FINANCIAL TIMES

MONDAY 23 MAY 2016 | WORLD BUSINESS NEWSPAPER | EUROPE

Exec education
FT's annual school rankings
BUSINESS EDUCATION MAGAZINE

Lucy Kellaway
My 'CV of failures' reveals home truths — BUSINESS LIFE, PAGE 12

IMF's lost virginity
Calling Berlin's bluff over Greek debt — WOLFGANG MÜNCHAU, PAGE 9

World Bank fights back on pandemics

Outbreaks of a disease such as Ebola will trigger a $500m fund to help countries and health agencies fight back after the World Bank launched the first insurance market for pandemic risk at a G7 finance ministers meeting in Japan.

The aim of the Pandemic Emergency Financing Facility is to make funds instantly available for curbing the spread of particular infectious diseases, thereby saving lives and money over the longer term.

The Ebola outbreak in west Africa in 2014 infected 28,000 people and killed 11,000, mostly in Guinea, Liberia and Sierra Leone. International donors, according to the World Bank, spent $7bn on fighting the disease.

Combating emergencies page 2

John Moore/Getty Images

Briefing

▸ Black investors eye Barclays Africa bid
PIC, South Africa's powerful state-run pension fund manager, is considering assembling a grouping of black investors to take a controlling stake in Barclays Africa, which is being sold. — PAGE 13; ANALYSIS, PAGE 16

▸ Cameron to face China heat in Japan
David Cameron will come under pressure at this week's G7 summit in Japan as fellow leaders take the British premier to task over his role in relations with China and a global fiscal stimulus. — PAGE 3

▸ Austria's poll candidates neck and neck
Austria's presidential poll was too close to call after a campaign that saw a surge in support for the far-right candidate Norbert Hofer. His party profited from disappointment with the main parties and fears on refugees. — PAGE 4

▸ European utilities slash asset valuations
European utilities wrote off a record amount of value from their assets — many of them power stations — last year, bringing the total cost of impairments to more than €100bn in the past six years. — PAGE 13

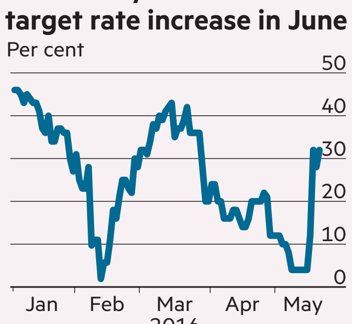
▸ Berlin's ties with Ankara sour further
Angela Merkel has condemned the move by Turkey's legislature to strip many lawmakers of parliamentary immunity, in a sign of the fractious relations between Berlin and Ankara. — PAGE 4

▸ Axa to pull out of tobacco investments
Axa is to ditch its tobacco investments, arguing that owning them clashes with being a health insurer. The move is a boost to the antismoking lobby, as other big investors consider a return to the sector. — PAGE 13

▸ Nissan hails electric-car breakthrough
An affordable electric car that can travel almost 400 miles on one charge could be developed within a decade after a battery-technology "breakthrough", Japanese carmaker Nissan said. — PAGE 16

Datawatch

Probability of Fed funds target rate increase in June



Source: Bloomberg

Poor non-farm payroll data pushed the chance of a rate rise by the US Fed as low as 2 per cent earlier this month. But hawkish comments from some Fed members have recently sent the chances soaring to more than a third

Prospect of rate rise grows as US moves closer to passing Fed tests

● FOMC member says conditions nearly met ● Outlook accords with FT economists' survey

SAM FLEMING — WASHINGTON

The US is already on the verge of meeting most of the economic conditions that the Federal Reserve has set for interest rates to be raised next month, a member of the rate-setting Federal Open Market Committee says.

Eric Rosengren, the president of the Federal Reserve Bank of Boston, told the Financial Times that he was getting ready to back tighter monetary policy after financial and economic indicators swung in a positive direction after the Fed's policy meeting in March.

Until last week markets were putting extremely low odds on a summer rate rise, in part because of the dovish tone of Fed chair Janet Yellen's last speech two months ago. That picture was transformed on Wednesday, as the Fed minutes from its April rate-setting meeting suggested it was preparing the ground for a second interest rate increase after the quarter-point rise in December.

To justify a move at its meeting on June 14-15, the Fed set itself three tests: to see further signs of an economic rebound in the second quarter, further jobs-market strength and for inflation to carry on towards the Fed's 2 per cent goal. While policymakers are split over whether these tests will be met by June, Mr Rosengren said that he saw the preconditions for a rise falling into place.

"I want to be sensitive to how the data comes in, but I would say that most of the conditions that were laid out in the minutes, as of right now, seem to be . . . on the verge of broadly being met," said Mr Rosengren, who has a vote on rates this year as part of the rotation of regional Fed presidents on the FOMC.

Mr Rosengren was one of the Fed doves last year but has recently become more bullish on the outlook.

His view chimes with the findings of the latest FT survey of 53 economists, which found that more than half — 51 per cent — expected the Fed to tighten policy at one of its next two meetings. That was in contrast to market views as recently as the start of May when fears over lacklustre global growth stayed the US central bank's hand until 2017.

Markets have been more buoyant as oil prices rose, the dollar eased and US economic data gained strength.

Analysing the Fed's three tests for a June move, Mr Rosengren said the central bank had set a "relatively low threshold" for improvement on the growth front given first-quarter GDP growth was at an annualised rate of just a half a per cent. While jobs growth in April slowed from the roughly 200,000 monthly average in the first quarter, hiring was still "well above" what was needed for a gradual tightening of the labour market, he added.

> 'Most of the conditions that were laid out in the minutes seem to be on the verge of broadly being met'
>
> Eric Rosengren, Boston Fed president

Mr Rosengren said that the US was "making progress on getting to inflation at 2 per cent", given the higher oil price, the depreciation of the dollar over the past two months, and the firming of the core personal consumption expenditures measure of inflation.

Additional reporting Eric Platt in New York

Gradual increases backed page 4
Adair Turner page 9

Venezuela's opposition leader plans Maduro's fall

Interview ▸ PAGE 3

Austria	€3.60	Macedonia	Den220
Bahrain	Din1.7	Malta	€3.50
Belgium	€3.60	Morocco	Dh43
Bulgaria	Lev7.50	Netherlands	€3.60
Croatia	Kn27.50	Nigeria	Naira715
Cyprus	€3.50	Norway	NKr34
Czech Rep	Kc100	Oman	OR1.50
Denmark	DKr32	Pakistan	Rupee 280
Egypt	E£20	Poland	Zl 18
Finland	€4.10	Portugal	€3.50
France	€3.60	Qatar	QR15
Germany	€3.60	Romania	Ron17
Gibraltar	£2.70	Russia	€5.00
Greece	€3.50	Saudi Arabia	Rls15
Hungary	Ft990	Serbia	NewD420
India	Rup195	Slovak Rep	€3.60
Italy	€3.50	Slovenia	€3.50
Kazakhstan	US$5.50	Spain	€3.50
Kenya	Kshs300	Sweden	SKr37
Kuwait	KWD1.50	Switzerland	SFr5.90
Latvia	€6.99	Tunisia	Din7.50
Lebanon	LBP7500	Turkey	TL10
Lithuania	€4.30	UAE	Dh15.00
Luxembourg	€3.60		

Subscribe In print and online

www.ft.com/subscribetoday
email: fte.subs@ft.com
Tel: +44 20 7775 6000
Fax: +44 20 7873 3428

© THE FINANCIAL TIMES LTD 2016
No: 39,170 ★

Printed in London, Liverpool, Glasgow, Dublin, Frankfurt, Brussels, Milan, Madrid, New York, Chicago, San Francisco, Washington DC, Orlando, Tokyo, Hong Kong, Singapore, Seoul, Dubai

21
9 770174 736111

Lessons in Nato take timetable slot for Polish pupils in need of security

SAM JONES AND ZOSIA WASIK — WARSAW
NEIL BUCKLEY — LONDON

Alongside classes in civic studies and national history, Polish schoolchildren have a new subject to fit into their timetables: Nato lessons.

For the next two months, the government plans to give Polish schools the option of teaching up to four hours a week of classes on the world's most powerful military alliance — and the benefits that Poland derives from being a member of it.

Before this July's Nato biennial summit in Warsaw, the proposals are the centrepiece of efforts by the Polish government to emphasise — to audiences at home and among allies and adversaries — the importance with which the country regards Nato as a guarantor of its sovereignty and, increasingly, as its most important international interlocutor.

Establishing a permanent Nato troop presence in Poland is now almost certain to be agreed by Nato leaders at the Warsaw summit. But it remains a controversial measure that critics, including many within the alliance, say risks inciting Russia to further aggression.

Michal Korkosz, an 18-year-old high school pupil, said special classes on Nato risked "a kind of glorification of one organisation" but that students currently learnt more about the EU than about the military alliance.

"I feel safe knowing that Poland is [a] member of Nato because the EU does not have any army and is not united on the military field and Nato is," he said.

Poland's ministry of foreign affairs, confirming the plan's details, said that free books on Nato and its importance were also being distributed to every school and library in the country.

But Poland's cheerleading highlights an emerging paradox at the heart of the new ruling Law and Justice government's relationship with its western allies. It wants "more" Nato — but in many ways less EU, even though Moscow sees the organisations as two sides of the same coin.

In recent weeks, Warsaw's new administration has criticised the EU for what it calls meddling in its internal affairs, and bitterly rejected German-led EU attempts to make all member states accept a quota of Middle Eastern migrants.

Brussels has also threatened sanctions against the Law and Justice party for attempts to neuter the country's constitutional court and seize control of public television.

World Markets

STOCK MARKETS

	May 20	May 13	%Week
S&P 500	2052.32	2046.61	0.28
Nasdaq Composite	4769.56	4717.68	1.10
Dow Jones Ind	17500.94	17535.32	-0.20
FTSEurofirst 300	1326.45	1315.98	0.80
Euro Stoxx 50	2962.16	2956.63	0.19
FTSE 100	6156.32	6138.50	0.29
FTSE All-Share	3387.22	3370.33	0.50
CAC 40	4353.90	4319.99	0.78
Xetra Dax	9916.02	9952.90	-0.37
Nikkei	16736.35	16646.34	0.54
Hang Seng	19852.20	19915.46	-0.32
FTSE All World $	260.27	260.03	0.09

CURRENCIES

	May 20	May 13		May 20	May 13
$ per €	1.121	1.130	€ per $	0.892	0.885
$ per £	1.451	1.435	£ per $	0.689	0.697
£ per €	0.773	0.787	€ per £	1.294	1.270
¥ per $	110.455	109.100	¥ per €	123.854	123.267
¥ per £	160.319	156.542	£ index	87.608	85.602
€ index	87.504	88.794	$ index	100.991	99.418
SFr per €	1.113	1.103	SFr per £	1.440	1.400

COMMODITIES

	May 20	May 13	%Week
Oil WTI $	48.49	46.34	4.64
Oil Brent $	48.82	47.86	2.01
Gold $	1254.20	1265.90	-0.92

INTEREST RATES

	price	yield	chg
US Gov 10 yr	98.02	1.84	-0.01
UK Gov 10 yr	99.23	1.59	0.01
Ger Gov 10 yr	103.25	0.17	-0.01
Jpn Gov 10 yr	102.09	-0.11	0.00
US Gov 30 yr	97.30	2.63	-0.01
Ger Gov 2 yr	102.93	-0.50	0.00
	price	**prev**	**chg**
Fed Funds Eff	0.37	0.36	0.01
US 3m Bills	0.30	0.28	0.02
Euro Libor 3m	-0.28	-0.28	0.00
UK 3m	0.59	0.59	0.00

Prices are latest for edition — Data provided by Morningstar

A Nikkei Company

G7 summit

UK to face pressure on China relations

Japan and US want to 'stiffen European spines' in dealings with Beijing

ROBIN HARDING — TOKYO
GEORGE PARKER — LONDON
GEOFF DYER — WASHINGTON

David Cameron will come under pressure at this week's Group of Seven summit in Ise-Shima, Japan, as fellow leaders take the British prime minister to task over relations with China and a global fiscal stimulus.

Mr Cameron will face opposition from US President Barack Obama and Japan's premier Shinzo Abe over the UK's stance as China's "best partner in the west" and its refusal to ease austerity at a time of weak global demand.

European diplomats have also criticised Britain's approach to China, although German chancellor Angela Merkel will lead a large delegation there next month and France also has big commercial interests in the country.

Mr Abe is set to make relations with China one of the main topics of the summit, which will be held on the island of Kashikojima in central Japan on Thursday and Friday. The subject of "international politics" will cover Beijing's increasingly assertive role in the region.

Japan's prime minister is unlikely to single out his UK counterpart. But the Pacific powers of Japan and the US want to stiffen European spines when it comes to relations with Beijing.

According to one of Mr Abe's aides, the prime minister wants to build a consensus on defending the rule of law at sea, especially in regard to China's island-building in the South China Sea.

Beijing has said it will not abide by a UN tribunal's upcoming decision on 15 islands, reefs and shoals claimed by China, arguing that the tribunal has no jurisdiction to rule on the case.

Mr Abe wants world leaders to oppose attempts to change the status quo by force — such as Russia's 2014 annexation of Crimea or a Chinese seizure of islands.

There will also be a push to increase transparency about infrastructure investment in developing countries, where Japan often competes with China.

However, according to several people involved in preparing the summit, the South China Sea may have a low profile in the G7 communiqué. Tokyo wants to win western support, rather than antagonise Beijing publicly.

Britain's courtship of Beijing in recent years has caused irritation in Washington — last year the Obama administration warned of a "constant accommodation" of China by London.

George Osborne, the UK chancellor, has led Britain's China policy, including jumping the gun to become the first major western backer of Beijing's new Asian Infrastructure Investment Bank. The US and Japan have not joined. Mr Osborne followed that up with a high-profile visit to China last September, which included a trip to Xinjiang, where Beijing is accused of repressing alleged Uighur Muslim "separatists".

> Britain's courtship of Beijing in recent years has caused irritation in Washington

In an interview with the FT during that visit, Mr Osborne said he wanted "to take a bit of a risk with the China relationship, pushing it so it really brings jobs and growth to our country".

The British government has recently worked hard to try and assuage US concerns. Hugo Swire, minister of state at the Foreign Office, gave a speech in Washington last month in which he praised the US role in pushing back against Beijing in the South China Sea.

He said that, for the UK, freedom of navigation and overflight were "non-negotiable" and added: "We recognise and support the US role in defending those principles in Asia Pacific."

GLOBAL INSIGHT
DUBLIN

Vincent Boland

Ireland frets about a British referendum it is struggling to influence

Dublin's Aviva stadium, home of Ireland's rugby team, is used to hosting contests between the Irish and their Scottish, Welsh and English cousins. Last week it played host to another kind of Anglo-Irish contest — one the Irish fear they are about to lose.

About 200 people gathered in a conference room at the stadium to listen to one of many debates being held in the Irish capital on the UK's future in the EU. It is a subject this country is passionate about but is struggling to influence. A month before the June 23 referendum on whether Britain should remain in the EU, the view in the corridors of power in Dublin is increasingly pessimistic.

"I think the belief in Dublin is that the British are more likely to vote to leave than to remain" in the EU, says Dáithí O'Ceallaigh, a former Irish ambassador in London.

That pessimism helps explain the avalanche of conferences being held in Dublin around the Brexit issue. Ireland's political, business and professional leaders are horrified the UK could be on the brink of quitting a union the two countries joined on the same day in 1973.

The view in Ireland is Brexit would disrupt the booming trade that flows in both directions across the Irish Sea — some €60bn a year, and rising. There is concern it could undermine the political and peace settlement in Northern Ireland, which is nurtured by hundreds of millions of euros of EU aid. There are genuine fears it risks reimposing a "hard" border between the Republic and Northern Ireland, reversing two decades of economic integration and growing political co-operation between north and south.

There is also a sense that a UK exit from the EU would place an unnecessary barrier — whether in the form of customs posts or the end of a common travel area or merely inconvenience — between two countries with centuries of historical, artistic, political, cultural and sporting connections.

> The country would be more exposed to Brexit fallout than any other in the EU, bar the UK

Ireland is more exposed to the fallout from Brexit than any other EU country, except the UK itself. As Enda Kenny, the prime minister, has said, Brexit represents "a major strategic risk" for Ireland. Since they do not have a vote in the referendum on Brexit, the only thing the Irish establishment can do is talk about it. The question is whether anybody across the Irish Sea is listening.

The Irish message is targeted at two audiences. One is the leaders of the UK debate — and in particular David Cameron, the UK prime minister, with whom Mr Kenny has forged a good personal and working relationship. Officials in Dublin insist Mr Cameron has taken Irish concerns on board, though they say the lack of concern for the Irish dimension among Leave campaigners is staggering.

The other audience is Britain's Irish community. There are 430,000 Irish-born residents of England and Scotland, and perhaps several million UK citizens with Irish connections. Charles Flanagan, Ireland's foreign minister, makes no apologies for playing the Irish card with this community and urging a patriotic vote for the Remain campaign.

"I don't want to overstate the power or influence of the Irish vote; it is perhaps less than 10 per cent of the UK electorate," Mr Flanagan says. "We have a duty to inform the Irish community in the UK about the importance of the Irish dimension to the debate and that's what we are doing."

Not everyone is convinced Brexit would be catastrophic for Ireland, or that the Irish voice in the debate is loud enough to be heard. Eamon Delaney, executive director of the Hibernia Forum, a libertarian think-tank, says: "This idea that we would have any influence over how British voters might act is a bit delusional."

It might also be preaching to the converted. Mr O'Ceallaigh says it is finding echoes among the Irish in Britain, but may not reach the average British voter. Still, there is a consensus in Dublin that a British departure from the EU would change Anglo-Irish relations in unquantifiable ways. Rugby weekends may never be the same again.

vincent.boland@ft.com

Global healthcare. Emergency facility

World Bank launches pandemic fund

Money to be made available quickly to fight outbreaks of disease such as Ebola in 2014

SHAWN DONNAN — WASHINGTON
ROBIN HARDING — SENDAI

$500m
Value of World Bank pandemic insurance facility launched at the weekend

$7bn
Amount spent by international donors fighting the Ebola outbreak, according to the World Bank

$140bn
Average annual losses from disasters around the world, a tenfold rise since the early 1980s

Red Cross staff carry an Ebola victim's body in Monrovia, Liberia, 2014
Mohammed Elshamy/Anadolu/Getty Images

Outbreaks of diseases such as Ebola will trigger access to a $500m fund to fight infection after the World Bank launched the first insurance market for pandemic risk.

The aim of the Pandemic Emergency Financing Facility (PEF), unveiled at a Group of Seven finance ministers meeting in Japan, is to make funds instantly available for curbing the spread of particular infectious diseases, saving lives and money in the long term.

"We can't change the speed of a hurricane or the magnitude of an earthquake, but we can change the trajectory of an outbreak," said Jim Yong Kim, the epidemiologist who now heads the World Bank.

"With enough money sent to the right place at the right time, we can save lives and protect economies."

The Ebola outbreak in west Africa in 2014 left the international community scrambling for a response. Although its eventual containment is considered a global public health achievement, it came at a high cost.

The virus infected 28,000 people and killed 11,000, mostly in Guinea, Liberia and Sierra Leone. International donors, according to the World Bank, spent $7bn on fighting the disease.

The first $100m of that money was deployed in October 2014, by which time more than 5,000 people had already died, according to the bank.

It contends that, had the insurance fund existed, the first $100m could have been sent three months earlier by which point only 500 people had died and the outbreak might have been more easily contained. In that scenario, the entire cost of responding to the outbreak would probably have been $200m-$300m, or roughly 4 per cent of what was actually spent, calculates Keith Hansen, World Bank vice-president.

The PEF has a complicated financing structure and took 18 months to draw up. Donors such as Japan, which pledged $50m on Saturday, will fund insurance premiums for the World Bank's poorest client countries. Roughly half the $500m facility is being raised in the reinsurance market.

> 'With money sent to the right place at the right time, we can save lives and protect economies'
> Jim Yong Kim

The PEF will also use World Bank-issued pandemic catastrophe or "cat" bonds. Such bonds pay a higher coupon, but investors lose some income or capital if the catastrophe in question occurs.

It is designed automatically to pay funds to affected countries and health agencies when the number of infected people, deaths, and infected countries, and the growth trend of an outbreak meet certain thresholds, using publicly available data.

Mr Kim said the PEF would also include a cash window of roughly $100m to tackle diseases not included on the initial list, including Zika, the mosquito-borne illness that causes birth defects now spreading in south, central and North America.

Policymakers are increasingly focusing their efforts on better preparation for humanitarian disasters in order to mitigate their human and financial cost.

According to the World Bank, the average annual losses from disasters around the world have risen tenfold since the early 1980s to $140bn in the past decade. Experts also expect a daunting increase in the number of such events and of their impact due to climate change and growing populations in vulnerable areas.

Yet it usually takes an event such as the 2014 Ebola outbreak — and public alarm in rich countries about potential infection — to trigger significant action.

Amanda Glassman, director of global health policy at the Center for Global Development in Washington, said the new World Bank insurance mechanism would plug an important hole as the World Health Organisation has struggled for years to raise contingency funds for responding to pandemics.

But she also said that, because it would sit alongside facilities for responding to climate change and other problems, there was a risk that the World Bank was creating a series of parallel bureaucracies to respond to disasters. "One wonders why there has to be this sort of facility for every shock separately," she said.

The insurance provided, she pointed out, would also only be available to the World Bank's poorest client countries, those eligible to borrow from its International Development Association. That would mean that countries such as India, which graduated from IDA in 2014, would not be eligible for its funds in the event of an outbreak.

MAKE A SMART INVESTMENT
Subscribe to the FT today at ft.com/subscription

FINANCIAL TIMES
1 Southwark Bridge,
London SE1 9HL

Subscriptions & Customer service:
Tel: +44 207 775 6000, fte.subs@ft.com,
www.ft.com/subscribetoday
Advertising:
Tel: +44 20 7873 3794 asiaads@ft.com,
emeaads@ft.com
Letters to the editor:
Fax: +44 20 7873 5938,
letters.editor@ft.com
Executive appointments:
Tel: +44 20 7873 4909
www.exec-appointments.com

Published by: The Financial Times Limited, 1 Southwark Bridge, London SE1 9HL, United Kingdom. Tel: +44 20 7873 3000; Fax: +44 20 7407 5700. Editor: Lionel Barber.
Belgium; BEA Printing sprl, 16 Rue de Bosquet, Nivelles 1400.
Germany; Dogan Media Group, Hurriyet AS Branch Germany, An der Brucke 20-22, 64546 Morfelden - Walldorf. Responsible Editor, Lionel Barber. Responsible for advertising content, Dominic Good.
Italy; Poligrafica Europa, S.r.l, Villasanta (MB), Via Enrico Mattei 2, Ecocity - Building No.8. Milan.
Owner, The Financial Times Limited; Rappresentante e Direttore Responsabile in Italia: I.M.D.Srl-Marco Provasi - Via G. Puecher, 2 20037 Paderno Dugnano (MI), Italy. Milano n. 296 del 08/05/08 - Poste Italiane SpA-Sped. in Abb.Post.DL. 353/2003 (conv. L. 27/02/2004-n.46) art. 1 .comma 1, DCB Milano.

Spain; Fabripress, C/ Zeus 12, Polígono Industrial Meco-R2, 28880 Meco, Madrid. Legal Deposit Number (Deposito Legal) M-32596-1995; Publishing Director, Lionel Barber; Publishing Company, The Financial Times Limited, registered office as above. Local Representative office; C/ Infanta Maria Teresa 4, bajo 2, 28016, Madrid. ISSN 1135-8262..
UAE; Al Nisr Publishing LLC, P.O.Box 6519. Dubai. Editor in Chief: Roula Khalaf. Origin of publication, twofour54, Media Zone, Abu Dhabi.
France; Publishing Director, Dominic Good, 40 Rue La Boetie, 75008 Paris, Tel. +33 (0)1 5376 8256; Fax: +33 (01) 5376 8253; Commission Paritaire N° 0909 C 85347; ISSN 1148-2753.
Turkey; Dunya Super Veb Ofset A.S. 100. Yil Mahallesi 34204, Bagcilar- Istanbul, Tel. +90 212 440 24 24.

©Copyright The Financial Times 2016.
Reproduction of the contents of this newspaper in any manner is not permitted without the publisher's prior consent. 'Financial Times' and 'FT' are registered trade marks of The Financial Times Limited.

The Financial Times adheres to a self-regulation regime under the FT Editorial Code of Practice:
www.ft.com/editorialcode

Reprints are available of any FT article with your company logo or contact details inserted if required (minimum order 100 copies).
One-off copyright licences for reproduction of FT articles are also available.
For both services phone +44 20 7873 4816, or email syndication@ft.com

Tunisia

Major party ditches 'Islamist' label to concentrate on politics

HEBA SALEH — CAIRO

Tunisia's Nahda party, a member of the governing coalition and the biggest force in parliament, has ditched its "Islamist" label, saying it would end its religious activities and devote itself solely to politics.

The change, adopted in a vote by an overwhelming majority of delegates at a weekend party conference, is unprecedented in the region for an Islamist group. It also marks another milestone in the evolution of a once-repressed movement persecuted under the secular dictatorship of Zein al-Abidine Ben Ali but which staged a strong comeback after the country's 2011 revolution.

Under founder Rachid Ghannouchi, Nahda has struck a historic bargain with influential secular groups which prevented the country's democratic transition from unravelling and helped make Tunisia the only success story among Arab countries which staged uprisings in 2011.

Addressing the Nahda conference, held in a stadium and attended by 1,300 delegates, Mr Ghannouchi said: "Nahda has evolved from defending identity to ensuring the democratic transition, and today moves on to focus on the economic transition."

He said also said that religion would be kept apart from "political struggles" and mosques should be completely neutral and play no role in politics.

A compromise constitution adopted in 2014 does not mention the implementation of Islamic law and preserves gains achieved by women in previous eras such as the banning of polygamy. Unlike other Islamist groups in the region, Nahda says its struggle is no longer motivated by the preservation of the country's Islamic identity but by the need for good governance and economic development.

Osama Sghaier, a spokesman of the party, said Nahda said the issue of Tunisia's identity was already settled by the constitution. He said the party wanted to shed the "Islamist" tag so as not to be grouped together with violent groups. "We are Muslim democrats," he said.

Monica Marks, a Tunisia specialist, argued that the move was a "formalisation of a long-brewing trend within the party". "I see this as mainly about messaging," she said. "They don't want to be lumped into the same category as al-Qaeda and Boko Haram. They want to be more like the Christian Democratic Party in Germany, or the AKP in its early version in Turkey.

"All the same, religious identity will still play a role. Conservative Tunisians who believe that religion has a role in public life will gravitate to Nahda, whose internal culture will remain Islamist. For instance, the delegates to the conference are being hosted in hotels which do not serve alcohol."

In the early years of the transition, when Nahda was the main party in government, it came under intense criticism from secular groups who accused it of being soft on extremist factions.

Rachid Ghannouchi at the Nahda conference in Tunis — Fethi Belaid/Getty Images

The killing of two secular politicians by radicals in 2013 led to demonstrations against the party and calls for steps taken in the transition, such as the election of a constitution-drafting assembly, to be annulled. Subsequent negotiations saved the transition, but many secular Tunisians remain suspicious of Nahda.

Bochra Belhaj, an independent secular member of parliament, said: "This is a positive move, but we will have to see what it will mean in reality. Specifically, I want to see if they stop supporting hardline religious associations which have praised terrorism in the past."

Mr Sghaier said all elected cadres in the party hierarchy were banned from involvement in civil society groups such as religious or charitable associations.

He said: "If you want to be in politics you can, and if you want to be in civil society, that is also possible, but you can't do both. In the past, we struggled to be present wherever we could, but now this decision conforms to a democratic choice and to the law and to the constitution."

Interview. Henrique Capriles

Maduro rival rallies revolt in Venezuela

Opposition leader is heading calls for a vote that could oust country's unpopular president

ANDRES SCHIPANI — CARACAS

Henrique Capriles is clear about how to stop the economic, political and social disaster unfolding in Venezuela, which led to renewed clashes on the streets of Caracas this month.

"The crisis Venezuela is living won't be solved with Maduro in office, with this system in place," the opposition leader and former presidential candidate told the Financial Times.

Mr Capriles is leading an effort to remove Nicolás Maduro, Venezuela's unpopular president, through a recall referendum. But the government will not go easily. Mr Capriles was pepper-sprayed by security forces this month as he led a march to put pressure on Venezuela's electoral board to accept a petition signed by some 1.8m people calling for the referendum to oust Mr Maduro.

"They left me almost blind," he said.

Last week he defied a state of emergency decree from Mr Maduro to join the latest bout of anti-government demonstrations, which flared into a violent confrontation with the police and national guard.

After he narrowly lost a disputed election to Mr Maduro three years ago, and following deadly protests that rocked the country in 2014, the moderate Mr Capriles lost ground to the fiery opposition leader Leopoldo López, who is now in prison after urging frustrated Venezuelans to take to the streets.

But as the recall referendum to remove Mr Maduro advocated by Mr Capriles gains ground, analysts say the two opposition leaders are tied in popularity. "He is back in the game, and very much so. His bet is paying off," said Luis Vicente León, a leading pollster.

"Capriles took the more realistic avenue, the best of the options: to make people sign, then vote, and finally press for their rights. But with repression here it's tricky. If the opposition doesn't apply pressure, there won't be a recall vote, if it presses too much and things blow, there won't be one either."

Tensions have been rising in Venezuela as queues for scarce basic goods continue to lengthen. Looting has become common. Mr Capriles fears that the only catalyst for regime change is a potential social explosion. "Maduro is saying, 'Well, oust me if that's what you want'," he said.

"That is highly dangerous, he is fanning and fuelling the political conflict."

Mr Maduro accuses the opposition of plotting a coup. Last week he predicted that they would attempt to depose him violently in the manner of Libya's Muammer Gaddafi and has ordered military drills "to defend the fatherland".

"Do you realise the scenario they are preparing?" Mr Maduro said. "The same they did with Gaddafi. They will say Maduro threw the tanks and jets against the opposition, so to invade Venezuela."

For Mr Capriles, this is all part of Mr Maduro's plan. "He is playing to stay in power. But he is also making sure that any power change does not come democratically, so history gives him the opportunity of being portrayed as the victim of a coup. We can't allow that or fall into that trap, we need to insist that he is removed democratically."

A recall referendum provides a mechanism to remove the sitting president, but it requires the approval of the government-dominated national electoral council. Deputy Aristóbulo Isturiz has ruled out any such vote.

Luis Almagro, head of the Organisation of American States, did not mince words last week when he told Mr Maduro: "To deny the people that vote, to deny them the possibility of deciding, would make you just another petty dictator, like so many this hemisphere has had." Mr Maduro called him a "traitor".

Mr Maduro's predecessor Hugo Chávez, who died in 2013, survived a recall vote in 2004. This time the movement for a referendum takes place against a background of widespread dissatisfaction with the Venezuelan leadership, ructions within the armed forces and talk of a palace coup by insiders.

"Many senior officers are under suspicion of involvement in organised crime and could be prosecuted if the government lost power," according to the US-based advisers Teneo Intelligence. "The majority of middle-ranking officers would only act against the elected president in extreme circumstances."

Mr Capriles said: "I think the armed forces are in a delicate situation. I imagine many military people do not want to repress people. I think the armed forces are facing a decisive hour on what do they want to do. We are not asking them to intervene but to make sure the constitution is respected."

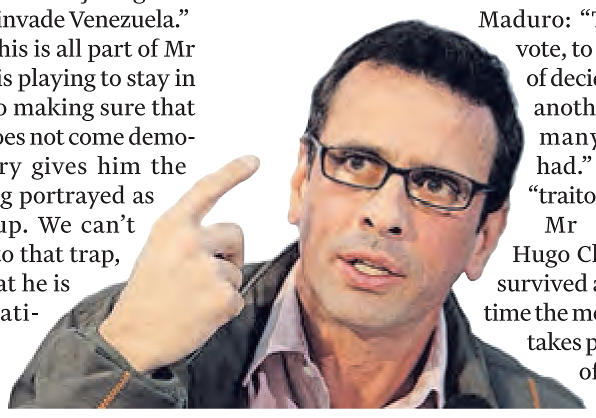
In a referendum, the opposition needs to secure more than the almost 7.6m votes Mr Maduro received in the April 2013 presidential election. Mr Capriles is confident — some say too confident — that he will surpass that. In December, the opposition secured more than 7.7m votes in legislative elections.

"The demands from the people today are food first, then the recall referendum," he said. "If we go to a recall vote even the cats will vote to remove Maduro. We may get 10m votes."

If that happens this year, it should prompt fresh elections to choose the transitional president who would finish Mr Maduro's term. Mr Capriles ducks the question of whether he would accept the job of interim president. But "these could be the two years that will save the nation", he said.

For Mr Capriles, if there is no recall vote, "they will be blocking the only democratic solution we have now. That will be throwing petrol on to the fire."

> 'These could be the two years that will save the nation'



Recall push: a rally in Caracas last week demanding a referendum. Below, Henrique Capriles — Carlos Garcia Rawlins/Reuters

INTERNATIONAL

Boston Fed chief backs case for gradual rate increases

Rosengren has altered dovish course amid improved financial data since March

SAM FLEMING — WASHINGTON

Until late last year Eric Rosengren was viewed by the financial markets as one of the more steadfastly dovish of senior Federal Reserve policymakers.

More recently the changing economic weather has prompted the Boston Fed chief to alter course, and he has recently been warning traders they were underestimating the central bank's willingness to lift interest rates.

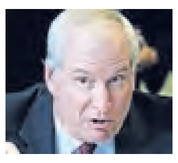
In an interview with the Financial Times, Mr Rosengren last Friday said demands in prior years for ultra-aggressive monetary stimulus had been vindicated as the US economy springs forward with "a little more alacrity" than its trading partners. Now the picture is changing, however.

"Because we are closer to full employment and because we are closer to our inflation target I am more confident now that a more normalised situation makes sense," he said.

That meant not only backing the Fed's December rate increase but coming forward as a supporter of further gradual moves — with the second rate increase potentially coming next month.

The markets have been burnt by hawkish signalling from the Fed before — which partly explains why traders have been sceptical that the central bank will deliver anywhere near as much tightening as its policymakers' March median forecasts suggested.

Going into last week, investors were putting odds of just 4 per cent on a rate rise in June. Then came the Fed's April minutes, and a strong signal that an increase will be an option at the rate-setting meeting on June 14-15.



Eric Rosengren: traders have underestimated the central bank's willingness to lift interest rates

Going up: consumption is improving as US returns to near full employment
Andrew Kelly/Reuters

"The reason they should believe this time is different is that the economic conditions are changing over this period," Mr Rosengren said, referring to the spell since the Fed's March meeting.

Financial markets have improved markedly since March, while US consumers, who drive two-thirds of growth, have been showing greater verve, he explained. Consumption forecasts for the second quarter were in the range of 3 per cent to 3.5 per cent, which points to broader growth of about 2 per cent, he argued. Meanwhile, the labour market was continuing to motor steadily forward — even if payroll growth was softer, at 160,000 in April — while inflation was making progress towards the Fed's 2 per cent goal.

"Stock markets globally have improved quite significantly. The data has been coming in better and not only in the United States but in many other parts of the world. Some of the headwinds we thought might be a significant problem as recently as March seem to be a little bit less of a significant problem as we go into June," Mr Rosengren said.

Britain's referendum on EU membership on June 23 should not stand in the way of US monetary policy changes, he added, unless it triggered a major bout of market instability. "Votes by themselves shouldn't be a reason for altering monetary policy."

With the Fed funds rate still at roughly 35 basis points, "that is pretty low given we are pretty close to full employment", he said, while cautioning that he was not prejudging economic data that will emerge before mid-June.

"If you think the economy is improving and you think you are going to get growth a little bit above 2 per cent and you think labour markets are going to tighten and we are going to hit our 2 per cent inflation target, then that is an environment where a more normalised interest rate path makes sense."

Mr Rosengren has also been outspoken in warning about possible side-effects from ultra-low interest rates in the property sector. In Boston, as in other big cities, it has manifested in rising commercial real estate prices.

Mr Rosengren said last November that if trends in commercial property continued unabated it could become an argument for a somewhat quicker pace of interest-rate increases by the Fed.

FT poll
Economists expect imminent policy move

More than half of economists expect the Federal Reserve to tighten monetary policy at one of its next two meetings, in stark contrast to market views at the start of the month when expectations were for the US central bank to wait until 2017.

Fifty-one per cent of the 53 leading economists surveyed by the Financial Times said they believed the Fed would lift rates in June or July after the release last week of the minutes of its April policy setting meeting.

Many of the economists who spoke to the FT said the move would be dependent on several economic reports over the coming weeks — including data on payrolls, retail sales and consumer spending.

Despite a lacklustre start to the year, several indicators have improved since the first-quarter. Retail sales and industrial production accelerated in April, a preliminary reading of consumer confidence rebounded in May to its highest level in nearly a year, and inflation firmed.

"The Fed has positioned itself very firmly if the data improve back to moderate," said Lindsey Piegza, an economist with Stifel Nicolaus. "They are not looking for a strong economy or a solid economy, they are looking for moderate."

The FT survey, conducted between May 18 and 20, nonetheless underlined some division between economists, with more than a third saying the Fed was likely to wait until September before it next tightens policy.

Many economists warned that a series of events in June could rekindle market volatility. Two-fifths of the economists surveyed said the UK referendum on its membership of the EU, which is to be held days after the Fed's June policy meeting, was enough to keep rates on hold.

More than 90 per cent of economists said the Fed would lift rates once or twice this year. But none expected more than three 25 basis point rises in 2016. *Eric Platt, New York*

Election run-off

Austrian presidential rivals neck and neck

RALPH ATKINS — VIENNA

Austria's presidential election was too close to call yesterday after a heated campaign that saw a surge in support for the far-right nationalist candidate

The Freedom party's Norbert Hofer gained popularity amid widespread disappointment with Austria's mainstream parties, as well as fears over the influx of refugees from countries such as Syria who have passed through Austria.

But projections by the ORF broadcaster, with almost all the votes counted in yesterday's run-off, showed Mr Hofer neck-and-neck with Alexander Van der Bellen, his Green party opponent, with each winning 50 per cent of the vote. The final result might not be clear until postal votes are counted today.

Mr Hofer's election would alarm mainstream politicians in other European countries who in the past have shunned Austria's Freedom party, which was founded in the 1950s by former Nazis.

However, the final few days of the campaign appeared to have seen last-minute gains by Mr Van der Bellen, 72, an academic whose parents fled the Soviet Union and who attempted to mobilise an anti-Freedom party majority during the campaign.

The president's role is traditionally largely ceremonial. But the next resident of Vienna's Hofburg Palace could try to create a rival power centre to Christian Kern, who took over last week as Austria's Social Democratic chancellor and head of government.

The Freedom party rose to prominence in the 1990s under the charismatic Jörg Haider, who died in a car crash in 2008. European allies attempted to ostracise Austria when Mr Haider joined the government in 2000.

The party is often accused of xenophobic policies and of whitewashing the country's Nazi history. Recently, however, it has sought to portray itself as pro-Israel and has warned about excessive Islamic influences on Austria.

In its final campaign rally on Friday, Heinz-Christian Strache, the party's leader, said Mr Hofer would bring "fresh wind" to the country. The "fug" created by establishment parties had "paralysed us for too long", Mr Strache said.

Mr Hofer said he would be a president "for Austria" as well as of Austria.

His opponent, Mr Van der Bellen, portrayed the election as a choice between political co-operation or the Freedom party's "authoritarian style".

Since 1945, the Austrian president has been either a candidate of the centre-left Social Democrats or the centre-right People's party. But support for the main parties, which currently form a "grand

Norbert Hofer said he would be a president 'for Austria' as well as of Austria

coalition" government, has declined sharply in recent years.

Although Austria is among Europe's most affluent and stable countries, its high taxes and public spending are widely criticised by business leaders — and unemployment is rising.

Initially, Austria sided with German chancellor Angela Merkel in supporting the hundreds of thousands of refugees seeking asylum in Europe. Most passed through Austria and on to Germany or other destinations such as Sweden.

But the strain on Austria's infrastructure and voters' fears that the government had lost control over the inflows forced a policy reversal. Earlier this year, Austria secured agreement with neighbouring countries on blocking immigration flows along the so-called "Balkan route".

In the first round of the presidential election on April 24, Mr Hofer surprised pundits by winning more than 35 per cent of the vote. The candidates of the Social Democrats and People's party were pushed into fourth and fifth place.

Berlin-Ankara tensions

Merkel criticises Turkey vote

GUY CHAZAN — BERLIN

Angela Merkel, German chancellor, has condemned the move by Turkey's legislature to strip nearly a third of its lawmakers of parliamentary immunity, in a sign of the increasingly fractious relations between Berlin and Ankara that pose a risk to the recent deal to stem the flow of refugees into Europe.

In an interview with the Frankfurter Allgemeine Zeitung newspaper, Ms Merkel said she was "deeply concerned" by the vote in Turkey's parliament on Friday. She added it would have "grave consequences, especially for Kurdish politicians". Ms Merkel will raise the issue at a meeting with Recep Tayyip Erdogan, Turkey's president, today in Istanbul, where she is attending a UN emergency aid conference.

The vote in Turkey has paved the way for the prosecution of more than 100 opposition politicians over various allegations, from supporting terrorism to insulting Mr Erdogan. The measure will mean 46 of the 59 pro-Kurdish People's Democratic party's MPs face prosecution for supporting the outlawed Kurdistan Workers' party.

Ms Merkel's criticism comes amid fears over the future of the refugee deal struck in March. Under the deal, Turkey agreed to take back those who enter the EU illegally through Greece. Brussels also offered Ankara a swath of benefits, ranging from €6bn in aid to the prospect of visa-free travel within the EU.

Ms Merkel said the deal was working, with 90 per cent fewer refugees arriving in Greece via a route that since early 2015 had been used by about 1m people.

But domestic critics say the deal has put Germany under Mr Erdogan's thumb. There are also fears the visa-free offer may be at risk after Mr Erdogan said he would not change Turkey's anti-terrorism laws, a condition of the deal.

Energy production. **Electricity**

Powerless Syrians get on their bikes

Siege living has led to a surge in the use of solar panels, cycle generators and plastic-bag fuel

NOAM RAYDAN AND ERIKA SOLOMON
BEIRUT

Rami al-Sayyed used to pedal his bike for two hours every day — not for the exercise, but to charge his laptop.

After surviving air strikes, street battles and endless sieges, Syrians have given a new meaning to the term "alternative energy". Many know how to get by on just a few hours of power a day. And in the areas around the capital, Damascus, where hundreds of thousands of Syrians are living under a four-year regime siege with almost no electricity at all, people have found ways to make their own power — through solar panels, fuel made from plastic bags and even bicycle-powered batteries.

Mr Sayyed and many of his neighbours started generating electricity with bicycles about three years ago, although he says less exhausting methods are fortunately becoming more common. The cycling was particularly hard during periods when government forces banned aid groups from bringing food to Yarmouk, his Damascus suburb, for months at a time. "It was hard to pedal when I was hungry," he told the Financial Times in a phone interview.

But he also says the shortages have strengthened community spirit. During last year's Ramadan, neighbours combined their efforts so they could watch the new soap operas released during the Muslim holiday. "They would come together to watch the TV, put up a bicycle and take turns pedalling."

Syria's five-year war started as a peaceful uprising against President Bashar al-Assad's rule but has long since degenerated into a conflict that has killed more than 300,000 people and forced half the population from their homes. With no end in sight, Syrians are always seeking ways to make their days more liveable.

In the south, many shops sell solar panels for \$20-\$200, depending on quality and size. Omar al-Golani, a media activist in Kwdana, says most Syrians cannot afford them but they find ways to scrape together enough cash when the summer heat comes.

"The poor will borrow money to buy them, or sell their food rations [from aid groups]," he says.

Most parts of Syria still have some electricity, as Assad's forces cannot cut power to many areas held by rebels — or even by Isis — for fear that their enemies could in turn cut supplies to areas under regime control. However, outside Damascus, infrastructure damage across the country is now so severe that even these fragile agreements ensure no more than a few hours' power each day.

In the northern province of Idlib, Ahmad al-Dbei, a hospital director, hopes to get charity funding for 250 solar panels to power his clinic. For war-weary northerners, where some of Syria's heaviest fighting has taken place, many civilians worry that even solar panels are a risky expense. "People fear that the air strikes will destroy panels on the roof," Mr Dbei says.

A few are experimenting with wind energy, says Khaled Issa, who is also from Idlib: "They buy fans, or make their own, and place them on the roof."

Solar panels provide electricity for shelters at a refugee camp in Aleppo

In the besieged suburbs around Damascus, locals must rely on less environmentally friendly options. Since late 2013 people have converted plastic into fuel, and scavenging for plastic bags and scraps has become a business. "Some of them collect the plastic, others grind it, and others burn it," Mr Sayyed says.

But some residents say the burnt and cooled liquid plastic, which can be made into diesel or kerosene replacements, has led to a rise in respiratory conditions. "The stench is so bad, I can sometimes smell it from my neighbourhood. I can't imagine the diseases it will give their children," said a woman in Damascus living near the suburbs, who asked not to be named.

Nearly all Syrians have switched to using LED lights, which last a long time, are cheaper than candles and can be powered with a car battery.

In northern Syria, entrepreneurs and militant groups buy oil produced by Isis in eastern provinces to power large generators. They then charge subscribers for the amount they use — but the typical monthly cost per household is 15,000 Syrian pounds, more than half of the average civil servant salary and well beyond the means of nearly 85 per cent of Syrians, who now live below the poverty line.

INTERNATIONAL

China's economy

Beijing steps up battle against banks' bad debt

Loan-for-equity swap programme soars in value to more than $220bn

DON WEINLAND — HONG KONG

Beijing has stepped up its battle against bad debt in China's banking system, with a state-led debt-for-equity scheme surging in value by about $100bn in the past two months alone.

The government-led programme, which forces banks to write off bad debt in exchange for equity in ailing companies, soared in value to hit more than $220bn by the end of April, up from about $120bn at the start of March, according to data from Wind Information.

Industry watchers have fiercely debated how far Beijing will go to recapitalise the financial system, with bad loans taking up an ever higher percentage of banks' balance sheets — as much as 19 per cent by some counts. The latest figures for the debt-to-equity swap, and a debt-to-bonds swap initiated last year, show a subtle bailout is under way.

"One can argue the government-led recapitalisation is already happening in an atypical way and thus reducing the need for recapitalisation in its written sense," said Liao Qiang, director of financial institutions at S&P Global Ratings in Beijing.

Chinese media reported that up to Rmb4tn ($612bn) had been approved in 2015 for the debt-to-bonds swap, which has seen state-controlled banks trade short-term loans to companies connected to local governments in exchange for bonds with much longer maturities.

That programme has been hailed a success in that it relieved the pressure on local governments that were forced to take out bank loans to proceed with public works projects in the absence of municipal bond markets.

The debt-to-equity project has received far less enthusiasm from analysts, who say that coercing banks to become stakeholders in companies that could not pay back loans will further weigh down profits this year. Mr Liao says the efforts undermine rather than underpin stability at banks.

The programmes are just two fronts in Beijing's battle against bad debt.

The state-controlled asset management companies that bailed out the country's four national commercial banks 15 years ago have become increasingly active over the past two years in buying up portfolios of bad debt. Regional asset managers run by provincial governments are doing the same business on a local level.

The government is also expected to allow the sale of a trial batch of securitised bad debt valued at Rmb50bn this year. The efforts have even gone online, with debt managers hawking off bad loans on China's biggest online retail site.

The average rate of non-performing loans at China's commercial banks hit an official 1.75 per cent at the end of March, according to the banking regulator. That marks the 11th straight quarter that the government-approved figures have risen.

But the official data do not include a much larger stockpile of zombie loans that some analysts say could in future require a more formal bailout for the banks.

Francis Cheung, analyst at CLSA, estimates that bad debt accounted for 15-19 per cent of banks' loan books at the end of last year and that the government may have to add Rmb10.6tn of new capital to the banking system, or 15.6 per cent of gross domestic product.

Chinese tourists in Tokyo. In April, Japan received more than 2m tourists — the most in a single month — Tomohiro Ohsumi/Bloomberg

Strong yen

Japan's stores hit by loss of cheap frills for China tourists

Tourist spending in Japan's department stores has dropped for the first time since the start of Abenomics as the stronger yen and a tougher customs regime turn Chinese visitors away from gold watches and handbags and towards nappies and face cream.

Fears are growing that the stronger currency, which is up about 12 per cent on last summer, may now threaten Japan's tourism boom.

Analysts say government plans to more than double tourism numbers and spending — to 40m and ¥8tn ($73bn) by 2020 — are looking increasingly fragile, and that a long spell of yen strength could even begin to hurt absolute tourism numbers when the floundering Abenomics programme of prime minister Shinzo Abe needs them most.

"The recovery in Japanese economic conditions will be extremely weak if inbound tourism falls off," said Hiroshi Watanabe, an economist at SMBC Nikko Securities.

"It also exposes the limits of Abenomics, which has been too reliant on the weaker yen."

April's decline in tourist spending, which included a 9.3 per cent year-on-year fall in spending by foreign visitors at Japan's most glamorous retailers, came despite a record surge in the overall number of tourist arrivals and a 7.8 per cent year-on-year rise in the numbers visiting Japan's department stores. That paradox has led retailers to fret that a long dreaded moment has now arrived — when Chinese visitors, who have made up a quarter of this year's arrivals, switch from being bulk-acquirers to cherry pickers.

An additional drag on department store sales, analysts say, has been a newly toughened customs regime in China. Introduced in early April, it aims to crack down on those returning with luxury goods to resell — and an increasing proportion of Chinese visitors are now touring Japan for the second or third time.

While luxury goods sales have suffered, Chinese tourist spending on cosmetics remains robust. Oliver Matthew, a retail analyst at CLSA in Tokyo, said there was an "implied shift in purchase patterns". Shiseido, a cosmetics maker that has been a notable winner from the tourism boom, raised its annual target for sales to foreign tourists by 30 per cent to ¥34bn.

In April, Japan received more than 2m tourists — the most in a single month and more than twice the number that arrived in April 2013, when Mr Abe had recently become prime minister and his effort to revive the Japanese economy had just begun.

The sustained weakness of the yen between 2013 and earlier this year had a resounding impact on tourism, briefly making the price of the hottest luxury goods lower than in Hong Kong. *Leo Lewis and Kana Inagaki, Tokyo*

US air strike

Afghan Taliban leader reported killed

GEOFF DYER — WASHINGTON
FARHAN BOKHARI — ISLAMABAD

A US air strike has killed Mullah Akhtar Mansour, the leader of the Afghan Taliban, Afghanistan's intelligence agency and a senior commander in the militant group have said.

Afghanistan's National Directorate of Security said in a statement yesterday that Mullah Mansour had been killed in an attack in neighbouring Pakistan the previous day, Associated Press reported.

Mullah Abdul Rauf, a Taliban commander, also confirmed the death although he said the strike had taken place on Friday night, according to the AP report.

Pentagon press secretary Peter Cook said in a statement on Saturday that Mullah Mansour was the target of a US air strike in a "remote area of the Afghanistan-Pakistan border" and the results were still being assessed. A US official later said it was "likely" Mullah Mansour had been killed in the strike.

The strike could further hamper the already stalled talks between Kabul and the militant group.

Mullah Mansour posed a "continuing threat to US personnel in Afghanistan and to Afghans", John Kerry, US secretary of state, said yesterday during a trip to Myanmar.

The death of Mullah Mansour could spark tensions within the Taliban, some of whose factions had questioned his leadership.

Retired Major General Mahmud Durrani, a former national security adviser

Mullah Akhtar Mansour, head of the Afghan Taliban, had been 'an obstacle to peace'

to the Pakistani prime minister's office, said: "Afghanistan is a mess. Prospects for peace were already dim and this latest development makes Afghanistan even more uncertain."

He added: "The Taliban seem to be making military advances in Afghanistan. After Mullah Mansour's death, his successor will find it hard to join any peace process in the near future."

Mullah Mansour publicly took control of the Taliban last year after revealing that Mullah Omar, its founding leader, had been dead for the previous two years. Since then, there have been reports of fierce power struggles within the organisation.

Mr Cook said since Mullah Mansour became leader of the Taliban, the group had "conducted many attacks that have resulted in the death of tens of thousands of Afghan civilians and Afghan security forces as well as numerous US and coalition personnel".

He added that Mullah Mansour had been "an obstacle to peace and reconciliation between the government of Afghanistan and the Taliban" and had prohibited Taliban leaders from taking part in talks to end the conflict.

The drone strike, authorised by US President Barack Obama, took place at about 6am. A second man travelling with Mullah Mansour is also believed to have been killed.

The operation underlined the continued involvement of the US military in Afghanistan, despite the Obama administration's plans to pull out. With the Taliban remaining a potent military force in parts of the country, Mr Obama announced last year that 5,500 US troops will remain in Afghanistan after he leaves office next January.

Trade complaints

US becomes biggest filer of anti-dumping cases

SHAWN DONNAN
WORLD TRADE EDITOR

The US has overtaken India as the leading user of anti-dumping and other trade defence cases, with China and its steel sector the biggest target, according to new research.

The data highlight the growing anxieties in some sectors of industry about what they see as unfair competition from Chinese rivals.

The research comes at a time of increasing anti-China rhetoric in US politics, and ahead of three politically sensitive anti-dumping cases this summer against Chinese steel imports that could result in the US imposing punitive duties of as much as 500 per cent.

But the developments also point to the vast gap in the use of such cases between the US and EU, where a debate is under way over whether to grant China "market economy" status in the World Trade Organisation, a concession that would make it even harder to bring anti-dumping cases.

According to the annual Global Trade Protection Report, companies in the US filed 43 anti-dumping cases in 2015 and a further 22 anti-subsidy investigations aimed at securing countervailing duties. The US took the lead in both areas, overtaking India and Brazil, which launched the most cases in 2014 and 2013. The EU filed just 12 anti-dumping cases in 2015, two less than the year before.

Cliff Stevenson, an anti-dumping expert who publishes the report based on data filed with the WTO, said the surge in US cases was driven largely by steel groups. US companies had also filed anti-dumping complaints against an increasing range of countries, from China to Australia, the UK and the Netherlands.

Metals cases made up a record 46 per cent of the 233 anti-dumping actions brought worldwide in 2015, with the steel industry accounting for almost all of the metals complaints.

Anti-dumping cases were much easier to bring in the US than in the EU where companies first have to pass a public interest test. But Mr Stevenson said "this might reflect [the fact] that the US is being bolder than the EU in protecting domestic steel producers".

The US and European steel industries have accused China's heavily subsidised sector of flooding the global market, "dumping" steel by selling below production costs and driving down international prices. The collapse in steel prices in recent years has caused the closure of mills across the world.

China denies wrongdoing and says it is working to tackle problems of industrial overcapacity that have become more acute as its economy has slowed.

The issue has also hit Beijing's efforts to secure market economy status in the WTO, which it claims it will be entitled to automatically on its 15th anniversary of joining, in December.

FT BIG READ. HEALTH CARE

Families of boys suffering from Duchenne muscular dystrophy are pushing for approval of a new medicine despite scientists' scepticism. The case highlights the difficulty of developing treatments for rare illnesses.

By David Crow

Power to the patients?

Stacie al-Chokhachi and her son, Dalton, 11, listen to testimony on the use of Eteplirsen with hundreds of other Duchenne sufferers and family members at an FDA meeting in April New York Times/Eyevine/Redux

Austin Leclaire steered his electric wheelchair into the hotel ballroom and prepared for what he would later describe as the proudest moment of his life. Upon taking the microphone, the 17-year-old pleaded with US regulators to approve an experimental drug for the deadly wasting disease he suffers from. "It lets me feed myself, it gives us a chance," he told the assembled scientists and doctors. "It's time to listen to the real experts."

Austin has Duchenne muscular dystrophy, a rare genetic disorder that sends its victims — almost all of them boys — to an early grave, usually before they are 25. He was one of more than 150 sick children to attend a meeting organised by the US Food and Drug Administration last month, where it discussed whether to give the green light to Eteplirsen, the first medicine for the disease.

The FDA is due to announce on Thursday if it has approved Eteplirsen, a ruling that is being billed as one of the biggest tests of the agency's ability to operate in an era of "patient power".

The parents of Duchenne sufferers and their doctors are united in calling for the medicine to go on to the market, most likely with a price of several hundred thousand dollars a year per patient. But there is deep scepticism among the FDA's scientists and others in the medical establishment, who say there is scant evidence the drug works.

"If this drug is approved — on the skimpiest, most pathetic data I've ever seen — then it is going to set a precedent that is very uncomfortable," says Diana Zuckerman, president of the National Center for Health Research.

> 'The FDA felt tricked. They felt they were led along in an unfair way, and there's some resentment about that'

Sarepta, the Boston biotech group that makes Eteplirsen, is trying to secure a positive verdict from the FDA using a clinical trial in which the drug was tested on 12 boys, a tiny sample of patients even for a rare disease. When the company started the trial in 2011, it said it could not afford to make enough of the medicine to do a larger study.

Duchenne sufferers, who number between 9,000 and 12,000 in the US, do not produce dystrophin, a protein that works as a shock absorber to stop muscles from wasting away. The disease progresses in a way that is all but unbearable for the patients and their parents. When young, the children fall over more than their peers and struggle to climb stairs or run. By the time they are 12, most are confined to a wheelchair. The cause of death is usually respiratory or heart failure.

Modifying code

In theory, Eteplirsen makes the body produce a type of dystrophin by altering a faulty piece of genetic code. It is intended for 13 per cent of patients who have a specific genetic defect, but if the drug works then Sarepta thinks it could use the technology to help many more boys. No one argues that the medicine will stop or reverse the disease but proponents claim it can slow its progression so patients live fuller, longer lives.

Whether one believes that Eteplirsen works depends on who is best placed to judge — regulators or the patients who have taken the medicine. Who, as Austin puts it, are the "real experts"? Although Sarepta is seeking approval based on data from 12 boys, the drug has been given to at least 100 more, and all their parents have reported a significant improvement.

Such a level of support for a new drug is rarely seen, let alone in a disease where there are so few sufferers. The FDA had to move last month's meeting from its campus in a suburb of Washington DC to a nearby hotel so it could accommodate the more than 1,000 advocates who turned up to press for approval. Over nearly three hours, more than 50 of them took the microphone to lobby the FDA.

Jenn McNary, with her sons Austin, left, and Max in 2012. Max has been able to continue walking, she says, because of Eteplirsen — New York Times/Eyevine/Redux

Jenn McNary, Austin's mother, has two sons on Eteplirsen. Her youngest, Max, 14, was part of the "Columbus 12", the trial that Sarepta is using as the basis for approval; the nickname comes from the Ohio state capital where the study was conducted.

She says she has seen an "incredible amount of benefits in both boys". Max is still walking, while Austin, who was in a wheelchair before he started taking the drug, can grasp objects and raise his hand above his head.

If the improvements in Ms McNary's children and other Duchenne sufferers are being brought about by the drug, then it would be reasonable to assume their muscles are wasting more slowly than before, and that they might ultimately live longer.

The six-minute test

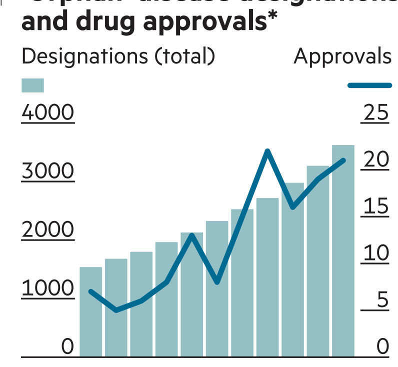
Yet the contrast between the experiences reported by the parents and the opinion of FDA scientists could not be starker. Staffers from the agency's neurology division, charged with reviewing Sarepta's application, have spent much of the past four years pushing the company to do bigger and better clinical studies, without success. Now the FDA must base its decision on the "Columbus 12" trial.

The trial was not only tiny but badly flawed, according to the FDA reviewers. Initially, four boys were given a placebo instead of Eteplirsen but the company started giving them the drug 12 weeks later — before it had established whether it was working in the other patients.

The actions flouted one of the tenets of drug testing: that some patients should be given a placebo to ensure the others are in fact responding to treatment, rather than other factors, like hope or family pressure.

To determine whether the drug was working, researchers measured how far the boys could walk in six minutes. In the absence of placebo data, they had to compare their findings with the histories of Italian and Belgian Duchenne sufferers who purportedly had similar characteristics — a technique fraught with statistical imperfection.

'Orphan' disease designations and drug approvals*



* 'Orphan' diseases are those affecting less than 200,000 people
Sources: FDA; EvaluatePharma Orphan Drug Report 2015

Worse still, Sarepta said two boys who stopped walking shortly after taking the drug should be discounted from the results.

Researchers working on the Sarepta trial also completed muscle biopsies and reported that the boys were producing very high levels of dystrophin. But following an FDA inspection, regulators discovered that imperfect methods had produced results that were highly misleading: the levels were much lower — just 0.9 per cent of what a healthy child would produce, versus the 50 per cent the company had claimed.

Over time, relations between the FDA and Sarepta soured, so much so that in April the company replaced its chief executive in an attempt to restore trust. "The FDA felt tricked," says Brad Loncar, an independent biotech investor who does not hold shares in Sarepta. "They felt they were led along in an unfair way and there's some resentment about that."

> 'If there is not a path forward for Sarepta, we'll also lose hope that other Duchenne companies will press ahead'

At the end of last month's meeting, a group of external advisers to the FDA voted seven to three, with three abstentions, against giving approval to Eteplirsen. Despite deciding that the drug is safe, they concluded that the results from the "Columbus 12" trial did not prove that it works.

However, another ballot on whether the medicine should be granted a form of conditional or "accelerated" approval was much closer — seven against, six in favour. The FDA does not have to heed the advisory vote, and the close result coupled with the strength of feeling in the Duchenne community has led some parents to hope they will soon be able to access the drug. Some investors agree: Sarepta's shares have jumped by almost 15 per cent since the meeting.

An executive decision

Ever since the start of the Aids crisis in the 1980s, when campaigners successfully lobbied for dying patients to be given unproven experimental drugs, the FDA has been under pressure to become faster and, to some extent, looser. Legislative changes have allowed the agency to approve some drugs on an accelerated basis, normally in cases where patients are dying but there is still little clinical data. A law passed in 2012 also ordered regulators to take much greater account of the wishes of patients and their families.

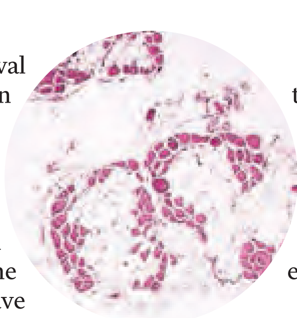
Parents like Ms McNary hope that FDA directors will overrule agency scientists and advisers and give the drug accelerated approval. They have taken solace from comments made by Dr Janet Woodcock, head of the agency's drug evaluation unit, who took the unusual step of attending last month's meeting to make some opening remarks.

Dr Woodcock told the meeting that the agency spends much of its time trying not to approve ineffective drugs, but warned there was "little consideration of another error, which is failing to approve a drug that actually works". Accelerated approval, by its very nature, required the FDA to say yes to medicines with "more uncertainty", she added.

"If this was up to the FDA scientists, then it would be 100 per cent rejected," says Mr Loncar. "This is definitely a situation where Dr Woodcock is going to have to make an executive decision."

Such terrain is unusual for the FDA but not uncharted. In an era of social media, it has become easier for patients to organise themselves and exert pressure. Last year, regulators approved Flibanserin, a sexual dysfunction drug for women dubbed "female Viagra", following a high-profile campaign that sought to portray the FDA as sexist.

Patient campaigns have few restrictions on the funding they can take. Many of the Duchenne groups have received cash from Sarepta and other pharma companies developing drugs for the disease, just as the supporters of Flibanserin were part-funded by the company behind the medicine.



9,000-12,000
Estimated number of boys and men in the US with Duchenne muscular dystrophy. The disease causes muscle tissue (above) to waste away

<200,000
The number of patients who must have the condition for a disease to be considered rare in the US. Drugs to treat these conditions are designated 'orphan drugs'

$178bn
Forecast global sales of orphan drugs by 2020

$23,331
Average cost per patient per year of a non-orphan drug in the US in 2014, up from $16,448 in 2010

$111,820
Average cost per patient per year of an orphan drug in the US in 2014, up from $83,550 in 2010

Source: EvaluatePharma

Sceptical doctors and scientists warn that patient power has gone too far. They argue that if the FDA approves Eteplirsen it would herald a dangerous era in medicine, where well-organised groups of sick people and their families can trump scientific evidence.

A handful involved in the case of Eteplirsen even say they were intimidated by the Duchenne community. Laura Gottschalk, a scientist at the National Center for Health Research, spoke against approval at last month's meeting. She says that she was subsequently followed to her car by a man shouting abuse who then threatened to punch her colleague in the face.

A doctor advising the FDA says that he received an abusive email after the meeting. Many others declined to speak on the record for fear of sparking similar repercussions.

Such heightened emotions are perhaps best understood in the context of what is at stake: if the FDA turns down Eteplirsen, Sarepta will probably abandon the drug, meaning the patients being treated will be left with nothing. The biotech group would become the third company to have had a Duchenne medicine knocked back by regulators in the past year, which could have a chilling effect on investment in research into the disease.

"If there is not a path forward for Sarepta and it ceases to exist, then we will not only lose access to a drug that is keeping the boys moving," says Ms McNary. "We'll also lose hope that other Duchenne companies will press ahead."

Tragic though such an outcome might be, others argue that hard data, not emotion, should govern whether drugs are approved.

"If this gets through, I'm not sure what you have the FDA for," says a doctor advising the agency. "Is this about science or is it all about the court of public opinion?"

Speed read

Shock absorber Eteplirsen makes the body produce a type of dystrophin by altering a faulty piece of genetic code

Aid for activism Campaigns have few restrictions on funding. Duchenne groups received cash from Sarepta

FDA's sway If Eteplirsen is turned down, it would be the third Duchenne medicine knocked back in the past year

FINANCIAL TIMES
'Without fear and without favour'
MONDAY 23 MAY 2016

Brexit can only damage UK's financial colossus

The City of London will be diminished if the country leaves the EU

With a list of powerful investment banks helping to bankroll the Remain campaign, and everyone from Mark Carney, the Bank of England governor, to Jamie Dimon, chief executive of JPMorgan, warning of the dire consequences of an exit, there can be few doubts about the City of London's strong support for Britain's continued EU membership.

Mr Dimon this year spoke of the "massive dislocation" the UK's financial centre would experience should the country leave the 28-member bloc. Similar concerns about the consequences of Brexit are echoed across the indigenous financial community, although many of the UK's largest banks and insurance companies remain circumspect about expressing them openly, perhaps fearful of offending customers.

No one could accuse the Square Mile of mindlessly cheerleading for Brussels. The City has always been ambivalent about the EU: on the one hand excited by the possibilities of the single market in financial services, on the other fearful of Brussels-based regulation acting as a sort of Trojan horse for other countries intent in snatching its business. Confronted by the possibility of Brexit, however, the financiers have come off the fence. In a poll conducted last year by the Centre for the Study of Financial Innovation, about 73 per cent said that they would either definitely or probably vote to stay in, while 12 per cent wanted to get out.

Politically, a vote to keep the City in champagne and yachts may seem an awkward sell to the electorate. When it comes to the country's still preponderant financial sector, many taxpayers, mindful of the crisis, might welcome the shrinkage relative to the rest of the economy that Brexit could bring.

But it is too easy to overlook the City's importance to Britain. The sector employs 2.2m across the UK and last year paid £66bn in taxes. It remains one of the few areas in which the country is an undisputed global leader. The UK runs a substantial trade surplus in financial services, including with the EU. Roughly a quarter of its financial sector business involves the single market, equivalent to 2 per cent of gross domestic product. And balanced on top of this activity is an array of professional services. Nothing stops Britain within the EU from regulating the sector in ways that protect the taxpayer and advance the interests of the wider economy. But dislocate that machinery by pulling the country precipitately out of the bloc, and you would potentially deduct a big slice of that activity. The prosperity of the whole could be materially reduced.

The Leave campaign argue the risk of shrinkage and decline is overstated, claiming we could continue to trade equably with the EU whether we were in or out. But without access to the single market and the "passporting privileges" that go with it, the City would be at a disadvantage. It would no longer be possible for non-EU firms to site their European operations in London and trade unhindered across the bloc.

They would be obliged to open offices in Paris or Frankfurt and would over time come under regulatory pressure to move their senior managers there. The process would not necessarily be swift as London's advantages would remain significant. But eventually the UK offices of non-EU firms would shrink. Those remaining would face growing restrictions on their business. Non-EU banks would lose the easy access they enjoy to the eurozone's payments system and the European Central Bank might renew its campaign to pull all euro-denominated clearing into the eurozone. These could only diminish the volume of euro-based business done by City firms.

There is no easy way for a post-Brexit UK to retain single market access unless it accepted the obligations of EU legislation without having the power to influence it. Outside, the UK would be obliged to seek a free trade deal that could take years to negotiate, or simply to trade under World Trade Organisation rules. In either scenario, non-trade barriers would inevitably rise. No easy path lies ahead for the City, even inside the EU. David Cameron's "safeguards" against onerous or unfair eurozone regulation are untested. The antipathy of some member states to finance could lead to regulations being interpreted in ways that disproportionately hurt London. The way to deal with this threat is not to head for the exit. It is for Britain to stay at the European table, build alliances and defend its valuable turf.

Washington's warming relations with Vietnam

In laying old conflicts to rest, there is a risk of stoking new ones

Barack Obama is the third US president to visit Vietnam since the withdrawal of US troops in 1973. His trip this week is nonetheless replete with historic resonance as Washington consolidates its strategic pivot to Asia and makes common cause with a former wartime enemy against China's aggressive claims to the South China Sea.

The Vietnamese government hopes that the visit will provide the occasion for a repeal of the US arms embargo, partially eased in 2014 but which remains one of the last vestiges of the war. That could be a step too far.

That Vietnam is seeking closer military co-operation from Washington already carries potent symbolism. It signals the changes taking place as a result of Mr Obama's determination to devote more of his country's diplomatic, military and economic resources towards strengthening ties in Asia and countering China's regional ambitions.

There are even indications that the Vietnamese are willing to consider the use by the US navy of their former wartime base at Cam Ranh Bay. As a measure of warming relations there could be few stronger pointers.

There is a danger however that lifting the arms embargo now would play into the Chinese narrative that it is the US that is militarising the South China Sea. It also risks provoking Beijing at a sensitive moment, ahead of a forthcoming international ruling in The Hague on the legality of Chinese claims to waters that the Philippines considers its own.

While supporting the legitimate security concerns of its allies, Washington needs to be careful to make the case based on law, rather than on the balance of forces. The Hague ruling will shed legal light on China's territorial ambitions which make much of South East Asia uneasy.

Mr Obama should also be wary of being seen to reward a regime with a human rights record that has shown little signs of improvement. While Vietnam has made extraordinary progress in lifting millions out of poverty, it remains one of the most repressive political environments on earth.

John McCain, the US senator and former prisoner of war argues that sales of technology for Vietnam's maritime security should be unrestricted, but the transfer of other arms should be case by case and linked to human rights. This seems to be a balanced approach.

President Obama has made engaging with difficult regimes a trademark of his administration, from Cuba, to Myanmar and Iran. He has also sought reconciliation in places where the US legacy remains contentious. That the US and Vietnam are forging stronger ties is something to be celebrated.

While laying old conflicts to rest, however, Mr Obama must be alert to the dangers of stoking new ones down the line.

Letters

Email: letters.editor@ft.com or
Fax: +44 (0) 20 7979 7790
Include daytime telephone number and full address
Corrections: corrections@ft.com

Gig economy does little for demand growth

Sir, Elizabeth Warren's comments on Uber and the gig economy ("Elizabeth Warren slams Uber and Lyft", May 20) were noteworthy a month after James Bullard, president of the St Louis Fed, admitted that the reserve bank has been predicting 3 per cent growth for the US economy when the outcome is closer to one quarter of that.

Uber is a financier's fantasy. Imagine corralling the cash flow from an entire industry for the benefit of a small cohort. Facebook and Google have done it already, of course.

The trick with golden goose management is keeping the bird alive and productive. Look anywhere in the US economy and demand is under severe pressure. Where jobs are created, many are in low-paying sectors. Most new middle-class jobs pop up in healthcare, which does very little for demand growth. Capital expenditure is at risible levels. Earnings per share policy in the biggest corporations drives wage repression and lay-offs to the short-term benefit of earnings. Revenues, meanwhile, are unsurprisingly stagnant.

The tech companies that are growing in the US tend to use minimum labour, again demand unfriendly.

The big picture is very challenging. Even if Uber does grow, it plays a zero sum game with labour. Demand is unlikely to benefit. And the longer-term political implications are very capital unfriendly. "Like a dog lying in a corner, they'll bite you and never warn you. They'll tear your insides out," as William Shatner almost sang in his version of Pulp's *Common People*.

A more coherent capitalism would take care of the goose. But this won't wash with shareholders where the long term goes only as far as next month. And so the Atlanta Fed's model is useless, demand is stuffed and rate rises are impossible.

Cathal Rabbitte
Villars-sur-Ollon, Switzerland

Online ads put corporate reputations at risk

Sir, As Robert Cookson's exposé of Citigroup and IBM's advertising on jihadi propaganda site shows (May 18), in the absence of a human touch, ads are often juxtaposed with the wrong content — some of which is gravely offensive. Private Eye's regular "malgorithm" column demonstrates too just how hopeless programmatic advertising is. Recent examples include, CNN Online: "Prince Death. What we know." The accompanying ad was: "Want to live a long, healthy life?"

Advertising in the 21st century makes consumers feel that products and services have been handpicked just for them. Programmatic online advertising, such as Google's AdSense, fails this on a disastrous scale.

It is in these malgorithms that organisations and companies out themselves; exposing their mass market corporate interests and robotised broad stroke advertising "strategy", sometimes even undermining the values a brand purports to behold.

Advertising strategy must be reclaimed from the robots — hard-earned reputations are at stake. The arithmetical box ticking exercise that is programmatic advertising might lead a chief executive to the comforting conclusion that money was well spent but ultimately it is all smoke and mirrors.

Joe Wade
Managing Director
Don't Panic
London EC1, UK

Software on automated vehicles must be able to run smoothly

Panama tax advisers only part of a wider picture

Sir, Much as the 300 economists who complain about offshore linked tax havens are looking for redistribution of tax revenues ("Economists call for end of tax havens", May 9), what they are proposing fails to recognise the linked nature of international tax planning.

In my experience we should begin by getting some sense of scale about how big the net tax savings numbers are before we pass judgment on who or what is failing and concentrate on how fees for tax planning are built up. These fees eat into the tax saved calculations, as do the numbers for tax deterrence from existing tax enforcement.

For the avoiders tax havens are not costless. In practice the net effect matters — tax saved after the bill for tax planning advice paid to agents. These agent fees are percentage based. Panama agents are only a part of a big picture, and their fees are part of fees being earned around the world and shared in the onshore tax industry. As a retired tax economist in HM Revenue & Customs, who worked on the tax avoidance and evasion methodology for more than a decade, I recognised there are some successes against the international havens.

Offshore compliance programmes have delivered tens of thousands of disclosures by taxpayers and billions of dollars in revenues from voluntary disclosure and more in enforcement in the US and UK, and other OECD nations. There has been a decade of shared international work by tax authorities on the signals of tax malpractice around the world. They are not going to be surprised by the existence of Mossack Fonseca or their like elsewhere. But Oxfam calculations of the losses do need to account for savings after fees, and after tax authority yield from enforcement against funds in tax havens.

Dr Phillip Rice
HMRC Tax Economist (retired),
London E9, UK

Learn a foreign language well . . . but not too well

Sir, The Foreign Office is right to expect diplomats to have the skills to handle hostile media interviews in a foreign language ("How to up your language skills to television grilling level", May 19). The greatest respect one can pay a country is to learn its language to a high level. As a Nato official responsible for dealing with Russian media in the 1990s, I had my fair share of "Paxman-like" questioning. However, what I learnt was that even the most aggressive interviewers instinctively treat a foreigner speaking their language more gently than a mother-tongue speaker for whom no holds are barred. They typically use less colourful idioms to be sure that their questions are understood. In the process, they make the interview easier because they recognise the potential linguistic limitations of the interviewee. So the skill is to speak the language well but not too well.

John Lough
Gabara Strategies,
London W1

Who knows if Buffett will buy a stake in Amazon?

Sir, Chris Rossbach in his Market Insight (May 19) cites Warren Buffett's purchase of Apple shares and his praise for Amazon's value delivery to consumers and implies that the latter, alongside Facebook and Alphabet, might now be Mr Buffett's kind of stock. He suggests Apple is a low price-to-book stock, a Graham value stock.

Apple's price is well over four times its book value, which itself just comprises the cash it has spewed out from an exceptional return on capital from a unique market position.

Is Apple just an "average business"? Is that not a strong "moat" as Mr Buffett might say? Apple has generated free cash flow in the past three years of more than \$160bn, about 15 per cent per annum of its market value (net of cash pile, probably worth its face value separately).

Amazon over its last reported three years has generated free cash flow of more than \$11bn, about 1.2 per cent return per annum on the same basis with negligible profit. Amazon also has a great cash flow return on capital like Apple (because its capital is insignificant relative to its huge market value), but a good moat implies that you can protect profitability. That's different from hoping one day that you will have some profitability.

Apple's income may well shrink, and Amazon may one day sell us all everything and deliver value to shareholders (rather than to the consumers who are so grateful for being given a great service for almost nothing that they can't help but buy the shares). But which do we think gives us the best "margin of safety", 15 per cent annual return or 1.2 per cent?

So, will Mr Buffett be buying Amazon or using it to get a spare copy of *The Intelligent Investor*? Well who knows? Who apart from Mr Rossbach can predict the future?

Andrew Fullerton
Kew, Surrey, UK

Checks on driverless cars' software will be critical

Sir, Driverless vehicles have huge potential to transform the UK's transport network and are a great opportunity to test the technology so that the UK can remain at the forefront of research and development (May 20).

However, we must ensure that cyber security is carefully considered. It is not just about the threat of a car being hacked, it also relates to the overall security and safety of a vehicle's operation. For that reason it will be crucial that the government introduces regulations for autonomous vehicles, which should include the need for a software test to be performed regularly. This should help to assure the trustworthiness of the vehicle software and systems.

Operation of an autonomous vehicle will be dependent on a lot of software embedded in the vehicle, which provides complex functions currently performed by the driver. For example, interpreting hazards, changes in vehicle direction and speed (both of the vehicle and of adjacent vehicles), and responding safely to vehicle faults or malfunctions.

It will be vital to ensure that this software runs smoothly, so, in the same way as we take our cars for annual safety tests today, in the future we will need to include a check on software to ensure defects and vulnerabilities are addressed.

How these checks happen, and who is responsible for them, is something we should be thinking about now.

While we are used in our daily lives to putting up with software errors in situations that are not safety critical, such as when our computers freeze, we cannot tolerate such behaviour in autonomous vehicles as this could put the safety of the vehicle's passengers and those outside the vehicle at risk.

Hugh Boyes
Institution of Engineering and Technology,
London WC2, UK

'Upgrades' for vehicles would ease transition

Sir, In "Ex-Alphabet team navigates route into US driverless trucks" (May 18) you report that "Otto plans to sell kits to fit existing trucks with its driverless technologies . . ." If this is possible for trucks, why isn't there discussion of this possibility with current cars? Even if an "upgrade kit" could not take over the driving completely, having your car on the driverless network would be a significant advantage. Such kits could communicate with driverless vehicles on the road as well as traffic control devices such as stop lights. This would greatly simplify the transition to driverless and it would be a very lucrative business.

John Steward
White Plains, NY, US

Allow the UK to leave and do what it does best

Sir, As a Swiss-German citizen this endless debate about the UK leaving the EU has become tiresome.

Let the UK leave the EU and focus on what it does best in these days: sell overpriced assets, ideas, lifestyle and remain the kleptocracy island of choice for oligarchs abroad.

Alexander Mueller
Zürich, Switzerland

Some intellectual ballast in favour of leaving the EU

Book review
Sebastian Payne

Why Vote Leave
by Daniel Hannan
Head of Zeus, £9.99/\$15.95

This is a hard time for those of us with Eurosceptic inclinations. The arguments from both sides in the EU referendum campaign have rapidly descended into vitriolic hyperbole, making a rational judgment on whether to vote Remain or Leave difficult.

How can one take a considered view of the pros and cons of Britain's EU membership when we are being warned of war, recession and aiding Isis, all in the space of a single week?

The question for undecided voters is this: how bad do you consider the EU to be? Is it unfit for purpose, the whole project beyond redemption and one to which Britain should wave farewell? Or, despite the bloc's institutional failings, is there a future for Britain inside the EU? Can we make it work, bearing in mind that Brexit might destabilise the British economy?

Enter Daniel Hannan, the thinking man's Eurosceptic. For more than two decades, he has defended a thoughtful anti-EU position in his writing and his work as a Conservative member of the European Parliament.

His latest book, *Why Vote Leave*, makes a short, sharp case for leaving the EU. By outlining what he considers to be the EU's failings, he hopes to persuade floating voters that things are really as bad as they feared.

Beginning by inviting the reader to "please sack me", Mr Hannan inveighs against the European project — he condemns the lumbering Brussels bureaucracy for its lack of democratic accountability, denounces the expenses "gravy train" and bemoans the UK's limited influence. Having represented Britain in Brussels for 17 years, he has no love for the EU's institutions.

Mr Hannan's case for Brexit turns on the question of sovereignty. He is at his most persuasive when writing about the differences between the natural evolution of Britain's political system, which he contrasts with the chilly rationalism of the EU's march towards "ever-closer union".

Everything that makes Britain British, he argues, is at odds with the vision of those across the English Channel. For this reason, a pan-European identity — at least one that encompasses the UK — is impossible.

During the referendum campaign, the anti-EU side has been beset by infighting. This reflects two different visions of Brexit. One adopts a Little England, pull-up-the-drawbridge approach, the other promotes the idea of liberating Blighty from the dead hand of Brussels. *Why Vote Leave* focuses on the latter. Although he touches on the question of immigration, Mr Hannan does not rest his case on the need for Britain to seal its borders. He senses, correctly, that this turns off undecided voters. He argues for free trade instead.

Not everyone on his side agrees. Nigel Farage, the leader of the UK Independence party, claims that Brexit will allow Britain to regain full control of its borders and so limit immigration. But where these competing visions of an "independent Britain" do resemble each other is in their emphasis on the "people" taking on the "establishment". Mr Hannan argues that Brussels is the home of crony capitalism, where lobbyists and unelected officials without a mandate plot the future of nations.

The flaw in Mr Hannan's case is the same one that undermines the Leave campaign as a whole: the absence of a convincing post-Brexit economic and trade model. Warnings from the International Monetary Fund, the Bank of England, eight former US Treasury secretaries and three former prime ministers have allowed Remainers to claim that the economic argument has been settled in their favour. Mr Hannan tackles this head-on but his optimistic vision is unlikely to convince all of the undecideds.

Those floating voters will have to decide what matters more: economic security or sovereignty. For faithful Bremainers, the status quo is preferable to going it alone, while Brexiters hope to seize this once-in-a-generation opportunity for Britain to chart its own course. Those seeking to understand why so many voters are toying with Brexit should listen to Mr Hannan.

This book has supplied my inner Euroscepticism with some intellectual ballast. Nevertheless, like many voters, I have yet to decide which box to tick on June 23.

The reviewer is the FT's digital comment editor

Comment

The IMF should call Berlin's bluff over Greece

EUROPE

Wolfgang Münchau

At one level, the recurring Greek crises fit the idea from Karl Marx of history repeating itself, first as tragedy then as farce. Greece came close to a eurozone exit last summer. While it will probably come close this year, it is unlikely to leave. But prepare for some tense moments in the next few weeks and months as Greece and its creditors struggle to agree the first review of last year's bailout.

The International Monetary Fund has concluded that Greek public debt, at 180 per cent of gross domestic product, is unsustainable; as is the agreed annual primary budget surplus, before interest payments, of 3.5 per cent of GDP. The fund insists on debt relief, but Germany resists.

A year ago Angela Merkel, German chancellor, and Wolfgang Schäuble, her finance minister, sold the Greek bailout to their party and parliament as a loan only. They argued that once you accept a debt writedown, you turn a loan into a transfer. And once you accept the principle of a one-off transfer to Greece, you are on a slippery road to what the Germans call a transfer union, one where they pay and others receive.

In private, senior German government officials agree that Athens needs debt relief. They are not blind. But they are trapped in the lie that Greece is solvent, which is what their own backbenchers were told. Without that lie, Greece would no longer be a eurozone member. But the lie cannot be sustained.

IMF insistence on debt relief is what could expose this lie. Christine Lagarde, managing director, last year set debt relief talks as a condition for the fund's participation in a bailout. Mr Schäuble reluctantly agreed yet managed to insert the words "if needed", which give him wriggle room. But Berlin imposed another condition: the IMF must participate in the bailout, too. This is what makes the German position vulnerable.

We know IMF staff are steadfast in their opposition to being involved in a bailout without an agreement on debt relief.

The trouble is that the policies are not determined by the staff but by the IMF shareholders. The Europeans and the US are the dominant shareholders so the outcome of this battle will depend to a large extent on the view taken by Washington.

To get himself out of a hole, Mr Schäuble recently made a counterproposal: Germany accepts debt talks in principle but only from 2018. The date was chosen with care. It is well after the next federal elections. It is not clear whether he will still be finance minister or indeed in government. I suspect the Christian Democratic Union, his party, will lead the next government; the electoral arithmetic makes other constellations improbable. Nevertheless, he is proposing to commit any successor to this course of action. Such a commitment has no credibility.

> If Europeans still want to 'extend and pretend' so be it. But it should be their own money they pour in

The IMF rejected his idea last week and rightly so. It wants to come clean now; or as an official recently told me it wants to regain its lost virginity. In doing so, it would restore its reputation and call Berlin's bluff. There is, of course, a risk this stand-off would trigger another eurozone crisis. Ms Merkel has good reason not to let the situation escalate.

A Greek debt writedown might not be popular in the Bundestag but another eurozone crisis would be a political disaster for her. It would expose the dishonesty of her eurozone rescue strategy. I see no chance of her risking a Grexit at a point when her deal with Turkey to host refugees who reach Greece is on the verge of collapse.

Many crises are looming in Europe. The idea of another summit to discuss Greece fills officials with horror.

My conclusion is that a credible threat by the IMF to pull the plug on its participation in a Greek bailout could force the Europeans, and the Germans in particular, to come clean. If the Europeans want to continue their path of "extend and pretend", extending the loans and pretending Greece is solvent, so be it. But it should at least be their own money they pour in. In this case they should buy out the IMF bailout loans to Athens, which means taking over the fund's credits to Greece. Greece would then be forever insolvent, forever in recession, but sufficiently funded and inside the eurozone. The best solution, of course, would be for the IMF to stay in and for debt-reduction talks to start.

The creditors need not even agree to a haircut, a formal reduction in the principal of outstanding debt. They could increase grace periods, lengthen maturities and reduce the interest rates towards zero. They could link some of the debt to Greek economic performance. The lower the growth, the greater the write-off. Or they could agree to turn some of the debt into equity. There are plenty of technical options to restore the country's fiscal solvency. The combination of debt relief, a realistic fiscal trajectory and economic reforms would end the Greek crisis at a stroke.

munchau@eurointelligence.com

Clinton and the ghost of Nader

AMERICA

Edward Luce

Remember Florida's hanging chads? The bitterness in this year's Democratic race has not yet hit a point where Bernie Sanders is threatening to run as a third-party candidate. But it is getting perilously close. If it had not been for Ralph Nader's "spoiler candidacy", Al Gore would almost certainly have won Florida in 2000 and become president instead of George W Bush.

Mr Sanders could do the same for Donald Trump. The Manhattan billionaire is urging the Vermont socialist to run as an independent in November. Hillary Clinton has rigged the system, says Mr Trump, which is robbing Mr Sanders of what is rightfully his. He should make Mrs Clinton pay the price in the general election.

Could Mr Sanders be blind enough to fall for Mr Trump's ruse? The answer is maybe. For evidence of that, look at the parallels between Mr Sanders and Mr Nader. The latter, who was then 66, ignored calls to drop out of the 2000 race from those who feared he would split the centre-left vote and hand victory to Mr Bush.

Much like Mr Sanders, 74, he was a child of the 1960s protest culture that saw both political parties as offshoots of corporate America. "Tweedledum and Tweedledee" was how he put it. Mr Sanders only joined the Democratic party last year. He has spent most of his life as an independent socialist. Mr Nader spent most of his as a Green party environmentalist.

Most of all, however, they share a solipsistic mindset that owes more to the student protests of half a century ago than the calculations of 21st-century politics. That, of course, is part of their appeal, particularly to students. It is also a source of their stubbornness. The more Mrs Clinton's crowd urges Mr Sanders to drop out, the likelier he is to dig in his heels. It could end badly.

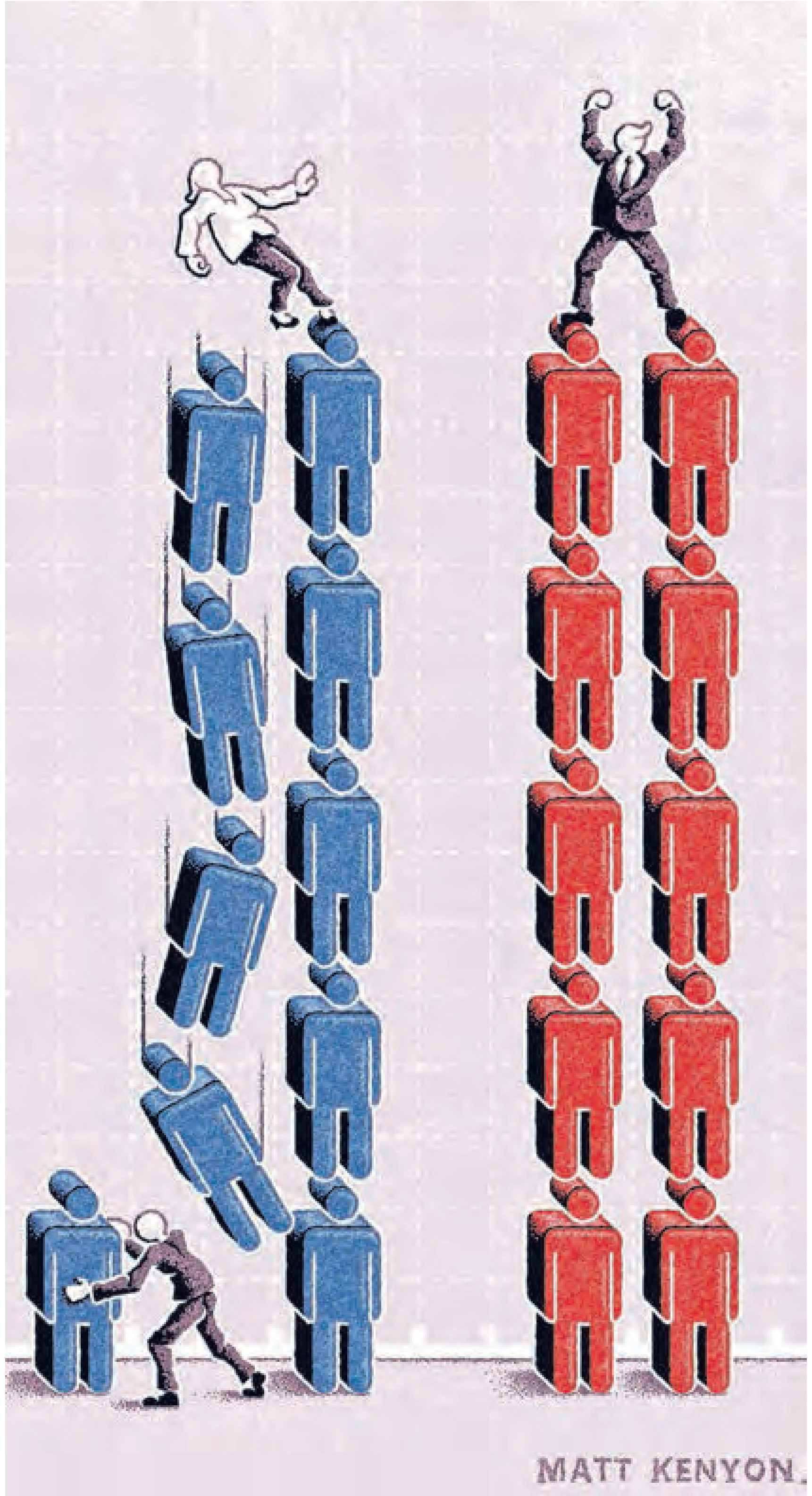
The similarities do not end there. Mrs Clinton's detractors seem to believe she is a uniquely wooden candidate with a frustrating inability to come up with a memorable campaign theme.

Her political skills are indeed woeful. If full-time politicos are unable to define what Mrs Clinton stands for, the distracted swing voter does not stand a chance. But she is only following in Mr Gore's footsteps. Remember his theme of "the people against the powerful?" Neither do I. The then vice-president's belated attempt to present himself as an insurgent against the status quo foreshadowed Mrs Clinton's quandary precisely. It is hard to run against an unfair society when you have played a leading role in its administration over the previous eight years. It can even be paralysing. As Mrs Clinton is discovering, it is even tougher when the climate is so poisonously anti-establishment.

> Trump says she has rigged the system and is robbing Sanders of what is rightfully his

This is where Mr Sanders' complaints could become toxic. In reality, there is nothing rigged about the Democratic contest. If anything, the high number of caucuses that favour candidates with narrowly ardent bases such as Mr Sanders' has artificially boosted his delegate tally. At the moment Mrs Clinton leads him by nearly 300 pledged delegates. If her share of the votes were proportionately translated, she would have already crossed the victory line.

Nor does Mr Sanders' complaint about the role of super delegates hold much water. The party's rules give roughly a fifth of all votes to Democratic bigwigs — senators, governors, party chairs and the like. Given that Mr Sanders is barely even a Democrat it is hardly surprising most prefer Mrs Clinton.



If he were leading in either the popular vote, or in pledged delegates, they would be under pressure to switch their support to him, as they did for Barack Obama in 2008, when the front-runner's lead was far smaller. But Mr Sanders is not ahead on either count. He would need to win 90 per cent of the delegates in the remaining eight primaries over the next three weeks to overtake Mrs Clinton. It is not going to happen.

So why is Mr Sanders upping the ante now? Last week, his supporters did a good imitation of Mr Trump's when they hurled insults and furniture at the allegedly rigged Democratic process in Nevada. The meeting descended into chaos.

Mr Sanders' condemnation of the violence was halfhearted. His campaign issued a statement saying "millions of Americans have growing doubts about the Clinton campaign". That observation was true enough. But these were not the sentiments of a candidate preparing to bow out graciously. Nor does it seem likely Mr Sanders will be placated by having some of his policies — support for a universal healthcare system, say, or campaign finance reform — added to the Democratic platform at the Philadelphia convention in July. Everyone knows the platform is forgotten the moment it is written.

How about a prime speaking role? That, too, would be seen as a bagatelle. Besides, Mr Sanders is having the time of his life addressing adoring crowds of 20,000. He sees no reason to stop now. Nor do his core supporters.

Oddly enough, some of his celebrity backers, such as Susan Sarandon and Michael Moore, also egged Mr Nader on in 2000. It seems they have learnt little. Mr Trump, on the other hand, is nothing if not a quick study. The battle between "Crazy Bernie" and "Crooked Hillary" suits him well. The longer it goes on, the stronger he becomes.

edward.luce@ft.com

Not too much, not too little — the helicopter drop demands balance

OPINION

Adair Turner

Eight years after the 2008 financial crisis the global economy is still stuck with slow growth, inflation levels that are too low and rising debt burdens. Massive monetary stimulus has failed to generate adequate demand. Money-financed fiscal deficits — more popularly labelled "helicopter money" — seems one of the few policy options left.

The debate on its merits can get lost in technical complexities. But the important question is political: can we design rules and responsibilities that ensure monetary finance is only used in appropriate circumstances and quantities?

If we lived in a simple world where all money was created by the government or central bank, and if the authorities created more money to increase public expenditure or cut taxes, some of the extra cash in people's pockets would be spent. If the economy were at full employment, the only consequence would be faster inflation: if below full employment, some increase in economic activity could result. The scale of effects would depend on how much new money was created. If little, a small rise in prices or output would result; if a great deal, hyperinflation might be inevitable.

In the real world the technicalities are more complex. Most money is not created by central banks but by the banking system, with the total money supply a big multiple of the monetary base. In this world the initial stimulus to demand can be multiplied later by commercial bank credit and money creation. But the risk of escalation can be offset by imposing reserve requirements on those banks. And the fundamental point remains: the impact will depend on how much new money is created.

The crucial political issue is the danger that once the taboo against monetary finance is broken, governments will print money to support favoured political constituencies, or to overstimulate the economy ahead of elections. But as Ben Bernanke, former chairman of the US Federal Reserve, argued recently, this risk could be controlled by giving independent central banks the authority to determine the maximum quantity of monetary finance that was required to meet but not exceed the inflation target. The dangers of too big a stimulus can, in principle, be contained.

> If we can shift from a total ban to tight discipline, people will trust the system enough to spend

At the London School of Economics on May 10, however, Raghuram Rajan, India's central bank governor, raised a diametrically opposite objection to monetary finance. People receiving newly created cash, he argued, might be so alarmed at "seeing the central bank governor throwing money out of the window" that they might save the money rather than spend it, thus negating the desired rise in nominal demand.

This might seem paradoxical to the point of impossibility: monetary finance is bad because it will inevitably produce both too much inflation and too little. But that proposition is not completely absurd. Given the political dangers of future excessive use, money-financed fiscal stimulus might initially produce increased saving and too little impact on demand, tempting the authorities into further stimulus, which eventually produces too much.

But the answer to the "too little" problem is the same as to the "too much" — the design of rules and responsibilities that can convince people monetary finance will only be used in appropriately moderate quantities. The trap of popular perception that Mr Rajan highlights is indeed to some extent circular. It is precisely because central banks have warned for decades that monetary finance is so dangerous that it must be prohibited, that any mention of it now evokes lurid analogies about "central bankers throwing money out of windows". But if we can shift from a total ban to tightly defined discipline, people receiving newly created money will spend enough of it to give us a useful addition to the policy toolkit.

The key question on monetary finance is therefore political: can we design a regime that will guard against future excess, and that households, companies and financial markets believe will do so. The answer may turn out to be no: and if so we may be stuck for many more years facing low growth, inflation below target, and rising debt levels. But we should at least debate whether the problem can be solved.

The writer is former chairman of the Financial Services Authority and author of 'Between Debt and the Devil'

Inequality and the monopolies of unfettered techno markets

OPINION

Izabella Kaminska

In testimony to the US Federal Commission on Industrial Relations in 1915, Ida Tarbell, a journalist known for exposing the Standard Oil monopoly of John D Rockefeller and championing the antitrust movement of the era, made a simple but profound point about the structure of the unconstrained American marketplace.

It was the policy of business trusts, she said, to keep supply always a little less than demand to the great detriment of society. A congressman then took the stand to argue that an employer's relationship with his employees had "turned into a feudalism grosser than English history had ever shown".

Tarbell favoured what was then being popularised as the "scientific" approach, which elevated the role of central planners in an organisation to the supposed benefit of all concerned. Ironically, many decades later, John Kenneth Galbraith would argue that the dependency on a thick layer of managerial planners had rendered antitrust measures ineffective at arresting the development and burgeoning power of what he described as the "technostructure". The company, he insisted, had become an uncompetitive monstrosity.

Tarbell had seemingly only opened the door to a different type of monopoly — one focused not, like Standard Oil, on maximising profits at any cost but on maximising benefits to those it deemed technically specialist enough to be useful in serving its multi-faceted goals. In both cases inequalities resulted though, in the corporations described by Galbraith, these manifested themselves in the favouring of managers over staff.

In more recent times, Thomas Piketty has suggested that rising inequality in developed economies over the past three decades is mostly linked to the gap between the after-tax return on capital and the economic growth rate. But what if there is a simpler explanation? That old chestnut of monopoly?

> Rather than improving processes, companies cut costs and lay off staff to grab market share by margin

In a recent article, Joseph Stiglitz, the Nobel laureate, outlined how today's inequalities might be more plausibly linked to the tendency of unfettered markets to monopoly. The proposition is intuitively appealing. He argues that many sectors in the modern technological era — among them telecoms, cable television, social media, internet search, health insurance and pharmaceuticals — cannot realistically be classified as competitive. The common factor is that organisations set prices not market forces. Such market power has serious implications for the distribution of wealth and investment strategy. A monopoly's purpose, as Tarbell warned us, is to maximise profits through the exercise of market control, which inevitably leads to a transfer of wealth from the consumer to the producer.

This is all the more so when competitive forces are unleashed within oligopolistic industries. Rather than improving processes so that the same number of employees and resources can produce more, the fear of flooding the market and collapsing prices sees companies focus on cutting costs and laying off workers, in an attempt to grab market share by margin: a zero-sum game that eventually inhibits wealth distribution to the populace.

If Mr Stiglitz is right, this could explain not just the rise in inequality but other puzzles such as weak productivity and lacklustre capital expenditure rates. Monopolies, after all, do not care about the prosperity of others or about producing goods at unprofitable prices.

Oddly enough, this may apply even in markets where products are distributed for free, such as web applications, social media platforms or search engine tools. Here the trade-off becomes the data and privacy given up by users, which a company can exploit to mould society's desires until they meet the objectives of its absolute power agenda. They say if the product is free, the product is you.

In the "game of thrones" that is the winner-takes-all race for monopoly, that is the ultimate expression of inequality, too.

The writer is a reporter for FT Alphaville

What the 'CV of failures' really reveals about career setbacks

Lucy Kellaway
On work

Johannes Haushofer, an assistant professor of psychology at Princeton, last month published a CV recording every professional failure in his career to date. He listed the university courses he didn't get on to. The academic jobs he failed to land. The papers that were turned down for publication. The fellowships that went to someone else instead.

The resulting "CV of failures" was a Twitter sensation and picked up by newspapers around the world. So humble! So inspirational! So brave! was the verdict. The whole thing was so popular it constituted what Prof Haushofer called a meta failure — as it attracted far more attention than his entire academic output combined.

Although amusing, his CV doesn't strike me as brave in the slightest. If you teach at Princeton, listing your failures takes little courage. To say that the Stockholm School of Economics turned you down feels more like a taunt: look what they missed. It is not humble: it is a humble brag.

To prove how easy it is to be blasé about failure when you've had some success, last week I cheerfully sat down to compose my own CV of rejections. It involved quite a lot of brain-racking as my memory has done me the service of forgetting most of my failures over the past 40 years but, as far as I recall, it goes roughly like this.

In 1977 I failed to get accepted by Exeter, York, and Sussex universities to do a bachelors degree in economics.

In 1981 Boston Consulting Group, Bain, Shell, BP and the Treasury rejected me as a graduate trainee. Two years later I failed to get jobs on The Times, the Telegraph and (I think) the Evening Standard. In about 1985 I was turned down by The Economist and in 1987 failed to land the Laurence Stern fellowship on the Washington Post.

In 2004 and in 2010 successive novels were rejected by numerous publishers in various countries. In 2015 I was interviewed for board positions at ITV, British Land and Belmond — and given the thumbs down by all of them. And from 1985 to the present day I have failed to win so many journalism awards that listing them all would fill half this newspaper.

Studying my failure CV, the most interesting thing is the very long period in which I appear to have failed at nothing at all. From about 1991 to about 2004 I hardly received a single rejection. Yet far from being the most successful part of my career, it was the most sluggish. I was bringing up children, trying to hold it together at the Financial Times and generally attempting to keep the show on the road.

This shows that if your failure CV is very short, that in itself is a failure — you aren't trying hard enough. If, on the other hand, it is very long, that may mean you are a no hoper — or it may show you merely aim high. For each of us there is a perfect ratio of rejections to acceptances — probably about four to one: any fewer than that, and you aren't putting yourself out there enough.

The next thing that occurs to me is that not all rejections are equal. Some hurt a lot (like when a detested rival won a prize that I had my heart set on) and others hurt not at all. Failures followed by successes stop mattering at once. As you can only do one degree or one job at any given time, as soon as you have landed one, those that got away are meaningless. I minded not getting a job on The Economist until I got one on the FT, when I stopped minding entirely.

> Not all rejections are equal, and those followed by successes stop mattering at once

Indeed the only rejection that still hurts almost half a century on is not even on my list. I was 10 years old and failed to secure even a minor part in the primary school leavers' production of *The Boy Friend*.

When I asked my colleagues about their failure CVs, many reported something similar. None minded their assorted rejections from the BBC and the Foreign Office, but it was an early rejection at school — often in sport — that still rankled. My husband always used to claim that his failure to get on to the first 11 cricket team at Eton was the most bruising thing that ever happened to him, and made him turn against the establishment for the following 20 years.

The bald CV is silent both on pain, and on explanation. Prof Haushofer offers the reassuring thought that most failure is no more than bad luck as the world is stochastic, applications are crapshoots and selection committees often make mistakes.

I'm not so sure this is the right way of looking at it. If I think back to my failures, I remember concocting comforting stories to explain them away, telling myself that the process was arbitrary, or I was too outspoken, or it was just Buggins' turn.

Yet looking at my CV of failures a more plausible explanation occurs to me. I failed in almost every case simply because there was someone else who put in a stronger application or gave a better interview.

lucy.kellaway@ft.com
Twitter: @lucykellaway

Monday Interview. Paul Rollinson, CEO, Kinross Gold

After the gold rush

The head of the Canadian miner tells James Wilson that he is looking forward after four years of post-peak falls and cutbacks

From banker to miner: Paul Rollinson
Charlie Bibby

When Paul Rollinson took over as chief executive of Kinross Gold four years ago the end was in sight for the biggest gold boom in history — and for some of the people who were part of it.

After rising 500 per cent in a decade, the market price of the precious metal had peaked. In the rush to exploit the boom, mining investments and costs had spun out of control.

Investors in gold miners such as Kinross, which had lavished $11bn on acquisitions in six years and was already writing off part of that spending, were in revolt. Tye Burt, Mr Rollinson's predecessor, was among a score of mining chief executives to lose their jobs.

It was "the end of a champagne era", recalls Mr Rollinson. "Everything was going up, up, up, forever and ever — and then I got the back half of the mountain, where it has been down, down, down.

"This has been the challenge — running a business as you transition from one phase of the market into another," he says on a visit to London. After a long trip to see investors in Asia, he is on his way to a gold mining conference in Switzerland. It is a gruelling schedule but he is looking forward to dinner that evening with one of his daughters, who works in the UK capital.

Negotiating the descent has not been easy for Mr Rollinson. In his first week in the job he halted plans for an expansion of its Tasiast mine in Mauritania, a flagship development for Kinross. The project was the centrepiece of its $7.1bn acquisition of Red Back Mining in 2010, Kinross's largest deal.

After ensuing writedowns on Tasiast, the Canadian company was the first large gold miner to scrap its dividend: "That is one where you send the release out and want to crawl under your desk," recalls Mr Rollinson in his laconic drawl.

Another project in Ecuador, Fruta del Norte, was sold for much less than it had cost during the boom years; and when tension flared between Russia and the west over Ukraine, Kinross, the largest foreign investor in Russian mining, faced criticism over its strategy.

Mr Rollinson also had to fight to prove that his appointment was the change that Kinross needed.

As the miner's previous head of corporate development, and before that as an investment banker who advised the company on some deals, Mr Rollinson admits he might have seemed to investors like more of the same as they had had before. He had been involved in some of the decisions investors had criticised. Mr Burt was also previously a banker.

"On paper you might go, 'Here's another banker . . . here we go again'," he says. "We just got our heads down."

Four years on, his transition from banker to miner seems to suit Mr Rollinson and Kinross. The miner's shares have doubled in the past 12 months. In March, Mr Rollinson was at last able to unveil a definitive plan to develop Tasiast at a much lower cost.

And his stewarding of spending meant Kinross had the cash to snap up assets in the US from Barrick Gold, its larger rival, which helpfully reduced Kinross's overall exposure to higher-risk countries.

Not least, Mr Rollinson, who looks the image of a tough miner but is softly spoken, is at last having some luck with the gold price, which has risen since the start of 2016. "It is hard to believe we would all be high-fiving when gold got back to $1,200 an ounce but we certainly are, and it seems to be holding in there pretty firmly," he says.

Mr Rollinson has dual nationality: he was born in the UK but grew up in Canada, where his father worked in mining. He studied geology and started his working life in Canada's wide open spaces. "I was living in the wilderness all year round in a tent and I had some amazing experiences. It was my love of the outdoors that got me into this in the first place."

But a key to his career may have been the finance classes he took while completing a postgraduate degree in mining engineering. On graduating he went into mining banking and a career in a succession of investment banks. He advised Kinross before Mr Burt asked him to join the miner in 2008.

"My intention was always to get back into mining . . . that is ultimately where my passion is," Mr Rollinson says.

What has helped his time at Kinross, he says, is that while he came from banking he also had plenty of technical mining knowledge. As he puts it: "I can speak a few languages — geology, mining, corporate finance." Many miners lost sight of some mining basics, such as the importance of asset quality, during the go-go years: Mr Rollinson says he has brought 70 technical staff into Kinross, adding that much of their job is to argue why projects should not be done, rather than rush them through as fast as possible.

"I call them The Terminators," he says. "Every time you look at an opportunity — it is like an ice cube. The minute those guys get hold of it, it starts melting. It is 'Forget it — take that out — that's aggressive' . . . those are the guys that matter."

Stopping things has been a big feature of Kinross under Mr Rollinson. He describes the original project to expand Tasiast as like a plan for a house that was increasingly difficult to afford to build: today's is a smaller and cheaper project. "Instead of building new, we are renovating," Mr Rollinson says.

The original project could have hurt the company, he says. "What scared me was [that] we would get it half built in that overheated environment, over budget, and we might put ourselves in some jeopardy." Not to put so much at risk was, he says, "a pretty important lesson for me".

Another lesson has been the experience of Kinross in Russia, bringing Mr Rollinson reluctantly into the political arena. At the height of the tension with Moscow over Ukraine in 2014, Canada's government tried to persuade business leaders, including Mr Rollinson, not to attend an economic forum in St Petersburg.

"That was tough but we had to say — we have employees, we have stakeholders, we have shareholders, we don't want to get involved in politics, and with respect we intend to participate. And we did," says Mr Rollinson.

Kinross has a seat on Russia's Foreign Investment Advisory Council, alongside the likes of BP and Siemens. "We have been in Russia for more than 20 years . . . we are 98 per cent Russian. We are employing and training Russians," says Mr Rollinson, while noting that Kinross's mines, in Russia's far east, are geographically closer to Toronto than they are to Moscow.

Reluctantly drawn into talking about Kinross's past deals, and his role in them, Mr Rollinson says many have worked out well and points out that the most criticised, the Red Back Mining acquisition, was voted through by shareholders.

Now he prefers to look forward. Kinross last year acquired a US mine in Nevada from Barrick, the world's largest gold producer by volume, and the gleam in Mr Rollinson's eye suggests he believes he has got a good deal.

Together with the resolution of the saga over Tasiast's expansion, he says Kinross now has "good momentum".

"People are feeling good about the business. It's been a slog, I can't tell you it hasn't — it's been hard work. But people are seeing the fruits of their labour . . . what we have to do is keep our focus and keep working hard."

CV

Born February 13 1962
Education Degree in geology, Laurentian University, 1985; masters degree in mining, McGill University, 1991
Career
1985 to 1989: Geological field work in Northern Ontario, KerrAddison, MPH Consulting
1991: Works in investment banking after joining Burns Fry in Toronto, later BMO Nesbitt Burns
1997: Joins Deutsche Bank in Toronto, metals and mining – investment banking
2001: Joins Scotia Capital, Toronto, eventually becoming deputy head of investment banking
2008: Appointed executive vice-president, new investments, at Kinross
2009: Appointed executive vice-president, corporate development
2012: Becomes Kinross chief executive
Interests Skiing, fishing, boating, tennis

Second opinion

The former colleague

Egizio Bianchini, vice-chair and co-head, global metals and mining at BMO Capital Markets, first met Paul Rollinson when they worked in banking in the late 1990s. "He is a very compassionate guy — he has a gruff exterior but he is a guy that cares and he plays straight. He relates well to people.

"He is not a classic speechmaker, but he is effective in communicating with investors. There was a lot of incredulity about Kinross and he has bought time and respect for the company."

Working smarter

Common problem-solving traps and how to avoid them

EMMA DE VITA

Overthinking a problem, leaping to solutions and self-censoring your ideas are three common thought traps that might be avoided with simple techniques.

The first, overthinking, is unhelpful because it complicates the original problem. Instead we should come up with an early solution, stop thinking it through and start testing it instead. An important part of this is to work out the assumptions we have made in order for the solution to work, then to test them.

"Pick the most worrisome assumptions because they are the ones that will defeat you," says Matthew May, author of *Winning the Brain Game*. Once you have tested your assumptions, more planning can be done.

Leaping to solutions is common when brainstorming and makes for unoriginal ideas. Mr May's remedy is to inject an extra step into the process before starting to come up with solutions. This step is to challenge the problem being posed by trying to look at it in different ways using "why", "what if" and "how". Then brainstorm the two best questions.

Self-censoring kills good ideas before they can be aired. Make yourself more objective about them by distancing yourself from them, says Mr May. This could include writing down what you think about your idea in the third person. "It makes you a more objective observer," he says.

Trisha Scudder, founder of Executive Coaching Group in the US, says that the way we think is set during childhood, but a crisis, or a process such as therapy, can transform our thinking.

Once you are aware of how your thinking has become stuck and the cost this has attached to it, you can work on changing it.

Boost your online profile
The best way to manage your digital footprint is to post useful and interesting content, says Guy Kawasaki, entrepreneur and co-author of *The Art of Social Media*. Searches by employers or clients should reveal an online presence that reflects well on you but rather than worrying about any downsides, you should focus on the positive ways you can position yourself with your posts, he says.

Add value by creating material that informs, inspires or entertains. This could include live video, which is the direction social media is taking, says Mr Kawasaki.

Technology futurist Daniel Burrus advises against deleting content you would prefer not to be there because increasingly powerful tools can detect this type of manipulation, and you will be flagged up as untrustworthy.

Neil Morrison, HR director at the publisher Penguin Random House, advises avoiding using your digital presence to try too hard to impress.

Shock of the new
For director Steven Spielberg, creativity stems from being afraid. He says his best work has been original films rather than sequels and he looks for new projects that scare him.

"Fear is my fuel," he told the New York Times. "I get to the brink of not really knowing what to do and that's when I get my best ideas. Confidence is my enemy."

workingsmarter@ft.com

Feedback

Andrew Hill's cry last week for investors to get rid of non-executive directors on a "merry-go-round of board service, lubricated with fees", drew heartfelt reader responses online:

It is true that most NEDs are complicit in the many corporate failings that exist. It is also clear that institutional investors are not up to sound and responsible ownership. They are also prone to short-termism. And they're keen to foster cosy relations with management rather than risk confrontation with high-minded constraints. Plus, just like nearly all executives and directors, the analysts and portfolio managers rarely buy stock with their own money. **Rational West**

NEDs are the eyes and ears of investors, and can see where investors are not allowed to look, and get information when it is still possible to change matters. Removing the NEDs weakens the investors. If you want more engagement, have more engagement with NEDs in place. **Devil's advocate**

If NEDs were paid fully and limited to one or two roles, they would take their role much [more] aggressively. **Patriot**

ARTS

When Stubbs explored his wild side

The artist could never accept being stereotyped as a painter of horses, as a new show will illustrate. By Robin Blake

George Stubbs had been a struggling provincial artist for 15 years when he migrated to London in 1758. The key to his almost immediate transformation into one of the most popular commissioned artists of his time lay in the portfolio of drawings he brought with him, the meticulous record of his own dissections of the skeleton, musculature and blood vessels of the horse. These were the first of their kind ever seen and convinced the horse-mad young aristocrats who saw them that Stubbs understood their favourite animal from the inside out.

The London art world, on the other hand, saw him as a dirty-booted, stable-smelling horse-painter, good at his job but hardly *bon ton*. Stubbs could never accept the stereotype. While continuing to paint horses for a living, he diversified. Stubbs taught himself to engrave, then printed and published his *Anatomy of the Horse* as a treatise; he made experimental enamel portraits and narrative paintings in partnership with the potter Josiah Wedgwood; he produced spirited conversation pieces and pastoral scenes; and he developed a new speciality — the study of exotic beasts. This last area of diversification will be the focus of a new show, *Stubbs and the Wild*, opening next month at Bath's Holburne Museum.

Londoners did not have to travel far to look at a wild beast. Any passer-by could view Queen Charlotte's zebra (or "painted ass") grazing behind Buckingham House, and the Royal Menagerie at the Tower was on every tourist's itinerary. There were also a number of commercial zoos giving a sight of their lions, tigers, monkeys and bears for a tariff of anything up to a (fairly stiff) shilling.

Another fellow showing beasts on Tyburn Road, close to Stubbs's house, hit the news in 1765 when he was caught buying human corpses from a gang of Cripplegate grave robbers to feed to his collection. Outside the capital, one of the best-known big cats of the age was the enormous tigress kept by the Duke of Marlborough at Blenheim, the subject of one of Stubbs's most imperious studies.

Of course Stubbs was not the first great artist to look closely at wild nature. Leonardo's fascination with the wild — birds in particular — is scattered through his voluminous notebooks, and there are many exquisite nature studies among Dürer's almost 1,000 extant drawings. But in all art history Stubbs was the first great figure to put himself at the disposal of zoological science.

New ways of seeing: above, 'Tygers at Play I' (before 1776). Right: 'Finished study for "The Anatomy of the Horse: 10th anatomical table"'

Private collection, Hong Kong; Royal Academy of Arts, London

His collaborations with the Duke of Richmond, the medical brothers William and John Hunter, Captain Cook's science officer Joseph Banks and specimen collectors such as Marmaduke Tunstall, resulted in an unprecedented body of work. Some of these exotic animals were visual aids for lectures by William Hunter at the Royal Society. Others, as in the case of Richmond's "Second Bull Moose" and Tunstall's "Mouse Lemur", are drawings done for the record, not necessarily intended to be worked up into show-pieces.

Among Stubbs's larger wild animal subjects in oils are the zebra, Indian rhino, yak, tiger, leopard, cheetah, nylghau and two different Canadian moose. These were initially studied from life using chalks or graphite, though none of the sketchbooks containing these studies has survived. Stubbs evidently filled one with life studies of big cats, his favourite wild animals, which he later gave to another of his physician friends, Edgar Ashe Spilsbury. An amateur early lithographer, Spilsbury made three prints from the book, and these give some idea of Stubbs's skill with chalk and pencil.

An even more tantalising survival are the three sheets done at Tunstall's house in Welbeck Street, which catch the diminutive lemur, the smallest of all Stubbs's animal subjects, in a compendium of poses. The artist's ability to take a series of mental pictures of an animal, and make a precise record of its posture and movements, is astonishing.

A highlight at the Holburne will be a chance to see the captivating oil painting of two young leopards "at play" in a rocky landscape. The picture, which sold this year at Sotheby's for a record £7.7m, has been seen in public no more than half a dozen times since it was made at some time before 1776. It is highly innovative in its handling of wild nature. Big cats in art had always been snarling and fearsome or nobly commanding. They had never been seen as youngsters romping and tussling together in this most natural and delightful way. It shows, yet again, how Stubbs's art always sought new ways of seeing, and doing.

'Stubbs and the Wild', Holburne Museum, Bath, June 25-October 2, holburne.org

ARTS VIDEO

As Tate Modern, the world's most-visited museum of modern and contemporary art, prepares to open a £260m extension, FT critic Edwin Heathcote explores the new building with its architect, Jacques Herzog
ft.com/new-tate

THEATRE

King John
Rose Theatre, Kingston upon Thames, UK
★★★☆☆

Alexander Gilmour

Technicolor tunics, cheerful chain mail and suede boots with pointy toes — Mark Friend's costumes for *King John* look like fancy dress. They work well. His medieval wardrobe — a cliché verging on pastiche — is just part of the background. That leaves the audience free to focus on the play. Mostly, it's worth it.

King John is the tale of a nervy, serpentine monarch whom no one likes — though not as good, it is a bit like *Richard III* if Richard were spineless. It is rarely staged because the final third contains too many holes. This production has borrowed from an earlier play by an unknown playwright to patch those holes up. Trevor Nunn directs cleanly.

He elicits some fine performances, too. Jamie Ballard's John comes armed with a blond mullet and a dainty trick of over-stressing consonants to mock his enemies. He lashes out because he's scared, and because he likes lashing out. He's funny. He murders small boys because it's just easier than not.

Constance (Lisa Dillon) rants constantly. She is right to rant — her son should be king and he should not meet a sticky demise before he's kissed a girl — but she rants too much. Ceaselessly. Shakespeare and Dillon have reduced a pitiful woman to the status of a bore. It is a fine comic achievement.

Howard Charles's Bastard is even better. He stalks the boards like a big, charismatic bear. Yet he is nimble and witty with it. He is never slow, but has the appearance of possessing plenty of time. And he makes sense of what he's saying. Few actors do this, as a rule. Charles chats as if the words were his own thoughts.

Two TV screens pinned to the rafters are not so delightful. They broadcast the action on stage, black-and-white battle scenes and photos of old castles. Superfluous, these screens represent the only deviation from Nunn's simple approach. Pity. He has now directed 36 of Shakespeare's 37 plays — *A Midsummer Night's Dream* his only hole — and number 36 is deft and compelling. Mostly.

To June 5, rosetheatrekingston.org

Animals animate Morpurgo's message

THEATRE

Running Wild
Open Air Theatre, Regent's Park, London
★★★☆☆

Ian Shuttleworth

"She's just a manky girl!" sneers one of Lilly's captors early in the second act. Well, after so long in the Indonesian rainforest, having fled there on the back of an elephant to escape the tsunami, she's hardly going to be pristine. Ah, but she has been in the company of a buffoonery of orang-utans: what the heavily accented man said was "monkey girl".

On transferring this adaptation of Michael Morpurgo's book from Chichester, one of co-director Timothy Sheader's decisions has been to create Lilly. Ava Potter, who played her on press night, alternates with two boys who play Will, as Morpurgo's young protagonist is in the novel.

In all other respects, their story is identical: grieving for the loss of her/his soldier father in Iraq, Lilly/Will and mother visit the latter's native Indonesia in 2004. Beach elephant, tsunami, jungle, kidnapped by poachers along with baby orangs . . . but let's leave the spoilers there.

Samuel Adamson's adaptation is efficient, allowing space for atmospheric sequences of choric vocalise (Sheader deploys large teams of young people to, in effect, be the jungle, the ocean etc) and pseudo-gamelan accompaniment.

Playful: 'Running Wild'
Johan Persson

The centrepiece of the production, though, is the magnificent animal puppetry created and directed by the Gyre & Gimble outfit. A tiger, the orang-utans (all without legs: their prehensile arms and the puppeteers serve more than adequately) and, above all, the three-person, life-size elephant Oona are all remarkably lifelike and immensely articulatable. We unreservedly believe in Oona's bond with Lilly/Will, and the playful young orangs elicit more than one "Ahhh!"

This is a mixed blessing, however. Morpurgo's message about deforestation for palm oil harvesting and the imminent extinction of numerous species is hardly advanced unobtrusively, and can feel rather pious. That leaves the puppets as potentially not just the stars of the show, but in too many respects its raison d'être.

This presentation has obviously been influenced by the techniques — and the success — of *War Horse*; it would be a shame if, despite all his achievement as a young people's novelist (and Children's Laureate 2003-05), Morpurgo became known in a theatrical context simply as the man behind all those marvellous animals.

To June 12, openairtheatre.com

CLASSICAL MUSIC

Met Opera Orchestra/Levine
Carnegie Hall, New York
★★★★★

Martin Bernheimer

James Levine has decided to take it easy — at least by his own super-ambitious standards. Having endured numerous illnesses and survived numerous accidents, the maestro, about to turn 73, now travels in a wheelchair and makes music while stationed on a motorised, multifunctional podium.

Bowing to what may be inevitable after having led 2,520 performances since his local debut in 1971, Levine is about to forswear an assignment or two at the Metropolitan Opera (emphatically *his* Met). When it comes to job labelling, he is about to change his official title, swapping "music director" for "music director emeritus". The deal doesn't seem all that big.

His energy level certainly looked lofty at Carnegie Hall on Thursday when he led his ultra-responsive Met ensemble in demanding examinations of three passionately Russian, emphatically romantic, emotionally rewarding challenges. He earned his standing ovations.

At the beginning he whipped breezily through the overture to Glinka's *Ruslan and Lyudmila*. At the end he sympathetically traced the sentimental zigzags of Tchaikovsky's *Pathétique* symphony, respecting the delicate line that separates pathos from bathos. When the spotlight shifted to the evening's soloist, the maestro provided masterly accompaniment for the great Evgeny Kissin in Rachmaninov's tortured, also tortuous, second piano concerto.

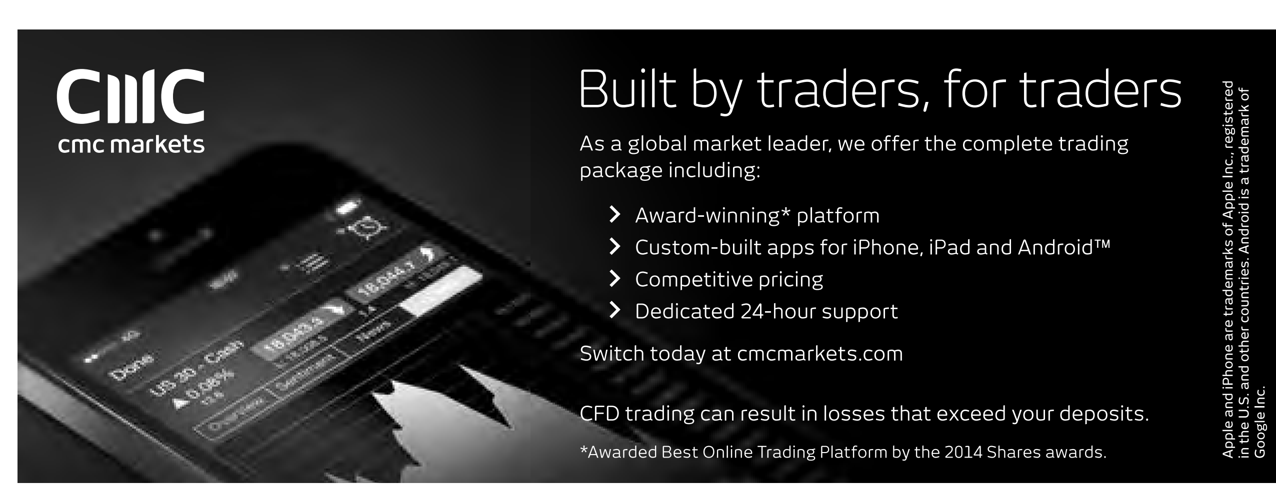
Energy: James Levine at Carnegie Hall

Kissin, who, sadly for us, has decided to limit his appearances to Europe for the next two years, sighed and rippled through his chosen obstacle course with gentle, poetic introspection, and with muted virtuosity wherever possible. It was not possible, of course, in the fiery finale, which he ignited with irresistible bravado. Somehow he made the endlessly forbidding exercise seem easy.

It may be worth noting, not incidentally, that the Met's music director emeritus does not plan to return for orchestra concerts next season. Fortunately, the management has managed to find a potentially comforting, stellar replacement in Esa-Pekka Salonen. Time, and Levine, will tell whether or not that change is permanent.

carnegiehall.org

Trading Directory



Trading CFDs involves significant risk of loss.

FxPro
Trade Forex Like a Pro
Trade FX, Shares, Indices, Futures and Metals

FxPro UK Limited is authorised and regulated by the Financial Conduct Authority (registration no. 509956).
FxPro Financial Services Limited is authorised and regulated by the Cyprus Securities and Exchange Commission (licence no. 078/07).

Direct Market Access to all major worldwide derivative exchanges
FUTURES & OPTIONS | BASE METALS | BULLION | FOREX | NDFs | NDOs | CFDs
MEMBER OF LSE + LME + DGCX + FIA EUROPE

Berkeley has been offering dealing services in derivatives since 1986.
Jackson House 18 Savile Row London W1S 3PW
Email: trade2@bfl.co.uk Web: www.bfl.co.uk Tel: +44 (0) 20 7758 4777
BERKELEY FUTURES LIMITED
Authorised and Regulated by the Financial Conduct Authority
All investing involves risk and you could lose more than your initial deposit.

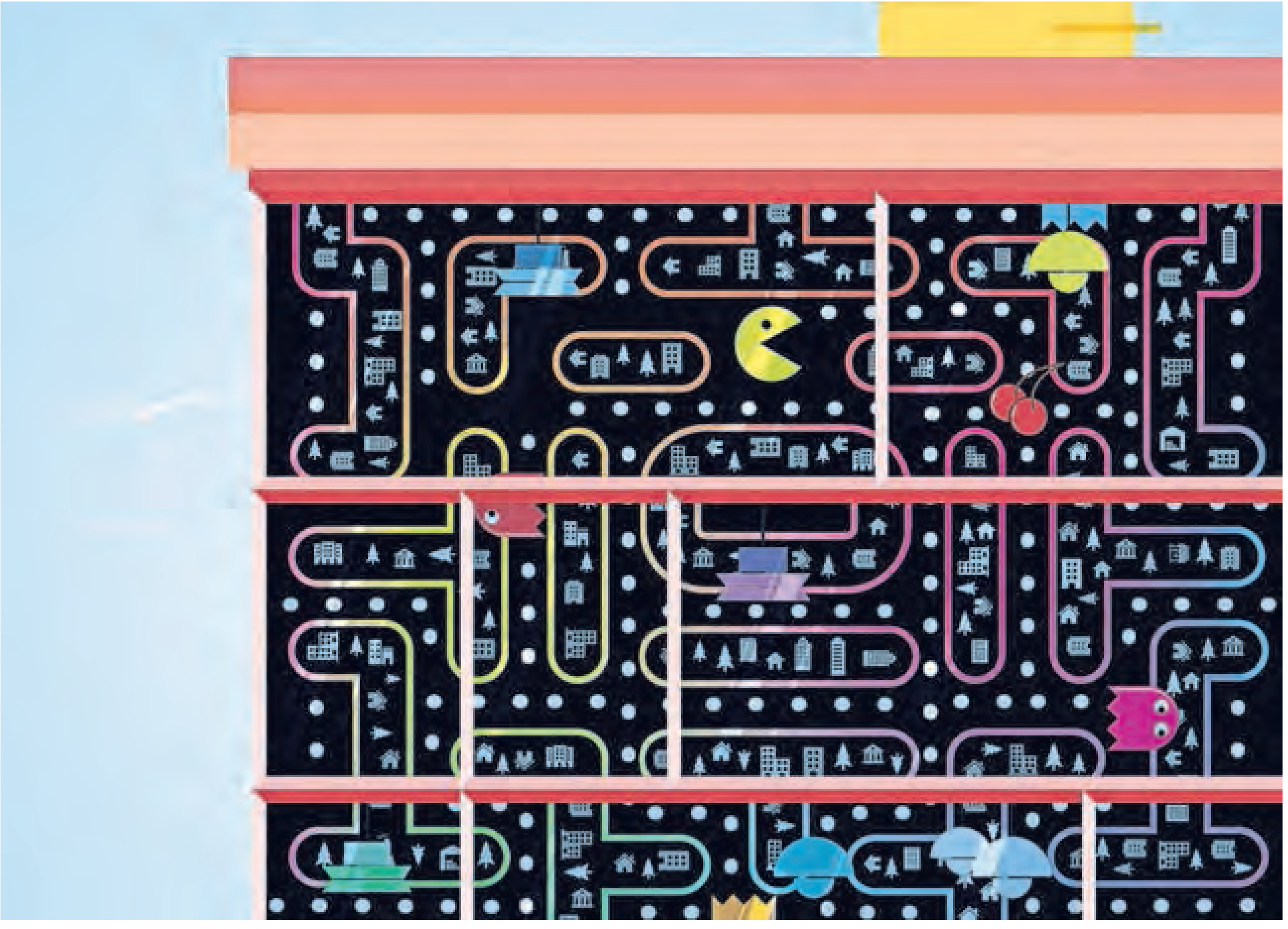
Trading Directory

Trading Directory
Runs Daily
Classified Business Advertising
UK: +44 20 7873 4000 | Email: acs.emea@ft.com

Talking Tech

Explore more sports data analysis and visualisation in our series at ft.com/baseline

Indoor satnav offers hope to lost people



Proceed to gate: the aim of Pointr's system, which is being trialled at airports, is that relaxed consumers are less likely to rush and more likely to buy — Graphic: Brian Saffer/FT

Jonathan Margolis

GPS satellite navigation was made for me. I used to be the world's most lost person.

I don't know quite which non-quality I possess that causes this, but I still painfully recall the 1994 Birmingham, Alabama fiasco — an hour for a two-mile drive. And the two hours in 1974 I spent trying to escape a French town with no signposts.

So when in 1996 I trialled one of the first satnav systems, fitted by Philips to a Range Rover — £12,000, wheel sensors included and if you knocked a wheel on the kerb, it all had to be recalibrated — I was more excited than by any other tech advance before or since.

But navigation indoors, where satellites don't work, is another question. For someone who even gets lost on the way to the bathroom, it would be the dream. I was not joking in a March column when I begged for someone to invent a way of locating my wife — or indeed any given product — in Sainsbury's.

There have been some interesting and successful pilots for indoor location by big tech companies. But I am thrilled to report that now a tiny British company, Pointr — the archetypal Shoreditch, beanbags in the meeting room start-up — seems to have really cracked indoor direction finding.

Unannounced, Pointr's system, which offers indoor navigation accurate to a metre, is currently being trialled by a huge London department store (I can't say which yet), a leading British supermarket (ditto), a big London rail station and four large airports worldwide.

I had a tortuous but fascinating briefing the other day on those accursed beanbags (Dear Tech Startups, please go back to chairs) and then went to see a live Pointr installation. And it absolutely works. For me, it felt like a replay of 20 years ago and that prototype satnav moment.

The Pointr demo was on the 39th floor of One Canada Square at Canary Wharf in London, the tall, fat centrepiece building, each floor of which contains 30,000 square feet of prime getting-lost real estate.

There are 250 fintech start-ups in Space 39, as it's called, along with public areas. Using Pointr, even I was able to find legendarily tricky places like the gents more or less sure-footedly.

Back in Shoreditch, Pointr's Axel Katalan told me just how big the business of locating people and assets indoors could be.

"It's for airport passengers to see where they are, where the gate is, how long it will take to get there. But also think of libraries, hospitals, warehouses, factories, retail, even casinos. Anywhere big enough to get lost. And it is also usable by the visually impaired, using audio cues."

Part of the business case for Pointr is that when people at stations and airports are confident about getting where they need to be, they will relax and explore the retail opportunities, which they will also be able to locate more easily.

Operators of such venues also get a trade-off in the form of detailed "heat maps" of where people (at least those carrying mobile phones with Bluetooth) cluster. These maps are apparently something of a data holy grail — traffic mapping is currently done by people with hand clickers.

The technology for Pointr is based on Bluetooth beacons, coin-sized, battery-powered discs mostly made, curiously, by Polish companies. Beacons were once touted as the future of marketing, but people weren't keen on being marketed at; navigation may be their rebirth. It took 450 beacons to kit out the London department store, installed secretly at night over a week.

But don't supermarkets like you getting lost so you'll find more to buy? Yes, Mr Katalan says, but precious footfall data are even more important to them. The only retail venue to date that has told Pointr they prefer people being confused is the Grand Bazaar in Istanbul — a city which is also home to one of the 25-strong start-up's three overseas offices, alongside Munich and Dubai.

So is indoor nav a keeper? Mr Katalan believes it's at the stage WiFi was at 10 years ago: alien to most people, but on its way to becoming a tech staple.

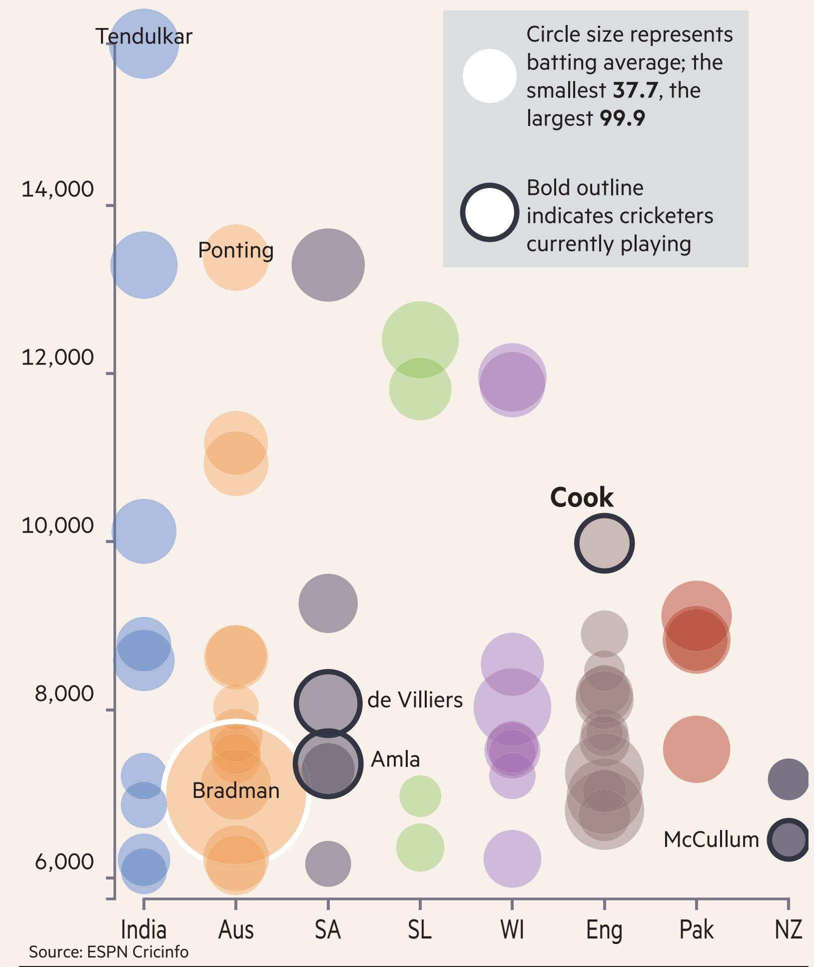
I have a feeling that in 10 years' time, those unable to find their way around a big public space will be as annoying retro as people today who don't have GPS and stop their car to ask someone — normally me — for directions.

jonathan.margolis@ft.com
@TheFutureCritic

The Baseline

Alastair Cook set to join elite club with 10,000 Test runs

Showing career Test runs scored, for players with more than 6,000 to date



Source: ESPN Cricinfo

ROB MINTO

In his next Test match Alastair Cook, England captain's, will almost certainly hit his 10,000th Test run. He will join a club of 12 players, and will become the youngest (though not the fastest) cricketer to do so.

The achievement only highlights the paucity of English players at the top of the Test batting tree. India and Australia both have three players who finished their careers with more than 10,000 Test runs, and Sri Lanka and the West Indies have two each.

Although neither Pakistan nor New Zealand have a 10,000 Test batsman, it seems odd that there have been no truly big English run scorers in the modern era before Cook.

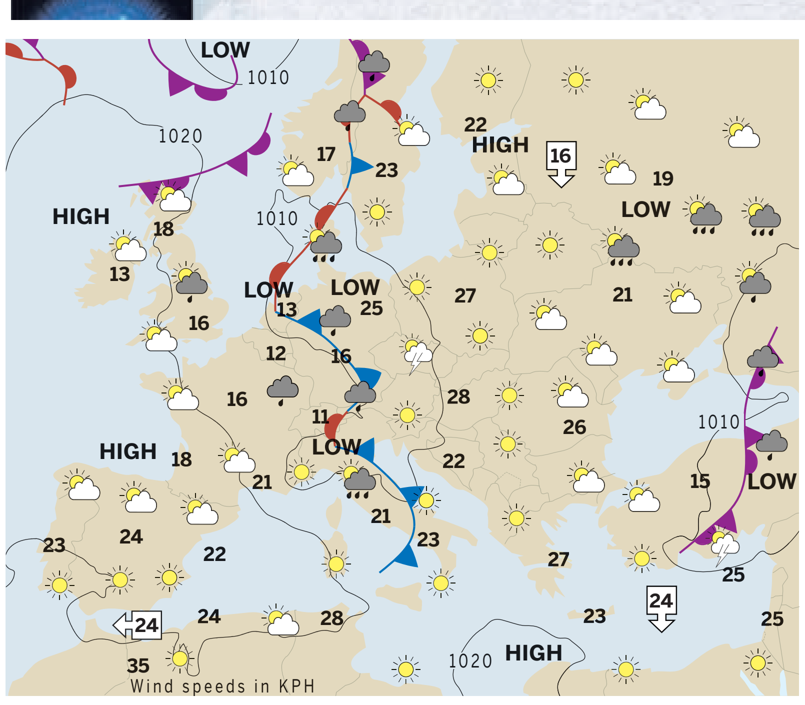
Those of earlier eras simply didn't have enough Test matches to rack up 10,000. Wally Hammond would have made it but he only played 85 Tests for his 7,249 runs. Most of the 10,000 club have played 150 Tests.

However, as the number of Tests played each year rose in the early 1990s, England struggled. While many of the 10,000 club were starting their careers, England lacked cohesion and frequently faced a series of great bowlers in their prime. It is only relatively recently that England have become a top Test nation.

Cook's place as England's best batsman — numerically at least — is without doubt. But it is better to judge him against his international peers than against England players past.

WEATHER

Transform. Transcend. ntt.com/en



Forecasts by MeteoGroup · Warm front · Cold front · Occluded front · Wind speed in KPH

Today's temperatures

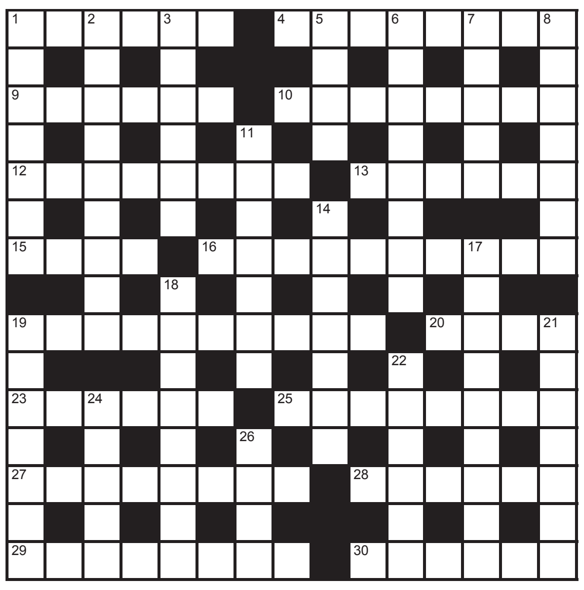
Maximum for day °C

Abu Dhabi	Sun	38	Malta	Sun	25
Amsterdam	Rain	13	Manila	Thunder	33
Ankara	Thunder	15	Miami	Cloudy	29
Athens	Sun	27	Milan	Shower	19
Bahrain	Sun	37	Montreal	Sun	25
Barcelona	Sun	21	Moscow	Shower	19
Beijing	Shower	23	Mumbai	Fair	34
Belfast	Cloudy	15	Munich	Rain	15
Belgrade	Sun	29	Naples	Sun	23
Berlin	Fair	25	New York	Cloudy	21
Brussels	Rain	14	Nice	Sun	22
Budapest	Sun	28	Nicosia	Fair	25
Cairo	Sun	29	Oslo	Rain	17
Cardiff	Shower	17	Paris	Rain	16
Chicago	Sun	26	Prague	Thunder	23
Cologne	Rain	14	Reykjavik	Drizzle	10
Copenhagen	Sun	21	Riga	Fair	22
Delhi	Sun	40	Rio	Rain	25
Dubai	Sun	36	Rome	Sun	21
Dublin	Fair	14	San Francisco	Cloudy	18
Edinburgh	Fair	16	Singapore	Fair	34
Frankfurt	Rain	16	Stockholm	Fair	23
Geneva	Shower	12	Strasbourg	Shower	15
Hamburg	Rain	22	Sydney	Sun	25
Helsinki	Sun	22	Tokyo	Sun	29
Hong Kong	Fair	29	Toronto	Sun	24
Istanbul	Fair	23	Vancouver	Cloudy	17
Lisbon	Sun	23	Vienna	Sun	26
London	Shower	18	Warsaw	Sun	27
Los Angeles	Fair	21	Washington	Shower	21
Luxembourg	Rain	12	Zagreb	Thunder	25
Madrid	Sun	24	Zurich	Rain	11

Transform your business, transcend expectations with our technologically advanced solutions.
NTT Communications
Transform. Transcend.

MONDAY PRIZE CROSSWORD

No. 15,247 Set by DANTE



A prize of The Good Word Guide by Martin Manser and How to Sound Clever by Hubert van den Bergh will be awarded for the first correct solution opened. Solutions by Wednesday June 1, marked Monday Prize Crossword 15,247 on the envelope, to the Financial Times, 1 Southwark Bridge, London SE1 9HL. Solution on Monday June 6.

....

....

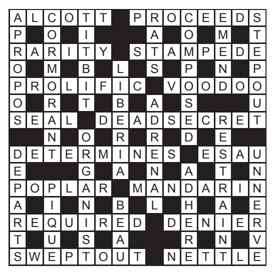
ACROSS

1 Leave the City in the wet (6)
4 Pointless massacre produces funny reaction (8)
9 Allow to rest peacefully? Quite the opposite (3,3)
10 Particularly the highest (5,3)
12 Frantic if centre is moved (8)
13 The noise of a fiddle (6)
15 Fat boy runs inside (4)
16 This comes of ignoring established customs (10)
19 Standard requirement for pirates? (5,5)
20 Complain when I get involved with the law (4)
23 Too inexperienced to express pain (6)
25 What Nelson turned to his advantage at Trafalgar? (5,3)
27 Tell everyone girl's gained weight (8)
28 Clasp one's leg-bone (6)
29 They may make nurses go out with them – to the theatre? (8)
30 Expert in Judo beaten (6)

DOWN

1 Old flue needs replacing, that's sad (7)
2 Lincoln is such a city – see around it (9)
3 Miss that may be clapped on the cricket pitch (6)
5 A pound's put on clerical wear (4)
6 Be generous with some incriminating information (4,4)
7 Used by athletes, it helps to make a record (5)
8 King overjoyed when told (7)
11 Loose garments provided by Mikonos resort (7)
14 Highest place in the church (7)
17 Consequently how the product is expressed (2,1,6)
18 Cyrus, one resolved to be the centre of attention (8)
19 Fool sailor on a ship (7)
21 A welder renovating the sheltered side of a ship (7)
22 Draw ten out – of diamonds? (6)
24 One between the Left and the Right is unlikely to join a party (5)
26 An image of swindler admitting his crime? (4)

SOLUTION 15,235



The winner's name will be published in Weekend FT on June 4

FT TURKEY SUMMIT
The New Turkey

25 May 2016 | InterContinental ISTANBUL

We have secured an excellent line-up of industry and government leaders who will be providing their exclusive insights on what's next for Turkey.

Mehmet Şimşek, Deputy Prime Minister, Turkey
Suzan Sabancı Dinçer CBE, Chairman and Executive Board Member, Akbank
Şafak Pavey, Diplomat, Columnist and Politician
Sina Afra, Co-founder, Markafoni
Mittu Sridhara, Chief Technology Officer, Hepsiburada.com
Alderman The Lord Mountevans, *The Rt Hon. The Lord Mayor of London*

Don't miss the opportunity to discuss, learn from, and network with the decision-makers shaping Turkey's future.

live.ft.com/Turkey

Platinum sponsors
AKBANK
TURKISH AIRLINES

An event from FINANCIAL TIMES LIVE

Companies & Markets

FINANCIAL TIMES

Wounded giant Gazprom grapples with lower gas prices — JACK FARCHY, PAGE 15

Pay protests Piketty has last laugh as shareholders revolt — JONATHAN GUTHRIE, PAGE 14

S Africa fund considers black consortium for Barclays Africa

- PIC looks at black-controlled bank
- Move follows parent's stake sale

ANDREW ENGLAND AND JOSEPH COTTERILL — PRETORIA

The Public Investment Corporation, South Africa's powerful state-owned pension fund manager, is considering putting together a consortium of black investors to take a controlling stake in Barclays Africa.

Dan Matjila, chief executive of PIC, which has about $117bn under management, told the Financial Times that Barclays' decision to sell its Johannesburg-based African subsidiary provided the "best opportunity for us to create a black-controlled bank".

He added: "I don't want to go public on the details, but the idea should be black investors clubbing together to buy a reasonable share and we will be part of that to create the first black-controlled bank. That would be most desirable — we are not there yet."

South Africa's most powerful and influential investor is already a leading shareholder in Barclays Africa Group Limited. It increased its stake to 7.3 per cent by buying a tenth of the shares sold in an accelerated bookbuilding earlier this month. That reduced Barclays' stake in its African business from 62 per cent to slightly more than 50 per cent.

Barclays Africa is one of the "big four" banks that dominate South Africa's financial sector.

There has been a perception that a black-controlled bank would better serve the black majority population and help address some of the economic imbalances from apartheid.

Patrice Motsepe, South Africa's first black billionaire, has also expressed an interest in a stake in Barclays Africa, according to two bankers involved in talks for him to lead a consortium of investors. Mr Motsepe made his fortune in mining, but last month launched African Rainbow Capital, with the aim of focusing "on financial services and private equity in South Africa within a pan- African context".

ARC has not commented on the speculation, and Mr Matjila declined to give details of who might be in a consortium. However, he said he had spoken to Bob Diamond, Barclays' former chief executive whose Altas Merchant Capital venture has teamed up with US private equity group, Carlyle, as part of another consortium keen to buy the Africa subsidiary.

> 'The idea should be black investors clubbing together to buy a reasonable share'

Mr Matjila added: "If Barclays is prepared to sell to Diamond, we have to assess if he's a good partner as well.

"It will be good to have also offshore money coming in because this is not a small stake."

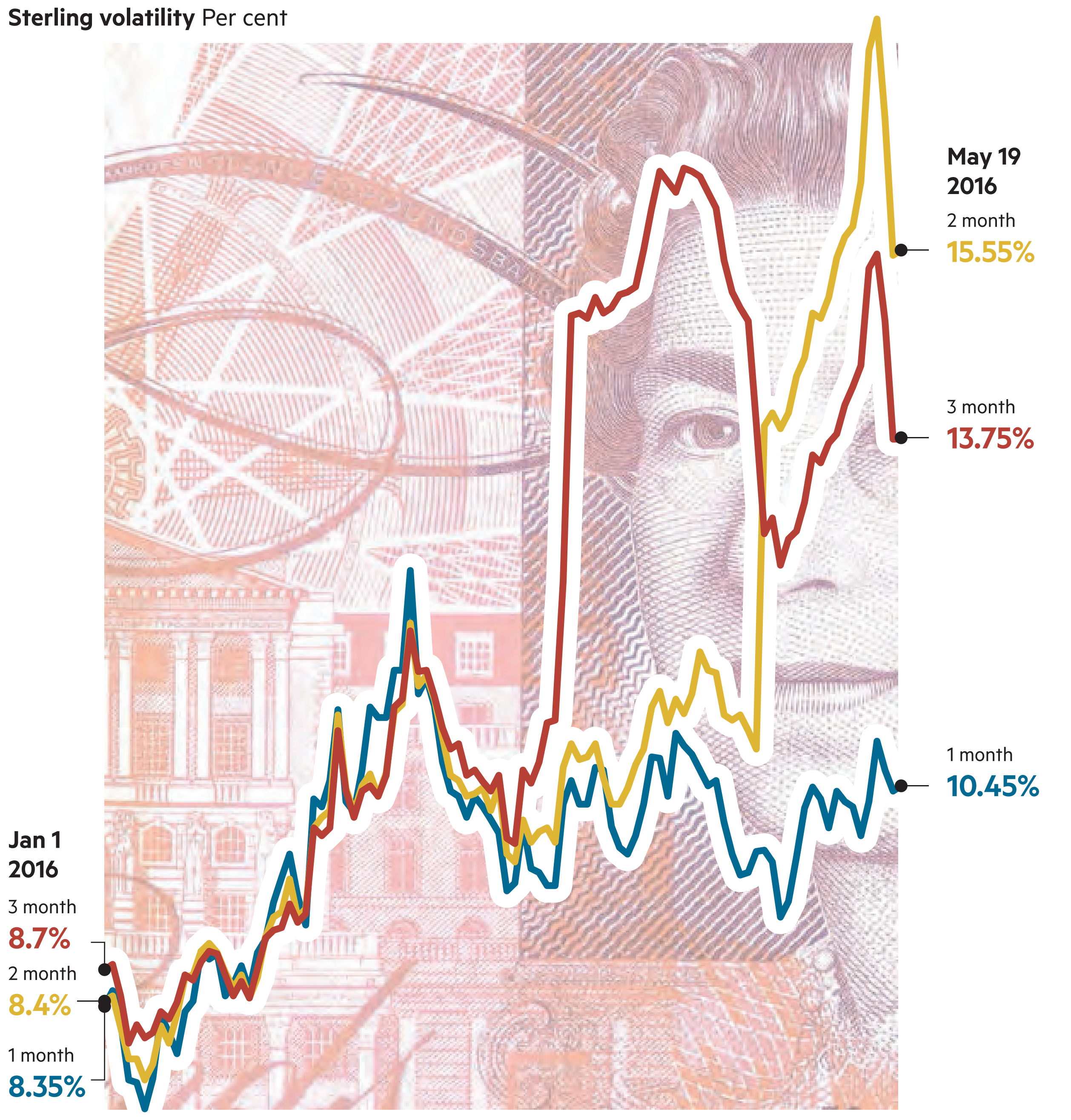
The PIC, which manages funds on behalf of the Government Employees Pension Fund (GEPF), owns the equivalent of about 12 per cent of the market capitalisation of the Johannesburg Stock Exchange, but rarely takes controlling stakes in companies.

Mr Matjila said the PIC could look to use an investment in Barclays Africa to advance black economic empowerment by offering shares in the bank to the 1.2m members of GEPF through a special investment vehicle.

Fund shifts focus page 16

Market jitters Fears resurface over impact of Brexit

Sterling volatility Per cent



Source: Thomson Reuters Datastream

ROGER BLITZ

Market fears about so-called Brexit will resurface this week, with a sharp rise in the cost of insuring businesses and portfolios against a collapse in sterling, currency analysts predict.

With the UK's referendum on EU membership one month away, the sterling options market is being closely watched for signs of investors' worries at being caught out by a fall in the pound from a British exit, or Brexit.

A series of opinion polls showing the Remain camp opening a healthy lead last week pushed sterling sharply higher against the dollar and the euro. But the pound slipped back on Friday, and fluctuations in the options market have shown how jittery investors have become about the impact of Brexit.

Implied volatility — a measure of how volatile the market thinks sterling is going to become, based on price moves in sterling options — has risen sharply for three-month and two-month forward options as the referendum has become closer.

Three-month implied volatility jumped from 11.08 per cent on March 21 to 14.93 per cent two days later, while two-month volatility leapt from 10.98 per cent on April 22 to 13.88 per cent within four days.

Implied volatility for one-month sterling options is this week expected to follow suit. "One-month volatility will spike higher," said Adam Cole, head of foreign exchange strategy at RBC Capital Markets.

Implied volatility has not tracked opinion poll data as much as sterling's moves, in part because of a lack of liquidity in the options market, the result of options sellers becoming reluctant to risk exposure to sterling volatility.

Richard Benson at portfolio manager Millennium Global Investments said that, given recent polls and that the bookmakers put the probability of an exit as low as 20 per cent, "I'm surprised that implied volatility has not been crushed more".

Jane Foley, forex strategist at Rabobank, said the size of the spike depended on poll findings: "If we have more opinion polls suggesting the Remain camp are pulling ahead, we might not be looking at a spike but at a small rise."

Axa to ditch its tobacco stakes over health clash

OLIVER RALPH
INSURANCE CORRESPONDENT

Axa is to ditch its tobacco investments, arguing that owning them clashes with its position as a health insurer.

The move is a timely boost to anti-tobacco campaigners, coming as other big investors consider going back into the sector.

The French insurer owns €1.7bn of tobacco shares and bonds. The shares will be sold immediately while the bonds will be left to run off. The move comes exactly a year after Axa said it would sell its €500m of coal investments ahead of the Paris climate change summit, becoming one of the first big financial groups to do so.

"With this divestment from tobacco we are doing our share to support the efforts of governments around the world," said Thomas Buberl, who takes over as Axa chief executive in September. "This decision has a cost for us but the case for divestment is clear: the human cost of tobacco is tragic, the economic cost is huge."

Axa will not be the first investor to get out of tobacco. The Norwegian oil fund, along with US public sector pension groups Calpers and Calstrs dropped their investments in the industry years ago. But the French group believes that it is the first commercial insurer to take a stand on the issue. Its decision comes as commitment elsewhere is wavering. Calpers is considering reinvesting after a report found that it had potentially missed out on $3bn of returns since it stopped investing in tobacco in 2000.

Axa, which took in €8bn of health insurance premiums last year, says it no longer sees tobacco as an attractive investment. "We are aware of the past performance of tobacco investments. This is a decision we are proud to make," said Alice Steenland, head of corporate responsibility, adding: "It is a sunset industry. More and more countries are going to put controls on it."

The UK, France and Ireland have recently passed legislation requiring cigarettes to be sold in plain packaging, while Australia introduced the measure in 2012. "Zero tobacco is the right amount of tobacco in terms of health," says Ms Steenland. "It is hard to ignore that as a health insurer."

Redstone's board changes set stage for bitter fight

Sumner Redstone, the 92-year-old billionaire media mogul, has set the stage for a bitter fight over his US groups CBS and Viacom by removing two long-time friends and lieutenants from the board of a family trust that will manage his assets after his death.

Analysis ▶ PAGE 14

Falling power prices force European utilities to write down assets by €30bn

KIRAN STACEY — LONDON

European utilities wrote off a record amount of value from their assets last year, new figures show, bringing the total cost of impairments to more than €100bn in the past six years.

Data compiled by analysts at Jefferies show that 12 of Europe's biggest energy companies had to reduce the value of their assets — many of them power stations — by more than €30bn in 2015.

This brings the total value of write-downs in the sector to €104bn since the beginning of 2010 — the cost of building the controversial UK nuclear power station at Hinkley Point nearly five times over. The impairments swept across the sector as the tumbling price of wholesale power, coupled with an increase in renewables, left coal- and gas-fired power plants worth much less than previously calculated.

Analysts at Jefferies called the value destruction "biblical". Peter Atherton, who compiled the figures, said: "Utilities went through a golden period from 2002-10, when rising power prices meant that earnings roughly doubled across the sector.

"They spent most of the proceeds of that buying each other up, inflating asset prices, and what we are seeing now is the deflation of that bubble."

Since the beginning of the decade, 50 gigawatts of gas-fired capacity in Europe — equivalent to 50 nuclear plants — have been closed or mothballed by 10 of the continent's biggest utilities. In the UK, Rugeley B last week announced it would in June become the third coal-fired power plant to close in 2016, amid low power prices and stricter emissions standards.

Engie, the company that runs Rugeley, has had to make sharper write-downs than any of its European rivals, partly because it owns thermal power plants around the world.

The company, formerly known as GDF Suez, wrote off the value of its assets by €8.7bn last year as it aims to refocus away from Europe.

Other companies that have had to make similar impairments include Eon and RWE, the German utilities, and EDF of France.

Companies / Sectors / People

COMPANIES

Banks

UniCredit starts search for new chief

Headhunters set to be appointed after weeks of investor discontent

RACHEL SANDERSON — MILAN
MARTIN ARNOLD — LONDON
HENRY FOY — WARSAW

UniCredit's board of directors will hold an extraordinary meeting tomorrow to appoint headhunters to find a replacement for chief executive Federico Ghizzoni, five people with direct knowledge of the matter have said.

Mr Ghizzoni could leave Italy's biggest bank as early as next week.

The move at Italy's only globally significant financial institution comes after weeks of investor discontent about governance and the poor share price performance. UniCredit's shares have fallen 40 per cent this year, compared with a 25 per cent fall for its rival Intesa Sanpaolo. UniCredit trades at 0.5 times tangible book value.

Concerns have reached a head on two fronts in the past month. UniCredit's common equity tier one ratio, in which it already lags behind most peers, weakened in its first quarter to 10.5 per cent, raising concern about the strength of its balance sheet.

Mr Ghizzoni has come under pressure following UniCredit's agreement to underwrite a risky €1.5bn capital raising at Popolare di Vicenza, a regional bank, in spite of UniCredit's weak capital position.

The cash call failed to attract sufficient investors and was ultimately backstopped by a systemic rescue fund. A rival bank chairman described the situation as "a soap opera".

Top shareholders, which include Aabar of Abu Dhabi, consider not only Mr Ghizzoni's position untenable but also that of the entire top management, according to several people with direct knowledge of the matter.

Luca Cordero di Montezemolo, the former Ferrari chairman who represents Aabar on the board and heads the governance committee, was due to start negotiations on the chief's exit package this week, they added.

"There is no way any of the top line of management are in a position to become CEO as they have all been discredited by the recent events," said one top 10 shareholder.

Bankers considered potential successors include Jean-Pierre Mustier, a former Société Générale and UniCredit executive, Alberto Nagel, chief executive of Mediobanca, and Marco Morelli, a former Intesa banker currently at Bank of America Merrill Lynch, according to several people.

'There is no way any of the top line of management are in a position to become CEO as they have all been discredited'

Lucrezia Reichlin, an economist who sits on UniCredit's board as an independent director, is considered a potential chairman of the bank to replace Giuseppe Vita.

The 81-year-old chairman's governance of the board has also been under scrutiny since the Popolare di Vicenza capital raising and several bankers said Mr Vita should be departing before Mr Ghizzoni.

Senior bankers said pressure would be on the new chief executive to undertake a wide-ranging shake-up of the group, including a multibillion-euro capital raising and asset sales. Those moves would allow UniCredit to retreat from its globally significant status and the extra capital requirements that come with it.

Media. Sumner Redstone

Stage set for fight over mogul's empire

Daughter and longstanding allies in bitter clash over control of CBS and Viacom

MATTHEW GARRAHAN — NEW YORK

Even at 92, Sumner Redstone has not lost his capacity to surprise. The billionaire media mogul has set the stage for a bitter fight over CBS and Viacom, owner of MTV, Comedy Central and Paramount Pictures, by removing two longtime friends and lieutenants from the board of a family trust that will manage his assets after his death.

The removal of Philippe Dauman, whom Mr Redstone has often referred to as his most trusted ally, and George Abrams, a friend for 50 years, puts Mr Redstone's daughter Shari in pole position to manage his empire when he has gone. Ms Redstone now has an effective majority on the Sumner M. Redstone National Amusements Trust but she can expect a drawn-out fight — and it has already started.

Mr Dauman, Viacom's chairman and chief executive, and Mr Abrams, a Viacom board member, released statements over the weekend suggesting that Mr Redstone had been manipulated by his daughter, with whom he has frequently clashed. The board removals were invalid and illegal, Mr Dauman's spokesman said, and "a shameful effort by Shari Redstone" to seize control by unlawfully using her "ailing" father's name and signature.

He also questioned Mr Redstone's mental capacity. That was at odds with Mr Dauman's statements six months ago, when a former girlfriend of the media mogul filed a legal petition challenging her removal as his primary carer. Manuela Herzer claimed Mr Redstone had been manipulated by people around him; his cognitive abilities had been "decimated", she said, adding that he had become a "living ghost".

Mr Dauman, who has faced shareholder pressure over the past 12 months because of the ailing performance of Viacom — its shares have fallen close to 40 per cent over the past 12 months — has since changed his stance.

Mr Redstone "now lacks the capacity" to have sanctioned the board removals, a spokesman for Mr Dauman said.

A spokesman for Viacom added that the company had not heard from Mr Redstone, who had been silent while listening to a recent board meeting.

"The actions taken . . . in Sumner Redstone's name are completely inconsistent with his long-expressed wishes," the spokesman said.

Ms Redstone had "isolated" her father and "put his residence on lockdown", which was "clear evidence of her exercise of undue influence".

The saga over Viacom, above, shows no signs of ending after Sumner Redstone, top right, removed Philippe Dauman, bottom, from the board of a family trust. Mr Redstone's daughter Shari, centre, has been accused of a 'shameful effort' seize control — Andrew Burton/Getty Images

Efforts by the company's board and its lead independent director to meet Mr Redstone have been rebuffed. The spokesman added Mr Redstone was being "manipulated and used by his daughter in an attempt to accomplish her long-held goal, which Mr Redstone has always opposed, of gaining control of National Amusements and Viacom".

Ms Redstone issued a one-line statement in response: "I fully support my father's decisions and respect his authority to make them."

She has support among Viacom shareholders, including SpringOwl Asset Management, an activist fund that has called for the removal of the Viacom management team for its poor performance and lavish executive compensation arrangements.

Eric Jackson, SpringOwl's managing director, said: "It should have happened years ago. We think shareholders will be rewarded for this action . . . and that positive reaction should speak volumes to the rest of the board."

He said the firm found it "odd" Mr Dauman had supported Mr Redstone's competence throughout the fight with Ms Herzer — and when Mr Redstone and the Viacom board signed off the $71m in pay and shares Mr Dauman received in 2015. "Yet now he claims Sumner is no longer competent to make this decision [about the make-up of the trust]. It's time for Dauman to go."

A California court this month rejected claims that Mr Redstone was mentally incompetent when it dismissed the suit brought by Ms Herzer. She immediately filed a $70m legal claim against his daughter. Pierce O'Donnell, Ms Herzer's lawyer, said Ms Redstone had orchestrated a "devious campaign to take over her father and his estate and to throw the love of his life . . . out of his house".

Ms Redstone called the claims "total fiction".

It is unclear what Ms Redstone, vice-chairman of CBS and Viacom, will do next. She is close to Les Moonves, chief executive of CBS, which has performed well relative to its media peers in the last few years, and is unlikely to push for changes at the company.

The removals of Mr Dauman and Mr Abrams will have no immediate bearing on the board make-up of Viacom. But if the pair fail to overturn their dismissals, their days as Viacom board members are likely to be numbered.

With its unerring ability to surprise, the Sumner Redstone saga shows no sign of ending.

INSIDE BUSINESS
ON MONDAY

Jonathan Guthrie

Piketty has last laugh as shareholders revolt against pay status quo

Thomas Piketty's 2013 tome *Capital in the Twenty-First Century* was dismissed by diehard critics as doctrinaire, statistically flawed and boring. But the French economist's broadside against financial inequality is receiving validation from an improbable quarter: stock investors.

Last week shareholders revolted against the pay policies of Deutsche Bank and Goldman Sachs. Similar censure votes have been registered this spring at Citigroup, French carmaker Renault and a slew of UK companies, including oil company BP.

Pay revolts are nothing new. At the WPP advertising conglomerate, where Martin Sorrell received an eye-popping £70m last year, they are an annual pantomime that is swiftly disregarded by the board.

The difference this year is that the rebellions reflect worries at the wealth gap between executives and Joe Average. This is a perplexing development for those who, like many in the private sector, consider that the social mission of business is to make decent profits and that investors should reward bosses accordingly.

Hans-Christoph Hirt of Hermes, a UK investment manager and consultancy that campaigned against Deutsche's pay plan, says: "There is a much bigger sensitivity this year to large payouts and income inequality. I have never seen these issues so openly discussed."

The conservatively minded boss of a large City of London institution agrees. "Income inequality is a very big issue, here and in the US. It's part of the subtext of what is going on in pay votes," he says.

Gossiping over dinner, the finance director of a FTSE 100 company says: "Investment managers are clamping down on executive pay because if they don't, the government has told them it will."

There is no evidence to support this rumour, which is inspired perhaps by the willingness of the UK government to fix pay levels at the other end of the scale via a National Living Wage. The government has, it is true, sometimes forestalled bonus payments to bosses of bailed-out banks.

Paris picked up the interventionist baton this year. The French state was among investors that last month voted against the €7.3m package of Renault boss Carlos Ghosn.

'I have never seen payouts and income inequality so openly discussed'

Income inequality, which has risen in the US and UK since the 1980s, is a fuzzy background issue. Individual censure votes have tended to howl, as they always have, at "rewards for failure", or are nit-pickingly specific to the companies concerned.

Both descriptions applied at Deutsche, where 52 per cent of shareholders voted against an executive remuneration plan. The bank made a €6.8bn loss in 2015. Its shares have fallen 60 per cent since 2014. The timing was poor for a "divisional performance award", whose targets would have been heavily in the gift of the supervisory board.

The London leg of the insurrection kicked off last month, when 59 per cent of shareholders voted against BP's remuneration report. This featured a 2015 pay award worth almost $20m for Bob Dudley. The chief executive did not deserve a $1.2m bonus increase to about $4.2m in a year when shares had fallen some 15 per cent, critics said.

Protest votes followed at big businesses including miner Anglo American and Shire, the pharmaceuticals group.

At one level these mattered little. Slow hand claps for racy remuneration were, with one exception, purely advisory. At another level they mattered a lot. Not just because many London-listed companies face binding votes next year. The displays of pique showed that the consensus on pay that emerged in the noughties is collapsing.

Few European investors objected to big payouts previously, so long as corporate performance was good. Now they say "quantum" — or absolute amount — is important. This is reflected in the plans of Norway's $870bn oil fund to vote down packages it deems excessive. But shareholders will not say how much pay is too much.

Similarly share options were replaced with share-based "long-term incentive plans" at well-behaved UK companies years ago. LTIPs — a characteristic product of remuneration consultants — are prone to fiendish complexity and to paying out deferred bonuses just when profits flag.

Investors agree that LTIPs have failed. They cannot agree what to replace them with. Executive pay-setting as a whole appears just as dysfunctional as ever. Capitalism is no nearer to collapsing under its supposed contradictions than when Prof Piketty published a book whose title self-consciously reprises that of Karl Marx's *Capital*.

The system by which capitalists reward their top bosses, on the other hand, is looking decidedly wobbly.

jonathan.guthrie@ft.com

Energy

Hanergy plays down founder's resignation

LUCY HORNBY — BEIJING

Hanergy, the Chinese solar group, has warned against over-interpreting the unexpected resignation of the group's founder and controlling shareholder, Li Hejun, from its listed unit.

Hong Kong-listed Hanergy Thin Film Power said late on Friday that Mr Li had resigned as chairman of the board and executive director "for the reason of strengthening corporate governance". His right-hand man, Frank Dai Mingfang, also resigned, "for the reason of focusing on other business development". The moves came after the annual board meeting. But over the weekend, Hanergy Group said that Mr Li remained in charge of the parent company. "Media should not over-interpret" his resignation from the listed unit, the group said, though it gave no further explanation.

Mr Li owns 74.75 per cent of HTF, according to Hong Kong filings, putting him just shy of the city's 25 per cent free float requirement.

A dizzying rise in HTF's shares in Hong Kong last year briefly made Mr Li China's richest man. But the stock's unusual trading patterns and related transactions also attracted the attention of short sellers who bet that it would be unable to sustain its climb. On May 20 last year, the stock plunged 47 per cent in half an hour, wiping out $19bn in value. The company then halted trading. The suspension was enforced in July by Hong Kong's Securities and Futures Commission, which had begun an investigation into the company.

Mr Li has remained a conspicuous promoter of new energy technology since the shares were suspended, an issue that appeals to senior technocrats in China. At its height, Hanergy acquired four struggling thin-film solar companies in Europe and the US. One of them, Alta Devices, had touted its solar cells for drones and other applications with potential military uses.

Banks

Branches are surviving the digital revolution

ALISTAIR GRAY — NEW YORK

Only one in 30 US bank and credit union branches has shut since 2009 even as the digital revolution has led to a sharp fall in the number of transactions they handle.

The amount of banking business customers do in person has slumped at about ten times the rate of net branch closures, according to data from the consultancy Bancography and the figures raise questions over the future of lenders' bricks and mortar networks.

Brett King, founder of mobile finance app Moven, said: "People just aren't using them as much as they used to."

The number of branches across the country has dropped by about 4,000 over the past six years, reducing the total to its lowest since 2006.

The decline, however, is equivalent to little more than 3 per cent. By last year there were still 112,000 branches, according to the Bancography data.

Yet in-branch transactions have dropped by more than a third even though several leading bankers have said branches still have an important function. More than 90 per cent of customers open accounts there.

"It's more about they're coming there because of some life event," Paul Donofrio, finance director of Bank of America, told investors last month. "They need to start saving for their kids' college, or they need a mortgage or a credit card."

He said Bank of America had reduced its branch count 23 per cent over the past five years to 4,700. Smaller institutions are reducing their physical presence at a much slower pace.

The number of credit union branches — co-operatives that take deposits and make loans — was broadly steady between 2014 and 2015. As customers use branches less often, the cost of operating them has dropped substantially.

Mr King predicted a big decline. "We'll go down to half the branches we have today by 2025," he said.

Gas price plunge takes toll on Gazprom

Russian energy group will have to choose between scaling back investments and increasing leverage, say analysts

JACK FARCHY — NOVY URENGOY

Novy Urengoy is the town that gas built. Just 35km from the Arctic Circle, it had little more than ice and gas when Soviet geologists first arrived 50 years ago. Workers still refer to the rest of Russia as "earth", as if they are on a mission in space.

Such is the heartland of Gazprom, the state-controlled energy company that is the world's largest gas producer. The town of 100,000 residents in northern Siberia sits next to the world's third-largest gasfield, which has made Gazprom a driver of Russia's economy and a powerful instrument of the Kremlin's influence abroad.

But the company faces the prospect of a prolonged spell of low gas prices. Analysts say that in the next few years Gazprom will be forced to scale back its investments, which include grand political projects such as pipelines to China and Europe, or to dramatically increase its leverage.

In this austere environment Gazprom is under growing pressure from critics both at home and abroad, with some domestic opponents pressing for it to be broken up.

It helps the critics' cause that Gazprom's financial performance is deteriorating — in Russian roubles operating profit fell 6 per cent last year.

For the first time in at least a decade, analysts forecast that Gazprom will report negative free cash flow this year because its operating profit will not be enough to cover spending.

The company's market capitalisation has fallen 86 per cent in dollar terms since a peak in 2008, and this year it was briefly overtaken by Rosneft, the state oil producer and its great rival, as Russia's most valuable group.

"[Gazprom] got used to living by the communist ideal that everything is in abundance — they never experienced a real deficit in funds," says Ildar Davletshin, analyst at Renaissance Capital, a Russian investment bank. "They could afford anything. Very soon [sector watchers] will have to rethink everything."

The catalyst for the shift in Gazprom's fortunes has been the plunge in gas prices since 2014.

In the so-called spot market, prices of gas for immediate delivery in Europe — Gazprom's most important source of revenues — have more than halved in two years.

Chinese demand for energy has weakened and there is the likelihood of increased supplies of liquefied natural gas, notably from the US.

Gazprom's budget, drawn up at the start of the year, envisages its export prices falling to the lowest level in a decade this year, forcing the company to pay more attention to spending.

Pressure for cuts is focused on the company's enormous investment programme, which peaked at $53bn in 2011 and last year represented 2 per cent of Russia's gross domestic product.

Gazprom's capital spending plans were "experiencing difficulties in the current economic conditions", said Valery Golubev, a company executive, this month. Sberbank CIB has estimated that Gazprom will be forced to borrow heavily unless it radically revises those spending plans. Net debt, which stood at $29bn at the end of 2015, will double over the next three to four years, bank analysts have said.

Speaking last month to investors after the publication of its 2015 results, Igor Shatalov, Gazprom's deputy finance chief, conceded that the company might be forced to increase its leverage, which is relatively low with net debt just 0.9 times core earnings at the end of December.

"For certain periods we do allow ourselves to have negative cash flow while we are dealing with the very serious challenges the company faces — investments into our priority projects," he said.

A person close to Gazprom said the company had reintroduced a system of ranking projects that it last employed during the 2008 financial crisis, with some being delayed or cancelled.

The implications of a future in which Gazprom has less financial clout are likely to be significant for Russia's economy and the global gas market.

Notwithstanding Mr Shatalov's promises, the company may be forced to delay or cancel some projects. The largest of them is the $55bn proposal to develop two fields in eastern Siberia and build a pipeline to ship gas to China.

People close to Gazprom said that because of a clause in the contract the first deliveries of gas, which had been expected in 2019, could be as late as 2021.

Plans for construction of the pipeline had been halved this year, from 800km to 400km, Vitaly Markelov, a Gazprom executive, said last week.

Meanwhile in Europe, after years of battling Brussels over its gas prices and agreements with customers, the Russian group is showing signs of becoming more amenable.

Last year it launched its first gas auction, in line with the EU's aims to move the market towards spot pricing.

> 'They got used to living by the communist ideal that everything is in abundance'

In the past two months Gazprom has agreed to revise contracts with two of its largest customers — Eon of Germany and Engie of France — in deals that involve significant concessions from the Russian company either by lowering prices or by linking them more closely to the spot market, according to people familiar with the deals.

At home in Russia, Gazprom's rivals and political opponents are pushing for it to be stripped of its pipeline export monopoly or even broken up into separate production and pipeline companies.

While there is no sign that the Kremlin is planning any imminent move to change Gazprom's structure, the company said in a bond prospectus in March: "There is no assurance that we will not face [a] state-led reorganisation into several smaller and less powerful production and transportation companies".

For the cash-strapped Russian government itself, the woes of one of its largest taxpayers are a further drain on resources.

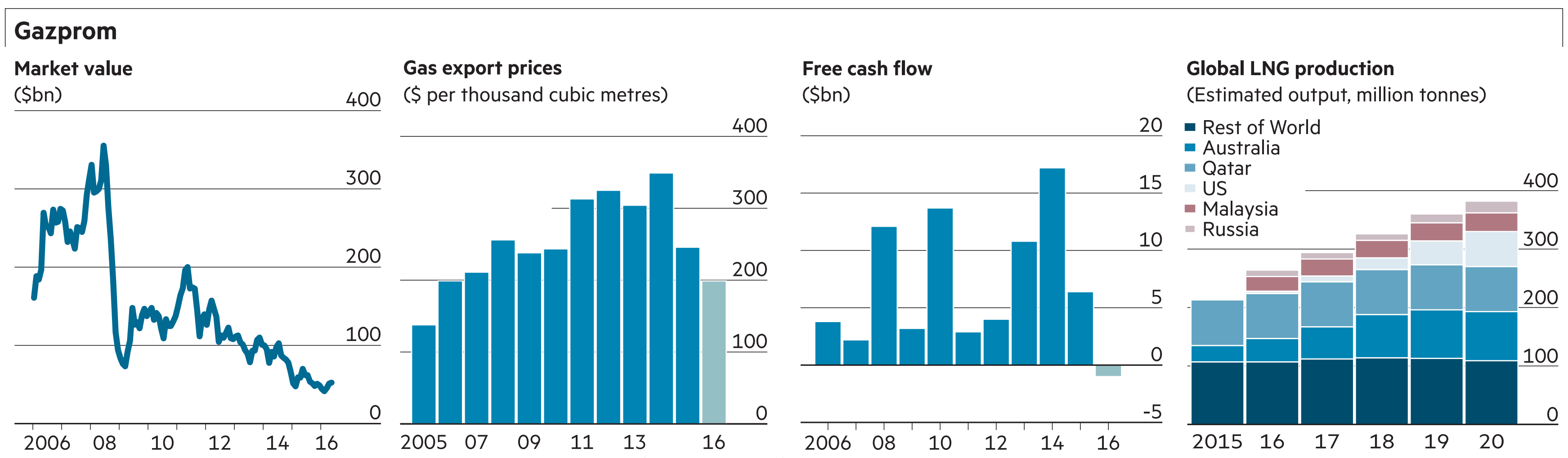
Moscow had hoped to force Gazprom to pay 50 per cent of its profit in dividends this year, but last week the company announced a much lower payout.

Away from "earth", in Novy Urengoy, Gazprom's new financial reality is also being felt by the gas workers.

"It means we're holding off on investments to maintain production," says Andrei Nikitin, technical director at the Urengoy subsidiary. "When prices fall, investment falls."

Reduced inflows

Remote control: Gazprom's subsidiary in Novy Urengoy, Siberia, is holding off on investments to maintain production levels



Sources: company; Wood Mackenzie

US cargo
Prospect of EU price war gains ground

The first cargo of US liquefied natural gas arrived in Europe last month, in what could be the start of a wave of new LNG supplies that have raised the prospect of a price war in the EU.

Europe's LNG import capacity means it could replace 25 per cent of Russian gas purchases with US supplies, says Karen Kostanian, analyst at Bank of America Merrill Lynch. "In those areas, Russian gas will compete on a price basis."

Much like Saudi Arabia in the oil market, Gazprom is one of the world's lowest-cost gas producers and can afford to weather a period of low prices in order to put pressure on its competitors. But, just as with Saudi Arabia and oil, the fall in gas prices is expected to squeeze Gazprom's finances.

The Russian company has publicly rejected the concept of a "price war" with US LNG. Alexander Medvedev, Gazprom's deputy chief executive, argued in February that the company would not need to push prices lower as shipments of US LNG to Europe were already economically unattractive.

However, Gazprom insists it intends to maintain its market share in Europe — implying that it may cut prices if its estimates of US LNG shipments turn out to be wrong. Analysts at Sberbank CIB estimate that US LNG exports to Europe would become profitable at gas prices above $160 per 1,000 cubic metres. That is about the current level in the spot market but less than half the average price that Gazprom received for its gas in Europe in 2014.

Contracts & Tenders

مـركز خـدمـات الـمزارعـين بأبـوظـبي
ABU DHABI FARMERS' SERVICES CENTRE

Abu Dhabi Farmers' Services Centre (ADFSC), a governmental body established in Abu Dhabi, United Arab Emirates is pleased to announce the following International Public Tender.

Tender No.	Tender Title	Last Date for Collection of Tender Document	Last Date for Submission of Proposals	Tender Document Fee
ADFSC/PS-P/006-2016	Supply and installation of Vegetable Grading Machines for four product lines-Tomato, Cucumber, Capsicum and Eggplant in ADFSC Pack house situated at Baniyas- Abu Dhabi, United Arab Emirates.	09/06/2016	24/07/2016	USD 550 (Non-refundable)

- ADFSC invites specialized companies experienced in manufacturing and installation of grading systems and machinery to participate in the above tender.
- Companies should have representative office or Distributor/authorized representative in the UAE.
- Interested companies meeting the above criteria shall contact Procurement, Contracts & Warehouse Section, during office working hours from 8:00 am to 3:00 pm (UAE Time) via Tel: 009712-8138888 or email: **procurement@adfsc.ae** to buy the tender document.
- Postal Address: P.O. Box: 62532, 4th Floor, Prestige Tower (Next to Capital Mall), Mohamed Bin Zayed City, Abu Dhabi, United Arab Emirates.
- Please log on to **www.adfsc.ae** to know more about Abu Dhabi Farmers Services Centre.

Capital Investments
كابيتال للإستثمارات

Capital Investments & Brokerage / Jordan Ltd. Co.

INVITATION TO BID FOR THE ACQUISITION/PURCHASE OF SHARES OF JORDAN MAGNESIA COMPANY LTD

Capital Investments & Brokerage / Jordan Ltd. Co. ("CapInvest") is pleased to invite all interested parties to participate in the bid process in connection with the sale of 100% of the share capital of Jordan Magnesia Company Ltd ("JorMag"). CapInvest is acting as the financial advisor to JorMag in connection with the sale transaction.

Company Background

§ JorMag is a Jordan-based mining company founded in 1997 to extract, produce, and market a variety of specialty magnesia products including caustic calcined magnesia and dead-burned magnesia.

§ JorMag is currently the only company in Jordan with duly granted rights to extract, produce and market magnesia from the resource-rich Dead Sea. JorMag also has rights to high purity limestone deposits that are abundant at a nearby quarry located in Al-Qatraneh area in Jordan.

§ JorMag owns a magnesia plant located at the southern end of the Dead Sea in Jordan with an annual production capacity of 60,000 tons of magnesia products.

§ JorMag benefits from a preferential tax-regime (designated a free economic zone), fully operational ancillary infrastructure, and contractual arrangements with the surrounding mining companies in the Dead Sea concession area to provide the necessary operational support, critical infrastructure, and key raw materials.

The Bidding Process

After executing a confidentiality agreement, qualified prospective buyers will be provided with access to a virtual data room to undertake their due diligence review of JorMag. Site visits and a Q&A process will also be conducted during the due diligence process. At the conclusion, prospective buyers will be expected to submit a final, binding proposal to acquire 100% of JorMag's share capital. Key upcoming dates and events are summarized below*.

Date	Event
May 16 - Jun 24	Data room access and due diligence review
Jun 6 - Jun 16	Site visits and Q&A
Jun 27, 2016	**Final proposals due**

For further information, please contact Omar B. Khader (Vice President) at:

Office: +962 6 5200330 ext. 2475 | Mobile: +962 79 630 3113 | E-mail: omar.khader@capitalinv.com

* The bidding process is subject to the terms and conditions outlined in the bid procedure letter which will be provided to interested parties.

Financial services

Asset managers step up 'smart beta' rivalry

Takeover pace builds as niche is predicted to grow to $2.4tn by 2025

ROBIN WIGGLESWORTH — NEW YORK

The jostling for territory in the swelling "smart beta" investment industry has heated up in recent weeks, with a flurry of acquisitions by asset managers that fear losing out in the next big battleground for investor money.

In a spate of deals established money managers have acquired stakes or bought so-called smart-beta providers, and BlackRock has predicted that the niche will grow from about $282bn to $2.4tn by 2025.

Hundreds of billions of dollars have seeped out of asset managers' traditional mutual funds into passive index-tracking and exchange traded funds that aim to give investors a return linked to an underlying market — or "beta" in finance industry parlance.

With the first-generation passive investment industry dominated by three companies — State Street, Vanguard and BlackRock — many groups are making a play for the smaller and more fragmented smart-beta world, where financial engineers tweak indices and investment rules to beat the returns of the broader market passively. The latest deal came last week, when Hartford Funds, a $74bn asset manager, acquired Lattice Strategies, a San Francisco-based smart-beta company with $215m under management.

It followed Columbia Threadneedle buying Emerging Global Advisors earlier in May, and JPMorgan Asset Management buying a stake in Global X, a New York smart beta ETF provider with more than $3bn in assets. Last year Oppenheimer bought VTL Associates and Legg Mason acquired QS Investors.

Many of the deals are small but they give smart beta ETF providers the vast distribution platforms of the established asset managers, while the acquirers get a toehold in an area of investment management that many expect to grow in the coming years.

Other companies are attempting to expand their smart beta ETF businesses organically rather than get a jump-start via acquisition. Fidelity last month filed an application with the Securities and Exchange Commission to launch a suite of smart beta ETFs, while Franklin Templeton last year hired a former BlackRock executive to build its own business.

"The rise of smart beta — propelled by advances in technology and data analytics — is helping to democratise factor investing, putting investment solutions once only accessible to large institutions within the reach of all investors," Andrew Ang, head of factor investing strategies at BlackRock, said in a recent report on the industry.

Nonetheless, some experts and asset managers remain critical, concerned that investors are blindly rushing into products they do not fully understand or that could lead to market distortions.

Andreas Utermann, chief investment officer of Allianz Global Investors, has argued that "smart beta is neither smart nor beta", and Rob Arnott, head of Research Affiliates, warned that there could even be a "smart beta crash".

Industrials

Court's call for creditors edges Ahab case closer to resolution

SIMEON KERR — DUBAI

A Saudi court has called for creditors of Ahmad Hamad Algosaibi & Brothers, or Ahab, to file claims against it in a step towards resolving the region's worst corporate collapse.

Since the default in 2009 of the family-owned conglomerate and the Saad group — owned by Maan al-Sanea, a relative of the Algosaibis' by marriage — both have been embroiled in court battles across the world, blaming each other for the collapse. Their assets have been subjected to a royal freezing order.

An advertisement in Saudi newspapers yesterday called for claims to be lodged at the joint directorate of enforcement at the general court in the eastern city of Al-Khobar, where Ahab and Saad are based.

Funds would be distributed only to creditors who registered claims with the court, the announcement said.

The call to creditors comes after a three-judge enforcement tribunal was set up at the Khobar court in March to adjudicate on what it described as about 30bn Saudi riyals ($8bn) owed by Ahab and Mr Sanea, which could "harm the reputation of the local economy and relations with local and foreign banks".

> 'The company views the appointment of the tribunal as a positive step forward'

Riyadh is planning radical reforms to transform the Saudi economy and attract foreign investment — as low oil prices force spending cuts and debt issuance to fund gaping budget deficits.

Ahab, which says it owes SR21bn to SR22bn, has said it hopes the court will move to resolve the seven-year saga, and either implement its restructuring proposal or liquidate the company.

"The company views the appointment of the tribunal as a positive step forward that it believes will bring an end to the long-running disputes that resulted from the failure of Mr Sanea's businesses in 2009," said Simon Charlton, Ahab's acting chief executive, in a statement.

Mr Sanea, who has denied all charges against him, did not respond to a request for comment.

Ahab wrote to many claimants to confirm how much of their debt it was willing to acknowledge as part of its settlement process launched in May 2014, which finalised terms in January.

Claimants representing about 80 per cent of the claims by number and 50 per cent of the value were still processing the acknowledgments, the conglomerate added.

The restructuring deal — which will be presented to the court — envisages recovery of 25-28 cents on the dollar, depending on the final number of claimants and the valuation of assets. Saudi lenders have so far refused to engage in talks initiated by Ahab, seeking to enforce their awards independently.

Ahab is also pursuing legal redress against Mr Sanea, hoping to recover "billions of dollars" in cases in the Cayman Islands and Saudi Arabia.

Trowers & Hamlins, the external administrator of Bahrain's International Banking Corporation, won a $1.5bn judgment against Ahab in April.

Mr Charlton said Ahab was appealing against the judgment and was suing the Bahrain bank for $1.2bn in Saudi Arabia for "facilitating numerous fraudulent transactions".

Automobiles

Nissan looks to double electric cars' battery power

PETER CAMPBELL
MOTOR INDUSTRY CORRESPONDENT

An affordable electric car that can travel almost 400 miles without needing to be charged could be developed within a decade following a "breakthrough" in battery technology, according to the Japanese carmaker Nissan.

The company is one of several investigating ways to eke out more power from electric batteries in an attempt to extend the range of their vehicles.

Nissan's electric Leaf car can only travel a limited distance — about 150 miles — on a single charge. Extending this to a level comparable to petrol or diesel cars is essential in winning over more consumers to the technology.

Carmakers must introduce electric vehicles into their fleet in order to hit stretching emissions targets that come into force around the end of the decade.

But consumer appetite for fully electric cars remains limited. Pure electric cars — as opposed to hybrids vehicles — accounted for less than 1 per cent of the total car sales last year. Running out of charge on the road is often cited as the primary reason among consumer reluctance to adopt the vehicles.

General Motors and Tesla are working on a mass market electric car with an affordable price tag and a range of more than 200 miles. Tesla's flagship Model S has a range of 250 miles but a $90,000 price tag. BMW's first fully electric car, the i3, has a range of about 100 miles.

Nissan said that using a sodium compound within the battery instead of a carbon one could help it increase the energy density within a standard lithium ion battery by up to 150 per cent. Its current batteries have an energy density of up to 400 watt hours per litre.

Under Nissan's development plans density could increase to 700 watt hours per litre by 2020 — with a target of more than 1,000 by 2025. This would see the distance a car could travel rise from 150 miles currently to 375 miles assuming no other improvements are made to the car or the battery technology.

A big challenge for companies is that the chemical structure of the essential amorphous sodium monoxide is difficult to re-create — making it almost impossible to synthesise the compound.

Nissan said it has teamed up with the Tohoku University and two other Japanese institutes to develop a new way of studying the structure, which will allow them to determine its atomic make up and potentially reproduce it at scale.

Interview. Dan Matjila

The PIC is considering putting together a black consortium to take a controlling stake in Barclays Africa; PIC chief Dan Matjila, below
Waldo Swiegers/Bloomberg

South Africa pension group shifts focus

PIC chief plans to push investment more aggressively to boost battered economy

ANDREW ENGLAND AND JOSEPH COTTERILL — PRETORIA

South Africa's Public Investment Corporation, Africa's largest pension fund manager by a wide margin, has taken an increasingly active and vocal approach to its investments in recent years.

The PIC has long held a mixed mandate, balancing its responsibility to pension holders while being seen to contribute to broader development, and it has not been averse to flexing its muscles to chastise corporate management or publicly influence a deal.

But chief Dan Matjila says it is planning a phase of investment that will see it become more aggressively involved in efforts to boost South Africa's battered economy by helping to create jobs and bolster local industry.

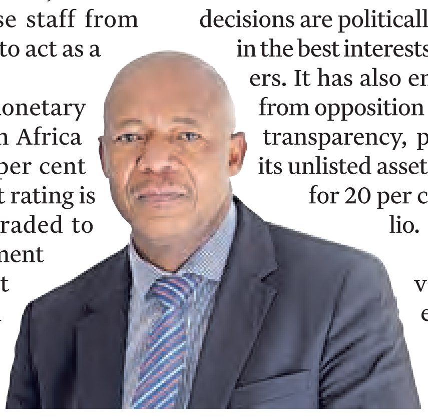
Mr Matjila says the fund, with about $117bn under management and a key shareholder in South Africa's top listed companies, is embarking on "significant change" to its strategy.

It is also considering putting together a black consortium to take a controlling stake in Barclays Africa after the bank's decision to sell its Johannesburg-based subsidiary. "The challenge is that we're facing headwinds now. The economy is expected to grow below 1 per cent," he says. "We're moving from the passive approach of saying, 'Strategic asset allocation is going to work for us,' to 'How do we then influence the economy this time so that we can catalyse growth and therefore that will translate into asset growth'."

The PIC has already earmarked R70bn ($4.5bn) for developmental investments, and is looking at opportunities across agriculture, renewable energy, infrastructure and industry, he says, while seeking to nurture entrepreneurs and accelerate black economic transformation.

He says the strategy would likely see the PIC's returns drop from about 14 per cent a year to 12.5 per cent. But he says to ensure sustainable returns, the PIC — which plans to increase staff from about 350 to 500 — had to act as a spur for growth.

The International Monetary Fund has forecast South Africa will grow at about 0.6 per cent this year, while its credit rating is at risk of being downgraded to junk status. Unemployment hit a high of 26.7 per cent in the first quarter and poverty is rampant.



Mr Matjila says by using investments to bolster employment, it will ease pressure on the Unemployment Insurance Fund, which the PIC also manages.

In December, the PIC increased its stake in London-listed Lonmin to almost 30 per cent when the platinum miner launched a rights issue. Some analysts saw it as a quasi-state bailout for the group, which employs more than 25,000 in South Africa. Mr Matjila says

> The PIC's stance is in line with the government's push to create black 'champions'

the decision was a combination of "the long-term strategic nature of the asset" and short term "saving jobs".

The PIC has had to fend off worries its decisions are politically driven and not in the best interests of pension holders. It has also endured criticism from opposition MPs that it lacks transparency, particularly with its unlisted assets, which account for 20 per cent of its portfolio.

Greater intervention in the economy is likely to increase scrutiny of the fund. David Maynier, an opposition Democratic Alliance MP, said recently: "We will be working hard to crack open the Public Investment Corporation and ensure that it is firewalled from becoming a corporate battering ram and a piggy bank for the ruling party in South Africa."

Mr Matjila describes the criticism as politicking, while insisting no government pressure has been put on the PIC to alter strategy. He says it will ensure it sticks to its mandate and will only back a person "who is going to create wealth".

"If they are politically connected, that's fine, but if they can do the job and put skin in the game and meet all the criteria, we wouldn't say no," he says. "We want to develop entrepreneurs. Gone are the days of someone saying, 'Finance me, give me this price [for the] share and I will service it via dividend.'"

The PIC's stance is in line with the government's push to create black "champions" and industrialists. It also comes at a time when international groups, such as Anglo American and Barclays, are disposing of assets in South Africa.

But Mr Matjila says it can be difficult to identify large-scale black businesses with the financial clout and capacity to take over some of the bigger assets.

"We are not there yet. What comes to mind is the current process Anglo is running [selling coal, platinum and iron ore mines]," he says. "We are seeing consortiums all over . . . saying 'we can take this'."

Contracts & Tenders

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
CORRIGENDUM – I
Tender Document No. : Mahagenco / ED / Coal / Gare Palma-II / MDO / T-01 / 30891
Please note the changes in the Advt. published in the newspapers. **Documents Sale Dates** is extended **from 11.05.2016 to 10.06.2016** upto 17.00 Hrs.(IST). For further subsequent changes in the schedule & text of the tender please refer our website.
For further details visit Website : www.sets.mahagenco.in

Financials

US 'liquid alt' funds disappoint as allure of hedge fund-like strategy fades

STEPHEN FOLEY AND MARY CHILDS
NEW YORK

The asset management industry's hopes of bringing hedge fund strategies to the US mass market have stalled in the face of miserable returns and scepticism from investors.

Assets in so-called liquid alternative mutual funds in the US, which doubled between 2011 and 2014, have stagnated for two years, and data show the average fund lost money, regardless of whether the sector was measured over one, three, five or 10 years.

The scale of the disappointment has become apparent since Morningstar, which tracks mutual funds, began categorising liquid alts separately from some bond funds this month.

Liquid alts try to replicate some hedge fund strategies, such as equity long-short trading or momentum trading through managed futures, or to give retail investors access to multiple underlying managers through a "fund of hedge funds" structure.

The difference is that mutual funds are open to the public and investors can take out their money at any time.

"It is hard to generalise across hundreds . . . of funds, but it is clear they have made poor allocations to various strategies," said Josh Charlson, analyst at Morningstar.

"High fees on top of that cut into the already low-return environment. Investors would have been better in a plain old 60/40 balanced fund [of stocks and bonds]."

Amounts invested in liquid alts in the US rose from $85bn five years ago to peak at $183bn in August 2014, according to Morningstar. US savers were told that hedge fund-like vehicles could boost returns, add diversification and cut the risks of a portfolio. The pitch resonated because stocks and bonds were more expensive than their historical averages.

> 'Investors would have been better in a plain old 60/40 balanced fund' of stocks and bonds

Meanwhile, some in the hedge fund industry saw the opportunity to gather additional assets from retail investors as traditional fund managers used hedge fund-like strategies to broaden their product offering.

Assets had fallen to $175bn by the end of last month, but losses have not led to sustained outflows to date and the number of liquid alt funds continues to grow, as fund managers stake out territory in case of a revival.

Morningstar tracks 1,345 such funds in the US, of which more than 100 were launched in the past 12 months and in excess of 500 in the past three years.

In Europe liquid alts using the Ucits structure continue to expand.

Richard Chilton, whose Chilton hedge fund manager runs money in several liquid alt funds, said the products would be "a very important arrow in the quiver" for retail investors and retirement savers in case of a market downturn similar to 2008.

"We are going through a learning curve but it is going to get there," he said at the Salt conference last week.

There have been high-profile closures, however. Blackstone, the world's biggest manager of alternative investments from private equity to real estate, is shutting its mutual fund after one of its biggest backers, Fidelity Investments, pulled out.

The Blackstone Alternative Multi-Manager Fund, which was started in August 2013 as a dedicated vehicle for Fidelity, will be liquidated this month.

Excluding a few so-called bear market funds, which are designed as a hedge against a falling stock market and have suffered big losses in the bull market, the worst-performing US liquid alts on average over the past five years have been managed futures and multicurrency funds, down 1.7 per cent and 1.4 per cent respectively.

The largest category by assets, multi-alternative funds, which offer a mix of hedge fund strategies, returned 1.35 per cent annually on average.

MARKET DATA

WORLD MARKETS AT A GLANCE

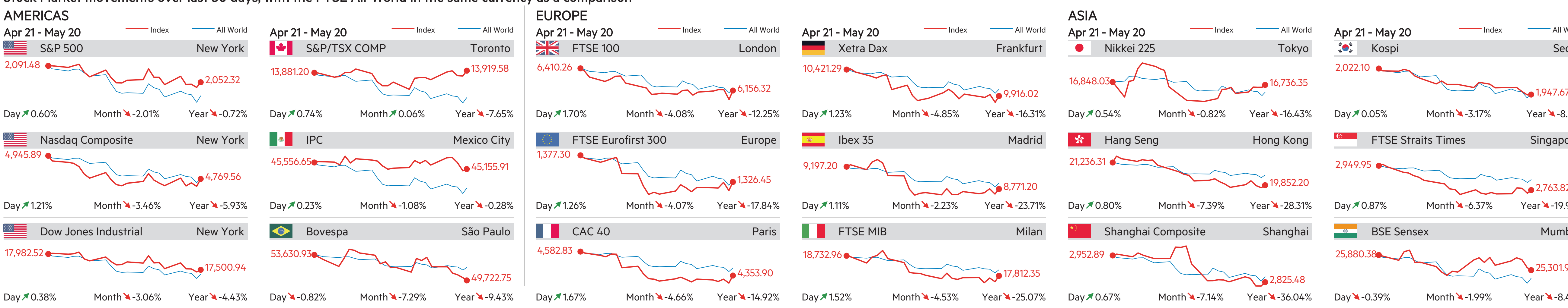
FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
0.60%	1.21%	0.38%	1.70%	1.26%	0.54%	0.80%	0.72%	No change	-0.548%	0.482%	0.651%	-0.21%	0.64%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS / EUROPE / ASIA



Country	Index	Latest	Previous
Argentina	Merval	12656.28	12626.30
Australia	All Ordinaries	5415.20	5385.60
	S&P/ASX 200	5351.30	5323.30
	S&P/ASX 200 Res	2684.40	2657.10
Austria	ATX	2193.13	2182.99
Belgium	BEL 20	3390.34	3342.95
	BEL Mid	5824.94	5775.43
Brazil	Bovespa	49722.75	50132.53
Canada	S&P/TSX 60	812.64	805.86
	S&P/TSX Comp	13919.58	13817.32
	S&P/TSX Met & Min	506.91	505.56
Chile	IGPA Gen	19404.24	19387.51
China	FTSE A200	7900.68	7867.53
	FTSE B35	9062.27	9062.27
	Shanghai A	2957.44	2937.80
	Shanghai B	336.43	335.34
	Shanghai Comp	2825.48	2806.76
	Shenzhen A	1877.75	1857.70
	Shenzhen B	1024.02	1026.49
Colombia	COLCAP	1323.21	1327.74
Croatia	CROBEX	1698.16	1691.59
Cyprus	CSE M&P Gen	67.86	67.50
Czech Republic	PX	875.19	873.17
Denmark	OMXC Copenahgen 20	969.68	958.90
Egypt	EGX 30	7499.49	7637.04
Estonia	OMX Tallinn	988.37	989.52
Finland	OMX Helsinki General	7714.86	7619.22
France	CAC 40	4353.90	4282.54
	SBF 120	3455.54	3401.97
Germany	M-DAX	20268.50	19984.85
	TecDAX	1667.68	1647.15
	XETRA Dax	9916.02	9795.89
Greece	Athens Gen	639.48	622.28
	FTSE/ASE 20	182.18	175.39
Hong Kong	Hang Seng	19852.20	19694.33
	HS China Enterprise	8303.58	8243.20
	HSCC Red Chip	3505.56	3466.17
Hungary	Bux	26434.48	25742.85
India	BSE Sensex	25301.90	25399.72
	S&P CNX 500	6627.95	6634.30
Indonesia	Jakarta Comp	4729.16	4729.16
Ireland	ISEQ Overall	6229.15	6160.54
Israel	Tel Aviv 100	12.12	12.21
Italy	FTSE Italia All-Share	19511.41	19245.61
	FTSE Italia Mid Cap	31457.26	31278.95
	FTSE MIB	17812.35	17545.56
Japan	2nd Section	4342.24	4321.72
	Nikkei 225	16736.35	16646.66
	S&P Topix 150	1096.00	1092.15
	Topix	1343.40	1336.56
Jordan	Amman SE	2115.06	2108.08
Kenya	NSE 20	3890.85	3880.81
Kuwait	KSX Market Index	5324.05	5363.10
Latvia	OMX Riga	628.46	637.70
Lithuania	OMX Vilnius	513.50	508.83
Luxembourg	LuxX	1431.92	1440.45
Malaysia	FTSE Bursa KLCI	1628.79	1633.76
Mexico	IPC	45155.91	45051.27
Morocco	MASI	9973.41	9973.41
Netherlands	AEX	434.36	428.27
	AEX All Share	669.36	660.80
New Zealand	NZX 50	6909.86	6903.62
Nigeria	SE All Share	27028.24	26763.86
Norway	Oslo All Share	658.00	647.86
Pakistan	KSE 100	36693.50	36693.50
Philippines	Manila Comp	7299.03	7427.33
Poland	Wig	45784.76	45751.68
Portugal	PSI 20	4870.95	4824.93
	PSI General	2468.18	2440.31
Romania	BET Index	6367.12	6382.16
Russia	Micex Index	1891.33	1891.52
	RTX	893.09	885.42
Saudi-Arabia	TADAWUL All Share Index	6694.82	6654.20
Singapore	FTSE Straits Times	2763.82	2740.11
Slovakia	SAX	322.56	318.73
Slovenia	SBI TOP	707.72	708.28
South Africa	FTSE/JSE All Share	52638.25	52370.10
	FTSE/JSE Res 20	31193.45	30873.87
	FTSE/JSE Top 40	46531.45	46312.80
South Korea	Kospi	1947.67	1946.78
	Kospi 200	238.74	239.04
Spain	IBEX 35	8771.20	8674.70
Sri Lanka	CSE All Share	6633.27	6648.13
Sweden	OMX Stockholm 30	1342.68	1321.80
	OMX Stockholm AS	478.09	471.44
Switzerland	SMI Index	7997.30	7908.79
Taiwan	Weighted Pr	8131.26	8095.98
Thailand	Bangkok SET	1385.86	1400.50
Turkey	BIST 100	77243.88	77277.19
UAE	Abu Dhabi General Index	4235.39	4311.27
UK	FT 30	2811.60	2763.00
	FTSE 100	6156.32	6053.35
	FTSE 4Good UK	5558.82	5463.74
	FTSE All Share	3387.22	3334.79
	FTSE techMARK 100	3752.88	3711.03
USA	DJ Composite	6149.67	6114.64
	DJ Industrial	17500.94	17435.40
	DJ Transport	7671.89	7585.88
	DJ Utilities	650.08	647.93
	Nasdaq 100	4362.90	4315.58
	Nasdaq Cmp	4769.56	4712.53
	NYSE Comp	10250.49	10192.48
	S&P 500	2052.32	2040.04
	Wilshire 5000	21224.32	21238.05
Venezuela	IBC	15363.68	15014.40
Vietnam	VNI	614.81	619.20
Cross-Border	DJ Global Titans ($)	231.23	229.66
	Euro Stoxx 50 (Eur)	2962.16	2919.22
	Euronext 100 ID	857.39	844.79
	FTSE 4Good Global ($)	5188.86	5144.88
	FTSE All World	260.27	258.40
	FTSE E300	1326.45	1309.98
	FTSE Eurotop 100	2603.38	2572.32
	FTSE Global 100 ($)	1281.03	1272.15
	FTSE Gold Min ($)	1593.39	1616.12
	FTSE Latibex Top (Eur)	2499.20	2502.60
	FTSE Multinationals ($)	1455.36	1469.58
	FTSE World ($)	462.31	458.86
	FTSEurofirst 100 (Eur)	3734.81	3687.70
	FTSEurofirst 80 (Eur)	4021.06	3963.13
	MSCI ACWI Fr ($)	391.13	394.67
	MSCI All World ($)	1627.61	1641.15
	MSCI Europe (Eur)	1309.82	1326.40
	MSCI Pacific ($)	2198.32	2216.25
	S&P Euro (Eur)	1346.60	1327.89
	S&P Europe 350 (Eur)	1362.24	1345.64
	S&P Global 1200 ($)	1813.90	1800.63
	Stoxx 50 (Eur)	2820.94	2789.04

(c) Closed. (u) Unavailable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Apple	30.3	95.22	1.02
Facebook Class A	22.1	117.35	0.54
Amazon.com	20.2	702.80	4.28
Tesla Motors	19.7	220.28	5.07
Netflix	13.9	92.49	2.94
Alphabet Class C Capital Stock	12.9	709.74	9.42
Charter Comm Del Cl A New	12.9	233.11	5.54
Yahoo	12.5	36.50	-0.52
Alphabet Class A Common Stock	12.4	721.71	6.40
Applied Materials	12.1	22.66	2.75

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Applied Materials	22.66	2.75	13.81
Micron Technology	10.80	0.73	7.25
L Brands	63.54	2.92	4.82
Harman Int Industries	75.15	3.45	4.81
Dish Network	46.49	2.10	4.73
Downs			
Foot Locker	54.77	-3.78	-6.46
Campbell Soup	59.90	-4.08	-6.38
Deere &	77.74	-4.51	-5.48
Ross Stores	52.49	-3.03	-5.46
Chesapeake Energy	3.72	-0.14	-3.63

Based on the constituents of the S&P500 and the Nasdaq 100 index

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shire	139.6	4281.00	169.00
Hsbc Holdings	126.8	429.25	2.70
Bp	122.4	361.50	5.50
Glaxosmithkline	122.3	1436.00	28.50
Royal Dutch Shell	114.9	1680.00	32.00
Lloyds Banking	110.2	70.34	1.26
Vodafone	107.7	229.10	3.70
Sabmiller	104.2	4250.00	40.00
British American Tobacco	103.3	4147.00	61.00
Astrazeneca	94.9	3894.50	82.50

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Ladbrokes	127.30	7.80	6.53
Coca-cola Hbc Ag	1366.00	80.00	6.22
Close Brothers	1292.00	67.00	5.47
Henderson	259.10	13.20	5.37
Restaurant	352.10	16.70	4.98
Downs			
Spectris	1693.00	-77.00	-4.35
Allied Minds	336.30	-14.80	-4.22
Cls Holdings	1540.00	-64.00	-3.99
Jimmy Choo	114.50	-4.40	-3.70
[illegible]	2253.00	-62.00	-2.68

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Unicredit	595.7	3.00	0.21
Nestle N	458.3	65.43	0.49
Telefonica	442.3	9.19	0.07
Novartis N	434.1	66.28	0.00
Bayer Ag Na	421.6	88.51	0.00
Roche Gs	375.1	222.09	4.49
Total	357.8	52.98	-2.38
Sanofi	331.8	71.18	2.18
Intesa Sanpaolo	314.9	2.31	0.02
Allianz	295.3	143.01	0.88

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Unicredit	3.00	0.21	7.59
Deutsche Wohnen Ag	28.23	1.12	4.15
Ucb	68.61	2.68	4.06
Altice	14.70	0.55	3.89
Altice	14.75	0.50	3.47
Downs			
Grifols Sa	14.99	-14.40	-48.99
Bayerische Motoren Werke Ag	64.40	-4.15	-6.05
Industrivarden Ab	16.14	-0.82	-4.81
Richemont N	52.98	-2.38	-4.30
Svenska Handelsbanken Ab	11.40	-0.50	-4.18

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Toyota Motor	442.9	5562.00	68.00
Mitsubishi Ufj Fin	296.5	533.10	3.30
Sumitomo Mitsui Fin	285.0	3430.00	-19.00
Softbank	272.5	6105.00	112.00
Mizuho Fin	212.8	170.80	2.20
Bridgestone	192.9	3650.00	-94.00
Sony	187.0	2917.00	34.50
Kddi	173.0	3146.00	8.00
Nippon Telegraph And Telephone	169.7	4800.00	40.00
Suzuki Motor	163.7	2724.50	19.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Tokuyama	283.00	21.00	8.02
Unitika	63.00	4.00	6.78
Alps Electric Co	2073.00	115.00	5.87
Fujitsu	419.00	21.80	5.49
Haseko	1188.00	50.00	4.39
Downs			
Pioneer	229.00	-12.00	-4.98
Nsk	951.00	-36.00	-3.65
Thb Japan Steel Works	458.00	-14.00	-2.97
Hitachi Construction Machinery Co	1666.00	-49.00	-2.86
Bridgestone	3650.00	-94.00	-2.51

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	May 20 price(p)	%Chg week	%Chg ytd
Winners			
Taylor Wimpey	205.50	13.0	1.2
Ashtead	965.50	10.2	-13.7
Royal Bank Of Scotland	231.80	9.7	-22.3
Whitbread	4279.00	9.2	-2.8
Barratt Developments	580.50	9.0	-7.3
Berkeley Holdings (the)	3203.00	8.9	-13.2
Persimmon	2090.00	6.6	3.1
Barclays	175.85	6.4	-19.7
Dixons Carphone	439.30	6.1	-12.1
Lloyds Banking	70.34	5.9	-3.7
Dcc	6485.00	5.3	14.6
3i	505.50	5.0	5.0
Losers			
Burberry	1095.00	-3.9	-8.4
Associated British Foods	2920.00	-3.9	-12.6
Merlin Entertainments	415.90	-3.5	-8.7
Fresnillo	1080.00	-3.1	52.5
Diageo	1838.00	-3.0	-1.0
Intercontinental Hotels	2561.00	-2.8	-19.7
Unilever	3081.00	-2.7	5.3
Royal Dutch Shell	1680.00	-2.7	10.1
Carnival	3534.00	-2.6	-8.6
Royal Dutch Shell	1689.00	-2.5	9.5
National Grid	986.60	-2.3	6.3
Randgold Resources Ld	6030.00	-2.2	45.5

FTSE 250	May 20 price(p)	%Chg week	%Chg ytd
Winners			
Restaurant	352.10	22.0	-48.6
Aggreko	1147.00	13.0	25.5
Bovis Homes	990.00	11.5	-2.5
Crest Nicholson Holdings	581.50	10.8	4.4
Ladbrokes	127.30	10.6	6.3
Redrow	[illegible]	[illegible]	[illegible]
Onesavings Bank	[illegible]	[illegible]	[illegible]
Weir	1229.00	9.7	22.9
Shawbrook	[illegible]	[illegible]	[illegible]
Close Brothers	1292.00	9.4	-3.4
Lookers	143.00	9.2	-22.7
Pendragon	38.03	8.5	-18.7
Losers			
Thomas Cook	73.70	-15.8	-39.1
[illegible]	[illegible]	[illegible]	[illegible]
Centamin	112.10	-3.1	74.1

FTSE SmallCap	May 20 price(p)	%Chg week	%Chg ytd
Winners			
Georgia Healthcare	232.00	19.0	49.7
Lonmin	187.75	15.4	124.9
Hill & Smith Holdings	989.00	10.8	30.6
Exillon Energy	69.50	10.3	-35.0
S & U	2300.00	10.3	-6.4
Hunting	292.50	9.3	-4.3
Speedy Hire	39.75	8.2	-4.8
Trinity Mirror	125.50	8.0	-24.4
Enterprise Inns	97.25	7.2	-12.5
Nanoco	41.75	7.1	-27.4
Foxtons	160.50	7.0	-14.6
Zotefoams	305.00	6.8	45.2
Losers			
Lakehouse	35.00	-26.7	-62.4
Lamprell	70.25	-10.5	-29.4
Game Digital	91.00	-9.0	-24.8
Hss Hire	[illegible]	[illegible]	[illegible]
Devro	248.00	-7.5	-14.5
Low & Bonar	57.00	-7.3	-14.1
St. Ives	99.25	-7.2	-55.6
Dialight	500.00	-7.2	11.1
Ecofin Water & Power Opportunities	123.00	-7.2	6.7
Flybe	52.75	-7.0	-42.3
Cape	205.75	-6.5	[illegible]
Blackrock Latin American Investment Trust	314.75	-5.8	13.6

Industry Sectors	May 20 price(p)	%Chg week	%Chg ytd
Winners			
Life Insurance	6813.89	3.7	-13.1
Household Goods	17049.77	3.2	3.3
Banks	3236.19	2.8	-15.4
Industrial Engineering	8166.21	2.8	13.9
Real Estate & Investment Service	2700.36	2.6	-12.2
General Retailers	2802.63	2.6	-6.8
Industrial Metals	1171.01	2.4	61.1
Technology Hardware & Equip	1162.39	2.3	-9.0
Food & Drug Retailers	2686.09	2.3	7.4
Support Services	6739.37	2.1	-1.0
Nonlife Insurance	2510.67	1.7	1.9
General Financial	8682.93	1.7	-8.3
Losers			
Food Producers	8181.12	-3.4	-7.7
Personal Goods	26592.73	-2.8	2.8
Tobacco	49595.99	-2.1	7.5
Automobiles & Parts	6434.36	-1.9	-10.9
Oil & Gas Producers	6178.40	-1.7	9.2
Gas Water & Multiutilities	6037.16	-1.7	1.5
Mining	15585.94	-1.4	1.0
Electronic & Electrical Equip.	4243.63	-1.3	0.3
Aerospace & Defense	4034.57	-1.3	-2.8
Mining	8816.70	-0.8	-0.6
Forestry & Paper	14422.85	-0.7	0.4
Electricity	8972.99	-0.6	1.7

Based on last week's performance. †Price at suspension.

CURRENCIES

May 20	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	14.0980	-0.0320	15.8081	-0.0245	20.4624	-0.1470
Australia	Australian Dollar	1.3850	-0.0043	1.5529	-0.0037	2.0102	-0.0162
Bahrain	Bahrainin Dinar	0.3770	0.0000	0.4227	0.0002	0.5472	-0.0028
Bolivia	Bolivian Boliviano	6.8850	-	7.7202	0.0055	9.9932	-0.0490
Brazil	Brazilian Real	3.5430	-0.0618	3.9728	-0.0663	5.1425	-0.1153
Canada	Canadian Dollar	1.3131	-0.0011	1.4723	-0.0002	1.9058	-0.0109
Chile	Chilean Peso	692.6750	-6.3100	776.6982	-6.5133	1005.3777	-14.1305
China	Chinese Yuan	6.5434	-0.0010	7.3371	0.0041	9.4974	-0.0480
Colombia	Colombian Peso	3048.0100	-17.1400	3417.7413	-17.4276	4424.0114	-47.5546
Costa Rica	Costa Rican Colon	536.0900	-0.2400	601.1191	0.7000	778.1036	-3.4632
Czech Republic	Czech Koruna	24.1046	-0.0106	27.0285	0.0076	34.9864	-0.1868
Denmark	Danish Krone	6.6316	-0.0051	7.4361	-0.0003	9.6255	-0.0545
Egypt	Egyptian Pound	8.8714	0.0135	9.9475	0.0223	12.8763	-0.0434
Hong Kong	Hong Kong Dollar	7.7682	0.0002	8.7105	0.0065	11.2751	-0.0549
Hungary	Hungarian Forint	282.6898	0.0927	316.9807	0.3311	410.3078	-1.8757
India	Indian Rupee	67.4750	0.1000	75.6599	0.1663	97.9360	-0.3341
Indonesia	Indonesian Rupiah	13607.5000	52.5000	15258.1372	69.7787	19750.5115	-20.2270
Israel	Israeli Shekel	3.8858	0.0182	4.3572	0.0235	5.6400	-0.0012
Japan	Japanese Yen	110.4550	0.5300	123.8535	0.6827	160.3190	-0.0126
..One Month		110.4549	0.5299	123.8535	0.6827	160.3189	-0.0128
..Three Month		110.4547	0.5294	123.8535	0.6827	160.3187	-0.0134
..One Year		110.4533	0.5266	123.8533	0.6824	160.3189	-0.0146
Kenya	Kenyan Shilling	100.9000	0.2000	113.1394	0.3052	146.4505	-0.4260
Kuwait	Kuwaiti Dinar	0.3021	-	0.3387	0.0002	0.4384	-0.0021
Malaysia	Malaysian Ringgit	4.0815	-	4.5766	0.0033	5.9241	-0.0290
Mexico	Mexican Peson	18.3995	-0.1578	20.6314	-0.1620	26.7058	-0.3610
New Zealand	New Zealand Dollar	1.4793	-0.0053	1.6587	-0.0047	2.1471	-0.0182
Nigeria	Nigerian Naira	199.0500	0.0800	223.1953	0.2497	288.9095	-1.2992
Norway	Norwegian Krone	8.3403	-0.0387	9.3520	-0.0367	12.1055	-0.1158
Pakistan	Pakistani Rupee	104.7950	0.0600	117.5069	0.1515	152.1039	-0.6579
Peru	Peruvian Nuevo Sol	3.3359	-0.0051	3.7405	-0.0030	4.8418	-0.0311
Philippines	Philippine Peso	46.7600	-0.0300	52.4321	0.0040	67.8694	-0.3764
Poland	Polish Zloty	3.9404	0.0057	4.4183	0.0057	5.7192	-0.0198
Romania	Romanian Leu	4.0290	0.0080	4.5177	0.0122	5.8479	-0.0170
Russia	Russian Ruble	66.8125	-0.2875	74.9170	-0.2684	96.9745	-0.6040
Saudi Arabia	Saudi Riyal	3.7518	0.0002	4.2068	0.0032	5.4454	-0.0264
Singapore	Singapore Dollar	1.3821	0.0016	1.5498	0.0029	2.0060	-0.0075
South Africa	South African Rand	15.7065	-0.1894	17.6117	-0.1996	22.7971	-0.3880
South Korea	South Korean Won	1190.1500	-1.6500	1334.5182	-0.8920	1727.4338	-10.8726
Sweden	Swedish Krona	8.3385	-0.0094	9.3499	-0.0038	12.1028	-0.0730
Switzerland	Swiss Franc	0.9923	0.0024	1.1127	0.0034	1.4403	-0.0036
Taiwan	New Taiwan Dollar	32.7415	-0.0410	36.7131	-0.0196	47.5224	-0.2927
Thailand	Thai Baht	35.6900	-	40.0193	0.0287	51.8020	-0.2539
Tunisia	Tunisian Dinar	2.0738	-0.0004	2.3253	0.0012	3.0099	-0.0153
Turkey	Turkish Lira	2.9802	-0.0137	3.3416	-0.0130	4.3255	-0.0412
United Arab Emirates	UAE Dirham	3.6729	0.0000	4.1184	0.0029	5.3310	-0.0262
United Kingdom	Pound Sterling	0.6890	0.0034	0.7725	0.0043	-	-
..One Month		0.6890	0.0034	0.7725	0.0043	-	-
..Three Month		0.6890	0.0034	0.7723	0.0043	-	-
..One Year		0.6895	0.0034	0.7717	0.0043	-	-
United States	United States Dollar	-	-	1.1213	0.0008	1.4514	-0.0071
..One Month		-	-	1.1212	-0.3373	1.4515	-0.0071
..Three Month		-	-	1.1210	-0.3373	1.4515	-0.0071
..One Year		-	-	1.1197	-0.3373	1.4520	-0.0071
Venezuela	Venezuelan Bolivar Fuerte	9.9850	0.0050	11.1962	0.0136	14.4926	-0.0637
Vietnam	Vietnamese Dong	22317.5000	3.5000	25024.7119	21.8991	32392.6508	-153.6056
European Union	Euro	0.8918	-0.0006	-	-	1.2944	-0.0073
..One Month		0.8917	-0.0006	-	-	1.2944	-0.0073
..Three Month		0.8915	-0.0006	-	-	1.2942	-0.0073
..One Year		0.8902	-0.0006	-	-	1.2936	-0.0073

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg May 20	Day's chge%	Euro Index	£ Strlg May 19	£ Strlg May 18	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	6156.32	1.70	6913.20	6053.35	6165.80	7013.47	4.06	0.71	34.79	119.53	4919.19
FTSE 250 (250)	16922.06	1.15	17079.35	16730.11	16881.24	18154.55	2.72	2.09	17.57	194.00	11914.77
FTSE 250 ex Inv Co (208)	18388.22	1.28	18559.14	18156.08	18328.56	19765.71	2.74	2.23	16.37	212.59	13203.19
FTSE 350 (350)	3436.71	1.61	3468.65	3382.41	3439.67	3674.94	3.89	0.88	29.37	61.94	5527.24
FTSE 350 ex Investment Trusts (308)	3413.34	1.64	3445.06	3358.37	3416.11	3650.90	3.86	0.87	29.71	62.11	2827.08
FTSE 350 Higher Yield (105)	3141.12	1.56	3170.32	3093.29	3163.95	3664.62	5.37	0.44	42.43	81.03	5221.71
FTSE 350 Lower Yield (245)	3407.80	1.67	3439.48	3351.86	3387.22	3547.06	2.15	2.05	22.53	33.04	3642.55
FTSE SmallCap (284)	4554.40	0.67	4596.74	4524.13	4560.27	4782.66	3.01	1.29	25.04	50.52	6314.55
FTSE SmallCap ex Inv Co (152)	4162.86	0.62	4201.55	4137.40	4171.38	4260.18	2.99	1.63	20.44	43.50	6056.80
FTSE All-Share (634)	3387.22	1.57	3418.70	3334.79	3390.18	3608.08	3.80	0.89	29.60	60.23	5509.51
FTSE All-Share ex Inv Co (460)	3350.01	1.62	3381.15	3296.72	3352.81	3575.17	3.84	0.88	29.44	60.44	2820.14
FTSE All-Share ex Multinationals (569)	1138.46	1.64	952.35	1120.07	1131.36	1271.89	3.06	1.42	22.94	13.47	1964.06
FTSE Fledgling (98)	7661.72	0.12	7732.94	7652.33	7664.75	7852.95	2.70	0.73	50.84	70.46	13935.48
FTSE Fledgling ex Inv Co (49)	10505.75	-0.08	10603.41	10514.18	10483.54	10478.87	2.77	0.31	116.15	89.88	18574.84
FTSE All-Small (382)	3158.79	0.64	3188.15	3138.67	3162.71	3300.27	3.00	1.27	26.30	34.74	5622.76
FTSE All-Small ex Inv Co Index (201)	3106.15	0.59	3135.02	3088.00	3112.00	3174.45	2.99	1.59	21.13	32.24	5725.68
FTSE AIM All-Share Index (825)	727.86	0.72	734.62	722.64	725.13	763.65	1.52	0.50	130.42	3.79	787.53
FTSE Sector Indices											
Oil & Gas (12)	6519.04	1.63	6579.64	6414.34	6575.17	7781.33	6.86	-0.68	-21.60	226.17	5658.47
Oil & Gas Producers (10)	6218.01	1.67	6275.81	6115.73	6367.75	7365.77	6.90	-0.70	-20.71	218.64	5583.69
Oil Equipment Services & Distribution (7)	13515.74	0.47	13640.87	13452.24	13795.99	19943.15	5.77	0.21	81.79	279.99	10135.32
Basic Materials (27)	3204.86	0.91	3234.65	3176.03	3274.47	4808.78	4.29	0.26	90.85	48.76	3194.04
Chemicals (7)	11564.26	-0.21	11671.76	11588.78	11740.09	12991.31	2.56	2.12	18.43	125.71	10053.99
Forestry & Paper (1)	15737.98	2.14	15884.27	15408.66	15549.92	17736.08	2.97	2.97	11.33	347.94	16713.87
Industrial Metals & Mining (2)	1177.49	1.16	1188.44	1163.95	1235.83	1851.01	0.49	2.79	73.75	0.00	1027.59
Mining (17)	8529.18	1.01	8608.46	8443.73	8739.36	13593.51	4.68	-0.02	-1327.06	132.94	4454.07
Industrials (119)	4374.22	1.21	4414.88	4321.71	4374.01	4820.48	2.58	1.45	26.82	52.69	4399.44
Construction & Materials (14)	5374.76	2.01	5424.72	5269.01	5301.15	5555.90	2.36	0.05	791.18	83.33	5581.36
Aerospace & Defense (9)	4183.58	1.02	4222.46	4141.23	4217.62	5419.57	2.77	1.51	23.93	71.61	4395.92
General Industrials (6)	3724.07	1.03	3758.69	3686.25	3724.44	3646.83	3.09	1.56	20.79	48.86	4107.61
Electronic & Electrical Equipment (10)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Industrial Engineering (13)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Industrial Transportation (8)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Support Services (58)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Consumer Goods (41)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Automobiles & Parts (1)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Beverages (6)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Food Producers (10)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Household Goods & Home Construction (14)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Leisure Goods (2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Personal Goods (6)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tobacco (2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Health Care (20)	9040.16	2.31	9124.19	8836.38	8974.52	9769.04	3.91	0.56	45.38	207.35	6744.99
Health Care Equipment & Services (8)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pharmaceuticals & Biotechnology (12)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Consumer Services (96)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Food & Drug Retailers (7)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
General Retailers (32)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Media (22)	7268.08	1.65	7335.64	7150.07	7198.17	7673.81	2.91	1.32	26.08	99.33	4348.71
Travel & Leisure (35)	8226.20	1.73	8302.66	8085.98	8235.82	8650.40	2.31	1.82	23.78	95.18	7585.80
Telecommunications (6)	3928.23	1.88	3964.74	3855.65	3923.36	4160.15	4.21	-0.27	-89.37	3.65	4120.12
Fixed Line Telecommunications (4)	5116.62	2.23	5164.18	5004.92	5076.94	5330.73	3.06	1.85	17.62	0.00	4437.39
Mobile Telecommunications (2)	5135.25	1.67	5182.98	5050.95	5149.43	5497.13	4.92	-1.08	-18.89	7.87	4810.40
Utilities (7)	8544.55	1.88	8623.97	8387.27	8579.85	8881.70	4.72	1.46	14.46	79.68	9186.86
Electricity (2)	8952.62	2.48	9035.84	8736.20	8899.01	9803.94	5.49	1.26	14.49	146.48	12133.18
Gas Water & Multiutilities (5)	7978.72	1.72	8052.89	7844.15	8033.24	8176.77	4.52	1.53	14.45	59.90	8594.54
Financials (282)	4102.29	1.53	4140.42	4040.55	4081.44	5074.98	4.08	1.55	15.78	96.92	3668.85
Banks (9)	3195.41	1.55	3225.11	3146.69	3183.34	4573.78	5.25	0.86	22.22	101.66	2274.09
Nonlife Insurance (10)	2889.22	0.32	2916.08	2879.89	2884.73	2439.09	2.87	2.31	15.06	53.63	4948.80
Life Insurance/Assurance (10)	6914.49	2.51	6978.76	6745.26	6845.43	8623.69	4.27	1.53	15.28	201.97	6529.60
Index- Real Estate Investment & Services (21)	2737.66	1.07	2763.11	2708.64	2719.17	3170.79	2.47	5.39	7.52	32.59	7124.03
Real Estate Investment Trusts (26)	2848.85	1.92	2875.34	2795.30	2814.25	3089.38	3.20	5.12	6.10	42.56	3419.25
General Financial (32)	7428.82	1.65	7497.87	7308.18	7380.97	8550.20	3.32	2.04	14.79	124.26	8197.53
Equity Investment Instruments (174)	7513.09	0.50	7582.93	7476.00	7526.74	8000.54	2.77	1.06	34.19	84.88	3996.70
Non Financials (352)	4041.19	1.59	4078.76	3978.09	4052.42	4399.35	3.71	0.66	41.10	64.31	5751.54
Technology (19)	1381.28	1.57	1394.12	1359.87	1380.99	1436.85	1.57	1.72	37.08	12.72	1743.51
Software & Computer Services (13)	1860.57	1.32	1877.86	1836.35	1854.49	1681.02	2.00	1.63	30.77	24.03	2472.43
Technology Hardware & Equipment (6)	1453.33	1.82	1466.84	1427.34	1457.27	1704.18	1.16	1.87	46.13	8.47	1677.81

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	6117.35	6137.10	6148.28	6138.25	6127.65	6129.93	6134.24	6146.35	6145.89	6156.42	6117.35
FTSE 250	16793.41	16875.11	16875.41	16860.27	16874.92	16888.35	16884.42	16913.09	16905.05	16922.06	16793.41
FTSE SmallCap	4526.81	4539.33	4542.81	4544.77	4544.60	4543.85	4542.08	4545.65	4546.29	4554.40	4526.81
FTSE All-Share	3365.09	3376.82	3381.83	3376.96	3372.79	3374.22	3375.94	3382.42	3381.90	3387.22	3365.09

Time of FTSE 100 Day's high:15:19:15 Day's Low07:03:00 FTSE 100 2010/11 High: 6410.26(20/04/2016) Low: 5536.97(11/02/2016)
Time of FTSE All-Share Day's high:15:35:29 Day's Low07:03:00 FTSE 100 2010/11 High: 3504.16(20/04/2016) Low: 3046.53(11/02/2016)

Further information is available on http://www.ftse.com © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence. † Sector P/E ratios greater than 80 are not shown. For changes to FTSE Fledgling Index constituents please refer to www.ftse.com/indexchanges. ‡ Values are negative.

FT 30 INDEX

	May 20	May 19	May 18	May 17	May 16	Yr Ago	High	Low
FT 30	2811.60	2763.00	2796.03	2667.20	2659.40	0.00	2875.90	2547.10
FT 30 Div Yield	1.73	1.76	1.73	1.74	1.73	0.00	3.93	2.74
P/E Ratio net	25.76	25.39	25.74	25.70	25.73	0.00	19.44	14.26

FT 30 since compilation: 4198.4 high: 19/07/1999; low49.4 26/06/1940Base Date: 1/7/35

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2763	2805.5	2806.9	2802.3	2798.5	2799.7	2801.1	2807.9	2807.2	2811.7	2763.0

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FX: EFFECTIVE INDICES

	May 19	May 18	Mnth Ago
Australia	88.20	88.81	94.27
Canada	88.85	90.18	90.80
Denmark	106.80	106.84	106.84
Japan	138.98	138.91	139.79
New Zealand	111.12	111.18	112.57
Norway	85.72	86.77	86.73

	May 20	May 19	Mnth Ago
Sweden	79.10	79.18	80.71
Switzerland	155.99	156.48	159.06
UK	87.61	87.33	84.66
USA	100.99	100.25	99.76
Euro	87.50	87.75	88.28

Source: Bank of England. New Sterling ERI base Jan 2005 = 100. Other indices base average 1990 = 100. Index rebased 1/2/95. for further information about ERIs see www.bankofengland.co.uk

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Industrial Metals & Mining	60.97	Beverages	1.18	Media	-3.26
Mining	21.01	Software & Comp Serv	0.78	Real Est Invest & Tr	-3.55
Basic Materials	16.87	Mobile Telecomms	0.69	Health Care Eq & Srv	-3.97
Industrial Eng	12.92	Chemicals	0.44	Technology	-4.18
Oil & Gas Producers	9.19	Forestry & Paper	0.37	Consumer Services	-4.36
Oil & Gas	8.84	Industrials	0.20	Health Care	-4.73
Industrial Transport	8.52	Construct & Material	0.01	Pharmace & Biotech	-4.83
Tobacco	7.72	Electronic & Elec Eq	-0.83	Fixed Line Telecomms	-5.35
Food & Drug Retailer	7.38	Oil Equipment & Serv	-0.98	General Retailers	-6.55
Household Goods & Ho	3.43	Support Services	-1.15	Travel & Leisure	-7.03
Consumer Goods	3.25	FTSE 100 Index	-1.38	Food Producers	-7.49
Personal Goods	2.94	FTSE All{HY-}Share Index	-1.66	Financial Services	-8.11
Nonlife Insurance	1.93	FTSE SmallCap Index	-1.73	Tech Hardware & Eq	-8.67
Electricity	1.87	Telecommunications	-1.75	Financials	-10.28
Utilities	1.73	Equity Invest Instr	-2.51	Automobiles & Parts	-10.77
Gas Water & Multi	1.67	Aerospace & Defense	-2.90	Real Est Invest & Se	-11.24
NON FINANCIALS Index	1.46	FTSE 250 Index	-2.91	Life Insurance	-12.92
		Leisure Goods	-3.07	Banks	-15.24

FTSE GLOBAL EQUITY INDEX SERIES

May 20 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	7708	445.89	0.8	-3.5	-1.1	617.24	0.0	2.6
FTSE Global All Cap	7079	462.39	0.3	7.3	-0.3	624.68	0.2	2.5
FTSE Global Large Cap	1426	391.88	0.7	-3.8	-1.7	555.45	-0.4	2.8
FTSE Global Mid Cap	1643	605.56	0.9	-2.8	0.6	798.53	1.6	2.2
FTSE Global Small Cap	4639	628.90	1.1	-2.4	0.3	804.17	1.1	2.1
FTSE All-World	3069	260.27	0.7	-3.7	-1.3	380.29	-0.1	2.7
FTSE World	2545	462.31	0.8	-3.5	-1.1	907.23	0.1	2.7
FTSE Global All Cap ex UNITED KINGDOM In	7387	458.94	0.7	-3.6	-1.0	626.18	0.1	2.5
FTSE Global All Cap ex USA	5752	405.77	0.8	-4.9	-2.7	598.02	-1.2	3.2
FTSE Global All Cap ex JAPAN	6445	455.85	0.8	-3.6	-0.7	636.67	0.5	2.7
FTSE Global All Cap ex Eurozone	7063	460.60	0.7	-3.3	-0.7	625.88	0.4	2.5
FTSE Developed	2095	420.83	0.7	-3.2	-1.1	587.45	-0.1	2.6
FTSE Developed All Cap	5658	442.21	0.8	-3.2	-1.1	610.32	0.2	2.5
FTSE Developed Large Cap	899	387.83	0.8	-3.2	-1.8	549.09	-0.5	2.7
FTSE Developed Europe Large Cap	223	313.55	1.3	-5.3	-5.0	505.97	-2.7	3.9
FTSE Developed Europe Mid Cap	305	501.31	1.2	-3.9	-2.2	753.69	-0.5	3.1
FTSE Dev Europe Small Cap	695	708.11	1.1	-1.7	-3.2	1000.61	-2.0	2.9
FTSE North America Large Cap	291	438.51	0.6	-2.5	0.5	582.76	1.6	2.4
FTSE North America Mid Cap	396	656.38	0.9	-1.9	2.5	815.57	3.2	1.7
FTSE North America Small Cap	1484	655.26	1.2	-1.8	2.1	792.24	2.8	1.8
FTSE North America	687	293.75	0.7	-2.4	0.8	399.86	1.7	2.2
FTSE Developed ex North America	1408	216.88	0.9	-4.7	-4.5	343.05	-2.8	3.4
FTSE Japan Large Cap	176	304.11	-0.1	-3.7	-7.2	384.34	-6.2	2.3
FTSE Japan Mid Cap	307	477.80	0.4	-2.3	-2.8	582.48	-1.9	2.0
FTSE Global wi JAPAN Small Cap	780	518.11	0.4	-1.2	-1.6	653.15	-0.5	2.0
FTSE Japan	483	127.75	0.0	-2.9	-6.3	181.36	-5.4	2.2
FTSE Asia Pacific Large Cap ex Japan	550	521.75	0.4	-6.5	-3.6	788.14	-2.6	3.4
FTSE Asia Pacific Mid Cap ex Japan	422	720.73	0.4	-7.4	-3.5	1048.51	-2.7	3.2
FTSE Asia Pacific Small Cap ex Japan	1430	479.64	0.4	-5.6	-3.9	687.41	-3.3	2.9
FTSE Asia Pacific Ex Japan	972	414.13	0.4	-6.6	-3.6	664.80	-2.6	3.4
FTSE Emerging All Cap	2040	566.70	0.5	-7.3	-0.8	813.87	-0.1	3.3
FTSE Emerging Large Cap	527	533.82	0.5	-7.3	-0.9	771.11	-0.2	3.3
FTSE Emerging Mid Cap	447	725.07	0.6	-7.8	2.1	1038.33	3.1	3.1
FTSE Emerging Small Cap	1066	594.64	0.2	-6.1	-3.4	823.19	-2.7	3.1
FTSE Emerging Europe	112	297.49	0.3	-7.7	11.4	439.81	12.1	4.1
FTSE Latin America All Cap	239	680.13	1.0	-7.0	13.6	1016.70	15.0	3.3
FTSE Middle East and Africa All Cap	222	611.52	1.5	-11.3	-1.1	924.47	0.3	3.1
FTSE Global wi UNITED KINGDOM All Cap In	321	319.09	1.2	-2.7	-3.0	513.67	-1.2	3.9
FTSE Global wi USA All Cap	1956	502.92	0.7	-2.3	0.3	650.01	1.2	2.1
FTSE Europe All Cap	1411	366.32	1.2	-4.6	-3.9	571.69	-1.9	3.5
FTSE Eurozone All Cap	645	341.69	1.4	-5.6	-4.8	538.50	-2.9	3.3
FTSE RAFI All World 3000	3050	5367.33	0.8	-4.7	-1.1	6857.74	0.3	3.4
FTSE RAFI US 1000	1007	8983.93	0.7	-2.8	1.6	11474.50	2.6	2.5
FTSE EDHEC-Risk Efficient All-World	3069	316.60	0.7	-2.9	0.3	429.76	1.3	2.4
FTSE EDHEC-Risk Efficient Developed Europe	528	273.33	1.3	-3.0	-2.1	405.24	-0.6	2.8

May 20 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil & Gas	152	331.02	0.7	0.7	8.5	513.88	10.3	3.8
Oil & Gas Producers	110	311.21	0.5	0.5	9.1	491.98	10.8	3.9
Oil Equipment & Services	32	298.38	1.3	1.3	7.5	421.58	8.9	3.5
Basic Materials	257	365.94	0.7	0.7	4.1	543.66	5.6	3.0
Chemicals	125	575.53	0.7	0.7	-2.7	858.85	-1.2	2.8
Forestry & Paper	16	194.57	1.2	1.2	-0.8	319.50	1.5	3.9
Industrial Metals & Mining	62	285.40	0.4	0.4	10.9	422.24	11.5	2.9
Mining	54	412.03	0.6	0.6	27.3	611.86	29.9	3.7
Industrials	536	304.05	0.6	0.6	1.5	422.44	2.8	2.4
Construction & Materials	111	440.85	0.9	0.9	5.2	648.92	6.5	2.2
Aerospace & Defense	26	510.14	0.6	0.6	0.7	710.77	1.9	2.4
General Industrials	55	219.65	0.7	0.7	1.2	332.40	2.6	2.7
Electronic & Electrical Equipment	69	305.16	0.8	0.8	-3.6	398.25	-2.8	2.0
Industrial Engineering	104	553.04	0.2	0.2	3.2	765.97	4.5	2.6
Industrial Transportation	98	512.38	0.9	0.9	3.5	717.77	4.6	2.5
Support Services	73	279.33	0.3	0.3	1.3	376.95	2.3	2.0
Consumer Goods	424	412.54	0.6	0.6	-1.0	593.61	0.2	2.6
Automobiles & Parts	104	332.46	0.7	0.7	-12.8	461.74	-11.4	3.2
Beverages	48	580.57	-0.1	-0.1	1.2	870.86	2.3	2.5
Food Producers	103	572.32	0.3	0.3	2.4	850.08	4.0	2.3
Household Goods & Home Construction	48	411.31	0.4	0.4	2.4	594.04	3.6	2.4
Leisure Goods	31	132.16	0.0	0.0	-0.2	170.86	0.7	1.5
Personal Goods	79	596.92	0.3	0.3	-0.1	816.43	0.8	2.1
Tobacco	11	1317.05	0.2	0.2	8.2	2607.32	9.6	3.7
Health Care	178	435.48	1.0	1.0	-4.8	615.19	-3.6	2.0
Health Care Equipment & Services	64	682.36	0.9	0.9	5.0	795.38	5.4	1.0
Pharmaceuticals & Biotechnology	114	320.41	1.0	1.0	-7.9	479.53	-6.6	2.4
Consumer Services	393	383.96	0.7	0.7	-1.5	502.80	-0.7	1.8
Food & Drug Retailers	55	294.17	0.4	0.4	1.0	407.68	2.0	1.9
General Retailers	122	521.46	0.6	0.6	-1.9	683.06	-1.4	1.6
Media	86	292.78	1.7	1.7	-3.0	402.66	-2.1	2.0
Travel & Leisure	130	369.26	0.1	0.1	-3.2	488.26	-2.4	1.9
Telecommunication	91	162.74	0.6	0.6	3.3	290.69	4.9	4.1
Fixed Line Telecommuniations	42	139.31	0.5	0.5	5.1	273.48	7.2	4.5
Mobile Telecommunications	49	166.19	0.7	0.7	0.9	267.29	1.7	3.5
Utilities	163	250.18	0.6	0.6	5.4	464.88	7.0	3.9
Electricity	111	273.82	0.5	0.5	5.8	503.59	7.3	3.7
Gas Water & Multiutilities	52	264.11	0.8	0.8	4.9	502.89	6.3	4.2
Financials	689	189.06	0.7	0.7	-5.8	298.28	-4.4	3.3
Banks	246	162.00	0.6	0.6	-9.2	273.01	-7.6	3.8
Nonlife Insurance	68	212.05	0.8	0.8	-1.1	300.28	0.6	2.5
Life Insurance	50	178.65	1.1	1.1	-9.9	275.60	-8.4	3.4
Financial Services	150	214.05	0.8	0.8	-3.8	287.80	-2.9	2.2
Technology	186	169.24	1.3	1.3	-2.9	203.45	-2.1	1.9
Software & Computer Services	89	306.95	0.9	0.9	-1.0	354.28	-0.5	1.1
Technology Hardware & Equipment	97	120.06	1.7	1.7	-5.0	148.80	-4.0	2.8
Alternative Energy	10	95.55	1.0	1.0	-7.6	127.34	-7.0	1.3
Real Estate Investment & Services	103	270.46	0.8	0.8	-4.4	437.52	-3.0	2.7

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see www.ftse.com/geis. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

FTSE 100 SUMMARY

FTSE 100	Closing Price	Week's Change
3I Group PLC	505.50	24.20
Admiral Group PLC	1873	22.00
Anglo American PLC	600.30	22.10
Antofagasta PLC	429.00	17.20
Arm Holdings PLC	944.50	23.00
Ashtead Group PLC	965.50	89.00
Associated British Foods PLC	2920	-117.00
Astrazeneca PLC	3894.5	-45.50
Aviva PLC	436.60	18.90
Babcock International Group PLC	987.00	28.50
Bae Systems PLC	483.50	-4.30
Barclays PLC	175.85	10.50
Barratt Developments PLC	580.50	48.00
Berkeley Group Holdings (The) PLC	3203	262.00
Bhp Billiton PLC	817.90	-4.90
BP PLC	361.50	-1.00
British American Tobacco PLC	4147	-77.50
British Land Company PLC	741.50	21.50
Bt Group PLC	443.00	2.85
Bunzl PLC	2024	-45.00
Burberry Group PLC	1095	-44.00
Capita PLC	1077	0.00
Carnival PLC	3534	-96.00
Centrica PLC	201.50	-0.90
Coca-Cola Hbc AG	1366	18.00
Compass Group PLC	1280	2.00
Crh PLC	2043	20.00
Dcc PLC	6485	325.00
Diageo PLC	1838	-56.00
Direct Line Insurance Group PLC	368.00	0.60
Dixons Carphone PLC	439.30	25.30
Easyjet PLC	1470	37.00
Experian PLC	1265	12.00
Fresnillo PLC	1080	-35.00
Gkn PLC	275.20	-4.90
Glaxosmithkline PLC	1436	-17.00
Glencore PLC	128.65	-2.50
Hammerson PLC	567.50	-3.50
Hargreaves Lansdown PLC	1263	-1.00
HSBC Holdings PLC	429.25	-0.75
Imperial Brands PLC	3699.5	-76.00
Informa PLC	667.00	-1.50
Inmarsat PLC	755.00	-5.50
Intercontinental Hotels Group PLC	2561	-74.00
International Consolidated Airlines Group S.A.	516.50	7.50
Intertek Group PLC	3292	-36.00
Intu Properties PLC	286.40	-6.30
Itv PLC	212.80	7.90
Johnson Matthey PLC	2875	5.00
Kingfisher PLC	361.20	4.40
Land Securities Group PLC	1175	30.00
Legal & General Group PLC	225.40	10.00
Lloyds Banking Group PLC	70.34	3.94
London Stock Exchange Group PLC	2598	13.00
Marks And Spencer Group PLC	444.70	18.10
Mediclinic International PLC	846.50	11.00
Merlin Entertainments PLC	415.90	-14.90
Mondi PLC	1339	-8.00
Morrison (Wm) Supermarkets PLC	193.00	3.30
National Grid PLC	986.60	-23.40
Next PLC	5345	-5.00
Old Mutual PLC	169.70	0.60
Paddy Power Betfair PLC	8760	-185.00
Pearson PLC	816.50	6.50
Persimmon PLC	2090	129.00
Provident Financial PLC	2851	14.00
Prudential PLC	1334	57.00
Randgold Resources LD	6030	-135.00
Reckitt Benckiser Group PLC	6820	-31.00
RELX PLC	1233	-1.00
Rexam PLC	628.00	-6.00
Rio Tinto PLC	1952.5	-39.50
Rolls-Royce Holdings PLC	643.00	-7.00
Royal Bank Of Scotland Group PLC	231.80	20.50
Royal Dutch Shell PLC	1689	-43.00
Royal Dutch Shell PLC	1680	-46.00
Royal Mail PLC	491.90	-2.40
Rsa Insurance Group PLC	480.60	11.40
Sabmiller PLC	4250	28.00
Sage Group PLC	590.50	-3.00
Sainsbury (J) PLC	260.60	5.40
Schroders PLC	2575	82.00
Severn Trent PLC	2210	-43.00
Shire PLC	4281	147.00
Sky PLC	943.00	10.00
Smith & Nephew PLC	1151	-14.00
Sse PLC	1535	-3.00
St. James's Place PLC	896.00	33.00
Standard Chartered PLC	526.20	19.70
Standard Life PLC	331.50	13.40
Taylor Wimpey PLC	205.50	23.60
Tesco PLC	164.30	2.65
Travis Perkins PLC	1860	68.00
Tui AG	1039	-1.00
Unilever PLC	3081	-84.50
United Utilities Group PLC	955.00	-2.50
Vodafone Group PLC	229.10	4.60
Whitbread PLC	4279	361.00
Wolseley PLC	3972	99.00
Worldpay Group PLC	264.10	0.10
WPP PLC	1583	-8.00

UK STOCK MARKET TRADING DATA

	May 20	May 19	May 18	May 17	May 16	Yr Ago
SEAQ Bargains	4256.00	3905.00	4517.00	4275.00	4452.00	4452.00
Order Book Turnover (m)	89.16	171.59	108.81	26.25	87.55	87.55
Order Book Bargains	762914.00	840872.00	823635.00	532277.00	797137.00	797137.00
Order Book Shares Traded (m)	1524.00	1796.00	1951.00	1063.00	1369.00	1369.00
Total Equity Turnover (£m)	2566.07	2636.56	2818.44	2827.84	2696.52	2696.52
Total Mkt Bargains	840611.00	915274.00	911981.00	605719.00	884010.00	884010.00
Total Shares Traded (m)	5589.00	5829.00	6187.00	5028.00	5923.00	5923.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
For all queries e-mail ft.reader.enquiries@morningstar.com

Data provided by Morningstar | www.morningstar.co.uk

UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Altitude Group	Pre	**4.535**	4.44	**1.249L**	1.566L	**2.91L**	3.68L	**-**	-	-	**-**	-
Armadale Capital	Pre	**-**	-	**0.992L**	1.078L	**1.91L**	4.43L	**-**	-	-	**-**	-
Future	Int	**30.2**	30.8	**0.3L**	1.3L	**0.1L**	0.3L	**-**	-	-	**-**	-
Investors Capital Trust	Pre			**3.433L**	6.735	**3.74**	3.95	**1.18**	1.15	May 6	**2.32**	2.26
Northern Investors Co	Pre			**7.805**	8.003	**12.3**	11.7	**24**	17	Jul 22	**24**	17
Triple Point VCT 2011	Pre	**2.265**	0.663	**1.75**	0.221	**8.51**	0.9	**20.7**	7.37	Dec 18	**58.7**	8.69

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
05/18	130.00	AIM	ONC	Oncimmune Holdings PLC	130.50	1.25	140.00	126.00	6658.7
05/13	200.00		MOTR	Motorpoint Group PLC	231.25	2.85	232.00	200.00	23125.0
05/12	9.00	AIM	GSH	Green & Smart Holdings PLC	10.25	0.00	11.00	10.00	2835.8
05/10	148.00	AIM	HOTC	Hotel Chocolat Group PLC	199.00	0.50	225.00	148.00	22454.7
05/10	8.00		TOOP	Toople PLC	8.63	-0.33	10.00	8.00	0.0
05/06	208.00	AIM	MIDW	Midwich Group PLC	249.25	5.00	253.00	209.48	19802.5
05/05	108.00	AIM	MCL	Morses Club PLC	105.00	-0.25	116.50	104.00	13597.5
04/15	156.00	AIM	OSI	Osirium Technologies PLC	188.50	1.63	203.00	161.50	1959.3
04/13	5.75		BMV	Bluebird Merchant Ventures Ltd	3.63	-0.04	6.20	3.35	670.5
04/13	100.00	AIM	PILR	Pacific Industrial & Logistics REIT PLC	105.00	0.00	109.00	100.00	1083.4

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

PingAnIns	33.40	-0.70	62.90	30.50	2.49	9.06	32021.45
PngAnBnk RMB	10.30	-0.08	17.45	9.30	1.73	6.38	18580.88
Pwr Cons Corp RMB	5.88	-0.19	17.85	5.60	1.74	14.98	2965.45
SaicMtr RMB	19.81	-0.25	27.36	14.00	6.70	7.06	33379.68
ShenwanHong	0.17	0.01	0.40	0.12	-	-0.23	54.41
ShgPdgBk RMB	17.45	0.04	20.12	11.91	4.43	6.19	49745.26
Sinopec Corp	5.16	0.03	7.35	3.86	4.73	13.93	16947.3
Sinopec Oil RMB	3.95	-0.08	14.23	3.86	-	-37.37	1076.53
Denmark (kr)							
DanskeBk	183.00	2.50	218.00	168.30	4.48	13.28	27145.5
MollerMrsk	8825	210.00	13560	7355	-	-52.19	14162.91
NovoB	359.10	2.10	415.00	305.10	1.83	26.08	108979.17
Indonesia (Rp)							
Bk Cent Asia	13025	-125.00	14500	11000	1.14	18.33	23599.53
Israel (ILS)							
TevaPha	199.60	197.60	275.90	189.40	2.65	26.35	52756.1
Italy (€)							
Enel	3.99	-0.02	4.50	3.33	3.60	16.20	45485.73
ENI	13.40	-0.17	16.99	10.93	7.35	-5.18	54605.27
Generali	12.75	0.30	18.29	10.90	4.83	10.05	22301.05
IntSPaolo	2.31	0.09	3.65	2.12	2.89	14.89	41150.68
Luxottica	49.91	2.23	67.80	46.58	1.38	31.36	27072.16
Unicred	3.00	0.09	6.61	2.76	3.81	9.75	20809.3
HyundMobis	243500	-15000.00	272000	185500	1.51	12.33	19916.17
KoreaElePwr	60100	-900.00	63700	40800	5.16	2.90	32417.8
SK Hynix	26300	200.00	51700	25650	2.00	5.63	15601.26
SmsungEl	1269000	-12000.00	1393000	1033000	1.55	9.67	152441.36
Spain (€)							
BBVA	5.63	0.12	9.48	5.24	6.74	21.11	40931.88
BcoSantdr	4.15	0.08	6.89	3.31	7.43	10.35	67088.63
CaixaBnk	2.45	0.06	4.51	2.33	5.03	19.97	16210.08
Iberdrola	6.08	-0.05	6.71	5.66	2.65	15.22	43584.3
Inditex	28.80	0.68	35.38	26.00	1.38	31.59	100647.63
Repsol	11.30	-0.22	18.26	7.95	8.63	-10.13	18268.43
Telefonica	9.19	-0.42	14.31	8.48	8.32	-235.14	51245.94

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
TevaPha	199.60	199.00	0.60	0.30	197.60	9865.1	-0.35
Williams Cos	22.15	21.54	0.61	2.83	2.80	14.5	17.63
McKesson	182.29	180.96	1.33	0.73	16.36	9.9	2.68
RBS	231.80	226.80	5.00	2.20	20.50	9.7	-7.09
ShenwanHong	0.17	0.17	0.00	0.00	0.01	8.3	9.74
WalMartSto	69.86	69.20	0.66	0.95	4.92	7.6	0.94
Potash	21.79	21.79	0.00	0.00	1.49	7.3	-4.62
CharlesSch	29.44	28.96	0.48	1.66	1.91	6.9	1.20
Lowes	79.82	79.86	-0.04	-0.05	4.81	6.4	4.56
NXP	88.39	86.43	1.96	2.27	5.32	6.4	3.98
Barclays	175.85	170.65	5.20	3.05	10.50	6.4	2.75
Qualcomm	54.52	52.76	1.76	3.34	3.20	6.2	4.67
Perrigo	93.78	91.94	1.84	2.00	5.42	6.1	-27.09
Telsa Mtrs	220.28	215.21	5.07	2.36	12.67	6.1	-11.88
Salesforce	81.02	81.09	-0.07	-0.09	4.65	6.1	6.29
MylanNV	41.51	41.12	0.39	0.95	2.35	6.0	-13.39
LlydsBkg	70.34	69.08	1.26	1.82	3.94	5.9	3.81
BB & T	35.08	35.01	0.07	0.20	1.96	5.9	-0.37
ArcherDan	39.83	38.37	1.46	3.81	2.20	5.8	2.47
Novatek	654.50	642.60	11.90	1.85	36.10	5.8	8.33

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Hngzh HikVDT	20.61	20.57	0.04	0.19	-11.43	-35.7	-32.87
ChinaMBank	15.16	15.14	0.02	0.13	-1.54	-9.2	-11.66
Gzprm neft	146.70	148.33	-1.63	-1.10	-13.15	-8.2	-9.42
Bayer	88.51	88.51	0.00	0.00	-7.63	-7.9	-6.86
KDDI	3146.00	3138.00	8.00	0.25	-261.00	-7.7	-2.05
SBI NewA	171.35	171.35	0.00	0.00	-13.50	-7.3	-8.25
Target	68.66	67.06	1.60	2.39	-5.22	-7.1	-17.24
NatAusBk	27.29	27.28	0.01	0.04	-1.90	-6.5	0.33
Takeda Ph	4690.00	4711.00	-21.00	-0.45	-321.00	-6.4	-11.78
Cielo	32.45	32.45	0.00	0.00	-2.17	-6.3	-2.87
NipponTT	4800.00	4760.00	40.00	0.84	-313.00	-6.1	-3.50
MTR	36.10	36.09	0.01	0.03	-2.35	-6.1	-6.84
HyundMobis	243500.00	242500.00	1000.00	0.41	-15000.00	-5.8	-1.22
Bridgestne	3650.00	3744.00	-94.00	-2.51	-223.00	-5.8	-11.23
Deere	77.74	82.25	-4.51	-5.48	-4.73	-5.7	-7.61
Ch Coms Cons	8.39	8.42	-0.03	-0.36	-0.51	-5.7	-16.43
Bradesco	26.39	26.39	0.00	0.00	-1.60	-5.7	-7.54
Baxter	42.92	43.16	-0.24	-0.56	-2.60	-5.7	-0.79
NTTDCMo	2676.50	2693.50	-17.00	-0.63	-145.00	-5.1	-1.47
Petrobras	11.51	11.51	0.00	0.00	-0.61	-5.0	-8.18

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
Colombia	07/21	4.38	BBB	Baa2	BBB	103.40	3.67	0.00	0.25	2.31
Brazil	01/22	12.50	BB+	Ba2	BB	106.75	10.87	0.05	-0.61	9.50
Poland	03/22	5.00	A-	A2	A-	117.38	2.80	0.00	0.00	1.43
Turkey	09/22	6.25	-	Baa3	BBB-	109.97	4.48	0.00	0.38	3.11
Turkey	10/26	4.88	-	Baa3	BBB-	99.89	4.95	0.00	0.42	3.10
Emerging Euro										
Brazil	02/15	7.38	BBB-	Baa2	BBB	111.75	0.73	0.00	0.00	0.09
Mexico	07/17	4.25	BBB+	A3	BBB+	111.13	1.50	0.00	0.00	0.61
Mexico	02/20	5.50	BBB+	A3	BBB+	121.63	2.06	0.00	0.00	0.69
Bulgaria	09/25	5.75	BB+	-	BBB-	117.65	3.55	0.00	-0.14	1.70

Data provided by SIX Financial Information & Tullett Prebon Information. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

May 20	Rate	Current	Since	Last	Mnth Ago	Year Ago
US	Fed Funds	0.25-0.50	16-12-2015	1.00	0.25-0.50	0.00-0.25
US	Prime	3.50	16-12-2008	3.50	3.50	3.50
US	Discount	0.75	16-12-2015	0.75	1.00	0.75
Euro	Repo	0.00	10-09-2014	0.05	0.05	0.05
UK	Repo	0.50	05-03-2009	0.50	0.50	0.50
Japan	O'night Call	0.00-0.00	05-10-2010	0.00	0.00-0.10	0.00-0.10
Switzerland	Libor Target	0.00-0.25	15-01-2015	0.00-0.75	-1.25--0.25	0-0.25

INTEREST RATES: MARKET

May 20 (Libor: May 19)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	0.38400	-0.001	-0.001	0.005	0.44300	0.65390	0.95710	1.29850
Euro Libor	-0.39857	0.000	-0.001	0.000	-0.35286	-0.27957	-0.15929	-0.02957
£ Libor	0.48375	0.000	0.000	0.001	0.51569	0.58981	0.73688	1.01025
Swiss Fr Libor				0.000	-0.77300	-0.73540	-0.65080	-0.52460
Yen Libor				0.006	-0.04171	-0.02079	0.00457	0.09886
Euro Euribor				-0.001	-0.34900	-0.25800	-0.14300	-0.01100
Sterling CDs				0.000	0.50000	0.60000	0.77500	
US$ CDs				0.000	0.43000	0.62500	0.87500	
Euro CDs				-0.020	-0.39500	-0.30500	-0.20500	

May 20	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	-0.45	-0.35	-0.45	-0.35	-0.47	-0.32	-0.38	-0.23	-0.28	-0.13	-0.09	0.06
Sterling			0.45	0.55	0.45	0.55	0.55	0.65	0.70	0.85	0.93	1.08
Swiss Franc	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Dollar	-	-	-	-	-	-	-	-	-	-	-	-
US Dollar	0.35	0.45	0.35	0.45	0.40	0.50	0.55	0.65	0.90	1.00	1.25	1.35
Japanese Yen	-0.60	-0.20	-0.30	-0.10	-0.25	-0.05	-0.30	-0.10	-0.20	0.00	-0.10	0.10

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	-	-	-	-	-	-
Corporates(£)	307.80	0.03	0.59	4.28	1.29	3.78
Corporates($)	260.85	0.14	-0.53	4.56	-0.53	4.56
Corporates(€)	217.17	-0.06	-0.01	2.78	-0.03	1.83
Eurozone Sov(€)	-	-	-	-	-	-
Gilts(£)	301.70	0.08	1.25	5.17	0.89	6.53
Global Inflation-Lkd	248.24	-0.15	-0.77	4.16	-0.24	-0.05
Markit iBoxx £ Non-Gilts	-	-	-	-	-	-
Overall ($)	233.04	0.17	-0.22	3.57	-0.22	3.57
Overall(£)	300.63	0.06	1.11	4.89	0.97	5.74
Overall(€)	226.67	0.00	0.47	2.71	-0.15	3.11
Treasuries ($)	223.67	0.24	-0.04	3.17	-0.04	3.17
FTSE						
Sterling Corporate (£)	112.08	-0.31	-	-	0.19	-0.63
Euro Corporate (€)	107.87	-0.05	-	-	-0.60	-0.94
Euro Emerging Mkts (€)	859.15	-2.04	-	-	-8.04	-20.59
Eurozone Govt Bond	115.53	-0.03	-	-	-0.41	0.92

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	332.27	-4.79	8.31	32.91	339.86	288.69
Europe 5Y	78.21	-1.81	1.37	8.15	82.07	67.59
Japan 5Y	70.90	0.00	-1.96	0.34	93.03	64.39
Senior Financials 5Y	97.20	-3.42	-0.61	10.72	102.83	80.36
Markit CDX						
Emerging Markets 5Y	305.65	1.88	18.11	22.39	311.29	271.25
Nth Amer High Yld 5Y	463.54	4.79	19.88	41.10	463.54	415.17
Nth Amer Inv Grade 5Y	85.08	1.35	3.96	10.99	85.25	72.99

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	May 20	Day Chng	Prev	52 wk high	52 wk low
VIX	15.20	-1.13	16.33	53.29	10.88
VXD	14.48	-1.26	15.74	56.32	7.76
VXN	16.40	-1.48	17.88	46.72	12.06
VDAX	19.15	0.41	18.74	32.55	16.71

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility. ‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	10/18	3.25	103.79	1.64	0.01	0.05	-0.42	-0.48
	11/27	2.75	103.15	2.43	0.00	0.03	-0.32	0.00
Austria	10/19	0.25	99.98	0.26	0.00	0.00	0.00	0.00
	10/26	0.75	102.10	0.54	0.00	0.03	-0.06	0.00
Belgium	06/18	0.75	101.72	-0.10	0.00	0.00	0.00	0.00
	06/26	1.00	104.37	0.55	0.00	0.04	-0.07	0.00
Canada	08/18	0.50	99.74	0.62	-0.01	0.06	0.00	0.00
	06/26	1.50	101.54	1.34	-0.01	0.06	-0.17	0.00

BONDS: INDEX-LINKED

	Price May 19	Yield May 19	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 21	126.53	-0.477	-0.459	0.54	5.18	73839.84	7
Fr 2.25%' 20	114.47	-1.112	-1.157	0.09	20.31	226684.83	15
Swe 0.25%' 22	111.76	-1.391	-1.360	0.99	29.90	242360.75	8

COMMODITIES

BONDS: TEN YEAR GOVT SPREADS

BONDS: GLOBAL INVESTMENT GRADE

GILTS: UK CASH MARKET

GILTS: UK FTSE ACTUARIES INDICES

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information. For all queries e-mail ft.reader.enquiries@morningstar.com

Data provided by Morningstar | www.morningstar.co.uk

MORNINGSTAR

Morningstar Sustainability Rating

Above Average

Percentage Rank in Category: 23

Sustainability Score: 48

A Global Sustainability Standard for Funds

The Morningstar Sustainability Rating™ for funds gives investors worldwide a way to compare fund portfolios based on a standard measure of sustainability.

Learn how at global.morningstar.com/SustainableInvesting or +44 20 3107 0020.

MORNINGSTAR

©2016 Morningstar. All Rights Reserved.

Week Ahead

FINANCIAL TIMES

Corporate diary May 23 - May 27

TODAY 23

Ryanair is not only one of the world's biggest airlines; it is also one of the most hyperactive.

In the past 12 months it has raised its guidance on full-year 2015 to between €1.18bn and €1.23bn, announced an €800m share buyback, launched a private corporate-jet scheme and begun legal action over another website's allegedly misleading advertisements for its flights.

Today investors will get a chance to see how all these initiatives and announcements are reflected in the low-fare airline's profits.

Moreover they will want to see how chief executive Michael O'Leary intends to keep the growth momentum going, given the clouds on the horizon after the terrorist attack on Brussels airport, an important base for Ryanair, weaker sterling, and the possible end of low oil prices.

As analysts at Davy stockbrokers in Dublin put it in a results preview note for investors: "Guidance is key."
Vincent Boland

Earnings

Ryanair	FY	€0.96	(€0.64)

TUESDAY 24

Earnings

De La Rue	FY	36.94p	(44.70p)

WEDNESDAY 25

Hewlett-Packard, the maker of printers and personal computers, is expected to show a continued slide in revenues when it announces earnings.

The company, founded in Silicon Valley in 1939, recently split its hardware and enterprise businesses into two listed companies, in an attempt to help each achieve growth.

However, amid a broad contraction in printer and laptop sales, analysts expect that HP's revenues will have fallen to $11.7bn in the fiscal second quarter, 9 per cent lower than a year ago.

The company is looking to areas outside its core markets for eventual growth, including copiers and 3D printing.

HP released its first commercial 3D printers this month, with two models specifically aimed at manufacturing clients.

The devices, one of which costs $130,000 and will ship this year, can print linked parts out of a hard plastic material, at 10 times the speed of other printers.

Nike, BMW and Johnson & Johnson are among companies that are testing the commercial printer. If successful such devices could usher in a new style of printer-based manufacturing.

However, analysts do not expect 3D printer sales to have a meaningful impact on HP revenues this year or next.
Leslie Hook

Earnings

HP	Q2	$0.38	($0.87)
Marks & Spencer	FY	34.25p	(32.90p)

THURSDAY 26

If ever a company should know how to stay under the radar it is **Qinetiq**. The company — spun out of the Ministry of Defence a decade ago — is responsible for sensitive defence technology research, testing and consultancy.

Qinetiq is the biggest non-US partner to the US Defense Advanced Research Projects Agency and is an important UK supplier. While secrecy makes publicising what Qinetiq does a little harder than for most companies, there is not likely to be too much cloak and dagger about its annual results.

In fact there should be little to surprise. At a trading statement issued at the end of March Qinetiq confirmed that it was on course to deliver on expectations for the year.

However, some questions may need to be answered this year and next. In March the MoD announced that the allowed profit rate for single source contracts would be cut from 10.6 to 8.95 per cent.

Investors will want to know what the impact will be on Qinetiq as it seeks to reorganise its wide array of businesses under a relatively new chief executive. About a third of group revenues are potentially exposed to the rate cut.

They will also be keen to hear Steve Wadey's strategic vision now that he has been in post for a year.

Analysts at Canaccord Genuity suspect a wave of acquisition ahead, as well as organic investment, to drive the top line as margins fall.

They forecast a slight fall in earnings before interest, tax, depreciation and amortisation from £135.6m to £131.2m for the year to March 31.
Peggy Hollinger

United Utilities will tell the market next week how it has fared under the first year of tougher price controls imposed by the regulator.

The water company will announce its full-year results, with analysts predicting slightly higher profits than for the previous year.

In March United said it expected to make slightly higher revenues than 2014-15 as an increase in sales in the non-regulated parts of the business made up for tighter price controls.

The company has benefited from lower finance costs, but as it said net debt would rise slightly as it spent on maintaining and renewing its infrastructure.

In 2014-15 United made £341.6m in pre-tax profits. Analysts expect that to have risen to £386.8m for 2015-16.

Investors will want to hear how proposed changes to the highly regulated water market, including a government push for more competition, will affect United Utilities in future. *Kiran Stacey*

Earnings

Qinetiq	FY	15.57p	(15.13p)
United Utilities	FY	46.94p	(51.82p)

Diary commentary from FT reporters. Data, unless otherwise stated, from Thomson Reuters. Company announcements, collated by Thomson Streetevents, are of information publically available before last week. Results forecasts, from Thomson I/B/E/S, are for fully diluted, post-tax EPS in local currency for the stated fiscal period. The comparable period of the previous year is bracketed. Non-UK reporting periods are broken by quarter: Q1, Q2, Q3, Q4. UK periods are designated: Q1, H1 (first half), Q3 and FY (full year).

THOMSON REUTERS

Investors watch how M&S shapes up with non-food sales

Investors will be hoping that new chief executive Steve Rowe can put a stop to **Marks and Spencer**'s tumbling clothing and homeware sales as the high-street stalwart reports full-year results on **Wednesday**.

Shares in M&S have fallen 24 per cent in the past year as the retailer struggles to arrest falling sales in the non-food part of its business, with like-for-like sales down 13 per cent in five years.

Mr Rowe is expected to announce a strategic review for the clothing and home division alongside annual financial results.

"We expect . . . a similar approach to that applied in food — a relentless focus on driving top line like-for-like via volume sales growth," said analysts at HSBC.

"This is a change in strategy to that of Marc Bolland, whose tenure was characterised by a significant period of infrastructure investment, and where against a challenging market backdrop improvements in the financial performance of the business were gross margin and cost led."

Mr Rowe blasted last quarter's 2.7 per cent drop in general merchandise sales as "not good enough" and said: "We have not been a stylish as we need to be. We've not had the right products in the right place. There's a lot more to do."

He added, however, that there remained "an awful lot of self-help we can do", thanks to heavy investment in product design, warehousing and online infrastructure in the years before his appointment.

M&S's results have long been a tale of two businesses, with its food division popular among Britain's middle classes, while clothing and homeware have struggled.

Revenues are forecast to inch up from £10.3bn to £10.4bn, while pre-tax profits rise 1.4 per cent from £661m to £670m. *Paul McClean*

ECONOMIC OUTLOOK

Slight pick-up expected in eurozone PMIs

Developments in the eurozone take the lead this week with the release today of preliminary Purchasing Managers' Indices for May.

Economic activity in the currency union slowed during the first quarter of the year. Services and manufacturing PMIs have moved from 54.2 and 53.2 in December last year to 53.1 and 51.7 respectively in April.

Last week's European Central Bank minutes noted that the additional stimulus launched in March had helped to shore up confidence, "had been positive across market segments", and probably kept the PMIs from slipping below 50 into contraction territory.

The minutes also hinted that the goal of the ECB's 2016 stimulus programme, to prevent deflationary fears becoming entrenched, was some way to being achieved.

"All in all, financial market participants appeared to show little uncertainty that medium-term inflation would stay low, while deflation fears remained contained and visibly below the early-2015 peak," the minutes said.

May PMIs are expected to tick up marginally, with services moving to 53.3 and manufacturing to 51.9.

German PMIs are out tomorrow with similar improvement anticipated.

The Bank of Canada is due to announce its decision on interest rates on Wednesday. "There are a lot of downside risks, but I would say that the most likely thing is that the economy is going to keep growing," said Carolyn Wilkins, deputy governor, this month.

"There's not the typical inflation pressures you see that would result in very abrupt increases in interest rates, and that's often what triggers downturns."

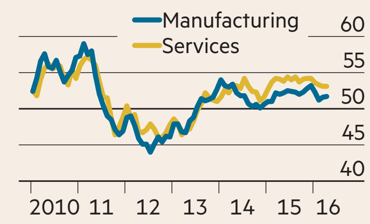
With inflation in March running at just 1.3 per cent year on year, her comments suggest a rate rise is unlikely for the rest of the year, let alone at this month's meeting.

Japanese price data, out on Friday, are likely to show the country once again returning to deflation. Price growth dipped below zero in January for the first time since 2013, and analysts have said the April data will show a larger dip with the annual rate moving down to minus 0.4 per cent.

Eurozone consumer confidence is released today. March's reading, of minus 9.7, was the worst since the end of 2014. April registered an improvement and that trend is likely to continue for May. *Andrew Whiffin*

Eurozone Purchasing Managers Indices

Above 50 = expansion



Source: Thomson Reuters Datastream

4CAST ECONOMIC CALENDAR

COUNTRY	For	Indicator	Units*	Mkt*	Prev*
MONDAY					
Eurozone	May	Composite PMI		53.2	53
Eurozone	May	Cons. sentiment		-9.1	-9.3
Eurozone	May	Manuf. PMI		51.9	51.7
Eurozone	May	Services PMI		53.3	53.1
France	May	Manuf. PMI		49	48
France	May	Services PMI		50.6	50.6
Germany	May	Manuf. PMI		52	51.8
Germany	Jun	Services PMI		54.6	54.5
Russia	Apr	Unemployment	%	6	6
TUESDAY					
Eurozone	May	ZEW econ. sent.		n/a	21.5
Germany	May	ZEW curr. cond.		48.8	47.7
Germany	May	ZEW econ. sent.		12	11.2
UK	May	CBI distrib. trades	%	n/a	-13
UK	Apr	Public borrowing	3	6.4	4.8
US	Apr	New home sales	5	520	511
WEDNESDAY					
Canada		BoC overnight rate	%	0.5	0.5
Germany	Jun	GFK cons. sent.		9.7	9.7
Germany	May	IFO bus. climate		106.8	106.6
Germany	May	IFO current cond.		113.4	113.2
Germany	May	IFO expectations		100.6	100.4
THURSDAY					
Japan	Apr	PPI services	2	0.2	0.2
UK	Apr	BBA mort. approvals	5	n/a	45.1
UK	Q1	GDP (2nd est.)	1	0.4	0.4
UK	Q1	GDP (2nd est.)	2	2.1	2.1
UK	Mar	Index of services	4	0.6	0.7
US	Apr	Durable goods orders	1	0.3	0.8
US	Week	Initial claims	5	n/a	278
FRIDAY					
France	May	INSEE consumer conf.		95	94
Japan	Apr	CPI core (Nation)	2	-0.4	-0.3
Japan	May	CPI core (Tokyo)	2	-0.4	-0.3
US	Q1	Core PCE (2nd est.)	4	n/a	2.1
US	Q1	GDP (2nd est.)	4	0.8	0.5

Mkt* = market consensus estimates. Prev*= previous actual
Units*; **1** = % change on previous period, **2** = % change on same period in previous year, **3** = national currency bn, **4** = annualised quarterly % change, **5** = 000s, NSA=not seasonally adjusted, SA=seasonally adjusted.
See more at www.ft.com/economic-calendar