ambitious" deal could bring by 2027. These hurdles include equivalent but incompatible rules on matters like food testing and car safety, which make it expensive for American and European manufacturers to operate in each others' markets.

That sounds deathly dull, but to TTIP's opponents such "regulatory co-operation" is a trap that will force chlorine-soaked chickens down European throats and fracking pumps onto their land. Dealing with such complaints, sighs a Eurocrat, "is like fighting Russian propaganda". But discard the myths and you are left with an awkward truth: "new-generation" deals like TTIP that focus on rules rather than tariffs are vulnerable to citizens' suspicions of a concealed takeover by corporations bent on destroying jobs and welfare rights. Such worries have already forced the EU's trade commissioner, Cecilia Malmstrom, into a partial retreat on a measure of TTIP that lets firms sue governments. Moreover, the deal's fuzzy nature makes credible economic forecasts hard. Opposition has been fiercest in Germany and Austria, two countries with strong social systems and low rates of unemployment: lots to lose and not so much to gain, critics would say.

So now TTIP's supporters are emphasising two related strategic arguments. First, TTIP will cement the alliance between the world's great democratic powers at an unstable time; some speak of an "economic NATO". Second, establishing common, or mutually recognised, standards in the world's two largest consumer markets will oblige the rest of the world to follow suit, even on such matters as labour and human rights. And if Europe and America account for a declining share of global economic output, all the more reason to establish the rules of the road today. A new EU trade strategy launched by Ms Malmstrom this week seeks to put such ideas into practice in new deals with countries like Australia and New Zealand, even if the details remain murky.

There is something to all this. TTIP cheerleaders in tricky countries like Austria say hostile audiences can be turned when the deal is presented as an alliance between democracies. Russia has been doing its best to undermine the TTIP talks, which suggests the negotiators are on to something. Angela Merkel, Germany's chancellor, is said to find the strategic case for TTIP more persuasive than the economic one, although as yet she has done little to try to win over her sceptical electorate.

Yet there are plenty of dangers, too. If bilateral or regional deals draw on values rather than economics, there is a risk of alienating those left outside. Such agreements may end up poisoning the multilateral system, which is already sickly. Talk of an economic NATO may not appeal to those who do not much like the military original: such people will recoil rather than rejoice at talk of tightening the transatlantic embrace. Lastly, there is a separate risk in Britain, which will hold an in/out referendum by the end of 2017. Its Eurosceptics say the country would be better off striking its own trade deals rather than relying on the deadbeats of Brussels. If TTIP goes nowhere, some Britons will think they have a point.

The EU's superweapon: regulations

The TTIP negotiations have slowed to a crawl; even the discussions on tariff elimination, which was supposed to be the easy bit, have dragged. (The two sides will discuss a new offer at talks in Miami next week.) Heads were knocked together at a recent meeting in Washington, and negotiators are hopeful that some sort of deal can be struck before the end of Mr Obama's term in January 2017. If they fail, the next inhabitant of the White House may discover other priorities, and the deal could fall hostage to elections in France and Germany.

That would undermine a European approach that awaits its first test. Unlike foreign policy, trade happens to be an area in which the EU wields real authority. But the EU's experts deal with phytosanitary standards and documentation requirements, not grand strategy. Trade agreements can be deadly weapons, as the EU learned in 2013, when a deal its technocrats offered Ukraine was interpreted by Vladimir Putin as a geopolitical offensive, triggering revolution and war. That the EU has started to think more seriously about trade as a tool of foreign policy suggests it has learned this lesson well. But it should be mindful of the risks. ■

Also in this section

For daily analysis and debate on Britain, visit
Economist.com/britain

The economy

The other deficit

How worrying is Britain's large current-account deficit?

HEAR any politician talk of "the deficit", and he or she will now always be referring to the balance of tax revenues and public spending. The Conservatives boast of cutting the budget deficit from over 10% of GDP in 2010 to 5% now. But in the same period the current-account deficit, over which politicians obsessed in the 1960s but nobody any longer mentions, has yawned (see chart). Although it shrank in the second quarter, weak trade data suggest it will rise again in the third. No big developed country has a bigger current-account deficit as a share of GDP. In absolute terms Britain has the world's second-largest deficit, behind only America. Is this a problem?

The current account is often misunderstood. It comprises three things. First, the difference between exports and imports of goods and services. Second, the gap between what British investors earn on foreign investments and what foreigners earn on their investments in Britain. And third, transfers such as money sent to and from Britain by migrant workers. In total it measures how much Britain is either lending to or borrowing from abroad.

Weak export performance is partly to blame for Britain's large deficit. In 2011 George Osborne, the chancellor, promised a "march of the makers" to rebalance the economy towards manufacturing exports. In fact, the volume of goods exports may be 10% lower this year than in 2011. However, disappointing net income from foreign investment is the main cause of the deterioration in the current account.

Britons have invested heavily in crisis-stricken Europe, with 9% of the country's foreign assets in France and 7% in the Netherlands. Yet much less has gone to countries that have stronger growth and thus offer higher returns. Less than 1% of British overseas assets are in China, and an even smaller share in India. On the other side of the equation, foreigners' investments in Britain have paid off handsomely, because Britain is now one of the fastest-growing countries in the rich world. This year dividend payments from British companies are expected to end up as much as 30% higher than they were in 2010, according to Capita Asset Services, a financial-services firm.

Bad bets

British current-account deficit as % of GDP

Source: ONS

*The Economist estimate

To finance its current-account deficit, Britain has sold assets to foreigners, from chocolate factories to posh London homes. It has also taken on more debt. Frugal sorts complain that Britain cannot pay its way in the world and that wealth is draining from the country. Others fret about the growing risk of a sharp and painful current-account adjustment as foreign investors withdraw support, of the kind Britain suffered in the 1960s and 1970s.

Yet a large current-account deficit is unlikely to prove as damaging as it once was. Past crises often came about because of failed attempts to support a currency peg. The pound now floats freely. If Britain's external deficit stays too large for too long, sterling will fall to help correct it. This would not be entirely painless. In the years following the global financial crisis, a much weaker pound pushed up inflation and crushed the real incomes of British householders. But such exchange-rate flexibility is the best defence against an abrupt funding crisis. In any case, the liabilities Britain has taken on to finance its recent current-account deficits are largely made up of equity and long-term debt, according to a paper from the Bank of England. Such capital is stickier than deposits or short-term debt, which can vanish in a trice.

Foreigners believe British assets are a good bet. Few economies with secure property rights and credible governance have decent growth. The euro-zone economy, for instance, may grow by no more than 1.5% this year. Japan is again flirting with recession. Britain is thus a favoured bolthole for skittish investors fleeing the trouble in emerging markets. Investors are more willing to finance a current-account ▸▸

deficit if the borrower's underlying wealth is solid. Net foreign assets, a measure of the value of assets owned abroad minus the value of domestic assets owned by foreigners, are worth around 35% of GDP, if foreign-direct investments are valued at current market prices, according to Ben Broadbent of the Bank of England.

The Brexit risk

In one way, though, Britain looks less solid. Its appeal to investors might diminish markedly if it looked like leaving the European Union. European investors hold most of Britain's short-term liabilities; plugging the current-account gap might become harder without a big fall in sterling, if sentiment soured on Britain.

The balance-of-payment risks from "Brexit" would be more manageable if the current-account deficit were smaller. Yet in the short term there is not much policymakers can do to reduce it. Public-spending cuts help to reduce the budget deficit, raising national saving. But with export markets weak, curbs on domestic demand might easily lead to job losses and dangerously low inflation. Mr Osborne wants to revive exports, but improvements might take years to come through.

Ideally the deficit would narrow gradually. A rising share of Britain's trade deficit comprises capital goods, which should produce future returns that help to repay debts. Countries with rapidly ageing populations such as Germany (which holds one-tenth of Britain's external liabilities) may start to draw down their foreign investments as people retire. Stronger growth in the rest of Europe would help the adjustment.

As long as foreigners continue to prize British assets, there is no reason why a current-account deficit at present levels cannot continue. Capital flows to countries that can make productive use of it. For now investors think the British economy fits the bill. But if that perception were suddenly to change, Britain might pay more anxious attention to its other deficit. ■

Views on Europe

Not team players

MORLEY, PUDSEY AND NUNEATON

Many ordinary Britons are resigned to staying in the European Union

THE European Union does not have many ardent fans in the Butcher's Arms pub in Pudsey, a town near Leeds. "If we had not joined, we would not know the difference," says Barry Harman, a carpet-fitter. "We all think it's basically absolute crap," says Richard Smeeton, a pensioner. Others complain of immigrants claiming benefits or of the cost of membership—which punters in the pub put at around £70m ($107m) a day (it is actually less than half that). "What good does it do?" shrugs Tony Allen, a chef.

Britons are generally pretty Eurosceptical. They view the EU with more wariness than other Europeans. It is partly because of this scepticism that Britain has not joined the euro and is not in the Schengen passport-free area. Although support for leaving the EU is not as high as it was in the depths of the recession, over the past year the opinion polls, which had tended to show a majority for staying in, have tightened and even in one case found a small majority for "Brexit" in the government's promised referendum (see chart).

Ask me again

In a referendum on Britain's membership of the European Union, how would you vote?

%

Source: YouGov

*Remain a member, with yes/no answer
†Remain a member of EU or leave EU

Despite this, when asked if they would actually vote to leave, locals in Pudsey, and in Morley and Nuneaton, two other marginal Conservative seats in Yorkshire and Warwickshire, are less certain. Few in the Butcher's Arms seem keen to do so—citing fears over the economy and foreign affairs. ("The Russians are sneaky buggers," says Mr Harman.) This means that the campaign to stay in the EU, "Britain Stronger in Europe", launched on October 12th under the chairmanship of Lord Rose, a former chief executive of Marks & Spencer, should have everything to play for.

When asked, many cite immigration as a reason for disliking the EU. "I'd like to tighten up our borders," says one female shopkeeper in Morley, an area where, according to the latest census, over 90% of the population are white British. Others complain about an over-burdened National Health Service or a shortage of housing. In some cases, fears over immigration reflect a general dissatisfaction over how Britain has changed, particularly among older voters. "I think this country will sink soon," says Cheri, a retired 73-year-old in Nuneaton who thinks the county is now "inundated" with people. Coventry, now a multicultural city, is unrecognisable from when she grew up there, she adds.

Supporters of Brexit also tend to imbue Britain with more economic or political clout than it really has. "All they are doing is dragging us down to their level," asserts Tony Hart, who runs a tobacco stall in Morley. "[There is] not a country in Europe that is thriving," he adds. Others argue that Britain could go it alone, trading with America and China, or evoke a sense of British exceptionalism, particularly to do with the second world war. This nostalgia also makes them more vocal about their willingness to leave.

In contrast, many who will vote to stay say they are doing so out of fear that the alternative will be worse, rather than from any particular attachment to the EU. "We are not the country that we used to be," sighs an elderly female shopper in Morley. Several worry about what would happen if there were another recession.

Partly because the In campaign has so far been less vocal than the Outs, many people have not given the issue much thought. "I don't want to leave the EU. I just want to leave Nuneaton," quips a flower-seller there. And many do not feel informed about the arguments on either side. Jessica, who works in a Tarot shop in Morley, admits that she does not know much about the EU as she does not read the newspapers. But she likes the idea of "unity" and "people standing together".

This presents a challenge to the In campaign, despite the natural ambivalence of voters. Those lobbying for Britain to stay in the EU face a similar problem to those who argued for Scotland to stay within the United Kingdom: that the arguments for change seem more exciting. As one Labour peer puts it, the In campaign needs a dash of romance as well as a business case. This would counter the idea that it is somehow more patriotic to vote to leave. It may also make supporters more vocal about why they want to stay in.

Some such emotional appeal is certainly needed: so far, the campaign for Brexit has been more effective at getting its points across. Although Britain is not a nation of extremes, as an island it has more sense of separateness than most of the rest of Europe. This means that the In campaign cannot be complacent. Many Britons are cautious about leaving—but few can articulate the advantages that being part of the EU brings. Until they do so, the polls will remain perilously close. ■

Bagehot | In Cawdor's shadow

The soft autocracy of nationalist Scotland

CROFTERS in the Scottish Highlands live many miles apart, but they are a tribe nonetheless. At Dingwall Mart—a centre for the cattle trade since the days when man and beast travelled by foot down the old drove roads—backs are slapped, weather-beaten hands grasped and relatives asked after. The auctioneer, singing out bids as each lot of cows or bulls is herded into the pen, knows everyone by sight. Most folk here inherited their land and tenures, explains Roddy, who rears shorthorns and limousins ("limmers") on his croft near Brora. "We do things our way."

So it was with consternation that crofters learnt in 2012 that the government in Edinburgh would appoint the first head of the new Crofting Commission rather than letting their representatives choose. Tavish Scott, an opposition member of the Scottish Parliament, spoke of a "Saltire underpants test", accusing the Scottish National Party (SNP) government of politicising the body that oversees the allocation of crofting land. Sure enough, the crofters found Susan Walker, the SNP pick, too obedient to Holyrood. Facing a vote of no confidence, she resigned in May.

The saga reflects a broader story. Even as the SNP preaches freedom, devolution and pluralism in Britain, within Scotland it hoards power, stamping on regional differences, tightening the state's control and marginalising critics. One would never know this from its left-liberal message at its annual conference starting on October 15th. This rhetoric has helped give the party its political dominance (it has 56 of Scotland's 59 seats in Westminster and a majority in the Scottish Parliament that may grow next year).

To observe Scotland's public sector is to witness the SNP's control-freakery. Where councils once held sway, SNP ministers oversee hospitals, police departments, regional development agencies, fire services and even local tax levels. COSLA, the local authorities' representative body, calls Scotland "the most centralised country in Europe". In Inverness the fire-control room has been closed. The constabulary, with responsibility for an area the size of Belgium, is going too. The SNP has concentrated cuts on local, frontline services (Scottish councils are twice as indebted per head as English and Welsh ones, despite the country's disproportionately generous funding). From the centre, meanwhile, it has doled out lavish universal goodies such as free university education, medical prescriptions and care for the elderly.

The SNP government has extended its reach into non-fiscal realms. One proposal enables ministers to force landowners they do not like to sell up. Police officers can patrol sleepy Highland settlements with guns and use stop-and-search powers more than before. From next year, every Scottish child is due to have a state guardian. An Orwellian national identification register is in the works. Ministers pillory sceptical academics, civil servants, journalists and judges, give orders to councillors and, it is said, bully firms and voluntary bodies that demur. Rigid discipline prevails within the SNP: prominent dissenters are ousted, while bosses rarely rebuke the party's online activists for abusing heretics and peddling conspiracy theories.

Unsurprisingly, the result is poor government. Tax receipts frittered away on "free" middle-class giveaways, combined with a snooty rejection of England's decentralising public-sector reforms, have seen hospital waiting lists grow. Literacy rates are falling while class sizes rise. Fewer Scots from poor families go to university than their English equivalents, and the gap is growing. In August the European Commission suspended regional-development payments over doubts about Edinburgh's ability to spend the money wisely.

Yet the opposition is weak. That is partly its own fault; both Labour and the Tories have long overlooked Scotland, notwithstanding recent attempts to make up for it. The SNP's pre-eminence, boosted by a surge in support after its failed secessionist referendum last year, sidelines alternatives. The party dominates a legislature that has no upper house and provides its speaker, its members having defied a convention that would have seen a Labour representative take the post. Scrutiny committees are mostly in SNP hands—and it shows. Last year the Public Petitions Committee crushed a proposal for a separate independence plebiscite for Scotland's (broadly unionist) outer islands. Four of the country's daily newspapers backed the party in May's general election; only one backed any other party.

Vaulting ambition which o'erleaps itself

Ironically, the Scottish government's underperformance rests precisely on the formula that makes it dominant. Special-interest groups are indulged, populist spending protected, services left unreformed for fear of making enemies, tabloid-friendly changes embraced and an "other" (the English, represented by Westminster) fingered for every failure or disappointment. The SNP's soft autocracy in Scotland is the thread holding together the party's distinctive tartan of universal handouts, leftist posturing, melodramatic flag-waving and structural conservatism. It amounts to a style of government that is more akin to Argentina's Peronists than to the reformist Scandinavian social democrats to whom SNP politicians flatteringly compare themselves.

Push SNP types and they fall back on independence. A free Scotland, they say, can improve public services, experiment and let a thousand flowers bloom. For now the country must stand together. Bagehot does not doubt the good faith of the thousands who campaigned for the party, still less of the millions who voted for it. Yet he cannot but notice that a centralised government, stringent uniformity and unity above all else works nicely for the SNP. Tight control in the name of separation has made it one of the most successful political forces in the West. Touring the Highlands, where Edinburgh looks as imposing, and as distant, as London, a thought comes to mind: it is less that the SNP is pro-independence than that the struggle for independence is pro-SNP. ■

Sea power

Who rules the waves?

China no longer accepts that America should be Asia-Pacific's dominant naval power

IN THE next few days, out of sight of much of the world, the American navy will test the growing naval power of China. It will do so by conducting patrols within the putative 12-mile territorial zone around artificial islands that China is building in the disputed Spratly archipelago. Not since 2012 has America's navy asserted its right under international rules to sail so close to features claimed by China. The return to such "freedom of navigation" patrolling comes after a visit to Washington by Xi Jinping, China's president, that failed to allay concerns about the aggressive island-building in the South China Sea.

China will protest, but for now that is probably all it will do. The manoeuvres are a clear assertion of America's sea power, which remains supreme—but no longer unchallenged. The very notion of "sea power" has a 19th-century ring to it, summoning up Nelson, imperial ambition and gunboat diplomacy. Yet the great exponent of sea power, the American naval strategist Alfred Thayer Mahan, who died in 1914, is still read with attention by political leaders and their military advisers today. "Control of the sea," he wrote in 1890, "by maritime commerce and naval supremacy, means predominant influence in the world; because, however great the wealth product of the land, nothing facilitates the necessary exchanges as does the sea."

Sea power of both the hard, naval kind and the softer kind that involves trade and exploitation of the ocean's resources is as vital as ever. Bits and bytes move digitally, and people by air. Physical goods, though, still overwhelmingly go by sea: a whopping 90% of global trade by weight and volume. But the sea's freedom and connectivity are not inevitable. They rely on a rules-based international system to which almost all states subscribe for their own benefit, but which in recent decades only America, in partnership with close allies, has had the means and will to police.

Since the second world war, America's hegemonic power to maintain access to the global maritime commons has been challenged only once, and briefly. In the 1970s the Soviet Union developed an impressive-looking blue-water navy—but at a cost so huge that some historians regard it as among the factors that brought the Soviet system to collapse less than two decades later. When the cold war ended, most of that expensively acquired fleet was left to rust, abandoned in its Arctic bases.

That may now be changing. On October 7th Russia ostentatiously fired 26 cruise missiles from warships in the Caspian Sea at targets in Syria (it denied American claims that some fell in Iran). Vladimir Putin, Russia's president, milked the propaganda value: "It is one thing for the experts to be aware that Russia supposedly has these weapons, and another thing for them to see for the first time that they really do exist." Western military planners must now contend with Russia's demonstrated ability to hit much of Europe with low-flying cruise missiles from its own waters.

But by far the more serious naval challenger is China. From modest beginnings it has created a navy that has grown from a purely coastal outfit to a potent force in its "near-seas", ie, within the first island chain from Japan to the Philippines (see map on next page). It is now evolving again, into something even more ambitious. Over the past decade, long-distance operations by the People's Liberation Army Navy (PLAN) have become more frequent and technically demanding. As well as maintaining a permanent counter-piracy flotilla in the Indian Ocean, China conducts naval exercises far out in the western Pacific. Last month a group of five Chinese naval vessels passed close to the Aleutian Islands after a Russian-Chinese military exercise.

The sea's the thing

In May China issued a military white paper that formalised the addition of what it calls "open-seas protection" to the PLAN's "offshore-waters defence" role. A strategy that used to put local sea control first now emphasises China's expanding economic and diplomatic influence. The primacy China once gave its land forces has ended.

> The traditional mentality that land outweighs the sea must be abandoned, and great importance has to be attached to managing the seas and oceans and protecting maritime rights and interests. It is necessary for China to develop a modern maritime force structure commensurate with its national security.

Taiwan remains at the centre of these military concerns. China seeks to develop not only the means to recover the renegade province (as it sees it), by military means if necessary, but also to fend off Taiwan's main protector, America. China has not forgotten its humiliation in 1996 when America sent two carrier battle groups, one through the Taiwan Strait, to deter Chinese missile tests aimed at intimidating the Taiwanese government. America's then-defence secretary, William Perry, crowed that, although China was a great military power, "the strongest military power in the western Pacific is the United States."

China is determined to change the balance. It has invested heavily in everything from shore-based anti-ship missiles to submarines, modern maritime patrol and fighter aircraft, to try to keep America beyond the first and, ultimately, second island chains. China is also seeking the ability to patrol the choke points that give access to the Indian Ocean, through which most of its oil imports enter. About 40% comes through the Strait of Hormuz and over 80% through the Malacca Strait. Among the goals it appears to have set itself are to protect economically vital sea lanes; to constitute a dominating presence in the South and East China Seas; and to be able to intervene wherever its expanding presence abroad, whether in terms of investment or of people, may be threatened.

In August the Pentagon announced a new Asia-Pacific Maritime Security Strategy. It stresses three objectives: to "safeguard the freedom of the seas; deter conflict and coercion; and promote adherence to international law and standards". It confirmed that America was on schedule to "rebalance" its resources by deploying at least 60% of its naval and air forces to the Asia-Pacific by 2020, a target announced in 2012. Ray Mabus, the navy secretary, has asked Congress for an 8% increase in his budget, to $161 billion for the next fiscal year; he wants the navy to grow from 273 ships to at least 300. Some Republicans say that 350 is the right number.

Is America right to be worried? The way China is going about becoming a global maritime power differs somewhat from the Soviet Union's great period of naval expansion. Apart from the powerful Soviet submarine fleet, the main purpose of which was strategic nuclear strike and stopping American reinforcements crossing the Atlantic to come to Europe's aid, the Soviet navy was mostly concerned with expressing great-power status and extending Soviet influence around the world through "presence" missions that impressed allies and deterred enemies.

Power plays

These matter to China, too: a central element of what Mr Xi calls the "China dream" is its transformation into a military power that can cut a dash on the world stage. When large naval vessels exercise or enter port far from home they can be used to influence and coerce. It is understandable that a country of China's size, history and economic clout should want some of that. Nor is it strange that China should want to prevent a possible adversary (ie, America) from operating with impunity near its own shores.

What makes China's rise as a sea power troubling for the countries that rely on America to maintain the rules-based international order and the freedom of the seas are its behaviour and where it lies. The Indian Ocean, South China Sea and East China Sea are vital transit routes for the world economy. Eight out of ten of the world's busiest container ports are in the region.

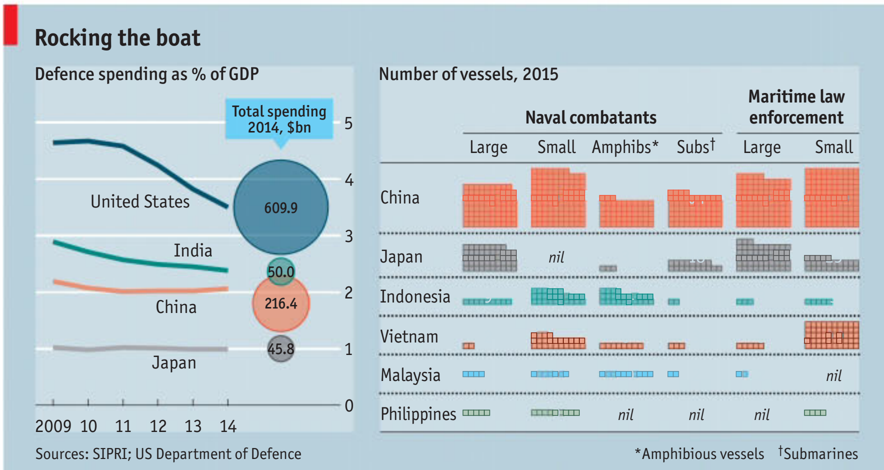
Two-thirds of the world's oil shipments travel across the Indian Ocean on their way to the Pacific, with 15m barrels passing through the Malacca Strait daily. Almost 30% of maritime trade goes across the South China Sea, $1.2 trillion of which is bound for America. That sea accounts for over 10% of world fisheries production and is thought to have oil and natural-gas deposits beneath its floor.

Much of this is contested, with China the biggest and most aggressive of the claimants. In the South China Sea Beijing's territorial disputes include the Paracel Islands (with Taiwan and Vietnam); the Spratlys (with Taiwan, Vietnam, the Philippines, Malaysia and Brunei) and Scarborough Shoal (with the Philippines and Taiwan). China vaguely claims sovereignty within its so-called nine-dash line over more than 90% of the South China Sea (see map). The claim was inherited from the Kuomintang government that fled to Taiwan in 1949; whether this applies only to the islands and reefs, or to all the waters within it, has never been properly explained. In the East China Sea a dispute with Japan over the Senkaku Islands (which Japan controls) rumbles on, though the mutual circling of coastguard vessels has become more ritualised of late.

America takes no position on these disputes, insisting only that they should be resolved through international arbitration rather than force, and that all sovereignty claims should be based on natural land features. Yet China is using its growing sea power coercively, carrying out invasive patrols, encroaching on other claimants' waters and, most recently, creating five artificial islands in vast land-reclamation projects on previously submerged features (which, under the UN Convention on the Law of the Sea, do not grant entitlement to the 12-mile territorial waters). These are being equipped as advanced listening posts and three are getting runways and hangars, meaning they can rapidly be put to military use.

China is not the first to build in the area. But in less than two years it has reclaimed nearly 20 times as much artificial land as rival claimants together have in the past 40. Its bases would be easy for America to neutralise; but, short of war, they allow China to project military power much farther than hitherto. No wonder America's national security adviser, Susan Rice, recently vowed that American forces will "sail, fly and operate anywhere that international law permits", and that those "freedom of navigation" patrols would resume.

The Pentagon document notes that the PLAN now has the largest number of vessels in Asia, with more than 300 warships, submarines, amphibious ships and patrol craft. Indonesia, Japan, Malaysia, the Philippines and Vietnam can muster only about 200 between them, many of those



older and less powerful than China's (see table). This preponderance is hardly less daunting when it comes to maritime law-enforcement vessels: it has 205 compared with 147 operated by those five countries, which it often uses to stake its territorial claims while more lethal naval forces lurk over the horizon. Although nearly all the countries in dispute with China are trying to buy or build new ships, the capability gap continues to widen.

On the horizon

China could therefore threaten, if so minded, the rules and norms governing maritime boundaries and resources, freedom of navigation and the peaceful resolution of disputes. Would America be ready to face that challenge? Those who fear that America's ultimate retreat is inevitable are almost certainly wrong. Although growing fast, China's entire (official) defence budget is not much more than that of America's navy alone. America has ten nuclear-powered supercarriers, one of which is permanently based in Japan. China has just one, a small, refurbished Soviet-era affair, and two more under construction. All three of America's latest Zumwalt-class stealth destroyers (pictured), the world's most advanced surface warships, will be deployed in the Asia-Pacific region along with other new ships and aircraft. Chinese military experts believe that the PLAN will take another 30 years to match the efficiency of the American navy.

America also has the advantage of having other navies to work with and alongside, both in the region and globally. Japan's Maritime Self-Defence Force lacks power-projection, but is regarded as the fifth-best navy in the world and is used to exercising with the American navy. The relaxation of national-security laws last month, allowing the Japanese navy to co-operate much more closely with allies on a greater range of missions, went down badly in Beijing. And Japan is working hard with regional neighbours who are in territorial disputes with China. It has made soft loans to the Philippines and Vietnam for new patrol vessels and older destroyers.

The Indian navy is another powerful ally. As concern about China has grown, it has started to drill with Western navies, who rate its competence highly. The annual Malabar exercise with the American navy now also includes ships from Australia, Singapore and, this year for the first time, Japan. The newish government of Narendra Modi is aiming for a 200-ship navy by 2027, with three carrier task groups and nuclear-powered submarines.

Catching up with the PLAN is impossible, but the Indian navy is determined to stop the Indian Ocean becoming a "Chinese lake". Indian strategists have long believed that China is establishing a network of civilian port facilities and underwriting littoral infrastructure projects to boost its vessels' ability to operate in waters which the Indian government thinks should be under its dominion. China now often sends its nuclear-powered submarines into the Indian Ocean.

China has benefited as much as any other country from the hegemonic power of the American navy to preserve peace in the Asia-Pacific region. This has helped its remarkable growth. Yet it seems determined to challenge that order. It is understandable that China should want to make it riskier for the American navy to operate close to its own littoral. And for a country that wants a "new type of great power relationship", relying on America to police the seas is demeaning, though the notion that America and its allies are threatening to blockade the sea lanes of communication that are the arteries of China's, and the world's, trade is fanciful in any scenario short of war. But should it ever come to war over, say, a Chinese invasion of Taiwan, China will want to deny America the ability to come to Taiwan's aid, or at least delay it. The flip-side is that by developing a navy which intimidates its neighbours, China is driving them ever more closely into America's embrace.

Moreover, being a strong but still second-best sea power can result in disastrous miscalculation. Germany challenged British naval supremacy early in the 20th century by provoking ruinously expensive competition in battleship construction. But it was still powerless to break Britain's blockade during the first world war. As for Japan, six months after its surprise attack on Pearl Harbour during the second world war, it lost the decisive battle of Midway and with it a large part of the fleet it had built with such hubris.

There is nothing wrong with China regarding a powerful blue-water navy as essential to its prestige and self-image, particularly if it eventually concludes that it should be used to reinforce international rules rather than undermine them. The worry is that China itself may not know what it will do, and that the temptation to use it for more than flag-waving, diplomatic signalling and discreet bullying will become hard to resist. As Mahan observed: "The history of sea power is largely, though by no means solely, a narrative of contests between nations, of mutual rivalries, of violence frequently culminating in war." It does not have to be like that, but America must prepare for the worst. ■

Stealthily present

Also in this section

For daily coverage of business, visit
Economist.com/business-finance

Mergers (1)

Partly cloudy

The merger of Dell and EMC is further proof that the IT industry is remaking itself

"THIS is the new normal," extolled a visibly excited Andy Jassy, the boss of Amazon Web Services (AWS), as he reeled off one new service after another at a corporate bash on October 7th in Las Vegas. AWS is Amazon's cloud-computing arm, delivering all manner of services that are hosted in data centres and delivered over the internet. The offerings highlighted by Mr Jassy included something called Snowball, a suitcase-sized box packed with 50 terabytes of digital memory, a dozen of which could hold the entire library of Congress. Firms can use the device to transfer mountains of data to AWS's cloud in one fell swoop. Such snowballs, AWS hopes, will turn into a digital avalanche to fill up even more Amazon data centres.

As the operator of the world's biggest e-commerce site, Amazon has lots of experience running huge computer systems. In 2006 it launched its cloud as a separate business. Today AWS offers hundreds of different services, from raw number-crunching and data storage to encryption and machine learning. It claims more than 1m customers, from the tiniest startups to titans like General Electric.

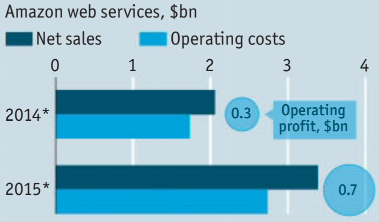
How big Amazon's cloud has become is a well-kept secret. In Las Vegas Mr Jassy said that AWS now has 50 "points of presence" (which may mean big data centres) worldwide and presented many charts showing triple-digit growth, but was silent on absolute numbers. But Amazon has recently started to release financial results for its cloud-computing business which look very promising (see chart).

The new normal feels more threatening if you are one of the old guard. The shift to the cloud is the biggest upheaval in the IT industry since smaller, networked machines dethroned mainframe computers in the early 1990s. At the same time as Mr Jassy was tub-thumping in Nevada, Michael Dell and Joe Tucci, the chief executives of Dell and EMC, big makers of computers and digital storage devices respectively, were hammering out their own response to this changing landscape.

The agreement that they announced on October 12th, whereby Dell will acquire EMC for $67 billion, is the biggest technology deal ever, adding to a wave of mergers across many industries (see next article). It can still be called off if another suitor for EMC emerges, but that looks unlikely. Activist investment funds led by Elliott Management, which has a 2.2% stake in EMC, had been pushing the firm to boost its share price. Elliott, which stands to make a profit of more than 20% on the deal, has said it "strongly supports" the merger. Around $45 billion of debt financing, which Dell and its partner Silver Lake, a private-equity firm, need to complete the takeover, is securely in place.

Computing with a chance of profits

Amazon web services, $bn



Source: Company reports *Six months to June 30th

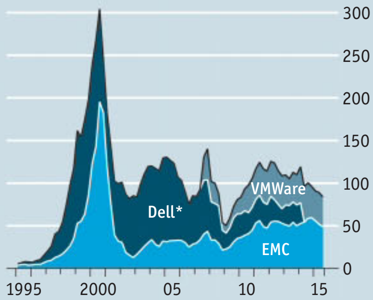
The deal is not without risks, however. The big debt load is one, although Dell has been successfully paying back money it borrowed for its own 2013 buy-out. The task of integrating the two firms will be another challenge, as Meg Whitman, the boss of HP, a rival member of the tech old guard, was quick to point out.

Dell and EMC have long been cognisant of the disruption around them. Mr Dell, who founded his firm in 1984 in his college bedroom, where he built personal computers (PCs) from off-the-shelf parts, took it private in 2013: he wanted to be able to lead it through its transformation without the distractions of quarterly results and activist investors. (This transaction partly reverses that decision thanks to a bit of financial engineering involving VMware, a listed software firm in which EMC holds a large stake: as part of the deal, EMC shareholders will get about a tenth of a share of a new VMware "tracking" stock, which will be issued by Dell's holding company.)

Mr Tucci, for his part, has shown a knack for buying firms that sell key components for cloud computing—and then leaving them alone. The most prized asset in EMC's loose "federation" of firms is VMware, whose "virtualisation" software makes data centres more efficient by spreading work around servers.

Cumulus effect

Market value, $bn



Sources: Thomson Reuters; *The Economist*

*Dell reverted to being privately held in 2013

Yet both Dell and EMC are still dependent on the businesses that first made them big. Since Dell no longer publishes financial results, it is hard to know what exactly is going on. But analysts say that despite a push into selling more corporate technology, such as servers and storage devices, Dell still relies for the majority of its revenues on PCs—a business which continues to decline as a result not just of cloud computing, but the rise of smartphones. Global PC shipments fell by nearly 8% in the third quarter, compared with the same period a year ago, according to Gartner, a research outfit.

EMC's mainstay, digital storage devices of all kinds and related software, is still growing, but not as fast as it used to—because many firms now opt to store data in the cloud or to buy cheaper gear from competitors. Early in this decade storage sales increased by double digits annually, a rate that dropped to 2% last year. As part of the announcement of the merger, EMC released quarterly results that came in below financial analysts' expectations.

All of which helps to explain why Messrs Dell and Tucci are keen to merge their companies. The deal, says Steven Milunovich of UBS, a bank, will strengthen Dell's business of selling computing infrastructure to companies rather than PCs, and also gel with another development in the IT industry: converged hardware. Traditionally, servers, storage devices and networking equipment have been bought separately. Now they are being increasingly offered in integrated bundles by one vendor, sparing customers the tedious task of making them work together smoothly—a trend that has been pioneered by EMC in a joint venture with Cisco, a big maker of networking gear.

The next step, which some big cloud operators that make their own machines are already taking, is to merge the different components in basic computers and have software turn them into servers, storage devices or routers as needed. Dell, which excels at making commodity hardware, seems to hope that it will be able to sell such converged devices to firms that want to build their own "private" clouds, and perhaps even to big cloud providers, many of which now have contract manufacturers put together their hardware.

A broader question is whether the merger will trigger a flurry of other deals. The deconstruction and reconstruction of the IT industry has already begun, even if full-scale consolidation is not imminent. HP has already made the decision to split itself in two on November 1st. Earlier this year Oracle was mentioned as a potential buyer of Salesforce.com, a big provider of web-based business software.

If history is any guide, the industry's old leaders won't be its new ones. Of the proud mainframe companies, after all, only IBM and SAP still stand tall. Even after the merger, it is not assured that Dell will remain in the top league. So far, the only firm from the old guard that seems certain to keep a spot is Microsoft, which has managed to build a sizeable cloud business called Azure. Google, another big cloud provider, also seems likely to be among the new IT kingpins. But the biggest cloud of all belongs to Amazon—which looks ever more likely to be the new top dog of the tech pack. ■

Mergers (2)

The beerhemoth

NEW YORK

SABMiller is AB InBev's toughest takeover yet. It may not be its last

THE battle lasted one tumultuous month. In September SABMiller, the world's second-largest brewer, said it was the target of a takeover by its bigger rival, AB InBev. There followed a volley of bids, skirmishes in the press and tense private talks: between them, the firms' main shareholders include a big tobacco company, the dashing scion of Colombia's richest family and three Brazilian billionaires, not to mention South Africa's public-investment fund. On October 13th, one day before a deadline mandated by British takeover rules (SABMiller is listed in London), the companies announced a tentative deal.

If it is completed, the £69 billion ($106 billion) merger would be the third-largest in history. The combined brewer would earn about half the industry's profits and sell one in three pints worldwide. But agreeing on a deal price was, in relative terms, straightforward. Executing the merger, let alone running the resulting behemoth, will be more difficult.

It is little surprise that AB InBev got an agreement. Its history is one of voracious acquisition. In 1989 the three founders of 3G, a private-equity outfit, invested in a middling Brazilian brewer. That firm then guzzled bigger rivals on three continents to become the world's largest beer company. AB InBev has also been feeling parched recently. Consumers in many big markets are switching beverages. When they do drink beer, they are increasingly choosing "craft" brewers. Last year beer volumes in America stayed flat, but craft brewers saw volume hop up by 18%. AB InBev's share of America's beer market sank from 50% to 45% over the past five years, according to Euromonitor, a research firm.

The acquisition of SABMiller offers a quick way to reach new markets: the firm earns 29% of its profits in Africa, for instance, where AB InBev does little business. An acquisition would also let the famously frugal AB InBev unleash its cost-cutters on another company.

Yet many steps remain before the deal is done. Under the terms outlined this week, AB InBev would pay a mix of cash and shares to SABMiller's biggest stockholders—Altria, a tobacco firm, and Colombia's Santo Domingo family—to help them avoid a hefty tax bill. Other investors would receive £44 a share, 50% more than they were worth a month ago. AB InBev now has until October 28th to pore over SABMiller's books and finalise its bid.

It will take much longer to win regulators' approval. Antitrust concerns may force AB InBev to sell SABMiller's stake in ▶▶

The next bottle may be a Coke

MillerCoors, in America, and in CR Snow, China's biggest brewer. SABMiller's other partners may also present trouble. The firm is an important bottler for Coca-Cola in Africa. The soda giant is unlikely to want a partner to be controlled by AB InBev, itself a bottler for PepsiCo in Latin America.

If and when the deal does close, AB InBev has to make it work. Becoming a bigger company does nothing to stop the advance of craft brewers or convince oenophiles to buy beer instead. And AB InBev's undoubted talent for cutting costs faces a tougher task in this instance. SABMiller is already lean. It also has scattered operations, which will make it harder to find redundant factories and workers.

AB InBev has its work cut out, but Trevor Stirling of Sanford C. Bernstein, a research firm, is among those who nonetheless wonder if the company's biggest deal may still be to come. Before the takeover announcement, some had murmured that 3G or AB InBev might try to buy Coca-Cola, a company with fat to trim. Soft drinks comprise about one-fifth of SABMiller's volumes. Acquiring Coca-Cola would create a leviathan with a huge global infrastructure of bottlers and other production assets. Marketing could be kept separate, if need be. The idea is, on its face, so bold as to seem absurd. But if recent beer deals are any indication, it is not impossible. ■

Ferrari's IPO

Wheel spin-off

An Italian supercar-maker fancies itself as a luxury-goods firm

I'm so prancy

AT AROUND €1.4m ($1.6m) LaFerrari, the flagship model of the Italian supercar-maker (pictured), is expensive. It is exclusive too; just 499 will roll off the production line. Jet-fighter styling and doors that scissor upwards add to the extravagance. The car appears to lend credibility to the argument of its parent, Fiat Chrysler (whose chairman, John Elkann, sits on the board of *The Economist*'s parent company), that Ferrari deserves a loftier valuation, at its initial public offering this month, as a luxury-goods firm, not a lesser one as a carmaker.

Squeezing every ounce of performance out of Ferrari is important. Selling 10% of the firm in an IPO in New York, which is expected early next week, will help to pay for Fiat Chrysler's ambitious investment plans. (Fiat Chrysler's investors will eventually get 80% of the stock; a Ferrari family member owns the other 10%.) At the upper end of the price range Ferrari would be worth nearly €10 billion, half the value of Fiat Chrysler itself. Sceptics, who regard Ferrari as just a carmaker, albeit a successful one, reckon it is worth €6 billion.

Few would argue with Sergio Marchionne, boss of Fiat Chrysler, that Ferrari is "unique". Its prancing-horse logo is recognised around the world. It sells around 7,000 cars a year, nearly three times as many as Lamborghini, a rival owned by Volkswagen. The least expensive Ferrari costs some €180,000. The firm has consistently turned a profit and, for the car industry at least, makes a handsome operating margin of 14-16%.

But is this enough to propel Ferrari into the ranks of luxury-goods firms? A production cap preserves exclusivity but limits growth. Other carmakers may envy its margins, but they are some way below those of luxury firms such as Hermès or Prada. The main difference, however, is the level of investment required to launch new models regularly.

Developing a new car is far more expensive than designing a handbag, and making supercars is capital-intensive. Ferrari spent €541m, a fifth of its revenues, on research and development in 2014 (though it is unclear how much of this went on its Formula 1 motor-racing team); capital spending accounted for another 12% of revenues. Moreover, luxury goods can have a longer shelf life. Chanel's best-selling handbag was designed in 1955; each Ferrari model has an eight-year lifespan.

Some of Ferrari's claims, however, have oomph. Unlike Ferrari, luxury firms spend heavily on fancy shops in swanky locations. Filling glossy magazines with pages of advertising is also costly. F1 is Ferrari's only marketing tool. Running a racing team is expensive but prize money and a cut of F1's revenues help it to break even.

The firm may yet boost revenues and margins both from cars and extending its brand to other products. A new cheaper model, the "Dino", is planned. Other ventures adjacent to carmaking are not inconceivable—the Ferrari badge once adorned flash speedboats. There is scope to make more from merchandise, which brings profits of $50m a year and is currently aimed mainly at fans of the F1 team. Ferrari may try to emblazon its logo on more expensive items than baseball caps and polo shirts. But will rich punters covet, say, a Ferrari watch costing thousands of dollars?

Such rational calculations may miss the point, however. Those who question the necessity of a car that can break speed limits three times over may also underestimate the desire of trophy-hunting investors to own Ferrari shares. ■

Poste Italiane's IPO

Post apocalypse

If Italy's postal service appeals to investors, it is not because of the mail

POSTE ITALIANE, which runs Italy's postal service, started out this week on its privatisation road show. It is selling more than a 40% stake in itself. The listing, which is expected to raise €7.8 billion-9.8 billion ($8.9 billion-11.2 billion), puts Italy itself in the shop window. This is the country's biggest privatisation in 16 years and the linchpin of a sell-off programme that the government hopes will signal a fresh direction to foreign investors. It also offers the postal sector another chance, following listings by other European operators and in advance of one by Japan Post, to persuade investors that firms whose traditional business is in deep trouble have a future.

Thanks to the ubiquity of e-mail and other forms of electronic messaging, the number of letters delivered in the European Union dropped from 108 billion in

2008 to 86 billion in 2013, according to the Universal Postal Union, an industry group. The contraction is continuing, says Barclays, a bank, putting it at 5% this year. Such declines make it ever more difficult for operators to comply with requirements to offer their postal services all across their respective territories.

Poste Italiane's letter business was less exposed to this decline than other European services, for the simple reason that Italians have always sent less mail than, say, the French or British: they prefer to talk on the phone. But volumes of marketing bumf slumped during the euro crisis. And the decline has continued since: the company's mail revenues dropped by 6.5% in the first half of 2015.

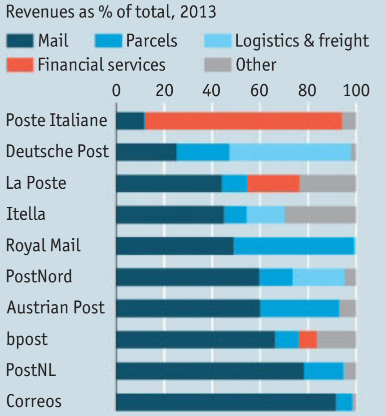
If letters are fading, parcels are thriving. About 4 billion parcels were sent to customers from e-commerce sites across the continent last year, up from 3.7 billion in 2013, according to Ecommerce Europe, an industry group. It expects revenues from online retailing to reach €477 billion in 2015 and €540 billion in 2016.

Other postal services have been quicker to jump on the e-commerce juggernaut than Poste Italiane. PostNL in the Netherlands has launched CheckPay, an anti-fraud service whereby the buyer's payment is released only once the goods have been delivered. And PostNord, the merged Swedish and Danish postal service, has created an offering that allows firms to send parcels to consumers across the Nordic region as easily as they do domestically.

Poste Italiane has been more sluggish. It has a market share in parcels of only 12%, whereas other national postal services typically have about 40-50%. It has not paid enough attention to this part of the business, its bosses admit, but has vowed to catch up. It has struck a deal with Amazon to deliver packets and let customers collect them at post offices. The firm is also experimenting with other ways to take advantage of its distribution network: it has a pilot scheme in Siena to deliver medicines to patients' homes, for instance. To cut costs, Poste Italiane is also being allowed to reduce its delivery service to once every other day in a quarter of its territory—a bigger departure from the principle of universal service than in any other EU country thus far.

Everything but the mail

Revenues as % of total, 2013



Sources: Company reports; IPC; PostNL

But Poste Italiane's real selling-point has nothing to do with postal services, which account for only 14% of revenues and last year notched up losses of €504m (see chart). The bulk of its income comes from insurance (66%) and other financial services (19%). These activities benefit from the firm's trusted brand and its vast network of 13,200 branches across Italy (compared with 3,300 and 4,300 branches for the two biggest banks, UniCredit and Intesa Sanpaolo, respectively).

Having leveraged its client base of current-account holders to develop its insurance business, the group now aims to expand in asset management. In April Poste Italiane acquired 10% of Anima, an Italian fund manager. It plans to offer customers products with higher yields than government bonds (which account for 13.4% of savings in Italy, compared with an EU average of 4.9%). The chance to tap into Italians' large stock of savings, at a time when retail investors are on the hunt for yield, is one of the main messages the company is delivering on its road show.

These non-postal services are what make it possible to contemplate listing a chunk of what otherwise would be a loss-making delivery giant. Total revenues at Poste Italiane were up by 7% to €16 billion, and operating profit was up by 26% to €638m in the first half of 2015. Given how few big firms are listed on Italy's stock market, and in the light of a string of mildly positive macroeconomic data, the firm may turn out to be an attractive investment for those betting on an Italian recovery. Investors may also be seduced by the promise of a dividend pay-out of at least 80% of net profit in 2015 and 2016. Initial demand for the shares is strong. Just don't mention the post. ■

China's film industry

Lost in Shangywood

SHANGHAI

China's booming film market is tantalising but hard to crack

"MY NAME is The Future." So declares a heroic Chinese astronaut in Mandarin after saving the life of Stephen Colbert, an American comedian, during a recent episode of the "Late Show". Dubbed the Pander Express, the sketch mocked how far Hollywood studios are willing to go in modifying their movies to pander to national pride and curry favour with Chinese officials.

American film studios are desperate to win approval for releases in China because its film market is rocketing. From 2003 to 2010 box-office receipts on the mainland grew by an annual rate of more than 40% on average. In 2012 Chinese film revenues passed those of Japan, then the second-biggest market. Chinese box-office receipts are forecast to top $10 billion a year by 2017, when China will be closing in on America as the world's biggest market (see chart on next page).

No wonder, then, that Western entertainment firms have been ploughing money into China. IMAX, which specialises in large-screen theatres, floated shares in its China division earlier this month to finance a big expansion there. In September Warner Brothers announced a joint venture with China Media Capital, a local investment firm, to produce movies palatable to China tastes. CMC is also an investor in Oriental DreamWorks, a local entity collaborating with DreamWorks, an American studio, to make the next in the "Kung Fu Panda" series.

Hollywood should beware the siren song. "The aggregate growth in numbers suggests the streets are paved with gold, but it's not that easy," warns Peter Shiao of Orb Media, an independent production and finance company. There are only two ways for films made abroad to enter the Chinese market: 34 big foreign productions a year are let in via a quota system; Chinese firms are also allowed to acquire the rights to 30 to 40 smaller foreign films a year for a fixed fee.

Because distribution of foreign films is controlled by politicised state-owned entities, even an easing of these quotas—as is now rumoured—will not help much. Liu Cuiping of EntGroup, a research firm, points out that the film-opening schedule is an important protectionist tool. This July, typically a big month for movies, for example, no new Hollywood blockbusters were permitted on Chinese screens. She adds that subsidies and preferential taxation also favour local firms.

To avoid these handicaps, foreign firms are ploughing money into "co-productions" with local partners. Yet Chinese culture has proven even harder to master than

And lost in translation

its politics. Clark Xu of CMC observes that "nobody has cracked the code on creating stories that can work in both China and the West." Tastes in China are also rapidly evolving, with younger consumers and those living in secondary cities now dominating ticket sales. "It's not just a question of money," insists Gregory Ouanhon of Fundamental Films, a film production and distribution firm in Shanghai. He thinks Western studios are finally realising how difficult and time-consuming a process it is to develop a script that appeals both to Chinese censors and to the country's cinema-goers.

Meanwhile, local rivals, long dismissed by Hollywood moguls as unsophisticated bumpkins, are getting into their stride. Chinese film companies are investing in new technologies, improving creative capabilities and attracting more financial backing. Powerhouses like Huayi Brothers Media and Beijing Enlight Media are now producing blockbusters of their own. "Lost in Thailand", a road-trip movie released by Enlight in 2012, became the first Chinese film to earn $200m at the box office. "Lost in Hong Kong", a sequel released at the end of September (see picture), earned over $100m on its opening weekend.

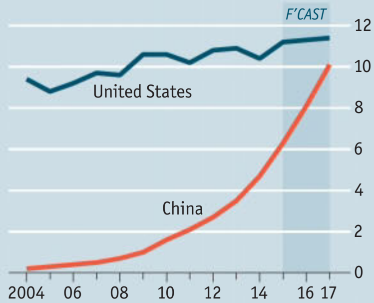
From storytelling nous to animation wizardry, Hollywood studios are still far ahead. But Chinese upstarts could leapfrog them in one area: business models. When it comes to the integration of the internet into the film business, "China beats Hollywood hands down," Mr Shiao argues. He thinks innovation in this area at Western firms is stifled by concerns about such things as pay-television rights and DVD sales—markets that never took off in China.

Free of such legacy issues, Chinese firms are experimenting with their business models to develop new online revenue streams and to enhance fan engagement on social media. The producer of "Monkey King: Hero is Back", an animated film, crowdfunded the movie through WeChat, a Chinese messaging app, promising to add the names of investors' children to the film credits if they gave over 100,000 yuan ($16,000) each; the film raised over 7m yuan this way.

The internet has also become an important distribution channel. Alibaba, Tencent and Baidu, China's biggest internet firms, are all investing in online video. As in America, revenues from streaming services are expected to surpass takings at the box office in a few years. Local filmgoers, for their part, are increasingly young and technology savvy: 63% of movie tickets are now bought online, compared to 13% in America. Even if Hollywood does not find a pot of gold in China, it may be there that it learns what the future of the global film business holds. ■

Raising the red lantern

Film box-office revenues, $bn



Sources: Box Office Mojo; Citigroup; *The Economist*

Business schools

Still a must-have

MBAs remain surprisingly popular, despite the headwinds

THE master of business administration (MBA) is no stranger to damning criticism. In the 1950s an influential report commissioned by the Ford Foundation lambasted the degree for being weak and irrelevant. In the 1980s *Business Week* reported that firms were bemoaning "the inability of newly minted MBAs to communicate, their overreliance on mathematical techniques of management and [their] expectations of becoming chairman in four weeks". In the 2000s observers noticed that firms involved in corporate disasters, such as Enron and Lehman Brothers, tended to be run by alumni from prestigious business schools.

Yet the MBA remains hugely popular. Nobody knows exactly how many people study for the degree globally, but 192,000 masters degrees in business were awarded in America in 2012, making it easily the most popular discipline among post-graduate students. Worldwide 688,000 people sat the GMAT, the de facto entrance exam for MBA programmes, in 2014—although this is down considerably from 2008, when 745,000 took the test.

The reason for this drop is partly cyclical: people tend to apply to business schools during downturns in an attempt to shelter themselves from the economic storm. But the MBA faces many longer-term problems. The most pressing is tighter visa requirements in parts of the rich world. It may seem obvious that countries would wish to attract and retain the brightest young minds. But to the despair of business-school deans, both America and Britain—the two most popular destinations for foreign students—now place tougher restrictions on foreign students who want to stay and work in the country after they finish studying.

In America foreign MBA graduates must find a firm to sponsor them for an H-1B visa, which entitles them to work for up to three years in the country, with the possibility to extend to six years. But the demand for these visas by far exceeds supply. America caps the number of H-1Bs at a total of 85,000 (the first 20,000 applications are reserved for students of a master's degree). These are snapped up within days. In Britain graduates must find work even before their student visa expires if they want to stay in the country.

Such restrictions are a particular problem for MBA programmes because many students choose a business school based on where they want to work after they graduate. Predictably, countries with a more welcoming attitude, such as Canada, are seeing applications from abroad rise. In contrast, the proportion of applicants interested in American schools fell from 83% in 2007 to 73% in 2015, according to GMAC, a business-school body.

Canada and other countries do not just covet foreigners deciding whether to apply to American schools. The Canadian government has hired giant billboards in Silicon Valley reading "H-1B Problems? Pivot to Canada" to attract disgruntled foreign graduates. "If [American firms] can't import the talent, they will export the jobs," says Matt Slaughter, the dean of the Dartmouth College's Tuck School of Business. "Unlike lawyers or doctors, the MBA qualification is transferable across borders."

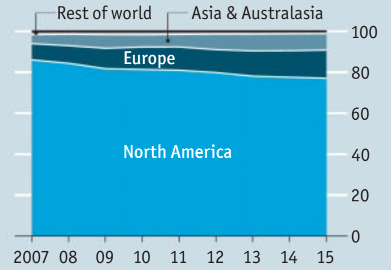
Such concerns highlight the fact that MBA graduates are still in demand among employers. At schools included in *The Economist*'s latest ranking of full-time MBA programmes (see table), 89% of students found a job within three months of graduating. Their median basic salary is close to $100,000, an increase of 88% compared with their pre-study salaries. But some things have changed: banks, for instance, have become much less keen on MBAs since the financial crisis (perhaps because business-school alumni were often singled out as the culprits).

Western business schools are also losing ground to those based in emerging economies. The share of students who send their GMAT scores to an Asian and Australasian business school—a good proxy for applications—has nearly doubled to 8.1% since 2007. Eight-and-a-half Asian business schools now make it into our ranking of full-time programmes (INSEAD has campuses in France and Singapore). These numbers are small, but they are likely to rise. China, in particular, plans to improve its business schools to meet demand for local managers.

Testing times

Business schools receiving GMAT scores*

By region, %



Source: Graduate Management Admissions Council

*De facto MBA entrance exam

Established schools are also disrupting themselves. Over the past five years the number of master-in-management (MiM) degrees, which unlike MBA programmes admit students straight from university without prior work experience, has shot up. In America even schools such as Michigan, Duke and Notre Dame are embracing what was once considered a strictly European qualification. Despite covering much of the same ground as an MBA, MiM programmes also tend to be much cheaper. Every student who graduates from them is likely to be one fewer lucrative MBA candidate in the future.

Not all business schools are affected in the same way. Students will always, it seems, want an MBA from Harvard, Chicago or London Business School. It is those with lesser reputations that face the toughest times. More than two-thirds of full-time programmes costing under $40,000 a year reported either flat or declining application numbers in 2015, according to GMAC. In contrast, most of those charging more than $40,000 said that their applicant pool had grown.

That suggests an oversupply of MBA programmes. Those taking an economics class in one of them might reasonably expect a shakeout. Alas, in the world of business schools such laws do not seem to apply. No matter how few people an MBA programme can attract, few schools will countenance dropping the programme altogether: a business school is defined by its MBA. As Stephen Hodges, the president of Hult International Business School, puts it: "Is a business school really a business school if it doesn't offer an MBA?" ■

The world's best MBA programmes

There is no immediate end in sight to American dominance of the business-school world. Fourteen of the top 20 schools in our latest ranking of full-time MBA programmes are based there, including the table-topping University of Chicago's Booth School of Business. It is the fifth time in six years that Chicago has topped our ranking, which is based on a mix of hard data and subjective marks given by the students. One reason for the school's success is glowing student accounts of its careers service, faculty and facilities. This is not surprising, given that the school has been home to seven Nobel laureates, maintains impressive campuses in London and Hong Kong as well as in Chicago, and that 98% of its graduates find jobs within three months. This is the 13th time we have published the ranking. Each year we ask students why they decided to take an MBA. Our ranking weights data according to what they say is important. The four categories covered are: opening new career opportunities (35% weighting), personal development and educational experience (35%), increasing salary (20%) and the potential to network (10%).

Which MBA? Our ranking of full-time MBA programmes

Rank 2015 (*2014*)	Business school	Country	Median salary of new graduates, $	Increase on pre-MBA salary, %	Graduates in jobs within 3 months, %	Mean GMAT score of students*	Mean work experience of students, years	Total tuition fee, $	Duration of programme, months
1 (*1*)	Chicago (Booth)	US	119,104	73	98	730	5	127,960	21
2 (*3*)	Virginia (Darden)	US	112,257	75	95	707	4	122,500	21
3 (*2*)	Dartmouth (Tuck)	US	117,860	68	98	717	5	128,400	21
4 (*6*)	Harvard	US	127,236	59	93	726	4	122,450	18
5 (*4*)	HEC Paris	France	122,810	148	90	691	7	58,500	16
6 (*7*)	California at Berkeley	US	121,816	80	92	717	5	108,132	21
7 (*14*)	Northwestern (Kellogg)	US	119,173	67	95	719	5	128,118	22
8 (*18*)	INSEAD	Fr./Sing.	119,593	65	91	702	6	87,436	10
9 (*13*)	UCLA Anderson	US	110,409	76	90	715	5	112,318	21
10 (*11*)	Pennsylvania (Wharton)	US	123,431	35	98	729	5	136,420	24
11 (*8*)	New York (Stern)	US	112,096	71	94	723	4	121,488	21
12 (*10*)	Columbia	US	118,719	82	97	718	5	126,296	20
13 (*9*)	Stanford	US	129,618	52	94	734	4	128,100	21
14 (*5*)	IESE	Spain	108,687	109	91	680	5	100,192	19
15 (*12*)	MIT (Sloan)	US	121,277	69	95	715	5	131,500	21
16 (*16*)	Queensland	Australia	148,816	12	91	*na*	12	60,240	12
17 (*36*)	IE	Spain	130,822	69	92	685	5	82,253	13
18 (*37*)	Warwick	Britain	91,916	117	82	658	7	57,267	12
19 (*19*)	Yale	US	109,872	69	93	721	5	123,000	21
20 (*25*)	Duke (Fuqua)	US	114,109	86	94	690	6	132,112	22

For full ranking and methodology go to **Economist.com/whichmba**

*De facto MBA entrance exam, out of a possible 800

Schumpeter | Professor Dr Robot QC

Once regarded as safe havens, the professions are now in the eye of the storm

IN 1933, as the Depression ground on, two British sociologists, Alexander Carr-Saunders and Paul Wilson, wrote a book celebrating the professions. They describe them as "stable elements" in a turbulent world, which "inherit, preserve and hand on a tradition." They act as "centres of resistance to crude forces which threaten steady and peaceful evolution".

Professions resist these "crude forces" through high barriers to entry. They routinely limit their recruitment to people with degrees. Some, such as medicine or law, require professional licences and sometimes membership in professional bodies. Others demand long periods of apprenticeship: although anybody can call themselves a management consultant, elite firms such as McKinsey and the Boston Consulting Group provide their recruits with extensive training and only promote a minority to partnerships. The oldest professions also emphasise the importance of tradition: professors dress up in medieval gowns on ceremonial occasions and British barristers wear wigs.

But today these islands of security are being battered as never before. Professional-services firms are becoming more business-minded: Accenture now contracts lots of work to people in the emerging world and has abandoned the partnership model to become a public company. Customers are getting fussier: big firms will no longer put up with consultancies that woo them with partners and then send in a team of juniors. But the most important source of instability is information technology, argues "The Future of the Professions", a new book by Richard Susskind, a consultant, and Daniel Susskind, an Oxford don (a father-and-son combo).

Machines are challenging the professions' two most important claims to being special: their ability to advance the frontiers of knowledge and their exclusive licence to apply their expertise to an unordained laity. IBM and the Bayor College of Medicine have developed a system called KNIT ("knowledge integration toolkit") that scans the medical literature and generates new hypotheses for research problems. Computer scientists in Tel Aviv University have invented an algorithm that, using facial-recognition software, is solving a puzzle that has kept Torah scholars busy for decades: piecing together 300,000 ancient Jewish manuscripts that were found, many torn and tattered, in the attic of an old Cairo synagogue. Various bits of software regularly outperform legal experts in predicting the outcome of court decisions from patent disputes to America's Supreme Court.

New technology is enabling machines and para-professionals to take over many routine tasks. Programs developed by Kensho, a startup, provide answers to financial questions such as what happens to technology stocks when there is a privacy scare. Nurses and "physician associates", equipped with computers and diagnostic tools, are doing more and more of the work once reserved for doctors.

Online services and smartphone apps allow the laity to dispense with some professionals entirely, or at the very least to take them down from their pedestals. Every month 190m visit WebMD—more than visit regular doctors in America. Educational apps are the second-most popular category in Apple's app store after games, and MOOCs (massive open online courses) are attracting millions of students. Judges and lawyers are increasingly resolving small claims through "e-adjudication". It is one of the techniques employed by eBay to settle the more than 60m disagreements among its users each year.

How far will this revolution go? Messrs Susskind and Susskind predict that it will go all the way to "a dismantling of the traditional professions". These jobs, they argue, are a solution to the problem that ordinary people have "limited understanding" of specific areas of expertise. But technology is making it easier for them to get the understanding they need when they need it.

The authors deal deftly with some objections to their position. One counter-argument cites complexity: people hand their tax forms over to professionals because they are too complicated to bother with. The authors reply that machines have a bigger capacity for coping with complexity than humans. Another criticism invokes emotion: people would rather be told about death or bankruptcy by a human being. The authors note that expertise and empathy rarely come in the same package. Bad news is better delivered by people who excel in sympathy rather than expertise.

Still, Messrs Susskind and Susskind probably take their case too far. They ignore the fact that, as people get richer, they choose to spend their surplus wealth on the human touch. Students, for instance, compete to get into elite colleges with high teacher-student ratios (and rich parents hire more and more personal tutors for their children to increase their chances of so doing). But the authors are undoubtedly right that the professions will change more in the next quarter-century than they have in the previous three. New sub-disciplines will emerge, such as "knowledge engineers" who encode professional wisdom into software and various groups of para-professionals who work out ways of applying this knowledge.

Professionals of the world, unite!

The gathering storm has profound social implications. The professions represent a big slice of modern society. New occupations such as social work aspire to join them. Professionals are accustomed to wealth and privilege: in 2011 57% of British undergraduates accepted to medical school came from the top three socio-economic groups. There is no doubt that these professionals will have to abandon the idea that, in the words of Messrs Carr-Saunders and Wilson, "nothing is to be achieved in their own sphere by destruction or revolution." The big question is whether the reordering of such a vital and stable group will threaten the "steady and peaceful evolution" of society. ■

Also in this section

For daily analysis and debate on economics, visit
Economist.com/economics

European banks

Banking and nothingness

Europe's dithering banks are losing ground to their decisive American rivals

YOU wait ages for a European bank to send a clear signal on its future strategy and then it gives two in as many days—saying seemingly opposite things. On October 11th the chairman of Barclays hinted its investment-banking unit might be flogged to a rival for want of scale. Investors intrigued by the prospect of a simpler Barclays focused on dull-but-reliable retail banking had but a few hours to ponder the prospect. By the next day reports emerged that the same chairman had plumped for a former J.P. Morgan investment banker, Jes Staley, to be the bank's next boss.

Seven years after the height of the financial crisis, Europe's large banks still behave as if they are in the thick of the storm. Plans for radical restructurings are shelved before they are even implemented, often accompanied by management defenestrations—Barclays is one of four big European banks with new leaders. And they have dithered on the most basic questions, for example on how much capital they need or whether to scale back misfiring investment-banking arms.

European indecisiveness stands in sharp contrast to America's large banks, which restructured more quickly. Returns are below pre-crisis levels, but their balance-sheets are stronger and management teams bedded in. European banks are still weighed down by non-core units and dud loans; America's banks have moved on.

Investors have noticed. Most big European banks, including Deutsche Bank and HSBC, trade at a discount to tangible book value: in theory, they would be better off wound up and money returned to shareholders. Bar Citi, America's largest banks trade at a premium to book value. Shareholder returns for big American and European banks used to track each other; now a chasm has opened up (see chart 1).

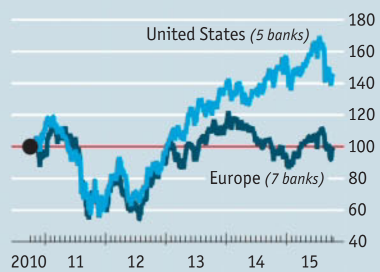
In investment banking, Wall Street is relentlessly gaining market share at Europeans' expense (see chart 2). The business of helping companies raise money on capital markets, trading bonds and generally shifting money around is one that European banks are not keen to give up. But fund-raising clients are deserting the likes of Barclays and Credit Suisse for Goldman Sachs and J.P. Morgan.

Many factors help explain the disarray of European banks. Profits across all their lines of business have been hit by years of anaemic economic growth; America's banks have been lending in a more buoyant environment. Interest rates in the euro zone are set to stay lower for longer, making it harder to generate decent net interest margins from lending. Europe's banking market is fragmented and includes politically controlled lenders, such as Landesbanken in Germany, which sap profits for everyone.

European bank bosses also blame changing regulations for their vacillating strategies. They have had a tougher job adapting to new global rules, which have moved them towards an American model. The introduction of a leverage ratio, which limits the amount banks can borrow in order to make loans, is a transatlantic import. It punishes big banks holding relatively safe assets such as mortgages or government bonds—the essence of European ▸▸

Back to earth 1

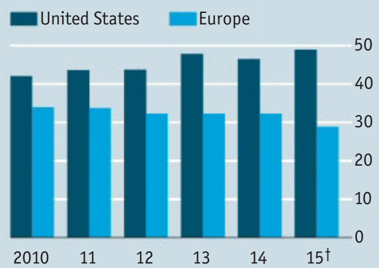
Banks' average total shareholder returns
October 1st 2010=100, $ terms



Sources: Bloomberg; *The Economist*

Drinking Europe's milkshake 2

Banks' share of global investment-banking fees*
%



Source: Dealogic

*Includes debt, equity, M&A and loans
†January 1st-October 14th

banking. By contrast, American banks act as conduits to capital markets and hold relatively few mortgages on their balance-sheets, thanks partly to government agencies like Fannie Mae and Freddie Mac.

Some of the finer print of regulation in Europe has indeed been a long time coming. A new euro-zone banking regulator—a direct consequence of the euro crisis—is only now getting into its stride, nearly a year after it was created. Swiss rules on leverage and British ones on "ringfencing" retail arms, both out this week, have taken ages to emerge.

But Europe's bankers have also been in denial, confident their political masters would sooner row back on regulation than force them to retrench. Having dithered, they now have to make up ground, most obviously by further slimming down their investment banks. These guzzle capital, and have a knack for attracting multi-billion dollar fines to boot. UBS, a Swiss outfit that throttled its investment bank, is a darling among both regulators and investors.

Rivals unready to go down the same road—not every bank has a lucrative wealth-management franchise like UBS's to fall back on, after all—stress that investment banks are needed to help firms and governments raise capital. Policymakers want to lean less on banks and more on capital markets. But at current rates, bankers warn, only Wall Street titans will be able to help Europe's companies find investors or advise them on mergers. Frédéric Oudéa, the boss of Société Générale, a French bank, argued in a *Financial Times* article this week that having a Europe-based investment bank was a matter of "economic sovereignty".

That is obviously self-serving. The prosaic truth is that American investment bankers are more efficient. A large part of that is home-turf advantage: half of all glo-

Buttonwood | Collateral damage

How bank funding may be squeezed in the next crisis

WHEN the financial system teetered on the brink of collapse in 2008, the biggest problem was a lack of liquidity. Banks were unable to refinance themselves in the short-term debt markets. Central banks had to step in on a massive scale to offer support. Calm was eventually restored, but not without enormous economic damage.

But has the underlying problem of liquidity gone away? A research note from Michael Howell of Crossborder Capital argues that, in the modern financial system, central banks are no longer the only, or even the main, providers of liquidity. Instead, the system looks a lot like that of the Victorian era, with banks dependent on the wholesale markets for funding. Back then, the trade bill was the key asset for bank financing; now it is the mysteriously named "repo" market.

A repurchase, or repo, agreement involves a borrower selling a bunch of securities for cash and agreeing to buy them back later for a higher price. The difference between the two prices represents the interest payment. The market is huge: a survey by the International Capital Market Association estimated that, in June this year, European repo agreements were worth €5.6 trillion ($6.4 trillion).

To borrow in the repo market, banks need assets to pledge against the loans—collateral, in other words. And, Mr Howell argues, it is the supply of, and demand for, collateral that determines liquidity in the financial markets.

The problem is that not all collateral is treated equally. Lenders worry that, if the borrower fails to repay, the securities they are left holding may not sell for their face value. So they apply a discount, or "haircut", to the collateral, depending on its perceived riskiness. At times of stress, lenders get nervous and apply bigger discounts than before. This is what happened during the financial crisis (see table).

Haircut 100

Reduction in value applied by lender, %

	2007*	2009*
US Treasuries	2.0	3.0
US agencies	3.0	2.0
Corporate bonds	3.2	5.0
Structured finance	4.2	*na*
Equities	5.0	10.0

Source: Fitch *First six months

Bigger haircuts mean that borrowers need more collateral than before in order to fund themselves. "When market volatility jumps, funding capacity drops in tandem and often substantially," writes Mr Howell. The result, a liquidity squeeze at the worst possible moment, is a template of how the next crisis may occur (although regulators are trying to reduce banks' reliance on short-term funding).

Viewed in this light, global liquidity should not be measured merely by the size of central banks' balance-sheets but by the availability of acceptable collateral as well. On Mr Howell's calculations, global collateral shot up in the aftermath of the financial crisis, but grew much more slowly from 2012 onwards. This may explain why global growth has been so sluggish.

Traditional quantitative easing may do little to help. "Simply expanding the central bank balance-sheet by buying in Treasuries from the private sector is robbing Peter to pay Paul," writes Mr Howell, since the bonds could have anyway been used as collateral for repo transactions.

Given that funding conditions resemble those in Victorian times, Mr Howell thinks that central banks should return to the policies favoured by Walter Bagehot, a former editor of this newspaper, and focus, above all, on the smooth running of the credit markets. If they do not, the risk is that a shortage of collateral may induce another funding squeeze; low as they are, government-bond yields may then fall even further as banks scramble to get hold of them for funding purposes.

This view is an interesting contrast with a popular investment theme of the moment—the idea of "quantitative tightening" (QT). Central banks are slowing their pace of asset purchases; China has been offloading some foreign-exchange reserves. Since many people think that central-bank purchases have been propping up the financial markets, their fear is that QT may cause bond yields to rise in the absence of central-bank support.

These differing interpretations point to the difficulty of analysing a broad concept like "global liquidity". It is reminiscent of the problem of defining the money supply during the heyday of monetarism in the late 1970s and early 1980s. Everyone can agree that notes and coins are money but the wider the definition, the greater the scope for disagreement. Use the wrong measure, and the monetary signals may completely mislead. A fast-changing financial system makes things even harder: how does Bitcoin fit into global liquidity calculations?

Such complexity makes the withdrawal of monetary stimulus by central banks even more difficult. The IMF warned in a paper last year that "central banks' exit strategy needs to be mindful of disruptions to the financial plumbing". Even if they manage that trick, Mr Howell is surely right. One day the financial headlines will be dominated by worries about a collateral shortage.

Economist.com/blogs/buttonwood

bal investment-banking revenues are generated in America. Size also matters in banking: market-share gains are going to the bigger firms (see chart 3). Europe's investment banks tend to be smaller.

But American investment banks also have lower costs, having trimmed staff sooner. Around 70% of European investment banks' income is soaked up by staff costs, about 15 percentage points higher than in America. That, at least, is starting to be addressed. Deutsche Bank's new boss, John Cryan, has a reputation as a ruthless cost-slasher and is expected to announce massive job cuts soon.

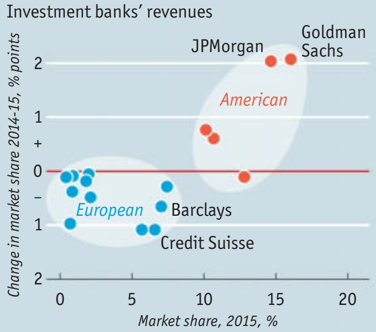
European banks also look more likely to catch up on capital, where they have been deficient compared with their American rivals. Tidjane Thiam, the new boss of Credit Suisse, is expected to raise billions from shareholders. Deutsche Bank is shedding assets, notably its stake in Postbank, an underperforming German retail lender. It has also warned it may forgo a dividend this year for the first time in decades. French banks lag in this regard.

"In any other industry with excess capacity, you'd have consolidation," says Huw van Steenis, an analyst at Morgan Stanley. Merging two big beasts, or at least fusing their investment banks, would be a way to cut costs. The euro zone's new regulatory bodies are not opposed: cross-border mergers would be a show of European financial-market integration. But post-crisis rules designed to rein in "too big to fail" banks mean that larger firms attract even higher capital ratios, crimping returns.

As for clients, the need for a European banking champion is hard to see. Excess banking capacity, if anything, serves European businesses well: they pay much less in fees than their American peers for things like listing shares on a stockmarket. Few seem to mind tapping a Goldman Sachs or Merrill Lynch for operations that require global reach. That may annoy European bankers, but is hardly a reason to mollycoddle them. If their investment banks cannot pay their way under the current rules, it is the banks that must change, not the regulations. ■

To those that hath 3

Investment banks' revenues



Source: Morgan Stanley

Exchange rates

Pegs under pressure

Currency pegs are still in fashion, but some are creaking

SINKING might be a better description than floating when it comes to many of the world's currencies. A plunge in commodity prices has hit producers of natural resources hard. The weak oil price, in particular, has undermined the current-account position of oil exporters. The Economist Intelligence Unit (EIU), our sister company, expects the Norwegian current account to have deteriorated by 3.3 percentage points between 2013 and 2015. Many currencies have followed the oil price down. Since June 2014, the Norwegian krone has declined by 26%, the Brazilian real by 40% and the Russian rouble by 45% against the greenback (see chart).

Those who believe that competitive exchange rates boost economic growth should be pleased. But not every country is willing to let its currency freely adjust. The IMF's annual review of currency regimes, published this month, revealed that at the beginning of 2015 only 35% of member countries let their currencies float, and only 16% intervened rarely enough for the IMF to classify them as "free floating". The rest, from Hong Kong's iron-clad peg to the dollar to the stumbling Nigerian naira, are managed with a tighter grip.

This penchant for pegs can make sense. Many big oil exporters peg their exchange rates to the dollar because oil is priced in that currency. Anchoring a country's exchange rate to another, stable currency allows a weak central bank to latch on to the credibility of a stronger institutions, and so keep inflation expectations steady. Just ask a Zimbabwean whether they prefer the old regime (when 175 quadrillion Zimbabwean dollars exchanged for five American dollars) or the new, hard-currency one.

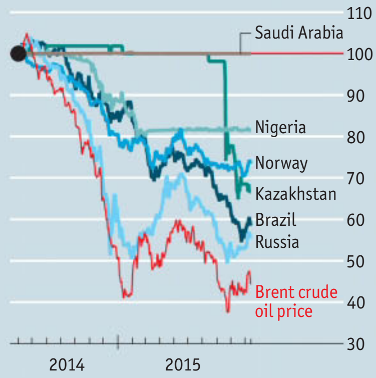
But pegs come with strings attached. In a free market, a shock such as a collapse in the value of exports would boost relative demand for foreign exchange, which in turn would cause the domestic currency to depreciate. The danger of a peg is that rather than allowing the exchange rate to adjust gradually, imbalances build up. Speculators spot the problem and attack the currency; if the country has to push up interest rates to defend the peg that hurts the underlying economy, but devaluing brings potential ruin to companies that have borrowed in foreign currency.

If the exchange rate does not adjust to a shock, then something else has to shift instead. Some places, like Hong Kong, have enough flexibility to cope; its strong peg to

Crude awakening

Currencies against the $ and the oil price

June 1st 2014=100



Sources: Bloomberg; Haver Analytics

the dollar works because workers' wages can go down as well as up. But not everywhere is so nimble. An alternative approach is to build huge reserves to ward off speculators, as Saudi Arabia has done. According to estimates from Jadwa Investment, a Saudi Arabian fund manager, the government has amassed enough reserves to cover a comforting 48 months of imports. Few seem to think that the Saudi peg will fall soon.

Other pegs have been buckling under global pressures. Both the Kazakh tenge and the Vietnamese dong have seen their pegs break in the wake of the recent Chinese devaluation. The Kazakhs had little choice, even though a similar move in February 2014 led to street protests as imported luxuries were lifted out of the reach of ordinary people. The country has also had to cope with a fall in the Russian rouble, a big trading partner. Maintaining the dollar peg would have left Kazakh exporters painfully uncompetitive.

Naira-do-well

Other oil producers have adopted strategies that risk doing more harm than good. The Nigerian naira and Angolan kwanza have depreciated by 19% and 27% respectively against the dollar since June 2014, as their central banks have allowed them to drop in a series of steps. But according to Yvonne Mhango of Renaissance Capital, an emerging-market investment bank, both still have some way to go.

Rather than getting the pain over with, the Nigerian government is trying to shock the economy into plugging the gap between import and export revenues. In June the Central Bank of Nigeria produced a list of 41 items that cannot be bought using foreign exchange, including rice, rubber, toothpicks and private jets. According to Ms Mhango, these import restrictions are causing a recession in its manufacturing sector, which cannot get access to the raw materials it needs. "There is nothing to suggest that the gap in supply that has been created by the import ban can be filled. In the short term, the prices of those goods are just increasing," she says. The government is creating the very problem it is trying to prevent.

Venezuela is also in a fix. The falling oil price is expected to turn its current account from a surplus to a deficit. With enough reserves for only three months of imports, it has clamped down on access to foreign exchange. The IMF expects it to be one of this year's worst economic performers. The inflation rate is widely estimated to be in triple digits.

For countries such as these, burning through central-bank reserves is a short-term solution to defending a currency; and restricting trade is self-defeating. Nigeria and Angola have already devalued more than once, and investors sense that there is further to go. The only question is what will force the move; outside speculators, or economic pressure from within. ■

Banking in Africa

Transfer window

HARGEISA

An African money-transfer firm with big ambitions

WHEN Abdirashid Duale, the chief executive of Dahabshiil, Africa's largest money-transfer business, visits Hargeisa, the capital of Somaliland, a breakaway province of Somalia, he cannot walk down the street easily. It is not that his security is under threat. It is that with every step, another businessman stops to greet him. Strolling from the new offices of Dahabshiil's bank to the headquarters of its money-transfer operation, a distance of perhaps a couple of hundred metres, takes the best part of half an hour.

On arrival, it becomes clear why. In Hargeisa, Dahabshiil, which means "gold smelter" in Somali, is the local economy's nerve centre. In its money-transfer hub, huge amounts trade over the counter; at one point, your correspondent is handed $200,000 in cash to hold.

In its new bank, every floor is air-conditioned—this in a state where electricity is generated by diesel and costs roughly ten times what it does in the West. Every street trader proudly displays his Dahab account number—the mobile-money arm of the firm's telecoms network. At least half of Somaliland's annual income flows through the firm, reckons Mr Duale.

Out of this bustling business, Mr Duale's family have built an operation that operates throughout Somalia, and well beyond. Dahabshiil's money-transfer business now stretches across 126 countries; as well as the one in Hargeisa, the firm has offices in Dubai, Djibouti and London. It transfers money from places such as Rwanda and South Sudan.

The company can also count on the support of powerful politicians, including David Cameron, Britain's prime minister—who spoke up for the firm when Barclays closed its bank account in 2013. Its success in moving money has helped to rebuild shattered parts of Somalia. It is now trying to become something bigger: a bank.

Dahabshiil was founded by Mr Duale's father, who was a trader, importing goods into Somalia from Yemen. To acquire foreign currency, access to which was then strictly controlled by Somalia's nationalised banking system, he turned to Somali migrant workers in the Gulf who needed to repatriate their earnings. Their money paid for imports in Yemen; in turn, out of his revenues from sales in Somalia, the senior Mr Duale was able to pay money to their relatives.

In the late 1980s, when Siad Barre, Somalia's military dictator, began bombing Hargeisa, the business, like the city, was all but destroyed. "We lost everything. We went back to a nomadic way of life," says the junior Mr Duale. The family ended up in a refugee camp in Ethiopia. But adversity provided an opportunity. Stuck in camps, penniless refugees needed a way to get help from relatives abroad. And so business restarted.

After 1991, when the fighting died down, Dahabshiil began expanding back into Somalia. The business was crude—transactions were communicated with high-frequency radio sets and the firm relied entirely on its staff's knowledge to ensure money reached the right people. But it quickly expanded. Satellite links were added, then mobile phones took off. Now, it is possible for someone in London to send money to a relative in Somalia with just a name and a mobile-phone number.

At one point this informality could have killed the business. After the September 11th attacks in New York, regulators in Western countries began to worry about how money-transfer systems were spiriting vast sums around the world anonymously—including to terrorists. Strict new rules about identifying senders and recipients were drawn up. Firms operating in Somalia, a lawless country, were particularly threatened. But instead of failing, Dahabshiil found a way to comply with the rules.

Since most Somalis do not own passports (which are in any case far from secure as proofs of identity), Dahabshiil relies on the strength of the clan network. In a country where men can recite their ancestors' names back fifteen generations, references are an effective way to prove that new customers are who they say they are. After that, their biometric information and fingerprints are stored in a Dahabshiil database, so that later transactions can be verified. Many financial transactions are filmed, in case records are needed later.

This system has fended off bureaucrats determined to believe the worst about the firm and about Somalia, says Mr Duale. But it has not completely warded off controversy. Barclays closed Dahabshiil's London account in 2013 largely because of worries about its reputation. The British bank did not want to risk being associated with car bombs and warfare in Somalia. After an outcry, and a court case, the two firms reached a settlement—but Barclays did not reopen the account. Mr Duale is now coy about how the firm banks in the West, refusing to reveal the identity of his partners.

Still, he is delighted by his growing empire. Standing on the roof of the bank's offices, he explains how he wants to build a new Canary Wharf (London's financial district) in Hargeisa. Inside, staff talk through new ventures: in microfinance, Islamic finance and real-estate lending.

Zakaria Hussein Ali, the local chief operations officer, explains in a broad London accent how Dahabshiil is like an 18th-century European family bank—relying on trust and careful management to get by. He says he hopes that by the end of the century, Dahabshiil will be as big as HSBC or Citigroup is now. Such grandiose ambitions show how far it has already come. ■

Indonesia's economy

The unstimulating stimulus

SINGAPORE

The Jokowi administration tinkers at the margins

IN EARLY September, Joko Widodo, Indonesia's president, promised a "massive deregulation" aimed at attracting foreign investment. Outsiders were thrilled. Mr Joko's predecessor, Susilo Bambang Yudhoyono, left the country's business climate choking on what Adam Schwarz, a consultant, calls "a regulatory miasma" that strongly discouraged investment, whereas Mr Joko, best known as Jokowi, has openly courted foreign capital.

Over the past six weeks his administration has unveiled a series of deregulatory measures. On September 9th the government made it easier for foreigners to open bank accounts, struck down import restrictions on goods such as tyres and cosmetics that were designed to protect local industries, and eliminated some onerous and silly business regulations. No longer, for instance, must Indonesian-language labels be affixed to imported goods before they arrive; now they can be printed in Indonesia and attached before public circulation.

A couple of weeks later Jokowi cut the time required to process some investment permits, and cut taxes for exporters who deposit foreign-exchange revenue in Indonesia or convert it into rupiah—a move to shore up the country's wobbly currency. This month he announced discounts on overnight electricity prices and the streamlining of some land-procurement rules, as well as cuts to subsidised-fuel prices (though these may do little more than raise questions about Jokowi's commitment to market pricing).

Tom Lembong, Indonesia's Harvard-educated, ex-Morgan Stanley new trade minister, says that Jokowi, who developed a reputation as a pragmatist while governing Jakarta and his hometown of Solo, loves these sorts of "simple, practical-…measures that are completely and directly felt by industry." And to its credit, Indonesia has resisted the temptation to panic in the face of a plunging currency and rising bond yields. It has, for instance, maintained fiscal discipline—aided by a law that caps the budget deficit at 3%.

Markets nonetheless seem unconvinced. The rupiah continued its slide after the first two announcements. It has recovered some ground this month, along with other emerging-market currencies, but has still fallen by 8% against the dollar this year. Economic growth is at its slowest since 2009. Nobody doubts the new deregulatory measures are better than nothing, but they are hardly "massive".

One foreign businessman, long resident in Indonesia, assesses them as resulting from "bureaucrats talking to themselves about how we can be a better bureaucracy rather than how we can be more receptive to foreign investment." For the most part, Jokowi's measures remove regulations that should never have been implemented in the first place. They neither fundamentally change Indonesia's investment climate nor signal to investors that Jokowi is preparing for bigger reforms.

Indonesia's negative-investment list, which details the sectors that are barred to foreign capital, remains sizeable. Hiring foreigners is still a burdensome process: one rule requires businesses to hire ten Indonesians for every foreign worker. Businesses complain that bureaucrats pass rules hastily, without even trying to understand their effect on the private sector.

A rule banning metal-ore exports remains in place; it was intended to encourage a domestic smelting industry but instead has cost thousands of jobs and billions in export revenue. Infrastructure development—the centrepiece of Jokowi's ambitious economic plans—has begun to pick up, but only after severe delays, and the programme remains well below its targets for this year.

Rules and disorder

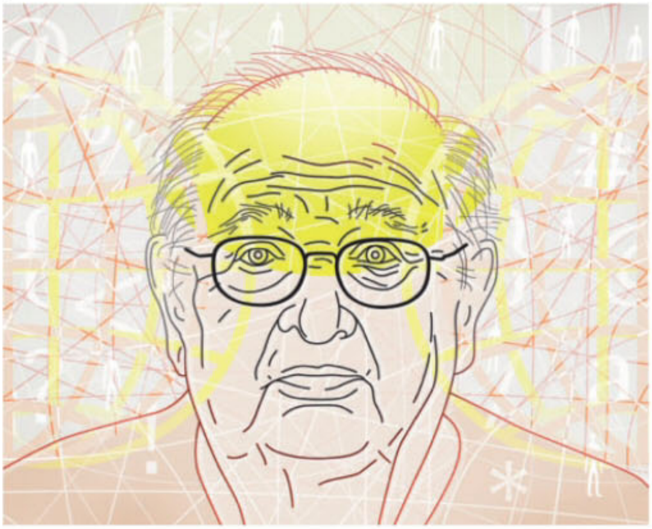
Perhaps most damaging is a pervasive sense of disarray. Policies are announced and then scrapped, whether because of objections that should have been aired before, as with a law to force foreigners to pass a language test, or because they conflict with other plans, as happened with a proposed road tax. Ministries seem to pass rules independently, without consulting each other or the president. Decentralisation—meaning a huge devolution of power from the national government to the regional level—may have held the country together in the early 2000s, but today it impedes infrastructure development and hinders policy co-ordination. Poor communication from the president compounds these problems.

The good news, as Mr Schwarz notes, "is that Jokowi has come to an intersection and said, 'I've got to do something different because what we've been doing isn't working.'" Mr Lembong says that deregulation is "something the president intends to do every year he's in office…The broad thrust is that we want to become less interventionist in the economy." These bold words are welcome. But bold actions would be better still. ■

Not pointing in the right direction

Free exchange | Reality cheque

Angus Deaton wins the Nobel prize for bringing economics back to the real world



AT 6:10am on October 12th, Angus Deaton, an economist at Princeton University on America's east coast, picked up the phone to a Swedish voice. The voice was so concerned to persuade him that this wasn't a prank call that he started to worry it was precisely that. No need. The Nobel committee had awarded him the Sveriges Riksbank Prize in Economic Sciences, "for his analysis of consumption, poverty, and welfare". The prize celebrated a whole career, in which he has used data to overturn sloppy assumptions, reimagined how we measure the world, and intertwined microeconomics and macroeconomics. He even has a paradox named after him.

The 69-year-old professor was working on issues of poverty and inequality long before the financial crisis made them voguish. As a designer of household surveys, he helped transform development economics from its sorry state in the 1980s, when it was stuck in a rut of murky data and unverifiable theories. He has explored how much more the poor eat when they get more income, how well insured they are when their earnings shrivel and, more broadly, the relationship between health and income growth. His thinking on the topic of inequality is typically textured. He frames it as a product of success—for there to be have-nots, there must be haves—but he is not a cheerleader for the elite. Rather, he thinks that digging into the data reveals how to help the millions of people who have been left behind to catch up.

Although his work on inequality may grab most attention, the Nobel committee also highlighted a couple of his earlier, more wonky contributions. The first was for his work in transforming the way economists estimate demand. Knowing how people respond to price changes is crucial to understanding the effects of governments tweaking taxes, supermarkets promoting products, and the like. Before Mr Deaton arrived on the scene, economists used simple models that made rigid assumptions about people's consumption patterns. But upon closer inspection, it turned out that the assumptions in these models were inconsistent with real-life data on how people respond to changes in prices.

Mr Deaton swooped to the rescue. He suggested that the old models might have failed because their assumptions were too severe. Along with a colleague, John Muellbauer, he proposed a new way of modelling the problem. Their modestly named "Almost Ideal Demand (AID) System" had the beauty of being simple to estimate, but without the rigid assumptions that were the undoing of the old methods. For example, in earlier models, demand was assumed to increase in lock-step with income, regardless of how rich the person was. The new approach allowed for different responses according to the level of income, so that a 1% pay boost might raise porridge demand by 2% for a pauper, but only 0.1% for a prince.

The much-cited paper in which Messrs Deaton and Muellbauer laid out their approach has spawned a family of extensions, devised by other economists. For all its successes, however, the pair have been among the model's harshest critics—as hinted in its name, they had not intended to provide "the" answer but to guide future research.

The second achievement highlighted by the Nobel committee was Mr Deaton's help in bridging the gap between macroeconomics and microeconomics—and in particular in understanding the relationship between consumption and income. This relationship is crucial. The difference between the two is the level of savings; in turn, savings determine how much an economy invests and ultimately society's future wealth.

Before Mr Deaton came along, macroeconomists used models of individual behaviour to explain, why, in aggregate, consumption seemed less volatile than income. One such attempt was Milton Friedman's "permanent income hypothesis", which supposed that people smooth consumption when they face temporary jolts to their income. In response to a one-off pay bump, this theory predicted that people would put aside some of the extra cash for a rainier day. That idea tallied nicely with the observation that in aggregate consumption looked smoother than income.

Milton's paradigm lost

But Mr Deaton's work exposed this as sloppy thinking. First, he noted that the relationship between consumption and income in Friedman's model depended on the kinds of income shocks hitting an economy. If one pay rise acts as a signal that there are more to come, then the "rational" agent in Mr Friedman's model should anticipate future increases, and spend even more than their initial income boost. In this case, consumption should be more volatile than income, not the other way round.

So indeed it proved. Mr Deaton examined the aggregate income data more carefully, and found that it did not seem to support the idea of consumption smoothing. His microeconomic theory, allied with his empirical observations about aggregate income, together implied that income should be smoother than consumption, in contrast to what the macroeconomists had been trying to explain in the first place. This inconsistency was the Deaton paradox.

As well as his specific contributions to our understanding of the world, Mr Deaton offers three lessons to aspiring economists. First, the theory should tally with the data—but if not, then do not despair. Puzzles and inconsistencies help to prompt innovation. Second, the average is rarely good enough. It is only by understanding differences between people that we can understand the whole. Finally, measurement matters. In the words of Mr Deaton, "progress cannot be coherently discussed without definitions and supporting evidence". In the words of Mr Muellbauer, Mr Deaton's win is "a triumph for evidence-based economics". ■

Economist.com/blogs/freeexchange

Also in this section

CRISPR/Cas9 gene editing

No pig in a poke

Genome engineering may help make porcine organs suitable for use in people

TRANSPLANTING organs brings life to the dying. But most donor organs are harvested from the dead. Shortfalls in the number of volunteer donors, the difficulty of gaining the consent of grieving relatives, and a reduction in most countries of the rate of fatal road accidents (the most reliable source of healthy organs), mean that there is a constant lack of them. Thousands die each year while on waiting lists for transplants. Researchers have, therefore, long sought ways to boost supply.

One idea is to harvest animal organs. That is less mad than it sounds. A liver, a kidney or a cornea does the same job, regardless of species. And it works. In 1984 an American child lived for three weeks after receiving a baboon heart intended as a stopgap until a human donor could be found (unfortunately, one was not found in time). Conversely, human organs have been transplanted into animals for the purpose of research. Earlier this year, for example, a paper in the *American Journal of Transplantation* described moving kidneys from human fetuses into rats.

Until now, though, two technical problems have stood in the way of routinely transplanting animal organs into people. One is that the recipient's immune system must be persuaded to tolerate a big chunk of foreign tissue. The other is that swapping tissues between species risks swapping diseases, too. This second problem may soon be addressed, if George Church of the Harvard Medical School has his way. For, as he and his colleagues describe this week in *Science*, genetic engineering can now be used to eliminate one of the most worrying types of pathogen that might be spread via transplants.

Go the whole hog

The animal most commonly suggested as a donor is the pig. Pigs are roughly the size of human beings. They are reasonably well understood. And millennia of experience mean they are easy to breed. But they are not perfect. In particular, their DNA is full of retroviruses, known specifically as porcine endogenous retroviruses, or PERVS. The genes of these viruses hitch a lift from one pig generation to another as an integral part of the porcine genome, whence they can break out and cause infection. And tests in laboratories suggest that, given the opportunity, they can infect human cells as well. The existence of PERVS, then, has been one of the main obstacles to transplanting pig organs into people.

Dr Church and his colleagues thought PERVS ideal candidates to test the mettle of one of the rising stars of biotechnology, CRISPR/Cas9. This is a gene-editing technique derived from bacteria, which use it as a sort of immune system. In nature, it recognises specific sequences of viral DNA and chops the DNA molecule apart at these points, protecting the bacterium from harm. Tweaked a bit in the laboratory, it can be made to recognise any DNA sequence and do likewise. This permits specific stretches of DNA to be deleted from genomes, and also allows new stretches to be inserted into the gap thus created.

Dr Church and his fellow researchers analysed the genetic sequences of one family of PERVS, with a view to attacking them with CRISPR/Cas9. They found that the sequence of the gene which lets the virus integrate itself into its host's DNA is the same from one strain of virus to another. That allowed them to program a CRISPR/Cas9 system to look for this particular sequence and chop it out of the genome.

The porcine kidney cells Dr Church used for his experiments had 62 PERVS embedded in their genomes. He and his colleagues tested their molecular scissors on several lines of these cells. In the most responsive, they managed to snip out all 62 copies of the integration gene.

Since PERVS rely on this gene to infect human cells as well as porcine ones, deleting it should stop them jumping into human hosts. Sure enough, tests in Petri dishes showed that the modified pig cells did not infect human cells grown alongside them. And, despite the extensive edits made to their DNA, those pig cells seemed unharmed by the procedure.

A single paper does not a new medical procedure make. In particular, the editing would need to be done to sex cells, or their precursors, if actual lines of "clean" pigs were to be bred for use as organ donors. But this is still a striking result. Not only does it demonstrate that it is possible to cleanse animal cells of unwanted viral passengers, thus helping remove one of the big barriers to cross-species organ transplants; it also shows the power of a genetic-engineering technique that has existed for only three years. As the chart overleaf illustrates, the popularity of such techniques waxes and wanes. This year's favourite can be next year's also-ran. For now, though, CRISPR/Cas9 is on a roll. ■

RNA drugs

The slopes of enlightenment

CAMBRIDGE, MASSACHUSETTS

A once-hyped technology is starting to prove its worth

GARTNER, an American consultancy, has a simple yet elegant way of describing the life of a promising new technology. First, it is talked up to a peak of inflated expectations. Then it falls into a trough of disillusionment. After that, if it survives, it begins climbing the slope of enlightenment. Finally, it reaches the plateau of productivity.

In the world of biotechnology CRISPR/Cas9, the subject of the previous article, is still ascending towards peak expectations. True to the Gartner hype-cycle, though, an earlier star, RNA interference, or RNAi, is well and truly in the trough. The chart alongside, of Google searches for the two technologies, shows this. The question is, can RNAi climb the slope of enlightenment to become a productive and useful technology? And the answer looks increasingly likely to be "yes".

Like CRISPR/Cas9, RNAi is based on a bacterial response to viral infection. RNA is a molecule that is chemically similar to DNA, and does many jobs in cells. All these jobs, though, use single-stranded versions of RNA, unlike the double-stranded DNA in a cell nucleus. Double-stranded RNA does exist naturally, but it is found only in viruses. For this reason, RNAi recognises double-stranded RNA and destroys it.

When RNAi was discovered, it looked tailor-made to be the basis of a new class of drugs. One of RNA's main jobs is to carry information from genes in the nucleus to protein factories in the rest of the cell. If messenger molecules could be destroyed this would reduce or eliminate the proteins they produce. Since proteins, in the guise of enzymes, signalling molecules, ion channels and so on, regulate all cellular processes, the range of diseases to which RNAi-based drugs might be applied seemed boundless.

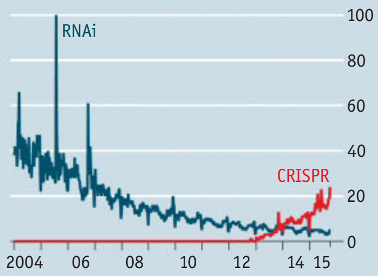
Such drugs, known as small interfering ("si") RNAS, are short double strands of the molecule. This is enough to fool the RNAi system into thinking a cell is under attack. The drug works because one strand of each siRNA is complementary to the messenger strand that is the object of interest. The RNAi system pulls the siRNA strands apart and uses the complementary strand to seek out and bind to the target messenger, thus disabling it. The result is, in principle, a precise means of knocking out proteins involved in particular disease.

Drug companies duly jumped aboard the RNAi bandwagon. In 2006 Merck, an American giant, paid $1.1 billion for Sirna Therapeutics, a biotechnology firm reckoned to be a leader in the field. Roche and Novartis also made big investments around the same time. RNAi, it seemed, was going to take the pharmaceutical world by storm.

Getting crispr

Google search-term volume

Index, 100=highest recorded search volume



Source: Google Trends

But siRNAS, so attractive in theory, proved impossible to tame in practice. Roche ended its work in 2010. Novartis and Merck followed suit in 2014. Nevertheless, a clutch of biotechnology companies are still working on the idea, and some of them now think they have cracked it. Chief among them are Alnylam and Dicerna, both of Cambridge, Massachusetts. These firms have, they believe, overcome one of the problems that caused RNAi to fall so deep into the trough of disillusionment—getting siRNA molecules across cell membranes to where they are needed.

The firms have done that in two ways. One is by encasing the RNA in fatty capsules less than a micron across. These capsules are easily absorbed by liver cells, and the liver is a target-rich environment for RNAi-based therapies. The other (a method that is the subject of a legal dispute between them) is to attach the siRNA molecules to other molecules that are readily taken up by liver cells.

According to Alnylam's boss, John Maraganore, his company has seven siRNAS in clinical trials. The most advanced of these are two intended to combat TTR-mediated amyloidosis, an inherited disorder. In this case the siRNA involved knocks out the messenger from the mutant gene which causes the disease. These two molecules are in phase three of the clinical-trials process—the one in which a drug's broad efficacy is assessed after it has passed earlier safety trials.

But, though bad for those who suffer from it, TTR-mediated amyloidosis is rare. The treatment in the firm's pipeline that has the greatest market potential is directed against low-density lipoproteins (LDLS), the "bad cholesterol" which increases someone's risk of heart disease.

In this case the target is PCSK9, a protein that regulates production of certain receptor molecules found on the surfaces of liver cells. These receptors pluck LDLS from the bloodstream for disposal. Less PCSK9 means more receptors and hence, the theory goes, lower LDL levels.

For its part, Dicerna hopes to block messages sent by two genes called *KRAS* and *MYC*—or, rather, by mutated versions of these genes. The genes in question are known as oncogenes, for when they go wrong they can lead to the growth of cancers. At the moment, neither *KRAS* nor *MYC* is regarded as "druggable". In other words, not only are no drugs available, but no good way of developing them exists. Dicerna's researchers intend to change that with their tailor-made siRNA.

In Australia, meanwhile, Benitec Biopharma of Sydney is developing another way of getting siRNAS into cells. This is to encourage those cells to make the molecules themselves. To do so means integrating genes which encode the siRNA in question into a cell's nucleus. For this, Benitec employs viruses engineered for the purposes of gene therapy. The result, which the firm calls DNA-directed RNAi, is now being tested on Hepatitis C, a disease that kills about 500,000 people a year. If that works, treatments for other illnesses should follow.

Whether any one of these approaches will actually succeed in climbing the slopes of the plateau of productivity remains to be seen. But they do have promise. RNAi, less hyped than it once was, may still have a bright future. ■

Anthropology

Now I lay me down to sleep

Modern life has not changed sleeping patterns as much as some believe

ELECTRIC lighting, television, the internet and caffeine all get blamed for reducing the amount of time people sleep compared with the days before such luxuries existed. Such alleged sleep deprivation is sometimes held responsible for a rise of obesity, mood disorders and other modern ailments. The trouble with this argument, though, is that no one really knows how long people slept before coffee and light bulbs existed.

A study just published in *Current Biology* by Jerome Siegel of the University of California, Los Angeles and Gandhi Yetish of the University of New Mexico tries to provide an answer. Dr Siegel and Mr Yetish looked at three groups who cleave to pre-industrial (indeed, pre-agricultural) ways of life, to see if their sleep patterns differ from those of wired, urban humanity. To ▸▸

some surprise, they have found that in many ways they do not.

The groups in question are the Hadza of northern Tanzania, the Ju/'hoansi San of the Kalahari Desert, in southern Africa, and the Tsimané in Bolivia. All live largely by hunting and gathering. Dr Siegel and Mr Yetish asked for volunteers, and 94 people agreed to collaborate with them by wearing devices that recorded their level of movement, and also when the blood vessels near their skin were constricting. (This happens when people who do not live in environments managed by thermostats wake up: it makes more blood available to the brain and other internal organs.) Dr Siegel and Mr Yetish also put humidity- and temperature-monitoring devices in the areas where their volunteers tended to rest at night, in order to find out if these variables helped determine when they went to sleep and woke up.

In total, the researchers collected 1,165 days' worth of data. They found that people from all three groups slept for between 5.7 and 7.1 hours a day, with an average that hovered around 6.5 hours. Far from exceeding those of a modern city-dweller, these values are near the low end of the range found in industrial societies. An average 7.5 hours a night is the norm there.

Nor did the Hadza, the Ju/'hoansi San or the Tsimané retire shortly after the sun went down. Rather, they stayed awake for an average of 3.3 hours after nightfall, much as people in the developed world do. Their bedtimes appeared to be regulated by the temperature, rather than by daylight, and it takes several hours after the sun has set for things to cool down.

The study also calls into question the idea that siestas are a feature of human behaviour that has been suppressed by modern ways of life. The volunteers rarely napped in summer (doing so on about one day in five), and almost never in winter.

There were some differences. One was that hunter-gatherers exhibited a bigger seasonal variation in the amount of sleep they took than "modern" folk do. They slept almost an hour longer in winter than in summer, whereas the wired sleep about 20 minutes longer. Perhaps more intriguingly, they barely suffered from insomnia, a complaint prevalent in more than 20% of the population of industrial societies.

Whether those who hunt and gather have anything to teach the modern world, then, is moot. A closer examination of their lives may reveal ways of reducing insomnia. But the next time someone claims a siesta is a natural part of human life, rather than a response to partying after midnight, be sceptical. ■

Time for a little lie down

Flying boats

Enter, the dragon

An old technology may be about to get a new lease of life

ANY flying boat you come across nowadays is likely to be in a museum, yet these amphibious aircraft, which use their fuselage to provide buoyancy, once had a golden age. In the 1930s they were luxurious civil airliners, lake- and sea-hopping through the British empire with well-heeled tourists on board. In the 1940s, during the second world war, they took on a military role, ferrying large numbers of troops over long distances, hunting and destroying submarines, and rescuing pilots who had ditched.

Flying boats fell out of fashion because of one of the consequences of that war. Many of the concrete runways it caused to be built were then pressed into civilian use. Flying boats' killer app, their lack of need for such runways, thus disappeared. The Saunders-Roe Princess, the last British version, was the largest all-metal flying boat made (it was similar in size to a Boeing 747). But it was cancelled in the early 1950s, after only three had been built.

There have been attempts to revive them, not least in Britain, where researchers at Imperial College, in London, have come up with a design that blends wing and body, and uses modern, composite materials to add lightness to the fuselage without diminishing the strength needed to withstand repeated touchdowns on water. This design could, they claim, carry up to 2,000 passengers with better fuel-economy than existing wide-bodied jets. But, since it would need a completely new and unconventional type of airport to handle it, it is probably a non-starter.

Not all places have airports of any sort, though, and over the past few years territorial disputes in one such area, the South China Sea (see page 64), have led both America and China to reconsider the use of flying boats. The Chinese, indeed, have gone beyond mere consideration and started to build a new generation of the planes.

The TA-600 Water Dragon (pictured), which is being built by China Aviation Industry General Aircraft, of Zhuhai, Guangdong, should take to the skies next year. Reportedly, it is intended to fight forest fires, and it could, indeed, be fitted out to land (as it were), scoop up water and then take off and dump it on burning trees. But it also seems designed to carry out search-and-rescue missions beyond the range of helicopters, and can carry up to 50 passengers for 5,000km. Handy, then, for a holiday in the Paracel Islands. Or possibly the Spratlys.

Also in this section

For daily analysis and debate on books, arts and culture, visit
Economist.com/culture

Ancient Rome

What a strange lot

The Romans were funny, ambitious and cruel

SPQR: A History of Ancient Rome. By Mary Beard. *Profile; 606 pages; £25. To be published in America by Liveright in November; $35*

WHAT becomes clear in reading Mary Beard's "SPQR", a masterful new chronicle of Rome from its myth-shrouded origins to the early third century, is that the Romans were enough like people are today to seem very peculiar indeed. Even more than the ancient Athenians, the Romans come across as fully three-dimensional, driven by familiar motives of ambition, lust, fear and affection. Thus it comes as a shock when the 60-year-old Cicero, that most articulate and humane statesman, responds to a critic of his impending marriage to a 15-year-old girl with: "Don't worry, she'll be a grown-up woman tomorrow." Even more shocking is the occasion when a comic actor was beaten to death by an audience that objected to his politics. As distressing as the murder itself is the thought that no one judged it sufficiently out of the ordinary to call off the show, though the comedian who followed made sure he stuck to tamer material.

Ms Beard nimbly negotiates this tricky territory, bringing her subjects to life while never succumbing to easy formulae. Given the cruelty and violence, slavery and infanticide of the time, as well as the subjugation of women, it is remarkable how closely the modern world follows the patterns the Romans set. As Ms Beard puts it: "Rome still helps to define the way we understand our world and think about ourselves, from high theory to low comedy. After 2,000 years, it continues to underpin Western culture and politics, what we write and how we see the world, and our place in it."

The Romans, then, rose above their limitations. Like the American slave-owning Founders who proclaimed that "all men are created equal", they managed to erect intellectual, legal and social structures that soared above the tawdriness of their daily lives and provided templates for the future. Some even had a sense of humour about the difference between aspiration and reality. In one memorable put-down, Cicero remarked of a fellow politician: "He talks as if he were in the Republic of Plato, when in fact he is in the crap of Romulus."

Ms Beard, professor of classics at Cambridge and something of a media star in Britain, makes her subject seem relevant, even urgent, to the present day. She shuttles back and forth across the ages, putting ancient conundrums in context by comparing them to current woes. "Pirates in the ancient world were both an endemic menace and a usefully unspecific figure of fear," she writes, "not far different from the modern 'terrorist'"—an analogy that sheds light in both directions.

Ms Beard is a sure-footed guide through arcane material that, in other hands, would grow tedious. Sifting myth from fact in dealing with the early history of the city, she enlivens—and deepens—scholarly debates by demonstrating how the Romans themselves shaped their legendary beginnings to short-term political ends, projecting "later Roman priorities and anxieties into the distant past".

The crucial question Romans asked themselves—one that future generations have also pondered—is: What made Rome great? How did this obscure village on the fringes of civilisation grow over a few centuries to dominate the known world? The answer Ms Beard provides is not one the Romans themselves would have found flattering. Rather than the hand of destiny or the favour of the gods, Rome's rise to greatness turns out to have involved a mix of sheer blind luck and ad hoc adjustments made on the fly. For instance, the immense manpower that made Roman legions invincible grew out of the fact that, early on, the Romans granted inhabitants of conquered territory citizenship, obliging them, among other things, to do military service. It was one of those practical solutions to an immediate problem, what Ms Beard calls a "flair for improvisation", rather than a well thought-out plan that allowed them to conquer the world.

This is hardly the glorious story the Romans themselves would have told. And it will not satisfy those who imagine that great deeds demand greatness of heart, but it rings true. "SPQR" abounds in such insights. Throughout, Ms Beard is the consummate guide, both wise and witty. This is exemplary popular history, engaging but never dumbed down, providing both the grand sweep and the intimate details that bring the distant past vividly to life. ■

The politics of Thatcherism

Missionary zeal

Margaret Thatcher: The Authorised Biography, Volume Two: Everything She Wants. By Charles Moore. *Allen Lane; 880 pages; £30. To be published in America by Knopf in January; $35*

THE second part of Charles Moore's epic three-volume authorised biography of Margaret Thatcher covers the period from the Falklands war in 1982 to her third (and final) election victory in 1987, when her powers were at their zenith. It is an extraordinary story of personal dominance combined with constant insecurity, in which admirable moral courage often contrasted with appalling behaviour towards colleagues. Mr Moore, a distinguished Tory journalist who began this great project 18 years ago, is clearly convinced of Thatcher's greatness, but he is no cheerleader. His judgments throughout the book are shrewd and balanced.

Rather than following a strict chronology, Mr Moore addresses key themes of Thatcher's tumultuous premiership in roughly sequential order. One is her close but often fraught relationship with Ronald Reagan, who was elected president during her first term. He played her false over the invasion of Grenada, and shocked her by appearing to favour abolishing nuclear weapons in 1986. Yet they saw each other as champions of the free world against communism. Despite this, she gritted her teeth in tough talks with Deng Xiaoping over the return of Hong Kong to China and invited Mikhail Gorbachev, then an ambitious young politburo member, to lunch at Chequers. Thatcher saw something in him which made her believe he was a man the West "could do business with".

Her premiership was also defined by conflict: the battle with Arthur Scargill, the leader of the striking miners; the horror of the IRA bombing of theConservative Party conference in Brighton and the painful compromises required by the Anglo-Irish Agreement that followed; the growing tensions over economic policy, especially over the European exchange rate mechanism; and her obsession with introducing a poll tax, which, along with her increasing hostility towards "Europe", eventually brought her down.

This is an account of a public rather than a private life. Although Thatcher often fell back on Denis, her loyal husband, and felt intermittently guilty about the impact of her ambition on her twin children, she was not a politician with much hinterland. But the personal always informed the political for her. Above all, Thatcher's sex profoundly influenced her behaviour towards male colleagues and foes (some, of course, were both at the same time). Apart from the queen and Indira Gandhi, she hardly ever encountered other powerful women. The sense of being alone made her see herself as a permanent outsider, unable to share the clubbable social lives and experience of the men she worked with. Yet she also unhesitatingly used her femininity when it suited, either through high emotion, maternal lecturing or slightly scary flirting.

She could also be alarmingly capricious. Thatcher came to believe that many of her male colleagues lacked her appetite for the struggle, or indeed basic competence. She also worried constantly about plots to undermine her: her distrust of Michael Heseltine, who eventually challenged her for the leadership in 1990, was not unjustified. But her treatment of Geoffrey Howe, her first chancellor and later foreign secretary, was excruciating. A clever and decent man, Lord Howe, who died last week, was bullied and humiliated for no good reason other than that he irritated her. These and other fallings-out were symptomatic of the atmosphere of strife and tension she thrived on.

Mr Moore, for all his admiration, does not attempt to make Thatcher any more likeable than previously thought. But this elegant, often witty, superbly researched book conveys what a truly extraordinary person she was. If only she had resisted the temptation, in her own fateful words, "to go on and on and on". ■

High in iron

The Horn of Africa

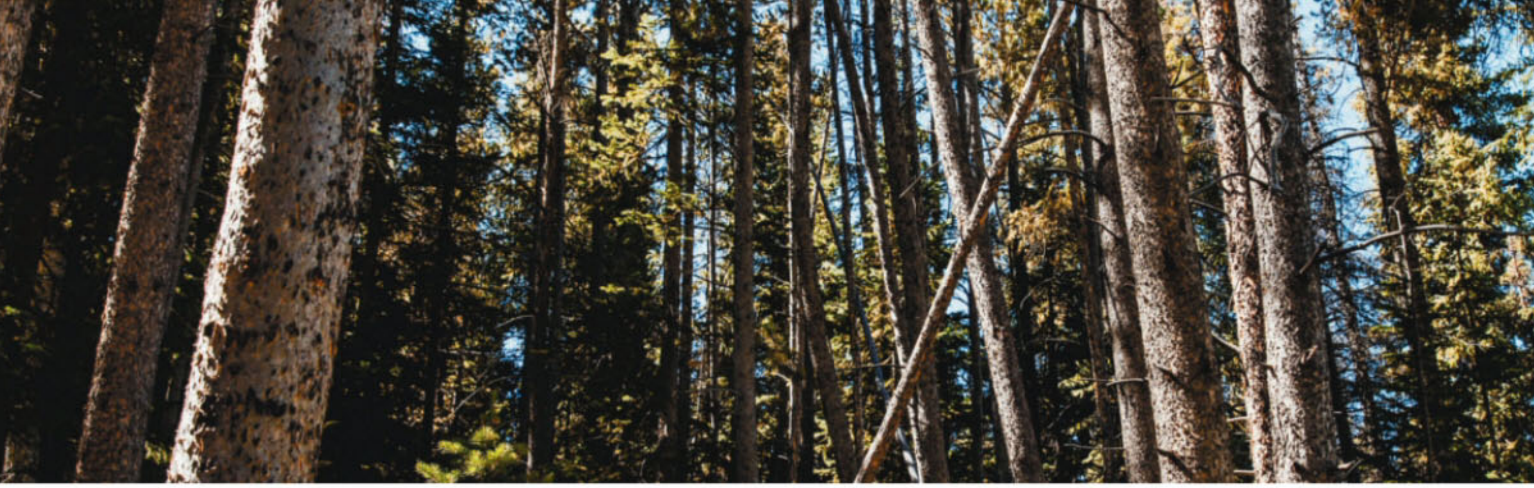
The business of politics

The Real Politics of the Horn of Africa: Money, War and the Business of Power. By Alex de Waal. *Polity Press; 220 pages; $69.95, £55*

AT ONE of the many peace conferences to try to end the bloody conflict in Sudan's Darfur region, this one held in Libya, a succession of well-meaning European ministers trotted to the podium to pledge millions of dollars in aid money to those who agreed to choose peace over war. The idea was to encourage the various rebel groups, especially, to lay down their arms. But in the months afterwards, it was having the opposite effect. Groups of young men talked about starting yet more, ever smaller, armed groups, to provoke a bit of mayhem and consequently qualify for the cash that was on offer to pack in their fighting afterwards.

Such are the perverse incentives that abound in what Alex de Waal calls the "political marketplace" of the Horn of Africa. A veteran analyst of the region, Mr de Waal has used this concept for a number of years, but has now expanded his theories on the monetisation of African politics. In his new book, "The Real Politics of the Horn of Africa", he argues that in this new era of business-politics in the region, political leaders "work on the assumption that human allegiance is tradable". Especially in the violent context of east Africa, "political bargaining and political entrepreneurship can be seen naked, stripped of the flattering wardrobe of democracy, rule of law and state-building," he writes.

It is a bleak vision. Mr de Waal describes this system as both "fascinating and repugnant", and he offers plenty of evidence that buying allegiances is now a standard operating procedure for the local "political entrepreneurs". The chapter on South Sudan, for instance, is unsparing. Many of the nascent country's supporters in the West hoped that it could become a political and institutional rebuke to its neighbours, a rare outpost of democracy and pluralism, after it signed a peace deal in 2005 to end its long war with the north. Mr de Waal, however, shows how the ruling Sudan People's Liberation Movement/Army (SPLM/A) spent what little money the country had on absorbing competing militias into its ranks, to cement political control, rather than on what UN agencies like to call "capacity-building". Thus by independence in 2011, when the country split off from Sudan, the SPLA had 745 generals, and 80% of its defence spending went on wages and allowances. There had been al-




#haveKINDLEwillTRAVEL
@SAMALIVE, BRECKENRIDGE | Maybe it's the excitement of the unknown, or the time by myself, but there's something thrilling about traveling with Stephen King on my Kindle Paperwhite as my only companion.
Follow more journeys on Instagram @AMAZONKINDLE
amazon
kindle

most no gains in public health, education, road-building or indeed anything else, but the SPLA payroll had swelled to over 230,000, plus an additional 90,000 or so police and wildlife rangers. The relatively large amounts of money sloshing around also encouraged large-scale corruption.

Or take Somalia. Here, Mr de Waal applies his political-marketplace model to piracy. It was a huge source of income for Somalis for a brief period in the mid-2000s. Although the world's navies would like to think that it was only their aggressive patrolling of the sea-lanes that stamped out the menace, Mr de Waal suggests another reason, quoting a UN document to the effect that—thanks to that very patrolling—the pirates cleverly diversified, marketing their services as "consultants" and "experts" on counter-piracy as that business became more lucrative.

Although there may be no place for high ideals and political visions in Mr de Waal's dystopia, he has less to say than he might about the other forces that have shaped African politics, such as ethnicity and religion. Here, "identity politics" is briefly subsumed into business-politics. But tribes and clans on their own still play a large role in determining loyalties, especially in countries like South Sudan. ■

Ben Bernanke at the Fed

More talk, more action

The Courage to Act: A Memoir of a Crisis and its Aftermath. By Ben Bernanke. *Norton; 624 pages; $35 and £22.99*

Giving his version of history

BEN BERNANKE is known for his cool head and thoughtful persona. Towards the end of his stint as chairman of the Federal Reserve from 2006 to 2014, President Barack Obama described him as the "epitome of calm". It is no surprise, then, that Mr Bernanke's account of his time in office is an analytical affair, lacking the pulsating drama of previous accounts of the financial crisis. Instead, he provides a robust defence of the Fed's response to it. Mr Bernanke clearly sees himself as having done what was necessary to avert disaster, in the face of a barrage of unwarranted criticism.

When markets began to seize up in late 2007, Mr Bernanke, a student of the Depression, knew the importance of keeping credit flowing. Bank failures in the 1930s had wreaked havoc on the real economy. The Fed would need to follow the dictum of Walter Bagehot, a 19th-century editor of *The Economist*: lend freely to solvent institutions, at a penalty interest rate against good collateral.

This principle lay behind Mr Bernanke's early response to the crisis, which included an alphabet soup of lending programmes to channel funds to banks. Mr Bernanke is rightly proud of these interventions, which helped moderate the crisis and eventually turned a profit for the taxpayer. But as things got worse, Mr Bernanke had to show boldness beyond Bagehot, particularly by using emergency powers to support two over-the-weekend rescues, of Bear Stears, by J.P. Morgan, and AIG, an insurance firm, by the taxpayer.

The bail-outs were politically toxic, especially when AIG later announced bumper bonuses for its staff. Mr Bernanke says he shared the public's emotions and "seethed" at reckless AIG executives. But the purpose of the Fed is to take actions that are necessary but unpopular, he says, and a bail-out was in the interests of ordinary Americans.

After the crisis, with interest rates stuck at zero, the Fed embarked on three paradigm-shifting rounds of quantitative easing (QE), the purchase of securities with newly created money. When it comes to monetary policy, though, the real theme of the book is communication. Mr Bernanke made the Fed more transparent. In 2012 he fulfilled a long-term ambition of setting an explicit inflation target; he also introduced regular Fed press conferences. He appeared twice on "60 Minutes", a television programme, to explain Fed policies. "Monetary policy is 98% talk and 2% action," he argues. As the Fed tried to rev up the economy after the crisis, it came to rely on "forward guidance"—in effect, a promise to keep policy loose for a long time.

Yet the reader is left wondering whether the Bernanke Fed, which acted so decisively to support banks, was behind the curve on monetary policy, despite the novelty of QE. In retrospect, the decision not to cut the federal funds rate from 2% in September 2008, immediately after the collapse of Lehman Brothers, was "certainly a mistake", he writes. Mr Bernanke seemed to have an easier time persuading his committee that bail-outs were necessary to prevent catastrophe than that loose policy was necessary once disaster occurred.

Most of the criticism Mr Bernanke faced was from hawks who hated QE. In 2012 Rick Perry, then governor of Texas and a candidate for president, said that Texans would treat the Fed chairman "pretty ugly" if he visited the state. (Mr Bernanke recalls that he went to Texas and was, in fact, well-received.)

The book convincingly rebuts the hawks. QE did not cause runaway inflation and America has outpaced the euro zone, which has run a tighter policy. What of the claim that loose policy hurts savers? Low returns are the inevitable result of a weak economy; higher rates only make that problem worse. Mr Bernanke, who used to be a Republican, now laments his former party's resistance to bank rescues and their occasional flirtation with discredited monetary systems like the gold standard. The Republicans' obsession with spending cuts at the end of his tenure risked damaging the economy, he says. He wanted Congress to rein in long-run deficits while supporting growth in the near-term.

The book's biggest revelation is that, when testifying before Congress after Lehman's collapse, Mr Bernanke hid his belief that the government had been powerless to save the bank. In the midst of a crisis, he and Henry Paulson, the treasury secretary, did not want to acknowledge the limits to their power, for fear of spooking markets. This, he says, has left an incorrect impression that letting Lehman fail was a choice.

Mr Bernanke is gracious about his critics, but he is clearly keen to give his version of history. The result is a book which compels more than it entertains. That tendency, though, is a desirable trait in a central banker—especially during a crisis. ■

Andrea del Sarto at the Frick

Free hand

An opportunity to reappraise the drawing genius of Andrea del Sarto

WHEN Giorgio Vasari described Andrea del Sarto as a painter "free from errors" he was not so much honouring his teacher as damning him with faint praise. In art, unlike accounting, achievement is not measured by the number of mistakes avoided but by the imaginative vistas opened up. By this standard, del Sarto fell short of the mark, suffering, as Vasari claimed, from "a timidity of spirit". While his older, bolder colleagues—giants like Michelangelo and Raphael—set out for lands uncharted, del Sarto stuck to familiar terrain. Even worse (again according to Vasari) del Sarto's lack of ambition was largely formed by his smothering wife, Lucrezia. This unflattering portrait has survived to this day, not least thanks to a poem by Robert Browning, who depicts the henpecked artist sadly diminished by a faithless wife.

Judging by a new exhibition, "Andrea del Sarto: The Renaissance Workshop in Action", which began at the Getty Museum in Los Angeles and has recently opened at the Frick Collection in New York, Vasari's criticism was not entirely unfounded. Del Sarto was decidedly a synthesiser and consummate craftsman rather than a visionary. Of the few paintings in the show, two sacred subjects, "Medici Holy Family" and "Saint John the Baptist", are more dutiful than inspired. Only "Portrait of a Young Man" rises above mere competence: it is not only masterly, but a revelation of character caught on the quick.

But this is not the whole story. Where del Sarto shows himself to be the equal of any artist in history is in his drawings, the bulk of the show. Del Sarto's natural idiom is small scale, and the immediacy of the medium suited his retiring nature. Anyone who has ever taken a life-drawing class will marvel at his skill in capturing nuances of light and shade. What is lost in the translation from studio sketch to finished painting is apparent when comparing the black chalk "Study for the Head of Saint John the Baptist" with the finished painting. Where the drawing bursts from the page with sparkling life, the painting seems both bland and slightly cloying.

Sketched to perfection

With his favoured red chalk in hand, del Sarto could conjure a world with a few deft strokes, as in "Study of a Standing Male Figure", a work that seems almost modern in its boldness and economy. On the opposite end of the spectrum is the "Study for the Head of Julius Caesar", an exquisitely wrought portrait of a handsome young face that manages to summon an ideal without sacrificing the flesh-and-blood presence of the model.

One of the strengths of the show, as Aimee Ng, the associate curator, points out, is that it allows the viewer to "peer over the shoulder" of the artist as he proceeds from idea to finished product. A sheet of studies for del Sarto's fresco in the Church of Santissima Annunziata in Florence, "The Madonna of the Sack", shows him trying out various compositions, rejecting one after another until he settles on the final version. Here the visitor sees del Sarto's quick mind and quicker hand, gaining a privileged glimpse of a master at work.

The artist's gifts are on full display in the black chalk drawing "Head of a Young Woman" (pictured), believed to be a portrait of the much maligned Lucrezia. Given her beauty and the tenderness with which the artist renders her, one is convinced that both Vasari and Browning misjudged the true nature of their relationship. ■

China and censorship

The power of words

China considers nudity, the Magna Carta and the popularity of artists ahead of Xi Jinping's state visit to Britain

A WEEK before China's president, Xi Jinping, was due to ride in a horse-drawn coach to Buckingham Palace at the start of his first state visit to Britain on October 20th, one of his more troublesome subjects, Ai Weiwei, an artist and activist, agreed a deal to publish his memoirs in 11 countries, including Britain, in 2017. Mr Ai was arrested four years ago. After being openly critical of the government, his passport was seized. He was released after 81 days, but not allowed to leave the country until earlier this year.

The artist's confinement and continued public dissent have increased his profile in the West. For a long time he was banned from the internet in China and his name was hardly known there. That may be changing. Anyone who wants to see how need only wander half a mile from the official route taken by Mr Xi and his wife, Madame Peng Liyuan, up to the Royal Academy where hundreds of elegant young Chinese visitors have been touring an exhibition of Mr Ai's recent work and taking selfies in front of his big installation of dead wood, "Tree".

Meanwhile, the Chinese authorities and those who have to deal with them have been fretting about other possibly subversive views. As a symbolic marking of the importance of Mr Xi's visit, Britain has loaned China the Magna Carta, the ancient constitutional document sealed by King John of England in 1215 which has been described as "the foundation of the freedom of the individual against the arbitrary authority of the despot". Although the document was supposed to be exhibited at the Renmin University campus in Beijing, it languishes in the British embassy. Worried, perhaps, lest it give Chinese students the wrong idea, the authorities have so far failed to sign the appropriate papers allowing it to be displayed at the university.

At the same time, *Playboy*, a monthly magazine known for its photographs of opulently curvaceous naked women, has decided to ban nudity to help its licensing business in China. The magazine has long been banned there. Instead *Playboy*'s Chinese business has been built on selling mostly men's dress shirts, bags and shoes with *Playboy*'s distinctive bunny logo. Retail revenues in China came to more than $500m last year, a third of the company's global retail sales. *Playboy* would like to broaden its appeal to young women, too, hence the worldwide turn away from pictures of naked women.

Mr Xi may wish that others were as willing to censor their own affairs in quite the same way. Mr Ai, however, is unlikely to do that. His memoir will be a cultural history of China over the past century, as seen through his own life and that of his father, Ai Qing, a famous poet and intimate of Mao Zedong who was later branded a rightist, banished to the Gobi Desert and sentenced to hard labour that included five years of cleaning toilets. Worth reading about.

Business Schools

Appointments

Tenders

Government of Ghana

Request for Expression of Interest

Concession for the Management of, Operation of, and Investments in the Electricity Company of Ghana (ECG)

September 30, 2015

1. The Government of Ghana (GoG), acting through the Ministry of Power (MoP), the Electricity Company of Ghana Limited (ECG), and the Millennium Development Authority (MiDA), wishes to introduce private sector participation into the management, operation of, and investments in the Electricity Company of Ghana (ECG) through a long-term concession over ECG's distribution business. ECG is a limited liability company wholly owned by GoG. It provides electricity distribution services to approximately 3 million customers in Ashanti, Greater Accra, Volta and Central, Eastern and Western Regions of Ghana and had revenues in 2014 in excess of GHc 3 billion (approx. US$ 750 million).

2. The International Finance Corporation (IFC) has been appointed by MiDA as Transaction Advisor in relation to the implementation of the transaction. GOG intends to conduct an international competitive tender to select a company or consortium of companies with experience in the management, operation of, and investments in electricity distribution systems, with the objective of selecting a preferred bidder before the end of 2016.

3. Interested parties who wish to ensure that they receive future information regarding this opportunity are invited to submit a letter expressing their interest in the transaction. This Request for Expressions of Interest is open to all eligible entities which wish to respond. Expressions of interest shall not exceed three pages and should include:
   - A short description of the company's current activities; and
   - A short description of the company's professional and technical qualifications in electricity distribution;

4. Further information including the qualification criteria, the draft transaction agreements, the bid process, the bid evaluation criteria, and the instructions for bidders to submit their proposals will be issued to interested parties at a later date.

5. Written expressions of interest in English and titled: **"EXPRESSION OF INTEREST - ECG CONCESSION"** must be delivered to the address below (in person, or by mail, or by fax, or by e-mail).

The Chief Executive Officer
Millennium Development Authority
4th Floor, Heritage Tower, 6th Avenue, Ridge
P.M.B. 56, Ministries
Accra, Ghana

E-mail: **paghana@charleskendall.com**
and copied to: **procurement@mida.gov.gh**
Fax: **+233 302 666 579.**

Appointments

Yale

Senior Vice President for Operations

Yale University seeks a Senior Vice President for Operations (SVP) to oversee a large and complex organization including finance, budget, business operations, procurement, administrative IT, and research administration.

The position statement is available at www.yale.edu/hronline/Yale-SVP-Operations-Position.pdf, and expressions of interest or nominations may be sent via e-mail to: yalesvpoperations@spencerstuart.com.

Yale University is an Equal Opportunity/Affirmative Action Employer and does not discriminate against any individual on account of that individual's sex, race, color, religion, age, disability, status as a protected veteran, or national or ethnic origin; nor does Yale discriminate on the basis of sexual orientation or gender identity or expression.

Business & Personal


ANTIGUA
Experience the Authentic Caribbean
St. James's Club
ANTIGUA
Palm Lined Beaches
A luxurious all-inclusive resort and spa set on a private 100-acre peninsula with two white-sand beaches, delectable dining, and activities for all.
WHITE SAND BEACHES
TURQUOISE WATERS
AMAZING VALUE
SAVE UP TO 35% + $500 AIR CREDIT
TRAVEL THRU DEC 20, 2016
RESERVE NOW (855) 397-4741 | STJAMESCLUBANTIGUA.COM/500

Economic and financial indicators

Economic data

% change on year ago

	Gross domestic product latest	qtr*	2015†	Industrial production latest	Consumer prices latest	2015†	Unemployment rate, %	Current-account balance latest 12 months, $bn	% of GDP 2015†	Budget balance % of GDP 2015†	Interest rates, % 10-year gov't bonds, latest	Currency units, per $ Oct 14th	year ago
United States	+2.7 Q2	+3.9	+2.5	+0.9 Aug	+0.2 Aug	+0.3	5.1 Sep	-429.0 Q2	-2.5	-2.6	2.06	-	-
China	+7.0 Q2	+7.0	+6.8	+6.1 Aug	+1.6 Sep	+1.6	4.0 Q2§	+287.8 Q2	+3.1	-2.7	2.95§§	6.35	6.12
Japan	+0.8 Q2	-1.2	+0.7	+0.2 Aug	+0.2 Aug	+0.7	3.4 Aug	+118.8 Aug	+2.8	-6.8	0.32	119	107
Britain	+2.4 Q2	+2.6	+2.5	+1.9 Aug	-0.1 Sep	+0.1	5.4 Jul††	-149.2 Q2	-4.8	-4.4	1.86	0.65	0.63
Canada	+1.0 Q2	-0.5	+1.1	-1.1 Jul	+1.3 Aug	+1.2	7.1 Sep	-48.5 Q2	-3.0	-1.8	1.40	1.30	1.12
Euro area	+1.5 Q2	+1.4	+1.5	+0.9 Aug	-0.1 Sep	+0.1	11.0 Aug	+351.4 Jul	+2.8	-2.1	0.54	0.87	0.79
Austria	+0.5 Q2	-2.6	+0.7	+1.3 Jul	+1.0 Aug	+1.0	5.7 Aug	+10.7 Q2	+1.2	-2.1	0.88	0.87	0.79
Belgium	+1.3 Q2	+1.7	+1.3	+0.7 Jul	+1.1 Sep	+0.5	8.8 Aug	-5.8 Jun	+1.9	-2.6	0.91	0.87	0.79
France	+1.1 Q2	nil	+1.1	+1.6 Aug	nil Sep	+0.2	10.8 Aug	-0.4 Aug‡	-0.5	-4.1	0.96	0.87	0.79
Germany	+1.6 Q2	+1.8	+1.6	+2.5 Aug	nil Sep	+0.2	6.4 Sep	+280.7 Aug	+7.7	+0.7	0.54	0.87	0.79
Greece	+1.7 Q2	+3.7	+0.5	+4.5 Aug	-1.7 Sep	-1.1	25.0 Jul	-1.3 Jul	+2.5	-4.1	8.11	0.87	0.79
Italy	+0.7 Q2	+1.3	+0.7	+1.0 Aug	+0.2 Sep	+0.2	11.9 Aug	+38.5 Jul	+2.0	-2.9	1.64	0.87	0.79
Netherlands	+1.8 Q2	+0.8	+2.0	-0.7 Aug	+0.6 Sep	+0.4	8.5 Aug	+85.3 Q2	+10.3	-1.8	0.78	0.87	0.79
Spain	+3.1 Q2	+4.1	+3.2	+5.1 Aug	-0.9 Sep	-0.4	22.2 Aug	+19.6 Jul	+0.5	-4.4	1.81	0.87	0.79
Czech Republic	+4.6 Q2	+4.4	+3.4	+6.3 Aug	+0.4 Sep	+0.3	6.0 Sep§	+2.4 Q2	-0.1	-1.8	0.61	23.7	21.8
Denmark	+2.0 Q2	+0.6	+1.5	+2.4 Aug	+0.5 Sep	+0.6	4.5 Aug	+23.2 Aug	+5.4	-2.9	0.84	6.52	5.88
Norway	+2.2 Q2	-0.4	+0.7	+5.2 Aug	+2.1 Sep	+1.7	4.3 Jul‡‡	+37.8 Q2	+9.3	+5.9	1.63	8.11	6.56
Poland	+3.6 Q2	+3.6	+3.4	+5.3 Aug	-0.8 Sep	nil	10.0 Aug§	-1.9 Aug	-1.4	-1.5	2.70	3.70	3.32
Russia	-4.6 Q2	na	-3.8	-4.2 Aug	+15.7 Sep	+15.2	5.3 Aug§	+64.3 Q3	+4.9	-2.8	10.39	62.9	40.9
Sweden	+3.3 Q2	+4.6	+2.9	+3.8 Aug	+0.1 Sep	+0.1	6.4 Aug§	+35.1 Q2	+6.6	-1.2	0.69	8.14	7.23
Switzerland	+1.2 Q2	+1.0	+0.9	-2.5 Q2	-1.4 Sep	-1.1	3.4 Sep	+60.9 Q2	+7.8	+0.2	-0.19	0.95	0.95
Turkey	+3.8 Q2	na	+2.9	+8.4 Aug	+7.9 Sep	+7.5	9.6 Jun§	-43.0 Aug	-4.9	-1.6	10.29	2.93	2.27
Australia	+2.0 Q2	+0.7	+2.3	+1.2 Q2	+1.5 Q2	+1.7	6.2 Sep	-47.4 Q2	-3.7	-2.4	2.59	0.73	0.87
Hong Kong	+2.8 Q2	+1.6	+2.4	-1.3 Q2	+2.5 Aug	+3.1	3.3 Aug‡‡	+7.4 Q2	+2.8	nil	1.54	7.75	7.76
India	+7.0 Q2	+6.6	+7.4	+6.4 Aug	+4.4 Sep	+5.1	4.9 2013	-25.9 Q2	-1.1	-3.8	7.55	65.0	61.4
Indonesia	+4.7 Q2	na	+4.8	+4.4 Aug	+6.8 Sep	+6.4	5.8 Q1§	-21.6 Q2	-2.5	-2.0	8.52	13,620	12,208
Malaysia	+4.9 Q2	na	+5.4	+3.0 Aug	+3.1 Aug	+2.5	3.2 Jul§	+8.8 Q2	+2.5	-4.0	4.13	4.18	3.27
Pakistan	+5.5 2015**	na	+5.7	+4.7 Jul	+1.3 Sep	+3.9	6.0 2014	-2.6 Q2	-0.7	-5.1	9.05†††	104	103
Philippines	+5.6 Q2	+7.4	+6.4	+3.7 Aug	+0.4 Sep	+2.4	6.5 Q3§	+11.7 Jun	+4.1	-1.9	3.69	46.0	44.8
Singapore	+1.4 Q3	+0.1	+2.9	-7.1 Aug	-0.8 Aug	+0.2	2.0 Q2	+69.5 Q2	+21.2	-0.7	2.47	1.38	1.27
South Korea	+2.2 Q2	+1.3	+2.4	+0.3 Aug	+0.6 Sep	+0.8	3.2 Sep§	+104.8 Aug	+6.7	+0.3	2.13	1,147	1,065
Taiwan	+0.5 Q2	-6.6	+3.2	-5.5 Aug	+0.3 Sep	+0.1	3.7 Aug	+72.8 Q2	+12.8	-1.0	1.19	32.5	30.4
Thailand	+2.8 Q2	+1.5	+3.4	-8.3 Aug	-1.1 Sep	+0.8	1.0 Aug§	+24.4 Q2	+2.4	-2.0	2.68	35.6	32.5
Argentina	+2.3 Q2	+2.0	+0.5	+0.5 Aug	— ***	—	6.6 Q2§	-8.3 Q2	-1.7	-3.6	na	9.48	8.48
Brazil	-2.6 Q2	-7.2	-2.7	-8.9 Aug	+9.5 Sep	+8.9	7.6 Aug§	-84.5 Aug	-4.2	-6.0	16.06	3.85	2.40
Chile	+1.9 Q2	nil	+2.8	-5.1 Aug	+4.6 Sep	+3.9	6.5 Aug§‡‡	-0.3 Q2	-1.2	-2.2	4.45	682	588
Colombia	+3.0 Q2	+2.4	+3.3	+0.3 Jul	+5.4 Sep	+4.2	9.1 Aug§	-20.8 Q2	-6.7	-2.1	7.69	2,929	2,053
Mexico	+2.2 Q2	+2.0	+2.4	+1.0 Aug	+2.5 Sep	+2.9	4.3 Aug	-25.3 Q2	-2.3	-3.4	5.92	16.6	13.4
Venezuela	-2.3 Q3~	+10.0	-4.5	na	+68.5 Dec	+84.1	6.6 May§	+10.3 Q3	-1.8	-16.5	10.43	6.31	6.35
Egypt	+4.3 Q4	na	+4.2	+6.0 Jul	+9.2 Sep	+10.0	12.7 Q2§	-12.2 Q2	-1.4	-11.0	na	7.83	7.15
Israel	+1.8 Q2	+0.1	+3.3	+1.1 Jul	-0.4 Aug	-0.2	5.3 Aug	+10.2 Q2	+4.9	-2.8	2.11	3.85	3.75
Saudi Arabia	+3.5 2014	na	+2.7	na	+2.1 Aug	+2.7	5.7 2014	+39.7 Q1	-2.7	-12.7	na	3.75	3.75
South Africa	+1.2 Q2	-1.3	+1.5	+0.6 Aug	+4.6 Aug	+4.8	25.0 Q2§	-15.6 Q2	-4.7	-3.8	8.24	13.3	11.1

Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014 **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proven to be reliable; The State Street PriceStats Inflation Index, August 27.01%; year ago 38.49% †††Dollar-denominated

Markets

			% change on	
			Dec 31st 2014	
	Index Oct 14th	one week	in local currency	in $ terms
United States (DJIA)	16,924.8	+0.1	-5.0	-5.0
China (SSEA)	3,416.9	+6.9	+0.8	-1.5
Japan (Nikkei 225)	17,891.0	-2.4	+2.5	+3.1
Britain (FTSE 100)	6,269.6	-1.1	-4.5	-5.5
Canada (S&P TSX)	13,875.3	+0.1	-5.2	-15.5
Euro area (FTSE Euro 100)	1,067.0	-1.0	+2.9	-2.8
Euro area (EURO STOXX 50)	3,191.6	-1.1	+1.4	-4.1
Austria (ATX)	2,334.2	-0.7	+8.1	+2.1
Belgium (Bel 20)	3,377.0	-1.8	+2.8	-2.9
France (CAC 40)	4,609.0	-1.2	+7.9	+1.9
Germany (DAX)*	9,915.9	-0.5	+1.1	-4.4
Greece (Athex Comp)	676.1	-0.6	-18.2	-22.7
Italy (FTSE/MIB)	21,838.2	-0.8	+14.9	+8.6
Netherlands (AEX)	434.3	-1.4	+2.3	-3.3
Spain (Madrid SE)	1,011.6	-1.5	-3.0	-8.3
Czech Republic (PX)	966.1	-1.2	+2.0	-1.4
Denmark (OMXCB)	812.0	-3.6	+20.2	+13.4
Hungary (BUX)	21,890.8	+2.4	+31.6	+26.7
Norway (OSEAX)	653.3	-2.6	+5.4	-2.6
Poland (WIG)	51,174.6	+0.4	-0.5	-4.4
Russia (RTS, $ terms)	863.3	+2.3	+14.5	+9.2
Sweden (OMXS30)	1,442.8	-0.6	-1.5	-5.2
Switzerland (SMI)	8,573.3	-0.8	-4.6	-0.5
Turkey (BIST)	79,380.2	+0.9	-7.4	-26.0
Australia (All Ord.)	5,230.4	nil	-2.9	-13.9
Hong Kong (Hang Seng)	22,439.9	-0.3	-4.9	-4.9
India (BSE)	26,779.7	-0.9	-2.6	-5.5
Indonesia (JSX)	4,483.1	-0.1	-14.2	-22.0
Malaysia (KLSE)	1,711.1	+1.3	-2.8	-18.8
Pakistan (KSE)	33,974.9	+1.8	+5.7	+1.8
Singapore (STI)	2,983.9	+0.7	-11.3	-15.1
South Korea (KOSPI)	2,009.6	+0.2	+4.9	+0.6
Taiwan (TWI)	8,522.5	+0.3	-8.4	-11.0
Thailand (SET)	1,405.1	+0.8	-6.2	-13.2
Argentina (MERV)	10,873.3	-0.4	+26.7	+13.2
Brazil (BVSP)	46,710.4	-4.5	-6.6	-35.6
Chile (IGPA)	18,603.6	+0.3	-1.4	-12.2
Colombia (IGBC)	9,634.9	-0.9	-17.2	-32.8
Mexico (IPC)	44,064.4	+0.5	+2.1	-9.3
Venezuela (IBC)	11,967.1	+2.1	+210	na
Egypt (Case 30)	7,669.1	+4.3	-14.1	-21.5
Israel (TA-100)	1,316.5	-1.5	+2.1	+3.1
Saudi Arabia (Tadawul)	7,784.5	+2.4	-6.6	-6.5
South Africa (JSE AS)	53,059.1	+0.9	+6.6	-7.4

Merchant fleets

In 2014 the capacity of the global fleet of merchant ships grew by 3.5%, to a total of 1.75 billion deadweight tonnage (a measure of how much vessels can transport). This was the lowest annual growth rate in over a decade. Ships are delivered several years after they are bought: the slowdown reflects the fact that those arriving in 2014 were ordered in the post-crisis years. Greece and Japan remain the two largest ship-owning countries by capacity, controlling almost 30% of the world's tonnage in 2014. But China now owns the most ships. Many countries' ships are registered under foreign flags of convenience, but China has a large proportion of nationally flagged ships used in coastal shipping.

Source: UNCTAD

Other markets

			% change on	
			Dec 31st 2014	
	Index Oct 14th	one week	in local currency	in $ terms
United States (S&P 500)	1,994.2	-0.1	-3.1	-3.1
United States (NAScomp)	4,782.9	-0.2	+1.0	+1.0
China (SSEB, $ terms)	332.5	+7.4	+17.0	+14.4
Japan (Topix)	1,470.8	-1.5	+4.5	+5.1
Europe (FTSEurofirst 300)	1,405.8	-1.3	+2.7	-2.9
World, dev'd (MSCI)	1,661.1	+0.5	-2.8	-2.8
Emerging markets (MSCI)	854.3	+0.4	-10.7	-10.7
World, all (MSCI)	401.8	+0.5	-3.7	-3.7
World bonds (Citigroup)	889.0	+0.5	-1.5	-1.5
EMBI+ (JPMorgan)	709.6	+0.1	+2.6	+2.6
Hedge funds (HFRX)	1,191.3§	+0.1	-2.2	-2.2
Volatility, US (VIX)	18.5	+18.4	+19.2	(levels)
CDSs, Eur (iTRAXX)†	81.4	-2.1	+29.3	+22.2
CDSs, N Am (CDX)†	84.9	+1.3	+28.5	+28.5
Carbon trading (EU ETS) €	8.3	+1.5	+14.1	+7.8

Sources: Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §Oct 12th.

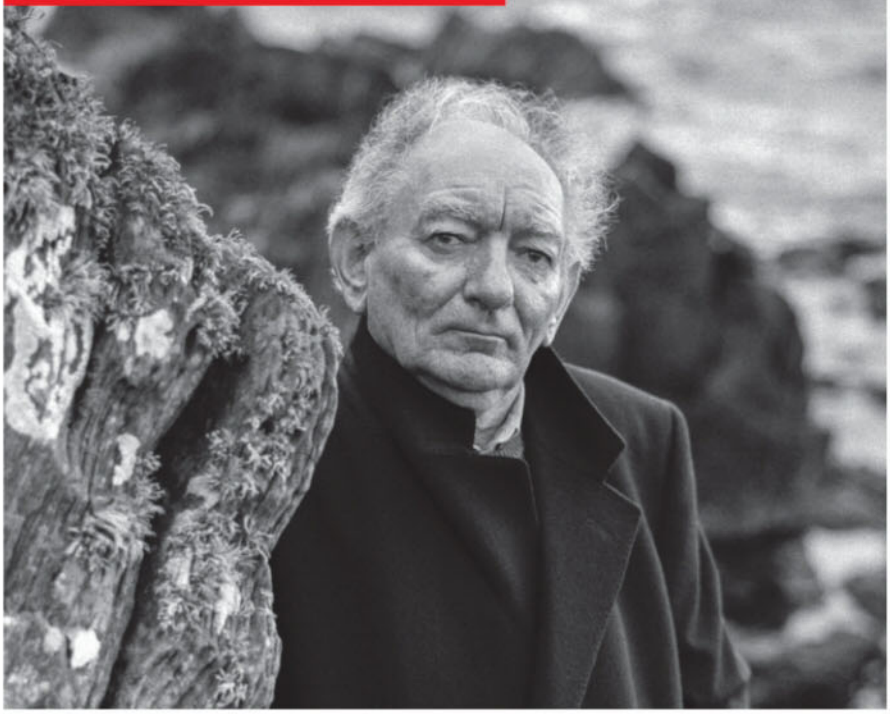
Indicators for more countries and additional series, go to: **Economist.com/indicators**

The Economist commodity-price index

2005=100

			% change on	
	Oct 6th	Oct 13th*	one month	one year
Dollar Index				
All Items	131.4	133.7	+1.6	-14.7
Food	152.7	154.8	+2.3	-10.9
Industrials				
All	109.3	111.8	+0.6	-19.6
Nfa†	109.7	111.6	+1.8	-13.4
Metals	109.2	111.8	+0.1	-21.9
Sterling Index				
All items	157.1	159.7	+2.5	-10.8
Euro Index				
All items	145.1	146.2	+0.7	-5.0
Gold				
$ per oz	1,149.8	1,166.6	+5.6	-5.3
West Texas Intermediate				
$ per barrel	48.6	46.7	+4.5	-43.1

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



A quiet bell ringing

Brien Friel, Ireland's greatest modern playwright, died on October 2nd, aged 86

IF YOU were to catch Brian Friel in some public house in Derry he might well be joking, "getting the crack", his blue pixie's eyes in his red lumpish face glinting with mischief and fun. On the other hand he might be sitting out of the way, nursing his beer with that look of moroseness that he had, and not inclined to answer questions. For there was a Private Friel, extrovert and witty with his friends, and a Public Friel who wanted to speak only through his plays and would not have slick interviewers define him otherwise: a bleak sort of fella, deadly serious in intent, whose natural state was a deep sense of confusion and ambivalence towards the world.

He had written 30 plays of a calibre that placed him with Beckett, Synge and O'Casey. In London and New York he was feted almost as much as at home in Derry. Yet his canvas was very small. He wrote chiefly about his own people and about one place, Ballybeg ("small town"), based on Glenties in County Donegal where he had spent idyllic holidays with his mother's family as a child. His close love of Ireland led him in 1980 to set up the Field Day Theatre Company in Derry "to free Irish voices [for] Irish ears", away from the cultural pressure of metropolises on both sides of the pond.

His Irish idyll, though, was a vexed one: romantic but static, full of myths, rituals and illusion, tranquil yet riven with subterranean anger and frustration. It appeared most memorably in "Dancing at Lughnasa" (1990), where five spinster-sisters, based loosely on his aunts, were inspired by their missionary-brother's return from Africa to leave the patient glove-knitting, bilberry-picking and table-laying to howl and dance round the kitchen like pagans. The same theme coloured "Philadelphia, Here I Come!" (1964), in which a young man, Gareth O'Donnell, emigrating from Ballybeg to America, was tormented by the thought both of leaving and of staying. Two actors played him, Public and Private Gareth, chattering away to do his head in even over the saying of the rosary: amid ritual certainties, uncertainty personified.

Ballybeg lay just across the border from the North, and something of Mr Friel's ambivalence lay in Ireland's own divisions. As a grown man he would slip between North and South not noticing the border—the landscape not changing, after all—and would love to look on Derry, especially at twilight, with the Foyle winding seawards between the lazy docks. As a thieving little urchin, though, growing up Catholic in the divided city, he had been terrified of going to the shoemaker's lest the Protestant boys got him. He was drawn to nationalism, but left the Nationalist Party after a few years; he knew Gaelic, but kept the extent of that secret, lest it harm his even-handedness. His most political play, "The Freedom of the City" (1973), based on the judicial inquiry that followed Bloody Sunday and opening with bodies sprawled on the stage, was not, he said, really about the Troubles. It was about the difficulty of establishing truth: any sort of truth.

Beyond words

This was a permanent theme in his work. His characters, largely inarticulate villagers, farmers or priests, struggled to decide whether the new truths bruising in were more credible than their memories, their legends or their fathers' lectures. They tried, like the characters in Chekhov's plays (which he loved and translated), to take refuge in the "aul ways" against the freezing winds of change. In "Translations" (1980), perhaps his best play, in which British military surveyors in the 1830s came to impose new Anglicised placenames on Ireland, the characters tried to make do in Latin and Greek as well as the Gaelic of the disappearing past. Only love, between a British soldier and an Irish girl, could make itself understood in looks and gestures. Nobody now had the right words.

Mr Friel did not lack them himself, however. His ear for speech was exact, hearing rhythms like a musician (and where words failed in a play he would swiftly insert a scratched record played on a gramophone, or a popular song). As soon as his characters began stirring—as soon as their shapes began to form, and he had a whiff of the smell of the play—their way of talking came too. By the time he was ready to sit and write, they would immediately engulf him, and he would find he already knew everything about them.

He would write like a demon then, only making frequent breaks for tea. The process was hell, but he had long hoped to do it, after wretched forays into the priesthood ("it nearly drove me cracked") and teaching mathematics. For a while he got by handsomely writing stories for the *New Yorker*—until a chance to work with Tyrone Guthrie, skulking round in the back rows of the great director's theatre in Minneapolis, convinced him that he had a vocation to move people's hearts, and set a quiet bell ringing in their heads, with plays.

Bugging interviewers sometimes suggested he might have stayed in America longer. It was ever the land of liberation for him, the place his characters would leave for as soon as the potato crop was in. But he knew that, if he went, homesickness for green Ireland would gnaw away at him as surely as at them. Exile was not the answer. There was a strange dignity in staying but wavering, trying to balance emotions that would not be reconciled. Confusion, he insisted, "is not an ignoble condition". ■

The Economist Events

CUBA SUMMIT

DECEMBER 3RD 2015 • WASHINGTON, DC

THE FLAG HAS BEEN RAISED—WHAT'S NEXT?

The recent flag raising in Havana marked a new chapter in relations between Cuba and the US. Join our Cuba Summit to discover how your organization can capitalize on the new economic opportunities in Cuba.

SPEAKERS INCLUDE:

DEVRY BOUGHNER VORWERK
Vice-president, corporate affairs
CARGILL INCORPORATED

KAY KEUHNE
Regional director, Latin America
AIRBNB

DAVID PATHE
President and chief executive
SHERRITT INTERNATIONAL CORPORATION

DAVE SELESKI
President and chief executive officer
STONEGATE BANK

SAVE 30% WHEN YOU REGISTER WITH COLLEAGUES.

212.541.0539 | cuba.economist.com

SPONSORSHIP INFORMATION: **EVENTSPONSORSHIP@ECONOMIST.COM**