The Economist

JUNE 13TH–19TH 2015

Economist.com

Islamic State's war on culture

Where Uber goes next

Insuring against Asia's catastrophes

The robots are coming...slowly

I think, therefore I am French

Watch out

The world is not ready for the next recession

2015
U.S. OPEN
CHAMBERS BAY

U.S. OPEN CHAMPIONSHIP
CHAMBERS BAY
JUNE 15TH TO 21ST, 2015

THIS WATCH HAS SEEN CHAMPIONS TESTED. LIMITS PUSHED. SPORTSMANSHIP THAT INSPIRES A TRADITION OF EXTRAORDINARY FEATS. PERFORMANCE AT ITS FINEST. AND THE SHOTS THAT MAKE HISTORY. AT THE CHAMPIONSHIP THAT INSPIRES GREATNESS.

OYSTER PERPETUAL DATEJUST

ROLEX


Power your enterprise with our most powerful processor
Your office never really closes. Your team needs technology that keeps them productive from wherever business happens. This is the Samsung Galaxy S6 edge. Equipped with 3x more RAM than the iPhone 6* and our most powerful mobile processor ever, we have created a superior platform so you can work as fast as business demands. Collaborate with ease on leading business applications and seamlessly share content using Quick Connect.™ Get the Samsung Galaxy S6 edge and empower your workforce to be just as productive on the go as they are in the office.
Visit samsung.com/business to learn more
Ready For The Next Big Thing
SAMSUNG BUSINESS
*Based on comparison of Galaxy S6 and Galaxy S6 edge RAM with Apple's published specifications. Connection methods may vary depending on the type of connected devices or the shared content. Devices that support Quick Connect™ must have it enabled; devices that do not support Quick Connect™ must have Wi-Fi direct or Bluetooth enabled. © 2015 Samsung Electronics America, Inc. Samsung, Galaxy S, Knox and Samsung Business are all trademarks of Samsung Electronics Co., Ltd. Android and other marks are trademarks of Google Inc. Other company names, product names and marks mentioned herein are the property of their respective owners and may be trademarks or registered trademarks. Appearance of devices may vary. Screen images simulated. Printed in U.S.A.


SAMSUNG
12:45 AM
Phone
Salesforce
KNOX
Office Mobile
Apps
SAMSUNG
Galaxy S6 edge

PIMCO®

Each year, our Secular Forum maps the future of the global economic landscape. This outlook forms the basis for actionable investment ideas: defining the obstacles and opportunities ahead and setting millions of investors on a course of action. **KNOW WHERE YOU'RE GOING.**

pimco.com

A company of Allianz

All investments contain risk and may lose value. ©2015 PIMCO.

Contents

On the cover
It is only a matter of time before the next recession. The rich world is not ready: leader, page 15. Many governments will not have much wriggle room when crisis strikes: Free exchange, page 72. America's disappointing economy is more robust than it first appears. But higher interest rates are on the horizon, and could bring unexpected risks, pages 24-26

***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

Volume 415 Number 8942

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, Hong Kong, Johannesburg, Lima, Los Angeles, Mexico City, Moscow, New Delhi, New York, Paris, San Francisco, São Paulo, Singapore, Tokyo, Washington DC

11 **The world this week**

Leaders
15 **The world economy**
Watch out
16 **Turkey's election**
Sultan at bay
16 **The Rohingyas**
Apartheid on the Andaman Sea
18 **Insurance in Asia**
Narrow-minded
20 **Military innovation**
A sharper blade

Letters
21 **On men, stockmarkets, cocaine, aid, the Bible, art**

Briefing
24 **America's economy**
Better than it looks

United States
27 **Republican contenders**
What's in a name?
28 **Education policy**
Into reverse
29 **Chinese hacking**
Put up the firewalls
29 **The Supreme Court**
What the prez says, goes
30 **Crime in Atlanta**
Fighting back
30 **Donations to universities**
Unto him that hath…
31 **Transgender rights**
Ready for their close-up
31 **"Sesame Street"**
Big Bird, big brain
32 **Lexington**
Speech on campus

The Americas
34 **Mexico's elections**
Punishing bad behaviour
35 **Argentina's economy**
Plan Hang On
35 **Suriname**
A flawed president wins
36 **Bello**
Latin American art

Asia
37 **The Rohingyas**
The most persecuted people on Earth?
40 **Bangladesh and India**
Mapped out
40 **South Korea and MERS**
Don't inhale
41 **Japan's constitution**
Peacemongers
41 **Japan's obscenity laws**
Vagina monologue
42 **Banyan**
South Asia's miserable mothers

China
43 **Hong Kong's economy**
The mainland's embrace
44 **E-cigarettes**
Starting them young

Middle East and Africa
45 **Jihad and vandalism**
Save our stones
47 **Israel and Saudi Arabia**
The new frenemies
47 **Fashion in Saudi Arabia**
The couture-buyer beneath the abaya
48 **Yemen's war**
No end in sight
48 **Jobs in Kenya**
Guards, not guides

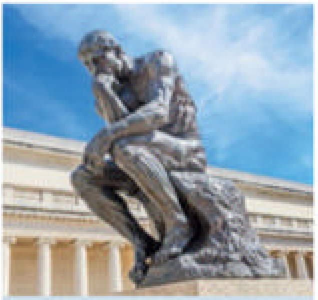
Europe
49 **Turkey's election**
The voters' signal
50 **The Cyprus problem**
Talking time
50 **Greece and the euro**
Non-meeting of minds
51 **Corruption in Romania**
Immune system
51 **Reinventing Paris**
Start-up city
52 **Berlin's new castle**
What would the Kaiser say?
53 **Charlemagne**
EU solidarity and refugees

Military innovation To keep its fighting edge, America needs to spend more on weapons technology: leader, page 20. The battlefield is more level than it has been in many years. That is a problem for the West, page 57

Islamic State's war on culture As well as killing people, IS is smashing up ancient works of art. Alas, only a little can be done to prevent its acts of barbarism, page 45. Banning catwalk shows will not stop Saudi women from looking chic, page 47

Turkey Voters say no to an authoritarian: leader, page 16. Turks—and Kurds—show that they prefer liberal democracy to Islamist autocracy. But they have made it harder to form a government, page 49

Contents continues overleaf



The French Why the life of the mind is so important in France, page 79. Paris, a capital seen as a museum, develops new pockets of high-tech modernity, page 51

Uber The taxi-hailing company has its sights set on the delivery business, page 61

Insurance Asia should do more to protect itself from the harm caused by natural catastrophes: leader, page 18. For insurers, Asia is a cauldron of innovation, but also of competition, page 71

Britain

54 **Britain and Europe**
Swimming the channel

55 **Magna Carta at 800**
Stitch in time

55 **Fiscal rules**
Playing by the book

56 **Bagehot**
The House of Lords, a democratic embarrassment

International

57 **Weapons technology**
Who's afraid of America?

Business

61 **Uber**
Driving hard

62 **Alan Bond**
Bubble man

63 **Apple and music**
The second revolution

63 **Renewable energy**
Banishing the clouds

64 **Art sales**
Brush hour

65 **Executive-search firms**
From headhunters to culture vultures

66 **Schumpeter**
Lobbying is bad for business

Finance and economics

67 **Deutsche Bank and HSBC**
In hole, still digging

68 **Buttonwood**
Regulating bond funds

69 **Iceland's economy**
The flows resume

69 **Financial crime**
A bigger stick

70 **Forecasting interest rates**
The Fed gets dotty

70 **State-owned assets**
Neglected wealth

71 **Insurance in Asia**
Astounding claims

72 **Free exchange**
The wriggle-room ranking

Science and technology

75 **Bioengineering**
Towards a body-on-a-chip

76 **Diagnostics**
Retina selfie

77 **Humanoid robots**
After the fall

Books and arts

79 **How the French think**
Portrait of an intellectual people

80 **American Baptists**
Dipped in controversy

80 **The human body**
Life in the round

81 **Duelling in literature**
Men at arms

81 **Milan Kundera's fiction**
Unbearable lightness

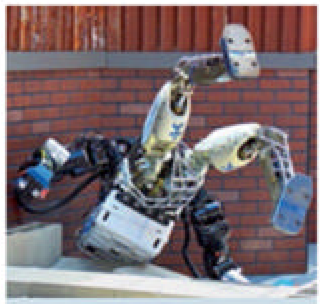
82 **Pierre Boulez at 90**
Happy birthday, music magpie

88 Economic and financial indicators

Statistics on 42 economies, plus a closer look at world GDP

Obituary

90 **Bob Randall**
The stealing time



Robots Setting machines against each other shows the promise of autonomous technology—and its many pitfalls, page 77

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

60/F Central Plaza
18 Harbour Road, Wanchai, Hong Kong
Tel: 852 2585 3888

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

PEFC certified

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

PEFC/29-31-58

recycle

© 2015 The Economist Newspaper Limited. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Newspaper Limited. *The Economist* (ISSN 0013-0613) is published every week, except for a year-end double issue, by The Economist Newspaper Limited, 750 3rd Avenue, 5th Floor, New York, N Y 10017. *The Economist* is a registered trademark of The Economist Newspaper Limited. Periodicals postage paid at New York, NY and additional mailing offices. **Postmaster**: Send address changes to The Economist, P.O. Box 46978, St. Louis , MO. 63146-6978, USA. Canada Post publications mail (Canadian distribution) sales agreement no. 40012331. Return undeliverable Canadian addresses to The Economist, PO Box 7258 STN A, Toronto, ON M5W 1X9. GST R123236267. Printed by Quad/Graphics, Saratoga Springs, NY 12866

She's a fan.

MANDARIN ORIENTAL
THE HOTEL GROUP

To find out why Michelle Yeoh is a fan visit mandarinoriental.com ATLANTA • BANGKOK • BARCELONA • BODRUM • BOSTON • GENEVA • GUANGZHOU • HONG KONG • JAKARTA • KUALA LUMPUR • LAS VEGAS LONDON • MACAU • MARRAKECH • MIAMI • MILAN • MUNICH • NEW YORK • PARIS • PRAGUE • SANYA • SHANGHAI • SINGAPORE • TAIPEI • TOKYO • WASHINGTON D.C.

HAINAN AIRLINES

Cherished Experience

Hainan Airlines Makes Travel to China Easier than Ever!

Hainan Airlines now offers more routes across the Pacific than ever before! Fly nonstop to Beijing from Seattle, Chicago, Boston, Toronto and now Silicon Valley/San Jose! And now Shanghai is linked to both Boston and Seattle with new nonstop, too!

Business Class offers comfortable seats that recline to a fully-flat position, turndown service and delicious cuisine prepared by our international chefs – plus complimentary limo service at our U.S. and China gateways. Everyone on board enjoys the latest in on-demand entertainment systems. Connections with our airline partners makes it convenient to travel from dozens of cities across North America via our gateways.

(Note: Silicon Valley-Beijing and Boston/Seattle-Shanghai services begin June 2015)

www.hainanairlines.com | 1-888-688-8813 | Hainan Airlines Global

Like us on Facebook

5 STAR AIRLINE SKYTRAX

WORLD 5-STAR AIRLINE

Politics

America announced plans for a modest increase of its training forces in **Iraq**. A new base will be manned in Anbar province, with about 450 additional soldiers on top of the 3,100 currently deployed in the country. Their job will be to train Iraqi forces for the expected attempt to recapture Ramadi, Anbar's largest city, which fell to Islamic State fighters last month.

A suspected IS attack was launched against Luxor, the site of **Egypt's** most famous ancient ruins. The suicide-bomber killed himself and injured four people, but killed no one else.

There was more heavy fighting in **Yemen**, as the warring parties prepared to send delegates to Geneva for a round of UN-sponsored "consultations". The meeting is not even being dignified with the name "peace talks". Saudi-led air strikes on the headquarters of the Yemeni army in Sana'a, the capital, killed 44 people.

The leaders of Africa's three trading blocs, which represent 26 countries, signed an agreement for the establishment of a **free-trade area** that would cover the continent's biggest economies and stretch from Cape Town to Cairo. Yet no timeline was set for a reduction in tariffs, nor have the three regional trading blocs themselves had much success in boosting trade among their members.

Hundreds of thousands of people face starvation in **South Sudan** as a result of a civil war, according to the International Committee of the Red Cross. Similar numbers, meanwhile, face a shortage of food and medical care in north-eastern Nigeria because of the insurgency by Boko Haram, a jihadist outfit.

Tapering Erdogan's ambitions

In **Turkey's** election a big chunk of voters deserted the ruling Justice and Development (AK) party, which lost its parliamentary majority. The pro-Kurdish Peoples' Democracy Party (HDP) easily cleared the 10% threshold for parliamentary seats. The president, Recep Tayyip Erdogan, may now have to abandon his plan to boost presidential powers, and forming a governing coalition will be hard.

The **G7 summit** was held in a castle in Bavaria under the chairmanship of Angela Merkel, the German chancellor. The political leaders promised to end all fossil-fuel emissions by the end of the century. They also undertook to maintain sanctions on Russia over its intervention in Ukraine.

An opinion survey by the Pew Research Centre found opposition in some big **NATO countries** to military intervention in support of a fellow NATO member that is in conflict with Russia. NATO's Article 5 obliges members to get involved because an attack on one is an attack on all.

Belgium is minting euro coins to commemorate the 200th anniversary of the battle of Waterloo, despite strenuous French objections. It got around the need for French agreement by issuing them as €2.50 coins instead of €2.

Down, but not out

Mexico's biggest parties, including the Institutional Revolutionary Party (PRI) of the president, Enrique Peña Nieto, fared badly in congressional and regional elections. Independents, permitted to run for the first time, did well. One independent candidate won the governorship of Nuevo León, a rich northern state. But the PRI and its allies kept their majority in Congress. The government reinstated teacher evaluations, opposed by a radical union, that it had suspended before the election.

Suriname's National Democratic Party won a majority in the country's National Assembly in legislative elections, the first time any party has done so. The result makes it likely that the country's president, Desi Bouterse, who leads the party, will be re-elected.

Venezuela demanded that **Guyana** stop exploring for oil in an area that Venezuela claims. Exxon Mobil, an American oil company, announced in May that it had discovered large amounts of oil in Guyanese waters. Venezuela claims Guyanese territory west of the Essequibo river.

Compassionate leave

Two British corporate detectives, Peter Humphrey and his wife, Yu Yingzeng, were released from prison in **China** before completing the sentences they were given for illegally obtaining private data. The two were expected to be deported within a few days. Mr Humphrey was jailed last August for two-and-a-half years and Ms Yu for two years after helping GlaxoSmithKline, a drugs company, with an investigation.

American officials said they suspect China of being behind the **hacking** of federal government computers storing the records of 4m current and former government employees. A White House spokesman said that America faced a "dedicated adversary". China denied involvement.

Nine people died and more than 108 others were infected in an outbreak in **South Korea** of Middle East Respiratory Syndrome (MERS). It is the largest cluster of cases to emerge outside Saudi Arabia. Hundreds of schools and universities have been closed and more than 2,800 people put in isolation.

Aung San Suu Kyi, **Myanmar's** opposition leader, began a trip to China to meet the country's leaders. China has been disdainful of Ms Suu Kyi's role as a campaigner for democracy in Myanmar and of Western support for her. But it wants to improve relations with her National League for Democracy party, which is expected to do well in elections later this year.

Very diplomatic

America's Supreme Court overturned a law that allowed **American citizens** born in Jerusalem to give Israel as their birthplace in passports. Congress had passed the law to boost Israeli claims of sovereignty over the city, but the court ruled that only the president has the power to recognise foreign countries.

Jeb Bush visited Germany, Estonia and Poland to burnish his foreign-policy credentials ahead of a formal announcement that he is running for president. In Berlin Mr Bush praised the role played by his father, George H.W. Bush, in unifying Germany. He didn't mention the foreign-policy record of his brother, George W. Bush.

Business

George Osborne, Britain's chancellor of the exchequer, said the government would start selling its majority stake in **Royal Bank of Scotland**. RBS has struggled since its bail-out in 2008 despite various restructurings and the hiving off of its bad assets in 2013. Doubts have been raised over the years that it would ever regain its pre-crisis value; Mr Osborne thinks that now is the time to cut the government's losses and begin the process of returning RBS fully to the private sector. Taxpayers stand to lose billions if the bank is sold at its current share price.

Concluding a Nordic saga

Seven years after the peak of the financial crisis, **Iceland** said that it would gradually remove the capital controls it had imposed, a sign that the economy has moved beyond its turbulent past. In 2008 Iceland's three biggest banks—Glitnir, Kaupthing and Landsbanki—collapsed with debts held mostly in foreign currencies. At the time the combined assets of the three banks dwarfed Iceland's GDP.

Deutsche Bank decided to replace—eventually—its two co-chief executives with a single chief executive. Jürgen Fitschen will leave in May next year. But Anshu Jain, who has taken the brunt of the criticism for the German bank's recent troubles, is to step down at the end of the month. His background in investment banking was seen by some as a hindrance to reforming the business. A long-awaited reorganisation plan in April failed to impress investors. Deutsche's share price rose sharply on news of the shake-up. The new boss will be John Cryan, a former finance chief at UBS.

Stuart Gulliver, the chief executive of **HSBC**, announced a restructuring of the bank. Almost 50,000 jobs, a fifth of the workforce, are to go, half of them at its loss-making operations in Brazil and Turkey, which it is selling. Up to 8,000 will come from its headquarters in London and British bank branches. Mr Gulliver promised shareholders that his strategy will reap higher returns; the bank's share price fell by 1% after he spoke.

The Brazilian beat

In an attempt to revive a sluggish economy the **Brazilian** government set out incentives for private-sector bidders to invest 198 billion reais ($64 billion) in infrastructure over the next few years. A similar package of concessions in 2012 attracted only about a fifth of the targeted amount because of overbearing conditions attached by the government, but it is offering better terms this time.

The yields on **bonds** issued by euro-zone countries reached their highest point of the year so far, with the yield on German ten-year bonds rising above 1% for the first time since September. With the threat of deflation receding and long-term inflation forecasts picking up, the yields on American and British government bonds also rose.

MSCI, a company which compiles share indices that are tracked by leading funds, once again chose to exclude **Chinese equities** from its benchmark emerging-markets index. It said that Chinese stockmarkets were "on track for inclusion", but made it clear that the pace of reforms to open up China's financial system needs to be quicker.

Japan's economy grew in the first quarter at a much faster rate than had been thought. A revised estimate found that GDP expanded by 3.9% at an annualised rate, up from the 2.4% that was first reported last month. Inventories remained very high, prompting more warnings about a possible oversupply of goods in the economy, but the upward revision also reflected a surge in business investment.

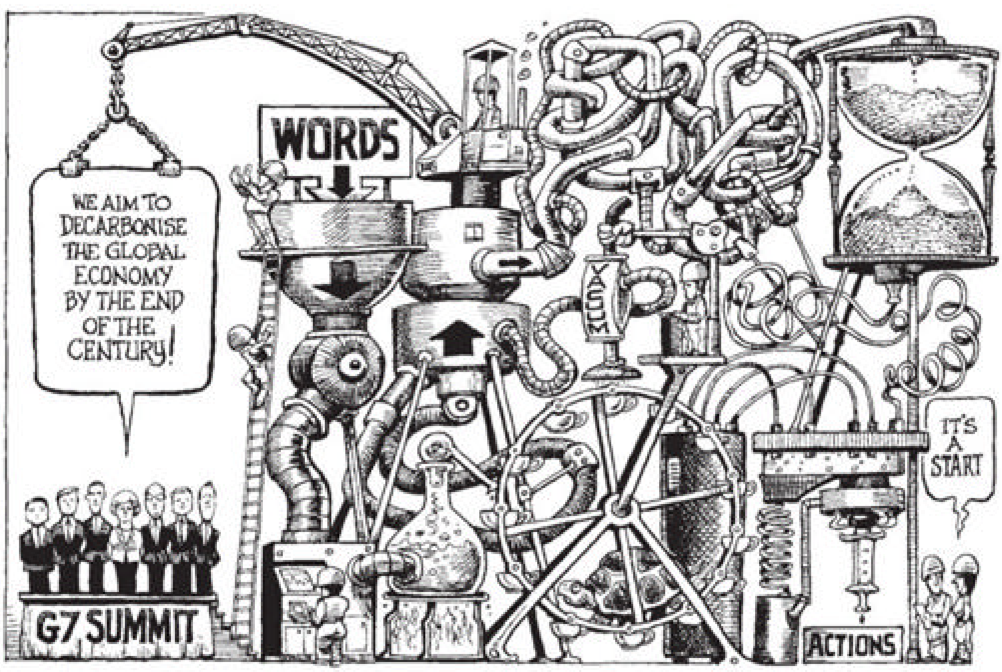
Tokio Marine, a big Japanese insurer, agreed to buy **HCC Insurance**, which is based in America, for $7.5 billion. Japanese companies are making foreign acquisitions at a record pace this year.

GE said it would sell the private-equity lending arm of **GE Capital** to Canada's largest pension fund for $12 billion. The sale is a big step forward in GE's plan to get out of the financial-services industry in order to refocus on its industrial strengths.

You say you want a revolution

Apple launched its new music-streaming service, which is based on the one that was offered by Beats Electronics before Apple bought the firm last year. For a monthly fee users will be able to create unlimited playlists from songs that stream over Apple Music, or they can listen free to Beats One, Apple's new radio station. Apple hopes it can once again transform the music industry, though it is behind the groove when it comes to streaming tunes: Spotify has been doing it for years. Still, given Apple's record, Spotify can hardly relax: the Swedish firm has reportedly raised more than $500m from investors to stop Apple from reaching number one.

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




HITACHI
Inspire the Next
"CAN'T WE USE MAGIC TO GET THERE FASTER?"
At Hitachi, we're inspired by challenging questions. That's why we've taken a different approach to help cities face the growing pressure on their transportation network. We're committed to finding integrated solutions that provide reliable and efficient transportation systems. Using our innovative information technologies, we're already making it happen with rolling stock systems, traffic management systems as well as other transportation infrastructure. The future deserves more than ready-made answers. Hitachi Social Innovation.
social-innovation.hitachi.com
SOCIAL INNOVATION
IT'S OUR FUTURE

OPTUM

People. Technology. Data. Action.

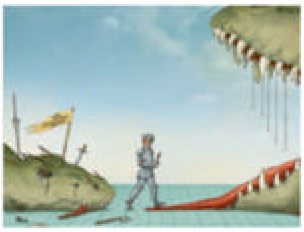
HEALTHIER IS HERE

Who has the biggest impact on our health? The doctor, the pharmacist, the health plan, public policy? To power modern health care, we believe the answer is all of the above and more. After all, the only way to treat the whole person is to engage the whole health system. As a health services and innovation company, we're connecting every part of the system by combining data and analytics with technology and expertise. Because when it comes to making Healthier happen, we're all in this together.

optum.com

Watch out

It is only a matter of time before the next recession strikes. The rich world is not ready



THE struggle has been long and arduous. But gazing across the battered economies of the rich world it is time to declare that the fight against financial chaos and deflation is won. In 2015, the IMF says, for the first time since 2007 every advanced economy will expand. Rich-world growth should exceed 2% for the first time since 2010 and America's central bank is likely to raise its rock-bottom interest rates.

However, the global economy still faces all manner of hazards, from the Greek debt saga to China's shaky markets. Few economies have ever gone as long as a decade without tipping into recession—America's started growing in 2009. Sod's law decrees that, sooner or later, policymakers will face another downturn. The danger is that, having used up their arsenal, governments and central banks will not have the ammunition to fight the next recession. Paradoxically, reducing that risk requires a willingness to keep policy looser for longer today.

The smoke is clearing

The good news comes mainly from America, which leads the rich-world pack. Its unexpected contraction in the first quarter looks like a blip, owing a lot to factors like the weather (see pages 24-26). The most recent data, including surging vehicle sales and another round of robust employment figures, show that the pace of growth is rebounding. American firms took on 280,000 new workers last month. Bosses are at last having to pay more to find the workers they need.

In other parts of the rich world things are also looking up. In the euro zone unemployment is falling and prices are rising again. Britain's recovery has lost a bit of puff, but strong employment growth suggests that expansion will continue. Japan roared ahead in the first quarter, growing by 3.9% at an annualised rate. A recovery so broad-based and persistent is no fluke.

Inevitably fragilities remain. Europe is deep in debt and dependent on exports. Japan cannot get inflation to take hold. Wage growth could quickly dent corporate earnings and valuations in America. Emerging economies, which accounted for the bulk of growth in the post-crisis years, have seen better days. The economies of both Brazil and Russia are expected to shrink this year. Poor trade data suggest that Chinese growth may be slowing faster than the government wishes.

If any of these worries causes a downturn the world will be in a rotten position to do much about it. Rarely have so many large economies been so ill-equipped to manage a recession, whatever its provenance, as our "wriggle-room" ranking makes clear (see page 72). Rich countries' average debt-to-GDP ratio has risen by about 50% since 2007. In Britain and Spain debt has more than doubled. Nobody knows where the ceiling is, but governments that want to splurge will have to win over jumpy electorates as well as nervous creditors. Countries with only tenuous access to bond markets, as in the euro zone's periphery, may be unable to launch a big fiscal stimulus.

Monetary policy is yet more cramped. The last time the Federal Reserve raised interest rates was in 2006. The Bank of England's base rate sits at 0.5%. Records dating back to the 17th century show that, before 2009, it had never fallen below 2%; and futures prices suggest that in early 2018 it will still be only around 1.5%. That is healthy compared with the euro area and Japan, where rates in 2018 are expected to remain stuck near zero. When central banks face their next recession, in other words, they risk having almost no room to boost their economies by cutting interest rates. That would make the next downturn even harder to escape.

The logical answer is to get back to normal as fast as possible. The sooner interest rates rise, the sooner central banks will regain the room to cut rates again when trouble comes along. The faster debts are cut, the easier it will be for governments to borrow to ward off disaster. Logical, but wrong.

Raising rates while wages are flat and inflation is well below the central bankers' target risks pushing economies back to the brink of deflation and precipitating the very recession they seek to avoid. When central banks have raised rates too early—as the European Central Bank did in 2011—they have done such harm that they have felt compelled to reverse course. Better to wait until wage growth is entrenched and inflation is at least back to its target level. Inflation that is a little too high is a lot less dangerous for an economy than premature rate rises are.

Because America's recovery is strongest, that is where debate about how fast to return monetary policy to normal is fiercest. Hawkish voices at the Fed argue that, with unemployment below 6% and hiring continuing at a torrid pace, it is plainly time to start raising interest rates. In this view, wages and prices are bound to pick up in future. Meanwhile excessively low rates are inflating asset prices and creating long-run financial risks. Those risks are real but manageable. Regulators have the ability to let the air out of asset prices by tightening rules on leverage and liquidity. An economy at full employment and with a healthy level of inflation will be better positioned to withstand a bout of financial instability than one that is flirting with deflation.

The best defence

Governments can also do their bit. There has still been shamefully little growth-boosting investment in infrastructure. The OECD, a club of mostly rich countries, was right to rap George Osborne, Britain's finance minister, on the knuckles for the scale and pace of his proposed public-spending cuts. Growth is better than austerity as a policy for bringing debts under control. Governments should instead direct their energies towards overdue reforms to product and labour markets. Open product markets encourage enterprise. The freedom to hire workers under flexible contracts is the best way to keep people out of unemployment. Both reforms make an economy better able to cope with the next shock.

Having fought off the effects of the financial crisis, governments and central banks are understandably eager to get back to normal. The way to achieve their goal is to allow the recovery to gather strength first. ■

Turkey's election

Sultan at bay

Voters say no to an authoritarian leader

IT IS rare for somebody who wins more than 40% of the vote to feel beaten. But after the Turkish general election on June 7th that is the fate of the Justice and Development (AK) party and, even more so, of Recep Tayyip Erdogan (pictured), its charismatic and worryingly autocratic founder. As head of state, Mr Erdogan is supposed to stand above party politics, but he campaigned shamelessly for an AK supermajority that could change the constitution to create a strong executive president (ie, himself). The verdict? AK's support fell from almost 50% in 2011 to 40.9% and the party lost its majority in parliament.

By slashing AK's share of the vote and, especially, by putting the pro-Kurdish People's Democratic Party (HDP) well over the 10% threshold for parliamentary seats, Turks have unambiguously repudiated Mr Erdogan's ambitions for a strong presidency. Most of them now dislike the sectarian Sunni rhetoric, the intolerance of opposition and the stench of corruption that, after 12 years in office, have come to characterise Mr Erdogan's rule.

Although the election result has created big uncertainty over the formation of a new government, it is still welcome. Mr Erdogan's early reforms were relatively liberal. Under him, the economy until recently did well. But, steered by his Islamist and neo-Ottoman instincts, Turkey has more recently drifted away from its NATO allies, especially over the Middle East. And his despotic behaviour undermined the rule of law, freedom of speech and Turkey's independent institutions. Had he persuaded voters to back his executive presidency, the very future of Turkish democracy would have been at risk.

The right course for Mr Erdogan now is to pull back from the fray and act as the apolitical president that the constitution prescribes. His party needs new leaders untainted by close ties to him and his monarchical ambitions. Because of the opposition's ineffectiveness, change in Turkey has for some time seemed most likely to come from within AK. Many leading AK figures, including Mr Erdogan's predecessor as president, Abdullah Gul, have made clear that they dislike his polarising style and authoritarian streak. Indeed, Mr Gul, who as co-founder of the party and a former prime minister has the stature to stand up to Mr Erdogan, could be an excellent candidate for the job again (see page 49).

The economy and Europe

Whoever is the next prime minister faces some formidable tasks. Civil society needs a period of recuperation after more than a decade of Mr Erdogan's mauling. In part thanks to the stunning success of the HDP, the Kurdish peace process must be urgently reinvigorated. And the economy needs big reforms to improve competitiveness, ease regulation, cut unemployment, raise labour-force participation and reduce reliance on construction. The central bank, long under attack by Mr Erdogan, should have its independence reaffirmed. Economic growth has recently slumped and the current-account deficit is gaping. Without liberalising reforms soon, the danger of a bust in Turkey is clear—which helps explain why the vulnerable lira fell sharply this week.

The European Union, too, should do more. It was partly because Turkey's membership talks, begun in 2005, seemed to go nowhere that Mr Erdogan drifted towards autocracy. Now that Turks have so thrillingly demonstrated their democratic credentials, the EU should revive the negotiations. There is also new hope that the age-old Cyprus problem might be solved (see page 50). Turkey matters hugely for the future of Europe. Resurrecting its aspirations for EU membership would be a fine reward for its admirable voters. ■

The Rohingyas

Apartheid on the Andaman Sea

Myanmar treats the Rohingyas as badly as the old South Africa treated blacks. The world should not stay silent

THEY have been called the most persecuted minority in the world. The Rohingyas, a Muslim minority in Myanmar, have been driven from their villages; 140,000 of them have been herded into squalid camps. They cannot vote. Their children are shut out of local schools. They are subjected to mob violence with impunity. A new law seeks to limit how many babies they may have. Small wonder they flee.

In the first half of this year thousands of Rohingyas have crowded into leaky boats and risked their lives to cross the Andaman Sea, seeking refuge in Thailand or Indonesia (see page 37). Traffickers have beaten them and taken their savings. Their tales of suffering on the open seas are at least as shocking as those of Africans who cross the Mediterranean hoping for a new life in Europe. Yet almost nothing is being done to help them.

The history of the Rohingyas is disputed. Their Buddhist neighbours in Myanmar's Rakhine state consider them "illegal immigrants" or dismiss them as "Bengalis" because, although Muslim Rohingyas have lived in the area for hundreds of years, their numbers increased during the colonial era, when the British rulers of what was then called Burma encouraged more to immigrate. Their lot grew worse, ironically, when ▸▸


EVERY PLACE IN THE WORLD. VISIBLE FROM ONE PLACE.
Today's successful businesses work around the clock with partners at home and around the world. They need an easy way to access, manage, and control their company's cash positions everywhere, from anywhere, 24/7.
HSBC offers your business global reach and local expertise, working with you to understand your company's needs at home and abroad. From complex multi-currency transactions and cross-border supply chain management to intelligent liquidity optimization, we help simplify even your most complex cash management challenges. And we connect everything to give you a single consolidated view of your company's finances with our unique online banking platform.
With offices located where over 90% of the world's payments and capital flows originate,* we'll make sure you're in the driver's seat no matter where your business takes you.
Put HSBC's experience and network to work for your company
us.hsbc.com/cashmanagement
HSBC
*Source: BCG Global Payments Report
United States persons (including entities) are subject to U.S. taxation on their worldwide income and may be subject to tax and other filing obligations with respect to their U.S. and non-U.S. accounts. U.S. persons and entities should consult a tax advisor for more information. Trade and supply chain transactions may be subject to credit approval. Other restrictions, including specific country regulations may apply. Foreign currency exchange rates may apply to certain trade transactions. HSBC Bank USA, N.A. Member FDIC, Equal Credit Opportunity Lender. Copyright 2015 ALL RIGHTS RESERVED.

Myanmar's military regime started to lift autocratic controls in 2011. Free speech empowered preachers of anti-Muslim hatred. The army and police, who can crush unrest when they choose to, stood by in 2012 when at least 200 people—most of them Rohingyas—were killed in communal violence involving Buddhist Rakhine thugs.

Desmond Tutu has called it a slow genocide. That is an exaggeration. As yet it is more like the old apartheid system in South Africa, against which Mr Tutu once campaigned. But genocide is often preceded by four things that are happening to the Rohingyas: stigmatisation, harassment, isolation and the systematic weakening of rights. This year Myanmar's government took away identity cards from non-citizens, mainly Rohingyas, whose very existence as a minority it denies. Later this year the country will hold elections; during the campaign, demagogues will be tempted to stir up anti-Rohingya animosity to win votes. As the monsoons ease, more terrified boat people will put out to sea.

Some might argue that little can—or should—be done. Life for most people in Myanmar has improved since its rulers began to liberalise at home and open up to the outside world. Further progress depends on continued Western engagement with a regime which, though flawed, is gradually reforming. Right now, punishing Myanmar would be counterproductive.

That is too timid. A terrible abuse of human rights is threatening to turn into something even worse. The West—and Myanmar's neighbours—should not simply look the other way. Broad economic sanctions would be too blunt a weapon, and would put Myanmar's general liberalisation at risk. Far better to impose narrower sanctions on politicians who are stoking anti-Muslim sentiment. Last year America did just that to Aung Thaung, a rabble-rousing politician. The list should be lengthened. The West should demand that Myanmar grant the Rohingyas citizenship. So should Myanmar's neighbours—some of which, including Indonesia and Malaysia, should also treat the boat people as refugees and let more of them in.

High time to speak up

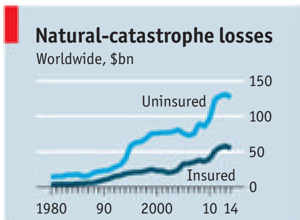
A vital intervention ought to come from two individuals: Aung San Suu Kyi and Hillary Clinton. Ms Suu Kyi (like Mr Tutu, a Nobel peace laureate) has earned immense moral authority both at home and abroad after suffering years of imprisonment for demanding an end to military rule in Myanmar. Mrs Clinton has touted the opening up of Myanmar as the biggest foreign-policy success of her four years as America's secretary of state. Yet neither woman has spoken up clearly and loudly for the Rohingyas. A statement from Ms Suu Kyi's party on June 1st spoke merely of "resolving racial conflicts in Rakhine [state]" but did not mention the Rohingyas at all.

Mrs Clinton, as she runs for the White House, will gain few votes by talking about the suffering of non-Americans thousands of miles from Iowa. Ms Suu Kyi, for her part, doubtless calculates that her party would actually lose votes if she stands up for an unpopular minority. Yet their silence shames them both. In Myanmar as in South Africa, ending apartheid is everyone's business. ■

Insurance in Asia

Narrow-minded

Asia can do more to protect itself from the risk of natural catastrophes



IT IS known as the insurance-protection gap. It can set vulnerable economies back years. It is growing inexorably, and nowhere does it yawn more widely than in Asia.

The gap in question is the difference between insured and uninsured losses when natural catastrophes strike. Of the $101 billion in global economic losses in 2014, nearly half stemmed from floods, cyclones and other disasters in Asia. Of these, only 8% were covered by insurance, according to Swiss Re, a big reinsurer, compared with 60% in America. In some countries the gulf is wider still. The earthquake that struck Nepal in April is now thought to have caused around $5 billion in damage, some 25% of GDP. Yet the bill for insurers will reach only around $160m.

Underinsurance is a problem for all risks in Asia (see page 71). But a cyclone or a tsunami seems far more remote than an everyday threat, so Asian consumers make insuring lives and health their priority. As a result, disaster coverage is patchy even though the region is prone to natural catastrophes and becoming more at risk as it concentrates its wealth and people into megacities located in danger zones. Without a jump in insurance cover, Swiss Re reckons, the uninsured cost of a once-in-a-century earthquake in Jakarta, Indonesia's capital, will increase from 110 trillion rupiah ($10 billion) in 2013 to 310 trillion rupiah by 2023.

Insurance confers benefits both before and after disaster strikes. Beforehand, the underwriters of risk seek to limit their exposure to floods, earthquakes and the like by demanding better planning and higher-quality, more resilient building from property developers and city planners. Afterwards, insurance helps entire economies to recover more rapidly. By analysing 2,476 natural catastrophes across more than 200 countries between 1960 and 2011, researchers at the Bank for International Settlements found that well-insured catastrophes have only a small medium-term effect on growth. Without insurance, by contrast, a "typical" disaster results in a permanent hit to growth of almost 2%.

Cat scan

Policymakers in Asia therefore have every incentive to transfer risks. They also have some useful examples of what to do. Richer countries, such as China, should follow the lead of Mexico, which issued a sovereign catastrophe bond with the assistance of the World Bank in 2009. By moving some of the likely costs of earthquake and hurricane damage off the government's balance-sheet and into the capital markets, Mexico has reduced the harm from any future disaster.

Poorer countries are less able to afford the "premiums" that catastrophe-bond issuers pay to investors in return for protec-


This cloud
redefines winning.
The Microsoft Cloud gives Special Olympics instant access to key performance and health data for every athlete, no matter where they are. Microsoft Azure and Office 365 help streamline the management of 81,000 events across 170 countries each year. So the focus can be on changing the lives of athletes, and that's the true victory.
This is the Microsoft Cloud.
learn more at microsoftcloud.com
Microsoft Cloud

tion. But countries such as Bangladesh and Nepal could benefit from a regional risk-pooling mechanism like the Caribbean Catastrophe Risk Insurance Facility, a multi-country disaster-relief fund set up in 2007. This is a donor-backed scheme for the rainiest of days, into which Caribbean governments also pay a contribution. The CCRIF includes a lot of countries, which diversifies risk and reduces premiums. It also has clear payment triggers, which means that it dispenses cash immediately after the hurricanes and storms that dog the region.

Such structures are spreading beyond the Caribbean. The newly formed African Risk Capacity has members across east and west Africa, which face very different natural hazards. And parts of Asia itself are also toying with such a mechanism. When tropical cyclone Pam swept across the Pacific island nation of Vanuatu in March, the archipelago was able to call on a relief pool set up in 2013. The Pacific Catastrophe Risk Insurance Pilot paid out $1.9m in the early weeks after the disaster. That was when such help was needed most, because plantations and fishing boats, the main suppliers of the islanders' food, had been destroyed.

The timing of natural catastrophes is unpredictable. But their probability and the damage they wreak are less so. The growing protection gap exposes businesses and individuals to devastating losses. Asia should do more to close it. ■

Military innovation

A sharper blade

To keep its fighting edge, America needs to spend more on technology

ALL good things come to an end, and that may one day include America's military pre-eminence. Although the United States is still by far the world's strongest martial power, others are catching up. America's ability to project overwhelming force around the world, which it has taken for granted since the end of the cold war, is now threatened.

In the past America has harnessed technology to offset its rivals' advantages. Faced with much larger Soviet conventional forces in Europe, it first relied on the superiority of its nuclear arsenal for deterrence (in the 1950s) and then, when the Soviet Union caught up, invested in "deep strike" systems that could spot distant targets and destroy them with precision-guided conventional warheads (from the late 1970s). The Gulf war in 1991 demonstrated the devastating effectiveness of smart munitions, battle networks and electronic warfare. But these technologies have now proliferated. During the past decade, as America fought low-tech insurgents in Iraq and Afghanistan, potential adversaries—such as China, Russia, and even Iran and North Korea—have been making rapid progress.

Of these, it is China that worries American strategists the most. Its armed forces are growing more sophisticated and its government is becoming more assertive towards its neighbours. China is determined to prevent American aircraft-carriers from operating close to its shores, and could even threaten American bases in the region. To this end it has built up an array of land-based precision-guided missiles; submarines and fighter aircraft equipped with anti-ship missiles; and electronic, cyber- and anti-satellite weapons intended to disrupt and blind America's command-and-control networks. China's aim is to deter any American president from coming to the aid of allies subjected to threats or bullying from Beijing.

To shore up its military dominance, the Pentagon late last year began the quest for a new range of breakthrough technologies—what it calls a "third offset strategy" (see page 57). These are likely to include stealthy unmanned planes and underwater vehicles that can operate autonomously (and thus survive enemy disruption of their data links). Because pilots are heavy and get tired, their absence lets drones fly farther, more often and more cheaply. The Pentagon is also working on a long-range strike aircraft to penetrate the toughest air defences and exotic technologies, such as directed-energy (laser) and electromagnetic weapons to defend ships against missile attack.

The technical obstacles are formidable—but so are the political and bureaucratic ones. Congress and the White House used to co-operate over military budgets and plan for the long term. No longer. The Budget Control Act of 2011 not only cut military spending, but through the mechanism of the sequester also distorted it by locking in spending on old programmes and blocking new ones that the Pentagon actually wants.

A smarter, leaner killing machine

Whatever happens, defence spending is likely to remain tight. To find more money for "leap ahead" technologies, savings must come from elsewhere. A start would be for Congress to let the Pentagon close unneeded bases. Lavish pay and benefits (including horribly inefficient health programmes) need curbing, too. The real cost of each active-duty service member has jumped by 76% in the past 16 years. If they were to continue to rise unchecked, personnel costs would swallow the entire defence budget by 2039.

The top brass often defend their toys. Admirals love their mighty carrier groups and air-force generals their fast jets. But the growing vulnerability of ships and the limited range of the F-35 Joint Strike Fighter (2,500 are being bought, making it the costliest military programme in history) suggest where cuts should be made today to pay for the weapons of the future.

And procurement must be more efficient. Thanks to red tape, the Pentagon spent $74 billion more than it needed to on kit in 2012, the Government Accountability Office estimates. Military acquisition has a terrible reputation, but reform is under way and may well succeed: many of the new military technologies, such as artificial intelligence and machine learning, are spin-offs from the ideas of civilian tech firms. The Pentagon's R&D department should act more like a Silicon Valley venture capitalist, spotting good ideas and backing them.

American power is not always wielded wisely. But it remains the best guarantee of the rules-based international order, from which nearly all countries benefit—and not just America's allies. That order is already impaired. If America loses its technological edge, it will only fray faster. ■

Letters

In defence of men

Many years ago when we noticed that women were not doing well in school or work we did not tell them to face up to reality and adjust ("Men adrift", May 30th). We changed reality to accommodate them. The changes, as might have been predicted, are now showing up in schools and work as ever more men fail to achieve the success they did in the past. Your solution, to persuade young men that nursing, teaching and hairdressing are things they should aspire to, inspired me to absolute despair. Frankly, I'd sooner lie on a couch, drinking beer and watching television—and I hate couches, beer and TV.

The qualities men bring to the mix are what transformed the Western world from a backwater in the 1600s to where we are today. The countries that have harnessed those male qualities of enterprise, discipline, energy, focus and a fierce desire to win have powered themselves to success.

We too could return to success by allowing men the space to do what they do best without being constrained to level the playing field. Perhaps we could create Special Enterprise Zones where males go to school and start businesses following male cultural norms. Think Silicon Valley before society noticed it was not inclusive enough.

PAUL JAMES
Whitby, Canada

Your essay on the predicament of blue-collar men was interesting. The arguments were extremely relevant, but I found myself inventing a new word: "matronising".

RENTON THOMSON
Glasgow

CAPE point

"Don't write off write-offs" (May 16th) misunderstood my criticism of Robert Shiller's CAPE (cyclically adjusted price-earnings ratio) model for valuing the stockmarket. I have no quibble with the CAPE methodology or whether write-offs are or are not best included in measuring corporate profits. My point is that the earnings series that Mr Shiller uses has changed substantially since he developed the model some 20 years ago.

The mandates of the Financial Accounting Standards Board in the 1990s required firms for the first time to employ "mark-to-market" accounting, a procedure which greatly increased the volatility of reported earnings. Such volatility was particularly evident in the recession that followed the financial crisis when reported earnings fell by a much greater percentage than they had during the Depression of the 1930s, a slump that was five times as great.

The failure to correct for the change in accounting methodology leads to a significant overstatement of the CAPE ratio and the model's substantial underprediction of realised stock returns in recent decades. There have been only nine months since January 1991 when the CAPE ratio has been below its mean (signalling undervaluation), while in all but six months since 1981 the realised ten-year returns from stocks have exceeded forecasts using the CAPE model. In fact, the CAPE methodology signalled the stockmarket "overvalued" in May 2009 when the S&P 500 Index was 920, far less than one-half its current level.

These prediction failures are a result of time-inconsistent data, not a defect in the CAPE model. The Shiller CAPE ratio remains the best tool for predicting long-term real stock returns.

When a time-consistent series of corporate earnings, such as those published in the national income accounts are used instead of GAAP earnings, not only does the predictive power of the CAPE ratio improve, but the current stockmarket does not appear nearly as overvalued.

JEREMY SIEGEL
Professor of finance
Wharton School
University of Pennsylvania
Philadelphia

Finishing off cocaine

Bello is wrong to suggest that legalising cocaine is a better solution to eradicating the drug than spraying glyphosate, a weedkiller, on the coca crop (May 16th). Cocaine is a highly addictive and dangerous drug. Those who use it can suffer strokes or heart attacks. There were about 5,000 cocaine-related deaths in the United States in 2013 alone.

From 2013 to 2014 there was a 71% increase in coca planting in areas where spraying glyphosate was prohibited or not feasible, which demonstrates that spraying works. The claim that this weedkiller is unsafe is debunked by the fact that less than 10% of Colombia's yearly imports of glyphosate are used in aerial coca-eradication. The rest is used for commercial agriculture and other purposes. It is disingenuous to suggest that glyphosate is unsafe to combat illicit farming when it is deemed safe for lawful farming.

REPRESENTATIVE BOB GOODLATTE
Chairman of the Judiciary Committee
House of Representatives
Washington, DC

Too many aid startups

"It's not what you spend" (May 23rd) laid out a new approach to mitigate the decades-old chronic ineffectiveness of spending on development aid. But there are also thousands of abandoned development projects littering the landscape. More productive spending would be assured if aid agencies confined their efforts to rehabilitating and maintaining existing projects and structures.

Development aid was bedevilled from the start by the twin evils of incompetence and corruption. Now an undeniable fact dominates these efforts: that giving and lending for new investment is a more lucrative, and much easier, business for the trinity of lenders, receivers and embezzlers. It is an unspoken alliance in a merry-go-round for all concerned.

PROFESSOR MEHDI AL BAZZAZ
Formerly of the World Bank
Alexandria, Virginia

Biblical teachings

I question your notion that the Old Testament's "an eye for an eye" underpins America's death penalty, and that the New Testament teaches "that it is better to show compassion and mercy" ("Killing it", May 30th). Actually, Talmudic law added so many restrictions to prevent capital punishment that the Jewish courts rarely imposed the death penalty. And showing compassion is also a central tenet of the Old Testament. In the Talmud there is a well-known story from around the beginning of the Common Era concerning Rabbi Hillel and a gentile, who asks to be converted on condition that he can be taught the Torah while standing on one foot (as one does).

Hillel responds: "That which is hateful unto you do not do to your neighbour. This is the whole of the Torah. The rest is commentary. Go forth and study."

ALEXANDRA LEHMANN
Eastbourne, East Sussex

Art critic

Your description of Shiraga's manipulation of "gloopy puddles of pigment" ("The other modernism", May 2nd), reminded me of Al Capp's description of abstract art:

"A product of the untalented, sold by the unprincipled to the utterly bewildered."

JOSEPH KIERAN MULCAHY
Lagos, Portugal ■

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

Rat der Eidgenössischen Technischen Hochschulen ETH-Rat | Conseil des écoles polytechniques fédérales CEPF | Consiglio dei politecnici federali CPF | Board of the Swiss Federal Institutes of Technology ETH Board

The Ecole polytechnique fédérale de Lausanne (EPFL) stands for excellent teaching, pioneering fundamental research and the application of the results for the benefit of society. Together with ETH Zurich and the four federal research institutes PSI, WSL, Empa and Eawag, EPFL is part of the ETH Domain, whose strategic management and supervisory body is the ETH Board.

The ETH Board is advertising the position of

President of the Ecole polytechnique fédérale de Lausanne (EPFL)

The incumbent President will be stepping down at the end of 2016. The ETH Board will thus have to propose a successor to the Swiss government, the Federal Council.

Since its integration to the ETH Domain in 1969, EPFL has rapidly become one of the internationally top-ranked universities in the fields of technical and natural sciences as well as life sciences. Currently, more than 13'500 people are studying, working and carrying out research at EPFL. Outstanding research conditions, state-of-the-art infrastructure, an entrepreneurial atmosphere, and an attractive environment provide an ideal setting for creative personalities.

Requirements

The successful candidate must have an excellent international reputation in the exact, natural or engineering sciences. She/he is able to identify and foster outstanding potential and visionary ideas, specify strategic guidelines and address issues in current scientific, technological and societal domains. She/he is committed to excellence in education. Ideally, the successful candidate is an experienced leader in a large organisation, preferably in the field of academics or industry, and has provided evidence of her/his participative management skills and fundraising abilities. She/he has good networks inside and outside the scientific community and is ready to develop EPFL's future and help shape the entire ETH Domain.

The successful candidate's personality is characterised by a high degree of social competence, assertiveness and the ability to deal with conflict. She/he possesses excellent communication and negotiation skills, which she/he uses both inside and outside the university. She/he is willing to engage with Switzerland's political structures and legislative processes and appreciates its cultural diversity. Finally, the candidate has a very good command of French and English, and preferably knowledge of German.

We are looking for a candidate willing to hold office for at least two terms (i.e. eight years) and who could start at the beginning of 2017.

Applications

Applications from women are particularly welcome.

Complete applications (CV and motivation letter) must be sent by July 31, 2015, to the President of the ETH Board, Dr. iur. Fritz Schiesser, ETH-Rat, Häldeliweg 15, CH-8092 Zurich, Switzerland. He will also be available for further information (phone +41 44 632 20 01, schiesser@ethrat.ch). All applications will be treated with strict confidentiality.

The European Joint Undertaking for ITER and the Development of Fusion Energy Barcelona, Spain

is currently seeking candidates (F/M) for the post of

★ **Executive Director**

Based in Barcelona, Fusion for Energy (F4E) is a European Joint Undertaking mandated to conduct Fusion Energy Research. The main role of F4E is to provide the European contribution to the construction of ITER, on time and in compliance with the ITER requirements.
The Executive Director is the legal representative of the Joint Undertaking, responsible for its day-to-day management under the guidance of the F4E Governing Board and in close coordination with the European Commission as the representative of Euratom in the ITER Council.
He/she is responsible for the leadership of the organisation and represents it externally within the ITER Organisation.
Please consult the Official Journal of the European Union for the detailed vacancy notice, check that you meet the eligibility and selection criteria and register at

http://ec.europa.eu/dgs/human-resources/working_senior_mgt_en.htm

The closing date for registration is 07/07/2015. Online registration will not be possible after 12.00 noon Brussels time.

FUSION FOR ENERGY

eu careers

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

Legal Counsel (D-2)
Office of the Legal Counsel
Geneva, Switzerland

The World Intellectual Property Organization (WIPO), a specialized agency of the United Nations based in Geneva, Switzerland dedicated to developing a balanced and accessible international intellectual property (IP) system, is seeking highly qualified and experienced candidates for the position of **Legal Counsel**, within the Office of the Legal Counsel (OLC). The OLC is responsible for providing legal advice and assistance to the Director General, to the bodies of WIPO Member States and to the secretariat on constitutional, administrative, contractual, and general legal matters, and in respect of the depository functions of WIPO-administered treaties, in harmony with statutory requirements and applicable law. It is also responsible for the management of the WIPO Lex database. The Legal Counsel is responsible for directing the work of the Office of the Legal Counsel and planning, coordinating and supervising the above-mentioned legal functions and activities in accordance with the Organization's constitution and other legal and policy texts.

If you are interested in joining WIPO and you meet the requirements of the position, we encourage you to apply. The deadline is **July 8, 2015**.

For complete details on the vacancy and submission of application, please log on to https://erecruit.wipo.int/public/. **Reference**: Vacancy Number **FT/15/D2/FT059**. Applications from qualified women candidates are encouraged.

Peter and Stephanie Nolan Professor of Business

Charles H. Dyson School of Applied Economics and Management • Cornell University

Cornell is a community of scholars, known for intellectual rigor and engaged in deep and broad research, teaching tomorrow's thought leaders to think otherwise, care for others, and create and disseminate knowledge with a public purpose.

Outstanding applicants are sought in any area of business management and strategy for this newly named chair. The chair is intended for a distinguished faculty member with an established track record of research published in leading academic outlets, excellent teaching skills, extensive public visibility, and demonstrated impact in influencing industry practice or policy making.

We have particular interest in candidates whose research is in the following areas: business analytics, corporate governance, data science, environmentally sustainable business, entrepreneurship, international/global business, or technology and innovation.

The Charles H. Dyson School of Applied Economics and Management is an internationally renowned school in the areas of management, environmental, energy and resource economics, food and agricultural economics, and international and development economics. The undergraduate program is consistently recognized as one of the elite accredited business degrees in the U.S. The graduate program awards research degrees at the doctoral and master's levels and a professional master's degree.

The Charles H. Dyson School of Applied Economics and Management embraces diversity and seeks candidates who will create a climate that attracts students of all races, nationalities and genders. We strongly encourage women and underrepresented minorities to apply.

APPLICATION: Electronically submit via **https://academicjobsonline.org/ajo/jobs/5527**. For more information, please see **http://dyson.cornell.edu/open-positions/index.php#faculty**

Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement. Located in Ithaca, NY, Cornell's far-flung global presence includes the medical college's campuses on the Upper East Side of Manhattan and in Doha, Qatar, as well as the new CornellNYC Tech campus to be built on Roosevelt Island in the heart of New York City.

Diversity and Inclusion are a part of Cornell University's heritage.
We're an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

EU Border Assistance Mission to the Republic of Moldova and Ukraine

IOM МОМ

VACANCY ANNOUNCEMENT

The EU Border Assistance Mission to Moldova and Ukraine (EUBAM) is a joint initiative of the European Union and Governments of the Republic of Moldova and Ukraine. Working since 2005, EUBAM contributes to enhancing the overall border and customs management capacities to approximate the standards of the border and law enforcement authorities to those of the EU and to fight against cross-border and organised crime. The Mission assists the Republic of Moldova and Ukraine in fulfilling their commitments under the Partnership and Cooperation Agreements and the Association Agendas. It also contributes to a peaceful resolution of the Transnistria conflict. The European Commission is providing funding for EUBAM while administration and logistical support services are provided by the International Organization for Migration.

The EU and IOM are now recruiting the Head of the EU Border Assistance Mission in the Republic of Moldova and Ukraine, based in EUBAM Headquarters in Odesa, Ukraine. The Head of Mission of EUBAM carries the overall responsibility for the implementation of the mandate of EUBAM and the effectiveness of the overall results and activities as well as efficiency of its operations.

Requirements:

- Master's degree (or equivalent) in law, economics, public administration or a related field.
- Extensive experience as national or international law enforcement official or civil servant of an EU Member State or EU institution.
- At least 20 years of relevant professional experience in border management, customs management, law enforcement, crisis management or a related field, of which at least 7 years spent in a senior management position.
- Relevant operational experience with border police/customs/other law enforcement services in EU Member States or at the European level.
- Excellent communication and interpersonal skills.
- Excellent leadership, management and political skills and broad operational experience.
- Computer literacy (Windows applications).
- National certificate of no criminal records.
- Executive leadership experience with capacity building projects related to law enforcement services or with EU/EC police or customs missions in transition/developing countries is an asset.
- Excellent knowledge of EU policy in the Eastern Neighbourhood, especially related to the Republic of Moldova and Ukraine and EU-UA and EU-MD relations in the sphere of customs and border management is an asset.
- Excellent knowledge of Moldovan and Ukrainian state institutions is an asset.
- Fluency in written and spoken English. Knowledge of other EU languages (Romanian, in particular) and Russian and/or Ukrainian is an asset.

For a more detailed job description and instructions on applying,
please visit EUBAM's website at www.eubam.org or IOM Ukraine's website at www.iom.org.ua.

An internationally competitive compensation package is offered for the post.

The closing date for applications is 26 June 2015

ICAEW

ICAEW Regulatory Board Independent Chair
£30,000 (five meetings a year)

ICAEW is a world leader of the accountancy and finance profession, responsible for educating, supporting and regulating over 144,000 chartered accountants internationally. It is a UK statutory regulator for audit and insolvency, also for aspects of investment business and legal services.

The new ICAEW Regulatory Board (IRB) will be responsible for overseeing the professional standards activities and statutory regulatory role of ICAEW including licensing, quality assurance, complaints handling and the professional disciplinary scheme. The IRB will have a key role in upholding public trust and confidence in chartered accountants and to support this objective will include a significant lay (non-accountancy) membership.

Our client now seeks to appoint the IRB's first Chair. The successful candidate will be charged with leading the IRB's work in ensuring that ICAEW fulfils its role as a credible and independent regulator, protecting the ultimate consumers of the services provided by ICAEW members and firms. The Chair will also interact with the ICAEW's oversight bodies including the Financial Reporting Council and the Insolvency Service.

Candidates for this appointment – whether lay or ICAEW members – will have outstanding senior board level experience, commitment to professional/corporate regulation and standards of conduct, a collegiate approach, strategic perspective and political astuteness.

This is an independent appointment and is therefore not open to members of ICAEW's main Board or Council.

To apply for this role or for further details, please contact Robin Murray Brown at Tyzack on **IRB@tyzackpartners.com**
The closing date for applications is 17 July 2015.

Better than it looks

America's disappointing economy is more robust than it first appears. But higher interest rates are on the horizon, and could bring unexpected risks

ONE of the ways in which America's economy leads the world has been, of late, an unrivalled capacity for sending mixed messages. The past six months provide a case in point. The year opened with things looking pretty good: strong growth in late 2014 had led the IMF to project that GDP would rise by 3.1% in 2015; the Congressional Budget Office, America's fiscal watchdog, expected a 3.4% expansion. In March and April, though, bad news built up, and in May official numbers confirmed that tumbling investment and exports meant that over the first quarter GDP had actually been falling at an annualised rate of 0.7%.

Then the good news came back. In early June data from the Bureau of Labour Statistics (BLS) showed hourly pay rising at an annualised rate of 3.3% in the first quarter and a 280,000 increase in employment in May, both far better numbers than economists had predicted.

This hot and cold pattern is becoming familiar. In 2014 predictions of a more modest 2.6% expansion were also dashed by a weak start to the year. Since growth returned in 2010 it has never beaten 2.5% over a whole year, and often fallen short. This has led some economists to worry that America will never get back to its pre-crisis 3% growth rate and may instead be stuck in a low-growth rut.

If they are right, it would be a huge problem well beyond America's shores. The world economy is short of momentum: the big emerging markets, previously reliable growth engines, are struggling. Brazil and Russia face deep recessions, and China's growth is slowing. The IMF predicts that, for the first time since 2007, there could be growth in every advanced economy this year, at an overall rate of 2.4%. But without American impetus the global recovery could come to a halt.

Pessimists cite persistent weakness in consumption and an edging up of the savings rate as signs that this much-needed American growth cannot be relied on. Yet the pessimists, like the optimists, keep having their narrative interrupted by indicators which just don't fit.

On the basis of the year to date, the optimists have the better case. Poor performance in the first quarter can be ascribed to two particular shocks, a fall in the price of oil and a rise in the value of the dollar. Both now seem over, and the former, at least, unlikely to recur. With household debt much lower than it was and wages rising, the economy looks likely to be stronger than many expect. The worry for the next six months is less that growth will not return, more that concern about financial bubbles will encourage the Federal Reserve to raise rates before wage rises gain enough momentum. Real prospects for further growth could thus be dashed.

Excluding the plunge that started in autumn 2008, from which it mounted a partial recovery fairly quickly, the fall in the oil price from $104 a barrel in July 2014 to $47 in January was the largest six-monthly drop since 1986. Such a fall was reasonably expected to be good news when it comes to consumption—but not so good for the companies that make America the world's largest oil producer.

Those companies reacted with impressive speed: by November 2014, just four months after oil prices started to slide, the number of active oil rigs had started to fall, too (see chart 1 on next page). A year ago the Eagle Ford and Permian basins in Texas boasted 763 active rigs, according to Baker Hughes, a consultancy. By the end of May they had 342. As well as winding down existing wells, firms have stopped investing in new ones: government figures for investment in mines and oil and gas wells show it falling by $20 billion (more than 15%) in the first quarter of 2015.

So the industry's contraction was fast and deep. But the countervailing surge in consumer spending never arrived. Petrol prices have fallen by 20% or more across the country; on June 1st they averaged $2.66 a gallon (€0.52 a litre). Produce the price of which depends a lot on transport costs, including fruit, vegetables and dairy products, has become correspondingly cheaper, which is part of the reason why the overall inflation rate has fallen from 1.7% in May 2014 to just 0.1% now. Nevertheless, consumption in the first quarter of 2015 grew by just 1.8%, much more slowly than it had in 2014. Rather than spend their cheap-oil dividends, people saved them. The household-saving rate rose from 4.7% to 5.6% between August 2014 and April 2015. Some analysts blame a bitterly cold

February, which kept shoppers indoors.

The second shock was the value of the dollar, which rose in part because people expected further growth to be stimulated by a cheap-oil spurt in spending that never came about. That expectation, on top of a 3.6% annualised growth rate in the second half of 2014, made higher interest rates look imminent. American bonds thus took on a new allure, and as investors piled in the dollar rose by almost 9% in trade-weighted terms.

The rise, exacerbated by labour disputes at California ports, hurt exports even more than might have been expected. Adjusted for inflation they fell at an annualised rate of 7.6% in the first quarter. The drop in net trade (exports less imports) nudged up America's current-account deficit, which now stands at $410 billion (2.4% of GDP), with the fourth quarter of 2014 showing a 30% deterioration compared with a year earlier. And by making foreign sales worth less back home, the strong dollar also had an effect on corporate profits, which fell by $125.5 billion, or 5.9%, between the last quarter of 2014 and the first quarter of 2015. But the worst of this seems over; the dollar's appreciation has halted and, indeed, partially reversed—it has depreciated 2% since March.

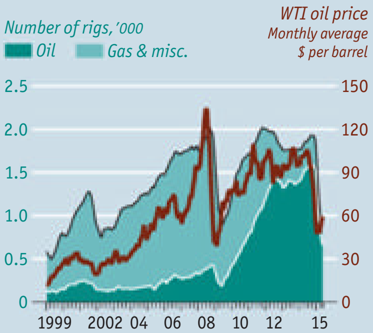
Shocked, but stirring

The optimistic view is that, having absorbed the oil and dollar hits, there is now nothing between the economy and its deferred growth spurt. Yet there are niggling worries. February may have been cold, but March and April were less so—and yet consumption dropped in those months, too. And industrial production has fallen for five months in a row; between March and April it fell by an annualised 3%. When numbers like these keep coming it is hard to believe the slowdown is temporary.

Hence the idea of "secular stagnation". First set out in the 1930s by Alvin Hansen, it is a way of explaining depressions from which economies fail to recover in terms of a persistent mismatch between the supply of savings and the demand for investment.

Rapid response 1

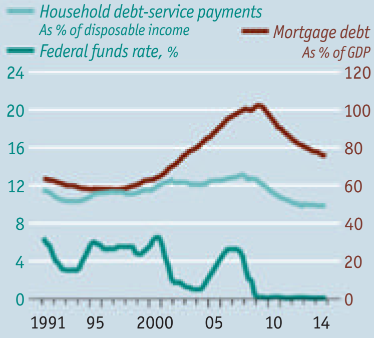
United States



Sources: Baker Hughes; Bloomberg

Happier homes 2

United States



Source: Federal Reserve

Reviving the idea in 2013, Larry Summers, a former treasury secretary, suggested that demand for investment had fallen because of technological advances that reduce the amount of capital it takes to start a firm.

At the same time, the supply of funds with which to invest has become plentiful, as a combination of ageing and inequality (old and rich people save more), as well as foreign bond-buyers, push savings higher. With a low enough interest rate this could be put right. But if, for an interest rate to be low enough, it needs to drop below zero, sorting things out may well be beyond the powers of the central bank. Thus interest rates can be at the same time both extremely low and too high. The damaging results include low growth, slack credit demand, weak investment and stubbornly high unemployment.

Although this analysis fits some economies—notably the euro zone and Japan—disturbingly well, it is at best only a partial description of America. There are three areas where things don't look quite as bad as the secular stagnationists would predict. First, if interest rates had been consistently too high, capital expenditure would probably have stalled. But non-residential investment is up by 8% in real terms since its 2008 peak, and by 35% since its 2009 trough. As the government share of GDP shrank following the crash, investment took up the slack. It is true that investment fell in the first quarter of 2015, but that can be put down to the revenue-starved oil sector. Leave the extractive industries out and business investment actually rose by an annualised 1%.

Nor do credit markets suggest that interest rates are too high. American bosses are in a bullish mood. Far from weak demand for funds, borrowing is soaring. Companies are issuing debt at record rates, with $609 billion raised so far in 2015, up by $40 billion on a year ago according to Dealogic, a consultancy. Bank lending to business is strong too, up by 12% in the year to April, according to Federal Reserve data. As some of this money is spent on new offices, machines or software, this surge in credit should end up in some new investment.

A reassuring reduction in Americans' debts up to the beginning of this year is a second reason for cheer. The latest data show the average household is in robust form, says Aneta Markowska of Société Générale, a bank. The ratio of mortgage debt to GDP has fallen below 80%, back to its 2002 level (see chart 2). Total household debt is around 107% of disposable income, with annual payments taking up less than 10% of disposable income, the lowest amount since at least 1980. (By comparison household debt is 136% of disposable income in Britain.) Household net worth (total assets minus liabilities) is at a record high in real terms, and is close to its pre-crisis peak as a share of GDP.

The third reason is the labour market. The rosy BLS data on pay increases and new jobs are part of a longer trend. Joblessness has fallen consistently since 2010. At 5.4%, unemployment is well below the post-1970 average. The trend shows little sign of slowing. Data on job openings and turnover collected by the BLS show there were on average 5m job openings in each of the first three months of 2015, the highest level since records began in 2000. A faster rise in the number of openings than the number of hires suggests competition for labour might be heating up (see chart 3). The market is fluid too. The number of workers leaving posts has increased, because more workers are quitting: a monthly average of 2.7m workers have left their jobs in 2015. This fact, together with strong data on hiring, suggest that these workers are moving on to better jobs.

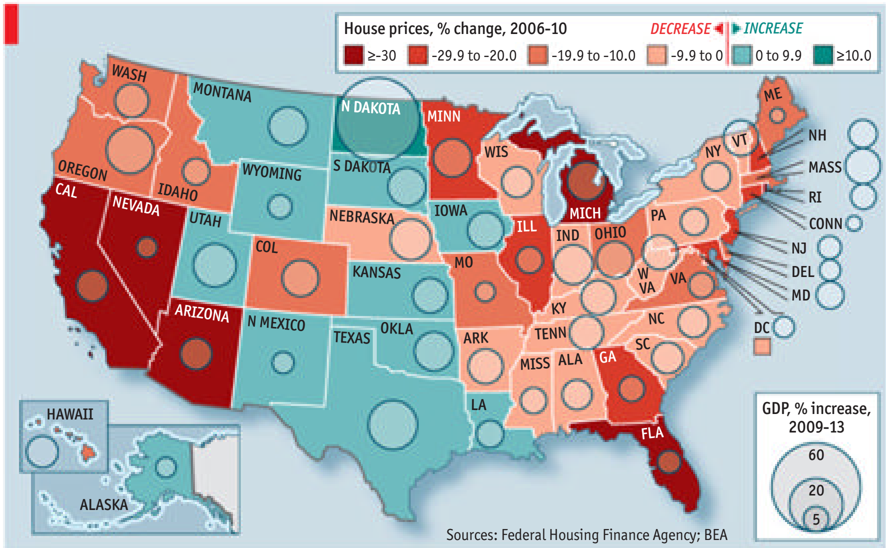
Disunited states

There are still reasons to worry. The most recent data show that America's labour productivity is stalling. The figures released by the BLS in early June showed workers' output per hour had fallen by 3.1% between the last quarter of 2014 and the first of 2015. The drop was marked in the durables manufacturing sector, which fell by 3.3%; it meant that productivity is up by only 0.3% in the past year. That said, Ameri- ▸▸

Taking up the slack 3

United States labour market, m

Source: Bureau of Labour Statistics



can productivity is still up by 11% since 2007, meaning that it is not yet as worrying as that of its European peers (in Britain output per hour fell over the same period).

If America is not suffering from secular stagnation, the competing explanation is that the country has yet to emerge fully from the financial crisis. James Sweeney of Credit Suisse, a bank, sees the problem in terms of a patchwork of localised depressions. A state-by-state analysis of GDP lends support to this idea. Many regions are growing well: in 14 states real-terms GDP rose by more than 10% between 2009 and 2013. Oregon and Texas expanded by more than 15%—North Dakota's shale boom pushed output up by an astonishing 55%. At the other end of the scale are ten states, including Maine, Missouri and Nevada, hardly growing at all.

This analysis suggests that the aggregate figures are being held back by states and regions that are yet to recover from the first stage of the crisis: the period of negative equity and tight consumer credit that followed the 2008 housing crash. An analysis of housing data seems to confirm this: growth has been weakest in states which suffered the biggest price drops in 2006-10; strongest where prices tumbled least (see map). But things are turning. Mr Sweeney finds that even in the states that suffered the biggest busts, previously tight credit markets are starting to ease.

Differing views on America's ailment—a long-term stagnation, or a balance-sheet recession that is easing—influence what economists think should happen to interest rates, which have been unchanged since the end of 2008. The IMF is dovish. In a review published on May 28th its economists recommended that unless there is new evidence of strong wage- or price-inflation, interest rates should not be raised until early 2016. The Bank for International Settlements, a central-banking body based in Basel, takes a different view. Its economists worry that low rates lead to asset-price bubbles, and suggest that it would be wise to start tightening as soon as possible before such bubbles are further inflated by cheap money.

Janet Yellen, who chairs the Fed, and her rate-setting colleagues are likely to take a middle path. Minutes of their meetings show they watch the labour market closely. Each new data point showing rising wages and tightening markets makes a change in September more likely. At the same time, a further rise in the dollar based on the expectation of such a rise could self-defeatingly delay it by reducing growth prospects again. Knowing the question to be so finely balanced, analysts will pore over week-by-week data to try and divine Ms Yellen's intentions.

Easy does it

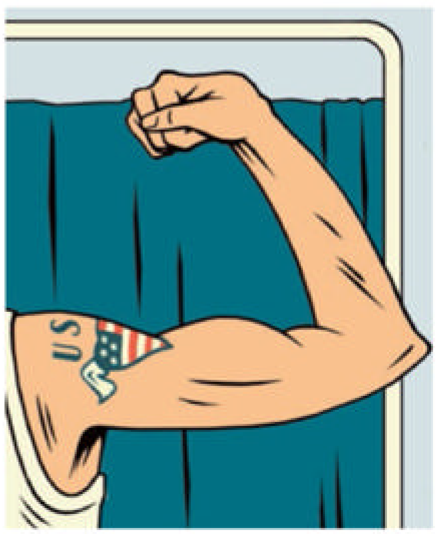
After six years of cheap money, higher interest rates will weigh on borrowers. Prudent investors should keep an eye on America's firms and equity markets. Despite modest growth over the past five years, companies' share prices have shot up, with the S&P 500 index rising by 95%. Firms' earnings have not justified the rise: data collected by Robert Shiller, an economist at Yale University, suggests equities are valued at around 20 times earnings, more than 30% above their long-run average; adjusted for the business cycle things look even worse. Some punters are borrowing to invest, with NYSE data showing margin debt—lending to invest in stocks—rising by 14% since January from $445 billion to $507 billion.

Whether or not this adds up to a bubble, it certainly looks like a market that could stall when interest rates rise and other assets, like bonds and deposits, become more tempting. And it is quite possible that firms' earnings will soon fall. Staff costs are rising: a combination of higher hourly pay and lower productivity mean unit labour costs rose by 6.7% in the first quarter. Companies' bullish borrowing gives them more interest to pay. As earnings growth has slowed, the number of American firms with low credit ratings (BBB- or below) has risen, according to data from Moody's, a credit-rating agency. If earnings do drop then the mix of high valuation and leveraged investors will sharpen the fall.

The idea that the pain which may be in store for the equity markets can be lessened if rates are raised sooner may seem to add to the case for tightening. History, though, warns against such reasoning. In August 1929, worried about overheating stockmarkets, the Fed raised rates despite signs that the underlying economy was none too strong. The move did not stop the subsequent crash; instead it helped precipitate the worst recession in American history. In the mid-2000s central banks tried the opposite, setting rates for the real economy and leaving markets to correct themselves. The results were equally bad.

This is not 1929. But the lesson is that since markets and the real economy can move at different speeds, central banking must be about more than interest rates. New "macroprudential" tools such as raising capital, liquidity and leverage requirements offer central banks ways to curb excesses in equity markets and sectors with too much borrowing; better that the Fed make use of them than that it tighten interest rates prematurely.

Interest rates should be set with an eye to the real, not financial, economy. Keeping them low will help households in the hardest-hit American regions overcome their lingering balance-sheet recession. It will also ensure that the wage pressure that builds up is not yet another blip. Better, then, to wait. America seems not to be facing all-out stagnation and its households—if not, necessarily, all of its corporate sector—will be able to absorb higher interest rates when they come. But the time for that is not quite here. ■



Also in this section

28 Common Core under attack
29 Busy Chinese hackers
29 Who makes foreign policy?
30 Asian gangs in Atlanta
30 Donations to universities
31 Transgender in the spotlight
31 "Sesame Street" and braininess
32 Lexington: Free speech on campus

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

Republican contenders

What's in a name?

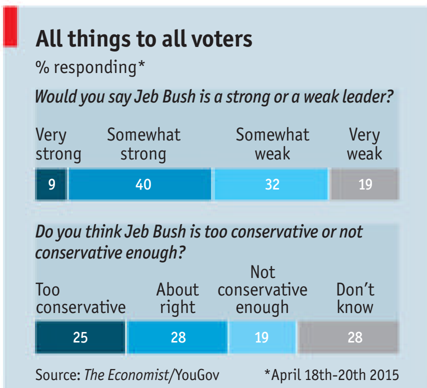
TALLAHASSEE

Whether his family ties help or hinder him, Jeb Bush's record in Florida makes him a formidable candidate

IF THE Republican Party were able to design an ideal candidate to run in next year's presidential election, its strategists would take a former governor of a big swing state, graft on experience in the private sector and a conservative record on social issues, then program his or her brain to be equally fluent in English and Spanish. Such a person exists, and spent this week on a European tour. Were he not called Bush, Jeb—the former governor of Florida—might now enjoy the aura of inevitability for Republicans that Hillary Clinton has among Democrats.

As it is, the famous surname, which proclaims him the son of one president and the brother of another, still confers some advantages. The various political organisations tied to Mr Bush have already locked in an intimidating amount to spend on a campaign. When Mr Bush was in Germany—though he has been only the governor of a state, and has never held office in Washington—Angela Merkel herself was delighted to meet a man who, for the purposes of federal campaign-finance laws at least, is still trying to decide whether he will run. That fiction need not endure much longer: on June 15th Mr Bush will announce his candidacy in Miami.

Despite his European tour, Mr Bush's thoughts on foreign policy do not distinguish him from the Republican pack, and are unlikely to determine how his campaign goes. His record as a two-term governor of Florida may well do. There are two versions of Mr Bush's time in Tallahassee. According to the first he is a staunch conservative who cut taxes, extended the rights of gun owners in imaginative ways, restricted access to abortion, got rid of race quotas in state universities and introduced the most extensive school-voucher programme in the country. In version two, Mr Bush is a pragmatist who was happy to let Florida's taxpayers provide incentives for businesses to move to the state, who took a dollop of federal money to restore the Everglades and who increased spending on education. Mr Bush has said that a Republican candidate might have to "lose the primary to win the general" election. But there is enough in his record to provide something for almost everyone (see chart).



Some contradictions are necessary for success in a party which combines social conservatism and pro-business policies, but getting the mix right is an art. At the core of Mr Bush's Republicanism is a conviction that small government works best and that entrepreneurial capitalism is the engine of society, says Clint Bolick, who co-wrote a book on immigration with him. Many prominent Republicans can date their enthusiasm for the private sector to encounters with libertarian writers at college. Mr Bush acquired his by a more pragmatic route. He rushed through a degree at the University of Texas before going to work for a bank in Venezuela and then for a property developer in Miami, declaring that he intended to get very rich.

In his first campaign for governor, in 1994, Mr Bush was impatient. He announced an intention to "blow up" government departments and tried to make an issue of his opponent's age ("We're in the 1990s now" was a much-repeated campaign line), but lost to a man who compared himself to an aged raccoon in a televised debate. By 1998 the state and the candidate had moved closer together. Southern folksiness was less useful in Florida than an ability to speak to Hispanics, and Mr Bush ran as a more consensual figure. He worked with the Miami Urban League to set up a charter school in a poor black district (the school closed in 2008). He picked a pro-choice running mate (who withdrew because of a money scandal). ▸▸

And he won easily, taking 61% of Hispanic votes—thanks, in part, to his Latina wife.

Once in office, Mr Bush found a way to keep both wings of his party happy without alienating the rest of Florida. His administration introduced a stand-your-ground gun law, which relieved gun-owners of an obligation to retreat if they felt threatened; allowed people with permits to carry concealed weapons in other states to bring them unannounced into Florida; and compelled places that sold hunting and fishing licences to offer voter registration. One particularly ingenious bit of base-pleasing entailed a bill to protect a gun range in Pinellas County from prosecution under environmental legislation. Mr Bush was less hostile to abortion clinics than some Republican governors, but his pro-life credentials were burnished by the macabre case of Terri Schiavo, a woman who had spent 13 years in a vegetative state. Rather than leave the tussle between Mrs Schiavo's family members over her future to the courts, Mr Bush involved his office, persuading legislators to pass a law to reinsert a feeding tube into her stomach.

That anyone with such a record should have their conservative credentials questioned by other Republicans says quite a lot about how prone to suspicion the party has become since the election of Barack Obama, one year after Mr Bush left office in Florida. When a Bush seeks election he often has to distance himself from other men with the same name. When George H.W. Bush, Jeb's father, ran for a Senate seat in 1964 he let it be known that, unlike his own father, he did not support civil-rights legislation. When George W. ran for president, he made it clear that he believed in the tax cuts his father had memorably denounced as "voodoo economics". For Jeb Bush the never-to-be-repeated mistake is not the Iraq war, but the big-government conservatism that saw federal spending and borrowing soar under his brother.

Florida, which has no income tax and relies instead on property and sales taxes, is thrifty by design. In both his terms Mr Bush cut taxes, and reduced the headcount in state government by 13,000. But towards the end of his second term the taps were turned on. State spending rose by 45% between 1999 and 2007, during which time prices rose by 24% and the state's population also grew by 17%. "Republican governors like tax cuts because they are so visible," says Chris Edwards of the Cato Institute, a libertarian think-tank. "They don't like spending cuts so much." Mr Bush has already proposed to cut federal entitlement spending by raising the retirement age, but he will have to come up with more cuts than that to reassure primary voters.

Mr Bush's two other defects, in their eyes, relate to positions taken since leaving office. He has put forward an immigration plan that would expand guest-worker programmes and create a path to citizenship for people who came to the country legally, or were brought to America as children. For this he has been described as an "apostle" for amnesty on conservative talk-radio. He has also prominently supported Common Core, a set of common education standards for the country backed by frequent testing, an idea that other Republican governors have run from (see box). Both are good notions; both invite the scorn of his party's median voter. Even in Tallahassee, where the Bush name is an asset, Republican lawmakers have used the current legislative session to pick some of the school testing apart.

Faced with these reproaches, Mr Bush will lean even more on his experience as governor. He has released a batch of e-mails which reveal him getting deeply involved in the minutiae of governing, and record the surprise of various Floridians on discovering that the man at the other end of the jeb@jeb.org e-mail address was indeed the governor himself. His exit from office was well timed: when he left his approval ratings were high, in part because he did a good job of managing, in two languages, the state's response to hurricanes. Had his term continued for two years more, he would have been associated instead with the subprime and tourism busts that hit Florida so hard. Luck is important, in politics as in birth, and he has it. ■

Education policy

Into reverse

NEW YORK

Common Core finds itself squeezed between two sets of prejudices

"IT'S now been five years since Common Core was adopted," said Chris Christie on May 28th, "and the truth is that it's simply not working." Mr Christie, New Jersey's Republican governor and a possible presidential candidate, thinks Common Core, the first set of national standards in maths and reading, has created problems in classrooms instead of solving them. But as recently as two years ago he thought it was a good idea.

Common Core allows pupils in different states to be measured against each other. Until No Child Left Behind, an education act signed by George W. Bush that required states to test pupils annually, only 19 did so. Now they all must.

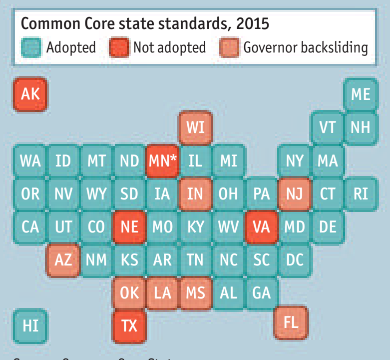
When the standards were introduced in 2010 they had broad and bipartisan approval. Forty-five states and Washington, DC eventually signed on (Alaska, Nebraska, Texas and Virginia opted out, and Minnesota adopted only the English standards). The White House did not create Common Core's curriculum, leaving that to each state. But conservatives spied a federal power grab, and the wilder among them discern a Washington plot to fill young minds with socialist, atheist and possibly gay propaganda.

States began to opt out. Indiana was the first, in March 2014. Other right-leaning states followed. Florida and Arizona merely rebranded Common Core, keeping much of the content but changing the inflaming name. This is probably what Mr Christie will do, despite his remarks.

He is not alone in backtracking. Scott Walker, Wisconsin's governor, says he wants to replace the standards. Bobby Jindal, Louisiana's governor, was also a Common Core fan, but now alleges in a lawsuit that the Department of Education used federal grants as bribes to persuade states to adopt the standards. Both men are seeking, or toying with seeking, the Republican nomination. Two others on the list, Jeb Bush in Florida and John Kasich in Ohio, still strongly support the principle of common standards and testing; but the Pew Research Centre has found that 61% of conservatives tend to agree with the sentiment once tweeted by Mike Huckabee of Arkansas, another Republican hopeful: "Kill Common Core. Restore Common Sense."

Common Core is also being squeezed from the left, where it is seen as part of a conservative drive to undermine teachers and their unions by continuous, unfair, testing. The Democratic Party in Washington state has condemned Common Core, and Randi Weingarten, head of the second-biggest teachers' union, has said the standards must be "guides, not straitjackets." Between these two ideological poles, it is a wonder America can improve its public schools at all.

Non-uniform



Source: Common Core State Standard Initiative

*Partially adopted

Chinese hacking

Put up the firewalls

WASHINGTON, DC

Bureaucratic inertia makes life easy for foreign hackers

WHEN it comes to Chinese hacking, Americans cannot say they were not warned. In January James Clapper, the director of national intelligence, told a technology conference in New York that "China has been robbing our industrial base blind, largely with vulnerabilities that are easy to guard against or to simply fix." They are, he said, "cleaning us out, because we know we're supposed to do those simple things, and yet we don't do them."

On June 4th his point was proved when the Office of Personnel Management (OPM), the government's recruitment agency, revealed that the personal records of some 4m current and former federal employees had been stolen by hackers. The thieves are thought to be from a group connected to the Chinese government. Their attack, which was uncovered in April, apparently took place over several months and exploited long-known holes in the OPM's technical systems.

What information was stolen is not fully known yet. But it seems likely to include Social Security numbers, job assignments, performance ratings and training information. It may also include financial records and details of security clearances, some going back decades. That none of it seems to have yet appeared for sale on the shadier corners of the internet—despite the fact that Social Security numbers can be used to apply for credit cards and the like—supports the argument that this attack was espionage rather than mere cybercrime.

The vulnerability of the OPM was well-known. A report last November by the Office of the Inspector General noted that, among other failings, the agency did not use multi-factor authentication to access its systems. Such tools—common in online banking and e-mail services—typically require users to enter a one-time code, often from a text message sent to their phone, to log in. This frustrates hackers using "spoofing" or "spearphishing" to trick users into handing over their passwords.

What might the Chinese want with a trove of data about American federal employees? James Lewis of the Centre for Strategic and International Studies, a think-tank, argues that the aim is to build a "gigantic biographical database", which could be mined to find potential information sources or weaknesses. American intelligence agencies collect such data on Chinese and Russian targets, he says. Civilian agencies such as the OPM are attractive to hackers because, unlike military or defence agencies, their computer systems tend to be less well-protected.

This is hardly the only time America's government has been broken into. On June 8th the Syrian Electronic Army, an outfit linked to Bashar Assad, briefly took over the US army's website. In April officials admitted that, last year, Russian hackers got deep into the State Department's unclassified computer system, downloading e-mails, including some sent by Barack Obama. Hackers of various hues have also breached the systems of private firms. Some reports suggest that the group behind the OPM hacking was also responsible for stealing millions of records from Anthem and Primera, two large health insurers, earlier this year.

Publicly, the White House has so far refused to blame the Chinese for the attack on the OPM. The Chinese, too, have not accepted responsibility. At the end of June Chinese and American officials are due to meet for the seventh Strategic and Economic Dialogue in Washington, which neither side wants overshadowed with rows about spying. Unlike industrial espionage, hacking of government agencies to gain information is generally considered acceptable. The question for American officials is how to stop making it so easy. ■

The Supreme Court

What the prez says, goes

NEW YORK

When it comes to recognising countries, at least

HAVING been born in Jerusalem in 2002, Menachem Zivotofsky, an American boy, wanted "Israel" to appear as his place of birth on his passport. It was a "matter of conscience", his parents said. A law passed by Congress shortly before his birth gave the Zivotofskys the right to insist on it. But when the Zivotofskys made a formal request, the State Department said no. America is officially neutral over the status of Jerusalem, and its efforts to broker a resolution to the Israeli-Palestinian conflict (such as they are) would be endangered if it took sides.

On June 8th, in *Zivotofsky v Kerry*, the Supreme Court agreed, ruling 6-3 for the secretary of state. The act of Congress, the justices said, unconstitutionally interferes with the president's power to recognise foreign governments.

In his majority opinion, Justice Anthony Kennedy wrote that in order for "the president...to be effective in negotiations" in the Middle East (or anywhere), "it must be evident to his counterparts abroad that he speaks for the nation". According to the constitution, Justice Kennedy held, "it is for the president alone to make the specific decision of what foreign power he will recognise as legitimate." Lawmakers in Congress "cannot require him to contradict his own statement."

In a sharp dissent, John Roberts, the chief justice, called the court's decision "a first". The court has "never before" permitted "a president's direct defiance of an act of Congress in the field of foreign affairs". Nor have the court's previous rulings "accepted such a sweeping understanding of executive power." Even "Andrew Jackson and Abraham Lincoln, leaders not generally known for their cramped conceptions of presidential power," had "expressed uncertainty"

Father and son frustrated

about whether they enjoyed an exclusive power to recognise other states.

This decision sparked a rare tussle between two of the court's most conservative members, Antonin Scalia and Clarence Thomas. Justice Thomas's separate opinion, siding with the White House, contended that Congress had no constitutional authority to enact the passport law. But for Justice Scalia, Mr Thomas "turns the constitution upside down", envisioning "a presidency more reminiscent of George III than George Washington". Besides, giving in to Mr Zivotofsky's request "does not recognise Israel's sovereignty over Jerusalem" any more than "granting a request to specify 'Belfast' rather than 'United Kingdom'…derecognise[s] the United Kingdom's sovereignty over Northern Ireland."

Crime in Atlanta

Fighting back

ATLANTA

What gangs can offer young Asian-Americans

DRAGONS, elephants and goldfish adorn bags of rice at a huge Asian supermarket on Buford Highway, a stretch of road where many of Atlanta's immigrants live and work. Tilapia swim in tanks beside freezers full of ox feet and green-tea ice lollies. The offerings please a growing number of locals: Asian-Americans have become the fastest-growing racial group in the South, and the Asian-American population of the Atlanta area surged by 87% in the decade after 2000. Most are born abroad. Indians are the single largest contingent (89,000 of them live in the city), followed by Koreans and then by Chinese.

Overall, Asian-Americans make up 5% of a population where half of the 5m residents are white, a third black and one-tenth Hispanic. Small though their numbers are, they are ambitious: more than half of Asian-Americans gain an undergraduate or higher degree, in a city where the average is 35%. They also own 36,000 local firms (11,000 more than Latinos do). But not all Asians strive for success, and expectations that they should can spell trouble for the community's youngsters.

According to data from 2009 and 6,500 interviews with youngsters conducted by the Department of Justice and the Department of Education, Asian-American pupils are 20% more likely to face bullying in the classroom than their peers from other ethnic groups. Danny Eun, a music producer whose parents came to the city from Korea, says growing up in Atlanta was tough. "We were judged as either really trying to be white, or trying to be black," he says. "Asian-Americans are just stereotyped as nerds." For protection from bullies, many of his friends joined gangs.

According to Jim Hurley, an FBI agent who supervises Atlanta's Safe Streets Gang Task Force, up to 20,000 people in Atlanta belong to gangs. Atlanta sees less trouble than Miami or Chicago, says Mr Hurley, but membership in its gangs has grown steadily since 2000. And although the most lawless gang members are turning from drug-dealing and carjacking to identity theft and credit-card fraud, violence has risen, too.

Working out exactly how many gang members are Asian-American is difficult, he says: the community is often reluctant to call in the cops when fights erupt, and gang members increasingly communicate using social media rather than tags on walls, making them harder to find. Nevertheless, violence between Asian-American gangs is all too obvious. New immigrants can fuel it, says Eunice Lau, a documentary-maker working in Atlanta on a film called "A-Town Boyz" (see picture); Chinese and Korean gangs once fought each other in the city, but then joined forces to confront threats from Vietnamese newcomers. Some groups, Ms Lau found, affiliate with national gangs, such as California's Crips, and assume their conflicts too. Usually, though, their interest is limited to their own community.

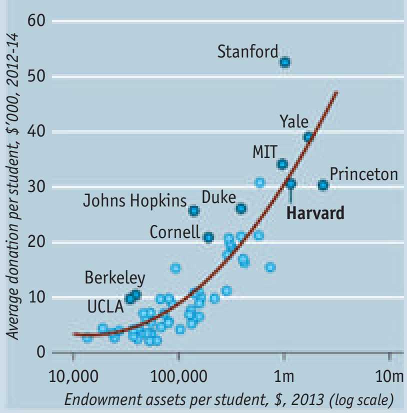
The pressures on immigrant families can make it easier for their offspring to get into trouble. Mr Eun says his parents were too busy working, "trying to put meat and rice on the table", to notice that he joined a gang briefly as a teenager. This is understandable. The struggle to stay ahead has proved hard for many Asian-Americans in Atlanta since the recession: the number living in poverty grew by 133% in the five years after 2007. Mr Eun was largely brought up by an elderly grandmother who spoke little English, and so could not talk to his teachers or his friends. Her story is not unusual. Almost half of Koreans over the age of five in Atlanta, and 55% of Vietnamese, speak little or no English.

Children brought to America who find the new language difficult can become demoralised at school, says Yotin Srivanjarean, vice-president of Atlanta's Centre for Pan-Asian Community Services. This induces many to drop out and join gangs. His centre provides help with homework to nip such problems in the bud. Sadly funding for this scheme ended in 2009, though more money is clearly needed to help pupils succeed at school and stay there longer. Mr Eun credits his interest in learning for saving him from gang life. "The guys just saw me as not being all the way down for the cause," he explains. ■

Unto him that hath...

Last week John Paulson, a hedge-fund manager, gave $400m to Harvard University's engineering school. It was the biggest donation Harvard has ever had. The *Chronicle of Higher Education* says American universities have received just over 100 private gifts of $100m or more in the past decade. Roughly a third of these have gone to Ivy League colleges. Data from the Council for Aid to Education show that Stanford got nearly $1 billion from donors in 2014, or $50,000 for each of its students. By contrast, Berkeley raised just $10,000 per student. Philanthropy may be tilting America's higher-education system even further in favour of the rich.

American university donations and endowment wealth*



Sources: Council for Aid to Education; Department of Education

*Universities with >5,000 students and endowments of >$1bn

"Sesame Street"

Big Bird, big brain

NEW YORK

Elmo and Cookie Monster make you clever—official

IN A scene from an episode of "Sesame Street" aired in 1974, three-year-old John John and his pal Herry, a shaggy blue Muppet, are counting. John John is a very good counter—as far as 16. Herry whispers the number. John John stumbles again at 20, but with a little prodding from his blue-haired friend, remembers the number and beams with delight.

Since 1969, "Sesame Street" has been introducing small children to letters and numbers by using clever skits and songs performed by Muppets and celebrities. Patrick Stewart, for instance, reworked Hamlet's soliloquy as an ode to the letter B ("B or not a B, that is the question"). Now a report by two economists, Melissa Kearney of the University of Maryland and Phillip Levine of Wellesley College, has tracked the first generation of watchers (who were under six in 1969). It reveals that children who had access to "Sesame Street" ended up better prepared for school and were 14% less likely to fall behind in class. (Whether they got better jobs later was less clear.)

The creators of the programme, which is shown in 150 countries, always meant it to boost children's confidence and readiness for school. Toddlers, along with Big Bird, Elmo, Bert and Ernie, learn about other cultures and languages as well as how to behave. (When Cookie Monster has to wait for a cookie, he learns about delayed gratification and self-control.) A study by the University of Iowa showed that children who watched a "Sesame Street" segment on impulse control could wait nearly four minutes longer for a snack than children who did not see it.

The show's effects are not unlike those of Head Start, a federal scheme that provides poor families with services that include school-based early education. But it costs a fraction as much, says Ms Kearney. "Sesame Street" is not a replacement for early education, which most studies agree is vital; but it is certainly a very affordable supplement. "In essence," she says, thinking of massive open online courses, "Sesame Street was the first MOOC."

Michelle learns haute cuisine

Transgender rights

Ready for their close-up

NEW YORK

A tiny minority suddenly commands attention

BEFORE she was fired in 2013, Victoria Ramirez had worked for Barnes & Noble in California for six years. Her problems started when, as Tyson, she began taking hormones to become a woman. Though she still looked manly, she began painting her nails and growing out her hair, which her manager claimed bothered customers. When Ms Ramirez explained that she was becoming a woman, she was forced to keep it under wraps and banned from the women's toilet. When she called in sick with stress about this, she was fired. In May Barnes & Noble was sued for sex discrimination. In the current legal climate, the company looks unlikely to win.

Not long ago she would have struggled to find a lawyer to take her case. Transgender people are few indeed; though counting them is hard, there are perhaps 700,000, or 0.3% of the population. But recent gains in gay rights and the sudden rise of several transgender icons—most recently Caitlyn Jenner, formerly a gold-medal Olympian named Bruce, who graces the cover of the latest *Vanity Fair* (above)—have pushed them into the limelight.

Several civil-rights victories have been chalked up lately. On June 1st the Department of Labour introduced new national guidelines for toilets at work: either single non-sex-specific cubicles, or non-specific larger rooms with similar cubicles inside. (Some workers, claimed the guidelines, were so deterred by specific male/female arrangements that they would not "go" at work at all.) Transgender soldiers are not allowed to serve openly in the armed forces; but both the army and the air force have recently made it harder to discharge transgender folk.

Most insurance companies refuse to cover treatments for changing sex, dismissing them as experimental or cosmetic. But this is starting to change. Last year Medicare lifted its ban on covering such surgery, and a number of states cover cash-strapped Medicaid patients, too. Some private insurers are following suit.

The notion that gender is somehow fluid is increasingly popular among the young. Facebook now offers no fewer than 50 options to choose from (everything from "agender" to "two-spirit"). Colleges are adjusting their policies accordingly. Quite a few, including Harvard, Princeton and Stanford, now offer sex-neutral housing. Most women's-only colleges now grant access to students who say they are female, whatever their past history.

But for all this momentum, "most of the transgender community is still struggling," according to Kris Hayashi of the Transgender Law Centre. Discrimination and harassment make them more likely to be unemployed, poor and prone to suicide and drug abuse, especially if they are black. Though violence against gays is in decline, attacks on transgender people are on the rise, according to a new report from the National Coalition on Anti-Violence Programmes. Eight transgender minority women have been killed this year alone.

Some hope that Ms Jenner will do for transgender people what Ellen DeGeneres, an actress and comedian, did for homosexuals when she came out on national television in 1997. Coquettish at 65, the decathlete formerly known as Bruce puts her case straightforwardly: "I'm not doing this to be interesting. I'm doing this to live." ■

Lexington | Trigger-unhappy

Student "safety" has become a real threat to free speech on campus

FOR an hour or two on a foggy morning last December, some students at the University of Iowa (UI) mistook one of their professors, Serhat Tanyolacar, for a fan of the Ku Klux Klan. Mr Tanyolacar had placed a canvas effigy based on Klan robes, screen-printed with news cuttings about racial violence, on the Pentacrest, the university's historic heart. The effigy had a camera in its hood to record public reactions.

The reaction among some black students was to fear for their safety, and that is not surprising. What is more of a puzzle—for anyone outside American academia, at least—is that students and UI bosses continued denouncing Mr Tanyolacar for threatening campus safety even after the misunderstanding was cleared up. In vain did the Turkish-born academic explain that he is a "social-political artist", using Klan imagery to provoke debate about racism. Under pressure from angry students, university chiefs issued two separate apologies. The first expressed regret that students had been exposed to a "deeply offensive" artwork, adding that there is no room for "divisive" speech at UI. The second apologised for taking too long to remove a display which had "terrorised" black students and locals, thereby failing to ensure that all students, faculty, staff and visitors felt "respected and safe". An unhappy Mr Tanyolacar feels abandoned by the university. He left Iowa earlier this month, when his visiting fellowship came to an end, and has suspended his teaching career.

A crucial word in this tale is "safe". Campus activists have stretched the meaning of safety from an important but second-order concern—shielding students from serious harm—to a defining ambition for any well-run academy. From town-sized public universities to tiny liberal-arts colleges, students have declared and administrators accepted that teachers or visiting speakers should aim for a psychologically safe learning environment, avoiding ideas or imagery that might prove distressing.

Activists sometimes organise campus "safe spaces" where students may flee alarming material. Door-stickers denote full-time safe zones for specific groups, such as gay and transgender students, or religious non-believers. Demands have multiplied for "trigger warnings"—a device first seen in self-help and feminist internet forums, signalling content that may trigger painful memories—to be applied to challenging books, films or lectures.

Not every demand succeeds. In 2014 a backlash obliged Oberlin College in Ohio to withdraw sweeping guidelines urging teachers to think before setting triggering coursework. Oberlin's guidelines included a specimen warning for "Things Fall Apart", a pioneering Nigerian novel, noting that it might "trigger readers who have experienced racism, colonialism, religious persecution, violence, suicide and more." Students at Wellesley College, which is women-only, failed to have a statue moved indoors, despite a petition blaming it for campus-wide fear: it was a life-like depiction of a sleepwalking man clad only in saggy underpants.

Not all trauma is imagined. Many colleges spent years downplaying sexual assaults on students. But even sympathetic teachers worry that tools intended to fight real ills are being misused, including Title IX, a civil-rights statute that, among other things, obliges universities to ensure that women do not face a "hostile environment". Laura Kipnis, a feminist scholar at Northwestern University, caused a stir when she revealed that students had sued her under Title IX after she wrote that some sexual-harassment complaints are exaggerated. Ms Kipnis was cleared after a 72-day investigation.

Such rows prompt conservative glee and leftish gloom. Pundits see a reap-what-you-sow irony, as politically correct culture warriors of the 1980s and 1990s are devoured by their own heirs. There is much mockery of youngsters as sensitive "snowflakes". An online essay headlined "I'm a liberal professor, and my liberal students terrify me" went viral.

Not what, but who

Yet Mr Tanyolacar's troubles point to something new and alarming. A generation ago campus rows turned on *what* should be taught. Leftish students decried lessons about dead white men as acts of racist and sexist oppression. UI witnessed its own censorship battle, after a conservative student complained about gay sex scenes in a German film shown in class. But *what* Mr Tanyolacar was saying was not the problem: his work is explicitly anti-racist. His problem turned on *who* now has the authority to declare his art harmful, regardless of his intent.

The alarm about the Pentacrest effigy was sounded on social media by Yasmin ElGaali, a second-year undergraduate. She noted that the students had gathered on the same spot, the night before, to protest against police killings of black Americans. Kayla Wheeler, a doctoral student who had organised that protest, hurried to the scene, fearing a personal threat. Both women recall arguing with the artist. Ms ElGaali says that he was "very condescending" when black students told him that his work was hurtful and triggering. Mr Tanyolacar says that he was provoking a conversation about race. Ms Wheeler challenges his right to do that, saying: "I don't understand why a non-black person can appropriate black people's pain to teach a lesson about racism." Tom Rocklin, UI's vice-president for student life, says the effigy was erected without permission and should have been labelled, not sprung on students. He calls the incident a transformative moment for race awareness, on a campus that is 3% black.

Some colleges have less noble reasons for bowing to students, starting with financial pressure to keep enrolments up. Unfortunately for them, something called the American constitution strongly protects free speech, whether divisive, upsetting or not.

At root this is a fight about power, with feelings wielded as weapons. Students should beware of winning too many victories. A perfectly safe university would not be worth attending. ■

IBM Marketing Cloud:

Can you design an experience your customers actually want to have?

There's a new way to engage. IBM Marketing Cloud, just a part of our 400 services, helps you send your customers the right messages through the right channels at the right time. Connect at ibm.com/madewithibm

Smarter personalization is made with IBM.

IBM and Smarter Planet and their logos, ibm.com and made with IBM are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. See current list at ibm.com/trademark. ©International Business Machines Corp. 2015.

Also in this section

35 Hanging on in Argentina
35 Suriname's iffy president
36 Bello: Latin American art

For daily analysis and debate on the Americas, visit
Economist.com/americas

Mexico's mid-term elections

Punishing bad behaviour

MEXICO CITY

The mainstream political parties suffered setbacks. That is no reason for the government to retreat from reform

FOR weeks the Goliaths of Mexican politics bombarded the airwaves with advertisements so dreary they made you want to leave the country. So Mexicans were thrilled when political Davids, with almost no publicity and little money, triumphed in congressional and regional elections on June 7th. Independent candidates, allowed to run for the first time, profited from disillusionment with big parties. One trounced mainstream rivals in Nuevo León, a rich northern state. A candidate from a tiny protest party became mayor of the second-largest city, Guadalajara. Pedro Kumamoto, an unaffiliated 25-year-old, won a seat in a local legislature in central Mexico with a catchy Facebook campaign called "Yes, walls do fall down."

The incumbent party lost in five out of nine elections for state governor. In the congressional races the share of the vote won by the Institutional Revolutionary Party (PRI) of Mexico's president, Enrique Peña Nieto, and the two other big parties fell 16 percentage points from the last mid-term elections held six years ago. A new left-wing party, Morena, picked up 8% of the vote, giving it mischief-making clout. Morena's firebrand leader, Andrés Manuel López Obrador, now becomes a leading contender for the presidency in 2018.

These rebukes to the big parties are not a serious blow to the government's ambitious programme of reforms—including to education, energy and telecoms—which is far more important than the careers of the politicians who espouse them. The PRI and its coalition partners will maintain a majority in the 500-seat lower house of Congress. That puts the president in a position to carry out fully the reforms agreed to in 2012-13 by PRI and its rivals, the business-minded PAN and the left-leaning PRD.

Although Mr Peña has the power to press ahead, there are two big doubts. First, he does not have much time; he cannot run for re-election. Mr López Obrador, who lost two presidential elections but could win a third, is a ferocious opponent of the reforms. Unpredictable independents, like Jaime Rodríguez, the new governor of Nuevo Léon, may have presidential ambitions.

The second question is whether Mr Peña has the will to see the reforms through. His immediate foe is a mob-like teachers' union, known as the CNTE, which expressed its opposition to changes in education by hijacking petrol stations and threatening to stop people from voting in southern states. In an apparent cave-in the government suspended teacher evaluations, the most important part of the reform, just before the elections. The boycott failed, and the suspension was lifted on June 8th. But the wobble did damage. Juan Pardinas of the Mexican Competitiveness Institute, a think-tank, said it sent the "chilling message" that the government did not respect the rule of law.

To repair his credibility, Mr Peña may now crack down. An official says that 30,000 soldiers and other federal law enforcers were deployed to police the elections in the south, especially in Oaxaca, where the CNTE is strongest. They are still there. The defence minister recently spoke out for the education reform, a hint, perhaps, that he may use troops to enforce it.

Emilio Chuayffet, the education minister, says that teachers who refuse to take part in the evaluations, which start this month, will be fired. Provided human rights are respected, using federal forces to enforce the order in Oaxaca would be popular, says Mr Pardinas. But it is risky: the 80,000-strong CNTE staged protests in the capital and other big cities on June 10th.

Another test for Mr Peña will be the disclosure in mid-July of bids for the first oil contracts under the energy reform, which will allow private firms to invest in the industry for the first time since 1938. This will show whether investors' appetites have been dampened by falling oil prices; it may also reflect how much they trust his government to honour the contracts. On June 10th Pemex, the state oil company, announced a big new discovery close to the areas for which the contracts will be issued. Oil executives are impressed by how quickly the authorities are learning. "They have achieved in a year what it took a decade to do in Brazil," says one. But he worries about the government's willingness to stand up to vested interests. The prevaricating on teacher evaluation is a "cautionary tale" for the other reforms, he says.

Mr López Obrador, rejuvenated by Morena's success, will spend the next three years claiming that the electoral setbacks suffered by the big parties show that reform is unpopular. This may not be true. Giant-slayers like Mr Rodríguez (who calls himself *El Bronco*) railed mainly against corruption. The PRI's exit polls showed ▸▸

that those who voted for it did so because they liked the reforms.

But Mr López Obrador, or AMLO, as he is otherwise known, can cause problems. If he is seen to be a strong candidate to succeed Mr Peña he could put off investors, says Damian Fraser of UBS, a bank. "The uncertainty created by a resurgent AMLO could have more of an effect than the risk of protest in the streets," he says.

The tasks for Mr Peña are clear. First, fight corruption, a job made harder by a conflict-of-interest scandal in which he is embroiled. Second, complete the reforms, which should deliver benefits to ordinary Mexicans in the form of better education and lower utility prices. Finally, groom a potential successor who will carry on modernising but does not remind voters too much of the politicians they despise. ■

Argentina's economy

Plan Hang On

BUENOS AIRES

The president has bought time. She has not solved the economy's problems

THE president "will not leave in a helicopter", promised Julio Alak, Argentina's justice minister, last October. An earlier president, Fernando de la Rúa, had done just that in 2001, when all other means of fleeing from his palace were blocked by pot-banging protesters. In October, as in 2001, Argentina was in the throes of an economic crisis, though a milder one. It had defaulted on its foreign debt. Foreign-exchange reserves had dropped to their lowest level in eight years; inflation was 40%; pesos were worth roughly half as much in the "blue dollar" market as at the official exchange rate. President Cristina Fernández de Kirchner looked chopper-ready.

Since then things have calmed down. Reserves have recovered, from $28 billion to $33 billion. Inflation has slowed to 29%. The gap between blue and official dollars has narrowed. This does not mean that the economy is in good shape: it is expected to shrink by about 0.3% this year. On June 9th trade unions held a transport strike to demand higher wages and lower taxes. But few Argentines now think that Ms Fernández will be airlifted from the Casa Rosada before her term ends in December.

She has cheered up Argentines mainly by bringing in more dollars. A clampdown on imports starting in 2012 slowed the outflow. Despite its default on foreign bonds, the government has raised money abroad. A currency swap with China last October has provided $5 billion. In April the government boosted reserves by raising $1.5 billion through dollar-denominated bonds issued under Argentine law. The province of Buenos Aires even managed this month to issue $500m of bonds under New York law, by paying an interest rate of nearly 10%. Collectively, such measures are Ms Fernández's *Plan Aguantar*, or Plan Hang On, says Fausto Spotorno of Orlando Ferreres and Associates, a consultancy.

In a country mistrustful of its own currency, this influx of hard cash lifts spirits. The government has used it to buy pesos, which has slowed depreciation and helped hold down inflation. It expanded a nutty-sounding scheme under which Argentines who earn the equivalent of at least $1,000 a month can exchange 20% of their pay for dollars at official rates. The lucky beneficiaries make a killing by buying pesos in the blue market at a 40% discount, a practice known as "making puree" (perhaps because overvalued pesos are turned into lots of cheaper ones). This is expensive: Mr Spotorno estimates it will cost $6 billion this year. But it serves the purpose of propping up the blue-market peso, which eases fears of devaluation.

With lower inflation and more dollars in circulation, confidence has perked up this year. Despite the recession consumers are cautiously starting to spend more.

Ms Fernández may have done just enough to avert a crisis before she steps down as president (she is not permitted to run again). But she has not solved the underlying economic problems. The overvalued peso has made Argentine industry uncompetitive; restrictions on imports have cut factories off from supplies. Liberal spending on subsidies (to hold down energy prices, for example) has pushed the fiscal deficit to about 5% of GDP. By the time Ms Fernández leaves office, reserves are likely to have dropped back to their levels of last October.

Her successor will have to clean up the mess. That means allowing the devaluation that Ms Fernández has fiercely resisted, so that trade can function normally. The next president will have to reach a deal with bondholders if the country is to borrow at reasonable interest rates. Argentines can expect higher inflation and a dose of austerity. No one will want to be its first economy minister, economists joke. If he (or she) stumbles, the future president may have to keep a chopper on standby. ■


Hanging on, and tucking in

Suriname

Presidential pardon

PARAMARIBO

Voters overlooked Desi Bouterse's dodgy past, hoping for a better future

WHEN Suriname's president, Desi Bouterse, ventures outside the country he has to be careful. In 1999 the Netherlands convicted him in absentia of drug smuggling. He dare not fly through Amsterdam, and so, like Robert Mugabe, he commandeers a plane from the national airline when he travels, inconsiderately bumping other passengers. Suriname's voters have forgiven him for this and much else. In elections on May 25th his National Democratic Party (NDP) won an outright majority in the National Assembly, the first time any party has done so since independence.

That result, made official on June 8th, will have two main consequences. The first is to ensure that Mr Bouterse will remain president. The NDP did not win the two-thirds majority needed to re-elect him in parliament. But if he falls short after two rounds of voting, the choice will move to a special assembly of regional representatives, which can re-elect him with a simple majority. That looks secure.

The second result may be to end, at least for a time, Suriname's policy of parcelling out government jobs along ethnic lines. The NDP is a multi-ethnic party. Each of its coalition partners has represented one of Suriname's many ethnic groups. Some ministries, controlled by a single party for decades, have become ethnically pure enclaves. Transport, for example, is the province of Maroons (descendants of Africans who escaped slavery). Now that the NDP is able to rule alone, Mr Bouterse could—in theory—redirect government's energies from patronage to economic development.

This is necessary. During his second term as Suriname's leader (he ruled bloodily as a strongman in the 1980s) Mr Bouterse introduced universal health care, free school meals, a minimum wage and a national pension scheme. At the same time, he tightened the state's hold over the economy. More than 60% of workers hold public-sector jobs. The government increased its stakes in firms that produce commodities such as oil, gold and bauxite, which account for 90% of exports.

Mr Bouterse took inspiration from the late Hugo Chávez of Venezuela, a flamboyant demagogue, but unlike him has not steered his country towards disaster. The economy prospered during the global commodity boom. That is over, though growth remains respectable: GDP grew 2.9% last year.

But trouble is brewing. Foreign-exchange reserves have dropped by 40% since 2012 as export earnings fell. Mr Bouterse paid for social spending largely with debt, which is expected to rise from 30% of GDP in 2013 to 40% by 2019. Suriname needs to diversify away from commodities and encourage its stunted private sector.

Mr Bouterse is popular enough to bring about change. He charmed voters with folksiness and his easy way with the vernacular, Sranantongo. One put-down aimed at the opposition became a popular ringtone. The blots on his record were overlooked. In 2012 parliament gave him immunity for the murder of political foes that took place 30 years earlier (he has admitted "political" responsibility for them).

Now that Mr Bouterse's NDP can govern on its own, it will face less pressure to expand the public payroll. The new social-security programmes make private-sector employment more attractive. Mr Bouterse has promised to expand tourism and agriculture, but it is unclear whether he means it. An earlier pledge to make Suriname the "bread basket of the Caribbean" came to nothing. Inside the country, Mr Bouterse's past misdeeds do not seem to matter. What may count with Surinamese is whether he gives them something to do besides mining metals, pumping oil and toiling in government offices. ■

Bello | The last modernist

Fernando de Szyszlo and the globalisation of Latin American art

UNTIL he moved to Paris in 1949 at the age of 24, Fernando de Szyszlo had never seen a Rembrandt or a Van Gogh. "It was a shock to discover the modern world," he says. But growing up in Lima, the son of a Polish geographer and nephew of a Peruvian writer, he marvelled at Peru's wealth of pre-Columbian pottery and textiles—"the only original art that was within our reach".

In Paris he discovered Cubism, surrealism ("I identified with surrealist texts, not the paintings") and abstraction. He forged friendships with other Latin American artists, including Mexico's Rufino Tamayo and Venezuela's Jesús Soto (who more or less invented kinetic art), and writers such as Octavio Paz. Some of his friends remained in the French capital. But Mr de Szyszlo returned to Lima.

Latin Americans "were the poor relatives [of art], accepted at the banquet but only at a side table. If I wanted to change that I had to be here." He is speaking in his modernist concrete house in a quiet district of Lima, which contains his studio and is built around a patio filled with palms and his sculptures.

Mr de Szyszlo, like Tamayo, rebelled both against the socialist realism of Mexican muralism and against the unthinking copying of European artistic fashions. Instead he has spent his life developing a unique pictorial language, a restrained abstract expressionism populated with symbols (sundials, altars, sacrificial knives) and colours (natural reds, blues and ochres) loosely inspired by the artefacts of ancient Peru (see picture).

In his paintings totemic figures battle with obscure forces, or are trapped in the labyrinths of the unconscious. They are an often-sombre reflection on the human condition. In this sense his work is universal. But it is also an attempt to express Latin America's battle for a modernity that reflects its past and its complex ethnic and social reality.

Next month Mr de Szyszlo will turn 90. He still paints every day. A cerebral, political liberal (in the British sense), he is one of Peru's most respected intellectuals. Perhaps because of his long and prolific career and because his work is difficult and anguished rather than decorative, he has enjoyed more critical than commercial success. Nevertheless, his work sells as fast as he produces it.

This commercial health applies, too, to Latin American art in general. It has enjoyed an unprecedented boom in critical interest and in market value in this century. Almost every Latin American capital now boasts an art fair. Of course this echoes the global boom in art (see page 64). It is also a side-effect of faster economic growth in Latin America. Most collectors of the region's art remain local. But that is starting to give way to a timid internationalisation.

This applies especially in Brazil, whose art was almost unknown outside the country until a decade ago. Take sp-arte, a São Paulo art fair that is the region's biggest. When it began in 2005 all but one of the 40 galleries exhibiting were Brazilian. This year's fair, held in April, was the biggest yet, with 84 Brazilian galleries and 53 international ones. "Ten years ago Brazilians only bought Brazilian artists," says Fernanda Feitosa, sp-arte's director. This year's show had work by Damien Hirst, Bill Viola and Richard Serra. Conversely, Brazilian galleries have started going to art fairs abroad.

That trend is likely to continue. The art market is not immune to the region's economic slowdown. Sales to local buyers at sp-arte this year were 11% down on last year, at 139m reais (around $45m). Takings at twice-yearly New York auctions of Latin American art are steady, thanks partly to new international buyers, but still below their 2008 peaks (when Christie's sold a Tamayo for $7.2m).

The slowdown may have its biggest impact on contemporary art. Virgilio Garza, the director of Latin American art at Christie's, highlights the strength of modernist sales at last month's auctions—a Tamayo and a work by Remedios Varo, a Spanish-Mexican surrealist, both topped $3m—while the market for post-1960s art has softened.

Mr de Szyszlo complains that the region's contemporary artists are just as derivative of foreign fashions as those of the early 20th century, a judgment that seems too sweeping. Latin America has changed immeasurably since he began painting. It is less provincial, more outward-looking and less socially divided, and its culture enjoys greater international recognition. Creative industries are an important potential area of economic growth for the region. If, contrary to Mr de Szyszlo's expectation, its postmodern art proves to be as original as its modernist tradition, Latin America will be well served.

Also in this section

40 Quirks of South Asian cartography
40 South Korea and MERS
41 Japan's pacifist shackles
41 Genital art in Japan
42 Banyan: Being a woman in South Asia

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

The Rohingyas

The most persecuted people on Earth?

KUALA LUMPUR, SHAMLAPUR AND SITTWE

Myanmar's Muslim minority have been attacked with impunity, stripped of the vote and driven from their homes. It could get worse

ARKAM was 12 when he watched men beat his father's head with a brick and slaughter him with a knife. The family had been walking home from the mosque near their village in Rakhine, Myanmar's westernmost state, when a stone-throwing mob blocked their path. Their Buddhist neighbours had ordered them to stop practising Islam. The murder was a punishment for clinging to their faith.

Now 18 years old, Arkam lives in a shipping container on a building site on the outskirts of Kuala Lumpur, Malaysia's capital. He bunks with seven other Rohingyas, all refugees from Myanmar; they are among several hundred migrants living in containers stacked two storeys high along a single muddy track. By day they earn slightly less than the minimum wage building an apartment block, whose half-finished skeleton looms above their camp; in the evenings they can buy food and clothes from mobile stallholders who stop outside. Their containers are brightly lit and fairly clean, but the air reeks of sewage.

Arkam risked a lot to reach Malaysia. A little over a year ago he boarded a boat run by traffickers in the Bay of Bengal, with no idea what might follow. They travelled to Thailand, a 12-day sail with inadequate food and water, and occasional beatings from the crew. Of 1,100 people who set sail in two ships, Arkam believes that at least four died in transit, from illness or violence—he saw one man, hysterical, leap into the sea. Once he reached the shore, traffickers held him at a jungle camp until a relative paid them 6,000 ringgit ($1,600). By the time he reached Malaysia—hoisted over the razor wire along its northern border—he had been travelling for a month.

His bunkmate, a 20-year-old Rohingya called Ashan, tells a similar tale. One day, when he was nine years old, his father and elder brother went to pray at the mosque near their home in Rakhine. They never returned. About 18 months ago a mob set fire to houses in the village. He and a dozen others escaped by swimming across the river to Bangladesh. Traffickers were waiting on the other side and bundled him onto their boat against his will. He says that eight or nine of the 200 or so people he set off with perished in the following weeks. His captors were angry that he had not arranged for anyone to pay for his passage and they threatened to kill him; in the end people from his village scraped together 3,500 ringgit to buy his freedom.

Rohingyas have often been called the most persecuted minority in the world, unable to claim citizenship in Myanmar (where about 1.1m of them live in Rakhine), or in any other country. Arkam and Ashan are but two of the growing number of Rohingyas fleeing persecution in Myanmar to reach Malaysia, Indonesia or Thailand. In the first quarter of this year 25,000 people, Rohingyas and Bangladeshis, boarded boats to cross the Bay of Bengal. The sight of hundreds of emaciated men, women and children packed into the traffickers' rusty old boats has caught the world's attention. Yet Rohingyas have been escaping in droves for years; 100,000 or so are thought to be in Malaysia, drawn by the country's prosperity and Islamic heritage.

Since 2012, when 140,000 Rohingyas were forced into squalid refugee camps after the local Buddhists turned on them, their situation has been especially dire. For, although unscrupulous traffickers often prey on the boat people, it is the terrible conditions at home in Rakhine that force the Rohingyas out to sea in the first place. Human-rights groups warn that the situation in Rakhine is now so desperate that, in the words of the Simon-Skjodt Centre of America's Holocaust Memorial Museum, ▸▸

which campaigns to prevent genocide, the Rohingyas are "at grave risk [of] additional mass atrocities and even genocide".

Hundreds of thousands of Rohingyas have fled to southern Bangladesh, particularly the region around Cox's Bazaar. In the village of Shamlapur, Toheba Khatun, a 50-year-old Rohingya, says that she arrived from Myanmar 18 years ago after her husband was ordered to do forced labour by the Myanmar army: "We'd work all day with no food, and no pay at the end of it," she says. One day her husband was unable to carry a box of weapons that weighed 60kg, and he was beaten mercilessly. So they sold everything they had and crossed into Bangladesh.

Ms Khatun worries constantly about her daughter, aged 14, who boarded a boat to Malaysia and has not been heard from for two months. Indeed, the Rohingyas in Malaysia form a community living "essentially in hiding" says Matthew Smith of Fortify Rights, a lobby group. Malaysia refuses to grant them any legal status. By law they are not allowed to work; in practice many new arrivals are exploited by employers who house them in cramped apartments or makeshift shelters. The state provides no health care; nor will it educate Rohingya children, who compete to attend a small number of learning centres funded by charities. Nonetheless, Arkam and Ashan still earn more in Malaysia than they did in Rakhine. And, says Ashan, when he goes to sleep at least he knows that he will wake up in the morning.

The victims' victims' victims

Muslims probably arrived in what was then the independent kingdom of Arakan (now Rakhine) as long ago as the 8th century. They were seafarers and traders from the Middle East, and were joined in the 17th century by tens of thousands of Bengali Muslims captured by the marauding Arakanese. Some were forced to serve in the king of Arakan's army, others were sold as slaves and yet more were forced to settle in Arakan. "Rohingya" simply means "inhabitant of Rohang", the early Muslim name for Arakan. The kingdom was then conquered by the Burmese army in 1785.

At this juncture there was little tension between the Muslims and the Arakanese. That all changed, however, with the British conquest of Arakan in 1825. As Arakan and Burma were administered as part of British India, hundreds of thousands of Bengalis (or "Chittagonians" as the British called them) flooded into Arakan to work. By 1941 about a third of the population of Akyab (now Sittwe) was recorded as coming from Chittagong or elsewhere in Bengal.

This mass immigration boosted the colonial economy, but local Arakanese bitterly resented it. They had no control over it, believing that their jobs and land were being taken over by people whom they still call "illegal immigrants", or just (pejoratively) "Bengalis". Relations further soured during the second world war when the retreating British armed some Muslims to fight against the Rakhine, who largely sided with the Japanese.

In post-war Burma, the Rakhine, like the other 135 officially recognised ethnic groups of the country such as the Kachin, Karen and Chin, were discriminated against by the Burmese military governments. As one Rakhine politician puts it, "we are therefore the victims of Muslimisation and Burmese chauvinism". Myanmar's post-independence governments, in turn, saw themselves as the victims of British colonial oppression, so both the Rakhine and the Burmese authorities have been more concerned with their own sense of victimhood than any claims of the Rohingyas. This is why Myanmar's governments have never granted them citizenship or even recognised them as an indigenous ethnic group.

Bangladesh does not allow the Rohingyas citizenship, either. In the mid-1990s some 200,000 of them were brutally repatriated to Myanmar, a process shamefully overseen by the UN. The Rohingyas deny that they are merely Bengalis, and insist on their richer, more ancient heritage in the old Arakan kingdom. On this rests their claim to citizenship and as an indigenous ethnic group of Myanmar.

Any attempt to reconcile these two narratives was shattered by the ethnic cleansing in Rakhine state in 2012. Sparked by the rape and murder of a Rakhine woman by three Muslim men, about 200 people were killed as Rakhine mobs rampaged through Sittwe and other parts of Rakhine to drive the Rohingyas from their midst. The tens of thousands forced into camps were cut off from their livelihoods, and barred from schools and hospitals.

Researchers at the International State Crime Initiative (ISCI), a cross-disciplinary academic group, argue that some of this violence was organised. They spoke to Rakhine men who claimed they were bussed into Sittwe to attack Muslims, and were encouraged to bring knives. They were given free food for a day's work. In the fervently anti-Muslim atmosphere of Myanmar, encouraged by both Buddhist monks and politicians concerned to defend their "race and religion" against supposed Muslim expansionism, this is seen as good politics. It is part of a last attempt by the government to stave off defeat at what is expected to be the first relatively free and fair general election for decades in November.

Five stages of genocide

Stage	Rohingyas in Myanmar
1 Stigmatisation	Denied citizenship and not acknowledged as one of Myanmar's official ethnic groups; labelled "Bengalis"
2 Harassment	Job discrimination; religious persecution; attacks by state security
3 Isolation	In 2012 herded into camps; villages cut off
4 Systematic weakening	Identity cards removed so cannot vote; barred from travelling, leading to loss of livelihood
5 Mass annihilation	Has not yet occurred, but no one has been prosecuted for a killing spree against Rohingyas in 2012

Source: Penny Green, International State Crime Initiative, Queen Mary University of London


Sittwe burns

Penny Green of the ISCI argues that the ethnic cleansing of 2012 was a stage in what she describes as the "process of genocide". Historically, in other countries, this has started with stigmatisation and escalated to harassment, isolation and the systematic weakening of civil rights. Only after this grim groundwork has been laid is a genocide (ie, the mass annihilation of a people) likely to occur. The first four stages have all happened to the Rohingyas (see table). The terrible next stage is of course not inevitable in Rakhine state, but it is possible, argues Ms Green.

The Myanmar government angrily denies this. But Ms Green points out that those attacking Rohingyas enjoy complete impunity; no one has even been prosecuted, let alone jailed, for the killings in 2012. In the present climate of hostility, it would only take a spark, perhaps provided by the election, for the worst to happen.

Despite these dreadful provocations, the Rohingyas have so far remained remarkably pacific. Others, however, are more militant on their behalf, provoking fears of an Islamist backlash against Myanmar, or even Buddhism in general. Most recently Abu Bakr al-Baghdadi, the leader of Islamic State (IS) in Iraq, asked in a sermon on May 14th: "Where is the support of al-

ADVERTISEMENT

The Economist Events

Re-inventing Higher Education
Better access, better results

In the first of a three-part virtual event series on the future of higher education on May 5th, The Economist Events brought together university and business leaders to discuss the importance of expanding educational opportunities in today's world.

As the US's economic needs evolve, there is an imperative for organisations across the public and private sectors to develop accessible and adaptive education models for an increasingly diverse American workforce.

Between 1970 and 2012, the proportion of American 24-year-olds who came from wealthy families and had a bachelor's degree rose from 40% to 73%. For their low-income counterparts, the proportion rose from 6% to just 8% over that same period.

Education must become more attainable, but it must also prepare students for the rapidly changing economy in order for the US to avoid economic stagnation, stressed Michael Crow, president of Arizona State University. "It's about lifelong learning," he said. "It's not about taking a major for a job."

Crow said new education models must be created, citing organisations like the University Innovation Alliance and programs like the Starbucks College Achievement Plan as steps in the right direction.

Natasha Stough, director of campus recruiting at Ernst & Young, Americas, emphasised the importance of reaching students early, particularly when it comes to making college accessible to first-generation students. She pointed to Ernst & Young's College Map mentoring initiative, which has helped 90% of its high school participants enroll in either a two-year or a four-year institution since it launched in 2009.

Of course, designing and implementing brand new education models comes with a specific set of challenges for all sectors.

From a public policy perspective, one of the big questions during the discussion was raised by Louis Soares, vice-president at the American Council on Education's Center for Policy and Strategy. "How do we develop [human capital] in a way that is a respectful use of public dollars and tax dollars—but also allows for experimentation?" he asked.

At the institutional level, technology can be a useful tool for expanding a school's reach, but most institutions don't have enough capital upfront to kick-start sustainable programs, according to Soares.

Money also remains a significant barrier. Despite partial funding and programs like the American College Application Campaign, many low-income high school students are leery of making the investment.

"It's almost like a high-stakes gamble right now for students, especially if they end up taking on debt. [The challenge is:]How do we respect what they bring to the college-going conversation but also provide the support needed at critical moments?"

Enrollment, however, is only half the battle. To ensure students graduate, community colleges and universities must work together to reduce red tape and strengthen the pipeline between the two types of schools. Soares highlighted Florida's common course numbering as an example.

Once students are in the workforce, corporations must figure out how to develop talent in sustainable ways that ensure their employees are ready to handle the challenges ahead, while motivating them to stay.

All three panelists agreed that we are living through a make-or-break-it moment for higher education. Crow compared the US's volatile education landscape to that of its Civil War era counterpart, in which Congress voted to create land-grant universities in response to the US's shift from an agrarian culture to an industrial economy. "It's only through continuous innovation and evolution that we'll ever be able to achieve the higher aspirations that we have for our democracy or our economy," he said.

Sponsored by ASU Arizona State University

Salul [a derogatory term for the Saudi royals] and their allies for a million of the weak Muslims who are all without exception being exterminated in Burma?"

So far this sort of rhetoric has not amounted to much. Rakhine has not turned into another Chechnya or Kashmir (ie, a big draw for angry young jihadists), for three reasons. First, foreign fighters these days are drawn mainly to join IS in Syria and Iraq, which offers them a more glamorous cause: fighting for a caliph rather than defending poor farmers and fishermen. Second, Myanmar secures its borders well, making it hard for foreign jihadists to reach the would-be battlefield. And third, as Thomas Hegghammer, a Norwegian expert on Islamism, explains, militants "don't go to where Muslims suffer; they go to where Muslims fight." Rakhine today has more killing fields than battlefields.

For Rohingyas, the alternative to fighting is flight. In Malaysia recent pictures of Rohingyas adrift in the Andaman Sea could mark the first steps to improving the refugees' lives when they step ashore and dismantling the networks which traffic them. Malaysia's Muslim politicians, spying a chance to stoke religiosity, insist that ethnic Malays have a duty to help the Rohingyas. Most campaigners are pessimistic about lasting change, however. "It will be talked about for three or four months, and nothing will come of it," says Aegile Fernandez of Tenaganita, a migrant-rights charity. But, unless something changes, life is so bad for Rohingyas in Myanmar that thousands more will try to escape on rickety boats when the next dry season arrives in November. ■

Bangladesh and India

Mapped out

DHAKA

A cartographic anomaly is resolved

SOUTH Asian cartography has many quirks, but few are stranger than a stretch of India's border with northern Bangladesh. Here, ever since partition in 1947, when Bangladesh was part of Pakistan, there have been 162 parcels of land on either side of the border that belong to the other side (see map). With an agreement reached between India's prime minister, Narendra Modi, and his Bangladeshi counterpart, Sheikh Hasina, on June 6th, that anomaly is about to end.

The enclaves were there long before partition. Legend has it that they were formed as a result of a series of chess games played between two maharajahs centuries ago. The chunks of land were

used as wagers. Brendan Whyte of the National Library of Australia believes the parcels were carved out as a result of 18th-century treaties between the Maharajah of Cooch Behar and the Mughal empire, before the emergence of the British Raj. The territories include the world's only "counter-counter-enclave": a patch of India surrounded by Bangladeshi territory, inside an Indian enclave within Bangladesh.

Ms Hasina turned up at the airport with several cabinet members to meet Mr Modi, eager to receive a stamp of approval from the leader of the world's biggest democracy. During his visit, Mr Modi also signed 20 or so other agreements, covering bus routes across the border, investments in the energy sector and more.

Once celebrated for helping an independent Bangladesh break away from Pakistan in 1971, India has since come to be regarded by many Bangladeshis as an overbearing, and sometimes even wicked, stepmother. Mr Modi's visit was to show that relations have moved to a new phase involving more trade and goodwill rather than squabbles over territory, cross-border terrorism and illegal migration.

And, after decades of dithering, they were able to clear up the bizarre legacy of their shared border. Until now the 50,000 people in the enclaves were effectively stateless, living on patches of land without schools, hospitals or courts. Now they are to be given the option to choose which side to join, along with citizenship and basic services. The pact will cover a total area of 40 square kilometres (15 square miles)—about half the size of Hong Kong island.

Mr Modi said, in all seriousness, that the agreement on the enclaves was comparable in importance to the dismantling of the Berlin Wall. Yet India's actions elsewhere along the border have not matched such rhetoric. It is busy raising a fortified fence along much of the border to help stanch the flow of migrants and smugglers. Between January and May Indian forces killed 20 Bangladeshis trying to cross the border illegally. A resolution on the enclaves is one thing; free movement between the two countries quite another. ■

South Korea and MERS

Don't inhale

SEOUL

Blaming the government for a plague

SOME diseases cause political as well as health problems—and so it is with Middle East Respiratory Syndrome (MERS) in South Korea. Nine people have died, 122 more have been infected and the authorities have put over 2,800 people into quarantine, including an entire village, Jangduk, south of Seoul.

But the country is fighting two wars, says the mayor of Gyeonggi province, which surrounds Seoul: one against the disease, the other against fear. Both campaigns are going badly. South Korea's outbreak is already larger than in any country in the Middle East, except Saudi Arabia, the presumed origin of the disease. The virus is poorly understood, but seems to be related to Severe Acute Respiratory Syndrome (SARS), which killed around 800 people in 2002-03, chiefly in Hong Kong and China.

What defeated SARS was old-fashioned public-health measures, including good hygiene and the effective use of quarantine. Yet South Korea's government failed for weeks to take the MERS outbreak seriously. There was little clear communication early on. It took the authorities two and a half weeks from the first detection of the disease to publish the names of hospitals affected—and only then in response to media pressure, the public and the popular mayor of Seoul, Park Won-soon.

With little official information, South Koreans turned to the internet, says Bomi Cho, a young mother of three who lives in Seoul. Park Geun-hye, the president, has come under attack for not reacting sooner (this week she finally postponed a trip to America for a summit with Barack Obama). Mayor Park, who is widely regarded as future presidential material, has vaulted higher in the public's esteem.

Hanging over the government is the memory of a ferry disaster last year, which killed 304 people, mostly high school students. After bungling its response, the government promised to change its ways, says Shin Yul, a political scientist at Myongji University in Seoul. But the MERS crisis shows that little has changed.

A particular source of public alarm is that MERS seems to be spreading faster in South Korea than elsewhere, albeit with a lower death rate so far. The first patient infected 32 people; another transmitted MERS to 34 more. Some people have caught the disease even though they kept two metres away from the infected person, says Oh Myoung-don, a doctor at Seoul ▸▸

National University College of Medicine, who is advising the government. That suggests transmission may be airborne, the hardest to guard against.

The authorities are finally getting their act together. Thousands of schools have been shut. Cultural events are being called off and people are staying away from shops and restaurants, prompting fears for the economy. This week a team from the World Health Organisation arrived.

Whether the outbreak can be halted may depend in part on cultural attitudes. One contributing factor is that many South Koreans, like the first MERS patient, visit several hospitals to look for the best care. This can spread disease faster. Hospitals are sociable places where people share rooms with strangers, and where family and friends crowd around to take care of the sick. That close-knit culture could be another victim of the disease. ■

Japan's obscenity laws

Vagina monologue

TOKYO

Rape comics, yes; anatomical art, no

IN A country where first meetings are often stiffly formal, the namecards of Megumi Igarashi, an artist, suggest a subversive sense of humour. They are pink, and take the shape of a vagina. Plenty of people in Japan, however, seem to be missing the joke, for she is currently fighting obscenity charges in a digital rerun of Britain's trial of the publishers of "Lady Chatterley's Lover" in 1960.

Ms Igarashi (pictured) sculpts and illustrates her genitals to mock what she calls outdated taboos. The authorities proved her point by arresting her last year after she e-mailed 3D data of a kayak in the shape of her vagina to supporters. Ten police officers confiscated her belongings and marched her away in handcuffs. She was interrogated for 23 days.

The arrest triggered a debate about women's rights. Japan is full of sexualised imagery. Popular magazines depict incest, underage sex and gang rape. An annual festival near Tokyo features giant wooden phalluses and penis-shaped hats and candy. Possession of child porn was made illegal only this year. Yet museums may not exhibit masterpieces of erotic art from the Edo period.

Ms Igarashi's work is controversial not because it is sexual but because it offends the norm, says Mari Miura of Sophia University. It is acceptable for men to express sexual desire but not women. Prosecutors do not care about the artistic intention, she says. "All they see is a woman showing her vagina."

If convicted, Ms Igarashi faces up to two years in prison, or ¥2.5m ($20,000) in fines. Prosecutors began her trial in the Tokyo District Court in April by showing plaster-cast imprints of her nether regions in a box. Poker-faced lawyers stumbled over the word *manko* (rough translation: "pussy"). The artist admits to making and distributing the imprints but denies that they are obscene.

Her lawyer, Takashi Yamaguchi, doubts his client will be sent to prison, and criticises the trial, which could last over a year, as a waste of public money. Many people are surprised at Ms Igarashi's decision to fight, he says. She gets hate mail for not admitting guilt and for causing "trouble". Even feminists dislike her art because they miss the humour and think she is making fun of the female body, laments Ms Igarashi.

Nice to meet you. Here are my genitals

Revising Japan's constitution

Peacemongers

TOKYO

New defence plans run into difficulties

JAPAN'S prime minister, Shinzo Abe, suffered an embarrassing and unexpected setback on June 4th in his efforts to loosen the chains of his country's pacifist constitution. Yasuo Hasebe, a legal expert chosen by Mr Abe's Liberal Democratic Party (LDP), stunned his sponsors by declaring that the government's proposed new laws to allow "collective self-defence" violate the constitution.

The move comes not long after Mr Abe received the warmest of welcomes in America in April, not least because of those very plans for collective self-defence. If passed, they would allow the country's army, known as the Self-Defence Force, to aid America's armed forces even if Japan itself is not directly under attack.

Though America is supportive, at home Mr Abe's plans are becoming ever more unpopular. The attack from Mr Hasebe, a scholar from Waseda University, has tapped into that mood.

Most Japanese are deeply attached to article nine of the American-written post-war constitution, which renounces war as a way of settling disputes. Recent opinion polls are clear: nearly three-fifths of those asked this month by the *Yomiuri Shimbun*, a newspaper that supports Mr Abe, say they oppose the legislation on collective self-defence—a higher proportion than ever before. Protests have taken place outside parliament and elsewhere.

It has not helped that Mr Abe has also begun openly to pursue one of his most cherished dreams: a broader rewriting of the constitution. Most constitutional scholars, and some inside Mr Abe's own LDP, consider the reinterpretation of article nine to be a revision by stealth.

The setbacks come despite the fact that Mr Abe has lately been straining to reassure the public that his changes would not drag Japan into any future American wars. As the risk to Japanese soldiers' lives took centre stage in parliamentary debates on the issue, politicians from the LDP even suggested that the Japanese army could swiftly withdraw from any dangerous situation it found itself in, a possibility that is unlikely to have gone down well with America's Defence Department.

Mr Abe has also had to pledge that Japan would not help America to stand up to China in the South China Sea, where Japan's big neighbour has been building airstrips on disputed reefs. He has however remained firm on his position that Japan would take part in operations to keep open the Strait of Hormuz, through which many oil tankers pass en route to Asia.

The government is poised to extend the current session of parliament, due to finish on June 24th, in order to pass the defence bills. And the legislation could fail to pass even by the end of an extended session, says Koichi Nakano of Sophia University. Given that the government has a majority in both houses of parliament, such an outcome is still unlikely. Yet the cumulative drain on Mr Abe's political capital threatens to be heavy. ■

Banyan | Despite being a woman

South Asia is one of the worst places in the world to be female

INDIA's bachelor leader, Narendra Modi, struggles with the opposite sex. Last year he tried to be seen to revere his mother by rushing to her side after his big election victory. But then he failed to invite her to his grand inauguration. He has talked, admirably, about the need to respect women. But he defines "our mothers, daughters and sisters" by their relationships with men and as treasures to protect. It does not help his reputation that, until he was running for the prime ministership, he refused to acknowledge that he has an estranged wife, whom he was forced to marry as a teenager and has not lived with since.

For a man usually so eloquent, Mr Modi occasionally lands his sandalled foot in his mouth: on June 7th he made an especially crass comment during an otherwise successful visit to Bangladesh, praising his host, Sheikh Hasina, the prime minister, for being tough on terrorism "despite being a woman". Critics back home accused Mr Modi of having retrograde views, typical of those who revere the country as "Mother India" but who treat women atrociously. Yet such attitudes are widely shared, not just in India but across South Asia. The whole region fails to grant women equal respect or opportunities.

That may seem odd, given how prominent a role women play in South Asian politics. China, Japan, Russia and many other countries have failed to produce a female prime minister or president. South Asia has had several. If Hillary Clinton is elected next year to lead the world's most powerful democracy, it will be a full half-century after Indira Gandhi first led the world's largest one. Sri Lanka's Sirimavo Bandaranaike pipped her to become the world's first female head of government, in 1960. In that country, uniquely, both a mother and her daughter have held the highest political office. In the late 1990s Chandrika Kumaratunga even served as president at the same time as her ageing mother, Mrs Bandaranaike, completed a third, mostly ceremonial, term as prime minister.

Women prosper at the top of South Asian democracies partly because they are propelled by dynasties that long formed the core of political parties. In Bangladesh the two battling begums have ensured that no other politician gets a look-in. Sheikh Hasina lets no one forget she is the daughter of the country's murdered founder, Sheikh Mujibur Rahman. Her fierce rival Khaleda Zia, the opposition leader, joined politics after the murder of her husband, also an early president. Pakistan's only female prime minister, the late Benazir Bhutto, entered politics after the execution of her father, Zulfikar Bhutto, a populist prime minister. In India some talk seriously of Priyanka Gandhi as a future leader of the Congress Party—mostly because her mother, Sonia Gandhi, has done the job, as well as her lookalike granny, Indira.

But if South Asia is one of the best places on Earth for elite women who aspire to a political career, it is one of the worst places to be an ordinary woman. The occasional chauvinism faced by females at the top pales beside the burdens heaped on those at the bottom. South Asian women fare terribly in a "Mothers' Index" put together in May by Save the Children, a British charity. It ranks 179 countries according to the well-being of their women, using indicators such as maternal mortality, the survival of young children and women's involvement in politics. Subcontinental nations come out the worst in Asia. Women in India and Pakistan (ranked 140th and 149th) have a quality of life only a little brighter than those in Afghanistan (152nd) and far behind those in China (61st), who are far more likely to survive childbirth, or see their offspring spend a long time in school.

Not everything is gloomy. Over the past 25 years, thanks to economic growth and official health schemes, some things have improved dramatically for South Asians. Take the blight of child weddings. In the mid-20th century the average Indian woman was married at 15 and endured early, frequent and often debilitating pregnancies. Now Indian women are more likely to tie the knot after getting an education, marrying on average at 21.

Another measure is the 289,000 women, globally, who died in childbirth in 2013. South Asia accounted for a quarter of them. But here too, improvements are striking. The rate of such deaths in the region has plummeted from 550 for every 100,000 live births in 1990 to 190 now. Poorer countries in South Asia—Nepal, Afghanistan and Bangladesh—have made notable gains by providing free maternal and child care, and recruiting more female health workers.

Let money do the talking

Yet South Asia will need to spend a lot more on women in order to see further improvements. The region devotes barely 1% of GDP to public health (China spends 3.1%). This puts a heavy burden on those who give birth and take most responsibility for child care. In part this is because of lingering poverty: World Health Organisation figures from 2012 show that combined public and private funds for health care, per person, came to a little over $50 per year in South Asia. Africa spent nearly double that; in East Asian countries it was ten times more. In North America spending on health, per person, was $8,500 a year.

The resources spent on women in South Asia are shared more unevenly than in most places. Among the richest quintile in Delhi (it is a similar story in Dhaka and elsewhere), women can enjoy maternal and other care close to first-world standards. By contrast the poorest quintile in the same cities, especially in slums, endure conditions as bad—or worse—than in far poorer villages: in Delhi only 19% of such women have someone skilled present when they give birth. Barely half of their children have had a measles jab and nearly three-fifths are stunted. Reducing such inequality would be one way to make existing resources go further in South Asia. But that is likely to happen no quicker than changing old-fashioned attitudes to women. ■

Also in this section

44 Candy-flavoured e-cigarettes for kids

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

Hong Kong's economy

A motherland's embrace

HONG KONG

The former colony's economy is bound ever more closely to China's

HALF a year on from pro-democracy protests that gripped Hong Kong for weeks, the city's economy is—depending on your perspective—beginning to suffer the fallout or sailing along as if nothing much happened. A tale of two property markets sheds light on this. At one end of the spectrum are retail spaces. Hammered since the unrest by a slowdown in the growth of visits from the mainland, shop rents are expected to fall by as much as 20% this year. At the other end are offices. Buoyed by a series of new financial links with the mainland, vacancies in Hong Kong's forest of glass-and-steel towers are at their lowest since the onset of the global financial crisis. The common thread is evident: more than at any point since the end of British rule in 1997, Hong Kong's economic fate depends on mainland China.

That Hong Kong should be so interwoven with the rest of China might not seem surprising. It is, after all, a city of 7m people controlled by a country of 1.3 billion. But, as well as being administered under a separate political system, Hong Kong has long maintained a measure of economic distance from the mainland. Its currency is still pegged to the dollar, not the yuan, so it is American interest rates rather than Chinese ones that determine the cost of mortgages. As an entrepot for global trade, Hong Kong's growth has hinged more on American and European demand for foreign goods than on the mainland's relatively smaller appetite for imports. At least as of 2012 the American economy, not the Chinese, had a bigger impact on the ups and downs of Hong Kong's business cycle, say researchers at the IMF.

Over time, however, Hong Kong's economy has been drawn deeper into China's orbit. Most obvious is the influx both of mainland cash and visitors. The interior's share of total foreign direct investment in Hong Kong has risen from barely a tenth in the late 1990s to nearly two-fifths today (see chart 1). If mainland companies registered in the British Virgin Islands and the Caymans were added, the tally would be even higher. CBRE, a consultancy, says occupancy by mainland firms of prime offices in major business districts rose from 12% in 2008 to 19% last year.

On the streets and in the subways, the patter of the Mandarin dialect spoken by many mainland tourists is ubiquitous. The number of mainland visitors to Hong Kong rose more than tenfold from 4.4m in 2001 to 47m last year (see chart 2), making up more than three-quarters of all foreign arrivals. A large number of these are "parallel traders" who flock to Hong Kong to haul boxes of basic necessities such as toothpaste and nappies back to the mainland, to sell for a markup. Yet many are also workers in the upper echelons of business and finance.

In the build-up to and during the pro-democracy rallies and smaller but nastier protests against parallel traders, many wondered whether Hong Kong's economy would suffer. The Hong Kong offices of the "Big Four" global accounting companies—Deloitte, Ernst & Young, PWC and KPMG—warned that plans by demonstrators to "occupy" Central, the main business area, could cause "inestimable" economic losses because of disruption to the stock exchange and financial services. Some feared that Chinese tourists would shun ▸▸

Hong Kong because of anti-mainland sentiment in the city.

This second concern had some validity. After rising by an annual average of 21% over the previous five years, visits by mainlanders are up just 6% so far this year. With new rules that will halt day trips by parallel traders, limiting them to weekly access, the slowdown will become more marked.

Some retailers are suffering. Landmark North, a mall near the mainland border, targets shoppers from inland. Though located in a relatively poor area, its stores offer luxury goods. Transport back to the mainland for those laden with bags is an easy half-hour by bus or train. Lately, though, it has been short on a key part of the mix: customers. This is a citywide problem. Sales of jewellery and watches are down 16% this year—hence the forecasts of lower rents on retail properties. In some central locations, coffee shops and pharmacies have already replaced jewellers and high-end clothes shops.

But retailers' woes started well before protesters began staging sit-ins on busy streets last year. The mainland's economic slowdown and its fierce anti-corruption campaign have drained its appetite for expensive products. Luxury sales have been weak since late 2013; last year they fell by 13%. The decline in tourism growth is also easily misconstrued. With the yen and the won steadily weakening against the Hong Kong dollar over the past year, trips to Japan and South Korea look much more appealing to mainland travellers—though a recent outbreak in South Korea of Middle East Respiratory Syndrome may dampen tourists' enthusiasm for that country, at least for a while (see page 40).

As for Hong Kong's role as a global business and financial centre, last year's sit-ins had even less discernible impact. Indeed, the Chinese government has moved to enhance that role. In November, during the unrest, Shanghai opened its closely guarded stockmarket to any foreigner with a Hong Kong brokerage account. Last month the mainland announced that mutual funds domiciled on its side or in Hong Kong could be sold in each other's markets, giving a boost to Hong Kong's asset-management industry. The mainland has also strengthened Hong Kong as the main offshore centre for trading the yuan by making it easier for cash to flow between the territory and mainland currency markets.

Just as important as financial links between Hong Kong and China are their improving physical connections. Two mammoth infrastructure projects, drawn up years before the protests, are on course for completion in the next few years, after a series of delays. A high-speed train will link Hong Kong to the neighbouring city of Shenzhen, while a 50km (30-mile) bridge will connect it to the interior.

Big companies are betting on the success of this integration. In a presentation this week, Stuart Gulliver, the chief executive of HSBC, a bank, said Hong Kong and the mainland area of the Pearl River Delta region would effectively combine as a single mega-city by 2025, forming the world's biggest "banking city cluster". Some analysts think it only a matter of time before HSBC shifts its headquarters to Hong Kong from London. Such talk is a sign that, for all the Big Four's fretting last year, global finance still has confidence in Hong Kong—thanks, not least, to its ever-tighter embrace with the mainland. ■

E-cigarettes

Candy-flavoured smokes for kids

BEIJING

"Vaping" in the West is seen as a way to quit smoking. In China, it may not be

WHEN the world's first electronic cigarette was invented in Beijing in 2003, the device was hailed as a godsend for tobacco fiends. It used power from a small battery to vaporise a nicotine solution that delivered the hit smokers crave with fewer toxins than tobacco smoke. Today over 95% of e-cigarettes are made in China, but until recently the Chinese themselves have shown little interest in the product.

"Vaping", as it is known, is far more popular in Europe and North America. In these regions, many health campaigners argue that e-cigarettes may help smokers quit. In China, however, awareness of tobacco's health risks is low and regular smokes are cheap. A pack can sell for as little as 2.5 yuan ($0.40), compared with an electronic one that costs around 200 yuan for a starter kit.

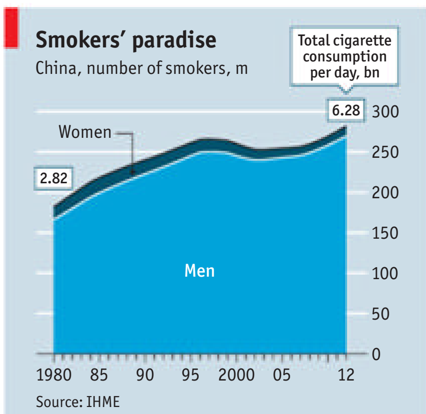
The government is stepping up efforts to persuade the country's 280m daily smokers—nearly one-third of the world's total—to give up. On June 1st a ban on smoking in public places was introduced in Beijing. If successful, it will be rolled out nationwide. For the first time, the annual meeting in March of China's legislature was made smoke-free.

Such measures help to explain why some Chinese are beginning to turn to e-cigarettes. Shane MacGuill of Euromonitor, a consultancy, says 3m-4m people in China now use them—a tiny chunk of the Chinese market, though more than the number in Britain. E-smokers will probably remain a far smaller share of the total than in rich countries. But Euromonitor reckons the country's e-cigarette market will triple in value in the next five years.

At present the sale and use of e-cigarettes is unregulated in China. But there is debate about whether the government should follow the example of many other countries in applying restrictions. Some campaigners worry that e-cigarettes are gaining popularity in China before awareness of tobacco's dangers has become widespread. This, they fear, may result in some users of e-cigarettes turning to the deadly version.

In China, electronic ones are marketed as trendy. Adverts depict suave, macho (usually foreign) men in sharp suits in modern, high-tech settings, with slogans such as "I am legend" and brand names like North Wolf. Candy-flavoured versions are sold to children for as little as 15-20 yuan; women buy lipstick-shaped ones. Their appeal is not primarily as aids for quitting. Only 2% of women smoke in China compared with over 50% of men.

Like other big tobacco companies, China National Tobacco Corporation, which controls the production and sale of all tobacco products in the country, is beginning to move into the e-business. Ling Chenxing, its director, says e-cigarettes are an important area for research. But tobacco is likely to remain the company's mainstay. Though the share of smokers is stable, the number of tobacco users continues to rise in China (see chart), as does the average number of cigarettes smoked. ■



Also in this section

47 Israel and the Arab world

47 Banning the catwalk in Saudi Arabia

48 Yemen's war, and its peace talks

48 The booming security business in Kenya

For daily analysis and debate on the Middle East and Africa, visit

Economist.com/world/middle-east-africa

Jihad and vandalism

Save our stones

As well as killing people, Islamic State is smashing up ancient works of art. Only a little can be done to prevent its acts of barbarism

SINCE Abraham first adopted monotheism and smashed his father's idols, the Middle East has seen more than its fair share of cultural vandalism. The prophet Samson, an antecedent of the modern suicide bomber, brought down a pagan temple full of Philistines. Iconoclasts destroyed holy Byzantine images. The followers of Muhammad ibn Abd al-Wahhab spilled out of the Arabian peninsula at the start of the nineteenth century and pillaged Iraq's Shia shrines at Najaf and Karbala. Venerating burial sites, they declared, encouraged Muslims to worship men not God, and were thus places of *shirk*, or polytheism. When in the 1920s they took over the holy cities of Mecca and Medina, they destroyed the graves of Muhammad's companions, wives and family. His own grave was only just spared.

Since the Arab spring of 2011 gave way to chaos and war, the doctrine has spread. Abu Qatada, a radical Islamist deported by Britain to Jordan in 2013, has penned a 44-page *fatwa* pronouncing that mosques built over graves should be "torched". Hundreds of landmarks, from Libya's Tripoli to Tikrit in Iraq, have since lost their shrines. Jihadists have attacked tourists at pagan monuments, targeting Tunis's Bardo Museum with its unparalleled collection of Roman mosaics in March this year (and earlier, Luxor in 1997). On June 10th a suicide-bomber struck again in Luxor, but killed no one. Islamic State's vandals invoke Abraham's name when sledgehammering *lamassus*, winged bulls with human heads, or shooting at the Gorgon heads that graced the palaces of Assyrian tyrants who thought they were God.

The scale is unprecedented. Four of Syria's six world heritage sites lie in ruins. In May IS swept into control of a fifth—Palmyra, an ancient city famed for its thousand columns. So far, IS does not seem to have harmed the site, though it is early days. But archaeologists fear for it, and for Petra's sculpture-decked caves, which are close to another hotbed of IS support, the Jordanian city of Maan. Along the Libyan coast, jihadists are in shooting range of the world's best preserved Roman cities of Cyrene, Leptis Magna and Sabratha.

The justification for all this has scholars stumped. Muhammad ended many ancient rituals at the Kaaba in Mecca, but continued to let worshippers perambulate around the granite cube. His companions, on whom IS claims to model itself, spared the pyramids. Ibn Jubayr, a medieval travel writer, so marvelled at the Nile valley's temples that "spending a lifetime wondering at their adornment, decoration and beauty would be too short". Ibn Abd al-Wahhab himself passed Ur's ziggurat by.

IS's own literature is short of clues. Its monthly magazine, *Dabiq*, suggests that it may come down to mere gloating. The destruction "served to enrage the *kuffar* (unbelievers)", declared its March issue, "a deed that in itself is beloved to Allah."

Iraqi archaeologists offer more mercenary explanations. By advertising their attacks on supply, IS hopes to increase demand. One dealer says that Israel's authorities have approved his purchase of ancient Hebrew inscriptions whatever their provenance, so fearful are they of losing the antiquities for ever. Tellingly, the jihadists ransacking Mosul's museum with chainsaws earlier this year did not show the destruction of its most precious artefacts, says an archaeologist from Mosul—because they had already been spirited abroad. While mining the best sites with earth-diggers themselves, they leave petty smugglers to explore elsewhere, piously taking 20% of their earnings as *khums*, an Islamic tax. The contents of the museum in Raqqa, IS's capital in Syria, were carted off by the box-load.

Cash is king

So great is the racketeering, says one Iraqi official, that antiquities trafficking is now a prime source of IS revenue. And as Western air strikes bomb the oil installations IS has captured, the need for antiquities-dollars will only rise.

IS is not alone. In an ancient region where state authority has in many places collapsed, armed groups, from the rebel Free Syrian Army to criminal gangs, maintain warehouses stuffed with antiquities, says René Teijgeler, who runs a Dutch-funded NGO, Heritage for Peace, operating ▸▸

on the Turkish side of the border with Syria. Poverty also boosts supply. "A lot of this is subsistence looting," says James Ratcliffe of the Art Loss Register, a London-based monitor. Gangs have been at work around the step pyramid of Zoser, Egypt's oldest. A collection of 7,700 ancient gold coins, jewellery and statuettes disappeared from Libya's main commercial bank in Benghazi.

Art dealers in London insist that, with few exceptions, the loot has yet to surface in Western auction houses, leading some to question the extent of the losses. But Christopher Marinello of the London-based Art Recovery Group was shown a Roman vase from Syria he valued at tens of thousands of pounds. Other dealers report finding Mesopotamian antiquities on eBay, an internet auction site. Deborah Lehr of an American association, the Antiquities Coalition, estimates that $3 billion worth of Egyptian antiquities have been lost since the fall of President Hosni Mubarak in 2011. Between 2012 and the IS advances of 2013, America's International Trade Commission reported that the import of declared antiquities from Iraq and Syria soared by 672% and 133% respectively.

Small steps only

A chorus of local and foreign experts have demanded military action to save the precious sites. UNESCO's boss, Irina Bokova, terms the destruction of heritage a war crime and calls for the creation of "protected cultural zones". With an eye on Libya, Italy's foreign minister, Paolo Gentiloni, wants to form a "blue helmets of culture" force that could parachute in when conflict or natural disaster threatens. Others call for America to extend the "responsibility to protect" not just to human victims of genocide, but to inanimate objects of "cultural genocide". The Hague Convention of 1954 provides legal cover of sorts. It requires signatories "if necessary, [to] put a stop to any form of theft, pillage or misappropriation of, and any acts of vandalism directed against, cultural property".

But military commanders are wary. In March the chairman of America's joint chiefs of staff, Martin Dempsey, said he would consider protecting heritage sites, but ruled out immediate air strikes. Defending such places by force could turn them into battlefields, advisers worry. Moreover, military action for the sake of antiquities might only further turn the region against Western powers, after they stood by while tyrants with chemical and conventional weapons killed hundreds of thousands of human beings. "Let's not worry about the ruins just yet," tweeted an American archaeologist as news bulletins reported the capture of Palmyra. "Over 90 people, including 11 children, executed by ISIS in Palmyra in 1 week."

Short of ways to restrict supply, international agencies have tried instead to curb

Interactive: Discover all World Heritage Sites currently under threat: **Economist.com/UNESCO15**

demand. In February the UN Security Council passed Resolution 2199 banning the sale of antiquities from Syria as well as Iraq. Law enforcers have had some success recovering artefacts, returning much of what was stolen from the Mallawi museum in Minya, a city in upper Egypt, in 2013. But more can be done to tighten controls. Turkey's border remains wide open. And for 60 years Britain, a hub of the global art market, has declined to ratify the Hague Convention. It has only three policemen assigned to tracking illegal sales, says Robert Jenrick, a former director of Christie's, now a Tory MP. No one is sure how charges for heritage crimes might be brought.

Hoping to prick consciences, UNESCO has staged a host of conferences and helped publish red-lists of endangered heritage aimed at "awareness building". The Assad regime and Iraq's government have jumped on the bandwagon, trying to drum up support in their struggle between civilisation and the barbarians, while locating missile batteries atop the vantage point of hills with ancient shrines. Iraq has debated the issue in parliament, and is putting its antiquities back on display for the first time since America ousted Saddam Hussein. "Our response to IS's destruction of museums is to open museums," says Iraq's tourism and antiquities minister. But all the publicity may only encourage IS to grab more headlines.

For want of alternatives, many opt for the defensive posture of shoring up what they have got. Western museums long under pressure to repatriate the loot of an earlier age now promote themselves, in the words of the Louvre's boss, Jean-Luc Martinez, as "asylums for Iraqi heritage". Some regional opinion-makers only half-jokingly call on the West to plunder more. "Let them steal our artefacts," wrote Abdulrahman al-Rashed, a prominent Arab journalist, in March. "We do not deserve them."

But the bravest measures are those of the locals themselves. In Mosul townsfolk rushed to the defence of a famous leaning medieval minaret when IS tried to destroy it. Mr Teijgeler of Heritage for Peace has re-employed 150 former antiquities officials who worked in the two-thirds of Syria that is now rebel-held. Some have taken to three-dimensional imaging to provide models for the time when the region begins to rebuild itself, while burying what remains. Others have rescued antiquities, including the mosaics ripped from a church wall in Idlib, in north-western Syria. And a few try to persuade. Mr Teijgeler is designing a training course for Syrian jihadists on the merits of preserving the past. Perhaps minds will change. IS recently published a travel brochure celebrating what ancient sites in Mosul still remain. ■

Black flag over Palmyra

Israel and Saudi Arabia

The new frenemies

CAIRO

Shared interests have brought Israel and the Arab world closer, for now

A CARTOON in one Saudi newspaper shows an Iranian official juggling four countries in which Tehran has increasing influence: Syria, Iraq, Yemen and Lebanon. Another shows him sporting a suicide belt composed of Islamic State (IS) militants. These days caricatures of "the Persians" are more common than those pillorying "the Jews" or Israel, the Arab world's long-standing nemesis.

So eyebrows lifted less than might have been expected when on June 4th Saudi Arabia and Israel admitted at a conference in America that they have held a series of meetings. Their improving ties are a manifestation of shared strategic interests, says Ilan Mizrahi, a former head of Israel's National Security Council. "Like us, the Saudis are worried about Iran, IS and the fear that America is no longer so committed."

It is not the first time Saudi Arabia has talked to Israel. In the 1960s, under Britain's aegis, Saudi Arabia and Israel armed Yemen's royalists to give Egyptian president Gamal Abdel Nasser's expeditionary force a drubbing. Israeli old-timers recall clandestine invitations in the 1980s to the ranch of Prince Bandar bin Sultan, Saudi Arabia's then-ambassador to America. Officials have talked openly at peace conferences.

But the tumult of the Arab spring and Barack Obama's deal-making with Iran have changed the backdrop for America's two closest allies in the region. Elsewhere too, the notions of Israel as the Arab world's main enemy, and of Arab states as champions of the Palestinians, have been wearing thin. For all Bashar Assad's talk of resistance to Israel, the common border has been quiet for four decades, while the regime has destroyed Yarmouk, a Palestinian camp in Damascus. Egypt's President Abdel-Fattah al-Sisi, who came to power two years ago, says he talks to Binyamin Netanyahu, Israel's prime minister, "a lot". During Israel's war in Gaza in 2014 he sealed his side of the border and outlawed Hamas, the Palestinian Islamist movement. Today everyone is buying Israeli drones, says Yossi Alpher, a former Israeli intelligence officer. Even popular opinion in the Arab world may, in some quarters, be changing. A recent poll by an Israeli organisation found that only 18% of Saudis see Israel as their principal enemy, compared with 22% who said IS and 53% Iran.

Yet the overtures are unlikely to translate into the sort of relations Israel had with pre-revolutionary Iran, when thousands of Israelis, including Mossad agents, lived comfortably in Tehran. Shuttered Israeli representative offices in Muscat and Abu Dhabi show no sign of reopening.

In truth, Mr Netanyahu is keener on the idea of friendship with the Arab states than they are. It helps him that they are delivering the same message in Washington and Europe, where he cuts an increasingly isolated figure. It is noticeable that Israel's interlocutor, Dore Gold, the incoming director-general of the foreign ministry, is far closer to power than his Saudi counterpart.

And even if support for the Palestinians is lip service, few Arab leaders are ready to sell them out in public. "There will be another war in Gaza and this will put everything back," says Bruce Riedel of the Brookings Institution, a think-tank. The day is still far off when anti-Israeli and anti-Semitic cartoons disappear altogether from Arab papers. ■

Fashion in Saudi Arabia

The couture-buyer beneath the abaya

CAIRO

Banning catwalk shows will not stop Saudi women from looking chic

IN MOST places a model's good looks would make him or her a catch. Not in Saudi Arabia. Since a ruling this month that has effectively banned fashion shows, Saudi models have been speaking of their hardships. "My fiancé left me the moment he heard I was a model," says a woman quoted in local media. Another grumbles of disapproving friends.

The skittish Al Saud family requires permission be sought for all gatherings, including weddings. So it is perhaps not surprising that catwalk shows, first permitted only in 2009, would be banned again, ostensibly for a record of failing to get the necessary approvals. They are an obvious target for officially sanctioned religious prudes. Wahhabi imams often denounce the West's exploitation of the fair sex in adverts. Saudi womenfolk must swathe themselves in the *abaya*, a long, traditionally black, robe. Female models on billboards have their facial features scratched out. Censors use marker pens to black out offending images in books and magazines. In 2012 IKEA, a Swedish furniture chain, erased women from its Saudi catalogue—prompting an outcry in more liberal lands.

But officials are fighting a losing battle: Saudis will continue to strut their stuff on or off the catwalk. The kingdom comes 17th in this year's Global Retail Development Index, a ranking of the hottest developing markets by AT Kearney, a consultancy. Flashy shoes, sunglasses and handbags are especially popular since these are the bits women can show off in public. Sales of racy lingerie, which is invisible under an *abaya*, are sizzling.

What is most stupid, mutter disgruntled Saudis, is that most of the now-banned catwalk shows featured only male models. Men were banned from shows with female models, as were cameras. Much of what women modelled there were designer *abayas*. With or without the catwalk, this is a growing industry: the Wahhabi-approved garb comes in ever more designs, materials and bright colours to suit every occasion. Black is so last millennium.

No cameras, please

Yemen's war

No end in sight

CAIRO

The start of peace talks raises little hope that the fighting in Yemen will stop

FOR nearly three months a coalition led by Saudi Arabia, the richest country in the Gulf, has bombed Yemen, the poorest. Yet the Saudis have precious little to show for it. They have failed to pacify the Iranian-backed Houthi rebels who now dominate Yemen, or to restore the exiled government of Abd Rabbo Mansour Hadi, the ousted president who asked them to intervene. When the Houthis sent a Scud missile over the border on June 6th, it refuted the Saudis' claim to have destroyed the rebels' firepower, too.

The missile was intercepted by Patriot rockets and a ground attack on the border was repelled, but the attacks suggest that the Houthis, backed by forces loyal to Ali Abdullah Saleh, Yemen's former president, want to cause damage inside Saudi Arabia to highlight the kingdom's vulnerability. The Saudis have been under international pressure to curb their offensive, which has killed perhaps 2,000 Yemeni civilians. But the Scud attack has strengthened their resolve. Neither side seems to have much in the way of a long-term strategy, nor any inclination to give ground.

So there is little hope that UN-sponsored "consultations" between the rebels and the exiled government, which begin on June 14th in Geneva, will bring peace. (Even calling them "peace talks" was seen as too ambitious.) Since emerging from their northern redoubt in 2014, the Houthis, who practise a brand of Shia Islam called Zaydism, have captured Sana'a, the capital, and most big cities, including the larger part of Aden, Yemen's main port. They are reluctant to cede their newfound power. But Mr Hadi says that in Geneva he will demand just that: "There will be no negotiations." The conflict's place at the heart of a regional rivalry between Iran, a Shia power, and Saudi Arabia, a Sunni bulwark, makes it that much harder to resolve.

Yet a peace deal makes sense for nearly all sides. Start with the Houthis, who after their swift advance are now overstretched and short of fuel, food and water. They have learned, at the cost of considerable blood and treasure, that their rivals in central and southern Yemen are prepared to fight to the last bullet. Some tribes opposed to the Houthis have formed unsavoury alliances with the jihadists of al-Qaeda in the Arabian Peninsula, probably the terrorist group's deadliest branch, which has gained territory during the fighting.

But the fighters have not been able to push back the Houthis. Nor have they united under the leadership of Mr Hadi, who sips tea safely in Riyadh, the Saudi capital, but is despised back home. Saudi Arabia is unlikely to send in ground troops for fear of an even worse quagmire. Its siege of Yemen has done little more than create a humanitarian disaster. Some 20m people, or about 80% of the population, are in urgent need of aid, warns the UN.

Perhaps the most that can be hoped for in Geneva is a preliminary deal that would ease the suffering and pave the way for further negotiations. But future talks will prove much more nettlesome. An old proposal to split the country into six regions was unpopular, so the structure of the state must be renegotiated. Power-sharing arrangements must be hashed out before new elections can take place. Mr Hadi and Mr Saleh both threaten to play spoiler. Khaled Bahah, the current vice-president, might prove a more unifying figure.

Even if a deal can be reached, there is no guarantee that the fighting will then stop. Though the sectarian anger stirred up by the war may fade over time, regionalism is a persistent problem. Mr Hadi has little sway over separatists who are fighting in the south. They have long agitated for independence (the country was formally split between north and south until 1990) but will not even be represented in Geneva. There is every chance they will fight on, regardless of any agreement. ■

Jobs in Kenya

Guards, not guides

MOMBASA

More Kenyans now work in private security than in tourism

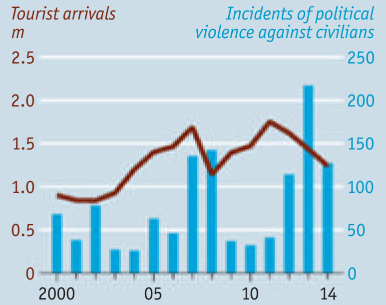
A WATCHMAN stands on an abandoned lawn by a white-sand beach. A sign says "Activity Centre", but no one is having fun. "We used to play a lot of sports and games," says the guard. Now the only man left is watching out for intruders.

The Nyali International is one of the oldest and biggest beach hotels in Mombasa on the Kenyan coast. Once full to the brim with European tourists, it struggles to fill 20% of its rooms, even though many of its competitors have closed. The original staff of 260 has been cut by half.

Meanwhile the number of guards at the hotel has increased from a handful to 70-80 in the past two years. At least 30 are on duty at any one time, split between an in-house team and two security firms. The front gate is secured with two separate barriers that never open at the same time. Guards watch all occupied corridors. Police patrol the perimeter.

Crossing over

Kenya



Sources: ACLED; World Bank

Nothing terrible has actually happened at or near the hotel. But a vicious cycle of attacks by Islamist extremists and police reprisals along the coast and beyond has made everyone nervous. In April Somali Islamists took more than 700 students hostage in the Kenyan town of Garissa, murdering 148 of them. In 2013 gunmen attacked an upscale mall in Nairobi, the capital, slaughtering dozens of shoppers. Western governments have advised travellers not to visit Kenya. Local officials call the warnings unfair and timid, but have conspicuously failed to protect their own people. So tourists are staying away.

Safari camps, bush lodges and mountain resorts are nearly empty. Owners say they have never seen times this bad. Last year the number of Kenyans employed to pamper tourists fell 20,000 to 206,000, according to official figures.

Meanwhile, the number paid to protect people in Kenya has risen dramatically. Insiders say the private-security industry now employs a quarter of a million people—comfortably more than tourism does. Some put the figure as high as 300,000 (which is more than there are in the police) and the number of firms in operation at several thousand. Among them are global brands including G4S and specialist firms from Israel, but also local giants such KK Security and many small neighbourhood outfits. A municipal security co-ordinator in Kenya's second city, Mombasa, derides many of the guards as "door openers", suggesting that some are more likely to spy for intruders than deter them.

Nairobi is said to have 100,000 guards, making security its biggest employer. Even middle-class homes are watched by yawning men in uniform. Most Kenyans worry more about ordinary crime than terrorism. And some of the growth in private security reflects a rise in wealth (GDP growth accelerated last year from 4.9% to 5.7%) and the arrival of ever more foreign investors occupying shiny offices that would need guarding almost anywhere in the world. But still, in a world where tourists have lots of choice, Kenya cannot afford its reputation for mayhem. ■

Also in this section

50 The Cyprus problem

50 Greece refuses to reform

51 Corruption in Romania

51 Reinventing Paris

52 Berlin's new castle

53 Charlemagne: European unsolidarity

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

Turkey's election

The voters' signal to Erdogan

ANKARA AND ISTANBUL

Turks (and Kurds) show they prefer liberal democracy to Islamist autocracy. But they have made it harder to form a government

FOR Turkey's combative president, Recep Tayyip Erdogan, who has won every election he has faced since becoming Istanbul's first Islamist mayor in 1994, it was a bitter defeat. Voters denied his Justice and Development (AK) party a majority in the June 7th general election, thwarting his dreams of rewriting the constitution to grant himself executive powers. AK, led by Ahmet Davutoglu, the prime minister, took 40.9% of the vote and 258 seats, 18 too few for a single-party government. That is a big drop from the 50% AK won in 2011. The turnout was high, at 86%.

Now, for the first time since AK swept to power in 2002, coalition rule seems all but inevitable. "The dictator's back has been broken," crowed Faruk Arslan, a Turkish blogger, reflecting the celebratory mood of the president's swelling army of critics. Yet though Mr Erdogan's march towards one-man rule has been checked, it is premature to write him off. "This is a multi-act drama and we have just rung down the curtain on the first act," cautions Eric Edelman, a former American ambassador to Turkey.

The prospect of a return to feeble multi-party rule sent jitters through the markets. Istanbul's stockmarket index dropped by 8% on June 8th, and the Turkish lira fell by 6% to a record low against the dollar. "Regardless of the final composition of the new government, the outcome is a major negative for the short- and medium-term economic reform outlook," said Teneo Intelligence, a London-based consultancy.

The main causes of AK's reversal were a wobbly economy, Mr Erdogan's growing authoritarianism and the stunning success of the pro-Kurdish Peoples' Democracy Party (HDP). Pollsters reckon it siphoned off a chunk of the AK vote in the Kurdish-dominated south-east and in Istanbul. The leftist group has its roots in the Kurdish nationalist movement founded by the imprisoned Kurdistan Workers' Party (PKK) leader, Abdullah Ocalan. But it has created an alliance that draws in pious Kurds, Turkish liberals, leftists, Christians and gay people. The HDP sailed past the 10% threshold for parliamentary representation, winning 13% and an estimated 80 seats.

The HDP's co-chairman, Selahattin Demirtas, played a pivotal role. The lute-strumming, 42-year-old former human-rights lawyer is the most charismatic politician to emerge since Mr Erdogan himself. With his sharp wit, Mr Demirtas managed to appeal both to Kurds and to Turks worried by Mr Erdogan's overweening ambitions. He lured many first-time voters with his irreverent and lively campaign.

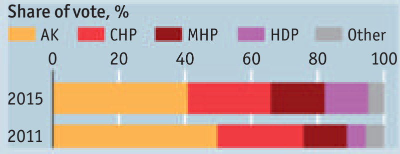
The big question is what Mr Erdogan will do. He could crawl back to his largely ceremonial role as president, getting Mr Davutoglu to stitch up a coalition deal with the opposition; or he could play spoiler and try to force a new poll. He has been a good loser so far, saying that the will of the people must be respected. But his supporters say a hung parliament "proves" the case for a presidential system. If a government cannot be formed within 45 days of an election, the president calls a new one.

But AK insiders warn that, should Mr Erdogan and his cronies try to keep control of the party, a power struggle is likely. A grow- ▸▸

The four rivals

Party	Description
Justice and Development (AK)	In power since 2002, this conservative Islamist party has slid in an authoritarian direction under President Recep Tayyip Erdogan
Republican People's (CHP)	Centre-left party that has embraced economic reform under new leadership
Nationalist Action (MHP)	Far-right party that fuses nationalism with Islam and opposes concessions to Kurds
Peoples' Democratic (HDP)	Latest reincarnation of left-leaning pro-Kurdish party, has expanded appeal from traditional south-east across the country

Share of vote, %



Turkish lira per $, inverted scale

Sources: Press reports; Haver Analytics; *The Economist* ing number believe that Abdullah Gul, a co-founder of AK and former president, should return as prime minister. That would require a by-election, as Mr Gul is not now an MP. Mr Gul would never agree to be under Mr Erdogan's heel. But none of this can happen before an AK party congress expected in September.

In the meantime, Mr Davutoglu, as the winner, will have first crack at forming a government. The far-right Nationalist Action Party (MHP), which took 16% of the vote and 80 seats, is ideologically closest to AK and so may seem the most logical choice of partner. But the MHP's leader, Devlet Bahceli, has ruled out backing an executive presidency. He also wants to resurrect corruption charges against former AK ministers that were launched by prosecutors in 2013 but shelved last year. This could prove tricky, as some of Mr Erdogan's family were implicated. And Mr Bahceli will hold out for a plum cabinet post and demand that peace talks with Mr Ocalan cease, alienating pro-AK Kurds.

Mr Davutoglu might prefer to form a minority government, with the far-right nationalists providing support from outside. But what would be in it for the MHP? "Nothing," says Ozer Sencar, a leading pollster. So there is talk also of a "grand coalition" between AK and the centre-left secular opposition Republican People's Party (CHP), which came second with 25% of the vote and 132 seats. The CHP leader, Kemal Kilicdaroglu, who is facing a challenge to his leadership, seems interested, saying that another election would be "a waste of time". Speculation about a possible deal intensified when Deniz Baykal, Mr Kilicdaroglu's predecessor, met Mr Erdogan on June 10th. But many AK members are queasy, fearing that a link with the CHP would alienate their pious base. The three opposition parties might try to form a coalition excluding AK, but the far right would find it hard to get along with the Kurds. A final even more improbable scenario has the CHP forming a minority government, with the other two opposition parties backing it from outside.

Others say the most mutually beneficial outcome of all would be a partnership between AK and the Kurdish HDP. This may sound like political suicide for Mr Demirtas, who rules out any such deal. His vows to torpedo Mr Erdogan's presidential ambitions drew non-Kurdish voters who helped carry the HDP over the 10% threshold and into the political mainstream. "They would never forgive us if we broke our promise," says a former HDP deputy.

Yet Mr Ocalan, who holds sway over the party, may calculate otherwise. The PKK and its Syrian arm are fighting Islamic State terrorists near the border. Stronger Turkish backing could tip the balance. "Rojava [Syrian Kurdistan] is the HDP's Achilles heel," says Arzu Yilmaz, an analyst. It was Mr Erdogan's implicit backing for IS in last summer's battle for the Kurdish city of Kobani that first drove so many pro-AK Kurds into the HDP's arms. Indeed, AK's biggest hope of clawing its way to single-party rule again is to lure these pious Kurds back. Ironically, the best way of doing this would be to reach out to the HDP. ■

The Cyprus problem

Talking time

NICOSIA

A glimmer of hope, but no more than that

LATELY an unfamiliar emotion has washed over Cyprus: hope. The economy is starting to crawl back after a euro-zone bail-out in 2013. But the big news was the surprise election, in April, of Mustafa Akinci, a centre-left moderate, as president of the unrecognised Turkish-Cypriot north. This has kindled new optimism over ending the island's divide.

Since Turkish troops invaded and occupied the north after a brief bid by the Greek-Cypriot leadership to unite with Greece in 1974, many plans for reunification have come and gone. The most recent was the (Kofi) Annan plan, backed by Turkish-Cypriots but rejected by the Greek-Cypriots just before Cyprus joined the European Union in May 2004. The latest talks broke down in October, after Turkey sent a research ship into Cypriot waters to explore for gas.

But Mr Akinci's election has lifted the mood. Greek-Cypriots saw it as a sign of frustration among Turkish-Cypriots with Turkey's government, which has poured subsidies and settlers into the north, and keeps over 30,000 troops there. Early meetings between Mr Akinci and his Greek-Cypriot counterpart, Nicos Anastasiades, have gone well. Greek-Cypriots hope offshore energy will concentrate minds: a gas field off the coast has just been declared commercially viable.

The goal has long been a "bizonal, bicommunal federation", with autonomy for each side. To get there, says a senior Greek-Cypriot official, talks go along three tracks. First, negotiation on serious issues: governance rules compatible with European law, resettlement of refugees and scrapping outdated security guarantees that give Turkey the right to military intervention. Second, practical matters such as improving north-south electricity and telecoms links, and removing thousands of landmines. And third, public diplomacy, such as this week's visit by the two leaders to a play in Limassol, their common home town. Meetings are running at an "exhausting" pace, says one official. There are no deadlines, but the two leaders talk of a deal by the end of the year.

That is optimistic. "We all know that the key lies in Ankara," says the Greek-Cypriot official. Turkey may be less interested than it was, unless a deal comes with a revival of its own hopes of joining the EU. Its election could now see a far-right nationalist party joining the government, an outcome the Greek-Cypriots had feared. But the Greek-Cypriots, who enjoy international recognition and EU membership, must also do their bit. Forty years is a long time for two peoples to live apart, cautions another official. "Perhaps prohibitively long".

Greece and the euro

Non-meeting of minds

ATHENS

The Greeks annoy euro-zone creditors by not offering enough reforms

A GLANCE at the crowds climbing the Acropolis suggests a normal Athenian summer, despite ominous noises coming from Brussels. Alexis Tsipras, the prime minister, still claims he can cut a deal with Greece's creditors this month to unlock much-needed bail-out money while avoiding more austerity that could create another deep recession. Yet his optimism is not shared by many. Even supporters of Mr Tsipras's radical-left Syriza party know that reforms to pensions and labour markets, which he has called "red lines", may be needed to remain in the euro (a recent poll finds 79% of Greeks in favour of staying). "We'll have to make concessions in the end, but at least Alexis is putting up a fight," says Vassilis Stangos, a retired builder.

The bail-out monitors—the European Commission, the IMF and the European ▸▸

Central Bank (ECB)—are frustrated by Greece's repeated failure to produce credible plans for reforms. Meanwhile, Mr Tsipras calls repeatedly for a "political" solution. "Roughly translated, it means Athens wants cash with as few conditions as possible," says one weary Eurocrat (see Charlemagne, page 00). This week the commission rejected the latest Greek ideas, which included an extra €500m ($570m) from value-added tax but no plan for raising another €500m for pension cuts.

It did not help when Athens reneged on a repayment of €300m to the IMF on June 5th. Its new plan is to bundle up four instalments that are due in June into a single payment of €1.5 billion at the end of the month, taking advantage of a loophole used by Zambia in the 1980s. The creditors' mood soured again when Mr Tsipras called their latest reform ideas "absurd". Jean-Claude Juncker, the commission's president and previously Greece's best friend, was annoyed when Mr Tsipras dismissed the list as "Juncker's proposals".

Mr Tsipras met his French and German counterparts at an EU-Latin American summit in Brussels on June 11th; the three agreed to "intensify" the talks. But the next move is up to the Greeks. After almost four months of snail-paced talks, it looks as if the creditors may now call Greece's bluff. Yet Syriza has already furiously rejected their demands. The party is even incensed by Mr Tsipras's own modest plans. Before heading to Brussels he appealed to party bosses to back a deal, insisting he would not call an early election. Yet 22 Syriza MPS are rebelling, which could be enough to bring the government down.

More deadlines loom. Greece's bail-out expires on June 30th; there is talk of extending it to next March, and disbursing some €10 billion left from an earlier bank-recapitalisation fund to ensure that Athens can make repayments for the rest of 2015. But that will require fence-mending with the commission and the goodwill of Germany and other countries whose parliaments would have to approve an extension. Greece must repay €6.5 billion to the ECB in July and August. Bank deposits are shrinking as Greeks fret over the uncomfortable prospect of capital controls. The government is running out of cash to pay wages and pensions, let alone the IMF. Without new help, it will surely default. Mr Tsipras urgently needs to quell opposition in his party and come up with a more convincing set of reforms. ■


Tsipras's plan still doesn't add up

Corruption in Romania

Immune system

A law change may help Victor Ponta, the prime minister, to dodge prosecution

ROMANIA is on the front line of the European Union's battle against corruption. Rankings put the country alongside Bulgaria as the most corrupt in the EU. But its National Anti-corruption Directorate (DNA) has made strides, convicting over a thousand officials in 2014. On June 5th the DNA announced its biggest case yet, charging the prime minister, Victor Ponta, with forgery and conflict of interest. It may have gone too far: his Social Democratic Party (PSD) is trying to pass laws that could save Mr Ponta from prosecution, at the cost of crippling the fight against corruption.

Mr Ponta has cultivated an image as a pro-European reformer even while exploiting Romania's back-scratching political culture. The DNA says that in 2007-08, as a lawyer in private practice, he received unexplained consulting fees of up to $3,000 a month from another lawyer, Dan Sova. In 2011, after Mr Ponta joined the government, the two men allegedly forged documents showing he had worked on legal cases to earn the money. After he became prime minister in 2012, Mr Ponta appointed Mr Sova to his cabinet. (Mr Sova resigned last year ahead of another corruption probe.)

Romania's president, Klaus Iohannis, who defeated Mr Ponta in last year's presidential election on an anti-corruption platform, wants the prime minister to step down. Mr Ponta, who denies the charges, refuses to go. His majority in parliament has defeated efforts to lift his immunity. The EU, which monitors Romania's progress on corruption through its "co-operation and verification mechanism", has pushed Romania to end immunity for MPS, but that now looks to be off the table.

Worse, parliament has put forward 22 amendments to the legal code that would make it harder to prosecute graft. One would shift the burden of proof from "beyond a reasonable doubt" to "beyond any doubt". Another would change the definition of "conflict of interest". This infuriates Mr Iohannis, who accuses the PSD of "destroy[ing] institutions and principles in order to save one person's career" and vows to veto the legal changes. Mr Ponta, who once championed the DNA, now claims it is in cahoots with the opposition. The president of the Senate called the charges a judicial "coup". The conflict could turn into a constitutional stand-off.

Alina Mungiu-Pippidi, a Romanian political scientist, says the country cannot rely on simply prosecuting people, but must find a new political class. "Even with the DNA's massive arrests, politicians continue to despoil the state," she says. "They can't stop, they have to pay their debts." But the opposition National Liberal Party is compromised too.

Transparency advocates want Romania's allies to speak out. America has tried to persuade Mr Ponta that the fight against corruption is part of a struggle against Russian influence. Now Mr Ponta says he must remain in power to counter the Russian threat. The chairman of the European People's Party in the European Parliament, Manfred Weber, has warned against "giv[ing] the impression that the PM is above the law". But the European Commission, the guardian of the EU treaties, has remained silent. ■

Reinventing Paris

Start-up city

PARIS

A capital seen as a museum develops new pockets of high-tech modernity

THE café is organic, the décor industrial loft-style and the furniture artfully mismatched. This is NUMA, a digital hub in Paris, where facial hair is abundant and ties are non-existent. Perhaps it is insouciance, ignorance or quiet concentration, but when a government minister turns up, nobody notices. A new generation is trying to reinvent how Paris behaves and looks.

It may not be Berlin or London, but something is taking place in the capital's fringes and deserted industrial spaces. A city with more beauty and heritage than most, Paris is trying to shrug off its staid image. Scarcely a week goes by without an event devoted to start-ups in a converted dock or warehouse in an unfashionable area. On Paris's eastern edge, Xavier Niel, an entrepreneur who heads a €12 billion ($13.5 billion) communications group, is building a start-up incubator with floor space equivalent to four football pitches. In the first quarter of 2015 a Paris venture-capital firm was joint-top investor in European technology start-ups, with two German companies, according to CB Insights, an American research group.

"There has been a transformation of mentalities in France," says Mr Niel, who urges young people to take risks, think big and break conventions. "Entrepreneurship is a state of mind" reads a banner at NUMA, also home to Google's Paris campus. The outlook is anti-hierarchical and anti-conformist. "Our force is cultural chaos," says Frédéric Oru, a co-director. Another NUMA executive adds: "It's not very French."

One reason for change is that the young are no longer drawn to corporate life. Unemployment among graduates is 10%, and one in five of those who create new businesses are jobless. But some just want to do their own thing, away from the strict hierarchies of corporate France. A quarter of recent graduates of HEC, the top business school, have started their own company, up from one in ten a decade ago.

Second, successful entrepreneurs and investors now show what is possible. Mr Niel, who also built a software-development school in Paris, is one. Sigfox, a start-up that runs a cellular network for connected objects, pulled off the third-biggest European tech deal in the first quarter of 2015 when it raised $115m. BlaBlaCar, Europe's biggest car-sharing service, raised over €100m last year. Incubators with names like TheFamily have grown. Facebook is opening a research centre on artificial intelligence in Paris.

Third, the Socialist government, which once whacked entrepreneurs with taxes, has changed. Instead of lamenting the loss of fine brains, it hopes to lure in foreign ones. Axelle Lemaire, the (Canadian-born) minister visiting NUMA, has launched a "tech visa" for foreign entrepreneurs. A public-investment fund, BPI France, is promoting start-ups. Early efforts to back incubators met "indifference and scepticism", recalls Jean-Louis Missika, a deputy to the Socialist mayor, because "that wasn't the image of Paris." City Hall now wants to show that Paris is not just a living museum.

It is odd that the city lost its reputation for innovation. From avant-garde art to industrial engineering, it used to push the boundaries. The 1878 Paris World's Fair showcased electric light; in 1889, the Eiffel Tower became the world's tallest man-made structure. More recently, the urge to preserve has stifled innovation. Yet Paris is learning to reconcile history and modernity. On the edge of the Bois de Boulogne, a park, an elegant glass-and-steel structure designed by Frank Gehry for the Louis Vuitton art collection has met with admiration. Slowly, almost despite itself, Paris is rediscovering an innovative spirit. ■

Berlin's castle

What would the Kaiser say?

BERLIN

In the traditional centre of Berlin, a new and former castle is rising

FOR five centuries Berlin grew out from its political centre, the castle of the Hohenzollerns, as the dynasty rose from imperial electors of Brandenburg to kings of Prussia and finally emperors of Germany. The expanding edifice reflected this. Andreas Schlüter, a Baroque star, made it grand in the 18th century. Karl-Friedrich Schinkel, a 19th-century titan, surrounded it with neoclassical temples.

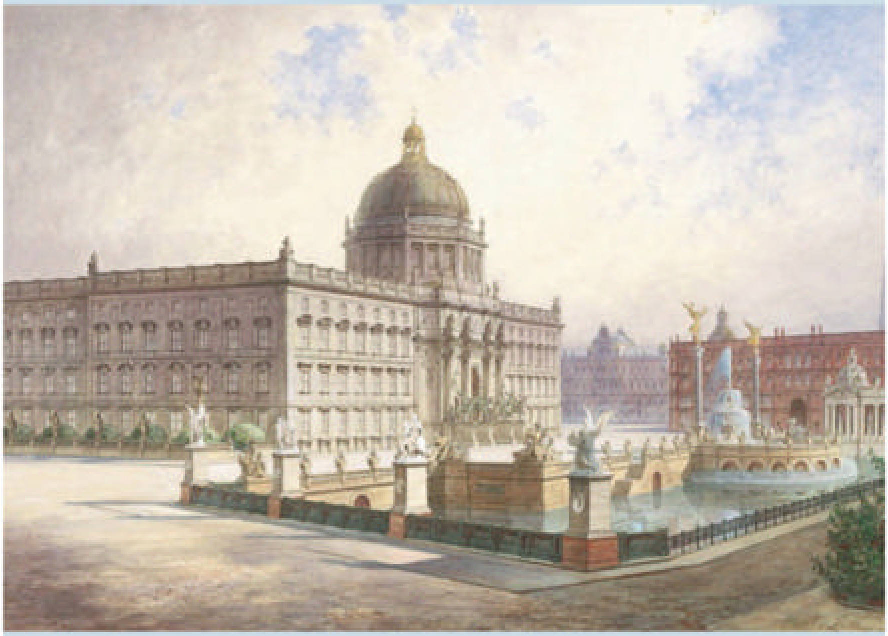
When the last Kaiser fled into Dutch exile in 1918, the building ceased to be a power centre. After 1945 it also stopped being the city's heart, because the bombed-out ruin was in the Soviet sector. In 1950 the East Germans blew up this symbol of Prussian imperialism, replacing it in the 1970s with a "palace of the republic", an architectural atrocity with orange windows and asbestos inside.

After reunification and the capital's return from Bonn to Berlin, the question of what to do with this historic space arose again. The Bundestag and chancellery were farther west, beyond the Brandenburg Gate that marked the old city boundary. The castle's site was to have a vaguely cultural function. But what? After the palace of the republic was razed in 2006-08 a vast gap yawned at the end of Unter den Linden, which once led from the Brandenburg Gate to the castle but now "was like a joke without a punch line", as one commentator put it.

A contest was held and an obscure Italian architect, Franco Stella, chosen. His structure now stands and will be celebrated with a big topping-out ceremony on June 12th. The outside will look like the old castle on three façades (the east-facing one will be modern). That is controversial. Some architects gasp at the lack of imagination.

But the vision is incomplete without the interior. It is to be an agora of globalisation called the Humboldt Forum. The name evokes Alexander and Wilhelm von Humboldt, cosmopolitan and free-thinking Prussian brothers (in 1810 Wilhelm founded Humboldt University, just across the street). The forum will be a library and big museum for the Asian and ethnic art collections that were once stored in the castle but which have been displayed since the war in a suburb in the former American sector.

To make all this more fun, Berlin has hired as part-time adviser Neil MacGregor, director of the British Museum, connoisseur of Germany and a lodestar among curators. The vision is large. The forum will adjoin six other world-class museums and the university, the opera and the cathedral to boot. Berlin's historic centre may become the world's densest cultural playground that can be toured on foot. Whether that will appease the new castle's many critics will become clear only in 2019, when the Humboldt Forum is due to open its doors.



Where Wilhelm reigned

Charlemagne | A walk down solidarity street

The migration crisis will test one of Europe's dearest values

ENGAGEMENT, governance, stakeholder: the European Union is awash with abstract nouns that defy attempts to tether them to reality. Until recently "solidarity" fell into this category. At best it was deployed as code by politicians seeking money or other goodies from their peers. Greece's increasingly baroque attempts to secure debt relief from its creditors, for example, are often shrouded in calls for solidarity.

But deaths on one's doorstep can concentrate minds. Last month, after over 800 migrants had drowned in the Mediterranean, the European Commission issued proposals to deal with the crisis. At their heart were two controversial suggestions: first, the relocation of 40,000 Eritrean and Syrian asylum-seekers arriving in Italy and Greece, which have been flooded with arrivals, across other EU countries; and second, the resettlement inside the EU of 20,000 refugees now outside its borders.

Under both plans a "distribution key" allocates precise quotas of people to EU countries, taking into account population, GDP, unemployment and previous resettlement efforts. Crucially, the commission wants the relocation plan to be mandatory (by EU law, the resettlement proposal must be voluntary). This is solidarity in stark, arithmetical form—and for many it is too much.

The numbers are small compared with the hordes that reach European shores. Over 100,000 have made the Mediterranean crossing this year alone, according to the International Organisation for Migration. Millions more refugees languish in Turkey, Jordan and Lebanon. But their political impact is huge, particularly in countries with little experience of asylum-seekers. Matti Maasikas, Estonia's ambassador to the EU, says the row over relocation is the biggest EU-related debate in his country since it joined the club in 2004. Estonia, which would have to accept 738 asylum-seekers, is among several central and east European countries with reservations about an obligatory relocation scheme.

It is largely thanks to their opposition that the commission's plan, which needs majority approval, is tottering, despite backing from Germany, France and Italy. Discussions of it could now dominate a summit of EU leaders on June 25th-26th. Nobody thinks the relocation work itself can begin until September at the earliest, which means that the Italians and Greeks will have to cope with the busy summer months alone.

To sugar the pill the commission has recruited another abstract noun: responsibility. This week Dimitris Avramopoulos, the (Greek) migration commissioner, is writing to interior ministers urging them to raise the EU's dismally low rate of return for failed asylum-seekers, which last year stood at just 39% (with wide variation from country to country). The relocation proposal will be suspended if Italy and Greece do not start processing asylum-seekers properly, instead of just pushing them into other EU countries. Such moves, the commission hopes, will signal to eastern countries that the southerners must also raise their game, and reassure sceptical voters worried by an influx of newcomers.

Officials point out that the relocation and resettlement proposals are part of a larger package, including an effort to intercept smugglers' vessels. Mercifully, another element, the expansion of naval search-and-rescue operations, seems to be working: last weekend over 5,700 would-be migrants were rescued at sea and taken to Italy. But they must all be processed, increasing the burden on the Italians and Greeks. Perversely, the absence of migrant tragedies from the headlines could also reduce pressure on governments to act. One Eurocrat notes that it is harder to get "shows of leadership" when memories of emergencies fade.

The proposal is a huge gamble, and an unusually aggressive move for a commission that dislikes picking battles. In part it reflects the frustration of Jean-Claude Juncker, the commission's president, with the "voluntary solidarity" failures of the past. Previous tragedies have generated ambitious words but little action—or worse, calls to restore frontier controls between EU countries. But as sceptical diplomats point out, telling countries that they must accept certain numbers of migrants rubs up against the strongest tenets of national sovereignty.

My solidarity, your sovereignty, his responsibility

Eagle-eyed readers will detect parallels with other European debates. Condemned as heartless dictators of austerity, politicians from euro-zone countries like Germany speak of the multi-billion-euro solidarity they have shown the countries they have bailed out. A minister from one Mediterranean country suggests that easterners hesitating over the relocation plan should bear in mind the solidarity of the southerners in signing up to sanctions on Russia, to their own material disadvantage. "Everybody speaks about solidarity," says another Eurocrat. "But they all have their own dictionary."

That is to be expected in a club of 28 members. A bigger worry is that the debate quickly turns myopic. Europe's hard-won solidarity on Russia, which governments are likely to maintain by extending their toughest sanctions until at least January 2016, is fine as far as it goes, but little has been done to aid Ukraine, the victim of Russian aggression. EU leaders will not even offer Kiev a vague hint that one day Ukraine might be allowed to join the EU. On Greece, as the endless bail-out talks approach their conclusion, solidarity is revealed as a tedious tug-of-war over such details as the VAT rate on theatre tickets.

And on migration, inevitably, the risk is that the relocation squabble distracts from two far more serious issues: the human tragedies that drove Europe to act in the first place, and the violence and poverty that force so many migrants to risk their lives for a better future abroad. Like charity, solidarity begins at home, but that is not where it should end. ■

Economist.com/blogs/charlemagne

Britain and Europe

Swimming the Channel

Also in this section
55 Magna Carta at 800
55 George Osborne's fiscal rule
56 Bagehot: The House of Lords, democratic embarrassment

David Cameron suffers his first Europe-related humiliation of the new parliament

EVER since David Cameron won a thumping victory last month, it has been fashionable among Conservatives to talk of his having more authority than any leader since Tony Blair in 1997. The Tory prime minister was always liked by the punters; now, having delivered the first Tory majority since 1992, he is respected by his party, too. Yet the limits to Mr Cameron's power were plain, on June 8th, in the first of many threatened collisions with his party over its abiding irritant: Europe.

The previous day, at the G7 Summit in Bavaria, Mr Cameron had intimated that his ministers would not be free to campaign to leave the European Union ahead of the referendum he has promised to hold on Britain's membership. This annoyed one or two of them considerably. Mr Cameron had given the opposite message, though similarly obliquely, in an exchange with Iain Duncan Smith, the Eurosceptic welfare secretary, shortly before. Moreover, why should the prime minister not allow his ministers to follow their conscience, on this most neuralgic of Tory concerns?

After all, he has always claimed to be ambivalent, personally, over the costs and benefits of EU membership. And when Britain last held such a referendum, under the Labour government of Harold Wilson, in 1975, its ministers were free to campaign as they chose—leading to some intriguing combinations: Tony Benn and Enoch Powell, firebrands of the left and right, both campaigned for "out"; Wilson and Margaret Thatcher joined hands to keep Britain in. Tory Eurosceptics were already irked by a suspicion that Mr Cameron hopes to rerun the Wilson campaign, by swaying the electorate towards "in" on the basis of a few loudly trumpeted, but cosmetic, changes to Britain's membership terms. That he might not give them the same freedoms as Wilson gave was enraging.

Menacingly, David Davis, a habitual critic of Mr Cameron on the Tory backbench, called this "rather unwise", and suggested the prime minister had little confidence in his ability to improve Britain's current terms. Then Mr Cameron caved in to the sceptics, as he invariably does. He claimed his remarks had been "misinterpreted". Squandering much of the respect he had recently won from political reporters, he said he meant only that his ministers must support his ongoing renegotiation efforts. Whether they would be free to campaign as they saw fit ahead of the referendum, which is due by the end of 2017, but could be as early as May 2016, he had not decided. When a bill to enable the referendum was debated in Parliament on June 9th, Mr Cameron stayed away. In the circumstances, that was rather wise.

Until this foul-up Mr Cameron's referendum gambit, which he promised under pressure from his party in 2013, was actually going pretty well. After the election, he reappointed to his cabinet the most plausible Tory Eurosceptics, including Philip Hammond, the increasingly pragmatic foreign secretary, and Michael Gove, the justice secretary. His main opponents, Labour and the UK Independence Party, meanwhile lost their footing on the issue: Labour because it reversed its opposition to the referendum and UKIP because it went to war with itself, as sometimes happens.

Mr Cameron also undertook a post-poll tour of European capitals, including Warsaw and Berlin, where his hosts were slightly reassured by the modesty of his demeanour and, so far as they could make out, of his renegotiation demands. While refusing to give details, the prime minister said these would fall into four "baskets".

One concerns sovereignty, and will include Mr Cameron's demand for a British opt-out from the EU's founding commitment to "ever-closer union". Other baskets are devoted to competitiveness, including a demand for less European bureaucracy; and to securing more safeguards to protect EU members outside the euro zone from those inside organising against them. The fourth basket, immigration, is dominated by Mr Cameron's plan to cut welfare payments to migrants from the EU.

It remains to be seen how large, or possible, these demands are. Nonetheless, Angela Merkel, the German chancellor on whose patience Mr Cameron's hopes may depend, made encouraging noises. "Some of the things that David Cameron is asking for I can support," she said. When asked whether that might involve changing the EU's treaties, which Mr Cameron says will be necessary to meet his demands on welfare reform, Ms Merkel nodded: "If that is really necessary then we have to consider it."

Even better for Mr Cameron, ▸▸

and all who fear a Brexit, voters are currently against it—by 55 to 45, according to YouGov, a pollster. Yet that margin may dwindle, given the suspected softness of the "in" vote and the tendency of any Europe-related poll to become a verdict on the government. Which makes it critically important—more so, even, than whatever tinkerings Mr Cameron ends up asking for—that he retain voters' confidence, by running a strong, competent government. What is he playing at with his cave-in?

Force of habit, no doubt. More specifically, he hopes to keep the Eurosceptics, around whose quirks and exigencies his Europe policy has always been designed, on side until shortly before the referendum. He may manage that, because the most committed, including around 50 Tory MPs, plan to campaign for "out" in any event. With a vote to win, they also need, unlike in the early 1990s, when they helped ruin John Major's government, to avoid trashing their own reputations, by appearing too pigheaded or shouty. But the gloss of Mr Cameron's electoral triumph is nonetheless dimmed, which for Britain is a pity. The prime minister has a budget deficit to cut, a union to save, an economy to regear—in short, more important uses for his hard-won authority than defusing intra-Tory rows over Europe. ■

Fiscal rules

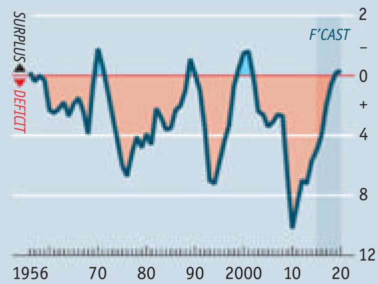
Playing by the book

Politics trumps economics as George Osborne outlaws borrowing

ON JUNE 10th George Osborne, the chancellor of the exchequer, set out a plan to tie his own hands, as well as those of his successors. Under a new fiscal rule, the government would be banned from running a budget deficit under "normal" economic conditions. The move was calculated to maximise the contrast between the chancellor's avowed prudence and the supposed profligacies of the past. It will not do much to help the economy.

History shows that politicians like to promise a balanced budget but find it hard to resist the allure of a juicy giveaway. Britain has spent most of the past half-century in the red (see chart). So Mr Osborne reckons his new rule, which replaces an earlier promise to balance the books by 2018, will improve the country's fiscal credibility.

Rarely in the black
Public-sector net borrowing
As % of GDP



Source: OBR

So far, though, bond investors have not paid much attention. Following the news, yields on ten-year government bonds (currently 2.1%) stayed put, much as they did when Mr Osborne floated the plan in January. Investors probably know, as Mr Osborne certainly does, that these rules come and go. The chancellor himself repealed a fiscal rule set by a previous Labour government, and proceeded to smash through it (reasonably enough) after the economy took a turn for the worse in 2012. In 1998 France and Germany tried to impose a fiscal rule on fellow euro-zone members, but five years later when they wanted to break its limits, they blocked its implementation.

But overly strong rules can be just as problematic as weak ones: tie the government's hands too tightly and it might be deprived of an important lever just when it needs it. So Mr Osborne's rule has a get-out clause. Outside of "normal" times, to be defined by the independent Office for Budget Responsibility (OBR), borrowing will be permitted. Mr Osborne hinted in January that the assessment might depend on growth or a measure of spare capacity.

If such a judgment must be made, it is best left to the OBR. At least that way there should be no repeat of the 2000s, when the then-chancellor, Gordon Brown, massaged economic data in order to meet a rule he had earlier set. But, as Julian McCrae from the Institute for Government points out, mission-creep tends to be the undoing of independent institutions like the OBR. The risk is that the OBR becomes politicised, and therefore less effective.

It is not clear that messing with Britain's fiscal framework is necessary. Despite debt of £1.5 trillion ($2.3 trillion), equal to 80% of GDP, lenders are confident in the government's ability to repay them: Britain has more fiscal wriggle-room than many countries (see Free exchange), and borrows in a currency that its own central bank controls. And the restriction could hurt growth because borrowing to invest in roads and schools at rock-bottom interest rates could boost the economy. But Mr Osborne, the arch-tactician, knows that the promised vote in Parliament on the plan will make Labour MPs squirm. Stuffing the opposition whenever possible is a political rule that he has never been known to break. ■

Stitch in time

The 800th anniversary of the sealing of the Magna Carta on June 15th is being celebrated with, among other jollities, a pageant, a masquerade, a bespoke cantata, bell-ringing, a flower festival and a river relay on the Thames featuring the queen's barge, *Gloriana*. But the most interesting commemoration is a tapestry that replicates the entire Wikipedia article on the Magna Carta, stitched by an army of professional embroiderers, 36 prisoners, lawyers, journalists and campaigners. Julian Assange, a whistle-blower, stitched "freedom" in the Ecuadorean embassy; Edward Snowden, another, did "liberty" in Moscow. Jewel-like illustrations by the Embroiderers' Guild nestle beside clumsy letters by judges, and the blood of Alan Rusbridger, a former editor of the *Guardian*, who pricked his finger while sewing. "I like the democracy of the Wikipedia page, and I wanted that echoed in the piece," says Cornelia Parker, the artist who created the embroidery. "Everybody can contribute, everybody is on the same page"—as, it is to be hoped, are Britons on the matter of the liberties that the Magna Carta embodies.

Bagehot | A democratic embarrassment

The House of Lords is aged, overcrowded and increasingly effective

RARELY in your columnist's forays around Britain has anywhere fulfilled his worst expectations as the House of Lords did this week. The upper house of the British Parliament is in many ways a joke.

The lethargy and decrepitude evident among the noble legislators your columnist observed, creeping along the Palace of Westminster's lushly carpeted corridors like so many pinstriped snails, or sipping their way in its Thames-side bars towards a mid-afternoon stupor, was depressing. "Oh God, look at him!" cried an eminent peer, pointing at one of these aged gastropods. "This is not a lovely retirement home! Actually, *it is* a lovely retirement home." Could anyone consider such a place, stuffed with unelected party hacks and semi-functioning geriatrics, an appropriate assembly for modern Britain? It was even more depressing to hear that some peers do, albeit that this experience was often leavened by absurdity: as when an ancient and extremely pompous Conservative peer accompanied his ponderous self-justification with a noisy and protracted fart.

Until 1999, when the then Labour government turfed out most of the 700-odd hereditary peers who previously dominated it, the House of Lords was even more ridiculous. The problem now is that a promised second change, to ordain how the chamber should be formed, has not ensued—despite so many failed efforts at Lords reform that it has been dubbed the "Bermuda Triangle of British politics". As an interim measure, most new peers are appointed by the prime minister of the day, chiefly to beef up his party's numbers. Given that these beneficiaries get high status, a £300 ($465) daily attendance fee and central London parking, for life, hardly any are willing to retire, so the assembly has ballooned. Its membership has risen by a third since 1999, to nearly 850, making it the world's second-biggest parliamentary chamber, cluttered with superfluous bodies and desks in corridors.

Yet the House of Lords is more effective than it seems. Emboldened by the greater legitimacy that came with the aristocrats' expulsion, its members started working much harder to perform their two main duties: scrutinising and revising the legislation that tends to breeze through the House of Commons. And, among the seniles, they have many eminent minds for this work, including razor-sharp judges appointed as independents. As a result—and even after stuffing the chamber with their grateful supporters—the Labour governments lost around 500 votes in the Lords, typically on issues pertaining to civil liberties, of which the peers have come to consider themselves custodians.

Such defeats are manageable; the Lords cannot kill legislation, but at most delay it for a year. Nonetheless, this dissent proved sufficient to stop Labour extending detention without charge to 42 days and ending trial by jury in some cases, among other foiled draconian measures. Under the recently deceased Tory-led coalition, the Lords were less obstructive, reflecting the government's less authoritarian programme, as well as the vast majority it got from the combined weight of Tory and Liberal Democrat peers. But, unhappily for David Cameron, the Tory prime minister, this is about to change. Having won a majority in the Commons, the Tories have been reduced to a minority in the Lords. And there is much in their legislative programme, including the promised "in-out" referendum on Britain's membership of the European Union and a putative new British bill of rights, that many peers dislike.

Anxious Tories seek comfort in the so-called Salisbury convention, by which the Lords refrains from opposing the government on its manifesto commitments. Yet the Lib Dems, obliterated in the Commons and bitterly resentful of their Tory assassins, are minded to disregard it. "People speak quite glibly about the Salisbury convention," says Lord Wallace, a former Lib Dem minister who now leads the party's 102 peers. "But it's outlived its relevancy. It was established in a completely different world." It seems the Lib Dems view their outsized representation in the Lords as a means to maintain their prominence, replenish their frontbench, and push a liberal agenda. "We're going to have to do some of the heavy lifting," Lord Wallace admits.

The Lib Dem peers will not be able to defeat the government at will, because Labour, having more expectation of returning to power, will abide by the Salisbury convention in the main. But that leaves plenty of legislative detail, if the Lib Dems machinate wisely, for the two parties to find common cause over. For example, though neither will oppose the European referendum bill, which had its second reading in the Commons this week, both, unlike the Tories, are committed to allowing 16- and 17-year-olds to take part in it. Eurosceptic Tories see this as a Europhile plot, because youngsters are less Eurosceptic than oldies. But the government may have to give way, or risk failing to get the bill passed in time to hold the referendum, as it might want to, in May 2016.

Cull to be kind

This is new territory for the Tories. When they last formed the government, the Lords was stuffed with pliant, because quietly Tory, aristocrats; no doubt, many will consider the Lib Dems' threatened activism to be unfair. Yet the fact that the Lib Dems enjoy a strong position in the Lords chiefly reflects the coalition's failure to introduce, as it had promised, a largely elected assembly, because of opposition from Tory backbenchers. Moreover, the sort of selective, but forceful, opposition Lord Wallace promises seems entirely appropriate.

An overcrowded, flatulent, but increasingly effective House of Lords—that is not such a bad deal. All the same, it is unsatisfactory, and will become more so. The signs are that the Lords will continue to grow more activist, further straining the limits of its dubious mandate. The assembly needs more democracy. More pressingly, it also needs a cull. ■

Weapons technology

Who's afraid of America?

The military playing field is more even than it has been for many years. That is a big problem for the West

SINCE the end of the cold war one simple geopolitical rule has endured: do not take on America. The country's armed forces have been so well resourced and so technologically superior that it would be utterly foolish for any state to mount a direct challenge to the superpower or its allies. This rule still holds—but it is no longer quite as compelling as it once was. Although America still possesses by far the most capable armed forces in the world, the technological advantage that guarantees it can defeat any conceivable adversary is eroding rapidly.

"We are entering an era where American dominance on the seas, in the skies, and in space—not to mention cyberspace—can no longer be taken for granted," admitted Chuck Hagel, the outgoing secretary of defence, last year. He argued that America urgently needed to develop a new generation of military technologies, lest another country come to feel capable of challenging it. His warning was timely.

The others are certainly growing more assertive. China is increasingly keen to press its territorial claims in the western Pacific. Russia is intent on re-establishing its influence in what it regards as its "near abroad", as it has shown in Ukraine. Less powerful but more reckless states such as North Korea and Iran might also become more inclined to make mischief if they believe they can inflict so much damage on the American forces that seek to punish them that Washington will think twice about doing so.

Repeating history

The effort that Mr Hagel called for is known as the "third offset strategy", because it is the third time since the second world war that America has sought technological breakthroughs to offset the advantages of potential foes and reassure its friends. The first such moment occurred in the early 1950s, when the Soviet Union was fielding far larger conventional forces in Europe than America and its allies could hope to repel. The answer was to extend America's lead in nuclear weapons to counter the Soviet numerical advantage—a strategy known as the "New Look".

A second offset strategy was conceived in the mid-1970s. American military planners, reeling from the psychological defeat of the Vietnam war, recognised that the Soviet Union had managed to build an equally terrifying nuclear arsenal. They had to find another way to restore credible deterrence in Europe. Daringly, America responded by investing in a family of untried technologies aimed at destroying enemy forces well behind the front line. Precision-guided missiles, the networked battlefield, reconnaissance satellites, the Global Positioning System (GPS) and radar-beating "stealth" aircraft were among the fruits of that research.

Bob Work, the deputy secretary of defence charged with overseeing the new offset strategy, says that by the mid-1980s Soviet generals who studied the results of early demonstrations of the operational concept that became known as Air-Land Battle realised what they were up against. "We were an aggressive first mover," Mr Work says. "We had picked an area that we knew our most likely adversary couldn't copy." The impact of this "revolution in military affairs" was hammered home in 1991 during the first Gulf war. Iraqi military bunkers were reduced to rubble and Soviet-style armoured formations became sitting ducks. Watchful Chinese strategists, who were as shocked as their Soviet counterparts had been, were determined to learn from it.

The large lead that America enjoyed then has dwindled. Although the Pentagon has greatly refined and improved the technologies that were used in the first Gulf war, these technologies have also proliferated and become far cheaper. Colossal computational power, rapid data processing, sophisticated sensors and bandwidth—some of the components of the second offset—are all now widely available.

And America has been distracted. During 13 years of counter-insurgency and sta- ▸▸

bilisation missions in Afghanistan and Iraq, the Pentagon was more focused on churning out mine-resistant armoured cars and surveillance drones than on the kind of game-changing innovation needed to keep well ahead of military competitors. America's combat aircraft are 28 years old, on average. Only now is the fleet being recapitalised with the expensive and only semi-stealthy F-35 Joint Strike Fighter.

China, in particular, has seized the opportunity to catch up. With a defence budget that tends to grow by more than 10% a year, it has invested in an arsenal of precision short- to medium-range ballistic and cruise missiles, submarines equipped with wake-homing torpedoes and long-range anti-ship missiles, electronic warfare, anti-satellite weapons, modern fighter jets, integrated air defences and sophisticated command, control and communications systems.

The Chinese call their objective "winning a local war in high-tech conditions". In effect, China aims to make it too dangerous for American aircraft-carriers to operate within the so-called first island chain (thus pushing them out beyond the combat range of their tactical aircraft) and to threaten American bases in Okinawa and South Korea. American strategists call it "anti-access/area denial", or A2/AD.

Damage, not defeat

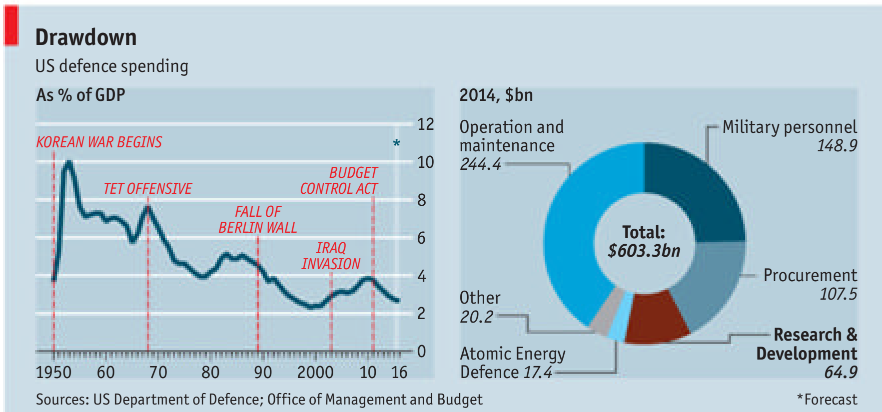
The concern for America's allies in the region is that, as China's military clout grows, the risks entailed in defending them from bullying or a sudden aggressive act—a grab of disputed islands to claim mineral rights, say, or a threat to Taiwan's sovereignty—will become greater than an American president could bear. Some countries might then decide to throw in their lot with the regional hegemon.

Although China is moving exceptionally quickly, Russia too is modernising its forces after more than a decade of neglect. Increasingly, it can deploy similar systems. Iran and North Korea are building A2/AD capabilities too, albeit on a smaller scale than China. Even non-state actors such as Hizbullah in Lebanon and Islamic State in

Syria and Iraq are acquiring some of the capabilities that until recently were the preserve of military powers.

Hence the need to come up with a third offset strategy. But the economic, political and technical circumstances are very different from the ones that prevailed in the 1950s or the 1970s. America needs to develop new military technologies that will impose large costs on its adversaries, even as budget caps ordered by Congress are squeezing its own defence spending.

The programme needs to overcome at least five critical vulnerabilities. The first is that carriers and other surface vessels can now be tracked and hit by missiles at ranges from the enemy's shore which could prevent the use of their cruise missiles or their tactical aircraft without in-flight refuelling by lumbering tankers that can be picked off by hostile fighters. The second is that defending close-in regional air bases from a surprise attack in the opening stages of a conflict is increasingly hard. Third, aircraft operating at the limits of their combat range would struggle to identify and target mobile missile launchers. Fourth, modern air defences can shoot down non-stealthy aircraft at long distances. Finally, the satellites America requires for surveillance and intelligence are



no longer safe from attack.

It is an alarming list. Yet America has considerable advantages, argues Robert Martinage of the Centre for Strategic and Budgetary Assessments, an influential Washington think-tank that has consistently drawn attention to the need to counter Chinese A2/AD capabilities. Those advantages include unmanned systems, stealthy aircraft, undersea warfare and the complex systems engineering that is required to make everything work together.

Over the next decade or so, America will aim to field unmanned combat aircraft that are stealthy enough to penetrate the best air defences and have the range and endurance to pursue mobile targets. Because they have no human pilots, fewer are needed for training. Since they do not need to rest, they can fly more missions back to back. And small, cheaper American drones might be used to swarm enemy air defences.

Drones are widespread these days, but America has nearly two decades of experience operating them. And the new ones will be nothing like the vulnerable Predators and Reapers that have been used to kill terrorists in Yemen and Waziristan. Evolving from prototypes like the navy's "flying wing" X-47B and the air force's RQ-180, they will be designed to survive in the most hostile environments. The more autonomous they are, the less they will have to rely on the control systems that enemies will try to disrupt—though autonomy also raises knotty ethical and legal issues.

Out of sight

Some of the same technologies could be introduced to unmanned underwater vehicles. These could be used to clear mines, hunt enemy submarines in shallow waters, for spying and for resupplying manned submarines, for example, with additional missiles. They can stay dormant for long periods before being activated for reconnaissance or strike missions. Big technical challenges will have to be overcome: Mr Martinage points out that the vehicles will require high-density energy packs and deep undersea communications.

Contracts will be awarded this summer for a long-range strike bomber, the first new bomber since the exotic and expensive B-2 began service two decades ago. The B-3, of which about 100 are likely to be ordered, will also have a stealthy, flying-wing design. This time, costs will be kept down by using proven technologies, but with a modular approach to allow for upgrades to be simply plugged in when necessary to counter improving air defences. Targets for the B-3, perhaps supported by unmanned aircraft, will include mobile missile launchers and command bunkers.

If surface vessels, particularly aircraft-carriers, are to remain relevant, they will need to be able to defend themselves

30 YEARS IN THE MAKING

Canary Wharf's 128 acre private Estate welcomes
its first residential address

10
PARK DRIVE
CANARY WHARF

Knight Frank
CBRE

Register your interest ahead of our launch at
canarywharf.com/residential call **+44 (0)20 7001 3800**
or visit our Sales and Marketing Suite in Jubilee Place mall, Canary Wharf

CANARY WHARF
RESIDENTIAL

against sustained attack from precision-guided missiles. The navy's Aegis anti-ballistic missile-defence system is capable but expensive: each one costs $20m or so. If several of them were fired to destroy an incoming Chinese DF-21D anti-ship ballistic missile, the cost for the defenders might be ten times as much as for the attackers.

If carriers are to stay in the game, the navy will have to reverse that ratio. Hopes are being placed in two technologies: electromagnetic rail guns, which fire projectiles using electricity instead of chemical propellants at 4,500mph to the edge of space, and so-called directed-energy weapons, most likely powerful lasers. The rail guns are being developed to counter ballistic missile warheads; the lasers could protect against hypersonic cruise missiles. In trials, shots from the lasers cost only a few cents. The navy has told defence contractors that it wants to have operational rail guns within ten years.

Defending against salvoes of incoming missiles will remain tricky and depend on other technological improvements, such as compact long-range radars that can track multiple targets. Finding ways to protect communications networks, including space-based ones, against attack is another priority. Satellites can be blinded by lasers or disabled by exploding missiles. One option would be to use more robust technologies to transmit data—such as chains of high-altitude, long-endurance drones operating in relays.

The technical challenges and potential costs involved in all this are large. And they will have to be tackled in fresh ways. Rather than staying within the closed loop of military R&D departments and the defence industry, much of the research the Pentagon needs is being done by consumer technology companies in Silicon Valley and elsewhere. Artificial intelligence, machine learning, algorithms, big-data processing, 3D printing, compact high-density power systems and tiny sensors of the kind found in smartphones will all be crucial. That raises the risk of a culture clash: though both are hot for innovation, the Pentagon operates rather differently from the consumer tech industry, to put it mildly.

The second offset strategy succeeded partly because of political will. Congress and the White House walked in step, with continuity from one administration to the next. The new offset strategy, too, appears to have widespread support. Congress is keen. Mr Hagel's successor as defence secretary, Ash Carter, has spent three decades at the leading edge of science and weapons technology.

But Washington is far more confrontational than it was a few decades ago. Bipartisan agreement is hard to find and even harder to sustain. Stand-offs over the budget have made it exceedingly difficult for the Pentagon to plan ahead. Research and development spending, which accounts for about 10% of the defence budget (see chart on previous page) will have to be not just protected but increased.

If defence spending remains tight, as seems likely, the money for breakthrough technologies will have to be found from somewhere. That means Congress allowing the Pentagon to make the savings it wants. The most pressing task is to reform military pay and benefits, which are eating up an ever-bigger slice of the defence budget despite falls in the number of Americans in uniform. Closing unwanted bases would also help. So would reforming the way the Pentagon buys things.

To get its hands on the technologies it needs, the military establishment and the armed forces themselves may have to take an axe to cherished programmes. One possibility would be to scale back plans to buy nearly 2,500 F-35 fighter jets, which have too short a range for many situations, and use the money to buy unmanned combat aircraft and a bigger fleet of long-range strike bombers. The navy might have to give up on two of its fabulously expensive carrier groups in recognition of their growing vulnerability in favour of investments in submarines, both manned and unmanned. None of this will be easy. The men who command air forces tend to be former fast-jet pilots still in love with their steeds; the sailors who run navies are attached to the muscular power that only big surface ships can display. The army, too, will have to shrink.

Third time unlucky?

Even if all these obstacles are overcome, it is unlikely that a third offset strategy will secure Western military dominance for as long as the first two did. Technology spreads much more quickly these days, partly thanks to the internet, which the Pentagon helped to create and which now helps rival powers steal America's military secrets. Technological change of all kinds has become speedier, too, thanks to fierce competition in fashion-conscious consumer markets.

The second offset strategy benefited from some unusual circumstances that left America as the world's unchallenged hyperpower after the end of the cold war. That world has vanished. In the military-technological struggle to come, the contest will be relentless and the victories probably more fleeting.

It would help if America's allies weighed in. They should come up with innovations of their own—or at least invest in the capabilities required to be a useful military partner by adapting to changes in how the Pentagon invests and plans to fight. Few have even begun to think about this. In Britain, for example, politicians and general are arguing about whether defence spending should be allowed to fall below 2% of GDP rather than about how the money should be spent.

Finally, a warning. Despite the success of the second offset strategy, it never fully dealt with the possibility that a losing power might resort to nuclear weapons. The logic of nuclear deterrence, it was assumed (or hoped), would survive an intense conventional conflict. The cheerleaders for a new offset strategy rarely mention nuclear weapons.

Yet if a foe comes to believe it might win what the great strategist Thomas Schelling called "a competition in risk-taking"—an idea that Vladimir Putin, Russia's president, actively encourages—the rational response to the other side's technological superiority might be nuclear brinkmanship. As Elbridge Colby of the Centre for a New American Security argues: "The more successful the offset strategy is in extending US conventional advantages, the more attractive US adversaries will find strategies of nuclear escalation." The enemy always gets a vote. ■

Also in this section

62 Alan Bond's colourful career
63 Apple's new music offering
63 Solar power's shortcoming
64 The global boom in art fairs
65 Headhunters find new skills
66 Schumpeter: Lobbying is good for businesses, but bad for business

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

Uber

Driving hard

SAN FRANCISCO

The taxi-hailing company is likely to disrupt the delivery business

TRAVIS KALANICK, Uber's hard-nosed chief executive, seems to relish taking on regulators and rivals. "I realise I can come across as a somewhat fierce advocate for Uber," Mr Kalanick recently quipped at a celebration for the taxi-hailing company's fifth birthday. "I also realise some people have used a different 'a'-word to describe me." Mr Kalanick's brashness has helped Uber become the most valuable American company of its generation. If it succeeds in raising a further $1.5 billion from investors, as reports indicate, its implied valuation will soar to a staggering $50 billion. That is higher than 80% of the firms in the S&P 500 index, many of which are decades old. Uber's value has grown faster than those of Facebook and Twitter in their early years (see chart).

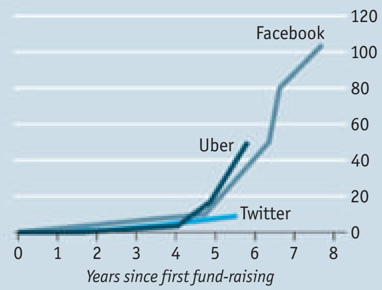
Uber now operates in 311 cities in 58 countries, providing more than 1m rides each day. Consumers like Uber, and rival services like Lyft in America, Didi Kuaidi in China and GrabTaxi in South-East Asia, because they are cheaper than conventional taxis, clean and reliable. Uber's freelance drivers (who typically pay it around 20% of their fares) enjoy flexible working hours and are spared the formalities of qualifying as a conventional cabbie.

But Uber should also be admired by strategists in other industries. It is a case study in how to construct a "platform", a Silicon Valley buzzword for a digital service on top of which other businesses can be built. As it arrives in a city, it launches a vigorous recruiting programme for drivers, offering them incentives to sign up. Its fares are "dynamic"—they undercut conventional taxis most of the time, but go up when it rains, or when there is some other reason why demand for rides is high.

This encourages more of its drivers onto the roads when they are most needed. This in turn means that customers can always get a car quickly, even if it sometimes costs a bit more. This encourages them to keep using Uber, in turn providing lots of work for its drivers. It soon becomes difficult for any rival to match the liquidity of Uber's market in rides. And once lots of people are using it for that purpose, the company can use the same app, the same computer systems and the same drivers to offer those customers a range of other services.

Uber alles

Pre-IPO valuations of tech firms, $bn



Sources: CB Insights; *The Economist*

Taxis are to Uber, therefore, what search-related advertising is to Google: the killer app that generates lots of revenue and brings the firm to everyone's attention, after which it can broaden its horizons and enter other businesses. Both firms have grand ambitions. Google's mission is to organise all the world's information; Uber's is to offer "transportation as reliable as running water, everywhere for everyone". And perhaps "everything": it has begun experimenting with local delivery services, with the aim of becoming as disruptive in logistics as it has been in the taxi business.

Last month Toronto became the fifth city where the firm's lunch-delivery service, UberEATS (pictured), is available. It is also running in Chicago, Los Angeles, New York and Barcelona. New Yorkers can call up a cycle-courier service on their Uber apps; and in Washington, DC, they can use it to order household supplies for rapid delivery. The company is reported to be in talks to set up same-day delivery for various retailers in America, from Hugo Boss to Cohen's Fashion Optical.

In some cities there are already a number of smaller firms that offer rapid dispatch via an app: for instance, Instacart delivers groceries, Postmates brings hot meals and Shyp collects parcels. None has anything like the scale and reach of Uber, and thus all must fear it eating their lunch. "FedEx and Hertz combined", is how Max Levchin, a founder of PayPal and an investor in Uber, describes the future of the firm, referring to two giants of logistics and car rentals respectively.

It seems unlikely that even in the long term Uber would want to go into long-haul shipping, but there is huge scope for consolidating the fragmented and inefficient ▸▸

business of making deliveries in large conurbations. Postal services and logistics firms could outsource their last-mile deliveries to Uber. But privately at least, they must also fear losing business to it.

In March Fred Smith, the boss of FedEx, dismissed the threat of Uber, pointing out the complexity of his firm's business and the high barriers to entry. However, Uber has an advantage that most delivery and shipping firms lack: it does not have to bear the cost of maintaining its own fleet of vehicles, since its drivers supply their own.

Logistics companies have invested heavily in algorithms that help them route deliveries efficiently; but as Uber's traffic grows, and as it spreads to more places, it will gather a wealth of data that will let it catch up with them. It is also reportedly looking to buy HERE, a mapping application owned by Nokia, which could improve its routing algorithms and reduce its reliance on Google for maps.

As with Google, Uber's data collection will make it ever better at understanding its customers: for example, when a discount voucher might entice them to use the service again. As with Apple, Uber keeps its users' credit cards on file for seamless payment, which also makes it easy to sell new services to them.

Taking on the likes of FedEx and UPS is not the immediate priority. In line with its platform strategy, Uber's main goal is achieving scale. As a private company, it does not report its revenues, but analysts reckon that it will receive between $2 billion and $4 billion in commission from drivers this year. Since it does not own the cars or employ the drivers, but simply takes a cut of each fare, Uber is thought to be generating significant free cash flow within 18 months of launching in each new city. Nevertheless, it is continuing to raise money from investors to fuel its global expansion and to intimidate rivals such as Lyft, which is Uber's main domestic competitor but is valued at a mere $2.5 billion.

Over time, Uber hopes to become so popular and ubiquitous that many city dwellers give up their cars and all the costs and hassles of parking, maintenance, insurance and the like. In several cities Uber is trying to entice people to use its carpooling service instead of public transport and is subsidising the cost of it, to entice drivers to join. Currently, San Franciscans can use UberPool to go anywhere in the city for a mere $7. Like Google, it is taking an interest in driverless cars, hoping one day to be able to dispense with drivers and offer its services even more cheaply.

Uber's valuation is extremely high for such a young company, and there is a long way to fall if the firm skids. The success of its core business is not certain. Later this year courts in California will consider whether the drivers who work for Uber and Lyft (and other on-demand companies) are in fact freelancers or should be categorised as employees, which would have significant implications for their firms' lean cost structure. Investors may be underestimating that risk.

Rivals with deep-pocketed backers could yet stop Uber dominating the world's streets. In China it has a partnership with Baidu, an internet firm, but its local rival, Didi Kuaidi, is backed by two online giants, Alibaba and Tencent. The Chinese taxi-app firm has announced its own plan to spend 1 billion yuan ($160m) on incentives for drivers and passengers to use the service.

From New Delhi to East Hampton, Uber and its competitors are squaring up to regulators, which have banned them. Some governments are concerned about whether Uber properly protects passengers by doing background checks on drivers and requiring insurance; others are sympathetic to local taxi monopolies. Uber is betting that its popularity among both passengers and drivers will overcome such objections—indeed, this week Uber drivers in Delhi protested over a crackdown against the service. It cannot be taken for granted that rules on carrying passengers will be relaxed all over the world. Objects, however, might be a different story. ■

Alan Bond, 1938-2015

Bond's bubble

SYDNEY

A fallen hero who personified a wild decade in Australian business

AUSTRALIANS had never seen anyone quite like Alan Bond when he burst on to the business scene in the early 1980s. His father had once predicted he would either become very rich or end up in jail. He achieved both. Mr Bond (pictured as he left prison in 2000) was a key figure among a clutch of tycoons who rewrote the rules of Australian business. The 1980s' bullish stockmarket, and obliging banks, sustained high-rollers like Mr Bond and Robert Holmes à Court as they pulled off ever more audacious deals.

In 1959 Mr Bond launched Bond Corporation, which eventually came to own stakes in breweries, gold mines, property, television and even a Chilean telephone company. As he built his business empire, he embarked on repeated bids to win the America's Cup yachting trophy. His success on the fourth attempt in 1983, the first time America had lost the cup, made him a national hero in Australia. In his book "The Rise and Fall of Alan Bond", Paul Barry quotes him describing as a "bloody fool" anyone who saw the yacht race as just a sporting event, rather than a business proposition. Indeed, few banks declined Mr Bond's calls after the win.


Smiling through adversity

One of Mr Holmes à Court's main companies was Bell Resources, whose assets were largely in shares funded by borrowing. So for him, the game was up with the stockmarket crash of October 1987. Yet Mr Bond embarked that year on two of the most audacious deals of the era. He bought Vincent van Gogh's painting, "Irises", at auction for $54m; Sotheby's later disclosed it had loaned Mr Bond much of the money, and kept control of the painting. Three years later it was sold to the J. Paul Getty Museum in Los Angeles (for an undisclosed price). Mr Bond bought the Nine television network from Kerry Packer, another tycoon of the era, for the then-astonishing sum of A$1 billion ($700m at the time). Two years later, Mr Packer bought it back for a fraction of that. "You only get one Alan Bond in your lifetime," he said. "And I've had mine."

In 1987 Mr Bond founded Bond University, Australia's first private higher-education institution. Alone among his ventures of that era, it still flourishes. But as his empire gradually disintegrated under a mountain of debt, so did Mr Bond's hero status. He was declared bankrupt in 1992 with personal debts of almost A$2 billion. Having earlier acquired a chunk of Bell Resources from Mr Holmes à Court, he shifted A$1.2 billion out of that company in an ill-fated bid to prop up Bond Corporation. Charged with a fraud that wiped out other Bell investors, Mr Bond was sentenced to four years in prison in 1997.

He later embarked on mining ventures in Africa. And in 2008, with estimated wealth of A$265m, he reappeared in BRW magazine's list of Australia's richest people. Mr Bond died in Perth on June 5th after heart surgery. A more sober business climate, far removed from the freewheeling 1980s, may be his biggest legacy. ■

Apple and the music business

The second revolution

SAN FRANCISCO

Having transformed the music business once, Apple is trying to do so again

WHEN Apple bought Beats, best known for making brightly coloured headphones, for around $3 billion last year, many wondered what the technology giant had in mind. They now have their answer. On June 8th, at Apple's annual gathering for software developers in San Francisco, it revealed a new music-streaming service, based on one it had acquired as part of Beats. Tim Cook, Apple's boss, promised that, "It will change the way you experience music forever." Others on the stage called it "revolutionary".

Apple led the way in popularising the legal downloading of music, with the launch of its iPod player in 2001. But as music fans have taken to streaming songs in a big way over the past few years—in effect, renting them rather than owning them—downloads have started to decline (see chart 1). Apple's revenues from music have started to fade, even as those from apps and other services have kept soaring (see chart 2). This time it is following, rather than leading, a musical revolution. Spotify, the most popular on-demand streaming service, has 20m paying subscribers worldwide, and around 55m who regularly use its free, ad-supported version.

Apple Music will attempt to differentiate itself from incumbents by having playlists chosen by people rather than algorithms, and technology that makes it easier to search for songs. It is marching into the territory of SoundCloud, a firm that lets unsigned acts promote their tunes to music-lovers looking to discover the next big thing. It is taking on Google's online-video service, YouTube, by making it easy to watch music videos. And its offering will include a new, 24-hour radio station, "Beats One". If enough of Apple's existing customers take to the new station, it could become one of the world's leading influences on popular music tastes.

Diamonds in the stream 1

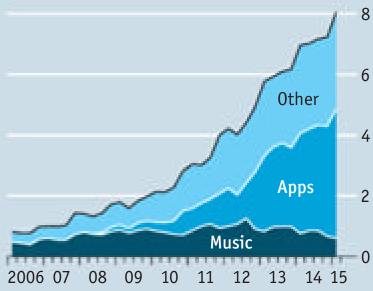
Digital-music revenues

Worldwide, $bn

Source: IFPI

Sing an appy song 2

Apple services, estimated revenues, $bn



Source: Asymco

Apple's big announcement raises two questions. The first is whether lumping together so many familiar elements of existing services into one convenient offering really adds up to a revolution. The second, therefore, is whether people are likely to pay for what Apple is peddling. Spotify this week raised more than $500m to help it fend off the challenge. That is a useful sum, but it is small change compared with Apple's near-$200 billion cash hoard. Furthermore, Apple already has the credit-card details of around 800m account holders, and a fan base whose ardour knows no bounds. So it is not hard to imagine Apple Music quickly overtaking Spotify's 20m paid subscribers, once people have taken up the three months' free trial the firm is offering, and become accustomed to using the service.

The best things in life are free

Throwing a possible lifeline to Spotify, the attorneys-general of New York and Connecticut are looking into whether the deals that Apple has struck with record labels amount to some sort of arrangement to suppress the availability of free, ad-supported music streaming. This provides a chunk of Spotify's revenues. Apple, in contrast, has chosen not to offer a free tier.

For Apple the biggest difference between now and 2001 is that the success of this revolution will not determine the firm's fate. When it first released its iPod, Apple was a largish computer-maker with grand ambitions. Fast-forward to 2015 and Apple is now the most valuable listed company in the world. It is not only a technology company but a luxury brand and a growing payment-services provider, among other things. Apple Music, in other words, is just one track in its album.

As for pop stars and their record labels, they should not be celebrating Apple Music's launch by driving their Rolls-Royces into swimming pools. The fees it will pay them for streaming will be even more meagre than those they get from downloads. ■

Renewable energy

Banishing the clouds

To threaten fossil fuels, solar power must solve its intermittency problem

HOW far renewable energy can develop without further subsidy is one of the world's hottest questions. It will surely need to become a lot more economic if the world is to stop using fossil fuels by 2100, as rich-world leaders promised at the G7 summit in Germany this week.

Transforming the promising niche business of renewable energy into the engine of the world's economy is a daunting task. Hydroelectric generation can produce lots of power at low cost, but room for growth is constrained by environmental objections and a lack of dammable valleys in the right places. Tidal power is too untried, and so far looks too costly. Biomass (such as wood), like biofuels, will require a great deal of land to produce much energy.

Some see these drawbacks as a reason to plump for nuclear power, though its cost overruns make it unattractive. Others focus, therefore, on the two forms of renewable energy generation that have done best in recent years, solar and wind power. Growth rates are impressive—solar-energy generation grew by 38.2% last year, reckon statisticians at BP, an oil firm whose annual energy review came out this week. But the growth is from a very small base. Solar, wind and the like met 0.9% of global energy use a decade ago; that has risen to 3% now and will reach 8% by 2035, BP thinks.

To make that picture brighter, costs will have to plummet. Wind offers less scope for this (bigger windmills are more efficient, but costly to make and build). Solar is what most cheers the optimists. It can work at any scale from a modest panel placed on the roof of a house to a giant array. The plunge in costs in previous years (see chart on next page) seems broadly to be continuing. Steve O'Neill of REC, a maker of solar systems, says his costs are falling by 1% a month, thanks to cheaper ways of making silicon wafers and to economies of scale. The circuitry that goes with solar panels, and the cost of installation, are also getting cheaper. Consultants at McKinsey say the cost of installing a watt of solar generating capacity could halve over the next five years.

Solar is no longer just a creature of subsidies (such as the 30% investment-tax credit it gets in America, along with the right to feed spare power back into the grid at the retail price). In the sunniest parts of the world it competes well with natural gas, even where that fuel is very cheap.

But the cost of solar power is not just ▸▸

about the systems that households and businesses install. On cloudy days and at night, they need power from elsewhere: either from storage of some sort, or from the grid. But who is to pay for it? Backup generation, and the grid infrastructure across which it flows, become increasingly uneconomic as consumers generate more of their own power (and thus pay less to other providers). A recent report from the Massachusetts Institute of Technology notes that solar power's success therefore risks being self-limiting.

Better and cheaper batteries are one answer: surplus solar power generated while the sun shines can be drawn down when it is dark. But there is some way to go on this. Even the largest of the new generation of battery kits, the much-trumpeted Tesla Powerwall, costs $7,140 to install and stores only ten kilowatt-hours—not nearly enough to heat or cool a typical home.

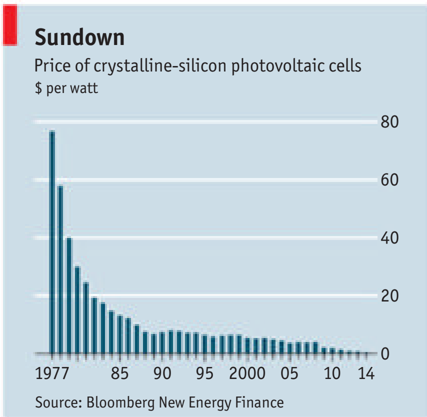
Another option is thermal storage: using surplus power to heat or freeze water, which can then be used to warm or cool a building when needed. This is cost-effective, but only a partial solution. The stored energy cannot be easily transported, and heating and cooling are only part of consumers' power needs.

The real solution to intermittent power generation (whether solar or wind) is bigger and more flexible grids, with interconnections that cross corporate and international boundaries. The bigger the geographical area a power network covers, the greater the chance that sun or wind electricity generated in one place can be matched with demand elsewhere (though there would still need to be substantial spare capacity). But incumbent power companies may balk at investments that erode their pricing power.

There are parallels between the disruption that solar power threatens to cause in the electricity industry and the upheaval that America's shale drillers have already brought about in the fossil-fuel business. A study by Wood Mackenzie, a consulting firm, says solar's impact could indeed be "comparable" to that of shale gas.

But this very abundance of gas in North America—and perhaps elsewhere one day, if fracking gets cracking—means that except in the sunniest climes, solar power will face stiff competition from gas-fired power stations. Wood Mackenzie reckons that the unsubsidised capital cost of small-scale residential solar capacity will still be twice as costly as modern gas-powered generation by 2030. Larger, utility-scale solar arrays will be competitive by 2025, however.

Solar power has so far confounded its doubters. And whereas the cost of oil and gas can go up as well as down, solar's cost will only keep falling. But for it to keep increasing its share of electricity generation without causing a collapse in power markets, let alone for it to banish fossil fuels altogether, there will need to be significant progress in energy storage, and in building grids better suited to a world of intermittent sources of power. ■




Great while the sun shines

Art sales

Brush hour

Some wonder if the art-fair boom is reaching its limits

FOR much of the coming week, the tarmac at Basel's airport will be buzzing with private jets flying super-rich collectors from across the globe to Art Basel, arguably the world's most important fair for modern and contemporary art. The event in the Swiss city, which runs until June 21st, is one of at least 180 international art fairs held each year, up from only 55 in 2000, according to a recent report by the European Fine Art Foundation (TEFAF).

TEFAF's "Art Market Report 2015" shows that last year the global market in works of art rose by 7% in value terms, to around €51 billion ($68 billion), surpassing the pre-crisis peak of €48 billion in 2007. There used to be two main ways of collecting contemporary art: travelling round lots of dealers' galleries, or attending auctions. But art fairs, where collectors can view and buy works from hundreds of dealers, have steadily taken a growing share of the market (see chart, next page). Last year almost €10 billion of art changed hands at fairs, representing two-fifths of dealers' total sales. The art calendar is so packed with them that there is increasing talk of "fair fatigue"—visitor and exhibitor saturation.

Skate's, a research firm, says it has the figures to prove it. The companies and individuals that own art fairs often decline to give out detailed figures, so Skate's based its survey on the best data it could come by: visitor and exhibitor totals provided by the top 12 fairs held in the first quarter of this year. It found that for the first time in ten years, the figures grew in single, not double, digits. Skate's pinpoints, among others, the Armory Show in New York (zero visitor growth, 9% fewer galleries) and Art Basel's sister fair in Hong Kong (7.7% fewer visitors, 4.9% fewer galleries). It concludes that the fair business is "cooling off", chiefly because online art sales are eating into it.

Since its release in April, the Skate's survey appears to have hit a nerve. In a forthcoming report for Citigroup, "The Global Art Market", Noah Horowitz, executive director of the Armory Show, argues that Skate's figures are "not convincing". He says the Armory got a record number of applications from dealers for its event in March, but chose to have fewer, bigger booths, to maintain quality and avoid overcrowding. Mr Horowitz says there is a rough rule of thumb that about a third of dealers make a profit by exhibiting at a fair, and another third break even. The remainder still attend, even if their sales do not ▸▸

cover their costs, to build relationships with collectors. As for the internet, Mr Horowitz argues that it is not cannibalising the business of art fairs, since many people like to look before buying, but is rather a vehicle for additional sales.

Art Basel's director Marc Spiegler says Art Basel Hong Kong had fewer visitors this year because there was one less day of public ticketing: the fair was moved from May to March, and the venue only had a shorter slot available in that month. Besides, he says, visitor numbers only represent 10% of revenue; the biggest contributors are booth hire and services (60%) and sponsorship (30%). He concedes that "at some point" there will be enough fairs, and that some will fail. But that point is a way off. "You're talking about a market which is still in a state of very rapid growth," he maintains.

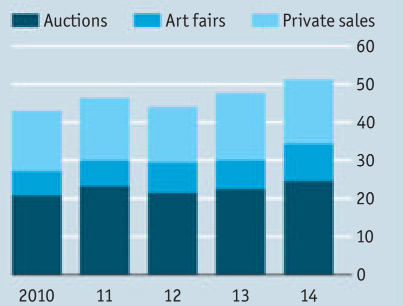
In the past few years several new fairs have started up. In 2012 the London-based Frieze Art Fair started Frieze Masters (focusing on historical art), also in London, and Frieze New York. Frieze's director, Victoria Siddall, says that with economies of scale, the business's profitability has increased. Since 2013 Tim Etchells, a British events entrepreneur, has started three new events: Art15 in London (begun as Art13, the number representing the calendar year), Sydney Contemporary, and Art Central in Hong Kong. Mr Etchells says he aims his fairs at a second tier of art buyers: wealthy individuals who only purchase a few objects a year, yet enjoy impulse-buying when they see something irresistible.

Nonetheless, there are indications that the market has its limits. When Art Basel decided to stage a fair in Hong Kong, it bought an existing one—ArtHK, of which Mr Etchells was one of the founders—rather than start one from scratch. FIAC, Paris's big art fair, has postponed for two years the launch of an offshoot in Los Angeles, planned for this year. Dealers turned up their noses at the venue, a downtown convention centre, a sign that they no longer have so much appetite for new fairs.

Clare McAndrew of Arts Economics, which compiled TEFAF's report, predicts that the art-fair market will consolidate and a small number of big competitors will come to dominate it, as Christie's and Sotheby's dominate the auctions business. Given the strength of the global art market, it is perhaps premature to be talking about fair fatigue. But the industry is certainly maturing, and its largest participants are now concentrating on quality rather than all-out growth. ■

A pretty picture

Global art sales, €bn



Source: The European Fine Art Foundation

That'll look lovely over the mantelpiece

Executive-search firms

From headhunters to culture vultures

NEW YORK

An industry under pressure is finding new services to sell

IN THE aftermath of the financial crisis, companies were too busy trying to survive to do much recruiting, so they cut back sharply on their use of executive-search firms. When Korn Ferry, the biggest "headhunter", announced its results for the year to April 2009, it seemed to be in trouble: annual revenues were down by 20%, to $676m, and it declared a net loss of $10m. But as *The Economist* went to press on June 11th, the firm was expected to report that it had become the first in its industry with annual revenues above $1 billion, with net income in the past year of around $85m.

Like its competitors, Korn Ferry has been buoyed by the stronger American economy. According to Hunt Scanlon Media, a trade publisher, the industry's revenues in America rose by 11% last year. Its core business faces fierce headwinds, however. LinkedIn and other career-networking websites are making it easier for companies to do their own recruiting: JPMorgan Chase now has almost 500 executive recruiters of its own. As a result of this trend, Korn Ferry collected less revenue from searches last year than in 2008.

Instead, its growth has come from pushing into new areas of business. Korn Ferry has bought a host of firms that aim to improve workforce performance even when there is no vacancy to fill. Recently it added Pivot Leadership, which offers executive-development programmes. Gary Burnison, Korn Ferry's boss, says he sees his firm as a McKinsey for "talent strategy", combining traditional headhunting with such things as coaching managers, succession planning, and analysing and improving corporate culture. Korn Ferry now gets just over half of its revenues from executive search, down from 90% a decade ago.

For instance, after McGraw Hill Financial (which includes Standard & Poor's, a credit-rating agency) was separated from its former parent, an educational publisher, in 2013, the newly independent business says Korn Ferry helped it work out what were the most important qualities its middle managers ought to have, and to evaluate whether they did in fact have them. These included being good at developing talent from within and at spotting market developments outside the firm.

Korn Ferry's competitors among the executive-search industry's "big five" say that attempting to cross-sell clients could produce conflicts of interest. What happens when one of its recruitment consultants has to choose between recommending a candidate the firm had previously coached or another that it has not?

Yet its rivals have all pursued diversification to some extent. Heidrick & Struggles, the other publicly traded search firm, has plunged into culture-shaping. In 2012 it bought Senn Delaney, an outfit that analyses attitudes and communication among corporate staff, and holds coaching sessions to help managers become more effective. So when Heidrick was asked to find a new boss for a giant state oil firm, it was able to win further work helping it change its internal culture. Last year Senn Delaney accounted for just 7% of Heidrick's revenue, but almost a third of its growth.

Egon Zehnder, a private Swiss headhunter, has long provided client firms with assessments of their managers. In 2009, on the orders of American regulators, Citigroup commissioned it to produce a report on the quality of the bank's bosses. Activist investors' calls for reforms of company boards are good news for Spencer Stuart, which offers advice in this area. And Russell Reynolds, another of the big five, is big in succession planning, also a growth area. As they take on such work, headhunters will find themselves increasingly in competition with larger management consultants. But as recruitment work becomes harder to find, they have little choice. ■

Schumpeter | The Washington wishing-well

The unstoppable rise in lobbying by American business is bad for business itself

IN 1971 Lewis Powell, an American lawyer who would go on to become a Supreme Court judge, wrote a memorandum for the Chamber of Commerce. Business was the victim of a "broadly based and consistently pursued" assault, he argued. There were few elements of American society that had "as little influence in government as the American businessman, the corporation, or even the millions of corporate stockholders." It was time for companies to change all this—and acquire political power. "Such power must be assiduously cultivated; and that, when necessary, it must be used aggressively and with determination."

Powell has been granted his wish. In 2012 corporate America accounted for more than three-quarters of the $3.3 billion spent on lobbying in Washington, DC. General Electric was the market leader, spending $21.4m, and Google came second, with $18.2m. And this is just lobbying in the strict sense defined by American law—ie, the work of registered lobbyists, employed to make direct contact with congressmen and officials. Businesses also employ innumerable other people, in areas such as "government relations", "public affairs" or "corporate communications", whose job, in plain English, involves lobbying for or against changes in public policy. Then there are the countless business-funded outfits that say they are simply providing information about a particular industry, and the army of friendly, corporate-sponsored academics, who are all indulging in a subtler form of lobbying.

A big American firm may nowadays have a dozen or more full-time registered lobbyists on Capitol Hill, while also employing the services of a couple of dozen lobbying firms from among the 2,000 or so based around K Street. At a moment's notice, Gucci-clad glad-handers can flood the halls of Congress, and retired politicians on a retainer can be summoned up to "make a call". Overworked, underpaid officials find there is always a sympathetic lobbyist on hand to help them draft new regulations.

In a new book, "The Business of America is Lobbying", Lee Drutman of the New America Foundation, a think-tank, demonstrates that in recent years companies have gone from using lobbying simply to protect themselves from politics (by seeing off such things as tax increases and regulations) to using politics to help them become more profitable. They set the terms of the debate by funding Washington's innumerable talking-shops; and then work on the politicians and officials to ensure that the legislation locks in their advantage. Mr Drutman's book complements a 2013 one, "The Fracturing of the American Corporate Elite", by Mark Mizruchi of the University of Michigan. It argued that whereas companies once lobbied for public goods such as better roads, they are now more inclined to press for company-specific, or at best industry-specific, benefits.

A classic case of selfish lobbying wrapped in a cloak of selflessness was the Medicare Modernisation Act of 2003. Thanks to the pharmaceutical industry's lobbyists, this brought new prescription-drug benefits to millions of older Americans, but without any attempt to control costs through means-testing or bulk-buying. John Friedman, an economist at Brown University, estimated that as a result the drugmakers would gain benefits of $242 billion over a ten-year period—a healthy return on the $130m the industry spent on lobbying in the year the law passed.

There is plenty of other academic evidence to demonstrate that every dollar big business drops into the Washington wishing-well repays handsomely. Mr Drutman's book notes studies showing, for instance, that the more companies lobby, the lower their effective tax rate; and that firms which lobby are less likely to be detected for fraud than comparable non-lobbying ones.

There is equally abundant evidence that corporate lobbying is bad for society as a whole. The American Jobs Creation Act of 2004, which began as a measure to cut export subsidies, ended up being stuffed with handouts to big business at the behest of lobbyists. This added to the burden on other taxpayers and helped frustrate efforts to simplify America's Byzantine tax rules. The infestation of lobbyists special-pleading for their clients contributes to Congress's gridlock, which means that important business like fixing the tax code, and improving America's infrastructure, does not get done. Ironically, businesses are themselves among the victims when government seizes up. The tax code is so complex that companies and citizens spend 6.1 billion hours and $163 billion preparing their tax returns each year. Bad infrastructure damages the competitiveness of American firms.

Pathological and permanent

Is there any chance that America might be able to cure its lobbying cancer? There are occasional signs of hope. The number of registered lobbyists has fallen since Congress passed the Honest Leadership and Open Government Act in 2007. During the 2013 government shutdown, Paul Stebbins, the chairman of World Fuel Services, expressed the private worries of many business leaders when he said that, "We are part of the pathology that got us here." But these signs are probably illusions. The decline in numbers is probably just due to registered lobbyists being re-christened as "strategic advisers", "issues managers" and the like. After the financial crisis Barack Obama worked closely (and opaquely) with lobbyists and other interest groups in crafting his stimulus package and his financial and health-care reforms.

Mr Drutman dashes any hopes that the growth of lobbying can be reversed. He notes that it is "sticky": once companies have made an initial investment in lobbying they almost never give up. They find that the more they do of it, and the better they get at it, the more they get out of it. American companies succeeded in recovering from the slough of the 1970s by overcoming enemies who were outsiders—over-mighty trade unions and anti-business campaigners. Today they have a much trickier problem on their hands: they have to wage war on themselves. ■

Also in this section

68 Buttonwood: Regulating bond funds

69 Iceland lifts capital controls

69 Britain tries to jail more bankers

70 The Fed's interest-rate projections

70 Making the most of public assets

71 Asia's insurance boom

72 Free exchange: How much economic wriggle room do rich countries have?

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

Deutsche Bank and HSBC

In hole, still digging

Restructuring continues at two of the world's universal banks

ALL houseguests are said to bring pleasure: some when they arrive, others when they leave. The same could be said of banking bosses and the strategies they champion. The surprise ousting on June 6th of Deutsche Bank's embattled co-bosses, Anshu Jain and Jürgen Fitschen (who will leave the bank this month and in May 2016 respectively), caused its share price to jump by 8%. Meanwhile, a new strategy at HSBC, hemming in its investment bank and expanding in Asia, was greeted by investors with the enthusiasm usually reserved for visiting in-laws (shares dropped by 1%).

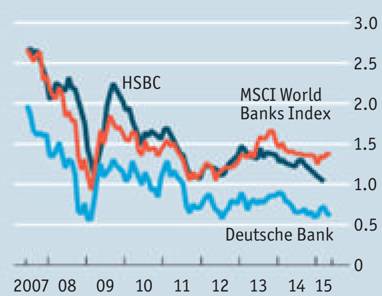
The travails of Deutsche and HSBC are distinct but related: international jack-of-all-trade banks are out of fashion. The cost of running them has spiralled. Regulators who fret they will one day have to bail out these horribly complex global institutions demand that banks finance themselves with more equity (cash from shareholders) rather than cheaper funds borrowed from depositors or in money markets. Compliance costs have ballooned, alongside multi-billion-dollar fines for fiddling currency markets and interest rates or facilitating money-laundering and tax-dodging, among many other trespasses.

Bosses such as HSBC's Stuart Gulliver (and Jamie Dimon of JPMorgan Chase before him) have sought to reassure investors that the benefits of running a global giant still outweigh the hassle. But estimates of the revenue generated by being global, and of the savings reaped by different bits of the firm sharing the same infrastructure, often appear to be plucked out of thin air. In contrast, the fines and capital-raisings are all too tangible for frustrated shareholders.

Many wonder whether the big banks' parts might not be worth more than the whole. Returns on equity at universal banks typically languish in the single digits—just 2.6% for Deutsche and 7.3% for HSBC in 2014—well below the 10% or more shareholders are assumed to expect. Investors value Deutsche at just 0.6 times the value of its tangible net assets (ie, excluding woolly things such as the value of its brand); in theory it would be better off winding itself up and returning the proceeds from the sale of its investments to aggrieved shareholders. HSBC is valued at just over tangible net assets, but it still lags behind most rivals (see chart).

Less than the sum of its parts

Price to tangible net assets per share



Source: Bloomberg

Assuming bosses ignore the calls to dismember banks, they still have to decide what the right mix of businesses should be. That is no easy task given ever-changing regulations, which have hampered bond-trading giants such as Deutsche in particular. Regulators in effect squashed a plan preferred by Mr Jain to split Deutsche into a red-blooded investment bank, probably based in London, and a staid German lender headquartered in Frankfurt.

The more timid alternative that was ultimately plumped for, which involves reversing the recent acquisition of Postbank, a German retail lender, only frustrated all parties. Investors wondered whether Deutsche's bosses were ready to take the sort of decisive actions some rivals had. Only 61% of shareholders backed management in a non-binding vote on the plan last month. Analysts were bewildered by the lack of detail around promised cost cuts. Unions demanded change at the top.

The workers may soon rue that. The incoming boss, John Cryan, was once the chief financial officer at UBS, a Swiss rival that all but shut down its markets arm. He brings with him a cost-slashing expertise that Deutsche has sorely lacked. Unlike Mr Jain, however, he speaks fluent German, which should earn him points in Frankfurt. German newspapers from the left-leaning *Süddeutsche Zeitung* to the business-minded *Handelsblatt* are urging Mr Cryan to return to a "boring" model of lending to German families and firms.

Mr Cryan's strategic options look limited. Cuts at what will remain of the German retail bank are clearly a priority—costs guzzle a whopping 80% of revenue. He may be less sentimental than Mr Jain ▸▸

when it comes to lopping off bits of the investment bank, which is one way to strengthen Deutsche's balance-sheet without tapping shareholders for more money. But investors originally elated by the change of guard now wonder if there won't be more of the same under Mr Cryan. After all, he has been on Deutsche's board since 2013, so had a hand in the underwhelming new strategy. The leap in the share price that followed news of Mr Jain's departure over the weekend had largely subsided by Tuesday.

HSBC has more room for manoeuvre. Like Deutsche, it is depriving its investment bank of capital, cutting risk-weighted assets by $140 billion so as to shrink it from 40% to less than 33% of the group. Unlike Deutsche, it has plenty of lucrative places to invest the freed-up money. Its new strategy is to refocus on Hong Kong. It will leave Brazil and Turkey, and shrink its staff of 266,000 by almost a fifth.

HSBC is in effect gingerly reversing a 20-year policy of diversifying away from Asia, where 39% of its revenues but 82% of its profits are generated. That carries risks, most obviously of a further slowdown in China or other upheaval in emerging markets. But the return on equity at its main Asian subsidiary is 16-17%. Even so, the management is only aiming for an overall return on equity of 10% by 2017—one reason for the lukewarm response from investors. Nor will they know for months if it plans to relocate from London to Hong Kong, as it has sporadically threatened.

Yet HSBC's strategy at least has the virtue of being clear. Deutsche by contrast still doesn't know what it wants to be. Like HSBC, it weathered the financial crisis better than some (both at least avoided a bail-out) but lost focus afterwards. Mr Jain was unable to paint a clear picture of its future, and has paid the price. ■

Buttonwood | The wrong solution

Fund managers are not like banks

IMAGINE how the financial crisis of late 2016 might play out. A surge in wage inflation, caused by a tight labour market, prompts the Federal Reserve to push up interest rates more quickly than the markets expect. Both government and corporate bonds fall in price.

That creates a problem for funds that specialise in corporate debt. They had promised investors that they could redeem their holdings at any time, but the corporate-bond market is very illiquid; many bonds prove almost impossible to sell. Some funds are forced to impose "gates", limiting fundholders' access to their money. The restrictions cause a panic among investors, who scramble to sell all bond-fund holdings. Prices plunge, in effect closing the market for new issuers: firms find it impossible to raise new cash. Rumours about financial problems at a big fund manager start to circulate.

That scenario seems to be at the heart of a weighty consultation document issued by the Financial Stability Board (FSB), an international body charged with preserving the health of the global financial system. Regulators, it is generally agreed, were asleep at the wheel in 2005-06, when the subprime-mortgage bubble was about to pop. They are right to be thinking hard about where the next crisis will come from.

It is also pretty clear that liquidity in the bond markets has deteriorated. There have been some sharp moves in German government bonds of late. And Treasury bonds suffered a "flash crash" in October last year, with the yield on the ten-year issue falling by a third of a percentage point within minutes. Ironically, this loss of liquidity is the result of regulations imposed after the last crisis. Banks are now obliged to hold more capital to underpin their bond-trading business, making it

less profitable and them less willing to make markets. This is a neat illustration of the balloon principle: squeeze risk in one area and it will pop up somewhere else.

Identifying the problem is one thing. It is harder to justify the regulator's putative solution: imposing extra regulation on fund managers or funds judged systemically important financial institutions (SIFIs). History suggests it is the use of borrowed money (leverage) that drives financial crises. That is why banks, which by their very nature are dependent on leverage, are usually the main source of trouble. But most fund managers do not use leverage: they are investing money on behalf of others, not putting their own balance-sheet at risk.

Hedge funds do use leverage, of course, but the FSB does not focus on them specifically. Instead it proposes special rules for any firm that manages $1 trillion or more and for specific funds that have assets of more than $200 billion. That catches two of Vanguard's low-fee stockmarket trackers. It is hard to see either fund as a systemic risk. Meanwhile, the many sovereign-wealth funds that have more than $200 billion of assets will not be treated as SIFIs, because they are government-backed.

What about the risk of a sell-off by fund investors leading to market panic? It could happen. But the industry's stability has been tested twice this century: once when the dotcom bubble burst in 2000-02 and again in 2008-09 during the financial crisis. Money-market funds were a source of systemic risk in 2008. But that was because one fund "broke the buck", imposing an unexpected loss on investors. Investors in bond or equity funds, by contrast, do not expect fund values to be stable; they are less likely to panic when they fall. Indeed, there was no rush for the exits in 2001 or 2008, despite plunging asset values.

Nor are mutual funds (or their close relatives, exchange-traded funds, or ETFs) the dominant investors in the bond market. Around $1.83 trillion is invested in American corporate-bond mutual funds (the biggest retail market) and another $160 billion in corporate-bond ETFs. But corporate-debt issuance was $3.2 trillion last year alone. Globally, the total amount of corporate bonds outstanding, according to Thomson Reuters, a data firm, is $20.5 trillion. Even if retail funds sold all their holdings, pushing yields dramatically higher, other buyers with long-term investment horizons—such as pension funds and insurers—would surely step in and bring prices back into line.

And what would be the practical effect of turning fund managers, or individual funds, into SIFIs? If they faced higher capital charges (as banks do), these would be passed on to investors in the form of higher management fees. It surely cannot serve any useful regulatory purpose to make small savers pay more.

Economist.com/blogs/buttonwood

Iceland's economy

The flows resume

REYKJAVIK

Iceland lifts capital controls—sort of

HAVING nearly capsized in the stormy seas of international capital flows, Iceland is now making a cautious foray back into the water. On June 8th the government announced the lifting of the controls the country imposed in 2008—with one big caveat.

Investors with money tied up in Icelandic assets will soon be able to move it out of the country, and Icelanders will be free to buy foreign currencies. The hitch is that those who are owed money by the estates of Iceland's failed banks, worth about 500 billion kronur ($3.8 billion), or 30% of GDP, must agree to haircuts and maturity extensions on the debts involved before they can sell them and transfer the proceeds out of the country. Alternatively, they must pay a tax of 39% before doing so.

There will also be auctions to drain foreign investors' offshore holdings of kronur, preventing uncontrolled sales that might send the currency tumbling. Foreigners with kronur stuck abroad will now be able to put them in term-deposit accounts, swap them for bonds, or buy euros at a discount. All of these measures are designed to slow the inevitable rush to sell and so prop up the krona.

This is the right kind of innovation, following the wrong kind. The curbs on the convertibility of the krona were the result of Iceland's disastrous pre-crisis switch from fishing to finance. Amid a striking lack of supervision, the three biggest banks, Glitnir, Kaupthing and Landsbanki, amassed assets 14 times larger than Iceland's GDP. When the central bank raised interest rates to discourage this, the result was perverse: lots of foreign capital flowed in, to invest in high-yielding Icelandic assets. Meanwhile, Icelandic firms were piling on cheap foreign debt, which amounted to 170% of GDP by 2009. Households merrily borrowed abroad too.

These debts were manageable so long as the krona was strong and inflation was low. But in 2008, when short-term financing for banks started to dry up around the world and capital began rushing out of the country, the currency tanked and inflation soared. The krona lost over 50% of its value in a matter of months. Iceland had little choice but to impose capital controls. The aim was not to prevent people from withdrawing money from banks, as in Cyprus (and as now mooted for Greece). Rather, the controls were supposed to prevent foreigners selling krona-denominated investments and to stop offshore kronur—those owned by foreigners—from flowing in. The new regime trapped foreign-owned assets worth about 40% of GDP.

Though Iceland's GDP fell by 10% from 2009 to 2010, the capital controls prevented a complete meltdown, and the economy has recovered faster than many expected. Growth in the past three years has been around 2% a year, faster than in crisis-hit countries in the euro zone; this year's figure is expected to be even higher. The number of tourists has doubled since 2007. Downtown Reykjavik is bursting with backpackers and Chinese tour groups, drawn by the island's thermal springs and seething volcanoes. Cranes dot the city as once-abandoned buildings are spruced up.

Yet Icelandic firms have struggled to attract foreign investors. The country's Chamber of Commerce calculates that between 1993 and 2008, when capital flowed freely, export revenues generated by local firms with foreign operations grew at an annual rate of 8%. Since then they have shrunk at an annual rate of 2%. The curbs on sending money abroad may also have stoked a property bubble at home—by the beginning of last year nominal house prices were increasing at an annualised rate of 9%.

Icelanders are keen on foreign holidays, and will be glad to see the back of the hassles created by capital controls. Locals will no longer need to produce plane tickets to buy foreign currency. Students studying abroad will escape similar difficulties. Now the economy is looking stronger, says Sigmundur Gunnlaugsson, the prime minister, the people can have what they want. Bank creditors, not so much. ■

Afloat again

Financial crime

A bigger stick

British regulators hope to call time on banking scandals

CAN misbehaving bankers be reined in? In the wake of seemingly endless banking scandals, Mark Carney, governor of the Bank of England, promised on June 10th to do just that. "The age of irresponsibility is over," Mr Carney declared. The bank, the Financial Conduct Authority (a fellow regulator) and the Treasury hope to adopt and export a new model for regulating scandal-ridden fixed income, currency and commodities ("FICC") markets. Recent wrongdoing in this area includes the rigging of LIBOR, a benchmark interest rate, and the manipulation of currency markets. Yet authorities have struggled to bring the individuals responsible to account.

Banks have not gone unpunished for their sins: it seems that at every recent results season, they have had to set aside ever greater provisions for fines, often sapping their already feeble profits. Between 2009 and 2014 the world's banks incurred £160 billion ($245 billion) in such costs and set aside a further £46 billion to cover future payouts, says CCP, a research group.

Yet while shareholders have seen their wallets emptied, bankers themselves have evaded severe punishment—much to the public's frustration. There has been only one conviction in Britain relating to market rigging. Another trial—of Tom Hayes, a former UBS and Citigroup trader—is currently under way. American regulators, too, have levied hefty fines but convicted few individuals. Without more personal accountability firms may come to treat fines merely as another cost of doing business.

Next time, things will be different, promises Mr Carney. Prosecutors have so far struggled to bring criminal cases against bankers because of gaps in the law, he says. In Britain a new criminal offence of manipulating benchmarks has already been introduced to address this. It will now be extended to plug more holes, for example by criminalising the manipulation of commodity derivatives sold "over the counter" (ie, not on an exchange). The maximum jail sentence for market manipulation and insider trading is likely to be bumped up from seven years to ten, to make those offences comparable to fraud and thus intimidate potential wrongdoers.

The reach of some regulations will also be extended, if Mr Carney gets his way. Exacting new responsibilities for senior managers of banks, insurers and building societies, due to come into force in 2016, will now also apply to buy-side firms such as ▸▸

asset managers (as well as the Bank of England itself). If senior managers fail to keep their underlings in line, they could face fines and be cast out of the industry. If firms sack an employee for misconduct, they will have to say so in references, to make it easier for the industry to weed out those who misbehave.

Threats of greater punishment will not fix all banks' problems, which are often cultural. The traders who rigged LIBOR worked in a clubby, laddish atmosphere a world removed from the woolly commitments to good behaviour set out in banks' mission statements. (Mr Carney says banks suffered from "ethical drift".)

The British regulators want new standards for conduct to be hammered out at a global level and inculcated in bank culture via mandatory training for traders. A new market-standards board would provide precise guidance on acceptable behaviour and keep an eye out for innovative new forms of malpractice.

The proposals are welcome. And if Britain succeeds in disseminating them internationally, they will have some impact. But finance attracts risk-takers and criminality can be extraordinarily lucrative, so wrongdoing will persist. Perhaps, though, more crooked bankers will end up behind bars next time. ■

The Fed's interest-rate projections

Dotty

A chart intended to provide insight actually sows confusion

INVESTORS obsess over the Federal Reserve's "dot-plots". These charts show the rough trajectory that senior Fed officials think its benchmark interest rate should follow over the next few years. Before every second meeting of the rate-setting Federal Open Market Committee (FOMC), members say how high they think the rate should be at the end of the current year and the two subsequent ones. Each estimate is then plotted as an anonymous dot on a chart, to provide a sense of the range of views within the FOMC. For instance, at its meeting in March, seven of the 17 members thought that the benchmark rate should be 0.625% by the end of the year (see chart). They will now be preparing new dots for their next meeting, on June 16th-17th.

At first glance, the dot-plots seem to offer a wealth of information. For instance, they show that there is plenty of disagreement within the FOMC. Its two most dovish members think the rate should remain where it is (a range of 0-0.25%) until the end of the year, whereas its fiercest hawk wants the rate to rise to 1.625%. For the end of 2016, the range is even wider: 0.375% to 3.75%.

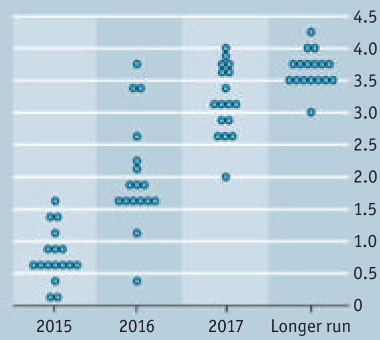
But the dot-plots are less useful than they appear. For one thing, the FOMC consistently overestimates future rates. Its projections have moved steadily downward since the chart's inception, due to disappointing economic data. The very first dot-plot, in January 2012, suggested that the rate would have topped 1% by the end of last year.

Moreover, no one—not even the members of the FOMC—knows for sure whose dot is whose. This is a problem because each member's view is not of equal value. Only 12 of them have a vote on monetary policy. One of the dots—that of

Dot matrix

Predictions of federal funds rate at year end, %

View of one member of Federal Open Market Committee*



Source: Federal Reserve

*March 2015

Janet Yellen, the Fed's chair—is more important than all the others. Worse, there is no explanation of how members reached their decisions, or how confident they feel about them. For instance, hawks may look as if they are moderating their views when they are not. They may think the FOMC should already have started raising the rate, but since it hasn't yet done so, they have no choice but to reduce the level they think the rate could plausibly reach by the end of the year.

All this means that the dot-plots are of limited use for understanding monetary policy. At times, Ms Yellen seems to agree. When trying to prime the market for future rate rises, she argued that people "should not look to the dot-plot" to understand the FOMC's intentions. Yet at a recent press conference she pointed to downward revisions of the dot-plot to bat away suggestions that the committee was in a tightening mood. If Ms Yellen cannot decide how significant the chart is, what hope is there for the rest of us?

State-owned assets

The neglected wealth of nations

Cash-strapped governments are leaving riches by the wayside

TO SELL or not to sell? That is usually the question cash-strapped governments wrestle with when reviewing public holdings of companies, land and infrastructure. But this public-versus-private, left-versus-right debate is a "phoney war", argue Dag Detter and Stefan Fölster in an upcoming book, "The Public Wealth of Nations". They advocate a third way: ring-fencing assets from political meddling in independent "National Wealth Funds" (NWFs)—holding companies whose professional managers are free to sweat them as if they were privately owned. The focus, they argue, should be on yield, not ownership.

Governments have trillions of dollars in assets, from companies to forests. These are typically poorly managed, and often not even recorded at all (Greece, for instance, still has no proper land registry). Dozens of countries have asset-management agencies, but these tend to be run by government departments, not external experts. Only 1.5% of public assets are in politically insulated NWF-style funds with wide latitude to value them at market rates, restructure them, and keep, sell or merge them as they see fit.

Mr Detter sees public wealth as "a huge but sorely neglected asset class". How big is difficult to say due to gaps in the data, but the authors believe the pool of public "commercial" assets (lumpy stakes in companies, property and the like) is $75 trillion, twice the world's total pension savings and ten times as big as the holdings of sovereign-wealth funds (which typically hold financial assets such as stocks and bonds). This total is conservative since it fails to capture all the holdings of regional and local governments. Mr Detter thinks these could be two to three times as big as those of central governments.

In terms of sweating assets, the focus to date has been on the most visible bits: state-owned enterprises (SOEs). But there are vast hidden treasures, especially buildings, land and the resources beneath them. The authors reckon that these (excluding things like historic buildings and national parks) could account for up to two-thirds of the world's state-owned assets. America's federal government, for instance, owns buildings with a book value of $1.5 trillion and 25% of the country's land. The potential is huge: almost none of the fracking boosting America's oil output, for instance, has taken place on public land.

The authors calculate that better management could increase the annual return on state assets by $2.7 trillion—more than current global spending on infrastructure. This would generate funds for much-needed investment in that very sector. It would also help reduce debt and taxes. And it could help the fight against corruption, by reducing opportunities for the discretionary use of state assets by officials, as at Petrobras, a Brazilian SOE ensnared in scandal. Messrs Detter and Fölster "address at a single stroke two of the great problems of our age: the shortage of infrastructure investment thanks to the overhang of the public debt, and the halt in the advance of democracy thanks to the prevalence of bad government," writes Willem Buiter, Citigroup's chief economist, in a report published this week. Their message deserves a wide hearing. ■

Insurance in Asia

Astounding claims

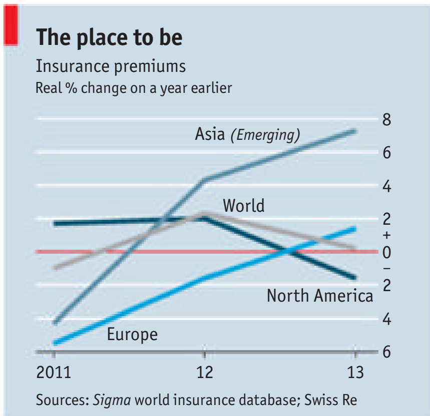
For insurers, Asia is a cauldron of innovation, but also of competition

ASIANS are becoming older and richer, which should mean plenty of business for insurers. Age, after all, increases the need for health insurance; wealth brings property to protect. The region's middle class is expected to balloon from 525m in 2009 to 3.2 billion by 2030, according to BCG, a consultancy. Household wealth will double over the coming decade, from $81 trillion today to $174 trillion by 2025. Thanks to increased life expectancy, the region's army of pensioners will grow rapidly, especially in China, which already has 132m people over the age of 65. Rich-country diseases are proliferating too: by 2030 half of the world's new cancer cases will be in Asia and, according to Swiss Re, a reinsurer, non-communicable chronic conditions such as heart disease could account for 67% of deaths in India.

No wonder that insurance in the region is indeed booming. In 2013 premiums grew by 7.3%, compared to 1.4% in Europe and a decline in North America (see chart). In 2003 Indonesians spent $7 a person on life insurance; in 2013, $59.

Yet Asia remains woefully underinsured. Western countries typically spend 7-8% of GDP on insurance; in 2013 Asian ones, excluding Japan, spent 3% on average. That is all the more inadequate given that governments have no plans to develop cushy public safety nets. Instead, they are opening up their insurance markets, in the hope that these can help shoulder the growing cost of health care and retirement. In India, where patients pay around 68% of medical bills directly and insurers only 3%, the government recently loosened rules on foreign ownership of insurance firms in an effort to stimulate the industry. China wants 5% of GDP to be spent on insurance by 2020, up from 3% today.

The main obstacle to that is cultural. In many Asian countries, people tend to insure themselves, by building up savings, rather than paying someone else to take on their risks. In response, insurance firms are marketing hybrid policies that offer both savings and protection. For instance, Manulife, a Canadian firm, offers several life-insurance products that also offer insurance against critical illness if the underlying investments are performing well enough. Linking such policies to specific goals is also popular: one example from another insurer is a saving product designed to cover a child's college education, but with an insurance element whereby contributions will be maintained if the breadwinner dies. Taikang, a Chinese life insurer, promises those taking out its "Be Fortunate" policy a place for life in one of its retirement homes, rather than the cash payments most life policies offer.



By the same token, insurance products tied to a specific risk sell well. Prudential, a big British insurer, offers another protection-investment hybrid called Pru My Child, which covers unexpected medical costs for pregnant Indonesians and their babies. Insurers are also coming up with cut-price products along these lines. Most auto-rickshaw drivers cannot afford comprehensive medical insurance, but might buy low-cost insurance that covers emergency medical expenses in the event of hospitalisation from a traffic accident.

Getting quick access to health care is another selling-point. If you're unwell and uninsured in China, the only thing to do is stand in the queues that start growing at around 3am on the steps of state-run hospitals and hope for the best.

Many people want insurance just to get a number in that queue, says Jonathan Zhao of EY, a consultancy. Ping An, one of China's fastest-growing health insurers, has an app called "Ping An Good Doctor" which provides appointments for outpatients and help with admissions for inpatients at a network of state-run hospitals. Many insurers now employ lots of doctors to give advice online, by text or by phone. Pricier products that promise to fly sick policyholders to Singapore for treatment are also popular.

Distribution is another area of innovation. Insurers typically seek a tie-up with a bank to identify and importune likely customers. AIA, a big regional insurer, has a partnership of this sort with Citibank for 11 Asian countries; Prudential with Standard Chartered for nine. More creatively, Aviva, a British firm, has developed a partnership with Astra, Indonesia's biggest distributor of cars and motorcycles. MetLife, an American insurer, recently launched a digital sales drive in China, including an app developed with Tencent, a Chinese social-media giant, which enables customers to buy insurance via their mobile phones.

Some of the most innovative firms are local. A group of Thai insurers is selling basic accident, fire and health policies via scratch cards sold at 7-Eleven stores. Buyers text the number revealed by scratching to the relevant firm to activate the policy. Asian firms that are big in their national markets, such as Ping An in China, Tokio Marine in Japan and Hanwha in South Korea, are all expanding regionally. It is testimony to Asia's allure that insurers from near and far are piling in. ■

There's an app for that

Free exchange | A tight squeeze

Rich-world governments will not have much wriggle room when the next crisis strikes

DURING the financial crisis, when the global economy faced its gravest threat since the 1930s, policymakers sprang into action. To stimulate the economy, central banks slashed interest rates and politicians spent lavishly. As a result, the recession, though bad, was far less severe than the Depression.

Unfortunately, however, that quick response nearly exhausted governments' economic arsenals. Seven years later they remain depleted. Central banks' benchmark interest rates hover above zero; government debt and deficits have ballooned. Should recession strike again, as inevitably it will, rich countries in particular will be ill-equipped to fend it off.

Just how much wriggle room do they have? For comparison, *The Economist* has devised a composite measure of debt, deficits and interest rates—the weapons policymakers typically wield to dispel threatening conditions. Though crude, the analysis yields a clear and troubling conclusion. A few economies could mount a robust defence against a new shock, but most are sitting ducks.

For interest rates, we assign a value of 100—meaning maximum wriggle room—to rates of 10% or higher. The Federal Reserve's main policy rate was just above 9% (or 90, in our measure) before the recession of the early 1990s, and just over 6% (60) before the downturn of 2001. It is now down to 0.125% (a mere 1 point). At the beginning of 2007 the average central-bank policy rate in the countries in our ranking was just under 4%—low by historical standards. The average for rich countries now is 0.3%.

Though a few central banks in Europe are experimenting with negative rates, none has dared to go far into negative territory. In other words, a rate of 0% (0 points in our ranking) leaves central banks with little or no wriggle room in monetary policy. Yet they will probably remain close to that level for some time to come. Futures prices suggest that the Fed's main rate will be around 2% in early 2018. Traders expect the Bank of England's to be about 1.5%, and those in Europe and Japan to remain stuck near zero.

Central banks will not be alone in fighting off the next shock. Governments will try to help by increasing spending on things like unemployment benefits and infrastructure, as they did during the financial crisis. But countries cannot simply borrow as much as they would like. Ireland was spurned by private creditors when the rescue of its failing banks pushed its deficit to more than 32% of GDP in 2010, leading it to seek a bail-out from the European Union. Ireland excepted, no other rich country ran a deficit of more than 16% of GDP at any point in the crisis.

In our wriggle-room ranking, therefore, we give countries a score of 100 if they run a budget surplus of 5% or more, and 0 for deficits of 15% or greater. Most have seen a large improvement on this measure since the darkest days of the crisis, thanks both to a return to growth and to austerity. The average budget deficit this year is forecast to fall to 2% of GDP, down from nearly 6% in 2010. Before the crisis, however, the countries in our analysis, on average, boasted a small budget surplus.

The mountain of public debt accumulated since 2007 adds a further constraint. Debt as a share of GDP is, on average, 50% higher than it was before the crisis. In a new paper economists at the IMF provide fresh estimates of the "fiscal space" available to governments, taking account of their past behaviour. We assign a score of 100 to countries that, in the IMF's view, could borrow a further 250% of GDP or more and 0 to those, including Greece, Italy and Japan, that it judges to be testing markets' faith. Almost all countries have much less room for manoeuvre than in 2007.

Gloom, doom and room

Combining the three measures yields a worrying picture. Norway, South Korea and Australia come top: all have kept their interest rates clear of zero and have very low debt loads. On average, the rich world's wriggle room has fallen by about a third since 2007. The leeway of hard-pressed countries such as Italy and Spain has shrunk by nearly half (see chart).

These estimates, though instructive, do not settle the question of which countries have run out of economic firepower. Take Japan, the most constrained of the countries in our ranking. The IMF thought Japan had no fiscal space in 2007, when its debt-to-GDP ratio stood at 183%, yet it has continued to borrow heavily since. Italy allegedly ran out of fiscal space during the crisis. Yet its borrowing costs, which rose to alarming levels in 2011, actually began falling in 2012, after investors became convinced that the European Central Bank would buy Italian debt if necessary. Debt limits seem not to bind when economies have a strong external financial position—or when a central bank can be counted on to buy up debt in a pinch. The ECB's reluctance to lend its printing presses to euro-area governments may explain why debt burdens have been more burdensome within the single-currency area.

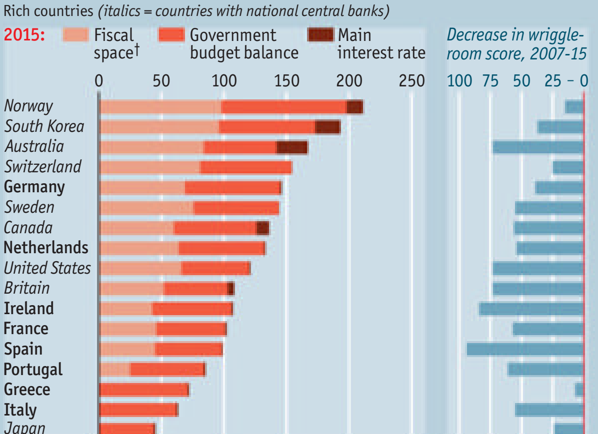
Yet even the ECB is now testing the boundaries of fiscal space. After policy rates fell close to zero early in the crisis, central banks printed money to buy bonds in an effort to provide additional stimulus—a policy known as quantitative easing (QE). The lower long-term interest rates and higher asset prices that resulted, they reckoned, would boost investment. With policy rates expected to stay low indefinitely, QE may become a measure of first resort.

Central banks' capacity to conduct QE is theoretically limitless: they can buy as many bonds as governments issue. Such outright monetisation of debt should eventually lead to soaring inflation. Yet the experience of Japan, where the central bank now owns almost 30% of the public debt, suggests markets will tolerate much more QE than economists had thought. Wriggle room seems to expand with central banks' readiness to print money. ■

The wriggle-room ranking

Fiscal and monetary-policy flexibility, maximum score=300*

Rich countries *(italics = countries with national central banks)*



Sources: IMF; *The Economist*

*Each individual measure has a maximum score of 100

†Distance from IMF's estimated public-debt limit

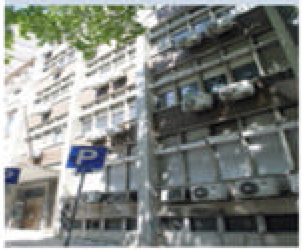
Interactive: Sort and rank measures over time at **Economist.com/wriggleroom**

Economist.com/blogs/freeexchange

FOR SALE Central Lisbon

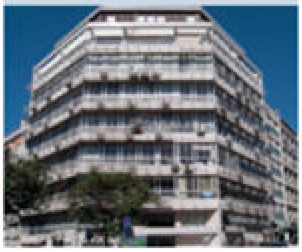
ESTAMO

Rua Castilho, 36, Lisboa



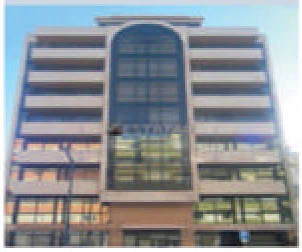
Area Above Ground 2227m2
Area Below Ground 420m2

Rua Artilharia I, 33, Lisboa



Area Above Ground 3959 m2
Area Below Ground 474 m2

Rua Gomes Freire, 18, Lisboa

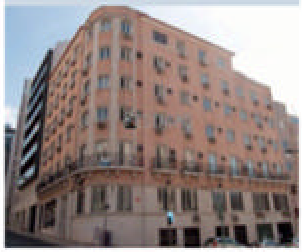


Area Above Ground 3676 m2
Area Below Ground 1812 m2

Rua Alexandre Herculano 42/Castilho 30, Lisboa

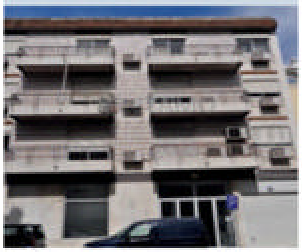
Area Above Ground 3399 m2
Area Below Ground 525 m2

Rua Duque de Loulé, 39, Lisboa



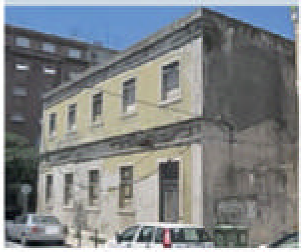
Area Above Ground 3107m2
Area Below Ground 800m2

Rua D. Carlos Mascarenhas, 46, Lisboa



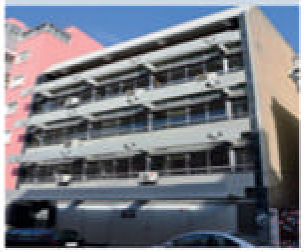
Area Above Ground 915m2
Area Below Ground 495 m2

Rua Estefânia, 14, Lisboa



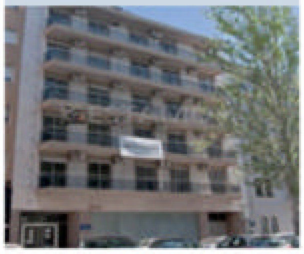
Current Lot Area 690m2
Gross Area Construction (expected) 5686 m2

Rua Sociedade Farmacêutica, 36, Lisboa



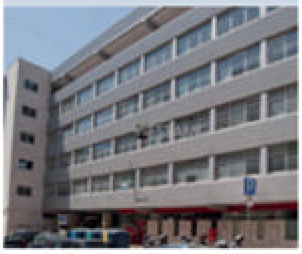
Area Above Ground 1388 m2
Area Below Ground 274 m2

Rua Visconde Valmor, 19, Lisboa



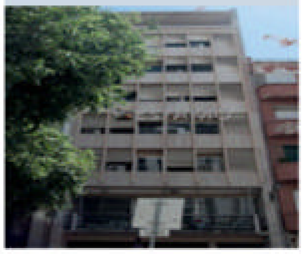
Area Above Ground 1632 m2
Area Below Ground 742 m2

Rua de Santa Marta, 55, Lisboa



Area Above Ground 4450 m2
Area Below Ground 2237 m2

Largo Andaluz, 17, Lisboa



Total Gross Area Construction 1272 m2

Largo do Intendente, Lisboa

Current Lot Area 1733m2
Gross Area Construction (expected) 6398 m2

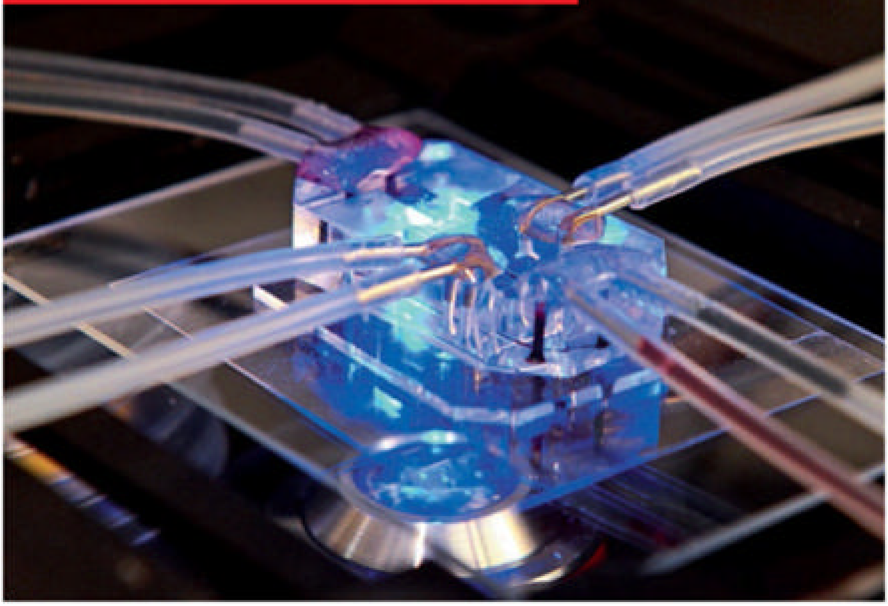
Proposals should be delivered by registered mail with acknowledgment of receipt or hand delivery protocol, till 17h00 (local Time) of 17 /07/2015 to the following address: AVENIDA DEFENSORES DE CHAVES, 6-4º ANDAR, 1049-063 Lisbon, Portugal.

Further information: www.estamo.pt /Telef.: +351 217 915 010 e 351 217 915 015/elsa.horta@sagestamo.pt/patricia.bernardo@sagestamo.pt

Note: the competitors are exclusively responsible for collecting all the information they deem necessary or convenient to submit proposals namely to execute all the steps and obtain all the information from the relevant official bodies about the properties whereas – Estamo, S.A. has no responsability in this matter and cannot be held liable for any purpose, failure or lack of information or due diligence.

MAINE TOWER
HARBOUR CENTRAL • MILLHARBOUR E14
THE RELEASE LONDON'S BEEN WAITING FOR!
DOORS OPEN 5PM THURSDAY 25TH JUNE
FOR THE 4 DAY SPECTACULAR SALES EXHIBITION
BE THERE - 64 MARSH WALL E14 9SL
PHASE 1 SIMILAR APARTMENT BUYERS NOW SEEING OVER
35% GROWTH
IN CAPITAL VALUE OVER 2 YEARS!*
London's brand new Manhattan style 41 level 'vertical village'
Apartments from £350,000
Galliard Homes
IN JOINT VENTURE WITH FROGMORE PROPERTY AND CAIN HOY
Call or click harbourcentral.com
020 3770 2125
* 35% growth reflects the factual resale value of a 1 bed apartment at Lincoln Plaza, Millharbour E14, purchased in December 2012 for £333,000 and sold STC by Galliard Homes for £450,000 in May 2015. Image of building is computer generated and should be used as a guide only.
£2000 TO EXCHANGE CONTRACTS
savills
020 7531 2500

International treasury management
– all you need to know
INTERNATIONAL TREASURY TRAINING
3-14 August 2015 | London, UK
Learn from tutors with years of industry experience
Hear real-life treasury solutions from corporate guests
Learn alongside your peers from around the world
Earn up to 70 NASBA CPE credits
98% of delegates would recommend this course
For more information:
www.eurofinance.com/summerschool
or email marketing@eurofinance.com
EuroFinance
The Economist Group



Also in this section

76 Health monitoring by eye

77 Humanoid robots

For daily analysis and debate on science and technology, visit

Economist.com/science

Bioengineering

Towards a body-on-a-chip

The first organ chips are coming to market and, regulators permitting, will speed up drug testing and reduce the use of laboratory animals

IN A recently opened laboratory just north of London, an experiment is under way to discover how the liver will respond to an new drug. Normally such a test would be carried out on liver cells cultured in rows of dishes or—as regulators require before approving a drug for clinical trial—in animals such as rats or dogs. But this experiment uses a small device about the size of a smartphone. It contains a miniature liver made from human cells and promises more reliable results. It is one of the first commercial versions of what bioengineers call an organ-on-a-chip.

The liver chip, named Quantum-B, was made by CN Bio, a firm spun out of the University of Oxford and now based in Welwyn Garden City. Quantum-B is designed to help researchers find a cure for hepatitis B, a viral infection of the liver. Other groups coming up with miniature organs include, in America, the Wyss Institute at Harvard University, whose devices include a lung-on-a-chip (pictured above), and the University of California, Berkeley, which has a heart-on-a-chip. Chips replicating the kidney, intestine, muscle, fat, bone and skin are also being developed.

Subject to regulators, such devices have the potential to slash the use of laboratory animals in drug testing. Animals are not necessarily good analogues for humans because of fundamental differences in biology. Testing on tissue in a dish can likewise prove unreliable because its cells often stop working. The more realistic data promised by organs-on-a-chip could accelerate drug development and allow researchers to carry out experiments too risky for human volunteers.

Moreover, by linking different chips together, researchers can study how reactions in one organ affect another. A drug that produces beneficial results in treating heart disease, for instance, might be metabolised by the liver in a way that has toxic results. Indeed, with enough organs-on-a-chip, the twinkle in the eye of some scientists is that one day it might be possible to create the equivalent of a body-on-a-chip.

Organ finder

Most organ chips are made out of a synthetic material, such as a polymer. This might be transparent for viewing the cells through a microscope. (Some are made with photolithographic processes similar to those used for computer microchips—which is how they got their name.) The chips contain minute structures to which cultured human cells are attached. Given the right conditions, the cells will naturally arrange themselves as they would in the body and start to behave as if they were there. A technique called microfluidics is used to shuttle a blood-mimicking fluid along channels and tiny pipes, bringing sustenance to the cells.

The chips do not contain complete organs, just the smallest colonies of cells necessary to replicate the function of one. CN Bio's liver chip, which is based on work carried out in partnership with Linda Griffith and her colleagues at the Massachusetts Institute of Technology (MIT), uses tiny "scaffolds" to hold cells from donated organs which, for various reasons, were deemed unsuitable for transplant. The cells can be kept frozen until required.

The scaffolds are placed into small wells and fed with a suitable fluid along the channels. After a few days spent settling down, the cells are ready for work and are infected with hepatitis B. As the human form of the disease can be replicated only in primates, dozens of chimpanzees would otherwise be required for just one experiment. Each liver chip, however, contains 12 tiny livers, so it can be used to conduct several tests at the same time. A prototype chip with 36 livers is also under development, says David Hughes, CN Bio's chief technology officer.

The company will license the technology to other laboratories and provide tests for researchers. The price for a basic toxicity test starts at around $22,000. That might seem expensive, but even a straightforward study in rats can take a month or more and cost over $50,000; a more complex analysis can exceed $1m. This is why whittling down thousands of candidate substances to bring a new drug to market can run up a bill of over $1 billion.

What makes organ chips potentially so effective in drug testing is that they create not just the biochemical environment necessary for the cells to thrive but also the physical one. For a liver-on-a-chip this means getting the fluid mechanics of the artificial blood supply just right. Previous studies have shown that the way fluids flow across the surface of a cell can affect its ability to function.

Other cells may require a mechanical ▸▸

action. Harvard's lung-on-a-chip, for example, needs to "breathe". To do that the device is constructed from two microfluidic channels, one above the other, within a flexible plastic material. The channels are separated by a porous membrane which is lined on the top with epithelial cells derived from human lung alveoli, and on the bottom with endothelial cells from blood vessels. The top channel brings air to the membrane and the bottom one contains a bloodlike fluid. Applying an alternating vacuum to either side of the structure stretches and relaxes the cells, just as in the chest of a person breathing.

The lung chip was developed by Donald Ingber, widely regarded as a pioneer in the field, and his colleagues at Harvard. The lung-chip, which is about the size of a plug-in USB stick, is being commercialised by a company called Emulate. When exposed to bacteria in the air channel, the device has been found to react as a human lung would if it were infected. Inflammation and fluid accumulation in the lung can also be studied.

The Berkeley heart-on-a-chip has a central chamber in which the heart cells are packed together, with microfluidic channels acting as blood vessels. The Berkeley researchers, led by Kevin Healy and Anurag Mathur, say that within 24 hours after the heart cells are placed into the chamber they begin beating on their own at 55-80 beats per minute. After about a week this becomes steady enough for tests to begin. Exposed to standard heart drugs, say the researchers, the heart chip responds in the same way a full-sized human heart would.

The Berkeley and Emulate researchers use human induced pluripotent stem cells, which are adult stem cells that can be coaxed back to their embryonic state and then encouraged to become many different types of tissue. This use of stem cells in organ chips raises the possibility of a device that represents an individual patient—a patient-on-a-chip, if you like. In this case all the tiny organs would be derived from a single person: tests could then be carried out on the device to find what combinations of drugs and dosages work best for that patient.

So far, researchers are still trying to get just a small handful of different organs to work on a chip. But DARPA, a research agency of America's defence department, is keen on having ten organs on a body chip. The military interest comes from a desire to have treatments available for nuclear and biological incidents. It is nigh on impossible to experiment with such drugs on human guinea pigs. DARPA and America's National Institutes of Health are funding $32m of research into a body-on-a-chip at MIT, in collaboration with other research groups, and $37m on a similar project at Harvard's Wyss Institute.

The search for new blood

There remains a number of hurdles to overcome, according to a review of the technology by Dr Ingber and Sangeeta Bhatia, of the Koch Institute at MIT, published last year in *Nature Biotechnology*. The plastic that some chips are made from needs to be improved because it can absorb certain compounds, including drugs, and that might sway test results. For organs linked together, the researchers say, a "universal blood substitute" is needed. This would be a single culture medium that could support all tissues, as blood does.

Organ chips will need to be mass produced. In collaboration with researchers working for Sony BioSciences in Austria, Emulate says it has found a material which avoids the absorption problem and would allow its chips to be made in their millions. What that material is, so far, remains a closely guarded secret. Emulate also says it can automate the operation of its chips so that they can be used by non-specialists.

It may be a decade or more before organ chips reduce the use of animals in laboratories to any large degree. And some biomedical research might not readily yield to being modelled on a chip at all—complex immune responses in the body, say, or the action of drugs on the nervous system. Yet as the technology improves and becomes better understood, conservative regulators should gain enough confidence in the new technology to start replacing some mandatory animal testing with organ chips. ■

Diagnostics

Retina selfie

A new machine can look into the eye for signs of ill health

WHETHER or not eyes are windows to the soul, they can provide a view of a person's health. Eye problems are not the only things to show up; recent studies indicate that eyes can also reveal the presence of broader disorders like heart disease, stroke threats, diabetes, Alzheimer's and multiple sclerosis. Frequent eye monitoring may help detect these ailments early, and now a new device promises to make that easier.

Retinal imaging is best left to professionals, not least because a doctor needs to get a patient's eye in precisely the right position to see all the blood vessels inside. Even so, Tristan Swedish of Massachusetts Institute of Technology's Media Lab, a place where diverse disciplines often collide in remarkable ways, speculated that it might be possible to create a device that would allow patients to take snapshots of their own retinas.

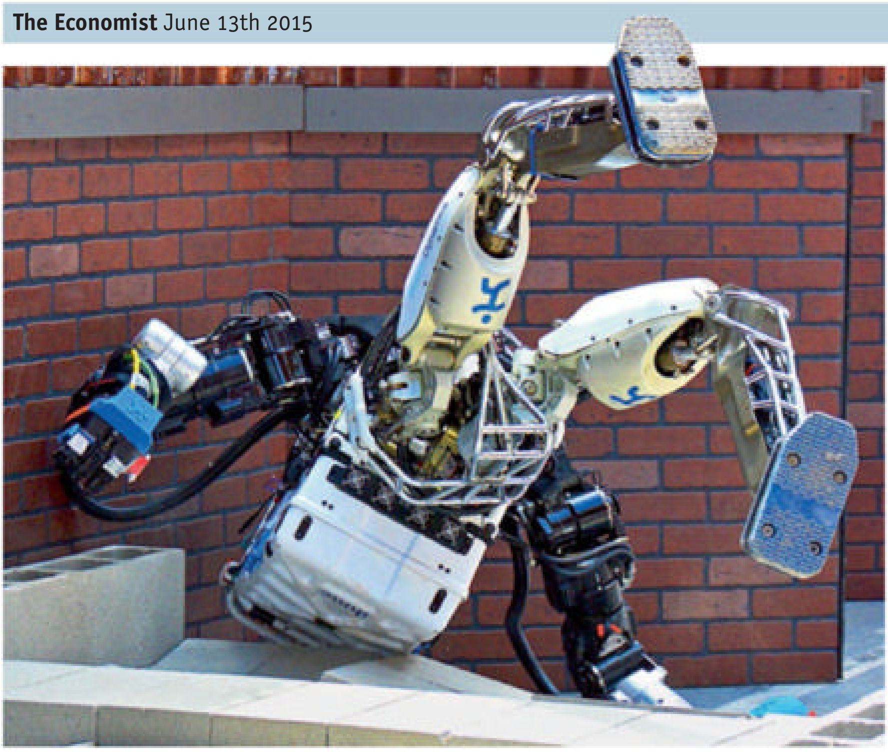
Working on the principle of "if you can see me, I can see you", Mr Swedish describes his idea in an upcoming issue of the *Association of Computing Machinery Transactions on Graphics*. He generates a red light that shines through tiny holes to make it look as if there are four red lights in a diamond formation in his device. Patients initially see the lights as rather dim dots but, as they move their eyes around, they quickly notice that the dots become brighter when they look in a specific direction. When these dots become particularly bright, a second diamond of dim red lights becomes apparent inside the first four. The person then moves their eyes again until they can see all eight bright lights forming a diamond within a diamond.

The lights are a bit like optical archery,

Looking healthy

with a ninth light in the centre of the two diamonds as a bull's eye of sorts. A patient's retina must be perfectly aligned with the centre light for a clear photograph to be taken. The task is not easy, but with around ten minutes of practice most people are able to push a button at just the moment they see all nine lights and capture an image that can be analysed.

For the time being, eye doctors are the only ones qualified to scrutinise images produced by the device, but that could soon change. Mr Swedish says his colleagues at the Media Lab are already developing software capable of analysing colouration, blood-vessel shapes and other traits found in the retina that can help determine the health of patients, and plot that information over time. Such a system might make it possible for people to monitor themselves and, if there are any warning signs, to be advised to see a doctor for a closer look.



Humanoid robots

After the fall

POMONA

Pitting robots against each other shows the promise and many of the pitfalls of autonomous technology

THE BRIGHT red robot lay sprawled across the threshold, seemingly unable to go on. Chimp, built by Carnegie Mellon University's National Robotics Engineering Centre (NREC), had successfully driven a car down a short simple slalom track. It had climbed out of the car, though not without some difficulty, headed over to a door and opened it. But after starting to move through the door Chimp came to a sudden halt; with a lot of inertia (it weighs 200kg) and its centre of gravity a little too far forward, that caused it to topple.

It was not the first to fall. The DARPA Robotic Challenge (DRC) was a three-year competition in which research teams from a number of countries tried to get robots to do things that might be required after a disaster like that at Japan's Fukushima nuclear plant in 2011. Its finals, held in Pomona, California, on June 5th and 6th, saw robots fall every which way. They fell on their faces. They fell on their backs. They toppled like toddlers, they folded like cheap suits, they went down like tonnes of bricks. There were dents, breakages, spasms and even bleeding (or, at least, the catastrophic loss of hydraulic fluids). What there was not was any getting back up again. Except, that is, for Chimp (pictured right).

The NREC team operating Chimp had no specific plans for the position the robot found itself in. What was more, by sticking its head through the doorway Chimp had entered the part of the DRC course where communications between the robots and their controllers were deliberately degraded to increase the need for the robot to function autonomously. But Chimp's programming put various ways of wriggling at its disposal, and it eventually managed to stretch itself out into a position in which it knew how to get back up. The watching crowd went wild.

Even so, Chimp did not win the finals. That honour went to Hubo, a smaller robot developed at the Korea Advanced Institute of Science and Technology (KAIST), which accordingly took away the $2m first-place prize from DARPA, the Pentagon-run technology hothouse which came up with the DRC. The competition was DARPA's way of pushing forward the development of robots capable of working in an environment designed for humans but too hazardous for them—hence the requirement that they drive cars, open doors, use power tools, plug and unplug electrical cables, climb stairs and so on, all under human supervision but not always or necessarily under their direct control.

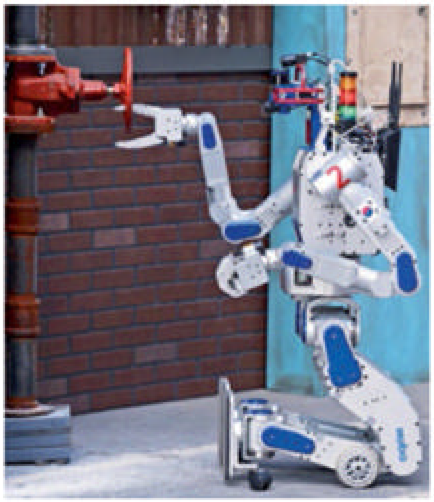
Chimp on a roll

It doesn't sound hard. But robots are stupid; those not programmed for precise tasks tend to be clumsy, too, and on occasion perverse. The machines' failings are oddly, and touchingly, moving to spectators like those in Pomona; they are deeply frustrating to their designers. When the DRC began in 2012 there were no machines able to do all the tasks imagined, let alone do them one after another. One measure of the programme's success is that by its end three contestants managed to complete the final sequence of tasks in under an hour: Hubo, Running Man (pictured left in a less successful attempt, a robot run by the Institute for Human and Machine Cognition—IHMC—in Florida), and Chimp—which, having taken third place, walked off with a cheque for $500,000.

Or, rather, trundled off. Though Chimp has four limbs, like almost all the robots signed up for the finals, unlike most of the others it does not walk. Instead it uses caterpillar tracks on what one might think of as its forearms and feet. It can move around in an upright position that leaves two upper limbs free for doing things like twisting valves or cutting holes in walls while the lower limbs handle the locomotion—a stance that can indeed look vaguely simian. When it needs to get across rugged terrain, it can crouch on all fours, presenting a more turtle-y aspect. That versatility turned out to be quite a help.

The winner, Hubo, is more conventionally humanoid and can walk quite well. But it, too, enjoys inhuman options when it comes to mobility; wheels in its feet and knees allow it to scoot around with its legs tucked up underneath it, providing a quicker and more stable alternative to walking. In fact, it was no coincidence that two of the three winners used multiple means of movement. Of the 23 robots attending the trials, 18 walked from A to B, while six enjoyed an ability to trundle. Five of the six all ended up in the top eight places.

That walking is hard did not come as news to the DRC's designers. Indeed, it was one of the points of the exercise. Developing a highly capable humanoid robot from scratch is beyond the capabilities of most universi- ▸▸



Hubo doing a turn

ty labs that might have good ideas about how to improve one. Believing that walking autonomous robots are a potentially useful, even transformative technology, DARPA designed the DRC to lower the barriers to entry, encouraging researchers who had not previously grappled with its problems to get involved.

To this end the agency had Boston Dynamics, a company that has built various walking and running robots for military programmes, create a two-legged, two-armed, almost-two-metre-tall robot called Atlas. A preselection round, held in mid-2013, saw over 100 teams develop software to control a simulated Atlas in a virtual environment. The groups that did best were given a real Atlas to work with, as well as money to run their teams. The development costs of some of the other competitors, such as Chimp, were also subsidised by DARPA. In total, the competition cost close to $100m.

Running Man, the Atlas robot with which IHMC won second place, showed what the platform was capable of—though after completing its winning round it did rather let the side down by falling over as it struck a sequence of victorious poses. Jerry Pratt, who led the IHMC team, argues convincingly that, in principle, walking has huge advantages—a human can quite easily make progress along a discontinuous track no wider than a single foot, taking in its stride obstacles big enough to pose a problem to the wheels of anything short of a monster truck. But on the evidence of the DRC, the software and hardware needed to match that ability remain far off. For the time being, a robot designed for responding to DRC-style disasters looks likely to need an alternative to legs.

Getting a handle on how long that time being might be was another of the points of the DRC. Gill Pratt, who ran the programme at DARPA (and is no relation to IHMC's Mr Pratt, though he did supervise his doctoral research) saw it as a way not just to stimulate progress in the field but also to gauge how quickly such progress could be made. Everyone involved in the DRC remembers the startling improvement between the first of DARPA's "Grand Challenges" for autonomous vehicles—which, in 2004, saw the winning car travel just 11.8km of a 240km route—and the second, in 2005, in which five teams went the whole distance. That demonstration of rapidly expanding capabilities played a role in convincing people, such as the bosses of Google, that self-driving cars were a practical possibility in the not-too-distant future.

The progress between the first real-world DRC trials, in late 2013, and the finals this month was less spectacular. Humanoid robots are not yet at the ready-for-take-off point autonomous cars were at ten years ago. The teams using the Atlases knew that less than two years of working with their charges gave them time to implement little more than a simple ability to walk—one expert says that developing robust locomotion from the ground up and debugging it is more like a five-year job. There were also limitations with the hardware. Atlas's arms were not strong enough to lift its 150kg bulk back up if it fell down.

Victor Hubo

Chris Atkeson of Carnegie Mellon, who joined an Atlas team led by Worcester Polytechnic Institute in Massachusetts, says their group decided that in the time available there was only a limited amount they could do; they chose to focus on software and operational approaches which would stop their robot from falling down. Much to Dr Atkeson's delight, theirs was the only non-trundling robot to stay upright throughout—though on neither day of the finals did it complete all the tasks.

A decade or so will make all the difference. One of the reasons the IHMC team did the best of the seven Atlases was its greater experience with bipeds. The same was true of the Hubo team—Jun Ho Oh, its leader, designed the first Hubo more than a decade ago. Experience, though, is not everything. Japanese researchers have more experience with humanoid robots than anyone else on Earth, but their teams fared very poorly. Dr Pratt at DARPA says this was because they fell between two stools. Some had tried to design brand new robots for the event and not got far enough with the software; others had instead depended on older robots that were not up to the tasks. One observer noted that the results might actually do Japanese robot labs a world of good; being trounced by a South Korean team would fire up national pride and open up chequebooks. It might also encourage the idea that Japanese robotics, something of a world of its own, has lessons to learn from elsewhere.

Ironically, in the DRC's 2013 trials a Japanese robot, SCHAFT, swept all before it. If it had continued in the competition it would have entered the finals as an odds-on favourite. But the startup company behind SCHAFT, along with half a dozen other robot companies—including Boston Dynamics, the makers of Atlas—was bought by Google just before the 2013 trials. Team SCHAFT subsequently dropped out of the competition. What it is doing now is, like everything associated with Google's robot developments, a mystery even to well-connected Silicon Valley robot experts, according to Brian Gerkey, who runs the Open Source Robotics Foundation there.

The aim of the DRC was not just to get more researchers in America interested in humanoid robotics but also to help them form a community of shared interests and experience. By providing a guide to who is best at it, the process also showed who to acquire. Larry Page of Google, Elon Musk of SpaceX and Tesla, and Travis Kalanick of Uber all visited the finals. In recent months Uber has stripped a great swathe of talent from the NREC—including the head of the centre and leader of the Chimp team, Tony Stentz. Dr Gerkey says he recently heard an official at another government agency which funds robot research voice fears that having so much talent sequestered in projects that the nascent community cannot track or learn from might leave a "research desert" behind.

Dr Pratt of DARPA acknowledges the worry, but says there is no real danger as long as the projects going on in the dark come out into the light eventually. With the DRC complete, he himself is now leaving DARPA for a new challenge—though he is not at liberty to say what the challenge is, or where he will pursue it. ■

Running Man finds his feet

Also in this section

80 American Baptists' dark past

80 The wonders of the human body

81 Duelling's endless fascination

81 Milan Kundera's erotic novella

82 Pierre Boulez at 90

For daily analysis and debate on books, arts and culture, visit

Economist.com/culture

French intellectualism

They think, therefore they are

Why the life of the mind is so important in France

How the French Think: An Affectionate Portrait of an Intellectual People. By Sudhir Hazareesingh. *Allen Lane; 427 pages; £20. To be published in America by Basic Books in September*

IN 2003, as America was gearing up for the invasion of Saddam Hussein's Iraq, a tall Frenchman with a thick silvery mane took the floor at the UN in New York. Dominique de Villepin was then France's foreign minister, and what marked minds was not only his uncompromising anti-war message, but the way he uttered it: his speech was a magnificent rhetorical appeal to values and ideals. In a deep, silky tone, he spoke for an "old country" that has known war and barbarity but has "never ceased to stand upright in the face of history and before mankind". As the "guardians of an ideal, the guardians of a conscience", the UN, like France, he declared, had a duty to plead for disarmament by peaceful means.

There was something quintessentially French about this speech, argues Sudhir Hazareesingh, a professor of politics at Oxford University, who opens his impressive new book with the scene. Mr de Villepin's words combined "seductive masculinity and rhetorical verve" in the best tradition of French public oratory and linguistic elegance. The speech also appealed to reason, abstraction and logic, framed by binary oppositions: conflict and harmony; morality and power. It hinted at the wisdom both of old civilisations and of France, the national embodiment of universal truth born of historical trauma. And it was expressed with the confident optimism generated by an enduring French sense of historical superiority. What is it about the French, asks Mr Hazareesingh, that makes them think and speak like this?

France is arguably the world's most self-consciously intellectual country. Public thinkers are cherished like national treasures, given airtime on television and column inches in *Le Monde*. Their counsel is even heeded. Bernard-Henri Lévy, a contemporary philosopher with an outsized reputation, is credited with a role in persuading Nicolas Sarkozy, a former French president, to intervene in Libya in 2011. As a younger French generation discovered to their defiant delight at a mass march in Paris after the terrorist attacks on *Charlie Hebdo* in January, French thought is not only about dry stuff to be found in philosophy textbooks; it is a central part of their national identity.

Mr Hazareesingh's inquiry is partly a dense compendium of such thought from René Descartes onwards. It is not a work for the casual reader, and each chapter is so packed with references and quotations that at times the narrative flow suffers. But Mr Hazareesingh's main purpose is to examine how, rather than what, the French think: the framework, codes and reasoning that have marked the country's intellectual expression over the past four centuries.

The author distinguishes five elements to French thinking. The first is the way history is used to structure reasoning, through concepts such as rupture, revolution and progress. Second is the fixation with the nation and collective identity, Mr de Villepin's rhetoric being a fine example. Third is the intensity of public debate about ideas ("We gossip, we quarrel, we expend our energy in words; we use strong language, and fly into great rages over the smallest of subjects," wrote Jules Michelet, a French historian, in 1846). Fourth is the importance of the public intellectual as a vehicle for disseminating such ideas. Finally, there is the interplay between rational order and the creative imagination.

As the author notes, many forms of expression considered characteristically French—classicism, belief in scientific progress—emerged well before the 1789 revolution under absolute monarchy. But, for Mr Hazareesingh, "most of the fundamental arguments among the French…continued to revolve in one way or another around [the] Revolutionary heritage." The long shadow of the revolution shaped the fundamental notion of rupture: ideas, artistic movements, theoretical constructs or even political movements, are to be doubted, critiqued and destroyed.

Over time, this reflex has been a source of both creativity (the *nouvelle vague*; the *nouveau roman*) and instability (the 1871 Paris Commune; May 1968). The author makes the case for long cycles of thinking on both the left and the right: 20th-century communism and Gaullism echoed, respectively, Jacobin and Bonapartist traditions. He is good, too, on how rupture has both animated and fractured the left over history, with the prevailing belief that "politi- ▸▸

cal change could be meaningful only if it was comprehensive and cleansing." Radical rhetoric still informs the Socialist Party, despite its split from communism back in 1920 after disagreement over allegiance to Lenin's Third International.

Mr Hazareesingh is less convincing at the end of the book when examining the declining influence of French thinking today. He rightly notes a "loss of confidence by the French in the creativity of their thinkers" since the era of Jacques Derrida, Michel Foucault, Jean-Paul Sartre and Albert Camus. And he is scathing about today's cultural conservative thinkers, with their links to resurgent ethnic nationalism. He also documents the fading influence of French thought on the rest of the world, though he has oddly little to say about the best counter-example, Thomas Piketty, an economist whose book, "Capital in the 21st Century", recently took English-speaking countries by storm. The author dismisses his discipline as a "technical field".

Despite the evidence he marshals to the contrary, Mr Hazareesingh seems to not want to believe that French intellectual influence is in retreat. France may no longer have great thinkers, he writes, but at least it still has lots of people who think and publish lots of books each year, as if quantity somehow makes up for it. Perhaps the author is swayed by an evident and understandable affection for the country and its culture. But a satisfying explanation for this decline, and for its accompanying collective pessimism, deserves another volume to itself. ■

American Baptists

Dipped in controversy

Baptists in America: A History. By Thomas Kidd and Barry Hankins. *Oxford University Press; 352 pages; $29.95*

IN 1995, a century and a half after it was founded by supporters of slavery, the Southern Baptist Convention apologised to African-Americans. "We genuinely repent of racism of which we have been guilty," wrote the group, which had by then become America's largest Protestant denomination.

It was a landmark moment, reflective of a complex and chequered history. American Baptists' roots lie in the noble struggle for religious liberty. In colonial times they were a tormented minority, their preachers sometimes clapped into prison. Baptists held that only declared believers should be baptised, which offended other Protestants, who thought that infants should get a dipping. Some also com-

Hallelujah chorus

plained that the Baptist rituals were too ostentatious. One 18th-century Anglican clergyman wrote that the Baptists gave the rite to "lascivious persons of both sexes" who wore "very thin linen drawers… which when wet, so closely adheres to the limbs, as exposes the nudities equally as if none at all." As independence came, Baptists joined Thomas Jefferson and James Madison in an ultimately successful push for the separation of church and state. (Many colonies had had official churches, to which tax dollars flowed.) It was a vital and enduring victory for America.

But as the Baptist movement spread, racism became virtually inextricable from the church's existence, particularly in the South. The Southern Baptists broke from their northern brethren in 1845, as war between the states loomed. English Baptists urged their American counterparts to ditch slavery, but to no avail. After the war, white Southern Baptists enthusiastically endorsed segregation, and some Ku Klux Klan leaders came from their ranks. At the same time, black Baptists' numbers ballooned—Martin Luther King grew up a member of the Ebenezer Baptist Church in Atlanta, Georgia.

"Baptists in America" is an illuminating book, if at times dense. The authors, Thomas Kidd and Barry Hankins, both history professors at Baylor University, a Baptist institution in Texas, wrestle capably with the oddly difficult question of what defines Baptists. Yet they sometimes skip too quickly over fascinating details. Why were white preachers often installed at black Baptist churches before the civil war? Why did urban black Baptist churches initially resist gospel music, with its rural overtones? How did black Baptists' missionary efforts fare in Africa? The authors also miss chances to compare Baptists' stances with those of their counterparts in other denominations on issues such as the biblical justification for holding slaves.

What is clear is that Southern Baptists, for all their heritage of separation of church and state, have built themselves into a powerful juggernaut. They underpin opposition to abortion and gay marriage, a throwback, Mr Kidd and Mr Hankins argue, to their roots as outsiders resisting the mainstream. But white Southern Baptists will forever labour in the shadow of having been badly wrong on civil rights. As recently as this year, Southern Baptist leaders were publicly calling for the integration of churches. Plenty of work clearly remains to be done. ■

The human body

Life in the round

Adventures in Human Being. By Gavin Francis. *Profile; 252 pages; £14.99. To be published in America by Basic Books in October*

GAVIN FRANCIS, a Scottish doctor, has had plenty of adventures, not least 14 months spent as "Zdoc" for a British research mission near the South Pole, the subject of his engaging memoir, "Empire Antarctica". His new book, "Adventures in Human Being", stays nearer to home, a journey through the body, from top to tail, inside out, but is no less delightful.

He weaves together the stories of his own patients and their ailments with the poetry of others, drawing on science and history, myth and legend to explore the functioning of the physical form. His writing is spare; Mr Francis makes a virtue of Scottish taciturnity. But his sense of wonder at the human body is clear. Pale retinal spots remind him of cumulus clouds, the retinal arteries of patients with high blood pressure of "jagged forks of lightning". Gazing upon a newly transplanted kidney, filling with blood, is, he writes, like "watching a process of reanimation: a refutation of death." The countless capillaries that join mother and child in the womb, enabling new life to grow, seem to him like "a million tiny hands", their fingers "locked across the placental divide".

Mr Francis avoids mawkishness, even when his patients are facing death, mostly by allowing them to speak for themselves. Staring towards the crematorium, Bill Dewart, a 76-year-old plumber who stubbornly smokes on despite his lung cancer, says: "I see the smoke from its chimney and think it might not be so bad to be up there, blowing over the city."

The author traces the strength and fragility of the human body. When an elderly patient, as adventuresome as he is, dies, her family ask what will happen to her replacement hip-joint after cremation. He explains that the metal is used to engineer precision parts of planes or wind turbines. He relishes the thought that part of this doughty woman will live on, "whirling through the sky as a turbine, or orbiting high over the planet she once explored." The joy of Mr Francis's work lies in the fact that although he delights in the body's physical reality, he takes care not to reduce human experience to that alone. ■

Duelling

Men at arms

Touché: The Duel in Literature. By John Leigh. *Harvard University Press; 334 pages; $35 and £20*

FOR centuries the idea of two men facing each other in a duel has seemed anachronistic. Guy de Maupassant, a 19th-century writer, declared it to be "the last of our unreasonable customs". Two centuries before that Louis XIV, king of France, tried to outlaw it as a feudal archaism. Yet despite this, the literature of the 19th and even the early 20th century is peppered with accounts of swashbuckling men. Why?

"Touché", an intriguing book by John Leigh, a specialist in 18th-century French literature at Cambridge University, provides some of the answers. Ranging over two dozen examples of novels, poems and plays, Mr Leigh describes how this "medieval anomaly" continued to preoccupy writers, even as they dismissed duelling as an old-fashioned folly.

Fun in tights

In the early 18th century many writers depicted men who fought duels as hot-headed. By the 19th century, although it still seemed to spring from an older, medieval age, duelling was regarded as quite glamorous. In "The Memoirs of Barry Lyndon, Esq" (1844) by William Makepeace Thackeray the hero rails against "cowardly pistols" and harks back to the "honourable and manly weapon of gentlemen". And compared with the burgeoning violence at the start of the 20th century, duels could also seem remarkably measured. A character in a G.K. Chesterton novel from 1908 prevents a suspected anarchist from exploding a bomb by challenging him to a duel. "The duel is a form of civilised, ordered violence, ostentatiously different from brawls and other, lower forms of aggression," writes Mr Leigh.

After two world wars, though, the glamour had begun to fade. In Evelyn Waugh's "Officers and Gentlemen" (1955) one character admits he would laugh if he was challenged to a duel. The strength of Mr Leigh's book is that it makes sense of such an anachronistic act: duels have a "beguiling mixture of politeness and violence, deference and defiance", he writes. Some of the most striking moments are when he invokes potential modern parallels to duels—American Westerns, Olympic fencing. Mr Leigh may not be able to make duelling seem new. But his entertaining study will remind readers why this archaic form of male combat can still be compelling, and how it could live on.

Milan Kundera's new fiction

Unbearable lightness

The Festival of Insignificance. By Milan Kundera. Translated by Linda Asher. *Harper; 115 pages; $23.99. Faber & Faber; £14.99*

MILAN KUNDERA has a philosopher's roving mind and a storyteller's smooth tongue. The Czech writer has lived in France since 1975 and has produced 11 works of fiction, all of which play deftly with themes of mortality, love, meaning and totalitarianism. His most famous, "The Unbearable Lightness of Being", about lovers in Prague, came out in 1984 and won him the most acclaim. He has not published a novel for 14 years, but his name is often whispered as a contender for the Nobel prize in literature.

The "Festival of Insignificance", his new novella, came out in France last year, and has now been translated into English. It tells the story of four male friends in Paris and their personal musings. Eroticism takes centre stage, as it often does in Mr Kundera's work. The book begins with Alain, a Frenchman walking through the city, preoccupied by women's titillating belly buttons. It is an image that recurs throughout this short book, which is broken into "scenes" with chapter headings that summarise the forthcoming action, like the unfinished script of a play.

Mr Kundera's writing is most powerful when it is kaleidoscopic, zooming in pointedly on his characters and then panning out to link their emotions to human experience. Death and ephemerality lurk throughout. The most engrossing scene sees Alain, who was abandoned by his mother when he was a child, imagine that she tries to commit suicide when she is pregnant, and in the process drowns the man who tries to save her. Only then does she realise that she no longer wants to die, and instead walks back to her car. It is a surreal nightmare.

The ageing men who serve as the book's protagonists have swagger and a preoccupation with sex, like Mr Kundera himself. However, they are most authentic not when they discuss women and navels but when they admit to the vulnerability that comes with age. Alain mulls why, when he is pushed aside by a passer-by on the street, it is his immediate instinct to apologise for the mishap. Two of the friends, one of whom is a failed actor, work as servers at a party and invent their own language to entertain themselves. No one understands them.

Mr Kundera is 86. Rather than produce a melancholy, self-pitying novel, he has chosen to make light of his subjects. It is an admirable attitude, sadly let down by a tone of breezy satire that can feel forced. "We've known for a long time that it was no longer possible to overturn this world, nor reshape it, nor head off its dangerous headlong rush," says Ramon, another character. "There's been only one possible resistance: to not take it seriously." The reader might feel the same about this book. ■

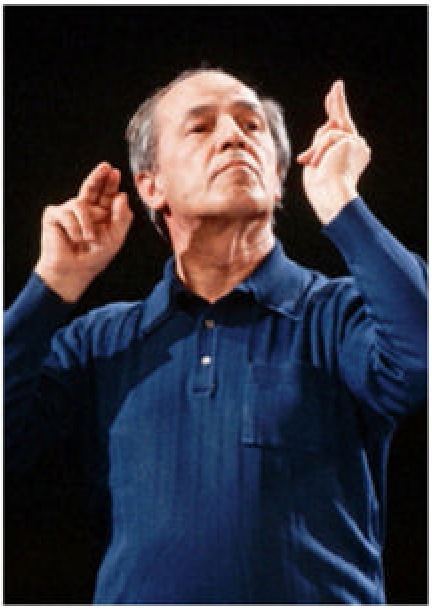
Boulez at 90

Happy birthday, Pierre

Celebrating a master of modern music

ON A dimly lit stage, black-clad figures reminiscent of Japanese *bunraku* puppeteers carry tall screens on long sticks, silently moving among the members of an orchestra. The screens show the orchestra playing short pieces of music, interspersed with archive footage and video clips of interviews. Sometimes the people in black home in on individual musicians and record them on their smartphones, the images immediately showing up on the screens above.

This strange, immersive multimedia experience, an hour and a half long, is a celebration of an iconoclastic modern composer and conductor, Pierre Boulez, who is 90 this year. Entitled "A Pierre Dream", with a set designed by the architect Frank Gehry, an old friend of Mr Boulez's, it was conceived by Gerard McBurney for the Chicago Symphony Orchestra and first performed last November. On June 17th it is coming to Britain, complete with the Gehry sets, to be played by the Royal Academy of Music Manson Ensemble. It will be part of a three-day homage to Mr Boulez at the Aldeburgh festival in Suffolk, the latest of many events, concerts and broadcasts to be held in his honour this year.



Music magpie

"Pierre Boulez is one of those rare people who have changed music radically," says the festival's artistic director, Pierre-Laurent Aimard. Both as a composer and a conductor, Mr Boulez has always been a champion of modern music and has done much to change attitudes towards modernism. In a video clip in "A Pierre Dream", he explains that just as architecture changed when new materials such as steel and glass became available. Music, too, must look for new materials. "You cannot forever go on with the same materials as in the 18th century or the 17th century."

As a young man Mr Boulez discovered serialism, then a revolutionary new way of producing music, and for a while he embraced it with categorical fervour. "Any musician who has not experienced—I do not say understood, but, in all exactness, experienced—the necessity of 12-tone music is useless. For his whole work is irrelevant to the needs of his epoch," he wrote in 1952. But Mr Boulez's convictions were themselves subject to change. He soon started to adopt a more flexible approach to the technique and eventually discarded it as too limiting. From the 1970s onwards his music became luxuriant; he described it as "sonic seduction", concluding that seduction was no bad thing.

By then Mr Boulez had also developed a habit of "withdrawing" music he had written at earlier points and returning to it later, treating it as a kind of work in progress and often turning it into something quite different. That practice taps into a grand musical tradition: Baroque composers such as Johann Sebastian Bach and George Frideric Handel often reused material from earlier works in new settings. But Mr Boulez also introduced untraditional ideas, such as giving performers the option of playing his work in different orders, which he called "controlled chance". No wonder he compared composition to a labyrinth.

For long periods in his middle years, however, Mr Boulez wrote very little; he was too busy conducting. He may have started out on that career because he could not get anyone to conduct the way he wanted, but he quickly became successful and enjoyed long and fruitful associations with a number of orchestras, including the Cleveland, the BBC Symphony, the New York Philharmonic and the Chicago Symphony. He never used a baton, always conducting with his hands alone. Musicians loved him.

As a conductor, he went to great effort to perform and record 20th-century composers such as Bela Bartok, Alban Berg, Harrison Birtwistle, Gyorgy Ligeti and Karlheinz Stockhausen, so much so that he was sometimes criticised for overdoing the contemporary music (though he was capable of conducting a fine Beethoven's Fifth as well). He also used his influence to help advance the cause of music more generally, particularly in his native France. He set up an institute for researching and co-ordinating electro-acoustical music (IRCAM) in Paris and successfully pressed for a proper concert hall to be built in the French capital, which had lacked one.

The celebrations at Aldeburgh, one of Britain's best summer music festivals, will be mainly about Mr Boulez as a composer. He did not publish a lot of music: perhaps 50 or so works in his lifetime, the last of them about ten years ago. But as his friend George Benjamin, a fellow composer, wrote in a birthday tribute in the *Guardian* newspaper, "the world today doesn't need huge numbers of pieces…[it needs] essential statements, singular and unique works. And these [Mr Boulez] has provided, without question." Julian Anderson, another contemporary composer, who will be introducing some of Mr Boulez's work at the festival, calls the music "a wonderful treasure trove". It is superbly crafted, mysterious and often very beautiful, but "Boulez's idea of melody is not Verdi's," says Mr Anderson.

So what will the listeners at Aldeburgh make of a concentrated dose of it? Audiences need time to get used to new sounds. Igor Stravinsky's "Rite of Spring", first performed a century ago, caused a riot; now it has become a standard part of the repertoire. Concert programmes still tend to offer new music in bite-sized pieces and pair it with something easier on the ear. But the Aldeburgh audience, says Mr Aimard, is special: "extraordinarily open and curious, ready to discover", so they will probably love it. Sadly, Mr Boulez won't be there to find out; he is too frail. ■

Oxford Executive MBA

Go from a game player to a successful game changer. The Oxford Executive MBA is your opportunity to transform yourself and your ambitions. Our participants are making a difference in every walk of life, influencing the rules of the game for businesses across the world. This modular programme offers you the chance to join one of the world's most powerful networks and create a new future for your organisation and for yourself as a leader.

Meet us at our information event in London, 7 Jul, 7pm
To register or to find out more visit: www.sbs.oxford.edu/emba

SAID BUSINESS SCHOOL
UNIVERSITY OF OXFORD

INCREASE YOUR VALUE.
AND THE VALUE OF YOUR PEOPLE.

JOIN US ONLINE ON 25 JUNE

The Executive Master in Strategic Human Resource Management (EMSHRM) is a 10-month international executive program that places an in-depth emphasis on the business context of HR management and leadership by focusing on organizational and strategic issues influencing HR decisions.
Join the next online presentation with new EMSHRM Director Francesca Prandstraller and discover how to enhance your value and the value of your company's most important asset: your people.

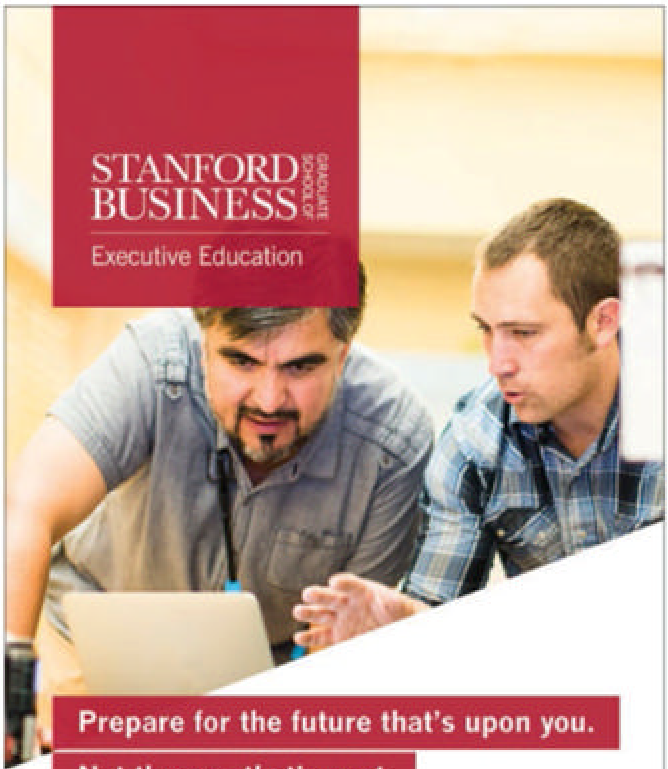
MASTER IN STRATEGIC HUMAN RESOURCE MANAGEMENT
EMSHRM

Online Info Session **25 June** 2015, **6.30 pm** (CEST)
For more information and to register: SDABOCCONI.IT/EMSHRM

Bocconi
School of Management

MILANO | ITALY

SDA **Bocconi**



Prepare for the future that's upon you.

Not the one that's past.

Are you looking for an exceptional executive education experience that will re-ignite your mind? A program where leadership, innovation, and entrepreneurship are the presiding principles? A faculty that channels the imaginative energy that powers the giants of Silicon Valley? A place you've never been but will return to every day? Then come to the source. There's only one: Stanford.

UPCOMING PROGRAMS

The Corporate Entrepreneur: Driving Innovation and New Ventures
August 2 – 7 and October 25 – 30, 2015
(two-module program)

Strategies and Leadership in Supply Chains
August 16 – 21, 2015

Managing Talent for Strategic Advantage
August 23 – 28, 2015

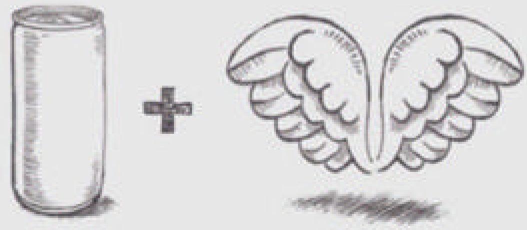
Finance and Accounting for the Nonfinancial Executive
November 15 – 20, 2015

Enroll. Re-boot. Transform: stanfordexecutive.com

Change lives. Change organizations. Change the world.

ie school of communication
in collaboration with IE Business School

#1 WORLDWIDE ONLINE MBAS
FINANCIAL TIMES 2015



The best brands are those that are powered by communication, exceptional leadership and integrated digital strategies

EXECUTIVE MASTER IN
CORPORATE COMMUNICATION

COMMUNICATION • MANAGEMENT • DIGITAL STRATEGIES

With a structure that allows a balance between work and classes, this program is designed to provide top managers with the latest digital communication and managerial skills to successfully lead global companies.

1 YEAR

ONLINE + ON-CAMPUS (MADRID)

APRIL 2016

emcc.ie.edu

Appointments

AfricaRice

The **Africa Rice Center** (AfricaRice, ex-WARDA) wishes to recruit:

- An **Interim Deputy Director General of the Central Agricultural Research Institute (CARI)** based in Suakoko, Bong County, Liberia
- A **Program Leader 'Policy, Impact Assessment and Innovation Systems' (PII)** based in Abidjan
- A **Rice Commodity Specialist** based at IITA/AfricaRice, Kubwa, Abuja, Nigeria, under the Agricultural Transformation Agenda Support Program Phase 1 (ATASP-1) funded by the African Development Bank (AfDB)

About AfricaRice
AfricaRice is one of the 15 international agricultural research Centers that are members of the CGIAR Consortium. It is also an autonomous intergovernmental association of African member countries.

Further details can be obtained from the AfricaRice website at www.AfricaRice.org.

Department for Education

Have you got what it takes to influence policy making at the heart of national government?

We are looking for exceptional individuals with an interest in education to join the DfE as 'Policy Fellows' for a fixed period. You will have a strong track record in your field and the skills and experience to help government think about making policy differently.

You will work at the heart of government and contribute to high priority policy and delivery challenges: providing innovative thinking, sharing your skills and experience widely across the department, and creating links with external organisations and individuals to benefit yourself and the Department.

We would like to hear from you if you can offer:

- an innovative approach to policy development or service delivery;
- strong analytical skills and experience applying them to complex social challenges;
- practical experience of reforming education or children's services in the UK or abroad; or
- a successful track record of leading organisational reform and engaging staff.

Roles can be part-time or full time and all offer flexible working conditions.

For further information and to apply, please visit
https://www.gov.uk/government/news/dfe-policy-fellowship

Closing date: 5pm on Monday 13th July

Business & Personal

Readers are recommended
to make appropriate enquiries and take appropriate advice before sending money, incurring any expense or entering into a binding commitment in relation to an advertisement.
The Economist Newspaper Limited shall not be liable to any person for loss or damage incurred or suffered as a result of his/her accepting or offering to accept an invitation contained in any advertisement published in *The Economist*.

Tenders

THE FEDERAL MINISTRY OF INDUSTRY, TRADE AND INVESTMENT (FMITI)
Growth & Employment (GEM) Project - Credit No. NG- 4882

Grant Administrator Firm

REQUEST FOR EXPRESSIONS OF INTEREST

The Growth and Employment (GEM) Project aims to increase firm growth and employment in participating firms in Nigeria. The project, is being delivered through the Federal Ministry of Industry, Trade and Investment (FMITI) by the Federal Implementation Unit (FPIU) to focus on manufacturing and service sectors, specifically supporting ICT, entertainment, hospitality & Tourism, light manufacturing and construction sectors. Project support will address cross cutting issues, assistance to specific clusters, and more direct support to firms channeled through various training and grant schemes.

The project team is developing an integrated transaction enabled web-portal as the primary means of interaction between the project and its beneficiaries. The name of the portal is Business Innovation and Growth Support (BIG).
More specifically, the BIG Platform will:

- enable potential beneficiaries to register on the GEM program,
- provide a facilitated access to training programs,
- track the progress of the beneficiaries (participation to training programs and achievement during training),
- enable potential beneficiaries to apply for grants and automatically test the eligibility of firms for the grants.

The GEM program will comprise of six grant windows, namely:- **i) Equity, ii) Matching/Innovation iii) Performance iv) Institutional, v) Worker Retention and vi) Innovative Market**. Details of the six windows is provided in the terms of reference (TOR).

Objective of Assignment:
The GEM Project wishes to engage a firm/consortium (hereinafter called 'Firm') to administer the grants of GEM in accordance with the guidelines set out in the grants/operations manual. The grants manual establishes the procedures, controls and criteria required to solicit, award and administer grants under this Project.

Scope of Work:
The Firm will administer the GEM grants which are targeted at five clusters, namely: ICT, Entertainment, Hospitality & Tourism, Light Manufacturing and Construction sectors. Most tasks will be done through the BIG Platform. Key tasks of the Firm will include but not limited to the following:

i. Marketing of the BIG Platform and the various grants available to the firms registered on the BIG Platform;
ii. Launching and advertising the various Windows on different communication platforms (newspapers, BIG platform, social media etc);
iii. Administering the selection process on the BIG platform in accordance with the grants manual including the completion of all due diligence;
iv. Collecting, documenting and verifying all documents submitted to the various grant windows;
v. Preparing the grant disbursement agreements, signing off on these agreements and submitting the counter signatures to the Project Coordinator;
vi. Preparing disbursement forecasts and disbursement instructions for the Project Accountant through the Project Coordinator;

Submission of Expressions of Interest (EOIs):
Prospective Grant Administrators should submit Expression of Interest detailing the following information as basis for pre-qualification:
The firm to be selected shall have a broad background in Grant Administration.

- Profile of firm/consortium including ownership structure and role of each corporate entity with full contact details of each firm;
- Track records in Grants Administration and financial management in public or private sectors with names of organizations and the year of assignment;
- Proof of capacity to recruit and deploy teams to Administer/Manage Grants with names of organizations and the year of assignment
- Evidence of clearly set out estimates of grant administration costs, and justification of the cost in comparison with the program size and resources.
- Experience/knowledge of the Nigeria business environment and or Sub-Saharan Africa
- Evidence of Grants Administration and financial management with international donor agencies;

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrower*, Revised January 2011. Firms may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications and must be supported with evidence of partnership agreement and MoU. **A firm** will be selected in accordance with the Quality and cost Based Selection (QCBS) Method set out in the Consultant Guidelines. Further information can be obtained at the address below during office hours 9.00 am to 4.00 pm, Monday through Friday (except public holidays) from the **Project Coordinator, Tel: +2348039265356 or +2348057763523**

Expressions must be submitted in five (5) hard copies (one original and four copies **plus one CD Rom**), in a sealed envelope clearly marked ***"Expression of Interest for Grant administrator"*** to the address below in person or by courier mail not later than **Tuesday July 7, 2015**

Project Coordinator
Growth and Employment (GEM) Project
The Federal Ministry of Industry, Trade and Investment
Block G, Room 225
Old Federal Secretariat
Area 1, Garki, Abuja
Email: sanyunus2002@yahoo.com or procurement@gemng.com

Interested firms should note that:
- Submission shall be in English language only
- Submission through electronic media shall be rejected; and
- Submission received after the deadline shall be rejected
- **Only shortlisted firms will be contacted**

classified@quantum-productions.co.uk

THE PRESIDENCY
Bureau of Public Enterprises (BPE)
The Secretariat of The National Council on Privatisation (NCP)

TECHNICAL CONSULTANT TO MONITOR PRIVATISED POWER HOLDING COMPANY OF NIGERIA (PHCN) SUCCESSOR COMPANIES (SCs)

REQUEST FOR EXPRESSIONS OF INTEREST

1. In an effort to address the National Electric Power Authority's (NEPA's) poor operational and financial performance, the Federal Government of Nigeria (FGN) amended the prevailing laws (Electricity and NEPA Acts) in 1998 to remove NEPA's monopoly and encourage private sector participation. The amendments, however, were not far-reaching. The FGN then decided to undertake holistic policy, legal and regulatory reforms. The National Electric Power Policy (NEPP) 2001, outlines the reform agenda, while the Electric Power Sector Reform Act (EPSRA), 2005 provides the legal basis for the unbundling of NEPA, the formation of successor companies, and the privatisation of the latter.
2. Consequently, the FGN established the Power Holding Company of Nigeria (PHCN) – the initial holding company and subsequently unbundled it into eighteen (18) successor companies, while maintaining national ownership of the transmission system.
3. The FGN followed its privatization plan and sold 60% majority shareholding in the Distribution Companies (DisCo), 100 % in all thermal Generating Companies (GenCo), with the exception of Geregu Power Plant Plc, where FGN sold 51% of its shares, retaining 49%. The hydro power plants were concessioned (Kainji/Jebba and Shiroro) for a period of 25 years. Specifically, the assets sold comprised of:
   - Four thermal power generating facilities (Afam, Egbin, Sapele, Ughelli);
   - Kainji (with Jebba) and Shiroro hydropower facilities; and
   - 11 distribution companies;
4. In order to nurture and monitor the activities of the companies for a period of five years as enshrined in the Performance Agreements signed between BPE (on behalf of FGN) and the new owners, the Federal Government of Nigeria, through the Bureau of Public Enterprises (BPE) hereby invites prospective **TECHNICAL CONSULTANTS TO MONITOR PRIVATISED POWER HOLDING COMPANY OF NIGERIA (PHCN) SUCCESSOR COMPANIES (SCs).**
5. The Consultant will be expected to provide technical and financial expertise required to develop, assemble and interpret performance reports for the distribution and generation companies, as part of BPE's post-privatization monitoring mandate. The Consultant will also be expected to provide, as necessary, all ICT systems required to collect data for the purpose of measuring and evaluating Key Performance Index (KPI) requirements, producing performance reports and maintaining a comprehensive database.

   While completing the assignment, the Consultant will provide technical and financial expertise (with the exception of regulatory-related support, which is to be provided by NERC) that will be expected to form and lead teams of staff within BPE, making up the Performance Monitoring Unit (PMU). Within each major department or function, the Consultant will be expected to identify and train individuals that will be responsible for assuming the role of the Consultant at the end of the assignment.

   As such, the Consultant will be expected to build capacity within BPE's monitoring unit for the following purposes:
   - Eventual handover of responsibility under this assignment to BPE personnel
   - Expansion of BPE's monitoring unit to include the performance of the National Integrated Power (NIPP) assets, on behalf of the FGN.
6. The Consultant will also be required to deploy the requisite technical and engineering tools to measure the reduction of technical, commercial and collection losses of the distribution companies and also the technical rehabilitation of the generation companies in line with the performance agreement signed with BPE.

The Consultants' qualifications shall include demonstrated international and national experience within the power (electricity) sector. The Consultant shall be able to demonstrate that each of his proposed staff has the requisite qualification to undertake the assignment, with such proposed persons having a minimum of 5-7 years of experience in the power sector. We seek Consultants that can quickly grasp complex issues of privatization. Experience within the power sector in Nigeria would be viewed positively. Each proposed Consultant's staff shall have an excellent knowledge of English; have highly developed analytical, communication, cross-cultural and diplomatic skills, as well as excellent report writing abilities.

SUBMISSION OF EXPRESSIONS OF INTEREST (EOIs)

BPE invites eligible international and national consulting companies to indicate their interest in providing the aforementioned services.

Expressions of Interest (EOIs) from prospective Consultants should specify the following information as the basis for pre-qualification:

- ❑ Capability Statement of the firm if a single entity, or firms, if forming an association or joint venture for the purpose of the assignment, with a discussion of its experience providing similar services. Copies of certificates of incorporation of each firm should also be provided;
- ❑ Similar past performance or experience of the firm or firms, clearly identifying the firm undertaking the work, scope of the work and location of each assignment;
- ❑ Staff available for the assignment, including CV's; and
- ❑ Indication of financial capability of the firm(s) to carry out the assignment (audited accounts etc)
- ❑ Short description (not to exceed a page), of the Consultant's understanding of the ICT system required to undertake the assignment.

The Consultant will be selected in accordance with the procedures set out in the Bureau of Public Procurement (BPP) Guidelines: Selection of Consulting Firms (Complex Lump sum), January 2008

Expressions of Interest must be submitted in six (6) copies and 1 soft copy in a sealed envelope clearly marked ***"Expressions of Interest (EOI) for Technical Consultant to Monitor PHCN SCs."***

The expressions of interest should be addressed and delivered not later than June 19, 2015 at 1700 hours CAT **in Room B101** of the address shown below:

Mr. Benjamin Ezra Dikki
Director General
Bureau of Public Enterprises
No. 11, Osun Crescent
Off Ibrahim Babangida Way, Maitama
P.M.B. 442, Garki, Abuja

Tel: 234-9-460-4400
E-mail: bdikki@bpeng.org
Web Site: http://www.bpeng.org

Interested applicants may obtain further information at the address above from 8.00 am to 5.00 pm, Monday through Friday (except public holidays)

Only short-listed Consultants will be contacted.

Expressions of Interest received through e-mail or fax will NOT be accepted.

OFFICE OF THE PRIME MINISTER
SECRETARIAT GENERAL

BURKINA FASO
Unité – Progrès – Justice

CONTRACTING AUTHORITY OF
THE DONSIN AIRPORT

Notice of pre-qualification N° 2015-003/PM/SG/MOAD/PRM of May 25, 2015

Subject: NOTICE OF PRE-QUALIFICATION N° 2015-003/PM/SG/MOAD/PRM OF MAY 25, 2015 FOR THE CONCESSION OF THE MANAGEMENT OF THE OUAGADOUGOU DONSIN INTERNATIONAL AIRPORT

1. The contracting authority of the Donsin Airport, acting on behalf of the Inter-ministerial Committee for the establishment of the Mixed Economy Company responsible for the management of the International Airport of Ouagadougou (CISEM-AIOD), representing the State of Burkina Faso, invite private investors to participate in the tender process relating to the concession in Public-Private Partnership of the operation of the new Ouagadougou-Donsin airport, as well as ground handling activities for a period of thirty (30) years.

2. The objectives of this public-private partnership are:
- Flexibility and efficiency in the operation of the new Ouagadougou-Donsin airport once opened;
- Development and maintenance of good operating order of the airport infrastructure through significant investments;
- Enhancement of the quality of services provided to users as well as reinforcement of safety and security measures;
- Participation in the funding of the construction work of the Ouagadougou-Donsin new airport.

These tasks are not exhaustive.

3. This notice of pre-qualification is open on a non- discriminatory basis to all providers, subject to not being under suspension or prohibition vis-à-vis the laws of Burkina Faso.

The tender procedure includes a pre-qualification phase of candidates in accordance with the law n°020 of 23 May 2013 on legal arrangements of Public Private Partnership and its implementing decree.

4. The expression of interest will consist in accordance with conditions described in the pre-qualification document, in particular point 2.2 of that document.

5. Selection will be based on the conditions described in point 2.3 of the pre-qualification document.
A shortlist will be drawn up after the pre-qualification notice and the selected suppliers will be invited to make technical proposals on the basis of a tender dossier.

6. Expressions of interest drawn up in French in quadruplicate (one original and three copies marked as such) shall be submitted in a sealed envelope to the Secretariat of the Person Responsible for Procurement located on the 3rd floor of the former building of the Prime Ministry, 1090 Avenue Professor Joseph Ki-Zerbo no later than **June 29, 2015 at 10:00 am UT.**
The packages will include the description "pre-qualification notice for the recruitment of a private investor for the concession of the international airport of Ouagadougou-Donsin as a public-private partnership."

The bid opening will take place on the same day from **10:15 am UT** in the meeting room of the MOAD 3rd floor in the presence of bidders who wish to participate.

Investors interested in the project may obtain additional information as well as the pre -qualification document and the memorandum of information by sending **a written request to the contracting authority of the Donsin Airport (MOAD)**, 1090 Avenue Professeur Joseph Ki-Zebu in Ouagadougou; Phone : +226 50 32 48 17/18 ; Fax : +226 50 33 10 03 ; e-mail : moad@primature.gov.bf in Ouagadougou – Burkina Faso, copy to e-mail : prmmoad@moad.org or go directly for information on the MOAD website : www.moad.bf or download the form from the link http://plate-forme.moad-bf.org/rci/

The Authority reserves the right not to respond to all or part of this pre-qualification procedure.

Procurement Officer

Pascal Wendoana KIMA

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 $ Jun 10th	year ago
United States	+2.7 Q1	-0.8	+2.3	+1.9 Apr	-0.2 Apr	+0.4	5.5 May	-410.6 Q4	-2.4	-2.5	2.42	-	-
China	+7.0 Q1	+5.3	+6.9	+5.9 Apr	+1.2 May	+1.4	4.1 Q1§	+291.5 Q1	+2.8	-2.7	3.22§§	6.21	6.22
Japan	-0.9 Q1	+3.9	+0.8	-0.1 Apr	+0.6 Apr	+0.6	3.3 Apr	+77.4 Apr	+1.9	-6.9	0.44	123	102
Britain	+2.4 Q1	+1.2	+2.4	+1.2 Apr	-0.1 Apr	+0.3	5.5 Feb††	-161.3 Q4	-4.7	-4.4	2.19	0.64	0.60
Canada	+2.1 Q1	-0.6	+1.8	-0.6 Mar	+0.8 Apr	+1.1	6.8 May	-42.2 Q1	-2.8	-1.8	1.91	1.23	1.09
Euro area	+1.0 Q1	+1.5	+1.5	+1.8 Mar	+0.3 May	+0.2	11.1 Apr	+314.0 Mar	+2.3	-2.2	0.98	0.88	0.74
Austria	+0.3 Q1	+0.7	+0.9	+0.8 Mar	+1.0 Apr	+1.1	5.7 Apr	+3.2 Q4	+1.6	-2.1	1.12	0.88	0.74
Belgium	+0.9 Q1	+1.3	+1.2	+1.8 Mar	+0.6 May	+0.3	8.5 Apr	+7.4 Dec	+0.6	-2.6	1.34	0.88	0.74
France	+0.7 Q1	+2.2	+1.2	-0.1 Apr	+0.1 Apr	+0.2	10.5 Apr	-20.6 Apr‡	-1.0	-4.1	1.28	0.88	0.74
Germany	+1.0 Q1	+1.1	+1.8	+1.4 Apr	+0.7 May	+0.5	6.4 May	+287.0 Apr	+6.7	+0.7	0.98	0.88	0.74
Greece	+0.2 Q1	-0.7	+1.4	+0.3 Apr	-2.1 May	-0.9	25.6 Mar	+1.3 Mar	+2.7	-3.6	11.64	0.88	0.74
Italy	+0.1 Q1	+1.2	+0.6	+0.1 Apr	+0.2 May	+0.2	12.4 Apr	+46.9 Mar	+1.9	-2.9	2.24	0.88	0.74
Netherlands	+2.4 Q1	+1.6	+1.8	+0.8 Apr	+1.1 May	+0.3	9.0 Apr	+90.2 Q4	+9.0	-1.9	1.17	0.88	0.74
Spain	+2.6 Q1	+3.8	+2.7	+2.7 Apr	-0.2 May	-0.4	22.7 Apr	+13.7 Mar	+0.5	-4.4	2.38	0.88	0.74
Czech Republic	+4.2 Q1	+13.0	+3.1	+4.3 Apr	+0.7 May	+0.3	6.4 May§	+1.4 Q4	-0.4	-1.8	1.27	24.1	20.3
Denmark	+1.5 Q1	+1.6	+1.6	+4.4 Apr	+0.6 May	+0.6	4.8 Apr	+21.6 Apr	+5.9	-2.9	1.16	6.59	5.51
Norway	+1.5 Q1	+1.0	+0.8	-3.1 Apr	+2.1 May	+1.5	4.1 Mar‡‡	+39.3 Q1	+10.4	+6.5	1.76	7.76	5.98
Poland	+3.7 Q1	+4.1	+3.4	+2.3 Apr	-1.1 Apr	+0.2	10.8 May§	-3.5 Mar	-1.6	-1.5	3.23	3.66	3.03
Russia	-1.9 Q1	na	-3.6	-4.3 Apr	+15.8 May	+15.3	5.8 Apr§	+57.1 Q1	+4.3	-2.6	10.48	54.4	34.3
Sweden	+2.6 Q1	+1.5	+2.7	+1.5 Apr	-0.2 Apr	+0.2	8.3 Apr§	+38.1 Q1	+5.8	-1.3	1.04	8.26	6.69
Switzerland	+1.1 Q1	-0.8	+1.0	-0.5 Q1	-1.2 May	-0.9	3.3 May	+49.1 Q4	+8.0	+0.2	0.26	0.93	0.90
Turkey	+2.3 Q1	na	+3.0	+3.7 Apr	+8.1 May	+7.0	11.2 Feb§	-45.5 Mar	-4.6	-1.7	9.64	2.74	2.08
Australia	+2.3 Q1	+3.8	+2.5	+2.8 Q1	+1.3 Q1	+1.7	6.0 May	-41.9 Q1	-3.1	-2.3	3.05	1.29	1.07
Hong Kong	+2.1 Q1	+1.5	+2.4	-3.6 Q4	+2.9 Apr	+3.2	3.2 Apr‡‡	+5.4 Q4	+2.7	-0.1	1.96	7.75	7.75
India	+7.5 Q1	+11.0	+7.6	+2.1 Mar	+4.9 Apr	+5.4	8.6 2014	-27.5 Q1	-0.9	-4.1	7.83	63.8	59.2
Indonesia	+4.7 Q1	na	+5.0	+5.8 Apr	+7.1 May	+6.0	5.8 Q1§	-25.2 Q1	-3.0	-1.9	8.62	13,220	11,825
Malaysia	+5.6 Q1	na	+5.5	+6.9 Mar	+1.8 Apr	+2.6	3.0 Mar§	+11.3 Q1	+3.4	-4.4	4.13	3.72	3.21
Pakistan	+5.5 2015**	na	+5.7	+4.6 Mar	+3.2 May	+4.2	6.0 2014	-2.0 Q1	-0.6	-5.1	9.75†††	102	98.6
Philippines	+5.2 Q1	+1.2	+6.6	+1.4 Apr	+1.6 May	+2.6	6.4 Q2§	+12.7 Dec	+3.9	-1.9	4.35	44.9	43.7
Singapore	+2.6 Q1	+3.2	+3.1	-8.7 Apr	-0.5 Apr	+0.4	1.8 Q1	+66.3 Q1	+21.8	-0.7	2.77	1.34	1.25
South Korea	+2.4 Q1	+3.3	+3.1	-2.7 Apr	+0.5 May	+1.1	3.8 May§	+98.5 Apr	+6.6	+0.5	2.48	1,111	1,017
Taiwan	+3.4 Q1	+2.7	+3.9	+1.1 Apr	-0.7 May	+0.6	3.8 Apr	+72.4 Q1	+12.6	-1.2	1.56	30.9	30.1
Thailand	+2.2 Q4	+7.1	+3.9	-5.3 Apr	-1.3 May	+1.3	0.9 Apr§	+15.9 Q1	+2.2	-1.9	2.84	33.6	32.5
Argentina	+0.4 Q4	+0.1	-0.6	-1.5 Apr	— ***	—	7.1 Q1§	-5.1 Q4	-1.5	-3.1	na	9.03	8.13
Brazil	-1.6 Q1	-0.6	-1.1	-7.6 Apr	+8.5 May	+7.9	6.4 Apr§	-100.2 Apr	-4.1	-5.5	12.69	3.12	2.23
Chile	+2.4 Q1	+4.2	+2.9	-0.6 Apr	+4.0 May	+3.7	6.1 Apr§‡‡	-1.3 Q1	-1.4	-2.0	4.57	631	550
Colombia	+3.5 Q4	+2.9	+3.4	-0.1 Mar	+4.4 May	+4.1	9.5 Apr§	-19.8 Q4	-6.5	-2.1	7.12	2,526	1,883
Mexico	+2.5 Q1	+1.6	+2.8	+1.7 Mar	+2.9 May	+3.1	4.3 Apr	-25.5 Q1	-2.3	-3.4	6.22	15.4	13.0
Venezuela	-2.3 Q3	+10.0	-3.7	na	+68.5 Dec	+69.5	7.9 Jan§	+10.3 Q3	-1.8	-16.3	10.60	6.30	6.35
Egypt	+4.3 Q4	na	+4.2	-0.1 Mar	+13.1 May	+9.8	12.8 Q1§	-10.2 Q1	-1.2	-10.9	na	7.63	7.15
Israel	+2.4 Q1	+2.5	+3.5	+11.6 Mar	-0.5 Apr	-0.3	4.9 Apr	+9.0 Q4	+4.8	-3.0	2.21	3.82	3.47
Saudi Arabia	+3.5 2014	na	+2.6	na	+2.0 Apr	+2.7	5.7 2014	+81.2 Q4	-2.3	-11.6	na	3.75	3.75
South Africa	+2.1 Q1	+1.3	+2.1	+3.2 Mar	+4.5 Apr	+4.8	26.4 Q1§	-19.1 Q4	-5.3	-3.8	8.38	12.3	10.7

Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proven to be reliable; The State Street PriceStats Inflation Index, Apr 26.8%; year ago 40.26% †††Dollar-denominated bonds.

The Economist Store

The gift that keeps on giving

Inspiring gifts for dads and graduates

Available at: www.store.economist.com

Markets

	Index Jun 10th	one week	% change on Dec 31st 2014 in local currency	% change on Dec 31st 2014 in $ terms
United States (DJIA)	18,000.4	-0.4	+1.0	+1.0
China (SSEA)	5,347.7	+4.0	+57.8	+57.7
Japan (Nikkei 225)	20,046.4	-2.1	+14.9	+10.7
Britain (FTSE 100)	6,830.3	-1.7	+4.0	+2.2
Canada (S&P TSX)	14,889.0	-1.8	+1.8	-4.4
Euro area (FTSE Euro 100)	1,170.9	-1.6	+12.9	+4.9
Euro area (EURO STOXX 50)	3,526.5	-1.6	+12.1	+4.2
Austria (ATX)	2,546.4	-2.5	+17.9	+9.5
Belgium (Bel 20)	3,663.8	-1.6	+11.5	+3.6
France (CAC 40)	4,934.9	-2.0	+15.5	+7.3
Germany (DAX)*	11,265.4	-1.4	+14.9	+6.8
Greece (Athex Comp)	761.1	-9.2	-7.9	-14.4
Italy (FTSE/MIB)	23,091.5	-2.2	+21.5	+12.9
Netherlands (AEX)	481.5	-1.3	+13.4	+5.4
Spain (Madrid SE)	1,125.9	-1.5	+8.0	+0.4
Czech Republic (PX)	1,006.1	-1.1	+6.3	-0.1
Denmark (OMXCB)	870.7	-1.0	+28.9	+19.6
Hungary (BUX)	21,964.7	-1.9	+32.0	+23.8
Norway (OSEAX)	691.9	-1.7	+11.6	+7.5
Poland (WIG)	54,393.0	-0.7	+5.8	+1.3
Russia (RTS, $ terms)	959.0	+1.2	+12.4	+21.3
Sweden (OMXS30)	1,610.4	-1.9	+10.0	+3.4
Switzerland (SMI)	9,102.7	-1.6	+1.3	+8.1
Turkey (BIST)	79,747.9	-4.4	-7.0	-21.2
Australia (All Ord.)	5,486.0	-1.8	+1.8	-4.2
Hong Kong (Hang Seng)	26,687.6	-3.5	+13.1	+13.1
India (BSE)	26,840.5	nil	-2.4	-3.6
Indonesia (JSX)	4,933.6	-3.8	-5.6	-12.1
Malaysia (KLSE)	1,735.6	-0.8	-1.5	-8.2
Pakistan (KSE)	34,323.8	+1.3	+6.8	+5.4
Singapore (STI)	3,325.8	-0.7	-1.2	-3.2
South Korea (KOSPI)	2,051.3	-0.6	+7.1	+5.2
Taiwan (TWI)	9,298.5	-2.7	-0.1	+1.5
Thailand (SET)	1,504.0	+1.5	+0.4	-2.0
Argentina (MERV)	11,364.8	+1.5	+32.5	+24.4
Brazil (BVSP)	53,876.4	+0.7	+7.7	-7.8
Chile (IGPA)	19,270.0	-0.9	+2.1	-1.0
Colombia (IGBC)	10,313.0	+0.5	-11.4	-18.0
Mexico (IPC)	44,578.3	-0.3	+3.3	-2.2
Venezuela (IBC)	14,029.6	+12.8	+264	na
Egypt (Case 30)	8,639.4	-3.0	-3.2	-9.3
Israel (TA-100)	1,448.3	-1.7	+12.4	+14.4
Saudi Arabia (Tadawul)	9,490.9	-1.9	+13.9	+14.0
South Africa (JSE AS)	51,958.3	+0.2	+4.4	-3.1

World GDP

Global GDP growth was sluggish in the first three months of 2015, remaining at 2.7% year on year for a second consecutive quarter. Growth in the world economy has become increasingly reliant on just three countries: China, the United States and India were responsible for nearly 80% of global growth in the first three months of the year. The euro area's slow recovery has continued; the 19-country bloc experienced 1.1% year-on-year growth in the first quarter of 2015 compared with 0.9% in the previous quarter. Leaving aside China and India, emerging markets struggled in the first quarter. They contributed less than 13% of global growth, the smallest proportion since late 2009.

Contribution to growth, percentage points, from:

Sources: Haver Analytics; IMF; *The Economist*

*Estimates based on 48 economies representing 86% of world GDP. Weighted GDP at purchasing-power parity

Other markets

	Index Jun 10th	one week	% change on Dec 31st 2014 in local currency	% change on Dec 31st 2014 in $ terms
United States (S&P 500)	2,105.2	-0.4	+2.2	+2.2
United States (NAScomp)	5,076.7	-0.4	+7.2	+7.2
China (SSEB, $ terms)	522.0	-2.0	+79.6	+79.5
Japan (Topix)	1,628.2	-2.5	+15.7	+11.5
Europe (FTSEurofirst 300)	1,548.8	-1.4	+13.2	+5.2
World, dev'd (MSCI)	1,751.6	-2.1	+2.5	+2.5
Emerging markets (MSCI)	971.1	-2.5	+1.5	+1.5
World, all (MSCI)	427.0	-2.2	+2.4	+2.4
World bonds (Citigroup)	860.5	-0.5	-4.6	-4.6
EMBI+ (JPMorgan)	695.1	-1.5	+0.5	+0.5
Hedge funds (HFRX)	1,244.9§	-0.6	+2.2	+2.2
Volatility, US (VIX)	13.6	+13.7	+19.2	(levels)
CDSs, Eur (iTRAXX)†	66.2	+6.9	-1.6	-8.6
CDSs, N Am (CDX)†	65.7	+4.1	-4.6	-4.6
Carbon trading (EU ETS) €	7.6	+1.7	+4.1	-3.3

Sources: Markit; Thomson Reuters. *Total return index.
†Credit-default-swap spreads, basis points. §Jun 8th.

Indicators for more countries and additional series, go to: **Economist.com/indicators**

The Economist commodity-price index

2005=100

	Jun 2nd	Jun 9th*	% change on one month	% change on one year
Dollar Index				
All Items	142.1	143.6	-1.0	-15.3
Food	157.5	159.9	+1.5	-17.6
Industrials				
All	126.2	126.6	-4.0	-12.0
Nfa†	127.1	126.8	+3.0	-12.5
Metals	125.8	126.5	-6.7	-11.8
Sterling Index				
All items	168.7	170.5	+1.3	-7.3
Euro Index				
All items	158.8	158.8	-0.9	+2.0
Gold				
$ per oz	1,192.1	1,177.1	-1.2	-6.6
West Texas Intermediate				
$ per barrel	61.3	59.9	-1.0	-42.6

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

The stealing time

Bob Randall, aborigine elder, teacher and campaigner, died on May 13th, aged about 81

WHEN the white policeman lifted him up high on to his camel, on that November day in 1938, the laughing little fella thought he was going for a ride. But the journey—sometimes on the camel, sometimes carried on the hip of an aunt—lasted three weeks and covered 300 miles, from Tempe Station in the central Australian desert as far as Alice Springs.

His aunts, and the other adults in the party, were in chains. It was all they wore, being naked. They were suspected of killing and eating a bullock that wasn't theirs. He, six or seven and with pale-brown skin, because his blood-mother Tanguawa had slept with the white owner of the cattle station where she was a housemaid, was being taken away in accordance with government policy. That policy, in force from 1910 to 1970, decreed that all aboriginal half-castes should be placed in institutions to civilise and Christianise them. His family had usually smeared him with mud to make his skin darker, so he wouldn't stand out. But on that fateful day of the camel he had taken a dip in a water hole and washed it off.

So began 13 years of incarceration, first at "The Bungalow" in Alice Springs and then at a Methodist mission on Croker Island in Arnhem Land, in the far north. From this he emerged clothed, literate and evangelised, with a gentle laugh, a new birth-date and a new name, Bob Randall. He also came out full of anger, fear, deprivation and incalculable loneliness. From all this grew a lifelong campaign to publicise what had happened to him and maybe 30,000 others in the "Stolen Generations", and to extract solid repentance and reparation from the Australian government.

They had snatched him from his mother. He never saw her again, and their separation was summed up in a song he wrote in 1970 and sang up and down the land until the government, and even the outside world, noticed it: "My Brown Skin Baby They Take Him Away". Each verse of his story ended in his mother's keening. But for an aborigine like him, he told the world, the outrage went much wider. His mother was not only Tanguawa, but all the other women of the tribe, who led him on trails and disciplined him. Beyond that, his mother was the Earth itself: the baked red desert that had "grown him up" and nurtured him with all she had, whose presence gave security to his bounding bare feet and rest to his body under the night stars. At the Bungalow, sleeping for the first time in itchy pyjamas on a urine-smelling bed, he would creep out to lie on the floor and try to feel her comfort once more.

They had also stolen him from his family—not just his siblings and "the oldies" who had passed on the stories and understandings, but all people connected to him by certain ceremonies and by veneration of his ancestral totem Kuniya, the carpet-snake. Beyond that, his family was everything around him. Trees, hills, grass, kangaroos, lizards were all "our mob", familiar, useful and even talkative, to those who knew their language.

Penned in a box

Last, they had taken him from his country. This was far broader than Mutitjulu near Uluru, which the whites called Ayers Rock, or even the land designated by Kuniya as she had wriggled westward from the sunrise. It was anywhere in nature he or his people found themselves, for they had no houses and no need for permanency; as human beings, all creation was "ours", and nothing "mine". Their connection to this limitless country gave them pride and power and made them immeasurably free. All that was soon knocked out of them, and him, once they were penned in a box.

Aborigines called him Tjilpi, "Uncle", Bob, and looked to him to help them. It was, he knew, almost impossible. The culture had been too devastated and his people too demoralised since the whites came. He taught the old ways in songs, books and lectures, by setting up an aborigine college in Adelaide and by establishing cultural centres in universities. But it often seemed easier to interest sympathetic whites than his own people, now mostly languishing in dilapidated bungalows behind wire fences, where feral dogs rooted in rubbish and jobless young men wandered around sniffing petrol cans.

In 2008 Australia's then prime minister, Kevin Rudd, apologised to the Stolen Generations and promised that the yawning gap between aborigines and whites would be closed. Uncle Bob, though gently smiling as ever, pointed out that the government had given nothing back, and that his people still had no control over their affairs. Mr Rudd's pledge, he said, was just empty banging on a empty drum.

Nonetheless he went on teaching the old doctrine of *kanyini*, responsibility for the Earth and unconditional love of her, as far as his soft voice or his guitar would carry. He usually spoke from the humble home he had rediscovered, after years of searching, in Mutitjuru. He had known it was the place when he heard from the car "our mob", the old desert oaks, joyously muttering that the little fella had returned.

After his death, in keeping with custom, his name and picture were removed from the Kanyini website "until sorry business is finished". Like all flesh, he had been and gone: leaving much more than others, but still a fleeting footfall in the life of his ever-abiding mother, the red Earth. ■

The Economist | Events

BUTTONWOOD:
FINANCE AND ECONOMICS FORUM

THE VALLEY MEETS THE STREET

OCTOBER 20TH 2015 ■ NEW YORK

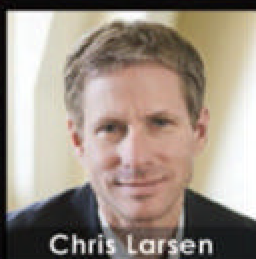
FINANCE'S DIGITAL TRANSFORMATION

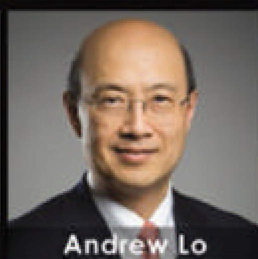
Technology is one of the most disruptive forces within the finance industry today. From crowd-sourced lending tools to mobile banking applications, new advances continue to shape how companies and customers do business.

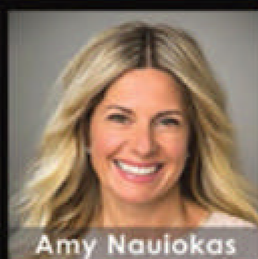
On October 20th, editors from *The Economist*, industry leaders and senior policymakers will explore the challenges and opportunities associated with fintech. Chaired by *The Economist*'s editor-in-chief, Zanny Minton Beddoes, the Buttonwood event will offer a comprehensive guide to understanding the short- and long-term impact of this digital revolution.

SPEAKERS INCLUDE:


Matt Flannery
Kiva


Chris Larsen
Ripple Labs


Andrew Lo
MIT


Amy Nauiokas
Anthemis Group

**SAVE $300 DURING EARLY REGISTRATION.
SIGN UP TODAY.**

212.541.0539 | BUTTONWOOD.ECONOMIST.COM

You never actually own
a Patek Philippe.

You merely look after it for
the next generation.

Chronograph Ref. 5170G
patek.com