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Bank hacks How customers could help tackle cyber crime
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Tokuyama Corp	Fast Retailing	Tencent	Dollar/Yen	Brent Oil	2-Year US Treasury	Gold	Xetra Dax
3.89%	2.81%	0.38%	0.7%	1.6%	2bp	$3	0.7%
¥294	¥27,965	HK$159.10	¥109.35	$47.92	0.91%	$1248	9,842.29

Tax inversion crackdown scuppers $8bn fertiliser tie-up

- US action spurs CF-OCI deal collapse
- Merger value 'materially reduced'

ARASH MASSOUDI AND EMIKO TERAZONO — LONDON
BARNEY JOPSON — WASHINGTON

A US crackdown on tax inversions has prompted two fertiliser makers to scrap their $8bn deal because it "materially reduced" the value of a planned tie-up between CF Industries and its smaller Dutch-listed rival OCI.

The deal is the latest high-profile inversion to fall apart since the US Treasury stepped up efforts to curb the financial benefits to US companies of buying overseas groups in order to move their tax domicile abroad.

The crackdown prompted drugmakers Pfizer and Allergan to walk away from a $160bn merger last month that would have seen Pfizer relocate to Ireland for tax purposes.

Tony Will, CF chief executive, said: "Although the original deal created significant value for both parties, changes in the regulatory and commercial environments forced us to re-evaluate the combination."

The deal's collapse was welcomed by Sander Levin, a senior member of the US House of Representatives who has led the charge against inversions. "Today's announcement from CF Industries shows that Treasury's actions are already having their intended effect of protecting the US tax base and stopping corporate tax inversions," he told the Financial Times.

CF will pay a break fee of $150m to OCI, which is run by Nassef Sawiris, Egypt's richest man and the company's chief executive. Shares in OCI fell almost 10 per cent to €12.22, giving it a market value €2.6bn. CF shares rose 6.3 per cent to $30.40 in New York.

The OCI deal was Mr Will's second failed attempt to clinch a tax inversion. A move to combine with Norway's Yara International was also unsuccessful.

Under a complex deal agreed in August, CF would have set up its headquarters in the UK after buying OCI's North America and Europe businesses. By doing so, the Illinois company would have been able to cut its corporate tax rate from 35 per cent to 20 per cent.

After the Treasury moved to crack down on inversions last year, CF and OCI modified their planned transaction and said the new company's headquarters would be in the Netherlands.

But Barack Obama's administration further roiled the international mergers market in April by announcing a series of additional and unexpectedly aggressive steps to thwart inversions.

The moves made it harder for deals to qualify as inversions — and gain the attendant tax benefits — by changing the way the size of the companies is calculated.

They also made it more difficult for inverted companies to minimise their US tax bills using a technique known as "earnings stripping", which involves using internal loans to American subsidiaries to reduce taxable income.

The Treasury declined to comment on the decision by CF and OCI.

CF is already facing tighter margins due to lower fertiliser prices. Grain prices remain relatively low and China is flooding the international market with lower grade nitrogen fertilisers, pushing down the price.

"The deal's collapse will mean that CF has a weakened position . . . An independent OCI can only increase competition among suppliers for business," said Alistair Wallace, at consultancy CRU.

New model Versace looks to UK fashion rival Alexander McQueen for next chief executive

This season's look from Versace, where Jonathan Akeroyd is to take the helm — Stefano Rellandini/Reuters

NATHALIE THOMAS

Italy's Versace has turned to UK fashion house Alexander McQueen, owned by luxury goods heavyweight Kering, to find a new chief executive.

Jonathan Akeroyd, chief executive of Alexander McQueen since 2004, will replace Gian Giacomo Ferraris at the helm of Versace, in which Blackstone bought a 20 per cent stake in 2014.

Mr Ferraris joined Versace in 2009. The change in management at the company is the latest in a long list of reorganisations at some of Europe's most prestigious fashion houses, with a number of creative directors leaving their posts in the past year.

Tod's, the Italian leather goods group, said this month that Alessandra Facchinetti would be stepping down as creative director of its women's collections. Other departures have included Hedi Slimane from Yves Saint Laurent and Raf Simons from Christian Dior.

Versace, which has 180 stores globally, has been preparing for an initial public offering but Mr Ferraris in March appeared to pour cold water on the possibility of floating this year because of choppy market conditions and an uncertain climate for luxury retailers.

Short View

Leo Lewis

"Give me the child until he is seven," St Ignatius of Loyola supposedly said, "and I will give you the man."

Japanese Prime Minister Shinzo Abe, and his Abenomics evangelists, have had the ears of domestic Japanese and global investors for exactly half that time — which may explain why the convert count is looking shaky.

Arguably, the sternest test of faith for investors came with the Bank of Japan's move to negative interest rates (NIRP) in January. Some of the shine had undoubtedly started to come off Abenomics some six months earlier, and the Japanese equity market's vulnerability to China's economic slowdown was well entrenched in sentiment by the turn of the year. But NIRP was a cause for more profound spasms.

Japanese investors have since looked overseas: their buying of foreign bonds hit a record high of ¥5.2tn in March, with net buying of long-dated US securities at the highest level since the Treasury began compiling data.

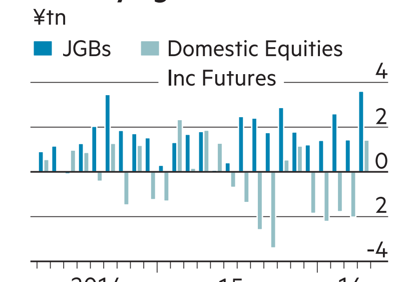
But the behaviour of foreign investors has shown even greater disdain for the Abe narrative. According to the latest Bank of America Merrill Lynch fund manager survey, global investors' allocation to Japanese equities fell in April, to hit its lowest level since December 2012.

A harsher appraisal may be building in the bond market. In April, foreign investors bought net ¥3.6tn of Japanese government bonds — the highest monthly level for nearly a decade — and just ¥1.5tn of Japanese stocks. That extended a pattern that has been evident for several months. These numbers tell a "truth as inconvenient as it is hidden", said Jonathan Allum, the SMBC Nikko strategist: the most consistent investment support for Mr Abe is to be found on fixed income, rather than equity desks.

But why, asks Mr Allum, should the Abenomics policies — which are explicitly designed to increase inflation and weaken the yen — be embraced by bond investors who should be hoping for precisely the opposite?

All of those funds pouring into Japanese government bonds may simply be global flows into comparatively safe assets. They could, however, represent a far more damning investment call: a big and growing bet that Abenomics is doomed.

Foreigners' monthly net buying



Foreign investors have been far more eager to buy Japanese government bonds than they have equities

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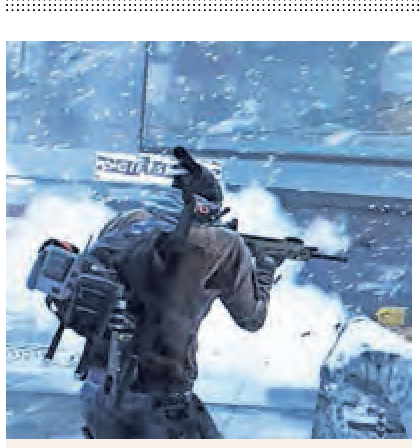

Ubisoft fights to fend off rival and stay in the game

Ubisoft's *The Division* has become the fastest-selling video game in history, with $330m in retail sales in the week following release. But the French gaming group is trying to build defences against Vivendi, which has amassed a 17.7 per cent stake.

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Shareholder groups demand inquiry to ascertain if VW managers broke law

PATRICK MCGEE — FRANKFURT

Two shareholder advisory bodies are calling for a special investigation of Volkswagen's top managers and directors to determine whether anyone breached their legal duties in relation to the diesel emissions scandal.

Hermes Equity Ownership Services, which advises 20 pension funds with VW stock, said it was recommending that shareholders use the company's annual meeting on June 22 to vote against the German carmaker's management and supervisory boards, and called for an inquiry into these people.

Deminor, a consultancy specialising in shareholders' rights and corporate governance, has separately filed a motion on behalf of investors calling for a special investigator to look into whether the boards breached their legal duties and damaged the company.

Europe's largest carmaker admitted last year to installing so-called defeat devices in up to 11m cars, which served to understate emissions of harmful nitrogen oxides during official tests.

In recent weeks, VW has faced increased criticism of its governance. It pledged last week to overhaul executive pay after TCI, the UK hedge fund with a €1.2bn stake in the carmaker's preference shares, said managers had been rewarded for failure last year. Norway's $850bn oil fund, the fourth-largest holder of VW's ordinary stock, has announced plans to sue the company, saying managers should have known about the defeat devices.

Hans-Christoph Hirt, co-head of Hermes EOS, said numerous lawsuits had been filed against VW as a company but none was focused on the management and supervisory boards.

"It's a very important distinction," he said. "We want someone independent to investigate if there are potential breaches of liability."

VW hired law firm Jones Day to investigate the scandal and its interim report was due last month. But VW postponed publication, saying disclosure would impair co-operation with the US Department of Justice. The full report is now set to be released late this year.

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Media

General Atlantic in £1bn deal for Argus

Purchase will enrich staff shareholders at thriving energy reporting group

NEIL HUME — COMMODITIES EDITOR

General Atlantic, the US-based investment group, is to make one of its biggest investments with the acquisition of a controlling stake in Argus, the London-based energy reporting company.

The deal values Argus, which helps assess oil prices and provides industry news, at about £1bn including debt and could make dozens of the company's journalists — past and present — multi-millionaires.

Argus has almost 180 employees who own shares or options, according to people familiar with the company.

They include editor-in-chief Ian Bourne, Euan Craik, head of its Americas business, and Peter Caddy, head of business development. The company has several non-executive directors with significant shareholdings, including Roddy Kennedy, former head of media relations at BP, and Bryan Sanderson, former chairman of Northern Rock.

They are all being given the option to sell their shares alongside the founding Nasmyth family, which had decided to end a 50-year association with the business through the disposal of its 52 per cent holding to General Atlantic. It is not clear how many of them will sell or reinvest in the group.

In contrast to traditional news organisations, which have struggled amid falling circulations and the shift to digital advertising, specialist media groups such as Argus have thrived.

The company was expected to generate earnings before interest, tax, depreciation and amortisation of around £45m in 2016, people familiar with the deal said, placing a multiple of more than 20 times on the business.

Argus was founded in the 1970s by Jan Nasmyth, a former Treasury official and British Army officer, as a weekly newsletter called Europ-Oil Prices covering petroleum product markets. It has since acquired rivals and created benchmarks such as the ASCI sour crude index, which Saudi Arabia uses to price exports to the US.

The company appointed Bank of America Merrill Lynch last year after the Nasmyth family decided it wanted to sell. Argus attracted dozens of potential buyers that included several private equity groups.

The investment by General Atlantic would help Argus go "head to head with rivals", executive chairman Adrian Binks said. "We are certainly looking forward to doing that."

Mr Binks, who will stay with the business and retain most of his shares, is the biggest shareholder after the Nasmyths.

Argus wants to expand coverage of commodities and continue to invest in electronic platforms as trading and price reporting moves away from the phone. Benchmarks are likely to evolve over the next couple of years because of changing crude and commodity flows.

"There's a lot to be done," said Mr Binks, who is credited with being the driving force of the business.

John Bernstein, managing director at General Atlantic, said Argus was a fantastic business that it had been tracking for a very long time. "We are real believers in data, intelligence and information services."

He refused to say how long General Atlantic would hold its stake or what its exit strategy might be. But he said the group would take a longer-term view than was typical in the buyout industry. "This is a business we think will keep growing for a long time," he said.

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Banks. Capital incentives

Lenders trim budgets for maths and models

Regulatory crackdown is stripping away the financial benefits of measuring risk

LAURA NOONAN, JOE RENNISON AND THOMAS HALE — LONDON

Banks are cutting back their nine-figure budgets for PhDs and complicated risk software ahead of a regulatory clampdown on lenders that use models to make themselves look safer and reduce their capital needs.

Investment banks have been spending up to €150m a year building and maintaining complex internal models to measure risk in areas ranging from deadbeat homeowners to interest rate rises and market movements.

The models help lenders spot looming problems, but up to now they have also come with big financial benefits. In the years before the financial crisis, global regulators rewarded institutions that could show a better understanding of risk by allowing them to hold less capital against their lending and trading.

Now those benefits are fading fast, as policymakers at the Basel Committee for Banking Supervision (BCBS) strip away the capital advantages of using many of the models.

'The banks say that if everything is going to be standardised, why spend a lot of resources'

"Part of the . . . philosophy was to incentivise banks to have better risk modelling methodologies through capital," says Andrés Portilla, head of regulation at industry group the Institute of International Finance. "That has been abandoned."

Policymakers changed their mind after the financial crisis. The wide variation in banks' risk calculations stoked fears that some lenders were gaming the system to look less risky.

The Basel group has already banned the use of internal models for calculating operational risk, and it is reducing the capital benefits that banks can get from using their own models to calculate the riskiness of securities and loans.

"The banks say that if everything is going to be standardised, why spend a lot of resources to maintain the models that inform the advanced approach," says Guy Moszkowski, New York-based analyst at Autonomous.

Right now most large banks use internal models to calculate at least some of their risk-weighted assets — essentially computer programs assign risk scores to the loans and securities that each lender holds, with 100 per cent being the highest.

Risk-weighted assets are just 25% of the total at UBS, while Goldman's are 67%, highlighting differences at the big banks
Philipp Schmidli/Bloomberg

Individual banks use quite different calculations, although some of it has to do with their mix of assets: home loans have much lower risk scores than products like derivatives.

UBS's RWAs are just 25 per cent of its total assets, while Goldman Sachs's are 67 per cent of total assets, according to banks' published numbers adjusted for different accounting treatments.

The differences matter because RWAs, rather than total assets, are used to calculate common equity capital ratios, the most important measure of a bank's safety and soundness.

Investment banks with extensive internal model capabilities could spend anything from €50m-€150m a year maintaining them, according to Donal Gallagher, head of Quaternion Risk Management, a risk analytics firm working on behalf of large banks. That figure captures the headcount and IT costs, but not one-off costs like new regulatory initiatives.

No one thinks that models will be eliminated altogether, since they still carry a real economic benefit, and regulators want them preserved for bank safety reasons.

But bank executives, traders and modellers all believe that the bar to clear for investment in future models will be higher.

A senior executive at a large European bank said it was "inevitable" that banks would do less modelling over time "to the extent that internal models don't give you a [capital] advantage".

Mr Gallagher estimates that a bank that now spends €100m annually could save about €40m a year. "That's a conservative estimate, the true savings could be higher," he adds.

"Then there is the additional reduced cost of a more straightforward implementation of . . . regulatory initiatives in the future."

Total operating costs for a midsized investment bank are about €4bn a year. Large US and European banks declined to comment on their plans.

But cutbacks are particularly attractive in a market where investment banks face plunging trading revenues and a slow market for new floats and dealmaking.

The European bank executive argues that regulators "haven't thought through" the longer-term consequences of their decisions which he believes will encourage banks to "spend less time identifying the risk and more time thinking about the capital".

Regulators argue that banks still have to manage their risks, so they will invest in modelling even without the capital benefits. One stresses that what they are trying to eliminate is "aggressive modelling" not modelling altogether.

The IIF's Mr Portilla says a key question is whether banks need financial incentives to build risk models.

"The answer is yes and no," he says. "'No' in the sense all banks perfectly know that they need to assess risks in the correct way.

"But in today's world regulatory capital incentives within organisations do drive behaviour, do drive pricing, do drive portfolio composition," he adds. "We can pretend that doesn't happen but in reality it is a key factor."

INSIDE BUSINESS
FINANCE

Patrick Jenkins

Banks should recruit customers in effort to combat cyber crime

According to the official calendars that log these things, last week was the time to celebrate World Metrology Day (commemorating the signature of the Metre Convention on May 20, 1875) and World Inflammatory Bowel Disease Day (May 19 every year). But in the financial world, it felt more like Cyber Week, given the glut of news about cyber security. And if you believe some of the more alarming claims, the looming risks in cyber security could prove a lot more revolutionary than the promotion of metric measurement — and a lot more uncomfortable than IBD.

Last Tuesday, insurance broker Marsh warned that only 10 per cent of financial services companies had cover for a cyber attack, although 50 per cent thought they did. On Wednesday, Manhattan district attorney Cyrus Vance was in the UK to seal an ambitious transatlantic cyber security intelligence-sharing initiative with the City of London police. Then on Friday, money-transmission network Swift hit out at banks — urging them to inform it more promptly of cyber breaches. Over previous weeks, it had emerged that a Vietnamese and a Bangladeshi bank were targeted by robbers via Swift transactions.

As systems multiply in complexity, the threat is bigger — and disparate

Banks have been the subject of cyber security concerns for years. As they, and other connected businesses, have become more reliant on networked technology, criminals have targeted them more. Today, though, as systems multiply in complexity and scale, the threat is not only bigger — it is also more disparate. Adrian Leppard, a former chief of the City of London police force, who spoke at a Financial Times event on the topic last week, says there are five communities to worry about.

- The hobbyist, or "script kiddie", who likes the challenge of breaking into a bank's computer system. Think of the teenager accused of hacking TalkTalk's systems in the UK.
- The anarchist, who may just want to destroy everything from a specific system to capitalism itself. This is where the loosely organised Anonymous network fits in.
- The thief, who is after cash. The Bangladeshi attack, which involved the theft of $81m, was one of the top 10 bank heists in history. It also struck at the heart of global capitalism, involving fraudulent instructions sent to the New York Federal Reserve.
- The nation-state attack. To date, nation-state cyber attacks — linked to the US, Israel, Russia, China and Iran — have tended to focus on corporate interests rather than finance, although rumours have linked the Bangladeshi bank attack to North Korea.
- The terrorist. Isis and the so-called Caliphate Cyber Army have been linked to cyber attacks on western companies, though not (yet) to the hacking of any financial services firms. "But it's a very real risk for the future," says Mr Leppard, who works at consultancy Templar Executives. Indeed, the systemic risk to the financial system from terrorist-linked cyber attacks is a big reason why regulators monitor banks' vulnerabilities so closely.

If you left £50 on your doorstep, you would not find it there when you got home

Regardless of the root of any cyber crime, the priority must be to mitigate the risk. Insurance is probably not the answer, as it may not encourage banks to tackle the base issues as they must. Heightened vigilance from regulators and politicians, on the other hand, is vital.

But another approach is needed, too. A large chunk of cyber crime is possible thanks to lax security among bank customers, rather than within bank HQs. When individuals use outdated browsing software, fail to install proper antivirus protection, or use similar passwords for their online purchases and their financial affairs, it makes hacking that much easier.

Surely, then, it makes sense to encourage customers to address their vulnerability. A combination of carrot and stick would work: an encouragement to upgrade, followed by a curtailment of access to bank services if the customer fails to change behaviour, perhaps even a financial penalty if a fraud occurs. This will be controversial, especially as banks' reputations are still tarnished by the financial crisis and multiple scandals. But pushing customers to act sensibly online is a logical extension of old-world norms. If you left £50 on your doorstep, you would not expect to find it there when you got home — and you certainly wouldn't expect your bank to refund you if the money was stolen. The world needs to catch up with itself.

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Financials

Ares acquires American Capital for $3.4bn

MARY CHILDS — NEW YORK

Ares Capital, the biggest US business development company by assets and market value, is buying a rival for $3.43bn as the sector strains to balance attacks by activist investors, high debt levels and regulatory limits.

The company is acquiring American Capital, also one of the largest BDCs, in a cash and stock deal worth $14.95 per share on a fully diluted basis.

BDCs are a small corner of the financial market, but in recent months industry participants have expressed mounting concerns about their health. Ratings group Fitch warned that the sector would struggle to maintain high debt levels and Moody's last week cautioned over soured energy investments.

BDCs, including American Capital, have attracted the attention of activist investors with many of the share prices of the companies trading below asset value.

Created in 1980 by an act of Congress to spur corporate lending, the vehicles can invest in assets from loans to subordinated debt, while paying little or no corporate tax. They are subject to regulatory constraints including debt-to-equity and asset coverage ratios.

The sector swelled after the financial crisis on expectations that BDCs would step into the vacuum left by banks constrained by new regulation. Fitch calculates the combined market capitalisation of the BDCs at close to $34bn.

Ares Capital's publicly traded manager Ares Management, which oversees about $94bn, will provide $275m of cash, and will waive up to $100m in fees for the 10 quarters after the transaction closes, to boost profitability.

American Capital has also been selling its investments, with more than $550m offloaded since March.

The transaction excludes American Capital Mortgage Management, which is being sold for $562m to another American Capital vehicle.

Technology

Lyft steps up Uber rivalry with scheduled rides

LESLIE HOOK — SAN FRANCISCO

Lyft, the ride-hailing company that is Uber's chief US rival, is set to start offering scheduled rides, a departure from the on-demand model which brings the company into even more direct competition with taxis.

The ability to schedule a ride in advance is a feature that both companies had previously resisted, on the grounds that on-demand rides kept the system more efficient.

Lyft said the new feature would allow people to book a ride up to 24 hours in advance, and will be tested in San Francisco before a rollout to other cities.

The two start-ups have been locked in fierce competition, particularly in big US cities such as San Francisco and Los Angeles. As Lyft gained market share in those cities in recent months, Uber has responded by boosting its incentives for drivers and cutting fares for its popular carpool service.

Lyft raised $1bn from investors including carmaker General Motors this year, and is much smaller than Uber, which operates in 68 countries and is the best-funded start-up in the world.

However, Lyft has partnered with Didi Chuxing, the Chinese ride-hailing company, as part of a global anti-Uber alliance through which transportation apps in India, China, Southeast Asia and the US can access each other's networks.

Lyft and Uber have often raced to match each other's features, and the services offered by the two companies are nearly identical. When the two companies launched their carpooling services in 2014, even their announcements were separated by just one day.

One of the next big milestones in their competition will be which one masters the technology of self-driving cars.

Uber said last week that its driverless car was already being tested on the streets of Pittsburgh, while Lyft has said that it will work with GM to develop driverless taxis.

Bayer's $62bn bid is yet to grow on investors

German conglomerate's attempted takeover of agriculture supplier Monsanto has shocked and worried shareholders

GUY CHAZAN — BERLIN
LINDSAY WHIPP — CHICAGO

As Werner Baumann prepared to take the reins of German conglomerate Bayer in April, his message was one of continuity. There would, said the incoming chief executive, be "evolution, not revolution". He added: "You shouldn't assume that Bayer will suddenly go off in another direction."

Just over a month later, those words ring somewhat hollow. Bayer has just launched the biggest takeover ever attempted by a German company, offering $62bn in cash for Monsanto of the US, in a bid to become the global leader in agricultural seeds and crop sprays. The bid also ranks as the largest ever cash offer for a single company.

Mr Baumann and his executive team described the deal's rationale in suitably sweeping terms. There would be 10bn people on the planet by 2050, yet by that time farmland would have declined by 17 per cent per capita — partly due to climate change.

A 60 per cent increase in productivity was needed to feed the world, meaning new, high-tech seeds and crop protection. The combined Bayer-Monsanto would provide them.

Yet there was a huge factor he failed to mention — the headlong consolidation in the agricultural supplies industry, driven by a decline in crop prices and farmers' incomes. This has harmed the profits of farm suppliers and weakened their share prices, setting the stage for a dealmaking frenzy.

Last December, Dow Chemical and DuPont agreed on a $130bn merger, which is due to be followed by a split into three separate businesses, with one focusing on seeds and crop sprays. Then in February, ChemChina announced a $43bn takeover of Syngenta, the Swiss agribusiness. Many believe Bayer cannot afford to sit out the mergers and acquisitions wave.

But such arguments have so far failed to convince Bayer shareholders. The company's stock has fallen more than 10 per cent since last Thursday, when it first disclosed it had approached Monsanto with an unsolicited offer.

Mr Baumann described the share price fall as an "uneducated reaction" to Bayer's proposed takeover of Monsanto before details had been released. "It is an extraordinary fit . . . and a major advance for us," he said.

But there was also an element of shock in terms of the deal's impact. Analysts at Olivetree said the bid moved Bayer "away from pharma as its largest division", and "shareholders still need to be convinced as to the merits of such a strategic departure". Bayer said that after buying Monsanto, healthcare sales at the combined group would fall from two-thirds to just under a half.

Indeed, analysts attributed some of the sell-off in Bayer's shares to pharmaceuticals-focused investors dumping its stock because they did not want exposure to an agricultural supplies group.

But part of the scepticism also appears to stem from a belief that Bayer will have to sweeten its $122-a-share offer — which was already at a 37 per cent premium to Monsanto's undisturbed stock price.

Jeremy Redenius, analyst at Bernstein Research, said Monsanto was unlikely to accept a bid below $135.

Markus Manns, portfolio manager at Union Investment, a Bayer shareholder, said a Monsanto takeover "made sense, but not at any price". He added: "The acquisition price is at the upper limit, and just about works out. If it goes any higher, which is probably what will happen, then the takeover will become increasingly unattractive."

> 'If [the acquisition price] goes any higher . . . then the takeover will become increasingly unattractive'

The deal would be funded partly through a $15.5bn stock sale to existing Bayer shareholders, to minimise the amount of debt the company has to raise for the deal. Yet even after that, Bayer's net debt would amount to a hefty four times annual earnings before interest, tax, depreciation and amortisation, and the ratio would increase further if pension liabilities are included.

Bayer's managers, who stressed the company would retain an investment grade credit rating, said the prize was worth it. A tie-up with Monsanto would put Bayer way ahead of its competitors — the combined group would have crop science sales of €23.1bn, compared with €14.8bn for ChemChina-Syngenta. Bayer executives were also at pains to emphasise the complementary nature of the two companies. A combination would bring together Monsanto's strong seeds portfolio and Bayer's crop protection products, including its herbicides, fungicides and insecticides.

But some analysts believe the board of Monsanto, the world's largest maker of genetically modified seeds, will be reluctant to agree to a deal at any price. Monsanto has yet to comment on the offer, which was made on May 10.

The company was until now considered an acquirer in industry consolidation rather than a target.

Whatever Monsanto's attitude, a takeover by Bayer would be likely to face intense scrutiny from antitrust regulators in the US and elsewhere, because of the enlarged company's market power. Regulators in the US and Europe would work in harness to study the tie-up, said Mark Ryan, former director of litigation at the US Department of Justice's antitrust division.

If the impact of combining the patent holdings of Bayer and Monsanto would make it harder for new entrants to break into a particular market, that would be cause for concern, said Mr Ryan, a partner with Mayer Brown.

The deal is unlikely to go down well in Bayer's home market, where opposition to Monsanto's genetically modified seeds is strong.

Meanwhile, there are concerns that a Monsanto deal would skew Bayer too heavily towards crop science, at a time when the higher-margin pharmaceuticals arm is also in need of investment.

Bayer's drugs business has been performing well, but recent setbacks in its research and development pipeline have raised questions over the sources of fresh growth when its current batch of blockbusters lose patent protection.

Analysts at Liberum said the deal "leaves pharma exposed long-term".

Marietta Miemietz of Equinet echoed that, saying it would curtail Bayer's strategic flexibility in the healthcare space".

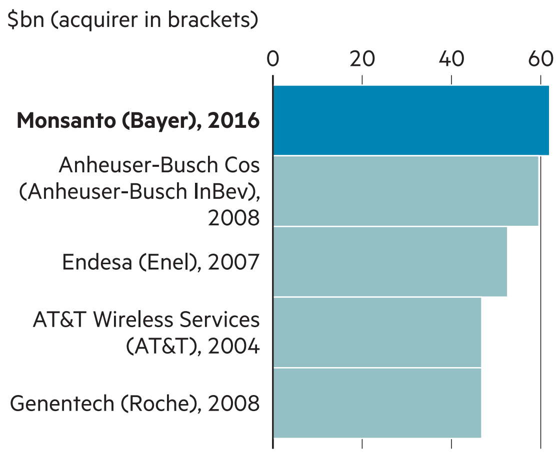
Additional reporting by Andrew Ward, Christian Oliver and David Lynch

See Lex

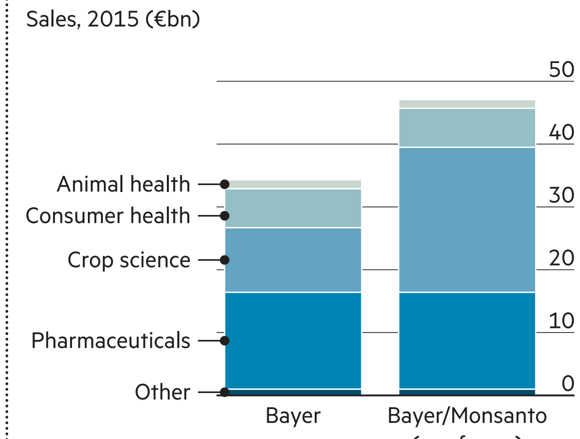
Planting the seeds

Daniel Acker/Bloomberg

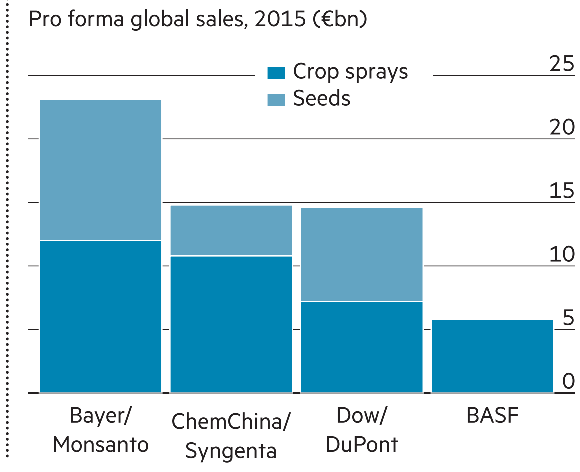
Top all-cash M&A deals
$bn (acquirer in brackets)



Bayer's proposed Monsanto takeover
Sales, 2015 (€bn)



Agribusiness shake-up
Pro forma global sales, 2015 (€bn)



Sources: Dealogic; Bayer

Cautious growth
BASF plays wallflower at agribusiness party

BASF seems to be the only company not invited to dance at the agricultural supplies party.

The German group, the largest chemicals company by sales, has been left on the sidelines as the agricultural seeds and crop protection industry undergoes a series of ambitious consolidations.

Kurt Bock, BASF's chief executive, has expressed caution about large transactions. This month he told analysts he saw few assets to acquire in a "sellers' market". Despite the availability of low-cost finance, Mr Bock said BASF could not justify the prices others had agreed to pay.

The FT reported in March that BASF had considered a counterbid for DuPont of the US, in an attempt to break up its agreed $110bn merger with Dow Chemical, as well as an offer for Syngenta, the Swiss agribusiness due to bought by ChemChina. BASF declined to comment yesterday.

The company may look at a counterbid for Monsanto, especially as the two have a research and development joint venture and know each other well, said some analysts. "They always have an open line of communication," said John Klein of Berenberg.

Other analysts backed BASF's cautious strategy, saying antitrust regulators could require companies in consolidation deals to make disposals. "[Mr Bock's] comments were reassuring for investors," said Andrew Benson at Citigroup.

After DuPont and Dow combine, the group will be broken into three businesses, with one focused on seeds and crop protection, and some analysts believe this could be a good fit with BASF.

Mr Klein said the benefits from past mergers in the sector have not been as large as anticipated, as the cost savings tend to be limited.

Emiko Terazono

Media

Billionaire buys 13% stake in Tribune

ANNA NICOLAOU — NEW YORK

A California billionaire who has long coveted the Los Angeles Times has acquired a 13 per cent stake in Tribune Publishing, its parent company, which is also being stalked by rival Gannett, the owner of USA Today.

Patrick Soon-Shiong, a South African-born pharmaceuticals billionaire who made his fortune from a cancer drug, paid $70.5m for the Tribune stake, valuing the company at $15 a share.

Shares in Tribune fell 16 per cent to $11.90 yesterday as shareholders saw the move as an effort to block Gannett. Its stock was trading at $7.50 a month ago, before news of Gannett's move.

Michael Ferro, Tribune's chairman, called Dr Soon-Shiong last week about becoming a shareholder because of his interest in the LA Times, said someone familiar with the matter.

Dr Soon-Shiong told the Financial Times he wanted to "ensure the longevity of organisations such as the LA Times". He plans to embrace virtual reality technology to create new revenue streams. "If you integrate big data, supercomputing and virtual reality with the skill sets of editors and writers, you could create a news network that is unprecedented," Dr Soon-Shiong said.

His Nant Capital will become Tribune's second-biggest shareholder. He will also join its board as vice-chairman, from June 2.

He was the highest-paid US executive in 2015, according to the Bloomberg Pay Index, taking home $329.7m as chief executive of NantKwest, a cancer research company whose shares have plunged more than 80 per cent since its IPO last July.

Dr Soon-Shiong, 63, is a surgeon and scientist who invented a drug known as Abraxane, which he sold to Celgene for $2.9bn in 2010. He also holds a 4.5 per cent stake in the Los Angeles Lakers basketball team and has in the past bid for the Los Angeles Dodgers baseball team.

Patrick Soon-Shiong's investment was seen as a move to block Gannett

The deal comes after Gannett this month raised a cash offer for Tribune to $15 a share from $12.25, valuing it at $864m, including about $385m in debt.

In a separate statement Tribune said its board had "thoroughly evaluated" the revised offer from Gannett but had again rejected it as not being in the best interest of shareholders. However, it said it has not entirely closed the door to Gannett either. Tribune's board has invited Gannett to sign to a non-disclosure agreement under which they can "assess whether a transaction in the best interests of Tribune and Gannett shareholders can be negotiated".

Gannett, which owns 92 US regional titles and Newsquest in the UK, has been on a buying spree since it split from its broadcasting unit in 2014 as it grapples with the tough US newspaper market.

Tribune has accused Gannett of "playing games" and has so far firmly opposed a combination with its rival.

Justin Dearborn, Tribune's chief executive, said: "We are committed to completely transforming Tribune Publishing and Dr Soon-Shiong is a tremendous addition to those efforts."

See Lex

Media

Battle over Viacom heads to court

MATTHEW GARRAHAN — NEW YORK

A combustible battle for control of Sumner Redstone's vast media empire is heading for the courts after two directors launched legal action to challenge their removal from the trust which directs his controlling stakes in CBS and Viacom.

Philippe Dauman, Viacom's chief executive officer, and Viacom director George Abrams, accused the billionaire's daughter, Shari, of "attempting to illegally hijack her father's well-established estate plan" as they claimed Mr Redstone was suffering from dementia.

Mr Redstone, an infirm 92-year-old who has not been seen in public for almost a year, controls the CBS broadcast network and Viacom, which owns the Paramount Pictures film studio and cable channels including MTV, Comedy Central and Nickelodeon.

He removed Mr Dauman and Mr Abrams, formerly two of his most trusted allies, last week as directors of the trust, which will manage both companies after his death. But they are challenging their removal from the trust. They claim that Ms Redstone is manipulating a man who is "susceptible to undue influence".

"After years of estrangement, she has inserted herself into his home, taken over his life, and isolated him from anyone not under her control," Mr Dauman said in a statement.

A lawsuit filed by Mr Dauman and Mr Abrams against Ms Redstone and four other trustees alleges that Mr Redstone was suffering from a "subcortical neurological disorder" characterised by "dementia, impaired cognition, a slowness of mental processing, a loss of memory, apathy, and depression". When Mr Dauman visited him in March, the lawsuit says, "Mr Redstone appeared almost totally non-responsive, and could not meaningfully communicate at all".

> 'After years of estrangement, [Shari] has inserted herself into his home, taken over his life'

A spokesman for Mr Redstone fired back, saying the claims were "false" and adding that Mr Dauman and Mr Abrams had been removed from the trust "based on what Mr Redstone believes are the best interests of beneficiaries and shareholders".

Mr Redstone filed his own petition in Los Angeles County Court yesterday, seeking confirmation of his changes to the trust board. "Mr Redstone is saddened that Mr Dauman is trying to make this dispute about his daughter," said Robert Klieger, a lawyer with Hueston Hennigan. "This dispute is not about Shari Redstone."

Mr Dauman began a process to sell a stake in Paramount this year with the aim of raising new funds and arresting Viacom's sliding share price, but Mr Redstone disagreed with the move. "Mr Redstone continues to believe that Paramount Pictures should remain wholly owned by the parent company," his spokesman said.

Ms Redstone's spokesman added it was "absurd" for her to be accused of manipulating her father: "Sumner makes his own decisions regarding whom he wants to see both in his home and elsewhere, and he has his own team of independent advisers to counsel him on corporate and other matters."

Ms Redstone has been a quiet critic of Mr Dauman, who has overseen a 50 per cent fall in Viacom shares in the past two years while receiving one of Wall Street's richest compensation packages. In 2015, he received $54m, including a bonus worth $17m for signing a new contract. Since 2011 he has earned pay and stock awards worth $212m. His pay and Viacom's stock performance has made him a target for activist investors.

COMPANIES

Financial services

Lending Club boosted by Chinese investor

Shanda increases stake in online lender hit by loan mis-selling scandal

BEN MCLANNAHAN — NEW YORK

Shanda, the Chinese investment group, has emerged as the largest shareholder in Lending Club, the online lender reeling from a loan mis-selling scandal and the departure of its charismatic founder.

Shares in the San Francisco-based company, a pioneer in matching borrowers with investors over an online platform, collapsed two weeks ago after an internal company investigation found it had falsified documentation when selling a small package of loans to an investor.

That announcement — which led to the exit of Renaud Laplanche, who founded the company a decade ago and was its chief executive — was followed by disclosures of inquiries by the US Department of Justice and New York's Department of Financial Services.

But yesterday Lending Club shares bounced about 8 per cent, as Shanda disclosed in a regulatory filing that it had increased its stake from about 7 per cent to 11.7 per cent, with options to buy a further 4.1 per cent. Lending Club now has a market capitalisation of about $1.66bn, down about 80 per cent from its peak.

The ructions at the online lender come at a critical time for the industry, which has hit a wall after years of rapid growth. As regulation tightens, and losses begin to rise on some of the lowest-rated assets, some institutional investors such as banks and hedge funds have begun to turn up their noses at the risk-adjusted returns on offer.

As a result the online lenders, which as non-banks cannot rely on deposits to fund loans, have had to scramble to find stable sources of long-term capital.

Prosper Marketplace and Avant, which like Lending Club deal in unsecured consumer loans, have laid off staff and paused expansion plans in response to slowdowns in their core units.

Scott Sanborn, a former head of marketing promoted to acting chief executive of Lending Club, has spent much of the past two weeks talking to big buyers of its loans, trying to persuade them to stick with their programmes.

When it presented first-quarter results two weeks ago, Lending Club withdrew its revenue guidance for the full year, saying it needed more time to assess the impact of its disclosures.

In a statement, Shanda said it had increased its stake in Lending Club because it wanted to invest in industries with "large-scale and long-term, sustainable growth potential".

Lending Club said it had been in talks with Shanda and looked forward "to a continued dialogue". Shanda's founder, Chen Tianqiao, 43, was a pioneer in China's online games industry through Shanda Interactive, and has diversified into payments, real estate and venture capital. In April Shanda bought a 10 per cent stake in Legg Mason, the Baltimore-based asset manager.

According to its filing, Shanda spent $149m on 29m shares in Lending Club, including commissions, and $11m on options to buy a further 15.7m shares.

If exercised fully, Shanda's stake could rise to 15.8 per cent; it would then be pulling ahead as the company's biggest holder, in front of venture firm Sands Capital, with 10 per cent, and Baillie Gifford, the Edinburgh-based fund manager, with 9 per cent.

Morgan Stanley, which led the company's initial public offering in 2014, also holds a 9 per cent stake.

Automobiles

Fiat hits back at German transport body over emission tests

PETER CAMPBELL
MOTOR INDUSTRY CORRESPONDENT

Fiat Chrysler Automobiles has hit back at the German transport authority over allegations that it installed illegal defeat devices in its vehicles to manipulate emissions tests — in an echo of the Volkswagen scandal.

Yesterday, a growing feud between the Italian-American company and Germany's KBA escalated when the carmaker said the transport body was not a "competent" authority to test its cars.

Over the weekend, reports in a German newspaper stated that the KBA had found evidence of software in Fiat cars designed to cheat emissions tests — and suggested that the company could face a sales ban in Germany.

Shares in FCA fell 6 per cent yesterday morning, leading the company to issue a robust statement defending itself.

"We believe all our vehicles respect EU emissions standards and we believe Italian regulators are the competent authority to evaluate this," the company said.

FCA shares later recovered some ground to close 4.4 per cent lower at €6.03 in Milan.

Under European rules, Italy is responsible for testing Fiat cars to check that they comply with EU-wide standards. But a report in the Bild newspaper said Germany's KBA had found "adequate evidence of an illegal defeat device".

Following the report, the KBA confirmed that it had passed findings to the European Commission and to the relevant Italian authorities, but refused to comment further.

Vehicle emissions testing has been thrown into sharp focus after Volkswagen last year admitted to installing defeat devices in 11m cars worldwide, in order to make their engine emissions seem compliant in laboratory conditions.

After this scandal, several European authorities, including Germany's KBA, began investigations into the real-world performance of all vehicles sold in their countries.

So far, General Motors' Opel division, Daimler's Mercedes-Benz and several VW brands have been drawn into these probes.

FCA's feud with the German authorities has been brewing for several weeks, since reports emerged suggesting the KBA had found evidence of engine management software in Fiat cars.

These reports claimed the Fiat software shut down an emissions reduction feature after 22 minutes — which is two minutes longer than the standard emissions test.

Relations between Fiat and the German authorities deteriorated further last week when the company failed to attend a meeting with German transport minister Alexander Dobrindt to discuss the KBA's findings.

Bild's report over the weekend cited German transport ministry sources claiming that FCA could face a sales ban in the country until the matter is resolved. Germany is Fiat's second-largest European market after Italy.

Last month, Sergio Marchionne, chief executive of Fiat Chrysler, said there was "a phenomenal amount of confusion" over the rules for emission control across Europe.

He said there was no clarity on what is a "sound technical reason" for suspending a vehicle's emissions controls.

"There needs to be much better co-ordination across national bodies about what it is that is effectively allowed as relevant technology used to meet emission standards," he said. "We have done our best to meet these standards over time."

Additional reporting by James Politi in Rome

Financials. Shareholder engagement

Europe grows its own hedge fund activists

Unlike US peers they prefer to be called 'suggestivists', shun abuse — and perform better

LINDSAY FORTADO

In summer 2014, a mergers and acquisitions partner at law firm Wachtell Lipton boarded a flight from New York to London. He was bringing a warning for corporate clients of UK law firm Macfarlanes: activist hedge funds were seeing their opportunities to intervene in US companies dry up, meaning they were sure to target European groups next.

For the rest of the year, it became a familiar refrain from lawyers and bankers seeking to drum up business in Europe, depicted as a new hunting ground for bloodthirsty activists.

Marty Lipton, Wachtell's senior dealmaker, had already become infamous for railing against the tactics of US activists such as Carl Icahn, Bill Ackman and Dan Loeb. Activists, he argued, were short-termists seeking a quick return rather than long-term value, favouring cuts and lay-offs over investment in a target company's future. His specialism was devising corporate defence strategies for blue-chip clients.

In some ways, the prediction of Wachtell's UK emissary two years ago has proved correct — but not in the way many foresaw, with US activists storming European shores, clutching angry letters and waging public proxy battles.

"With one or two exceptions, that didn't really play out," says one European fund manager. "The real thoughtful investors from the US realised they couldn't just show up here in Europe."

Instead, homegrown hedge fund activism has steadily taken root in Europe, and companies including Volkswagen, Adidas, Rolls-Royce, Alliance Trust, NH Hoteles, Eon, Sika and Ansaldo STS have all become the targets of European funds, or US funds with European operations.

For these funds, it has been more about engagement than US-style confrontation, and it seems to be producing better results.

As another fund manager explains: "Activism in Europe has always been less brutal and in-your-face. It's rare you see the nasty letters to management. You don't have the abuse you have in the US; it rarely gets personal, because on this side of the Atlantic it would be unprofessional."

Those activist hedge funds succeeding in Europe have tended to follow the less brash model adopted by Sweden's Cevian Capital: quietly building up significant stakes in public companies and engaging with management and board members behind the scenes, before taking their demands public.

Some avoid the term "activists", preferring to be called "active investors" or "suggestivists".

So far this year these funds are outperforming US counterparts, some of which have suffered reputational damage after failed activist campaigns. On average, European activist funds have returned 7.6 per cent in the year to date. US-based funds managed only 0.5 per cent, according to data from eVestment.

Knight Vinke, based in Monaco, told investors its flagship fund gained 33.2 per cent so far this year. Memphis-based Southeastern Asset Management's Europe-focused fund returned 11.5 per cent in the same period.

Fund managers argue that the continent is rife with companies that are undervalued and offer scope for improvement, but varying laws in European countries limit the effect that some activist strategies can have.

Some funds have been stung by earlier mis-steps, too. For example, Knight Vinke was publicly rebuked by UBS for urging it to sell its investment bank. Still, the activist fund sold its UBS shares in December for an overall gain of 95.8 per cent, according to an investor letter.

While sceptics of the activist approach remain, the fund managers taking positions in Europe say company managements appear generally receptive to dialogue, and more investors are willing to support demands for realising shareholder value ranging from spin-offs and divestitures to management changes. They claim there is plenty of potential for such strategies. "Europe is seven to 10 years behind the US in terms of corporate governance and value creation," says one London-based manager for a US fund.

In addition to the stalwarts of European activism — Sir Chris Hohn's TCI hedge fund in London, London-based Amber Capital, Cevian and Knight Vinke — there are some new participants from the US. Elliott and Southeastern Asset Management have steadily built up practices in London, while ValueAct notched a success when it gained a board seat at Rolls-Royce. There is a launch: Primestone Capital, founded by a group from Carlyle.

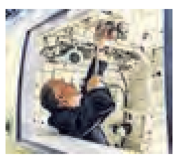
A further development is the willingness of certain smaller hedge funds that do not characterise themselves as "activist" — such as Oceanwood Capital and some larger event-driven and long-only funds — to take activist stances.

"It's kind of a virtuous cycle," one of the fund managers says. "We go into a company, we have some success, and in doing this we bring on board some institutions we may not have worked with. Those guys say that was a good experience, and are more willing to get involved next time. The bankers and lawyers all see that, and it makes the companies more likely to engage because they feel the playing field is beginning to slant against them.

"The event-driven funds are sitting there saying: 'Why can't we do this? We can write a letter.'"

Memphis-based Southeastern has teamed up with Egyptian mogul Nassef Sawiris to invest in European groups, including Adidas — Krisztian Bocsi/Bloomberg

Elliott sends a signal to Hitachi over Ansaldo STS



Elliott has sought the help of an Italian court in pushing Hitachi to pay more for its controlling stake in rail signalling group Ansaldo STS. Hitachi bought a 40 per cent stake in Ansaldo STS last year from state-controlled defence group Finmeccanica for €9.50 per share, and has since added to it. But minority shareholders said the price was artificially low, and asked for a court ruling. Having built its own stake in Ansaldo to nearly 30 per cent, Elliott wants Hitachi to pay €15 per share.

TCI seeks to drive change at scandal-hit Volkswagen

Sir Chris Hohn's The Children's Investment Fund has built up a €1.2bn stake in German carmaker Volkswagen, and is now calling for an overhaul of its executive pay, following the diesel emissions test cheating scandal. Sir Chris has written to the company's management and boards demanding that they reform the way executives are rewarded. He has already had some success: in a letter to TCI, VW conceded that its pay policy for top executives needed to change.

ValueAct comes on board at engineer Rolls-Royce

San Francisco-based fund ValueAct built a 10.8 per cent stake in aero-engine maker Rolls-Royce after the UK company issued five profit warnings in the space of 20 months. Brad Singer, the fund's chief operating officer, was granted a board seat in March, in return for a guarantee that ValueAct would not publicly lobby to break up the company or increase its stake above 12.5 per cent. Their deal was deemed by some to be a sign of a growing acceptance of investor activism in the UK.

UK hedge fund Oceanwood checks in at NH Hoteles

UK hedge fund Oceanwood, not typically an activist shareholder, has been leading the charge to oust the co-chairman of NH Hoteles over alleged conflicts of interest. After spending several years as a passive investor, the fund has taken issue with the fact that Charles Mobus represents HNA, a Chinese group that is NH Hoteles' majority shareholder. In April, HNA entered into an agreement to acquire Carlson Hotels, which is a rival of NH Hoteles.

Media

Spotify enjoys 'best year ever' as rising subscriptions push revenues to €1.9bn

ROBERT COOKSON — LONDON

Spotify's revenues surged to almost €2bn last year, although the streaming company's losses widened as it invested heavily in technology and marketing to compete with rivals such as Apple Music.

The world's leading music streaming service reported that revenues rose 80 per cent to €1.95bn in 2015 as its number of subscribers increased to more than 28m. The Stockholm-based company said that "in many ways, it was our best year ever".

However, the group made a net loss of €173m, up from €162m in 2014. As with most streaming services, which must make large royalty payments to music copyright holders, Spotify has never made a profit.

In financial statements filed in Luxembourg, Spotify said: "We believe our model supports profitability at scale.

"We believe we will generate substantial revenues as our reach expands and that, at scale, our margins will improve. We will therefore continue to invest relentlessly in our product and marketing initiatives to accelerate reach."

Spotify offers subscribers access to tens of millions of songs for a fee of about $10 a month. It also offers a free version of the service, which gives users less control over what songs they hear and includes advertising.

Subscriptions accounted for the vast majority of Spotify's revenues, rising 78 per cent to €1.74bn.

> 'It's not a profitable business and it's difficult to see how it will get to be a profitable business'

However the company's advertising revenues increased at an even faster pace, rising 98 per cent to €196m.

Spotify's main cost is payouts to the music industry for the use of its songs and recordings. These royalty and distribution costs rose 85 per cent to €1.63bn in 2015.

The company also invested heavily in improving its platform, adding features such as Spotify Discover, which generates a unique, personalised playlist of songs for each user.

During 2015, Spotify's total number of monthly active users increased 50 per cent to 89m. Paying subscribers increased over the period to more than 28m.

Mark Mulligan, analyst at Midia Research, said that while the growth of Spotify's top line was positive, "the fundamentals remain that it's not a profitable business and it's difficult to see how it will get to be a profitable business".

This year, Spotify raised $1bn from TPG, Goldman Sachs and Dragoneer via a convertible debt investment to fund international expansion.

COMPANIES

VietJet signs $11bn order with Boeing

Asian airline to buy 100 aircraft in bet on continuing growth in demand from Chinese travellers

MICHAEL PEEL — BANGKOK
BEN BLAND — HONG KONG

Vietnam's VietJet has agreed an $11.3bn order for 100 Boeing aircraft in the latest gambit by an Asian airline to tap the region's fast-expanding tourism and business travel markets.

The companies inked the deal for 737 Max 200 jets on the first full day of US President Barack Obama's trip to communist Vietnam, in a sign of growing commercial ties between the two countries in the 22 years since Washington lifted its trade embargo.

VietJet's decision to go with Boeing is a first, as it had previously only ordered aircraft from Europe's Airbus since it started operations in 2011. The Vietnamese carrier's move is a bet that demand growth fuelled in a large part by Chinese travellers will continue to rise, rather than run into headwinds because of slowing economic growth in China or other big Asian countries.

"Our investment in a fleet of B737 Max 200 will accommodate our strategy of growing VietJet's coming international route network, including long-haul flights," said Nguyen Thi Phuong Thao, president and chief executive.

VietJet said its order — the biggest in the country's history — would bring its fleet to more than 200 aircraft by the end of 2023, more than double the present size of state-controlled Vietnam Airlines. VietJet also signed a $3bn deal for engines made by Pratt & Whitney, a unit of United Technologies, for its Airbuses.

> Hanoi to Ho Chi Minh City is the seventh busiest route in the world in terms of seat capacity

VietJet is looking to expand to serve international and domestic travellers.

Vietnam's internal market is large because of both the country's population of about 90m and the distinctiveness of its political history and sinuous physical geography. Hanoi, the capital and heartland of the northern communist elite that toppled the Saigon regime in 1975, lies more than 1,000km from Ho Chi Minh City, the country's commercial centre deep in the south.

Hanoi to Ho Chi Minh City is the seventh busiest route in the world in terms of seat capacity, according to the Centre for Aviation, an industry research company. Last year, it was the fastest growing of the world's 10 busiest routes.

VietJet is one of several airlines across the Asian region with ambitious plans to expand their fleets. China Southern Airlines and its subsidiary Xiamen Airlines agreed to buy 110 Boeing 737 aircraft in December, while fellow Chinese carrier Hainan Airlines agreed to purchase 30 long-haul Boeing 787 aircraft last March.

Airlines can negotiate big discounts and favourable finance terms by making large, long-term orders but this approach can leave them exposed in the face of changing market conditions.

AirAsia, the Malaysian low-cost carrier founded by entrepreneur Tony Fernandes, had to scale back planned deliveries of aircraft last year. It faced losses in Indonesia, a key market, amid slowing growth and tough competition.

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Tom Clancy's 'The Division', made by Ubisoft's Sweden-based developer Massive Entertainment, is the fastest-selling video game in history, generating $330m of retail sales in its first week

Ubisoft builds up defences to fight off advances from Vivendi

ADAM THOMSON — PARIS

It is winter in New York and a deadly virus has ravaged the population, turning Manhattan into a lawless zone of gun-wielding marauders hell-bent on survival. It is your mission to save the city and re-establish order.

So goes the plot of Tom Clancy's *The Division*, the latest video game from French gaming group Ubisoft. Players run, roll, duck and shoot their way across a freezing wasteland on a mission that takes them through hyper-real renderings of Manhattan — from the lavish interiors of a diplomatic consulate to rat-infested subway service tunnels.

All of that has turned the game, made by Ubisoft's Sweden-based developer Massive Entertainment, into the fastest-selling video game in history: in the week following release, the company says it generated $330m in retail sales, surpassing Activision Blizzard's *Destiny* as the best-selling new franchise.

But *The Division* has given Ubisoft an additional reason to smile: the company headed by Yves Guillemot bought Massive from Vivendi, the very same French media and content group that is now pushing on Ubisoft's door as it looks for a piece of the action in the gaming industry.

Since last October, Vivendi, which is on a mission of its own to become a media force across southern Europe, has amassed a 17.7 per cent stake in the gaming company. Increasing the pressure, the Paris-based group headed by French industrialist Vincent Bolloré said last month it was even considering "asking for the reshuffling of Ubisoft's board of directors with the aim, notably, to obtain a representation consistent with its weight as a shareholder".

The Guillemot family holds 8.7 per cent of Ubisoft shares and just over 15 per cent of the voting rights. The family also dominates the board, occupying five of its nine seats.

For now, Vivendi, which owns Universal Music Group (UMG) and the Canal Plus pay-television unit and holds a 24.9 per cent stake in Telecom Italia, has said that it does not plan a takeover of Ubisoft. But the gaming group is scrambling to put in place a defence strategy. Meanwhile, Vivendi has already made an unsolicited takeover offer for Gameloft, the French gaming company headed by Mr Guillemot's brother.

Vivendi's disposal of Massive in 2008 would seem tailor-made for Ubisoft's main argument against its advances: the Paris-based group should stay away from industries it does not understand.

In an interview with the Financial Times earlier this year, Mr Guillemot laid out his concerns about Vivendi's apparent determination to get more control of Ubisoft. "Many companies impose big external bosses who demand blind execution but we are in a creative industry, and creativity relies on letting people take risks," he said. "Having a group come in that does not understand the industry and just wants to control us will very quickly kill that creativity."

> 'Having a group come in that just wants to control us will quickly kill creativity'

Mr Guillemot is particularly concerned about Mr Bolloré's record of creeping control, in which he tightens his grip on a company even though he only owns a small percentage of the shares.

In 2004, Mr Bolloré bought 5 per cent of Havas, the advertising group. Within months, and in spite of promises that he would not increase his holding, he became the largest shareholder, snatched several board seats, kicked out the president and took control.

At Vivendi, Mr Bolloré has amassed considerable control with less than 15 per cent of the shares.

David Polfeldt, Massive's managing director, says that Vivendi's decision to sell the company in 2008 came as the French group turned its attention to Santa Monica to work more closely with Activision Blizzard, the California video-games company in which it had acquired a controlling stake.

"We basically got a phone call from Santa Monica saying 'You have four weeks to find a buyer for yourselves or we are going to shut you down'," Mr Polfeldt says. "We thought, 'Four weeks? Wow'."

He says that under Ubisoft's ownership, Massive was able to cast off its former reputation as only being capable of producing games for PCs — and ones based on real-time strategy (RTS), a niche genre.

"Nobody else was able to see beyond the typecasting," he says. "We were a small studio but the difference is that Ubisoft was interested in nurturing talent."

With annual sales of €1.4bn in its last fiscal year and operating profits of €169m, Ubisoft, which was founded in 1986, has more than 10,000 employees and studios stretching from Sofia to San Francisco.

It insists that developing successful games — it also produces the best-selling *Assassin's Creed*, *Far Cry* and *Rayman* — rests on the delicate and subtle process of getting different studios with very different skills to work together.

Vivendi has little patience for Ubisoft's thinking. Under the grip of Mr Bolloré, the group has begun to spend its roughly €15bn cash pile following a two-year asset sale that, among other things, saw it exit the video-games industry as it sold its majority stake in Activision Blizzard. It sold most of its majority stake in 2013 for $13.60 a share. Today, Activision shares are trading at $37.53.

It has used the money to buy video-hosting site Dailymotion, several film and television production companies in Spain and the UK, a €3bn, 24.9 per cent stake in Telecom Italia and, most recently, a 3.5 per cent stake in Italian broadcaster Mediaset.

Food & beverage

Stock Spirits shareholders back rebels in boardroom shake-up

PAUL MCCLEAN AND SCHEHERAZADE DANESHKHU

Shareholders in troubled vodka distiller Stock Spirits have sided with rebel investors and voted in two non-executive directors nominated by Western Gate Private Investments, the vehicle of Portuguese businessman Luis Amaral.

Mr Amaral has been highly critical of Stock Spirits' management since becoming the group's largest shareholder with a 9.7 per cent stake built up since November. He has led calls for a shake-up of the board and last month forced out chief executive Chris Heath.

Alberto Da Ponte, a former Heineken and Cadbury Schweppes executive, and Randy Pankevicz, a former PepsiCo manager, were proposed as non-executive directors by Mr Amaral, and yesterday they were voted in at the group's annual meeting with 56.3 and 56.8 per cent of votes respectively.

The board said it "looks forward to a constructive working relationship" with the two new members, but added that it did not regard them as independent.

Stock Spirits said: "As Mr da Ponte and Mr Pankevicz have been proposed by Western Gate, they are not independent of Western Gate, and accordingly, they will be non-independent non-executive directors,"

Stock Spirits added that it was "entirely possible" that the two men would have to be asked to leave board meetings if commercially sensitive information, such as pricing, was discussed.

The company had tried to quell growing investor unrest last week by agreeing to take on two new non-executive directors, but David Maloney, chairman, insisted the new appointments must not be "handpicked" by Mr Amaral, and would instead be chosen by the board.

The board said it still intended to appoint a further two non-executive directors.

Mr Amaral said he saw "no reason why [Stock Spirits] should use company resources" to appoint a further two NEDs, and that several prominent proxy advisers considered Mr Da Ponte and Mr Pankevicz to be independent.

Stock Spirits which listed on the London Stock Exchange in October 2013, has seen its share of the vodka market in Poland — which accounts for 52 per cent of sales — drop from 38 per cent to 29 per cent after a price war.

Its shares are 16 per cent down on the same period last year and are 31 per cent lower than the flotation price of 235p.

Mr Maloney has been pushing back against Mr Amaral's demands, saying they represent a conflict of interest with other Stock Spirits shareholders because Mr Amaral runs one of the company's largest customers.

Mr Amaral is chief executive of Eurocash, a wholesale business which is Stock Spirits' largest customer in its core market of Poland.

"He's our biggest customer; he will gain if the share price goes up, and he will gain if it goes down, as the price of his vodka will go down," said Mr Maloney, adding that debating with Mr Amaral was "like fighting Donald Trump — there's lots of populist rhetoric but no policies".

Mr Amaral countered that Stock Spirits accounts for 3 per cent of his total revenues and a "negligible" amount of profits. He lambasted the board during Stock Spirits' annual meeting yesterday for failing to defend its share of the vodka market in Poland.

Support services

Courier plans to take the express lane to a Shenzhen listing

GABRIEL WILDAU — SHANGHAI

SF Express has become the third Chinese delivery company in 18 months to draw investor interest in the ecommerce sector by seeking a backdoor listing.

Low-cost delivery has fuelled online buying, since shipping costs frequently below $1 make it attractive to purchase even low-cost merchandise. But so far investors have largely been limited to shares of ecommerce platform operators such as Alibaba Group and JD.com.

Delivery companies large enough to be tracked delivered 20.7bn parcels in 2015, up 48 per cent from a year earlier, according to China's State Post Bureau. Revenue rose 35 per cent to Rmb277bn.

While market share data are unavailable, privately owned SF maintains a fleet of 15,000 delivery vehicles and runs a network of 13,000 service centres around China.

Backdoor listings, whereby a company injects its assets into a listed shell entity, are being hotly pursued by US-listed Chinese companies attracted by China's higher valuations, as well as by

SF Express runs a network of 13,000 service centres around China

newcomers looking to circumvent the lengthy vetting process for listing.

The former has attracted the scrutiny of China's regulator and raised the prospect of a clampdown on foreign-listed China groups eyeing higher valuations on mainland bourses. Regulators want to prevent China exchanges becoming a dumping ground for poor-quality companies that debuted elsewhere.

As of early March, 711 companies were in the approval queue, many having waited more than a year.

China's leaders have pledged to deregulate the IPO approval process to make it more market-oriented, but progress has been slow.

In March last year, STO Express announced plans to conduct a backdoor listing using a Shenzhen-listed shell called Zhejiang IDC Fluid Control. The following month, YT Express said it would do the same with the Shanghai-listed shell of Dalian Dayang Trands. Both deals are still pending.

SF's parent wants to inject 100 per cent of SF's assets, valued at Rmb43.3bn, into the Shenzhen-listed shell of Maanshan Dingtai Rare Earth and New Materials. The listed company's existing Rmb800m in assets and liabilities will be swapped into an unlisted entity, Dingtai Rare said in an exchange filing yesterday. The restructured company will then raise an additional Rmb8bn through a private placement of new shares.

"China's logistics sector is still in a period of rapid investment," said a logistics analyst. "All the big players are hurrying to raise money and a listing can help reduce funding costs. It will also increase SF's brand prestige."

Additional reporting by Ma Nan

MARKET DATA

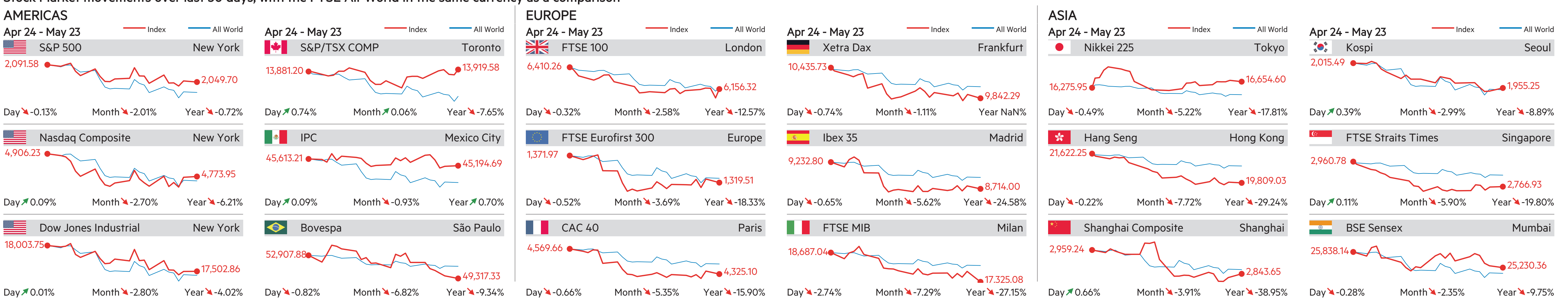
WORLD MARKETS AT A GLANCE

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 $
-0.13%	0.09%	0.01%	-0.32%	-0.52%	-0.49%	-0.22%	-0.07%	-0.089%	-0.345%	-0.914%	0.129%	-1.92%	-0.66%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison



Country	Index	Latest	Previous
Argentina	Merval	12567.59	12656.28
Australia	All Ordinaries	5384.90	5415.20
	S&P/ASX 200	5318.90	5351.30
	S&P/ASX 200 Res	2651.10	2684.40
Austria	ATX	2205.19	2193.13
Belgium	BEL 20	3387.70	3390.34
	BEL Mid	5848.47	5824.94
Brazil	Bovespa	49317.33	49722.75
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	19411.52	19404.24
China	FTSE A200	7918.21	7900.68
	FTSE B35	9132.01	9062.27
	Shanghai A	2976.41	2956.95
	Shanghai B	339.68	336.43
	Shanghai Comp	2843.65	2825.02
	Shenzhen A	1905.02	1877.75
	Shenzhen B	1035.22	1024.02
Colombia	COLCAP	1322.44	1323.21
Croatia	CROBEX	1698.81	1698.16

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.09	67.86
Czech Republic	PX	874.83	875.19
Denmark	OMXC Copenahgen 20	967.12	969.68
Egypt	EGX 30	7499.49	7637.04
Estonia	OMX Tallinn	988.23	988.37
Finland	OMX Helsinki General	7711.42	7714.86
France	CAC 40	4325.10	4353.90
	SBF 120	3437.39	3455.54
Germany	M-DAX	20272.15	20268.50
	TecDAX	1674.51	1667.68
	XETRA Dax	9842.29	9916.02
Greece	Athens Gen	649.10	639.48
	FTSE/ASE 20	185.67	182.18
Hong Kong	Hang Seng	19809.03	19852.20
	HS China Enterprise	8308.21	8303.58
	HSCC Red Chip	3496.84	3505.56
Hungary	Bux	26368.25	26434.48
India	BSE Sensex	25230.36	25301.90
	S&P CNX 500	6627.95	6634.30
Indonesia	Jakarta Comp	4729.16	4729.16
Ireland	ISEQ Overall	6262.03	6229.15
Israel	Tel Aviv 100	12.12	12.21

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	19047.42	19511.41
	FTSE Italia Mid Cap	31396.44	31457.26
	FTSE MIB	17325.08	17812.35
Japan	2nd Section	4347.99	4342.24
	Nikkei 225	16654.60	16736.35
	S&P Topix 150	1091.16	1096.00
	Topix	1338.68	1343.40
Jordan	Amman SE	2113.54	2115.06
Kenya	NSE 20	3890.85	3880.81
Kuwait	KSX Market Index	5317.03	5324.05
Latvia	OMX Riga	628.46	637.70
Lithuania	OMX Vilnius	513.50	508.83
Luxembourg	LuxX	1421.85	1431.92
Malaysia	FTSE Bursa KLCI	1634.89	1629.79
Mexico	IPC	45194.69	45155.91
Morocco	MASI	9940.25	9973.41
Netherlands	AEX	432.57	434.07
	AEX All Share	666.65	669.36
New Zealand	NZX 50	6907.77	6909.86
Nigeria	SE All Share	27116.45	27028.24
Norway	Oslo All Share	658.19	658.00
Pakistan	KSE 100	36723.35	36693.50

Country	Index	Latest	Previous
Philippines	Manila Comp	7306.69	7299.03
Poland	Wig	46056.44	45784.76
Portugal	PSI 20	4830.20	4870.95
	PSI General	2452.77	2468.18
Romania	BET Index	6391.32	6367.12
Russia	Micex Index	1874.11	1891.33
	RTX	880.74	893.09
Saudi-Arabia	TADAWUL All Share Index	6694.82	6654.20
Singapore	FTSE Straits Times	2766.93	2763.82
Slovakia	SAX	322.56	318.73
Slovenia	SBI TOP	707.72	708.28
South Africa	FTSE/JSE All Share	52628.82	52638.25
	FTSE/JSE Res 20	31013.66	31193.45
	FTSE/JSE Top 40	46537.93	46531.45
South Korea	Kospi	1955.25	1947.67
	Kospi 200	239.85	238.74
Spain	IBEX 35	8714.00	8771.20
Sri Lanka	CSE All Share	6633.27	6648.13
Sweden	OMX Stockholm 30	1339.38	1342.68
	OMX Stockholm AS	478.42	478.09
Switzerland	SMI Index	8038.46	7997.30

Country	Index	Latest	Previous
Taiwan	Weighted Pr	8344.44	8131.26
Thailand	Bangkok SET	1381.69	1385.86
Turkey	BIST 100	76357.74	77243.88
UAE	Abu Dhabi General Index	4187.59	4235.38
UK	FT 30	2815.10	2811.60
	FTSE 100	6136.43	6156.32
	FTSE 4Good UK	5551.30	5558.82
	FTSE All Share	3382.15	3387.22
	FTSE techMARK 100	3780.79	3752.88
USA	DJ Composite	6140.52	6149.67
	DJ Industrial	17502.86	17500.94
	DJ Transport	7645.40	7671.89
	DJ Utilities	647.84	650.08
	Nasdaq 100	4367.09	4362.90
	Nasdaq Cmp	4773.95	4769.56
	NYSE Comp	10225.75	10250.49
	S&P 500	2049.70	2052.32
	Wilshire 5000	21224.32	21238.05
Venezuela	IBC	15469.08	15363.68
Vietnam	VNI	611.03	614.81

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	230.85	231.19
	Euro Stoxx 50 (Eur)	2939.77	2962.16
	Euronext 100 ID	852.66	857.39
	FTSE 4Good Global ($)	5175.97	5188.86
	FTSE All World	260.08	260.27
	FTSE E300	1319.51	1326.45
	FTSE Eurotop 100	2587.46	2603.38
	FTSE Global 100 ($)	1279.30	1281.03
	FTSE Gold Min ($)	1598.33	1593.39
	FTSE Latibex Top (Eur)	2467.30	2499.20
	FTSE Multinationals ($)	1466.63	1455.36
	FTSE World ($)	461.98	462.31
	FTSEurofirst 100 (Eur)	3702.45	3734.81
	FTSEurofirst 80 (Eur)	3985.54	4021.06
	MSCI ACWI Fr ($)	393.95	391.13
	MSCI All World ($)	1639.85	1627.61
	MSCI Europe (Eur)	1328.57	1309.82
	MSCI Pacific ($)	2203.66	2198.32
	S&P Euro (Eur)	1336.15	1346.60
	S&P Europe 350 (Eur)	1355.14	1362.24
	S&P Global 1200 ($)	1809.49	1813.91
	Stoxx 50 (Eur)	2808.10	2820.94

(c) Closed. (u) Unavaliable. † 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	17.9	96.58	1.36
Hospira	11.8	89.95	-0.01
Facebook Class A	11.3	115.19	-1.16
Airgas	9.5	142.95	0.00
Monsanto	8.7	106.80	5.28
Amazon.com	7.3	699.17	-3.63
Netflix	6.7	94.78	2.29
Tesla Motors	5.4	218.95	-1.34
Bank Of America	4.7	14.49	-0.04
Microsoft	4.2	50.22	-0.40

LONDON ACTIVE STOCKS	stock traded m's	close price	Day's change
Sabmiller	117.6	4270.00	2.67
Royal Dutch Shell	108.6	1667.00	-22.00
Royal Dutch Shell	98.5	1659.00	-16.15
Vodafone	97.6	225.85	-1.89
Shire	86.6	4315.00	12.06
Bp	83.5	357.50	-3.48
Astrazeneca	83.0	3900.50	1.00
Glaxosmithkline	82.4	1438.00	2.45
Hsbc Holdings	81.4	427.25	0.64
Lloyds Banking	79.8	70.22	-0.12

EURO MARKETS ACTIVE STOCKS	stock traded m's	close price	Day's change
Bayer Ag Na	863.7	89.54	0.00
Novartis N	471.5	67.56	0.00
Unicredit	333.3	3.00	0.00
Intesa Sanpaolo	308.0	2.31	0.14
Daimler Ag Na O.n.	269.2	57.83	0.00
Nestle N	256.1	65.53	0.00
Telefonica	245.2	9.09	-0.10
Richemont N	243.7	53.06	0.00
Eni	232.9	13.40	0.40
Roche Gs	226.7	222.43	0.00

TOKYO ACTIVE STOCKS	stock traded m's	close price	Day's change
Toyota Motor	454.3	5506.00	-56.00
Mitsubishi Ufj Fin.,	329.5	535.70	2.60
Softbank.	250.0	6131.00	26.00
Mizuho Fin.,	202.5	170.00	-0.80
Sumitomo Mitsui Fin.,	201.9	3452.00	22.00
Fast Retailing Co.,	165.9	27965.00	-810.00
Takeda Pharmaceutical	159.7	4731.00	41.00
Kddi	140.7	3161.00	15.00
Fanuc	132.0	16000.00	-70.00

AMERICA BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Cf Industries Holding	30.40	1.81	6.33
Monsanto	106.80	5.28	5.20
Vje Genomics	81.35	3.70	4.76
Tripadvisor	67.16	2.63	4.08
Chipotle Mexican Grill	463.85	13.93	3.10
Downs			
Transocean	8.92	-0.41	-4.35
Cigna	125.84	-5.44	-4.14
Roper	175.99	-7.11	-3.88
Newfield Exploration	39.25	-1.38	-3.40
Diamond Offshore Drilling	23.40	-0.78	-3.23

Based on the constituents of the S&P500 and the Nasdaq 100 index

LONDON BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Investec	481.30	32.10	6.67
Mitie	290.00	16.40	5.99
Pendragon	40.20	2.17	5.71
Shawbrook	294.00	13.70	4.89
Polypipe	319.00	14.00	4.59
Downs			
Icap	414.00	-18.65	-4.32
Inmarsat	724.50	-31.15	-4.13
Sports Direct Int	354.10	-14.90	-4.04
Ocado	263.50	-6.10	-2.26
Hastings Holdings	183.00	-3.80	-2.03

Based on the constituents of the FTSE 350 index

EURO MARKETS BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Intesa Sanpaolo	2.31	0.14	6.44
Generali Ass	12.75	0.72	5.99
Snam	5.20	0.25	5.05
Deutsche Wohnen Ag	28.23	1.12	4.15
Eni	13.40	0.40	3.08
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
Svenska Handelsbanken Ab	11.40	-0.50	-4.18
Carrefour	23.58	-0.82	-3.34

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Tokuyama	294.00	11.00	3.89
Nippon Sheet Glass	91.00	3.00	3.41
Mitsubishi Motors	549.00	16.00	3.00
Dainippon Screen Mfg.co.,	1057.00	28.00	2.72
Ihi	277.00	7.00	2.59
Downs			
Unitika	61.00	-2.00	-3.17
Fast Retailing Co.,	27965.00	-810.00	-2.81
Taiheiyo Cement	270.00	-7.00	-2.53
Nippon Meat Packers,.	2486.00	-64.00	-2.51
Ngk Insulators,	2344.00	-59.00	-2.46

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	May 23 price(p)	%Chg week	%Chg ytd
Winners			
Ashtead	973.50	11.1	-13.0
Royal Bank Of Scotland	234.10	10.7	-22.1
Taylor Wimpey	204.50	10.7	0.7
Whitbread	4263.00	8.3	-3.1
3i	520.00	8.1	8.0
Barclays	175.70	8.0	-29.7
Berkeley Holdings (the)	3241.00	7.7	-12.8
Barratt Developments	584.50	7.6	-7.5
Dcc	6615.00	7.4	16.7
Travis Perkins	1886.00	6.0	-4.4
Dixons Carphone	439.10	5.7	-12.4
Persimmon	2084.00	5.6	3.2
Losers			
Fresnillo	1077.00	-6.3	52.1
Burberry	1093.00	-4.9	-9.0
Royal Dutch Shell	1667.00	-4.8	8.0
Royal Dutch Shell	1659.00	-4.7	9.0
Associated British Foods	2900.00	-4.6	-12.9
Rolls-royce Holdings	635.00	-4.1	10.6
Glencore	128.80	-4.0	41.7
Rio Tinto	1944.00	-3.9	-2.3
Bhp Billiton	811.40	-3.6	6.5
Inmarsat	724.50	-3.3	-36.3
Merlin Entertainments	418.50	-3.1	-8.7
British American Tobacco	4116.00	-3.0	9.0

FTSE 250	May 23 price(p)	%Chg week	%Chg ytd
Winners			
Pendragon	40.20	16.5	-14.0
Esure	351.50	15.7	-48.7
Btg	668.00	13.8	-3.0
Ladbrokes	130.40	12.5	8.4
Aggreko	1157.00	12.2	26.6
Lookers	146.60	11.1	-20.9
Redrow	420.00	10.6	-10.7
Close Brothers	1320.00	10.6	-1.9
Bovis Homes	991.50	10.4	-2.3
Shawbrook	294.00	10.3	-16.0
Onesavings Bank	317.90	9.9	-10.8
Allied Minds	335.00	9.8	-16.3
Losers			
Thomas Cook	74.25	-14.9	-38.7
Icap	414.00	-9.0	-18.9
Greencore	355.60	-8.0	0.4
Tullow Oil	242.00	-7.2	46.0
Brewin Dolphin Holdings	257.50	-6.7	-17.2
Marshalls	317.90	-5.8	-2.2
Talktalk Telecom	243.10	-5.7	11.5
Rathbone Brothers	1968.00	-5.2	-11.7
Sports Direct Int	354.10	-4.8	-38.6
Kaz Minerals	149.00	-4.6	43.7
Meggitt	383.30	-4.5	2.3
Victrex	1446.00	-3.6	-19.8

FTSE SmallCap	May 23 price(p)	%Chg week	%Chg ytd
Winners			
Georgia Healthcare	1878	13.3	53.5
Hill & Smith Holdings	975.00	9.6	28.8
Banks	510.00	9.0	15.1
Speedy Hire	39.75	8.9	-4.8
Nanoco	42.25	8.3	-26.5
Enterprise Inns	96.75	7.8	-13.0
Kcom	112.00	7.7	-3.0
Menzies(john)	525.00	6.4	26.5
S & U	240.00	6.0	-6.8
Imagination	170.25	5.5	28.1
Costain	348.75	5.2	-6.6
Foxtons	162.00	5.1	-0.1
Losers			
Lakehouse	35.00	-26.7	-62.4
Game Digital	85.25	-14.8	-29.5
Vitec (the)	495.00	-10.2	-17.8
Premier Oil	70.50	-9.0	45.4
Lonmin	179.75	-7.8	115.3
Dialight	493.00	-7.2	9.6
Devro	252.75	-7.1	-13.0
Ferrexpo	30.00	-7.0	39.5
Flybe	52.75	-6.2	-42.3
Jpmorgan Russian Securities	333.50	-6.1	9.4
Stv	347.88	-6.1	-32.7
Enquest	34.75	-6.1	82.9

Industry Sectors	May 23 price(p)	%Chg week	%Chg ytd
Winners			
Industrial Transportation	2908.20	4.7	12.1
Real Estate & Investment Service	2728.60	3.5	-11.1
Banks	3228.45	3.3	-15.2
Life Insurance	6766.85	3.2	-13.4
Technology Hardware & Equipment	1186.59	3.1	-7.0
General Retailers	2811.03	3.0	-6.2
Household Goods	17035.85	2.7	3.6
Support Services	6788.81	2.6	-0.2
Real Estate Investment Trusts	3170.57	2.5	-7.7
General Financial	8734.86	2.5	-7.5
Industrial Engineering	8254.82	2.5	15.4
Travel & Leisure	8454.12	1.6	-6.5
Losers			
Food Producers	8155.03	-3.8	-7.8
Oil & Gas Producers	6103.07	-3.6	8.2
Mining	8794.26	-2.9	19.8
Tobacco	49175.14	-2.8	6.9
Personal Goods	26532.91	-2.7	2.8
Aerospace & Defense	4009.56	-2.5	-3.1
Oil Equipment & Services	13212.46	-2.2	2.0
Automobiles & Parts	6366.55	-2.1	-11.3
Chemicals	10792.11	-1.2	0.3
Forestry & Paper	14325.91	-1.1	-0.1
Beverages	15603.11	-0.9	1.3
Electronic & Electrical Equip.	4284.48	-0.8	1.3

Based on last week's performance. †Price at suspension.

CURRENCIES

May 23	Currency	DOLLAR Closing Mid	Day's Change	EURO Closing Mid	Day's Change	POUND Closing Mid	Day's Change
Argentina	Argentine Peso	13.9950	-0.1030	15.6736	-0.1345	20.2410	-0.2215
Australia	Australian Dollar	1.3880	0.0031	1.5545	0.0016	2.0075	-0.0027
Bahrain	Bahrainin Dinar	0.3771	0.0000	0.4223	-0.0005	0.5453	-0.0019
Bolivia	Bolivian Boliviano	6.8750	-0.0100	7.6996	-0.0205	9.9433	-0.0499
Brazil	Brazilian Real	3.5732	0.0302	4.0018	0.0290	5.1679	0.0255
Canada	Canadian Dollar	1.3157	0.0027	1.4735	0.0012	1.9029	-0.0029
Chile	Chilean Peso	694.6150	1.9400	777.9315	1.2333	1004.6210	-0.7567
China	Chinese Yuan	6.5519	0.0085	7.3378	0.0006	9.4760	-0.0214
Colombia	Colombian Peso	3058.9650	10.9550	3425.8765	8.1352	4424.1797	0.1683
Costa Rica	Costa Rican Colon	536.0200	-0.0700	600.3136	-0.8055	775.2452	-2.8584
Czech Republic	Czech Koruna	24.1386	0.0340	27.0339	0.0054	34.9116	-0.0748
Denmark	Danish Krone	6.6394	0.0078	7.4358	-0.0003	9.6026	-0.0229
Egypt	Egyptian Pound	8.8794	0.0166	9.9445	0.0066	12.8423	-0.0216
Hong Kong	Hong Kong Dollar	7.7669	-0.0013	8.6986	-0.0119	11.2333	-0.0418
Hungary	Hungarian Forint	283.5618	0.8720	317.5740	0.5932	410.1151	-0.1927
India	Indian Rupee	67.4650	-0.0100	75.5572	-0.1027	97.5746	-0.3615

May 23	Currency	DOLLAR Closing Mid	Day's Change	EURO Closing Mid	Day's Change	POUND Closing Mid	Day's Change
Indonesia	Indonesian Rupiah	13582.5000	-25.0000	15211.6704	-46.4668	19644.3585	-106.1530
Israel	Israeli Shekel	3.8684	-0.0175	4.3323	-0.0248	5.5948	-0.0452
Japan	Japanese Yen	109.4450	-1.0100	122.5725	-1.2810	158.2902	-2.0288
..One Month		109.4449	-1.0102	122.5725	-1.2809	158.2901	-2.0290
..Three Month		109.4447	-1.0106	122.5725	-1.2809	158.2898	-2.0296
..One Year		109.4433	-1.0134	122.5724	-1.2812	158.2901	-2.0309
Kenya	Kenyan Shilling	100.9500	0.0500	113.0586	-0.0808	146.0039	-0.4466
Kuwait	Kuwaiti Dinar	0.3021	0.0001	0.3383	-0.0004	0.4369	-0.0015
Malaysia	Malaysian Ringgit	4.0830	0.0015	4.5727	-0.0039	5.9052	-0.0188
Mexico	Mexican Peson	18.4483	0.0487	20.6610	0.0296	26.6817	-0.0241
New Zealand	New Zealand Dollar	1.4797	0.0004	1.6572	-0.0015	2.1401	-0.0070
Nigeria	Nigerian Naira	199.2500	0.2000	223.1493	-0.0460	288.1751	-0.7345
Norway	Norwegian Krone	8.3593	0.0190	9.3620	0.0100	12.0900	-0.0154
Pakistan	Pakistani Rupee	104.8050	0.0100	117.3760	-0.1309	151.5794	-0.5245
Peru	Peruvian Nuevo Sol	3.3425	0.0067	3.7434	0.0029	4.8343	-0.0075
Philippines	Philippine Peso	46.7725	0.0125	52.3827	-0.0494	67.6470	-0.2224

May 23	Currency	DOLLAR Closing Mid	Day's Change	EURO Closing Mid	Day's Change	POUND Closing Mid	Day's Change
Poland	Polish Zloty	3.9683	0.0279	4.4442	0.0259	5.7393	0.0201
Romania	Romanian Leu	4.0299	0.0009	4.5132	-0.0045	5.8284	-0.0195
Russia	Russian Ruble	67.0507	0.2381	75.0931	0.1761	96.9753	0.0008
Saudi Arabia	Saudi Riyal	3.7517	-0.0001	4.2016	-0.0052	5.4260	-0.0194
Singapore	Singapore Dollar	1.3793	-0.0028	1.5447	-0.0050	1.9949	-0.0112
South Africa	South African Rand	15.7714	0.0649	17.6631	0.0514	22.8102	0.0131
South Korea	South Korean Won	1182.9500	-7.2000	1324.8406	-9.6776	1710.8994	-16.5344
Sweden	Swedish Krona	8.3560	0.0175	9.3583	0.0083	12.0853	-0.0175
Switzerland	Swiss Franc	0.9919	-0.0004	1.1109	-0.0017	1.4347	-0.0056
Taiwan	New Taiwan Dollar	32.6550	-0.0865	36.5718	-0.1413	47.2289	-0.2935
Thailand	Thai Baht	35.6750	-0.0150	39.9541	-0.0652	51.5967	-0.2053
Tunisia	Tunisian Dinar	2.0742	0.0005	2.3230	-0.0023	2.9999	-0.0100
Turkey	Turkish Lira	2.9951	0.0149	3.3543	0.0126	4.3317	0.0062
United Arab Emirates	UAE Dirham	3.6731	0.0001	4.1136	-0.0048	5.3123	-0.0187
United Kingdom	Pound Sterling	0.6914	0.0025	0.7744	0.0018	-	-
..One Month		0.6914	0.0025	0.7743	0.0018	-	-

May 23	Currency	DOLLAR Closing Mid	Day's Change	EURO Closing Mid	Day's Change	POUND Closing Mid	Day's Change
..Three Month		0.6915	0.0025	0.7742	0.0018	-	-
..One Year		0.6920	0.0025	0.7735	0.0018	-	-
United States	United States Dollar	-	-	1.1199	-0.0014	1.4463	-0.0051
..One Month		-	-	1.1198	-0.3315	1.4463	-0.0051
..Three Month		-	-	1.1196	-0.3315	1.4464	-0.0051
..One Year		-	-	1.1183	-0.3315	1.4469	-0.0051
Venezuela	Venezuelan Bolivar Fuerte	9.9850	0.0150	11.1827	0.0033	14.4413	-0.0296
Vietnam	Vietnamese Dong	22321.0000	3.5000	24998.3751	-26.3368	32282.8494	-109.8013
European Union	Euro	0.8929	0.0011	-	-	1.2914	-0.0030
..One Month		0.8928	0.0011	-	-	1.2913	-0.0030
..Three Month		0.8926	0.0011	-	-	1.2912	-0.0030
..One Year		0.8913	0.0011	-	-	1.2906	-0.0030

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 23	Day's chge%	Euro Index	£ Strlg May 20	£ Strlg May 19	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	6136.43	-0.32	6179.11	6156.32	6053.35	7031.72	4.07	0.71	34.68	119.53	4903.30
FTSE 250 (250)	17031.74	0.65	17150.19	16922.06	16730.11	18192.69	2.70	2.09	17.69	194.00	11992.00
FTSE 250 ex Inv Co (208)	18516.77	0.70	18645.55	18388.22	18156.08	19800.86	2.72	2.23	16.48	212.59	13295.50
FTSE 350 (350)	3431.36	-0.16	3455.23	3436.71	3382.41	3884.70	3.83	0.88	29.72	61.94	5518.64
FTSE 350 ex Investment Trusts (308)	3407.62	-0.17	3431.32	3413.34	3358.37	3863.45	3.86	0.87	29.65	62.11	2822.34
FTSE 350 Higher Yield (105)	3125.84	-0.49	3147.58	3141.12	3093.29	3683.02	5.39	0.44	42.20	81.03	5196.31
FTSE 350 Lower Yield (245)	3414.63	0.20	3438.38	3407.80	3351.86	3707.20	2.16	2.05	22.58	33.04	3649.84
FTSE SmallCap (284)	4555.09	0.02	4586.77	4554.40	4524.13	4781.18	3.01	1.29	25.64	50.52	6315.50
FTSE SmallCap ex Inv Co (152)	4168.31	0.13	4197.30	4162.86	4137.40	4275.66	2.99	1.63	20.47	43.50	6064.74
FTSE All-Share (634)	3382.15	-0.15	3405.67	3387.22	3334.79	3818.84	3.80	0.89	29.56	60.23	5501.27
FTSE All-Share ex Inv Co (460)	3344.60	-0.16	3367.86	3350.01	3296.72	3784.61	3.84	0.88	29.39	60.44	2815.58
FTSE All-Share ex Multinationals (569)	1139.94	0.13	951.37	1138.46	1120.07	1275.97	3.06	1.42	22.97	13.47	1966.60
FTSE Fledgling (98)	7662.50	0.01	7715.79	7661.72	7652.33	7871.29	2.70	0.73	50.84	70.46	13936.90
FTSE Fledgling ex Inv Co (49)	10502.95	-0.03	10576.00	10505.75	10514.19	10508.38	2.77	0.31	116.12	89.88	18569.90
FTSE All-Small (382)	3159.26	0.01	3181.23	3158.79	3138.67	3312.68	3.00	1.27	26.31	34.74	5623.59
FTSE All-Small ex Inv Co Index (201)	3110.03	0.12	3131.66	3106.15	3088.00	3185.88	2.98	1.59	21.15	32.24	5732.83
FTSE AIM All-Share Index (825)	730.81	0.41	735.89	727.86	722.64	766.71	1.52	0.51	129.66	3.79	790.73
FTSE Sector Indices											
Oil & Gas (17)	**6441.23**	**-1.19**	**6486.02**	**6519.04**	**6414.34**	**7735.25**	**6.94**	**-0.68**	**-21.34**	**226.17**	**5590.92**
Oil & Gas Producers (10)	6142.28	-1.22	6184.99	6218.01	6115.73	7319.21	6.98	-0.70	-20.46	218.64	5515.68
Oil Equipment Services & Distribution (7)	13450.49	-0.48	13544.03	13515.24	13452.24	20023.82	5.80	0.21	81.40	279.99	10086.76
Basic Materials (27)	**3196.75**	**-0.25**	**3218.98**	**3204.86**	**3176.03**	**4824.91**	**4.30**	**0.26**	**90.62**	**48.76**	**3185.95**
Chemicals (7)	11543.55	-0.18	11623.83	11564.26	11588.78	13032.63	2.56	2.12	18.39	125.71	10035.98
Forestry & Paper (1)	15632.20	-0.67	15740.91	15737.98	15408.88	17806.60	2.99	2.97	11.26	347.94	16601.53
Industrial Metals & Mining (2)	1205.35	2.37	1213.74	1177.49	1163.95	1875.60	0.47	2.79	75.49	0.00	1051.90
Mining (17)	8507.06	-0.26	8566.23	8529.18	8443.73	13638.73	4.69	-0.02	-1323.62	132.94	4442.52
Industrials (119)	**4395.42**	**0.48**	**4425.99**	**4374.22**	**4321.71**	**4838.97**	**2.57**	**1.45**	**26.91**	**52.69**	**4420.77**
Construction & Materials (14)	5382.19	0.14	5419.62	5374.76	5269.01	5063.74	2.35	0.05	792.27	83.33	5589.08
Aerospace & Defense (9)	4158.40	-0.60	4187.32	4183.58	4141.23	5442.62	2.79	1.51	23.70	71.61	4369.47
General Industrials (6)	3730.32	0.17	3756.26	3724.07	3686.25	3658.92	3.08	1.56	20.82	48.86	4114.50
Electronic & Electrical Equipment (10)	5375.19	0.86	5412.58	5329.48	5369.80	5819.54	2.27	1.94	22.73	22.54	4780.21
Industrial Engineering (14)	8692.88	0.69	8753.33	8632.91	8532.77	9877.93	3.11	1.31	24.50	156.89	10377.66
Industrial Transportation (8)	4399.67	3.01	4430.27	4271.17	4229.56	4552.68	3.78	0.90	29.38	40.84	3737.90
Support Services (58)	6641.35	0.72	6687.54	6594.00	6508.21	7165.37	2.33	1.76	24.42	62.60	6728.77
Consumer Goods (41)	**18835.48**	**-0.32**	**18966.47**	**18895.34**	**18637.60**	**17475.41**	**2.89**	**1.78**	**19.50**	**259.89**	**13471.76**
Automobiles & Parts (1)	6399.18	-1.05	6443.68	6467.33	6417.98	8676.37	3.20	1.81	17.28	136.30	6008.12
Beverages (6)	15628.17	0.12	15736.86	15610.06	15428.75	14583.13	2.48	1.59	25.35	99.50	10713.06
Food Producers (10)	8232.55	-0.21	8289.80	8249.99	8153.19	8083.92	1.99	1.66	30.19	11.14	6898.05
Household Goods & Home Construction (14)	14243.47	-0.09	14342.53	14256.34	13989.02	12726.74	2.17	2.67	17.25	151.56	9795.93
Leisure Goods (2)	5378.01	1.28	5415.41	5310.00	5254.64	5011.86	4.80	1.22	17.12	129.52	4661.84
Personal Goods (6)	23101.04	-0.22	23261.70	23153.13	22865.75	23438.62	2.97	2.93	11.48	316.89	15108.11
Tobacco (2)	49175.22	-0.85	49517.21	49596.08	48955.04	43591.96	3.79	1.19	22.24	1163.34	30690.22
Health Care (20)	**9071.99**	**0.35**	**9135.08**	**9040.16**	**8836.38**	**9845.79**	**3.90**	**0.56**	**45.53**	**207.35**	**6768.74**
Health Care Equipment & Services (8)	7132.63	0.70	7182.23	7082.76	6955.39	6975.92	1.61	1.81	34.26	51.48	6090.64
Pharmaceuticals & Biotechnology (12)	12222.48	0.31	12307.48	12184.38	11903.51	13404.48	4.16	0.51	47.29	300.81	8114.86
Consumer Services (96)	**4704.28**	**0.09**	**4736.99**	**4700.03**	**4620.98**	**5104.57**	**2.48**	**1.75**	**23.12**	**50.16**	**4291.93**
Food & Drug Retailers (7)	2761.90	-1.43	2781.10	2802.10	2728.63	3279.99	1.44	2.56	27.10	22.92	3184.61
General Retailers (32)	2757.30	0.31	2776.48	2748.68	2714.44	3194.47	2.66	2.12	17.72	15.82	3040.14
Media (22)	7272.07	0.05	7322.65	7268.08	7150.07	7650.60	2.91	1.32	26.09	99.33	4351.10
Travel & Leisure (35)	8261.52	0.43	8318.97	8226.20	8085.98	8607.26	2.30	1.82	23.89	95.18	7618.37
Telecommunications (6)	**3881.76**	**-1.18**	**3908.75**	**3928.23**	**3855.65**	**4244.54**	**4.26**	**-0.27**	**-88.31**	**3.65**	**4071.38**
Fixed Line Telecommunications (4)	5087.19	-0.58	5122.57	5116.62	5004.92	5245.19	3.08	1.85	17.52	0.00	4411.88
Mobile Telecommunications (2)	5055.31	-1.56	5090.47	5135.25	5050.95	5736.20	4.99	-1.08	-18.60	7.87	4735.52
Utilities (7)	**8543.77**	**-0.01**	**8603.19**	**8544.55**	**8387.27**	**8923.18**	**4.72**	**1.46**	**14.46**	**79.68**	**9186.03**
Electricity (2)	8883.33	-0.77	8945.11	8952.62	8736.20	9858.53	5.54	1.26	14.38	146.48	12039.28
Gas Water & Multiutilities (5)	7994.29	0.20	8049.89	7978.72	7844.15	8212.87	4.51	1.53	14.48	59.90	8611.31
Financials (282)	**4101.60**	**-0.02**	**4130.12**	**4102.29**	**4040.55**	**5089.04**	**4.08**	**1.55**	**15.78**	**96.92**	**3668.24**
Banks (9)	3187.77	-0.24	3209.94	3195.41	3146.69	4595.81	5.26	0.86	22.17	101.66	2268.65
Nonlife Insurance (10)	2892.08	0.10	2912.19	2889.22	2879.89	2443.38	2.87	2.31	15.07	53.63	4953.69
Life Insurance/Assurance (10)	6866.92	-0.69	6914.68	6914.49	6745.26	8612.96	4.30	1.53	15.18	201.97	6484.68
Index- Real Estate Investment & Services (21)	2759.44	0.80	2778.63	2737.66	2708.64	3168.57	2.45	5.39	7.58	32.59	7180.70
Real Estate Investment Trusts (26)	2874.50	0.90	2894.49	2848.85	2795.30	3087.36	3.17	5.12	6.16	42.56	3450.04
General Financial (32)	7472.15	0.58	7524.11	7428.82	7308.18	8583.64	3.30	2.04	14.88	124.26	8245.34
Equity Investment Instruments (174)	7523.76	0.14	7576.08	7513.09	7476.00	8034.30	2.76	1.06	34.23	84.88	4002.37
Non Financials (352)	**4033.43**	**-0.19**	**4061.48**	**4041.19**	**3978.09**	**4410.30**	**3.71**	**0.66**	**41.01**	**64.31**	**5740.50**
Technology (19)	**1398.19**	**1.22**	**1407.91**	**1381.28**	**1359.87**	**1435.31**	**1.56**	**1.71**	**37.53**	**12.72**	**1764.85**
Software & Computer Services (13)	1866.95	0.34	1879.94	1860.57	1836.35	1674.40	1.99	1.62	30.98	24.03	2480.91
Technology Hardware & Equipment (6)	1483.65	2.09	1493.97	1453.33	1427.34	1705.93	1.14	1.87	47.09	8.47	1712.81

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	6150.24	6136.35	6158.66	6137.75	6135.59	6142.31	6128.99	6140.48	6138.67	6172.86	6123.13
FTSE 250	16920.21	16985.50	17005.33	16964.54	16966.02	16999.38	17007.62	17035.27	17008.99	17051.31	16908.92
FTSE SmallCap	4553.45	4555.57	4560.36	4559.18	4557.26	4556.90	4555.15	4555.02	4558.73	4562.05	4553.18
FTSE All-Share	3384.47	3380.58	3391.17	3380.59	3379.65	3383.70	3378.07	3384.04	3382.47	3397.28	3372.80

Time of FTSE 100 Day's high:08:22:15 Day's Low07:22:45 FTSE 100 2010/11 High: 6410.26(20/04/2016) Low: 5536.97(11/02/2016)
Time of FTSE All-Share Day's high:08:23:00 Day's Low07:16:00 FTSE 100 2010/11 High: 3504.16(20/04/2016) Low: 3046.53(11/02/2016)

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FT 30 INDEX

	May 23	May 20	May 19	May 18	May 17	Yr Ago	High	Low
FT 30	2815.10	2811.60	2763.00	2796.03	2667.20	0.00	2875.90	2547.10
FT 30 Div Yield	1.73	1.73	1.76	1.73	1.74	0.00	3.93	2.74
P/E Ratio net	25.77	25.76	25.39	25.74	25.70	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
2811.6	2811.1	2820.4	2808.7	2809	2813.6	2811.2	2816.9	2812.7	2826.1	2802.4

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FX: EFFECTIVE INDICES

	May 20	May 19	Mnth Ago		May 23	May 20	Mnth Ago
Australia	88.63	88.20	94.90	Sweden	79.19	79.10	80.79
Canada	89.00	88.85	92.17	Switzerland	155.60	155.99	159.01
Denmark	106.88	106.80	106.77	UK	87.16	87.61	85.11
Japan	138.28	138.98	138.64	USA	101.14	100.99	99.31
New Zealand	111.66	111.12	113.81	Euro	87.76	87.50	88.34
Norway	86.15	85.72	87.43				

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 &	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 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	520.00	14.50	Legal & General Group PLC	225.00	-0.40
Admiral Group PLC	1878	5.00	Lloyds Banking Group PLC	70.22	-0.12
Anglo American PLC	598.40	-1.90	London Stock Exchange Group PLC	2599	1.00
Antofagasta PLC	431.20	2.20	Marks And Spencer Group PLC	441.10	-3.60
Arm Holdings PLC	963.00	18.50	Mediclinic International PLC	852.00	5.50
Ashtead Group PLC	973.50	8.00	Merlin Entertainments PLC	418.50	2.60
Associated British Foods PLC	2900	-20.00	Mondi PLC	1330	-9.00
Astrazeneca PLC	3900.5	6.00	Morrison (Wm) Supermarkets PLC	192.10	-0.90
Aviva PLC	432.90	-3.70	National Grid PLC	986.20	-0.40
Babcock International Group PLC	989.00	2.00	Next PLC	5400	55.00
Bae Systems PLC	479.70	-3.80	Old Mutual PLC	167.30	-2.40
Barclays PLC	175.70	-0.15	Paddy Power Betfair PLC	8790	30.00
Barratt Developments PLC	584.50	4.00	Pearson PLC	812.00	-4.50
Berkeley Group Holdings (The) PLC	3241	38.00	Persimmon PLC	2084	-6.00
Bhp Billiton PLC	811.40	-6.50	Provident Financial PLC	2859	8.00
BP PLC	357.50	-4.00	Prudential PLC	1323.5	-10.50
British American Tobacco PLC	4116	-31.00	Randgold Resources LD	6080	50.00
British Land Company PLC	747.00	5.50	Reckitt Benckiser Group PLC	6789	-31.00
Bt Group PLC	439.85	-3.15	RELX PLC	1233	-
Bunzl PLC	2031	7.00	Rexam PLC	627.50	-0.50
Burberry Group PLC	1093	-2.00	Rio Tinto PLC	1944	-8.50
Capita PLC	1074	-3.00	Rolls-Royce Holdings PLC	635.00	-8.00
Carnival PLC	3551	17.00	Royal Bank Of Scotland Group PLC	234.10	2.30
Centrica PLC	203.00	1.50	Royal Dutch Shell PLC	1667	-22.00
Coca-Cola Hbc AG	1365	-1.00	Royal Dutch Shell PLC	1659	-21.00
Compass Group PLC	1276	-4.00	Royal Mail PLC	513.00	21.10
Crh PLC	2038	-5.00	Rsa Insurance Group PLC	479.40	-1.20
Dcc PLC	6615	130.00	Sabmiller PLC	4270	20.00
Diageo PLC	1835.5	-2.50	Sage Group PLC	592.50	2.00
Direct Line Insurance Group PLC	367.30	-0.70	Sainsbury (J) PLC	258.30	-2.30
Dixons Carphone PLC	439.10	-0.20	Schroders PLC	2581	6.00
Easyjet PLC	1498	28.00	Severn Trent PLC	2213	3.00
Experian PLC	1272	7.00	Shire PLC	4315	34.00
Fresnillo PLC	1077	-3.00	Sky PLC	946.00	3.00
Gkn PLC	272.30	-2.90	Smith & Nephew PLC	1158	7.00
Glaxosmithkline PLC	1438	2.00	Sse PLC	1520	-15.00
Glencore PLC	128.80	0.15	St. James's Place PLC	901.00	5.00
Hammerson PLC	572.50	5.00	Standard Chartered PLC	524.50	-1.70
Hargreaves Lansdown PLC	1285	22.00	Standard Life PLC	327.90	-3.60
HSBC Holdings PLC	427.25	-2.00	Taylor Wimpey PLC	204.50	-1.00
Imperial Brands PLC	3660	-39.50	Tesco PLC	160.10	-4.20
Informa PLC	663.00	-4.00	Travis Perkins PLC	1886	26.00
Inmarsat PLC	724.50	-30.50	Tui AG	1045	6.00
Intercontinental Hotels Group PLC	2584	23.00	Unilever PLC	3070.5	-10.50
International Consolidated Airlines Group S.A.	522.50	6.00	United Utilities Group PLC	956.00	1.00
Intertek Group PLC	3291	-1.00	Vodafone Group PLC	225.85	-3.25
Intu Properties PLC	288.50	2.10	Whitbread PLC	4263	-16.00
Itv PLC	212.00	-0.80	Wolseley PLC	4014	42.00
Johnson Matthey PLC	2871	-4.00	Worldpay Group PLC	264.30	0.20
Kingfisher PLC	360.50	-0.70	WPP PLC	1583	-
Land Securities Group PLC	1187	12.00			

FTSE GLOBAL EQUITY INDEX SERIES

May 23 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	-3.3	-1.4	587.45	-0.1	2.6
FTSE Developed All Cap	5668	442.21	0.8	-3.2	-1.1	610.32	0.1	2.6
FTSE Developed Large Cap	899	387.83	0.7	-3.5	-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	3.8
FTSE Developed Europe Mid Cap	305	501.31	1.2	-2.8	-2.2	730.43	-0.5	2.8
FTSE Dev Europe Small Cap	695	708.11	1.1	-1.7	-3.2	1000.61	-2.0	2.6
FTSE North America Large Cap	291	438.51	0.6	-2.5	0.5	582.76	1.4	2.3
FTSE North America Mid Cap	396	656.38	0.9	-1.9	2.5	815.57	3.2	1.9
FTSE North America Small Cap	1484	655.26	1.3	-2.0	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	216.34	0.9	-4.7	-4.6	343.05	-2.8	3.3
FTSE Japan Large Cap	176	304.11	-0.1	-3.1	-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	1.9
FTSE Global wi JAPAN Small Cap	780	518.11	0.4	-0.7	-1.6	653.15	-0.5	2.1
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 23 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	29.0	3.7
Industrials	536	304.05	0.6	0.6	1.6	427.41	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	394.35	-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	0.5	0.5	1.3	376.95	2.3	2.0
Consumer Goods	424	412.54	0.2	0.2	-1.0	593.61	0.2	2.6
Automobiles & Parts	104	332.86	0.6	0.6	-12.8	461.74	-11.4	3.2
Beverages	48	580.57	-0.1	-0.1	1.5	844.33	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	588.30	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	436.48	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	785.38	5.4	1.0
Pharmaceuticals & Biotechnology	114	320.41	1.0	1.0	-7.9	470.53	-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	-1.9	401.12	-1.0	1.9
General Retailers	122	521.46	0.6	0.6	-2.1	665.94	-1.4	1.6
Media	86	292.78	1.7	1.7	1.2	384.35	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

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UK STOCK MARKET TRADING DATA

	May 23	May 20	May 19	May 18	May 17	Yr Ago
SEAQ Bargains	4580.00	4256.00	4256.00	4132.00	3905.00	4517.00
Order Book Turnover (m)	71.88	89.16	89.16	257.13	171.59	108.81
Order Book Bargains	765189.00	762914.00	762914.00	939981.00	840872.00	823635.00
Order Book Shares Traded (m)	1401.00	1524.00	1524.00	1842.00	1796.00	1951.00
Total Equity Turnover (£m)	2721.67	2566.07	2566.07	2937.77	2636.56	2818.44
Total Mkt Bargains	836222.00	840611.00	840611.00	1033708.00	915274.00	911981.00
Total Shares Traded (m)	5074.00	5589.00	5589.00	5885.00	5829.00	6187.00

† 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.
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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	
Andes Energia	Pre	**66.815**	48.229	**12.447L**	7.907L	**0.027L**	0.021L	-	-	-	-	-
Cerillion	Int	**0.411**	-	**0.82L**	-	**6.2L**	-	**1.3**	-	Jun 23	**1.3**	-
DDD Group	Pre	**0.706**	2.533	**3.154L**	1.82L	**0.019L**	0.02L	-	-	-	-	-
Dods Group	Pre	**19.62**	18.301	**1.122**	4.971L	**0.32**	1.38L	-	-	-	-	-
Energiser Investments	Pre	**0.154**	0.148	**0.167L**	0.147L	**0.38L**	0.34L	-	-	-	-	-
F&C Capital & Income Investment Trust	Int			**11.301**	13.81	**5.36**	4.98	**2.35**	2.3	Jun 30	**5.533**	5.4
JPMorgan Chinese Investment Trust	Int			**9.223**	31.452	**1.56L**	1.04L	-	-	-	-	-
JPMorgan Japanese Investment Trust	Int			**66.167**	116.011	**1.55**	1.67	-	-	-	-	-
MITIE Group	Pre	**2231.9**	2273.8	**96.8**	41.5	**21.3**	9.7	**6.7**	6.5	Aug 4	**12.1**	11.7
PhotonStar LED Group	Pre	**6.901**	7.188	**3.025L**	1.572L	**1.9L**	1.1L	-	-	-	-	-
Sovereign Mines of Africa	Pre	-	-	**1.418L**	3.88L	**0.45L**	1.31L	-	-	-	-	-
Strategic Minerals	Pre	**1.252**	6.089	**0.88L**	6.056L	**0.001L**	0.009L	-	-	-	-	-
Sunrise Resources	Int	-	-	**0.15L**	0.152L	**0.02L**	0.03L	-	-	-	-	-
Tissue Regenix Group	Pre	**0.816**	0.1	**10.029L**	8.201L	**1.27L**	1.19L	-	-	-	-	-

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

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ♦	24.95	-0.14	33.86	21.86	11.13	10.47	52443.87
BHPBillitn	18.37	-0.48	29.89	14.06	12.29	22.04	42505.7
CmwBkAu	77.96	-0.16	88.88	69.79	7.61	14.98	96333.26
CSL	113.17	-0.70	115.06	85.40	1.44	27.53	37319.2
NatAusBk♦	27.14	-0.15	34.90	23.82	11.20	15.74	51721.96
Telstra	5.66	-	6.53	4.98	7.63	16.49	49853.17
Wesfarmers	42.72	-0.14	44.28	36.65	6.63	19.71	34659.67
Westpac♦	29.90	-0.38	35.15	27.69	9.57	11.79	71857.53
Woolworths	22.18	-0.08	29.22	20.50	8.87	-263.31	20434.05
Belgium (€)							
AnBshInBv	108.60	-0.70	124.20	87.73	3.16	24.99	195604.32
KBC Grp	50.00	-	66.00	44.15	4.10	13.89	23411.75
Brazil (R$)							
Ambev	18.40	-0.14	20.46	15.99	2.92	23.45	80937.07
Bradesco	26.16	0.05	32.00	16.27	4.03	8.09	20329.43
Cielo	31.41	-0.08	38.56	23.36	1.52	19.44	19901.67
ItauHldFin	26.30	-0.10	34.04	21.49	2.82	6.02	22427.28
Petrobras	11.08	-0.25	15.06	5.67	-	-3.78	23078.01
Vale	14.41	0.28	22.19	8.60	7.49	-2.27	12974.28
Canada (C$)							
BCE	60.34	0.34	60.61	51.56	4.47	18.63	39910.32
BkMontrl♦	82.69	0.44	82.85	64.01	3.79	12.95	40528.37
BkNvaS	63.10	0.37	68.99	51.17	4.18	11.68	57798.53
Brookfield	44.45	0.56	47.27	37.70	1.46	17.57	33411.84
CanadPcR	169.50	1.48	220.86	140.02	0.85	16.61	19760.2
CanImp	101.44	0.64	102.90	82.19	4.16	11.76	30489.14
CanNatRs	37.92	0.48	39.59	21.27	2.49	-82.63	31691.84
CanNatRy	76.46	1.08	83.81	66.62	1.76	16.43	45389.3
Enbridge♦	52.86	0.76	52.68	40.03	3.73	28.72	37403.69
GtWestLif	34.90	0.38	37.70	30.42	3.89	12.65	26395.22
ImpOil	41.02	0.32	50.89	37.25	0.89	56.73	26479.2
Manulife♦	18.79	0.39	24.20	15.32	3.79	15.15	28264.73
Potash	21.68	-0.11	40.96	20.03	9.30	14.04	13851.62
RylBkC♦	77.85	0.28	80.85	64.52	3.83	12.27	88235.69
Suncor En	34.50	0.20	40.35	27.32	3.42	-34.39	41566.87
ThmReut♦	54.13	1.11	55.92	47.25	3.29	26.64	31013.11
TntoDom	56.50	0.23	56.74	47.75	3.45	13.78	79696.39
TrnCan	53.47	0.63	54.74	40.58	4.07	-26.83	28602.16
ValeantPh	36.04	1.77	347.84	30.22	-	-32.75	9415.05
China (HK$)							
AgricBkCh	2.70	0.01	4.42	2.50	8.27	4.12	10685.74
Bk China	3.03	0.02	5.48	2.83	7.70	4.55	32621.89
BkofComm	4.55	0.04	8.61	4.24	7.28	4.18	20510.65
BOE Tech	2.15	-	4.78	1.55	0.91	37.24	55.07
Ch Coms Cons	8.43	0.04	14.80	5.77	2.46	7.20	4805.48
Ch Evrbrght	3.16	0.01	5.30	3.07	7.22	4.15	2794.55
Ch Rail Cons	9.11	0.02	15.96	6.72	2.02	7.75	2435.33
Ch Rail Gp	5.72	0.03	11.00	4.21	1.68	8.98	3098.53
ChConstBk	4.61	0.05	7.98	4.31	8.01	4.19	142697.3
China Vanke	17.52	-0.04	24.10	15.52	3.48	8.77	2966.16
ChinaCitic	4.45	-	7.02	4.00	-	4.18	8526.59
ChinaLife	16.50	-0.08	40.20	16.12	2.50	13.97	15807.96
ChinaMBank	15.20	0.04	26.85	12.72	5.41	5.38	8984.44
ChinaMob	84.85	0.45	108.50	79.00	3.26	13.64	223684.21
ChinaPetro	4.90	0.01	47.10	23.70	2.28	11.15	9147.49
ChMinsheng	7.17	0.11	11.60	6.13	3.15	4.64	6400.66
CNOOC	9.05	-0.02	12.72	7.45	6.85	9.68	51531.43
ChShenEgy	11.86	0.10	20.75	10.12	7.54	13.10	5189.57
ChUnicHK♦	8.44	-0.01	12.02	7.87	2.91	21.23	25829.97
CNNC Intl	6.68	0.03	14.38	4.07	-	26.25	3967.07
CSR	7.08	-0.01	16.99	6.61	2.05	13.65	3984.45
Daqin RR	8.06	0.01	15.15	6.31	7.69	8.42	14431.34
Gree Elec Apl	0.18	0.00	0.45	0.13	-	-3.69	317.32
Hunag Pwr	5.20	-0.01	11.18	5.13	8.92	5.05	3146.91
IndsrlBk RMB	15.94	-0.08	20.82	11.90	3.65	5.85	46352.05
Kweichow RMB	254.20	2.84	290.00	166.20	1.75	19.54	48737.86
Midea	1.69	-0.02	2.68	1.65	5.82	10.03	46.79
PetroChina	5.20	-0.04	9.82	4.16	3.71	51.21	14125.71
PingAnIns	33.15	-0.25	62.00	30.50	2.50	9.02	31786.85
SaicMtr RMB	19.77	-0.04	27.36	14.00	6.79	7.07	33269.1
ShenwanHong	0.17	0.00	0.40	0.12	-	-0.23	54.08
Sinopec Corp	5.10	-0.06	7.35	3.86	4.77	13.82	15752.89
Sinopec Oil RMB	3.96	0.01	14.23	3.86	-	-37.55	1077.85
Denmark (kr)							
DanskeBk	182.40	-0.60	218.00	168.30	4.48	13.27	27024.91
MollerMsk	8730	-95.00	13560	7355	-	-51.75	13994.09
NovoB	355.50	-3.60	415.00	305.10	1.84	25.88	107760.71

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Finland (€)							
Nokia	4.69	0.04	7.11	4.52	3.06	26.31	30325.5
SampoA	39.60	-0.12	47.67	36.76	5.04	13.68	24782.71
France (€)							
Airbus Grpe	54.54	0.13	68.50	49.96	2.25	18.22	47617.64
AirLiquide♦	94.15	-3.02	123.65	90.77	2.58	19.40	36312.69
AXA	21.09	-0.16	26.02	18.80	4.29	9.63	57339.58
BNP Parib	45.93	0.22	61.00	37.00	3.34	8.52	64112.97
ChristianDior	145.00	-2.05	195.35	140.80	2.10	17.83	29511.06
Cred Agr	8.79	-0.05	14.48	7.59	4.07	6.90	25994.23
Danone	60.31	-0.04	66.50	51.73	2.37	30.16	44301.54
EDF	11.58	0.03	23.31	9.13	9.88	6.66	24923.24
Engie SA	13.25	-0.05	18.91	12.96	7.18	-6.99	36137.9
EssilrIntl♦	114.55	-	125.15	95.01	0.85	34.43	27771.92
Hermes Intl	316.20	-2.70	365.55	281.20	0.89	35.90	37384.98
LOreal	160.10	-0.55	178.95	140.40	1.81	28.80	100944.82
LVMH	142.40	-1.80	176.60	130.75	2.21	21.14	80874.17
Nmrcble-SFR	27.95	-0.25	56.85	25.57	-	-36.12	13718.17
Orange	15.03	-0.18	16.98	12.21	3.80	21.06	44588.13
PernodRic	94.50	-0.32	114.90	88.00	1.81	27.54	28090.87
Renault	78.98	-0.91	100.25	59.59	2.29	8.06	26157.63
Safran♦	59.87	-0.11	72.45	48.87	1.97	-61.95	27962.33
Sanofi	70.20	-0.98	101.10	66.44	3.86	22.08	101171.55
Sant Gbn	38.64	-0.14	44.84	31.47	1.53	61.51	24274.67
Schneider	56.19	-0.06	71.35	45.32	3.25	24.00	37048.93
SocGen	34.79	0.11	48.77	26.61	3.53	7.47	31414.67
Total	42.39	-0.62	48.45	35.21	5.78	27.33	117677.77
UnibailR	234.75	-0.95	257.85	212.05	3.89	10.60	26005.06
Vinci	65.25	0.34	66.82	50.08	2.57	19.02	43856.19
Vivendi	17.17	-0.15	24.83	16.30	17.89	14.69	26317.87
Germany (€)							
Allianz	137.70	-0.05	170.00	126.55	4.73	9.94	70476.99
BASF	67.23	-0.06	88.82	56.01	4.26	14.40	69155.93
Bayer	84.42	-5.12	138.50	84.13	2.73	16.20	78184.49
BMW	70.82	-0.88	106.55	66.00	4.19	7.00	47747
Continental	183.30	-	231.90	171.30	1.82	12.76	41058.46
Daimler	56.92	-0.91	91.00	56.45	5.85	7.61	68199.29
Deut Bank	15.16	0.03	32.31	13.03	5.07	-2.80	23417.84
Deut Tlkm	15.85	-0.06	17.57	13.39	3.23	12.65	81747.57
DeutsPost	25.95	0.08	29.29	19.55	-	18.99	35239
E.ON	8.31	-0.01	14.33	7.08	1.72	-2.29	18622.81
Fresenius Med	75.00	0.25	83.17	63.10	1.02	24.31	25729.15
Fresenius SE	64.97	-0.02	70.00	52.39	0.69	24.83	39709.59
HenkelKGaA	90.21	-1.27	95.37	75.76	1.46	19.36	26247.27
Linde	127.50	-0.10	182.55	113.50	2.53	20.06	26521.43
MuenchRkv	160.50	0.75	193.65	154.65	4.60	9.00	29990.43
SAP	69.75	0.31	75.75	53.91	1.61	25.33	95966.14
Siemens	93.48	-0.52	100.90	77.91	3.36	15.59	88988.68
Volkswgn	133.75	-1.75	232.85	95.00	3.42	-44.53	44202.33
Hong Kong (HK$)							
AIA♦	43.20	0.05	53.60	36.85	1.17	25.83	67019.4
BOC Hold	22.90	0.45	33.70	18.82	4.81	10.27	31172.68
Ch OSLnd&Inv	-	-	30.35	20.45	2.40	6.34	28565.02
ChngKng♦	45.25	-0.60	77.55	38.20	0.76	10.38	22407.52
Citic Ltd	10.94	0.04	15.80	10.02	2.70	6.89	40974.51
Citic Secs	15.72	0.08	35.65	17.82	2.20	8.70	5906.58
CK Hutchison♦	88.15	-1.05	174.90	87.95	4.15	7.57	43804.93
CNOOC	9.05	-0.02	13.06	6.41	5.99	17.02	52022.77
HangSeng♦	133.40	-1.30	162.10	121.10	4.14	9.43	32836.55
HK Exc&Clr♦	177.40	-0.70	311.40	160.10	2.90	27.17	27603.41
MTR♦	35.65	-0.25	39.25	33.10	2.88	16.43	27129.3
SandsCh	27.30	-0.25	37.55	20.75	7.16	19.81	28364.26
SHK Props	86.95	-0.85	137.60	79.00	2.71	8.47	32409.69
Tencent♦	159.10	0.60	167.20	123.00	0.27	39.86	192702.63
India (Rs)							
Bharti Airtel	345.85	3.90	452.45	282.30	0.64	25.37	20492.11
HDFC Bk	1136.75	-4.15	1169.25	928.00	0.70	25.16	42616.28
Hind Unilevr	819.60	7.20	944.00	766.40	1.73	38.71	26288.63
HsngDevFin	1160.25	-19.30	1372.4	1011.45	1.29	19.72	27175.59
ICICI Bk	221.10	1.00	321.00	180.75	2.26	10.05	19059.93
Infosys	1188	-13.60	2004	932.05	3.52	19.49	40447.2
ITC	346.85	16.50	359.80	268.00	1.92	27.52	41372.14
L&T	1241.2	-13.90	1888	1016.05	1.21	23.03	17143.61
OilNatGas	208.15	-4.95	337.20	187.75	4.67	9.25	26396.25
RelianceIn	946.10	-4.20	1089.75	818.00	1.08	10.28	44680.89
SBI NewA	168.40	-2.95	305.00	148.25	2.08	8.18	19376.75
SunPhrmInds	784.55	-6.80	1010	704.00	0.38	48.50	27987.42
Tata Cons	2491.45	-37.85	2770	2115	1.61	22.70	72766.96
Indonesia (Rp)							
Bk Cent Asia	13100	75.00	14500	11000	1.13	18.54	23779.26
Israel (ILS)							
TevaPha	199.60	0.60	275.90	189.40	2.65	26.35	52756.1
Italy (€)							
Enel	3.95	-0.04	4.50	3.33	3.63	16.09	45020.8
ENI♦	12.95	-0.05	16.99	10.93	7.59	-5.02	52707.68
Generali	12.14	0.11	18.26	10.90	5.06	9.59	21208.41
IntSPaolo♦	2.17	0.00	3.65	2.12	3.07	14.01	38578.74
Luxottica♦	49.26	0.24	67.80	46.58	1.39	31.03	26687.27
Unicred	2.91	-0.09	6.61	2.76	3.92	9.48	20161.43

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Japan (¥)							
AstellasPh	1481	-6.50	2009	1358	1.93	19.44	30065.51
Bridgestne	3679	29.00	5182	3561	3.46	10.91	27332.48
Canon	3115	1.00	4374	2977.5	4.72	16.20	37961.28
CntJpRwy	19110	-160.00	22960	18255	0.56	13.87	35869.3
Denso	4149	-8.00	6548	3879	2.65	14.13	33514.56
EastJpRwy	9770	-98.00	12815	9162	1.14	18.44	35037.92
Fanuc	16000	-70.00	28200	15300	4.32	18.91	30107.14
FastRetail	27965	-810.00	61970	26320	1.30	54.15	27103.57
Fuji Hvy Ind	3872	-24.00	5223	3275	2.51	8.27	27696.62
Hitachi	494.70	-5.30	856.80	431.00	2.17	9.85	21847.64
HondaMtr	2954	6.00	4499	2726	2.66	11.47	48891.78
JapanTob	4370	-27.00	4850	3551	2.65	18.21	79857.46
KDDI	3161	15.00	3446	2519	1.69	18.63	75685.35
Keyence	67920	-840.00	70100	50500	0.26	38.26	37732.8
MitsbCp	1881.5	3.50	2837	1565	2.61	10.42	27335.46
MitsubEst	2118.5	-7.00	2968	1962.5	0.63	59.68	26913.57
MitsubishiHe	1287.5	-8.50	1718	947.00	1.87	12.80	25259.46
MitsuiFud	2672	-35.50	3879	2260.5	0.94	23.72	24204.73
MitUFJFin	535.70	2.60	936.80	431.90	3.00	5.79	69352.29
Mizuho Fin	170.00	-0.80	280.40	149.30	4.07	6.52	38887.08
Murata Mfg	12510	-115.00	22220	11610	1.43	13.95	25748.53
NipponTT	4775	-25.00	5419	4005	1.78	16.82	91464.06
Nissan Mt	1050.5	5.00	1350	922.00	3.19	8.63	43142.21
Nomura	472.10	7.90	909.20	435.10	4.35	8.40	16488.93
Nppn Stl	2231.5	5.50	3505	1773.5	2.60	10.72	19376.33
NTTDCMo	2684.5	8.00	2888	1961	2.33	22.46	97096.33
Panasonic	963.00	-2.70	1853.5	799.00	1.85	12.53	21584.27
Seven & I♦	4642	-85.00	5998	4168	1.38	28.12	37597.55
ShinEtsuCh	6257	-83.00	7790	5160	1.50	20.59	24703.66
Softbank	6131	26.00	7800	4133	0.58	14.79	67259.79
Sony	2903.5	-13.50	3947.5	2199	0.69	39.25	33493.71
SumitomoF	3452	22.00	5770	2819.5	4.01	9.48	44600.67
Takeda Ph	4731	41.00	6609	4682	3.40	-37.16	34161.76
TokioMarine	3738	-18.00	5504	3310	2.57	14.75	25872.59
Toyota	5506	-56.00	8700	5256	3.65	8.36	167929.21
Mexico (Mex$)							
AmerMvl	11.52	-	16.94	10.87	2.45	22.32	26238.49
FEMSA UBD	162.03	0.68	176.84	133.52	1.47	34.22	31427.38
WalMrtMex	42.70	-0.15	47.44	35.50	1.42	25.98	40417.36
Netherlands (€)							
Altice	14.91	0.21	47.73	9.98	-	-49.65	13712.9
ASML Hld	85.34	0.16	104.85	70.25	0.84	30.39	41416.27
Heineken	81.43	-0.61	86.95	64.54	1.38	25.91	52529.84
ING	10.47	-0.02	16.00	9.19	3.27	7.97	45463.53
Unilever♦	38.81	-0.19	42.94	32.86	2.92	23.70	74521.23
Norway (Kr)							
DNB	100.50	0.10	139.60	90.10	3.50	7.22	19582.3
Statoil♦	134.20	-0.10	152.40	97.25	5.47	55.36	51190.48
Telenor	138.80	-1.20	186.10	116.80	2.78	53.87	24930.6
Qatar (QR)							
QatarNtlBk	134.10	-2.00	165.58	122.50	2.63	9.74	30930.37
Russia (RUB)							
Gzprm neft	145.00	-1.70	170.43	122.75	4.47	4.70	51194.92
Lukoil	2662.5	-49.50	2902	2040.1	5.38	7.34	33774.84
MmcNrlsNckl	9044	-76.00	11284	7840	18.04	11.33	21344.64
Novatek	650.00	-4.20	654.90	492.60	9.09	15.25	29488.04
Rosneft	315.70	-8.95	356.95	214.80	2.34	10.46	49900.25
Sberbank	121.56	-0.34	125.78	66.50	0.36	13.42	39136.27
Surgutneftegas	33.39	-0.27	41.16	30.31	-	2.14	17788.33
Saudi Arabia (SR)							
AlRajhiBnk	59.37	0.01	69.00	44.70	2.55	12.54	25724.6
Natnlcombnk	42.70	-0.10	71.25	36.60	3.66	9.26	22771.2
SaudiBasic	84.24	1.09	109.75	59.50	6.94	13.71	67385.7
SaudiTelec	64.25	0.11	73.25	52.75	6.28	13.94	34263.46
Singapore (S$)							
DBS♦	15.21	0.08	21.50	13.01	4.07	8.49	27625.26
JardnMt US$	53.48	-0.19	62.72	45.00	2.66	11.34	38034.75
JardnStr US$	28.45	-	34.33	25.24	0.95	8.91	31657.1
OCBC♦	8.48	0.03	10.48	7.41	4.38	9.05	25297.47
SingTel	3.87	0.03	4.44	3.38	4.31	16.75	44732.34
UOB	18.04	0.10	24.09	16.80	4.86	9.17	21021.93
South Africa (R)							
Firstrand	42.10	0.10	57.80	34.08	4.98	10.57	14973.91
MTN Grp	127.47	-0.92	237.32	109.56	11.67	6.40	14915.92
Naspers N	2123.96	12.05	2270	1521.98	0.24	61.29	58975.41
South Korea (KRW)							
HyundMobis	245000	1500	272000	185500	1.49	12.53	20160.82
KoreaElePwr	59900	-200.00	63700	40800	5.12	2.92	32506.57
SK Hynix	27200	900.00	51700	25650	1.91	5.88	16233.35
SmsungEl	1286000	17000	1393000	1033000	1.52	9.89	155423.79
Spain (€)							
BBVA	5.55	-0.08	9.48	5.24	6.83	20.85	40279.96
BcoSantdr	4.07	-0.07	6.89	3.31	7.54	10.20	65827.35
CaixaBnk	2.43	-0.02	4.50	2.33	5.68	15.86	16064.69
Iberdrola	6.00	-0.08	6.71	5.66	2.68	15.06	42951.29
Inditex	28.69	-0.11	35.38	26.00	1.38	31.54	100141.96
Repsol	11.20	-0.10	18.26	7.95	8.68	10.06	18084.86
Telefonica	9.09	-0.10	14.31	8.48	8.39	-233.15	50632.35

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Sweden (SKr)							
AtlasCpcoB	195.10	-0.40	234.30	162.60	3.19	20.11	9111.02
Ericsson	63.85	0.25	97.60	60.70	5.52	14.25	23254.49
H & M	254.20	-3.40	362.00	254.10	3.87	21.01	44435.47
Investor	279.60	0.80	343.70	256.80	3.34	-7.82	15240.95
Nordea Bk	77.35	-0.95	114.60	72.40	7.93	9.73	37489.68
SEB	75.95	-0.35	111.10	72.75	5.95	9.96	19723.81
SvnskaHn	102.90	-0.80	137.10	95.85	4.54	11.97	23050.25
Swedbank	174.00	-0.40	208.00	150.80	6.21	12.97	23572.16
Telia Co	38.61	-0.13	52.95	36.61	8.06	18.70	20007.72
Volvo	91.33	0.38	116.00	72.20	3.41	12.28	17737.53
Switzerland (SFr)							
ABB	20.43	0.16	22.16	15.94	-	24.20	47673.99
CredSuisse	13.70	0.15	28.94	12.23	5.23	-5.45	27033.72
Nestle	73.00	0.20	76.95	65.70	2.93	25.97	234642.07
Novartis	77.00	1.35	103.20	67.00	3.51	27.49	203929.47
Richemont	56.90	-2.05	87.10	56.60	2.72	18.94	29942.84
Roche	247.90	0.80	283.90	229.90	3.14	24.79	175578.7
Swiss Re	86.15	-0.35	99.75	76.85	5.23	7.87	32195.58
Swisscom	463.00	-9.50	572.00	452.70	4.95	16.74	24178.94
Syngent	394.70	-1.30	435.20	288.50	2.88	27.92	36983.36
UBS	14.77	0.04	22.57	14.01	5.29	10.95	57328.24
Zurich Fin	237.10	-1.40	310.60	194.70	-	23.72	35969.52
Taiwan (NT$)							
Chunghwa Telecom	110.00	-	112.00	93.10	4.51	19.35	26131.35
Formosa PetChem	89.80	3.00	94.50	63.90	0.97	14.80	26196.01
HonHaiPrc	77.40	-3.40	99.70	72.50	4.77	8.31	37066.34
MediaTek	210.00	8.00	439.50	192.00	10.70	13.95	10106.65
TaiwanSem	154.00	5.50	163.00	112.50	2.98	13.55	122286.9
Thailand (THB)							
PTT Explor	299.00	-4.00	370.00	197.00	3.41	39.81	23939.28
United Arab Emirates (Dhs)							
Emiratestele	17.15	-0.45	19.10	11.35	4.31	17.82	40608.01
United Kingdom (p)							
AscBrFd	2900	-20.00	3606	2850	1.17	40.64	33204.93
AstraZen	3900.5	6.00	4634	3746	4.82	24.28	71336.76
Aviva	432.90	-3.70	546.00	400.10	4.39	19.41	25351.56
Barclays	175.70	-0.15	289.90	143.95	3.70	-86.04	42948.4
BP♦	357.50	-4.00	461.65	249.44	7.82	-8.77	96408.32
BrAmTob	4116	-31.00	4357.13	3231.5	3.64	17.87	110977.21
BSkyB	946.00	3.00	1180	917.97	3.47	25.90	23519.34
BT	439.85	-3.15	502.60	404.00	2.93	14.81	63200.87
Compass	1276	-4.00	1298	963.00	2.33	23.26	30325.45
Diageo	1835.5	-2.50	1964.38	1592.5	3.07	18.68	66811.14
GlaxoSmh♦	1438	2.00	1532.1	1227.5	5.56	114.46	101300.52
Glencore	128.80	0.15	297.50	66.67	9.48	-5.09	26814.96
HSBC♦	427.25	-2.00	623.03	421.85	8.23	10.51	122416.67
Imperial Brands	3660	-39.50	3898	2926	3.85	31.02	50748.92
LlydsBkg	70.22	-0.12	89.35	55.84	3.20	-1.19	72486.45
Natl Grid	986.20	-0.40	1015.5	806.40	4.35	17.19	53441.76
Prudential	1323.5	-10.50	1665.19	1045.99	2.87	13.12	49247.23
RBS	234.10	2.30	370.00	204.30	-	-6.23	39609.66
ReckittB♦	6789	-31.00	7069.82	5403	1.90	28.18	69232.98
RELX	1233	-	1323	989.50	2.14	26.02	36974.08
RioTinto	1944	-8.50	2959.5	1557	7.90	-60.37	38643.66
RollsRoyce	635.00	-8.00	1025	497.00	2.22	141.74	16886.66
RylDShlA♦	1659	-21.00	2000.5	1256	7.84	-77.71	102583.27
SABMill	4270	20.00	4590.8	2773	1.74	35.37	100137.8
Shire	4315	34.00	5870	3423	0.42	27.58	37023.81
StandCh	524.50	-1.70	1102.75	373.40	8.56	-9.05	24891.98
Tesco	160.10	-4.20	227.35	137.00	-	58.01	18927.35
Vodafone	225.85	-3.25	258.00	197.70	4.97	-42.29	86758.67
WPP	1583	-	1690	1273	2.68	17.91	29585.21
United States of America ($)							
21stC Fox A	28.44	0.30	34.83	22.66	1.06	24.28	31156.97
3M♦	165.77	0.76	171.27	134.00	2.54	21.15	100541.91
AbbottLb	37.34	-0.26	51.74	36.00	2.64	26.06	54858.14
Abbvie	59.46	-0.23	71.60	45.45	3.55	17.71	96168.14
Accenture	116.32	-0.15	117.59	88.43	1.89	20.52	84558.03
Adobe	96.65	-0.23	98.00	71.27	-	59.06	48345.25
AEP♦	63.35	-0.45	67.19	52.29	3.46	18.78	31124.7
Aetna	110.52	-0.12	134.40	92.42	0.88	16.56	38748.31
Aflac♦	68.35	-0.38	69.69	51.41	2.36	11.19	28296.01
AirProd	141.80	0.36	152.16	114.64	2.33	21.65	30640.31
Alexion	132.31	-0.21	208.88	124.16	-	216.33	31880.31
Allergan	225.15	-4.34	340.34	195.50	-	-36.05	89059.64
Allstate	66.82	-0.33	69.48	54.12	1.85	16.23	25015.22
Alphabet	717.70	-4.02	810.35	538.85	-	30.03	210769.19
Altria	63.15	0.19	65.53	47.31	3.53	22.64	123548.23
Amazon	699.17	-3.63	722.45	419.14	-	296.63	329887.95
AmerAir	31.94	-0.07	47.09	30.99	1.26	2.84	18466.81
AmerExpr	63.59	-0.33	81.92	50.27	1.84	12.63	60476.19
AmerIntGrp	56.75	-0.22	64.93	50.20	1.78	-172.86	63565.03
AmerTower	104.15	0.14	107.24	83.07	1.75	67.08	44224.67
Amgen♦	149.45	-0.73	181.81	130.09	2.27	15.71	112272.77
Anadarko	48.84	-0.46	86.55	28.16	1.77	-5.54	24929.24
Anthem	133.98	-1.76	173.59	115.63	1.90	14.97	35229.13
Aon Cp	105.20	-0.19	106.78	83.83	1.15	21.37	27869.77
Apple	96.58	1.36	132.97	89.47	2.17	10.72	529009.71
ArcherDan♦	40.67	0.84	53.31	29.86	2.82	15.56	23896.96

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
AT&T	38.32	-0.13	39.72	30.97	4.99	16.15	235890.53
AutomData	85.30	-0.17	91.00	64.29	2.41	26.70	38857.12
Avago Tech	149.08	2.35	159.65	100.00	1.12	29.01	58207.98
BakerHu	45.15	-0.18	66.07	37.58	1.52	-8.35	19771.8
BankAm	14.49	-0.04	18.48	10.99	1.39	11.56	148788.7
Baxter	42.76	-0.16	46.95	32.18	2.04	6.41	23614.75
BB & T♦	34.82	-0.26	41.90	29.95	3.12	13.53	27240.87
BectonDick	164.70	-0.30	169.08	128.87	1.54	43.77	34949.67
BerkshHat	211810	-1023.00	221985	186900	-	14.11	170858.23
Biogen	265.39	1.73	420.99	242.07	-	16.21	58132.98
BkNYMelln	40.83	-0.24	45.45	32.20	1.68	14.67	43977.28
BlackRock	355.39	1.38	371.17	275.00	2.50	18.71	58058.91
Boeing♦	127.77	-0.38	150.59	102.10	3.01	17.15	81390.91
BrisMySq	69.86	-0.91	73.06	51.82	2.16	74.10	116617.81
CapOne♦	70.49	-0.44	92.10	58.49	2.28	10.20	36097.89
CardinalHlth	77.20	-0.21	91.23	74.73	2.02	18.32	25152.94
Carnival	49.98	-0.05	55.77	40.52	2.39	20.21	28095.66
Caterpillar	70.31	0.44	89.62	56.36	4.31	36.86	41053.42
CBS	52.84	0.10	62.97	38.51	1.14	16.95	21945.15
Celgene	101.22	-0.24	140.72	92.98	-	48.89	78405.16
CharlesSch♦	29.20	-0.24	35.72	21.51	0.83	26.32	38593.38
ChevronTx♦	99.55	-0.24	106.27	69.58	4.33	143.11	187622.12
Chubb	125.37	-0.38	126.63	96.00	2.15	17.23	58231.67
Cigna	125.84	-5.44	170.68	123.54	0.03	15.37	32279.61
Cisco	28.13	0.16	29.77	22.46	3.04	13.67	141554.07
Citigroup♦	44.91	0.01	60.95	34.52	0.45	8.89	131807.67
CME Grp	96.51	0.06	100.87	81.87	2.19	25.25	32682.13
Coca-Cola	44.05	0.10	47.13	36.56	3.06	26.44	190569.05
Cognizant	61.96	-0.98	69.80	51.22	-	22.43	37639.68
ColgtPlm	70.09	0.07	72.72	50.84	2.18	45.88	62587.14
Comcast	62.38	0.62	64.99	50.01	1.65	18.77	150807.23
ConocPhil♦	43.32	0.01	65.75	31.05	5.71	-8.62	53646.93
Corning	19.72	0.21	22.05	15.42	2.53	53.42	21205.87
Costco	142.69	-	169.73	117.03	1.16	26.33	62645.91
CrownCstl	90.46	0.54	91.18	75.71	3.79	72.20	30535.65
CSX	25.67	-0.15	35.87	21.33	2.82	13.25	24537.11
CVS	98.93	-0.54	113.65	81.37	1.50	21.31	106247.64
Danaher	98.49	-0.26	99.40	81.25	0.58	24.59	67829.61
Deere	78.03	0.29	98.23	70.16	3.14	13.93	24604.87
Delphi♦	66.49	-0.27	90.57	55.59	1.57	15.46	18150.24
Delta♦	43.21	0.11	52.77	34.61	1.15	7.20	33340.5
Devon Energy	34.06	-0.19	67.96	18.07	2.84	-1.03	17847.96
DiscFinServ	54.76	-0.17	60.05	42.86	2.06	10.48	22573.46
Disney	99.71	-0.07	122.08	86.25	1.38	18.25	161775.19
DominRes	70.67	-0.31	76.59	64.54	3.76	22.17	43548.15
DowChem	52.28	0.92	57.10	35.11	3.39	10.26	58701.44
DukeEner♦	76.66	-0.34	81.39	65.50	4.29	19.35	52811.36
DuPont♦	66.69	0.94	75.72	47.11	2.46	28.32	58254.6
Eaton	59.74	-0.06	73.62	46.19	3.74	14.39	27360.92
eBay	23.54	-0.11	29.83	21.52	-	14.24	27045.21
Ecolab	116.79	0.07	122.48	98.52	1.17	34.86	34255.12
EMC	27.80	-0.01	28.77	22.66	1.67	26.91	54298.87
Emerson♦	50.56	-0.09	62.75	41.25	3.76	17.08	32527.83
EOG Res	80.78	-0.14	91.83	57.15	0.83	-9.08	44451.34
EquityResTP	67.25	-0.22	82.39	61.90	3.23	5.96	24580.02
Exelon♦	34.04	-0.23	35.95	25.09	3.67	17.55	30204.17
ExpScripts	73.61	0.74	94.61	65.55	-	19.25	46560.97
ExxonMb♦	89.05	-0.69	90.40	66.55	3.30	28.46	369255.74
Facebook	116.19	-1.16	121.08	72.00	-	70.94	268615.61
Fedex	161.33	-0.30	185.19	119.71	0.61	43.97	43304.81
FordMtr♦	13.12	-0.07	15.84	10.44	4.60	6.19	51194.02
Franklin	35.64	0.08	51.94	31.00	1.86	12.83	20844.03
GenDyn	142.87	-1.75	153.76	121.61	2.48	15.30	43667.32
GenElectric	29.49	-0.07	32.05	19.37	3.14	45.45	271178.92
GenMills	62.75	0.30	65.49	47.43	2.91	24.62	37298.7
GenMotors	30.37	-0.20	36.88	24.62	4.84	4.55	46764.5
GileadSci	83.31	0.67	123.37	81.28	2.68	7.07	110594.05
GoldmSchs	153.92	-0.60	218.77	139.05	1.70	17.30	63935.37
Halliburton	41.02	0.11	46.69	27.64	1.77	-14.30	35242.75
HCA Hold	76.15	-0.97	95.49	43.91	-	14.26	29778.75
Hew-Pack	11.70	0.04	16.16	8.91	5.54	4.70	20201.89
HiltonWwde♦	20.64	0.10	29.71	16.16	1.02	12.98	20428.81
HomeDep	131.91	0.06	137.82	92.17	1.82	23.68	165087.97
Honywell♦	112.81	-0.41	116.56	87.00	1.98	18.19	85974.25
HumanaInc	170.37	0.77	219.79	155.24	0.69	23.62	25391.37
IBM♦	147.03	-0.23	174.14	116.90	3.56	11.00	141130.98
IllinoisTool	103.16	0.02	106.19	78.79	2.08	19.67	37638.29
Illumina	140.09	-0.42	242.37	127.10	-	50.04	20621.25
IntcntlExch	264.05	1.06	268.89	220.28	1.18	22.53	31433.94
Intel♦	30.33	0.18	35.59	24.87	3.25	12.83	143055.2
Intuit	104.50	1.47	109.21	79.63	1.07	51.43	26837.82
John&John♦	112.10	-0.54	115.00	81.79	2.69	20.32	308347.22
JohnsonCn	42.79	-0.14	54.52	33.62	2.59	65.20	27744.41
JPMrgnCh	63.29	-0.22	70.61	52.07	2.80	10.66	231429.94
Kimb-Clark	125.55	-0.11	138.76	103.04	2.84	41.93	45358.1
KinderM	17.54	-0.21	42.88	11.20	9.21	521.91	39141.49
Kraft Heinz	82.78	0.36	86.66	61.42	2.77	153.36	100656.77
Kroger♦	34.79	0.17	42.75	27.32	1.16	16.40	33180.23
L Brands	63.23	-0.32	101.11	60.00	3.24	14.20	18145.82
LasVegasSd	45.24	0.25	57.77	34.88	5.94	20.18	35953.08
LibertyGbl	36.08	-0.31	58.66	30.65	-	-32.66	9136.66
Lilly (E)♦	74.00	-0.81	92.85	67.88	2.73	33.76	81683.94

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Lockheed	239.68	-0.39	245.37	181.91	2.64	21.08	72971.3
Lowes	79.13	-0.69	80.33	62.62	1.38	28.45	71014.32
LyondellB♦	80.56	0.12	106.50	69.10	3.90	8.38	34377.14
Marathon Pt♦	36.04	-0.59	60.38	29.24	3.38	9.81	19095.25
Marsh&M	64.37	0.17	64.86	50.81	2.38	21.30	33549.17
MasterCard	95.23	-0.24	101.76	74.61	0.74	28.46	102887.93
McDonald's	123.65	1.09	131.96	87.50	2.83	23.65	108547.08
McKesson	178.98	-3.31	241.74	148.29	0.61	18.08	40273.61
Medtronic	80.46	-0.06	82.00	55.54	1.83	46.43	112727.94
Merck	54.90	-0.21	61.70	45.69	3.34	33.39	151964.59
Metlife♦	44.24	-0.37	58.23	35.00	3.41	9.45	48605.01
Microsoft♦	50.22	-0.40	56.85	39.72	2.68	38.40	394752.65
Mnstr Bvrg	148.43	-0.53	160.50	113.08	-	41.96	30137.62
MondelezInt	43.15	-0.21	48.58	35.88	1.54	9.25	66971.42
Monsanto	106.80	5.28	121.09	81.22	2.00	33.14	46655.48
MorganStly	26.64	-0.13	41.04	21.16	2.27	11.61	51602.33
MylanNV	41.22	-0.29	74.66	37.59	-	26.15	20953.89
Netflix	94.78	2.29	133.27	79.95	-	325.50	40594.12
NextEraE	118.81	-0.52	121.51	93.74	2.69	19.73	54824.39
Nike	56.51	0.03	68.20	47.25	1.10	25.24	75241.37
NorfolkS♦	85.17	-0.27	98.75	64.51	2.79	15.57	25187.99
Northrop	212.48	-0.24	218.84	152.13	1.52	19.18	38342.36
NXP	89.70	1.31	114.00	61.61	-	20.01	31036.46
Occid Pet	74.74	-0.22	79.86	58.22	4.04	-6.84	57082.04
Oracle	39.29	-0.12	45.24	33.13	1.58	18.67	163048.2
Pepsico	100.61	0.51	106.94	76.48	2.81	28.55	145322.8
Perrigo	93.50	-0.29	199.74	84.85	0.49	96.99	13390.6
Pfizer♦	33.79	0.05	36.46	28.25	3.39	27.58	204931.26
PhilipsE66♦	78.05	0.15	94.32	69.78	2.69	11.61	41021.63
PhilMorris	97.87	-0.17	102.55	76.54	4.17	22.88	151822.24
PNCFin	87.64	-0.55	100.52	77.67	2.34	11.86	43760.73
PPG Inds♦	106.55	0.34	118.89	82.93	1.36	19.98	28349.03
Praxair	110.56	0.48	124.17	95.60	2.63	21.27	31538.89
Priceline	1239.29	-10.00	1476.52	954.02	-	24.24	61517.59
ProctGmbl	80.21	0.19	83.87	65.02	3.33	25.95	213507.14
Prudntl♦	76.91	-0.76	92.60	57.19	3.35	7.08	33994.22
PubStor	252.55	0.17	277.60	182.08	2.71	40.28	43787.63
Qualcomm	54.41	0.12	71.32	42.24	3.55	17.12	79916.33
Raytheon	128.87	-0.47	132.43	95.32	2.14	20.02	38271.81
Regen Pharm	391.80	5.80	605.93	348.96	-	61.78	40420.24
ReynoldsAm	49.83	0.22	52.54	35.39	2.98	10.47	71124.41
S&P Global	108.08	0.01	109.27	78.55	1.26	25.50	28597.97
Salesforce	81.66	0.64	82.90	52.60	-	4326.54	55400.93
Schlmbrg	74.41	-0.55	92.67	59.60	2.70	58.70	93186.19
Sempra Energy	103.13	-0.50	108.44	86.72	2.78	20.90	25730.6
Shrwin-Will♦	292.69	3.08	309.00	218.27	0.98	25.56	27071.93
SimonProp♦	195.54	0.41	214.80	170.99	3.22	34.07	60501.8
SouthCp♦	49.59	-0.11	52.22	41.55	4.40	20.53	25.72
Starbucks	54.57	-0.05	64.00	42.05	1.33	32.06	79939.59
StateSt	61.21	-0.22	81.26	50.73	2.24	13.90	24235.51
Stryker	110.24	-0.01	113.85	86.68	1.32	25.70	41277.68
Sychrony Fin	29.84	-0.04	36.40	23.74	-	11.04	24884.18
Target♦	68.60	-0.06	85.81	65.50	3.21	12.82	40883.4
TE Connect	57.69	-0.14	70.75	51.70	2.30	18.82	20630.88
Telsa Mtrs	218.95	-1.34	286.65	141.05	-	-27.79	29326.51
TexasInstr	58.88	0.35	60.60	43.49	2.46	20.44	59128.88
TheTravelers	111.44	-0.45	118.28	95.21	2.20	10.40	32584.43
ThrmoFshr	148.65	-0.20	151.22	117.10	0.41	29.67	58495.59
TimeWrnr	72.26	-0.54	91.34	55.53	2.02	14.56	56824.85
TimeWrnrC	209.56	-0.44	217.91	155.17	1.44	31.96	59662.01
TJX Cos♦	74.95	-0.49	79.20	63.53	1.10	22.05	49642.84
T-MobileUS	41.71	0.01	43.43	33.23	-	28.38	34289.25
UnionPac	81.81	-0.60	105.65	67.06	2.71	15.21	68805.02
UPS B♦	100.09	-0.50	107.32	87.30	2.96	18.29	69797.72
USBancorp	41.62	-0.12	46.26	37.07	2.47	13.07	71848.58
UtdHlthcre	130.90	-0.04	135.11	95.00	1.54	20.92	124460.26
UtdTech♦	98.62	-0.48	119.66	83.39	2.61	12.18	82531.69
ValeroEngy♦	55.18	-0.95	73.88	51.68	3.46	7.61	25923.71
Verizon	49.40	-0.26	54.49	38.06	4.57	11.16	201368.53
VertexPharm	84.32	-0.38	143.45	75.90	-	-50.86	20656.54
VF Cp	61.66	0.22	77.40	52.21	2.25	21.94	25713.34
Viacom	40.17	1.12	69.17	30.11	4.01	7.16	13917.15
Visa Inc♦	77.23	-0.45	81.73	60.00	0.68	27.20	147097.49
Walgreen♦	76.97	-0.25	97.30	71.50	1.91	24.18	84301.06
WalMartSto	69.78	-0.08	76.42	56.30	2.86	14.98	219411.7
WellsFargo♦	48.63	-0.23	58.77	44.50	3.11	11.85	246338.86
Williams Cos	21.79	-0.36	61.38	10.22	11.59	-23.00	16353.99
Yahoo	36.79	0.29	44.00	26.15	-	-7.69	34916.23
Yum!Brnds	79.97	0.37	94.62	64.58	2.19	26.27	32583.04
Venezuela (VEF)							
Bco de Vnzla	115.00	-	143.95	64.00	-	-	1022.66
Bco Provncl	3850	-	4400	1750	-	0.75	932.43
Mrcntl Srvcs	5400	50.00	6200	2600	0.19	23.65	720.47

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

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
RBS	234.10	231.80	2.30	0.99	21.60	10.2	-6.51
Monsanto	106.80	101.52	5.28	5.20	8.52	8.7	13.37
ITC	346.85	330.35	16.50	4.99	27.50	8.6	6.46
ArcherDan	40.67	39.83	0.84	2.11	3.02	8.0	2.65
ShenwanHong	0.17	0.17	0.00	-0.59	0.01	7.7	9.09
Barclays	175.70	175.85	-0.15	-0.09	12.20	7.5	2.92
ValeantPh	36.04	34.27	1.77	5.16	2.48	7.4	-15.08
MitUFJFin	535.70	533.10	2.60	0.49	36.80	7.4	-7.30
TaiwanSem	154.00	148.50	5.50	3.70	10.00	6.9	-1.60
Potash	21.68	21.79	-0.11	-0.50	1.38	6.8	-12.95
MitsubishiHe	1287.50	1296.00	-8.50	-0.66	79.00	6.5	3.91
Netflix	94.78	92.49	2.29	2.48	5.66	6.4	-1.21
Nomura	472.10	464.20	7.90	1.70	28.10	6.3	-14.85
Shire	4315.00	4281.00	34.00	0.79	245.00	6.0	0.38
Novatek	654.50	654.50	0.00	0.00	36.10	5.8	6.43
Williams Cos	21.79	22.15	-0.36	-1.63	1.20	5.8	11.75
BOC Hold	22.90	22.45	0.45	2.00	1.25	5.8	-5.76
WalMartSto	69.78	69.86	-0.08	-0.11	3.76	5.7	1.53
Salesforce	81.66	81.02	0.64	0.79	4.35	5.6	6.79

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	20.71	20.61	0.10	0.49	-11.04	-34.8	-33.56
Petrobras	11.33	11.33	0.00	0.00	-3.21	-9.6	-14.19
Cielo	31.49	31.49	0.00	0.00	-3.36	-9.6	-4.41
SBI NewA	168.40	171.35	-2.95	-1.72	-16.45	-8.9	-15.86
Gzprm neft	146.70	146.70	0.00	0.00	-13.15	-8.2	-10.08
Target	68.60	68.66	-0.06	-0.09	-6.01	-8.1	-16.76
Bayer	89.54	89.54	0.00	0.00	-6.60	-6.9	-12.19
Deere	78.03	77.74	0.29	0.37	-5.60	-6.7	-5.70
MTR	35.85	36.10	-0.25	-0.69	-2.40	-6.3	-6.76
NatAusBk	27.14	27.29	-0.15	-0.55	-1.80	-6.2	-4.75
Emiratestele	17.15	17.60	-0.45	-2.56	-1.10	-6.0	-6.03
ANZ	24.95	25.09	-0.14	-0.56	-1.55	-5.8	-5.25
Lilly (E)	74.00	74.81	-0.81	-1.08	-4.29	-5.5	-4.91
Bradesco	26.11	26.11	0.00	0.00	-1.51	-5.5	-6.61
LibertyGbl	36.08	36.39	-0.31	-0.85	-2.05	-5.4	-7.06
CVS	98.93	99.46	-0.54	-0.54	-5.63	-5.4	-2.50
Vale	14.13	14.13	0.00	0.00	-0.80	-5.4	-25.45
DukeEner	76.66	77.00	-0.34	-0.44	-4.34	-5.4	-4.24
HyundMobis	245000.00	243500.00	1500.00	0.62	-13500.00	-5.2	-2.39
HiltonWwde	20.64	20.54	0.10	0.49	-1.12	-5.1	-4.67

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

May 23	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
Navient Corporation	06/18	8.45	BB-	Ba3	BB	106.32	5.24	-0.02	0.52	4.33
High Yield Euro										
Kazkommerts Intl BV	02/17	6.88	B	Caa1	B	97.50	-	0.00	0.00	-
Emerging US$										
Mexico	09/16	11.40	BBB+	A3	BBB+	106.80	1.49	0.03	0.01	0.44
Brazil	01/18	8.00	BB	Ba2	BB	105.30	4.63	-0.02	0.06	3.72
Russia	07/18	11.00	BB+	Ba1	BBB-	117.55	2.61	-0.01	-0.24	1.70
Peru	03/19	7.13	BBB+	A3	BBB+	128.75	1.95	0.00	0.00	1.04
Peru	03/19	7.13	BBB+	A3	BBB+	114.01	2.60	0.00	0.24	1.69
Colombia	07/21	4.38	BBB	Baa2	BBB	103.38	3.64	0.06	0.23	2.26
Brazil	01/22	12.50	BB+	Ba2	BB	106.77	10.87	0.04	-0.54	9.48
Poland	03/22	5.00	A-	A2	A-	117.38	2.80	0.00	0.00	1.42
Turkey	09/22	6.25	-	Baa3	BBB-	110.00	4.47	-0.01	0.32	3.08
Turkey	10/26	4.88	-	Baa3	BBB-	100.02	4.93	0.00	0.35	3.08
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+	105.88	0.05	0.00	-0.08	-0.28
Mexico	02/20	5.50	A-	BBB+	BBB+	121.63	0.29	0.00	0.00	0.54
Bulgaria	09/25	5.75	BB+	-	BBB-	117.63	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.

BONDS: GLOBAL INVESTMENT GRADE

May 23	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
Halliburton Company	02/27	6.75	A	A2	A-	124.14	4.00	0.00	-0.04	2.15
Cummins Inc.	02/27	6.75	A+	A2	A	124.63	3.95	0.00	0.23	2.10
Korea Electric Power Corporation	08/27	6.75	AA-	Aa2	AA-	102.88	6.49	0.00	-0.05	4.64
Archer Daniels Midland Company	12/27	6.75	A	A2	A	124.77	4.09	0.00	0.02	2.24
FleetBoston Financial Corp.	01/28	6.88	BBB	Baa3	A-	122.07	4.48	0.00	0.00	-
SunTrust Banks, Inc.	01/28	6.00	BBB+	Baa1	A-	116.71	4.22	0.00	-0.36	-
Euro										
Credit Agricole S.A.	03/27	2.63	BBB	Baa3	A-	100.46	2.58	0.00	0.08	0.73
Electricite de France (EDF)	02/27	4.13	A+	A2	A	122.21	1.91	0.00	0.00	0.06
BHP Billiton Fin Ltd	09/27	3.25	A+	A3	A+	114.81	1.79	0.00	-0.09	-0.06
Telia Company AB	09/27	3.00	A-	Baa1	A-	114.06	1.63	0.00	-0.04	-0.22
Yen										
Wal-Mart Stores, Inc.	07/15	0.94	NR	WR	NR	100.00	0.31	0.00	0.00	-
£ Sterling										
IPIC GMTN Limited	03/26	6.88	AA	Aa2	AA	122.65	4.11	0.00	0.12	1.82
innogy Finance B.V.	09/26	4.00	A-	A3	A-	104.67	3.47	0.00	0.29	1.18

Data provided by SIX Financial Information. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

May 23	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	0.00	0.05
UK	Repo	0.50	05-03-2009	0.50	0.50	0.50
Japan	O'night Call	0.00-0.10	05-10-2010	0.00-0.10	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	0.25

INTEREST RATES: MARKET

May 23 (Libor: May 20)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	0.38450	0.001	-0.001	0.000	0.44325	0.66130	0.95540	1.30200
Euro Libor	-0.39857	0.000	-0.003	0.000	-0.35286	-0.27814	-0.15029	-0.02557
£ Libor	0.48375	0.000	0.000	0.000	0.51538	0.58919	0.73688	1.00213
Swiss Fr Libor		0.000			-0.77180	-0.73340	-0.64640	-0.52420
Yen Libor		0.000			-0.04314	-0.02417	0.00157	0.09529
Euro Euribor		0.000			-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		0.000			-0.39500	-0.30500	-0.20000	

May 23	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	-0.19	0.06
Sterling	0.45	0.55	0.45	0.55	0.45	0.55	0.65	0.70	0.85	0.93	1.08	1.13
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	-0.20	0.00	-0.35	-0.15	-0.25	-0.05	-0.10	0.10	-0.10	0.10	-0.05	0.15

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 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	0.08	1.11	4.89	0.97	5.74
Overall(€)	226.67	0.00	0.98	2.86	-0.15	3.11
Treasuries ($)	222.67	0.24	-0.04	3.17	-0.04	3.17
FTSE						
Sterling Corporate (£)	112.15	0.07	-	-	0.70	-0.84
Euro Corporate (€)	107.82	-0.05	-	-	0.46	-0.96
Euro Emerging Mkts (€)	862.96	3.81	-	-	-7.78	-18.71
Eurozone Govt Bond	115.50	-0.04	-	-	0.91	2.57

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	333.78	1.51	5.32	40.39	339.86	288.69
Europe 5Y	78.44	0.23	0.42	9.78	82.07	67.59
Japan 5Y	71.17	0.27	-1.83	6.27	93.03	64.39
Senior Financials 5Y	97.56	0.36	-1.46	15.85	102.83	80.36
Markit CDX						
Emerging Markets 5Y	303.53	-2.12	11.93	20.12	311.29	271.25
Nth Amer High Yld 5Y	458.66	-4.88	5.63	38.55	463.54	415.17
Nth Amer Inv Grade 5Y	83.86	-1.22	0.69	10.73	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 23	Day Chng	Prev	52 wk high	52 wk low
VIX	15.77	0.57	15.20	53.29	10.88
VXD	14.68	0.20	14.48	56.32	7.76
VXN	16.73	0.33	16.40	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 yield	Year chg yield
Australia	10/18	3.25	103.77	1.65	0.02	-0.03	-0.42	-0.48
	11/27	2.75	103.90	2.42	0.01	0.01	-0.22	-0.47
Austria	10/21	3.50	117.50	0.09	0.00	-0.03	0.05	-0.21
	10/26	0.75	101.97	0.54	0.00	0.02	0.05	-0.31
Belgium	06/18	0.75	101.72	-0.20	0.01	0.00	0.05	-0.30
	06/26	1.00	104.25	0.56	0.01	0.00	0.01	-0.24
Canada	08/18	0.50	99.69	0.64	0.01	0.04	0.00	-0.14
	06/26	1.50	101.41	1.35	0.01	0.04	-0.04	-0.48
Denmark	11/18	0.25	101.13	-0.22	0.00	0.00	0.07	-0.21
	11/25	1.75	112.06	0.45	0.01	0.02	0.01	-0.49
Finland	05/18	1.00	99.78	1.12	0.00	0.02	0.05	-0.27
	04/26	0.50	100.35	0.46	0.00	0.02	0.05	-0.27
France	05/19	1.00	104.12	-0.36	0.00	0.00	0.02	-0.30
	11/20	0.25	102.16	-0.23	0.00	0.01	0.02	-0.29
	05/26	0.50	99.99	0.50	0.00	0.00	0.04	-0.37
	05/45	3.25	141.45	1.48	0.01	0.01	0.04	-0.12
Germany	06/18	0.50	101.61	-0.33	0.00	-0.01	0.00	-0.20
	10/20	0.25	102.26	-0.31	0.00	0.00	0.04	-0.41
	02/26	0.50	103.09	0.18	0.01	0.03	0.01	-0.39
	08/46	2.50	142.18	0.90	0.00	0.06	0.03	-0.25
Greece	02/19	3.00	91.82	6.50	0.00	-0.37	-0.50	-15.01
	07/17	3.38	95.44	7.67	-1.45	-1.03	-1.74	2.74
	02/26	3.00	75.95	7.13	-0.22	-0.17	-1.29	0.00
Ireland	10/17	5.50	106.45	-0.14	0.00	0.00	-0.00	0.00
	05/26	1.00	101.05	0.89	0.01	-0.02	-0.07	-0.55
Italy	04/19	0.10	100.03	0.09	-0.01	0.00	-0.06	-0.00
	06/21	0.45	99.95	0.46	-0.01	0.00	-0.06	-0.20
	06/26	1.60	100.57	1.54	0.00	0.00	0.13	-0.36
	03/47	2.70	100.75	2.68	0.00	0.01	0.27	-0.15
Japan	05/18	0.10	100.44	-0.26	0.01	-0.02	-0.00	-0.22
	03/26	0.10	100.67	-0.10	0.00	0.02	-0.12	-0.49
	03/36	0.10	101.98	0.10	0.01	0.01	-0.14	-0.90
	03/46	0.80	109.08	0.23	0.00	0.00	-0.23	-1.01
Netherlands	01/19	1.25	104.52	-0.25	0.00	0.00	0.05	-0.27
	07/25	0.25	99.48	0.31	0.00	0.00	0.01	-0.40
New Zealand	03/19	5.00	108.85	2.10	-0.03	-0.04	-0.09	-1.34
	04/27	4.50	116.65	2.72	0.02	0.02	-0.30	-0.96
Norway	05/19	4.50	110.07	0.93	0.00	-0.03	-0.02	-0.00
	02/26	1.50	102.55	1.22	0.00	-0.01	-0.06	-0.44
Portugal	06/19	4.75	111.05	1.05	-0.07	-0.16	0.01	-0.00
	02/24	5.65	121.80	2.74	-0.05	-0.14	0.10	0.38
Spain	01/19	0.25	100.08	0.22	-0.03	-0.10	-0.06	-0.35
	04/26	1.95	103.25	1.60	-0.05	-0.10	-0.04	-0.13
Sweden	03/19	4.25	113.52	-0.28	0.00	-0.09	0.06	-0.35
	11/26	1.00	103.50	0.56	0.00	-0.01	-0.06	-0.05
Switzerland	05/19	3.00	111.67	-0.87	0.00	-0.03	0.07	-0.26
	06/29	0.50	103.78	-0.24	0.01	-0.03	0.02	-0.31
United Kingdom	01/21	1.50	102.74	0.90	0.00	0.03	-0.04	0.05
	09/25	2.00	103.66	1.57	-0.03	-0.05	-0.04	-0.44
	07/46	3.50	126.97	2.37	-0.06	-0.05	-0.03	-0.53
United States	04/18	0.75	99.75	0.89	0.00	0.00	0.06	0.26
	04/21	1.38	98.97	1.38	-0.02	-0.05	0.00	-0.02
	05/26	1.63	98.25	1.84	0.01	0.02	-0.06	-0.35
	05/46	2.50	97.11	2.64	0.02	0.04	-0.03	-0.35

Data provided by SIX Financial Information & Tullett Prebon Information.

GILTS: UK CASH MARKET

May 23	Price £	Yield	Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
Tr 4pc '16	101.03	0.42	0.00	2.44	0.00	-12.50	102.23	100.00	30.5
Tr 1.75pc '17	100.89	0.40	-2.44	0.00	-9.09	-25.93	102.05	100.89	32.35
Tr 5pc '18	108.35	0.31	0.00	24.00	-8.82	-60.76	111.74	108.35	35.5
Tr 4.5pc '19	111.21	0.45	2.27	21.62	-8.16	-59.09	112.97	111.04	36.96
Tr 4.75pc '20	115.25	0.67	1.52	15.52	-4.29	-49.62	117.12	114.45	33.33
Tr 1.5pc '21	102.74	0.90	1.12	11.11	-4.26	-40.79	138.06	99.91	26.26
Tr 4pc '22	117.14	0.95	0.00	11.76	-4.04	-41.36	119.14	113.65	3.8
Tr 5pc '25	130.26	1.34	0.00	5.51	-8.22	-31.98	132.97	124.47	33.45
Tr 4.25pc '27	127.34	1.64	0.00	4.46	-6.29	-25.11	130.43	119.79	30.1
Tr 4.25pc '32	130.62	2.01	0.00	3.61	-3.83	-17.62	134.41	121.93	32.5
Tr 4.25pc '36	133.03	2.18	-0.46	2.83	-3.96	-14.84	137.18	123.52	29.5
Tr 4.5pc '42	149.10	2.28	0.00	2.70	-3.39	-12.98	154.34	132.40	20.4
Tr 3.75pc '52	138.48	2.20	-0.45	2.80	-3.51	-15.71	142.78	115.57	27.58
Tr 4pc '60	152.29	2.15	-0.46	2.87	-3.59	-16.02	157.42	131.72	22

xd Ex dividend. Closing mid-prices are shown in pounds per £100 nominal of stock. Red yield: Gross redemption yield. This table shows the gilts benchmarks & the non-rump undated stocks.

COMMODITIES

www.ft.com/commodities

Energy	Price*	Change	Agricultural & Cattle Futures	Price*	Change
Crude Oil† Jun	47.56	-0.93	Corn♦ Jul	391.50	-3.25
Brent Crude Oil‡	48.18	-0.79	Wheat♦ Jul	462.00	-5.25
RBOB Gasoline† May	1.62	-0.01	Soybeans♦ Jul	1064.50	-11.00
Heating Oil† May	1.49	0.00	Soybeans Meal♦ Jul	390.80	-1.50
Natural Gas† May	2.11	0.05	Cocoa (ICE Liffe)X	2213.00	63.00
Ethanol♦	-	-	Cocoa (ICE US)♥	2946.00	25.00
Uranium‡ May	29.00	0.00	Coffee(Robusta)X	1631.00	3.00
Carbon Emissions‡	-	-	Coffee (Arabica)♥	127.50	-0.15
Diesel†	-	-	White Sugar♦	473.40	-7.90
Unleaded (95R)	-	-	Sugar 11♥	17.14	-0.17
Base Metals (♠ LME 3 Months)			Cotton♥	61.40	-0.13
Aluminium	1547.00	-2.00	Orange Juice♥ Jul	147.10	-3.30
Aluminium Alloy	1540.00	-60.00	Palm Oil♦	-	-
Copper	4564.00	-18.50	Live Cattle♣ Jun	120.88	0.00
Lead	1654.50	-12.50	Feeder Cattle♣ Aug	147.85	0.38
Nickel	8370.00	-105.00	Lean Hogs♣ Jun	79.88	0.00
Tin	15910.00	-545.00			
Zinc	1845.50	-15.50		**% Chg Month**	**% Chg Year**
Precious Metals (PM London Fix)			S&P GSCI Spt	363.06	4.33	-17.85
Gold	1245.90	-8.30	DJ UBS Spot	84.11	1.29	-17.93
Silver (US cents)	1631.00	-25.00	R/J CRB TR	183.33	1.66	-18.92
Platinum	1007.00	-18.00	Rogers RICIX TR	2186.10	-	-
Palladium	549.00	-18.00	M Lynch MLCX Ex. Rtn	231.14	-9.84	-33.05
Bulk Commodities			LEBA EUA Carbon	13.02	1.43	-18.26
Iron Ore (Platts)	52.10	-2.15	UBS Bberg CMCI TR	5.01	-0.99	-26.32
Iron Ore (The Steel Index)	52.70	-3.00	LEBA CER Carbon	0.39	-2.50	-13.33
GlobalCOAL RB Index	53.75	-0.50	LEBA UK Power	1550.00	-57.77	10.95
Baltic Dry Index	624.00	-1.00				

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ♥ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price May 20	Yield May 20	Prev	Month return	Value stock	No of Market stocks
Can 4.25%' 21	126.59	-0.488	-0.477	0.61	5.18	73690.77	7
Fr 2.25%' 20	114.29	-1.076	-1.112	-0.02	20.31	226595.76	15
Swe 0.25%' 22	111.74	-1.386	-1.391	0.97	29.90	242307.47	8
UK 2.5%' 20	359.82	-1.501	-1.529	0.10	6.58	506368.13	27
UK 2.5%' 24	340.89	-0.972	-0.993	0.57	6.82	506368.13	27
UK 2%' 35	231.71	-0.803	-0.817	0.75	9.08	506368.13	27
US 0.625%' 21	104.12	-0.171	-0.164	-0.63	25.84	1145537.56	37
US 3.625%' 28	136.16	0.493	0.484	-1.04	16.78	1145537.56	37

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	2.42	2.24	0.57	Italy	1.57	1.39	-0.28
Austria	0.55	0.38	-1.30	Japan	-0.10	-0.28	-1.95
Belgium	0.56	0.39	-1.29	Netherlands	0.27	0.09	-1.58
Canada	1.35	1.17	-0.50	Norway	1.40	1.22	-0.45
Denmark	0.45	0.27	-1.40	Portugal	3.10	2.92	1.25
Finland	0.46	0.28	-1.39	Spain	1.59	1.41	-0.26
France	0.52	0.34	-1.33	Switzerland	-0.30	-0.48	-2.15
Germany	0.18	0.00	-1.67	United Kingdom	1.53	1.35	-0.32
Greece	7.13	6.95	5.28	United States	1.85	1.67	0.00
Ireland	0.89	0.71	-0.96				

Data provided by SIX Financial Information & Tullett Prebon Information

GILTS: UK FTSE ACTUARIES INDICES

Price Indices	May 23	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
Fixed Coupon						
1 Up to 5 Years	98.24	-0.01	2397.75	0.20	2.10	0.62
2 5 - 10 Years	183.05	0.01	3353.82	0.80	5.13	1.19
3 10 - 15 Years	213.23	0.04	3971.61	1.32	6.45	1.71
4 5 - 15 Years	190.29	0.02	3503.23	0.95	5.49	1.43
5 Over 15 Years	312.86	0.15	4576.26	1.78	8.22	2.21
7 All stocks	176.95	0.06	3351.39	1.05	5.44	1.94

Index Linked	May 23	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	308.88	-0.02	-0.25	-1.10	2381.23	-0.11	0.69
2 Over 5 years	580.34	0.20	0.90	2.13	4297.53	1.05	2.82
3 5-15 years	434.08	-0.01	0.00	0.45	3318.09	0.23	1.52
4 Over 15 years	717.09	0.28	1.26	2.81	5206.78	1.38	3.35
5 All stocks	536.02	0.17	0.74	1.65	4023.67	0.89	2.50

Yield Indices	May 23	May 20	Yr ago		May 23	May 20	Yr ago
5 Yrs	0.82	0.82	1.29	20 Yrs	2.25	2.26	2.49
10 Yrs	1.57	1.57	1.97	45 Yrs	2.17	2.18	2.51
15 Yrs	2.05	2.05	2.33				

	inflation 0% May 23	inflation 0% Dur yrs	inflation 0% Previous	inflation 0% Yr ago	inflation 5% May 23	inflation 5% Dur yrs	inflation 5% Previous	inflation 5% Yr ago
Real yield								
Up to 5 yrs	-1.21	2.00	-1.22	-0.94	-1.87	2.00	-1.88	-1.61
Over 5 yrs	-0.87	23.51	-0.86	-0.77	-0.90	23.61	-0.90	-0.80
5-15 yrs	-0.98	9.69	-0.98	-0.79	-0.99	9.73	-0.99	-0.82
Over 15 yrs	-0.85	28.17	-0.85	-0.77	-0.89	28.20	-0.89	-0.80
All stocks	-0.87	20.51	-0.86	-0.77	-0.89	20.63	-0.89	-0.79

See the FTSE website for more details: http://www.ftse.com/products/indices/gilts

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

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MANAGED FUNDS SERVICE

Fund	Bid	Offer	D+/-	Yield
ACPI Global UCITS Funds Plc (IRL)				
www.acpishard.com				
Regulated				
ACPI Emerging Mkts FI UCITS Fund USD A	$ 113.58	-	0.46	0.00
ACPI Global Credit UCITS Funds USD A	$ 14.28	-	0.01	0.00
ACPI Global Fixed Income UCITS Fund USD A	$ 155.57	-	0.03	0.00
ACPI India Fixed Income UCITS Fund USD A	$ 10.14	-	-0.02	0.00
ACPI India Fixed Income UCITS Fund USD A2	$ 86.50	-	-0.12	0.00
ACPI International Bond UCITS Fund USD A	$ 18.43	-	0.01	0.00
ACPI Select UCITS Funds Plc (IRL)				
Regulated				
ACPI Balanced UCITS Fund USD Retail	$ 13.98	-	0.00	0.00
ACPI Balanced UCITS Fund EUR Retail	€ 10.49	-	0.00	0.00
ACPI Balanced UCITS Fund GBP Retail	£ 10.64	-	0.00	0.00
ACPI Balanced UCITS Fund USD Institutional	$ 10.00	-	-	-
ACPI Balanced UCITS Fund EUR Institutional	€ 10.00	-	-	-
ACPI Balanced UCITS Fund GBP Institutional	£ 10.00	-	-	-
ACPI Horizon UCITS Fund	$ 12.58	-	0.03	0.00
Algebris Investments (IRL)				
Regulated				
Algebris Financial Credit Fund - Class I EUR	€ 133.65	-	0.48	0.00
Algebris Financial Income Fund - Class I EUR	€ 112.50	-	1.21	0.00
Algebris Financial Equity Fund - Class B EUR	€ 90.80	-	0.50	-
Algebris Asset Allocation Fund - Class B EUR	€ 96.59	-	0.23	-
Amundi Funds (LUX)				
5 Allee Scheffer L-2520 Luxembourg + 44 (0)20 7074 9332				
www.amundi-funds.com				
FCA Recognised				
Bd. Euro Corporate AE Class - R - EUR	€ 18.77	-	0.01	0.00
Bd. Global AU Class - R - USD	$ 26.47	-	0.00	0.00
Eq. Emerging Europe AE Class - R - EUR	€ 26.83	-	-0.24	0.00
Eq. Emerging World AU Class - R - USD	$ 78.83	-	0.37	0.00
Eq. Greater China AU Class - R - USD	$ 510.83	-	3.82	0.00
Eq. Latin America AU Class - R - USD	$ 331.27	-	3.13	0.00
Gl. Macro Bds & Curr Low Vol AHG - GBP	£ 98.59	-	0.01	0.00
The Antares European Fund Limited				
Other International				
AEF Ltd Usd (Est)	$ 604.11	-	13.92	-
AEF Ltd Eur (Est)	€ 606.14	-	14.45	0.00
Arisaig Partners				
Other International Funds				
Arisaig Africa Consumer Fund Limited	$ 13.37	-	0.02	0.00
Arisaig Asia Consumer Fund Limited	$ 62.37	-	-0.27	0.00
Arisaig Global Emerging Markets Consumer UCITS	€ 11.50	-	0.01	0.00
Arisaig Global Emerging Markets Consumer UCITS STG	£ 11.34	-	0.07	0.00
Arisaig Latin America Consumer Fund	$ 22.09	-	0.13	0.00
Artisan Partners Global Funds PLC (IRL)				
Beaux Lane House, Mercer Street Lower, Dublin 2, Ireland				
Tel: 44 (0) 207 766 7130				
FCA Recognised				
Artisan Partners Global Funds plc				
Artisan Global Equity Fund Class I USD Acc	$ 14.00	-	0.11	0.00
Artisan Global Opportunities I USD Acc	$ 12.38	-	0.13	0.00
Artisan Global Value Fund Class I USD Acc	$ 15.98	-	0.15	0.00
Artisan US Value Equity Fund Class I USD Acc	$ 11.45	-	0.10	0.00
Artisan Global Opportunities Class I EUR Acc	€ 16.59	-	0.14	0.00
Ashmore Sicav (LUX)				
2 rue Albert Borschette L-1246 Luxembourg				
FCA Recognised				
Ashmore SICAV Emerging Market Debt Fund	$ 94.97	-	0.31	8.52
Ashmore SICAV Emerging Market Frontier Equity Fund	$ 141.95	-	0.15	1.18
Ashmore SICAV Emerging Market Total Return Fund	$ 82.15	-	0.36	6.00
Ashmore SICAV Global Small Cap Equity Fund	$ 120.27	-	0.68	0.00
EM Mkts Corp.Debt USD F	$ 85.90	-	0.27	9.17
EM Mkts Loc.Ccy Bd USD F	$ 79.17	-	0.40	2.93
Aspect Capital Ltd (UK)				
Other International Funds				
Aspect Diversified USD	$ 411.97	-	-21.78	0.00
Aspect Diversified EUR	€ 246.87	-	-13.34	-
Aspect Diversified GBP	£ 127.11	-	-6.60	0.00
Aspect Diversified CHF	SFr 117.52	-	-6.44	0.00
Aspect Diversified Trends USD	$ 120.02	-	-0.17	0.00
Aspect Diversified Trends EUR	€ 119.79	-	-0.17	0.00
Aspect Diversified Trends GBP	£ 125.03	-	-0.19	0.00
Atlantas Sicav (LUX)				
Regulated				
American Dynamic	$ 3437.38	-	13.63	0.00
American One	$ 3246.78	-	28.94	0.00
Bond Global	€ 1393.10	-	4.13	0.00
Eurocroissance	€ 665.97	-	7.34	0.00
Far East	$ 661.04	-	8.73	0.00

Fund	Bid	Offer	D+/-	Yield
Atlantis Investment Management Ltd (IRL)				
2nd Floor, 13 St Swithin's Lane, London EC4N 8AL				
www.atlantis-investment.com, Tel: 0207 877 3377				
Regulated				
Atlantis China Fund	$ 6.44	-	0.00	0.00
Atlantis China Healthcare Fund	$ 1.83	-	0.00	0.00
Atlantis Japan Opportunities Fund	$ 2.97	-	0.03	0.00
Atlantis Asian Fund	$ 6.18	-	0.02	0.00
BLME Asset Management (LUX)				
BLME Sharia'a Umbrella Fund SICAV SIF				
Regulated				
Income Fund - Share Class A Acc	$ 1140.79	-	0.21	0.00
Income Fund - Share Class G Acc	€ 1081.95	-	0.20	0.00
Gl Sukuk Fund - Share Class A Acc	$ 1252.66	-	0.37	0.00
Gl Sukuk Fund - Share class B Acc	€ 1118.18	1118.18	0.34	0.00
Bank of America Cap Mgmt (Ireland) Ltd (IRL)				
Regulated				
Global Liquidity USD	$ 1.00	-	0.00	0.61
Barclays Investment Funds (CI) Ltd (JER)				
39/41 Broad Street, St Helier, Jersey, JE2 3RR Channel Islands 01534 812800				
FCA Recognised				
Bond Funds				
Sterling Bond F	£ 0.46	-	0.00	3.24
Barings (Luxembourg) (LUX)				
FCA Recognised				
Russia A GBP Inc F	£ 28.96	-	0.25	0.00
BlackRock (JER)				
Regulated				
BlackRock UK Property	£ 41.78	-	0.02	3.37
Blackrock UK Long Lease	£ 1079.11	-	2.93	0.00
BLK Intl Gold & General	$ 6.17	6.51	-0.03	0.00
BONHOTE				
Other International Funds				
Bonhote Alternative - Multi-Arbitrage (USD) Classe (EUR)	€ 6419.00	-	-58.00	1.71
Bonhote Alternative - Multi-Performance (USD) Class (EUR)	€ 9539.00	-	-93.00	0.84
Braemar Group PCC Limited (GSY)				
Regulated				
UK Agricultural Class A	£ 1.24	-	0.01	0.00
UK Agricultural Class B	£ 1.36	-	0.01	0.00
Student Accom Class B	£ 0.55	-	-0.17	0.00
CG Asset Management Limited (IRL)				
Northern Trust, George's Court, 54-62 Townsend Street, Dublin 2, Rep of Ireland				
00 353 1 434 5098				
FCA Recognised				
Capital Gearing Portfolio Fund Plc	£ 27573.65	27573.65	-135.06	0.60
CG Portfolio Fund Plc				
Real Return Cls A	£ 178.22	178.22	-3.72	1.64
Dollar Fund Cls D	£ 138.15	138.15	0.61	1.55
Capital Value Fund Cls V	£ 133.80	133.80	-0.75	0.26
Cedar Rock Capital Limited (IRL)				
Regulated				
Cedar Rock Capital Fd Plc	$ 380.12	-	0.77	0.00
Cedar Rock Capital Fd Plc	£ 415.93	-	9.35	0.00
Cedar Rock Capital Fd Plc	€ 350.24	-	5.44	0.00
Charles Schwab Worldwide Funds Plc (IRL)				
Regulated				
Schwab USD Liquid Assets Fd	$ 1.00	-	0.00	0.01
Chartered Asset Management Pte Ltd				
Other International Funds				
CAM-GTF Limited	$ 291734.41	291734.41	7812.53	0.00
CAM GTi Limited	$ 725.46	-	53.03	0.00
Raffles-Asia Investment Company	$ 1.61	1.61	0.00	5.34
Cheyne Capital Management (UK) LLP (IRL)				
Regulated				
Cheyne Convertibles Absolute Return Fund	€ 1330.94	-	2.65	0.00
Cheyne Global Credit Fund	€ 119.72	-	0.05	0.00
Cheyne European Mid Cap Fund	€ 1124.18	-	10.66	0.00
Cheyne Capital Management (UK) LLP				
Other International Funds				
Cheyne European Event Driven Fund	€ 130.50	-	-5.05	0.00
Cheyne Real Estate Credit Holdings Fund	€ 165.48	-	1.10	0.00
Cheyne Real Estate Credit Holdings Fund III	€ 109.03	-	-3.86	0.00
Cheyne Real Estate Debt Fund Class A1	£ 131.25	-	0.58	0.00
Cheyne Total Return Credit Fund - December 2017 Class	$ 186.74	-	14.87	0.00
Cheyne Total Return Credit Fund 2020	$ 106.21	-	4.68	-
Cohen & Steers SICAV (LUX)				
Regulated				
European Real Estate Securities	€ 23.4636	-	0.3316	1.81
Europ.RealEstate Sec. IX	€ 31.4680	-	0.4446	0.00
Gbl Listed Infrastructure I	$ 10.3033	-	0.0590	-
Gbl Listed Infrastructure IX	$ 10.3480	-	0.0592	-
Gbl RealEstate Sec. I	$ 10.9998	-	0.0931	1.60
Gbl RealEstate Sec. IX	$ 13.0957	-	0.1108	0.00

Fund	Bid	Offer	D+/-	Yield
Crèdit Andorrà Asset Management (LUX)				
www.creditandorra.com				
FCA Recognised				
Crediinvest SICAV Money Market Eur I	€ 11.21	-	-0.01	0.00
Crediinvest SICAV Money Market Usd A	$ 10.06	-	0.00	0.00
Crediinvest SICAV Fixed Income Eur	€ 10.71	-	0.00	0.00
Crediinvest SICAV Fixed Income Usd	$ 10.68	-	0.00	0.00
Crediinvest SICAV Spanish Value	€ 243.82	-	1.48	0.00
Crediinvest SICAV International Value	€ 224.64	-	0.63	0.00
Crediinvest SICAV Big Cap Value	€ 15.04	-	0.11	0.00
Crediinvest SICAV US American Value	$ 17.92	-	0.06	0.00
Crediinvest SICAV Sustainability	€ 14.78	-	0.00	0.00
DAVIS Funds SICAV (LUX)				
Regulated				
Davis Value A	$ 39.69	-	0.31	0.00
Davis Global A	$ 28.28	-	0.26	0.00
Dodge & Cox Worldwide Funds (IRL)				
6 Duke Street,St.James,London SW1Y 6BN				
www.dodgeandcox.worldwide.com 020 3713 7664				
FCA Recognised				
Dodge & Cox Worldwide Funds plc - Global Bond Fund				
EUR Accumulating Class	€ 11.78	-	-0.01	0.00
EUR Accumulating Class (H)	€ 9.41	-	0.01	0.00
EUR Distributing Class	€ 11.04	-	-0.01	4.04
EUR Distributing Class (H)	€ 8.81	-	0.01	3.93
GBP Distributing Class	£ 10.40	-	0.08	3.81
GBP Distributing Class (H)	£ 8.92	-	0.01	3.95
USD Accumulating Class	$ 9.53	-	0.01	0.00
Dodge & Cox Worldwide Funds plc-Global Stock Fund				
USD Accumulating Share Class	$ 15.34	-	0.18	0.00
GBP Accumulating Share Class	£ 17.42	-	0.33	0.00
GBP Distributing Share class	£ 12.64	-	0.24	0.86
EUR Accumulating Share Class	€ 20.54	-	0.20	0.00
Dodge & Cox Worldwide Funds plc-International Stock Fund				
USD Accumulating Share Class	$ 12.68	-	0.14	0.00
EUR Accumulating Share Class	€ 13.31	-	0.13	0.00
Dodge & Cox Worldwide Funds plc-U.S. Stock Fund				
USD Accumulating Share Class	$ 17.88	-	0.19	0.00
GBP Accumulating Share Class	£ 19.20	-	0.34	0.00
GBP Distributing Share Class	£ 12.18	-	0.22	0.65
EUR Accumulating Share Class	€ 20.68	-	0.18	0.00
Dragon Capital Group				
1501 Me Linh Point, 2 Ngo Duc Ke, District 1, Ho Chi Minh City, Vietnam				
Fund information, dealing and administration: funds@dragoncapital.com				
Other International Funds				
Vietnam Property Fund (VPF) NAV	$ 0.91	-	-0.01	0.00
Vietnam Enterprise Inv. (VEIL) NAV	$ 3.85	-	0.02	0.00
DSM Capital Partners Funds (LUX)				
www.dsmsicav.com				
Regulated				
Global Growth I2 Acc	€ 129.11	-	1.25	0.00
Global Growth I1 Eur	€ 96.50	-	0.94	-
Edinburgh Partners Limited (IRL)				
27-31 Melville Street, Edinburgh EH3 7JF				
Tel: +353 1 434 5143 Dealing - Fax +353 1 434 5230				
FCA Recognised				
Edinburgh Partners Opportunities Fund PLC				
Emerging Opportunities I USD $	$ 1.03	-	0.01	0.95
European Opportunities I EUR	€ 2.24	-	0.03	1.60
European Opportunities I GBP	£ 1.72	-	0.03	1.68
European Opportunities I USD	$ 2.51	-	0.03	1.67
European Opportunities A EUR	€ 2.19	-	0.03	1.03
Global Opportunities I USD	$ 1.52	-	0.01	1.25
Global Opportunities I GBP	£ 1.05	-	0.02	1.46
Global Opportunities A GBP	£ 0.98	-	0.01	0.87
Pan European Opportunities I EUR	€ 1.35	-	0.02	-
EFG Hermes				
DIFC, The Gate Building, West Wing Level 6, PO BOX 30727, Dubai UAE				
Contact: Telephone + 971 4 363 4029 Email AMsales@EFG-HERMES.com				
Other International Funds				
The EFG-Hermes Egypt Fund	$ 29.93	-	-	0.00
EFG-Hermes Frontier Equity UCITS Fund Class I	$ 1024.86	-	0.77	-
EFG-Hermes MENA Equity UCITS Fund Class A	$ 1007.81	-	-18.80	-
Middle East & Developing Africa Fund (Final)	$ 19.81	-	-	0.00
Saudi Arabia Equity Fund	SR 12.22	-	0.06	0.00

Fund	Bid	Offer	D+/-	Yield
ENISO Partners AG				
Clairdenstrasse 34, Postfach CH-8022 Zurich				
Tel: +41 (0)44 286 17 17				
www.eniso-partners.com				
Other International Funds				
ENISO Forte CH SMI Expanded	SFr 146.74	-	0.92	0.00
ENISO Forte E	€ 112.73	117.24	1.63	-
ENISO Forte G (CHF)	SFr 134.68	-	1.54	0.53
ENISO Forte G (CHF)	€ 120.70	-	1.01	0.83
ENISO Systematic Risk Class 1	€ 95.51	-	0.19	-
Ennismore Smaller Cos Plc (IRL)				
5 Kensington Church St, London W8 4LD 020 7368 4220				
FCA Recognised				
Ennismore European Smlr Cos NAV	£ 107.38	-	0.30	0.00
Ennismore European Smlr Cos NAV	€ 139.00	-	-0.39	0.00
Ennismore European Smlr Cos Hedge Fd				
Other International Funds				
NAV	€ 497.16	-	-2.70	0.00
Equinox Fund Mgmt (Guernsey) Limited (GSY)				
Regulated				
Equinox Russian Opportunities Fund Limited	$ 116.66	-	5.99	0.00
Euronova Asset Management UK LLP (CYM)				
Regulated				
Smaller Cos Cls One Shares	€ 34.80	-	0.16	0.00
Smaller Cos Cls Two Shares	€ 24.31	-	0.10	0.00
Smaller Cos Cls Three Shares	€ 12.14	-	0.06	0.00
Smaller Cos Cls Four Shares	€ 15.72	-	0.08	0.00
Eurobank Fund Management Company (Luxembourg) S.A.				
Regulated				
(LF) Absolute Return	€ 1.31	-	0.00	0.00
(LF) Eq Emerging Europe	€ 0.73	-	0.00	0.00
(LF) Eq Flexi Style Greece	€ 0.94	-	-0.05	0.00
(LF) Eq Mena Fund	€ 12.28	-	-0.09	0.00
(LF) Greek Government Bond	€ 19.87	-	0.02	-
(LF) Greek Corporate Bond	€ 12.48	-	0.00	-
(LF) FOF Dynamic Fixed Inc	€ 11.74	-	-0.02	0.00
(LF) FOF Real Estate	€ 16.45	-	0.12	0.00
FIL Investment Services (UK) Limited (1200)F (UK)				
130, Tonbridge Rd, Tonbridge TN11 9DZ				
Callfree: Private Clients 0800 414161				
Broker Dealings: 0800 414 181				
OEIC Funds				
Target 2020 A-ACC-GBP	£ 0.57	-	0.01	0.52
Target 2025 A-ACC-GBP	£ 1.32	-	0.02	0.32
Target 2030 A-ACC-GBP	£ 1.42	-	0.02	0.40
Institutional OEIC Funds				
Europe (ex-UK) Fund ACC-GBP	£ 3.96	-	0.02	1.58
Reduced Duration UK Corp Bond Gross	£ 10.67	-	-0.01	3.49
Reduced Duration UK Corp Bond Inc	£ 9.69	-	0.00	3.49
Reduced Dur UK Corp Bond Gross Inc	£ 9.70	-	0.00	3.48
UK Gilt Fund Inc	£ 1.31	-	0.00	1.98
UK Long Corporate Bond - Gross Inc	£ 11.25	-	0.02	4.22
Findlay Park Funds Plc (IRL)				
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900				
FCA Recognised				
American Fund USD Class	$ 82.83	-	0.48	0.00
American Fund GBP Hedged	£ 45.06	-	0.26	0.00
American Fund GBP Unhedged	£ 57.11	-	0.58	-
Latin American Fund USD Class	$ 12.80	-	0.04	0.00
Latin American Fund GBP Unhedged	£ 8.95	-	0.07	-
The First Investor QSCC				
5th Floor, Barwa Bank Building, Grand Hamad Street				
, P.O. Box 16034, Doha, State of Qatar				
+ 974 4459 6111				
http://www.tfi.com.qa/				
Other International Funds				
TFI GCC Equity Opportunities Fund (Q)	QAR 1245.70	-	11.19	0.00
Foord Asset Management				
Other International Funds				
Foord International Trust	$ 34.17	-	0.28	0.00
Foord Global Equity Fund_Class B	$ 12.09	-	0.13	0.00
Franklin Templeton International Services Sarl (IRL)				
JPMorgan House - International Financial Services Centre,Dublin 1, Ireland				
Other International Funds				
Franklin Emerging Market Debt Opportunities Fund Plc				
Franklin Emg Mkts Debt Opp CHF	SFr 16.87	-	-0.17	9.07
Franklin Emg Mkts Debt Opp EUR	€ 11.89	-	-0.12	7.00
Franklin Emg Mkts Debt Opp GBP	£ 10.15	-	-0.13	6.99
Franklin Emg Mkts Debt Opp SGD	S$ 22.01	-	-0.20	5.46
Franklin Emg Mkts Debt Opp USD	$ 17.00	-	-0.15	6.98
Frontier Capital (Bermuda) Limited				
Other International				
Commercial Property-GBP Class	£ 71.42	-	-0.53	-
Global Real Estate-GBP C Class	£ 45.26	-	-0.50	-
GYS Investment Management Ltd (GSY)				
Regulated				
Taurus Emerging Fund Ltd	$ 181.92	185.63	-5.71	0.00

Fund	Bid	Offer	D+/-	Yield
Generali Worldwide				
PO Box 613, Generali House, Hirzel Street, St Peter Port, Guernsey, GY1 4PA 01481 714108				
International Insurances				
Global Multi-Strategy Managed	$ 4.69	5.05	-0.04	0.00
UK Multi-Strategy Managed	£ 4.78	5.15	-0.01	0.00
EU Multi-Strategy Managed	€ 2.90	3.12	0.01	0.00
Global Bond USD	$ 3.52	3.80	-0.02	0.00
Genesis Asset Managers LLP				
Other International Funds				
Emerging Mkts NAV	£ 5.44	-	0.04	0.00
HPB Assurance Ltd				
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490				
International Insurances				
Holiday Property Bond Ser 1	£ 0.52	-	0.01	0.00
Holiday Property Bond Ser 2	£ 0.61	-	0.01	0.00
Haussmann				
Other International Funds				
Haussmann Cls A	$ 2535.25	-	0.85	0.00
Haussmann Cls C	€ 2204.59	-	0.11	0.00
Haussmann Cls D	SFr 1163.02	-	-0.19	0.00
Heartwood Wealth Management Limited (IRL)				
Regulated				
Heartwood Caut Multi Asset B Acc	139.27	-	-0.01	0.00
Hermes Investment Funds Plc (IRL)				
Hermes Investment Management Limited, 1 Portsoken Street, London E1 8HZ +44 (0) 207 680 2121				
FCA Recognised				
Hermes Abs Return Credit Fund Class F Acc £	£ 1.06	1.06	0.01	-
Hermes Abs Return Credit Fund Class R Acc €	€ 1.96	1.96	0.00	-
Hermes Active UK Inflation Fund Class F Acc	£ 1.31	1.31	0.01	0.00
Hermes Asia Ex-Japan Equity Fund Class F Acc	£ 1.59	1.59	0.02	0.00
Hermes Asia Ex-Japan Equity Fund Class R Acc	€ 3.25	3.25	0.02	0.00
Hermes Global Emerging Markets Fund Class F Acc	£ 1.17	1.17	0.01	0.00
Hermes Global Emerging Markets Fund Class R Acc	€ 2.79	2.79	0.02	0.00
Hermes Global Equity Fund Class F Acc	£ 1.56	1.56	0.02	0.00
Hermes Global Equity Fund Class R Acc	€ 3.85	3.85	0.02	0.00
Hermes Global ESG Equity Fund Class F Acc	£ 1.19	1.19	0.01	0.00
Hermes Global High Yield Bond Fund Class F Acc	£ 1.15	1.15	0.01	0.00
Hermes Global High Yield Bond Fund Class R Acc	€ 2.82	2.82	0.00	0.00
Hermes Global Small Cap Fund Class F Acc £	£ 1.06	1.06	0.02	-
Hermes Global Small Cap Fund Class R Acc €	€ 1.96	1.96	0.02	-
Hermes Multi Asset Inflation Fund Class F GBP Acc	£ 0.98	0.98	0.00	0.00
Hermes Multi Strategy Credit Fund Class F Acc Hed	£ 1.05	1.05	0.00	0.00
Hermes Sourcecap EU Alpha Fund Class F Acc	£ 1.30	1.30	0.01	0.00
Hermes Sourcecap EU Alpha Fund Class F Dis	£ 1.26	1.26	0.01	1.30
Hermes Sourcecap EU Alpha Fund Class R Acc	€ 2.95	2.95	0.00	0.00
Hermes Sourcecap EX UK Fund Class F Acc	£ 1.38	1.38	0.01	0.00
Hermes Sourcecap EX UK Fund Class R Acc	€ 3.06	3.06	0.01	0.00
Hermes UK Small & Mid Cap Fund Class F Acc	£ 1.52	1.52	0.03	0.00
Hermes UK Small & Mid Cap Fund Class R Acc	€ 4.30	4.30	0.08	0.00
Hermes US All Cap Equity Class F Stg £ Acc	£ 1.05	1.05	0.02	-
Hermes US All Cap Equity Class R € Acc	€ 1.94	1.94	0.02	-
Hermes US SMID Equity Fund Class F Acc	£ 1.76	1.76	0.03	0.00
Hermes US SMID Equity Fund Class R Acc	€ 3.55	3.55	0.05	0.00
INDIA VALUE INVESTMENTS LIMITED (INVIL)				
www.invil.mu				
Other International Funds				
NAV	£ 8.03	-	-0.08	0.00
Intercapital Asset Management Ltd (HRV)				
Masarykova ul. 1, 10000, Zagreb, Croatia				
www.icam.hr, Tel; +385 1 4825 868				
Other International Funds				
Capital One Bond Fund (Ex-YU)	HRK 209.51	-	0.01	-
Capital Two Equity Fund (Ex-YU)	HRK 91.78	-	-0.19	-
Intrinsic Value Investors (IVI) LLP (IRL)				
1 Hat & Mitre Court, 88 St John Street, London EC1M 4EL +44 (0)20 7566 1210				
FCA Recognised				
IVI European Fund EUR	€ 17.91	-	0.15	0.00
IVI European Fund GBP	£ 18.68	-	0.30	0.62
Invesco (LUX)				
Dublin 00 353 1 439 8100 Hong Kong 00852 3191 8282				
FCA Recognised				
Invesco Management SA				
Invesco Active Multi-Sector Credit Fund A	€ 2.93	-	0.00	0.00
Invesco Asia Balanced A dist	$ 13.86	-	-0.01	3.73
Invesco Asia Consumer Demand Fund A income	$ 11.73	-	-0.06	0.25
Invesco Asia Infrastructure (A)	$ 12.17	-	0.03	0.77
Invesco Asia Opportunities Equity A	$ 100.45	-	0.16	0.00
Invesco Balanced Risk Allocation Fund A	€ 15.14	-	0.02	0.00
Invesco Emerging Europe Equity Fund A	$ 8.19	-	-0.08	0.00
Invesco Emerging Local Currencies Debt A Inc	$ 6.84	-	0.01	6.16
Invesco Emerging Mkt Quant.Eq. A	$ 8.94	-	0.05	0.00
Invesco Energy A	$ 17.96	-	0.10	0.00
Invesco Euro Corporate Bond Fund (A)	€ 17.19	-	0.00	0.00
Invesco Euro Inflation Linked Bond A	€ 15.71	-	0.03	0.00
Invesco Euro Reserve A	€ 322.39	-	-0.01	0.00
Invesco Euro Bond A	€ 7.20	-	0.01	0.00
Invesco European Growth Equity A	€ 23.54	-	0.01	0.00
Invesco Global Absolute Return Fund A Class	€ 11.22	-	-0.02	0.00
Invesco Global Bond A Inc	$ 5.52	-	0.00	0.59
Invesco Global Conservative Fund 90 (EUR) A	€ 11.73	-	0.01	0.00
Invesco Global Equity Income Fund A	$ 57.18	-	0.01	0.00
Invesco Global Inc Real Estate Sec A dist	$ 9.31	-	0.01	2.23
Invesco Global Inv Grd Corp Bond A Dist	$ 11.83	-	0.01	3.12
Invesco Global Leisure A	$ 35.99	-	0.28	0.00
Invesco Global Smaller Comp Eq Fd A	$ 58.19	-	0.45	0.00
Invesco Global Structured Equity A	$ 44.50	-	0.19	1.18
Invesco Global Total Ret.(EUR) Bond Fund A	€ 13.18	-	0.01	0.00
Invesco Gold & Precious Metals A	$ 5.66	-	0.01	0.00
Invesco Greater China Equity A	$ 43.05	-	0.15	0.00
Invesco India Equity A	$ 50.06	-	-0.60	0.00
Invesco Japanese Equity Adv Fd A	¥ 3532.00	-	-16.00	0.00
Invesco Japanese Value Eq Fd A	¥ 1156.00	-	-4.00	0.00
Invesco Latin American Equity A	$ 6.07	-	0.04	0.00
Invesco Nippon Small/Mid Cap Equity A	¥ 1178.00	-	-1.00	0.00
Invesco Pan European Equity A EUR Cap NAV	€ 17.03	-	-0.06	0.00
Invesco Pan European High Income Fd A	€ 13.63	-	0.00	2.61
Invesco Pan European Small Cap Equity A	€ 20.78	-	0.07	0.00
Invesco Pan European Structured Equity A	€ 16.68	-	0.00	0.00
Invesco UK Eqty Income A	£ 30.88	-	0.15	0.00
Invesco UK Investment Grade Bond A	£ 1.00	-	0.00	2.67
Invesco US Structured Equity A	$ 21.38	-	0.11	0.00
Invesco US Value Eq Fd A	$ 30.16	-	0.21	0.00
Invesco USD Reserve A	$ 87.06	-	0.01	0.00
Invesco Global Asset Management Ltd (IRL)				
Dublin 00 353 1 439 8100 Hong Kong 00 852 2842 7200				
FCA Recognised				
Invesco Stlg Bd A QD F	£ 2.62	-	0.00	3.39
Invesco Asian Equity A	$ 6.00	-	0.04	0.00
Invesco ASEAN Equity A	$ 90.88	-	-0.01	0.27
Invesco Bond A	$ 27.77	-	0.05	1.89
Invesco Continental Eurp Small Cap Eqty A	$ 200.28	-	1.09	0.00
Invesco Emerging Markets Equity A	$ 34.68	-	0.24	0.00
Invesco Emerging Markets Bond A	$ 21.31	-	0.03	4.43
Invesco Continental European Equity A	€ 7.87	-	-0.01	1.19
Invesco Gilt A	£ 15.47	-	0.05	1.32
Invesco Global Small Cap Equity A NAV	$ 118.19	-	0.98	0.00
Invesco Global High Income A NAV	$ 12.26	-	0.03	5.78
Invesco Gbl R/Est Secs A GBP F F	£ 8.22	-	0.09	0.92
Invesco Global Health Care A	$ 115.11	-	1.64	0.00
Invesco Global Select Equity A	$ 12.21	-	0.02	0.07
Invesco Jap Eqty Core A	$ 1.76	-	0.01	0.09
Invesco Japanese Equity A	$ 18.76	-	0.09	0.00
Invesco Korean Equity A	$ 30.59	-	0.25	0.00
Invesco PRC Equity A	$ 46.58	-	-0.21	0.00
Invesco Pacific Equity A	$ 46.24	-	0.25	0.07
Invesco Global Technology A	$ 14.59	-	0.16	0.00
Invesco UK Eqty A	£ 7.59	-	0.02	1.51
Invest AD				
Client services: +971 2 692 6101 clientservices@InvestAD.com				
Other International Funds				
Invest AD - Emerging Africa Fund	$ 958.47	-	0.76	0.00
Invest AD - GCC Focus Fund	$ 1408.02	-	-0.26	0.00
GAM				
funds@gam.com, www.jbfundnet.com				
Regulated				
Ms EF Special Val. EUR/A	€ 137.63	-	1.33	1.12
Strategy Balanced-CHF/B	SFr 147.84	-	0.72	0.00
Strategy Balanced-EUR	€ 152.17	-	0.69	0.00
Strategy Balanced-USD/B	$ 128.53	-	0.52	0.00
Strategy Growth-CHF/B	SFr 90.51	-	0.60	0.00
Strategy Growth-EUR	€ 112.59	-	0.72	0.00
Strategy Inc-CHF/B	SFr 118.64	-	0.30	0.00
Strategy Inc-EUR/B	€ 158.50	-	0.41	0.00
Strategy Inc-USD/B	$ 146.69	-	0.34	0.00
Kames Capital VCIC (IRL)				
1 North Wall Quay, Dublin 1, Ireland +35 3162 24493				
FCA Recognised				
Absolute Return Bond B GBP Acc	1089.04	-	0.31	1.58
Eq Market Neutral B Acc	1015.04	-	0.80	-
Eq Market Neutral Plus B Acc	1017.63	-	2.26	-
High Yield Global Bond A GBP Inc	514.14	-	3.06	3.84
High Yield Global Bond B GBP Inc	1070.88	-	6.38	4.34
Investment Grade Global Bd A GBP Inc	566.51	-	0.14	2.20
Kames Global Equity Income B GBP Inc	1145.26	-	12.74	-
Strategic Global Bond A GBP Inc	1104.84	-	0.28	0.37
Strategic Global Bond B GBP Inc	626.80	-	0.16	0.87

Fund	Bid	Offer	D+/-	Yield
Lloyds Investment Fund Managers Limited (1000)F (JER)				
PO Box 311, 11-12 Esplanade, St Helier, Jersey, JE4 8ZU 01534 845555				
Other International Funds				
Lloydstrust Gilt	£ 12.4400	-	0.0200	2.22
Lloyds Investment Funds Limited				
Euro High Income	€ 1.6310	-	0.0020	2.92
European	£ 7.5670	-	0.0270	1.18
High Income	£ 0.8643	-	0.0005	4.93
International	£ 4.1080	-	0.0260	0.67
North American	£ 16.2100	-	0.1300	0.07
Sterling Bond	£ 1.4760	-	0.0010	3.59
UK	£ 6.4580	-	0.0080	1.56
Lloyds Gilt Fund Limited				
Lloyds Gilt Fund Quarterly Share	£ 1.2990	-	0.0010	1.73
Monthly Share	£ 1.2480	-	0.0010	1.73
Lloyds Money Fund Limited				
Sterling Class	£ 52.6280	-	0.0000	0.07
Lloyds Multi Strategy Fund Limited				
Conservative Strategy	£ 1.1180	-	0.0010	1.97
Growth Strategy	£ 1.4970	-	0.0110	1.32
Aggressive Strategy	£ 1.8150	-	0.0230	0.00
Global USD Growth Strategy	$ 1.3580	-	0.0110	0.00
Dealing Daily				
M & G (Guernsey) Ltd (GSY)				
Regulated				
The M&G Offshore Fund Range				
Corporate Bond	1330.63	1371.79	2.99	3.03
Global Basics	2431.96	2507.18	17.26	0.26
Global Leaders	3353.94	3403.69	41.56	1.11
Global High Yield Bond	963.26	993.05	1.96	4.28
Global Macro Bond Fund	11861.88	12248.36	96.50	1.46
North American Dividend Fund	164.73	171.59	2.45	2.19
Optimal Income Fund	141.23	145.60	0.18	2.47
Recovery Fund Limited 'A' Participating Shares	9793.18	10231.21	75.67	0.51
Recovery Fund Limited 'I' Participating Shares	9806.51	9907.59	76.15	1.33
Strategic Corporate Bond Fund	134.40	140.00	0.20	2.77
UK Select	1446.90	1507.18	5.34	1.14
MFS Investment Funds (LUX)				
FCA Recognised				
Blend.Research Gb.Eq.Fd.	€ 98.66	-	0.66	0.00
Blend.Research Gb.Eq.Fd.	£ 102.40	-	1.25	0.00
Blend.Research Gb.Eq.Fd.	$ 97.66	-	0.72	0.00
Blend.Research U.S.Core Eq.Fd.	€ 101.63	-	0.69	-
Blend.Research U.S.Core Eq.Fd.	£ 100.53	-	1.25	-
Blend.Research U.S.Core Eq.Fd.	¥ 9303.00	-	116.00	0.00
Blend.Research U.S.Core Eq.Fd.	$ 100.71	-	0.77	-
Em.Mk.Eq.Fund Euro	€ 105.63	-	0.41	0.00
Em.Mk.Eq.Fund Sterling	£ 95.96	-	0.91	0.00
Em.Mk.Eq.Fd.US Dollar	$ 90.46	-	0.42	0.00
Gb.Conc.Eq.Fd.Euro	€ 280.04	-	1.83	0.00
Gb.Conc.Eq.Fd.Sterl.UK T	£ 180.96	-	2.19	0.00
Gb.Conc.Eq.Fd.Sterling	£ 273.94	-	3.32	0.00
Gb.Conc.Eq.Fd.US	$ 198.62	-	1.45	0.00
Gb.Hdg.Fd.Euro IRE T	€ 183.33	-	1.49	0.00
Gb.Euro Hdg.Fd.	€ 259.78	-	2.11	0.00
Gb.Eq.Fund Euro	€ 280.90	-	2.04	0.00
Gb.Eq. Fd Euro IRE T	€ 177.73	-	1.29	0.00
Gb.Eq.Fd.Sterling UK T	£ 219.52	-	2.81	0.00
Gb.Eq.Fd.US Dollar	$ 314.85	-	2.51	0.00
Gb.Eq.Fund Sterling	£ 217.07	-	2.78	0.00
Gb.Val.Ex-Jap.Fd.USD	$ 120.91	-	0.84	0.00
Gb.Val.Ex-Jap.Fd.Yen	¥ 13132.00	-	154.00	0.00
Gb.Val.Fd. Euro	€ 133.70	-	0.70	0.00
Gb.Val.Fd.Sterling	£ 125.55	-	1.36	0.00
Gb.Val.Fd.USD	$ 107.85	-	0.64	0.00
Low Volatility Gb.Eq.Fd.Euro	€ 105.41	-	0.21	0.00
Low Volatility Gb.Eq.Fd.Sterl	£ 109.41	-	0.83	0.00
Low Volatility Gb.Eq.Fd.USD	$ 104.34	-	0.28	0.00
Low Volatility Gb.Eq.Fd.Yen	¥ 8998.00	-	67.00	-
MMIP Investment Management Limited (GSY)				
Regulated				
Multi-Manager Investment Programmes PCC Limited				
UK Equity Fd Cl A Series 01	£ 2305.23	2333.13	-7.29	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1531.02	-	-6.75	0.00
Diversified Absolute Return Stlg Cell AF2	£ 1549.30	-	-6.53	0.00
Global Equity Fund A Lead Series	£ 1047.03	1050.09	-1.09	-
Marlborough International Management Limited (GSY)				
Tudor House, Le Bordage, St Peter Port, Guernsey, GY1 1DB +44 1481 715230				
FCA Recognised				
Marlborough North American Fund Ltd	£ 33.24	35.42	-0.78	0.00
Marlborough Tiger Fund Ltd F	£ 23.70	25.26	-0.68	0.00
Marwyn Asset Management Limited (CYM)				
Regulated				
Marwyn Value Investors	£ 437.31	-	-6.34	0.00
Meridian Fund Managers Ltd				
Other International Funds				
Global Energy & Resources Fund	$ 31.84	-	2.42	-

Fund	Bid	Offer	D+/-	Yield
Mirabaud Asset Management (LUX)				
www.mirabaud.com, marketing@mirabaud.com				
Regulated				
Mir. - Conv. Bds Eur A EUR	€ 132.65	-	0.48	0.00
Mir. - Conv. Bds Glb A USD	$ 111.02	-	0.28	0.00
Mir. - Eq Asia ex Jap A	$ 159.44	-	1.24	0.00
Mir. - EqEurope ExUK Sm&Mid	£ 108.77	-	1.79	-
Mir. - Eq Glb Emrg Mkt A USD	$ 83.86	-	0.36	0.00
Mir. - Eq Global Focus A USD	$ 94.62	-	0.69	0.00
Mir. - EqPanEuropeSm&Mid	€ 112.89	-	1.20	0.00
Mir. - Eq Spain A	€ 24.02	-	0.16	0.00
Mir. - Eq Swiss Sm/Mid A	SFr 340.20	-	3.25	0.00
Mir. - Glb High Yield Bds A	€ 110.15	-	0.10	-
Mir. - Glb Eq High Income A USD	$ 96.05	-	0.66	0.00
Mir. - Glb Inv Grade Bds A	€ 102.76	-	0.00	-
Mir. - Glb Strat. Bd A USD	$ 106.61	-	0.00	0.00
Mir. - US Shrt Term Credit Fd	$ 100.99	-	0.00	-
MW Japan Fund Plc (IRL)				
FCA Recognised				
MW Japan Fund PLC A	$ 24.44	-	0.14	0.00
MW Japan Fund PLC B	$ 24.59	-	0.15	0.00
MW Japan Fund PLC C	$ 85.33	-	-0.17	0.00
Morant Wright Funds (Ireland) PLC (IRL)				
FCA Recognised				
Morant Wright Fuji Yield EUR Dist Hedged	€ 9.58	-	0.01	2.70
Morant Wright Fuji Yield GBP Acc Hedged	£ 10.06	-	0.01	0.00
Morant Wright Fuji Yield GBP Dist Hedged	£ 9.25	-	0.02	6.76
Morant Wright Fuji Yield USD Acc Hedged	$ 9.81	-	0.01	0.00
Morant Wright Fuji Yield USD Dist Hedged	$ 9.71	-	0.01	2.66
Morant Wright Fuji Yield YEN Acc	¥ 1019.34	-	0.67	0.00
Morant Wright Fuji Yield B YEN Acc	¥ 899.74	-	0.10	0.00
Morant Wright Fuji Yield YEN Dist	¥ 983.33	-	0.65	2.69
Morant Wright Sakura Fund Sterling Acc Hedged	£ 12.15	-	-0.02	0.00
Morant Wright Sakura Fund Euro Acc Hedged	€ 12.15	-	-0.03	0.00
Morant Wright Sakura Fund Yen Acc Unhedged	¥ 1250.84	-	-2.85	0.00
Morant Wright Sakura Fund Dollar Acc Hedged	$ 12.10	-	-0.03	0.00
Morant Wright Sakura Fund Swiss Franc Acc Hedged	SFr 12.01	-	-0.03	0.00
Morgan Stanley Investment Funds (LUX)				
6b Route de Trèves L-2633 Senningerberg Luxembourg (352) 34 64 61				
www.morganstanleyinvestmentfunds.com				
FCA Recognised				
US Advantage A F	$ 56.62	-	-0.01	0.00
Asian Equity A F	$ 38.74	-	0.30	0.00
Asian Property A F	$ 17.55	-	-0.07	0.00
Diversified Alpha Plus A F	€ 28.75	-	-0.02	0.00
Emerg Europ, Mid-East & Africa Eq A F	€ 64.15	-	-0.06	0.00
Emerging Markets Debt A F	$ 78.81	-	0.15	0.00
Emerging Markets Domestic Debt AX F	£ 10.95	-	0.01	4.10
Emerging Markets Equity A F	$ 32.51	-	0.10	0.00
Euro Bond A F	€ 16.08	-	0.01	0.00
Euro Corporate Bond AX F	£ 23.32	-	0.06	1.44
Euro Strategic Bond A F	€ 44.31	-	0.01	0.00
European Currencies High Yield Bd A F	€ 22.00	-	0.02	0.00
European Equity Alpha A F	€ 40.37	-	-0.10	0.00
European Property A F	€ 34.94	-	0.29	0.00
Eurozone Equity Alpha A F	€ 10.82	-	-0.03	0.00
Global Bond A F	$ 39.93	-	0.08	0.00
Global Brands A F	$ 100.95	-	-0.39	0.00
Global Convertible Bond A F	$ 40.93	-	0.07	0.00
Global Property A F	$ 27.89	-	0.02	0.00
Indian Equity A F	$ 33.93	-	-0.07	0.00
Latin American Equity A F	$ 40.45	-	-0.57	0.00
Short Maturity Euro Bond A F	€ 20.37	-	0.00	0.00
US Dollar Liquidity A F	$ 13.03	-	0.00	0.00
US Growth A F	$ 64.79	-	0.28	0.00
US Growth AH F	€ 44.74	-	0.20	0.00
US Growth AX F	£ 44.77	-	0.40	0.00
US Property A F	$ 70.13	-	0.14	0.00
Morgens Waterfall Vintiadis.co Inc				
Other International Funds				
Phaeton Intl (BVI) Ltd (Est)	$ 368.12	-	0.74	0.00
Natixis International Funds (Lux) I SICAV (LUX)				
Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA 0044 20 3216 9000				
FCA Recognised				
Harris Global Equity R/A (USD)	$ 233.71	233.71	1.56	0.00
Harris Concentrated US Equity R/A (USD)	$ 204.08	204.08	2.55	0.00
Loomis Sayles Strategic Alpha R/A (USD)	$ 111.30	111.30	-0.03	-

MANAGED FUNDS SERVICE

Natixis International Funds (Dublin) I plc (IRL)
Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA +44 (0)20 3216 9000
Regulated

Fund	Bid	Offer	D+/-	Yield
Loomis Sayles Global Opportunistic Bond R/D (USD)	$ 12.86	12.86	0.00	1.21
Loomis Sayles High Income R/D (USD)	$ 7.99	7.99	0.04	11.36
Loomis Sayles Multisector Income R/D (GBP)	$ 12.01	12.01	0.04	5.59

New Capital Fund Management Ltd (IRL)
Leconfield House, Curzon Street, London, W1J 5JB
FCA Recognised
New Capital UCITS Funds

Fund	Bid	Offer	D+/-	Yield
Asia Pac Bd USD Inst Inc	$ 94.30	-	-0.01	3.26
Asia Pac Bd USD Ord Inc	$ 96.14	-	-0.01	2.57
Asia Pac Eq EUR Ord Inc	€ 82.94	-	0.31	3.13
Asia Pac Eq GBP Ord Inc	£ 86.05	-	0.33	3.67
Asia Pac Eq USD Ord Inc	$ 87.10	-	0.33	3.12
Asia Pac Eq USD Inst Acc	$ 93.96	-	0.36	0.00
Asia Pac Eq USD Inst Inc	$ 97.28	-	0.37	3.78
Dyn Europ Eq EUR Ord Inc	€ 169.12	-	1.75	0.71
Dyn Europ Eq GBP Ord Inc	£ 179.57	-	1.88	1.07
Dyn Europ Eq USD Ord Inc	$ 168.88	-	1.76	0.71
China Equity EUR Ord Acc	€ 111.82	-	1.04	0.00
China Equity GBP Ord Acc	£ 116.71	-	1.08	0.00
China Equity USD Ord Acc	$ 114.16	-	1.06	0.00
China Equity USD Inst Acc	$ 117.78	-	1.09	0.00
Europ. Equity Fd EUR	€ 101.01	-	1.04	-
Europ. Equity Fd GBP	£ 99.46	-	1.04	-
Europ. Equity Fd USD	$ 99.87	-	1.04	-
Global Val.Cr.Fd GBP Ord Inc	£ 111.44	-	0.07	3.53
Global Val.Cr.Fd USD Inst Acc	$ 125.68	-	0.08	0.00
Global Val.Cr.Fd GBP Ord Acc	£ 180.72	-	0.11	0.00
Global Val.Cr.Fd USD Ord Acc	$ 169.74	-	0.10	0.00
Global Val.Cr.Fd EUR Ord Acc	€ 157.32	-	0.09	0.00
Swiss Select Equity Inst Acc	SFr 115.39	-	1.12	0.00
Swiss Select Equity Ord Acc	SFr 113.76	-	1.10	0.00
US Growth USD Ord Acc	$ 192.04	-	1.74	0.00
US Growth EUR Ord Acc	€ 182.95	-	1.64	0.00
US Growth GBP Ord Acc	£ 192.76	-	1.75	0.00
US Growth USD Inst Acc	$ 177.97	-	1.62	0.00
Wealthy Nat Bd EUR Inst Inc	€ 110.79	-	-0.03	3.58
Wealthy Nat Bd GBP Inst Inc	£ 115.51	-	-0.03	3.54
Wealthy Nat Bd EUR Ord Inc	€ 110.02	-	-0.03	3.33
Wealthy Nat Bd GBP Ord Inc	£ 116.12	-	-0.02	3.27
Wealthy Nat Bd USD Ord Inc	$ 113.39	-	-0.03	3.25
New Capital Alternative Strategies				
All Weather Fd USD Cls	$ 114.53	-	0.58	0.00
All Weather Fd EUR Cls	€ 102.47	-	0.49	0.00
All Weather Fd GBP Cls	£ 110.45	-	0.64	0.00
Tactical Opps USD Cls	$ 122.07	-	-3.04	0.00
Tactical Opps EUR Cls	€ 102.21	-	-2.61	0.00
Tactical Opps GBP Cls	£ 114.29	-	-2.85	0.00

Northwest Investment Management (HK) Ltd
11th Floor, Kinwick Centre, 32, Hollywood Road, Central Hong Kong +852 9084 4373
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Northwest $ class	$ 2280.74	-	1.03	0.00

Oasis Crescent Management Company Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Equity Fund	R 10.17	-	-0.08	0.00

Oasis Global Mgmt Co (Ireland) Ltd (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Oasis Global Investment (Ireland) Plc				
Oasis Crescent Global Short Term Income Fund	$ 0.99	-	0.00	1.05
Oasis Global Equity	$ 26.93	-	0.19	0.34
Oasis Crescent Global Investment Fund (Ireland) plc				
Oasis Crescent Global Equity Fund	$ 27.64	-	0.20	0.11
Oasis Crescent Variable Balanced Fund	£ 10.38	-	0.08	0.84
OasisCresGl Income Class A	$ 10.86	-	-0.01	2.45
OasisCresGl LowBal D ($) Dist	$ 11.68	-	0.05	0.00
OasisCresGl Med Eq Bal A ($) Dist	$ 11.89	-	0.08	0.53
Oasis Crescent Gbl Property Eqty	$ 9.62	-	0.07	1.73

Odey Asset Management LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
OEI Mac Inc GBP A	£ 282.02	-	22.11	0.00
OEI Mac Inc GBP B	£ 148.94	-	13.64	0.00
OEI MAC Inc USD	$ 1391.93	-	116.08	0.00
Odey European Inc EUR	€ 613.36	-	44.48	0.00
Odey European Inc GBP A	£ 237.93	-	17.53	0.00
Odey European Inc GBP B	£ 135.03	-	9.95	0.00
Odey European Inc USD	$ 284.37	-	20.72	0.00
Giano Capital EUR Inc	€ 4413.43	-	-216.41	0.00

Odey Asset Management LLP (IRL)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Odey Pan European EUR R	€ 299.68	-	3.46	0.00
Odey Absolute Return Focus Fund	$ 90.30	-	-2.89	-
Odey Allegra European EUR O	€ 247.69	-	1.74	0.00
Odey Allegra International EUR O	€ 158.30	-	1.13	0.00
Odey Allegra Developed Markets USD I	$ 124.09	-	1.42	0.00
Odey European Focus Fund	€ 16.98	-	0.15	0.00
Odey Giano European Fund EUR R	€ 114.75	-	-0.41	0.00
Odey Naver Fund EUR I	€ 114.23	-	-0.30	0.00
Odey Odyssey USD I	$ 128.42	-	-1.49	0.00
Odey Swan Fund EUR I	€ 70.79	-	-0.89	0.00
Odey European Absolute Return GBP S	£ 88.90	-	-0.53	0.00

Odey Wealth Management (CI) Ltd (IRL)
www.odey.com/prices
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Odey Opportunity EUR I	€ 209.05	-	0.31	0.00

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 845.76	-	23.33	0.00

Optima Fund Management
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Cuttyhunk Fund II Limited	$ 1354.80	-	-69.50	0.00
JENOP Global Healthcare Fund Ltd	$ 12.37	-	-0.19	0.00
OPTIKA Fund Limited - Cl A	$ 86.21	-	0.07	-
Optima Fd NAV (Est)	$ 82.35	-	0.43	0.00
Optima Discretionary Macro Fund Limited	$ 84.55	-	0.25	0.00
The Dorset Energy Fd Ltd NAV (Est)	$ 31.27	-	0.23	0.00
Platinum Fd Ltd (Est)	$ 81.48	-	-0.45	0.00
Platinum Fd Ltd EUR (Est)	€ 15.67	-	-0.10	0.00
Platinum Japan Fd Ltd (Est)	$ 51.70	-	-0.24	0.00
Optima Partners Global Fd (Est)	$ 13.41	-	-0.01	0.00
Optima Partners Focus Fund A	$ 14.49	-	0.01	0.00

Oryx International Growth Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
NAV (Fully Diluted)	£ 7.00	-	-0.01	0.00

Permal Investment Mgmt Svcs Ltd
www.permal.com
Other International Funds
Offshore Fund Class A US $ Shares

Fund	Bid	Offer	D+/-	Yield
Investment Holdings N.V.	$ 5037.64	-	-16.52	0.00
Macro Holdings Ltd	$ 4143.04	-	3.85	0.00
Fixed Income Holdings N.V.	$ 336.41	-	4.65	-
Permal Absolute Return Fund	$ 153.10	-	-0.04	0.00

Pictet Asset Management (Europe) SA (LUX)
15, Avenue J.F. Kennedy L-1855 Luxembourg
Tel: 0041 58 323 3000
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Pictet-Absl Rtn Fix Inc-HI EUR	€ 107.15	-	-0.01	0.00
Pictet-Agriculture-I EUR F	€ 181.01	-	-0.06	0.00
Pictet-Asian Equities Ex Japan-I USD F	$ 194.59	-	1.44	0.00
Pictet-Asian Local Currency Debt-I USD F	$ 157.35	-	0.65	0.00
Pictet-Biotech-I USD F	$ 660.52	-	12.68	0.00
Pictet-Brazil Index I USD	$ 43.58	-	0.20	0.00
Pictet-CHF Bonds I CHF	SFr 510.65	-	-0.40	0.00
Pictet-China Index I USD	$ 93.61	-	0.68	0.00
Pictet-Clean Energy-I USD F	$ 75.82	-	0.99	0.00
Pictet-Digital Communication-I USD F	$ 257.50	-	1.73	0.00
Pictet-Em Lcl Ccy Dbt-I USD F	$ 162.08	-	0.07	0.00
Pictet-Emerging Europe-I EUR F	€ 277.37	-	-3.15	0.00
Pictet-Emerging Markets-I USD F	$ 460.43	-	4.19	0.00
Pictet-Emerging Markets Index-I USD F	$ 204.89	-	0.99	0.00
Pictet-Emerging Corporate Bonds I USD	$ 111.91	-	0.07	0.00
Pictet-Emerging Markets High Dividend I USD	$ 90.49	-	0.82	0.00
Pictet-Emerging Markets Sust Eq I USD F	$ 82.16	-	0.16	0.00
Pictet-EUR Bonds-I F	€ 570.84	-	0.05	0.00
Pictet-EUR Corporate Bonds Ex Fin I EUR	€ 147.00	-	-0.03	0.00
Pictet-EUR Corporate Bonds-I F	€ 203.90	-	-0.02	0.00
Pictet-EUR Government Bonds I EUR	€ 162.29	-	0.04	0.00
Pictet-EUR High Yield-I F	€ 245.22	-	0.34	0.00
Pictet-EUR Short Mid-Term Bonds-I F	€ 137.22	-	0.01	0.00
Pictet-EUR Short Term HY I EUR	€ 122.08	-	0.09	0.00
Pictet-EUR Sov.Sht.Mon.Mkt EUR I	€ 102.78	-	0.00	0.00
Pictet-Euroland Index IS EUR	€ 123.15	-	1.69	0.00
Pictet-Europe Index-I EUR F	€ 159.82	-	1.95	0.00
Pictet-European Equity Selection-I EUR F	€ 590.93	-	7.85	0.00
Pictet-European Sust Eq-I EUR F	€ 236.82	-	3.08	0.00
Pictet-Global Bds Fundamental I USD	$ 122.50	-	0.05	0.00
Pictet-Global Bonds-I EUR	€ 171.10	-	-0.34	0.00
Pictet-Global Emerging Currencies-I USD F	$ 98.83	-	0.16	0.00
Pictet-Global Emerging Debt-I USD F	$ 373.70	-	0.05	0.00
Pictet-Global Env.Opport-I EUR	€ 157.83	-	1.60	0.00
Pictet-Global Megatrend Selection-I USD F	$ 217.99	-	1.86	0.00
Pictet-Greater China-I USD F	$ 406.06	-	3.43	0.00
Pictet-Health-I USD	$ 257.77	-	2.33	0.00
Pictet-High Dividend Sel I EUR F	€ 154.68	-	1.02	0.00
Pictet-India Index I USD	$ 91.70	-	-0.64	0.00
Pictet-Indian Equities-I USD F	$ 422.73	-	1.64	0.00
Pictet-Japan Index-I JPY F	¥ 14107.54	-	-58.73	0.00
Pictet-Japanese Equities Opp-I JPY F	¥ 8462.89	-	-28.79	0.00
Pictet-Japanese Equity Selection-I JPY F	¥ 12347.34	-	-54.72	0.00
Pictet-LATAM Index I USD	$ 53.82	-	0.25	0.00
Pictet-LATAM Lc Ccy Dbt-I USD F	$ 117.62	-	1.76	0.00
Pictet-Multi Asset Global Opportunities-I EUR	€ 115.47	-	0.13	0.00
Pictet-Pacific Ex Japan Index-I USD F	$ 330.04	-	2.74	0.00
Pictet-Premium Brands-I EUR F	€ 138.75	-	1.00	0.00
Pictet-Quality Global Equities I USD	$ 136.73	-	0.58	0.00
Pictet-Russia Index I USD	$ 52.77	-	0.04	0.00
Pictet-Russian Equities-I USD F	$ 47.99	-	0.41	0.00
Pictet-Security-I USD F	$ 201.91	-	1.62	0.00
Pictet-Select-Callisto I EUR	€ 103.19	-	0.27	0.00
Pictet-Small Cap Europe-I EUR F	€ 1103.86	-	12.72	0.00
Pictet-ST.MoneyMkt-I	€ 140.36	-	0.00	0.00
Pictet-ST.MoneyMkt JPY I USD	¥ 101475.06	-	0.56	0.00
Pictet-ST.MoneyMkt-ICHF	SFr 123.82	-	0.00	0.00
Pictet-ST.MoneyMkt-IUSD	$ 135.71	-	0.01	0.00
Pictet-Timber-I USD F	$ 143.18	-	1.90	0.00
Pictet Total Ret-Agora I EUR	€ 114.15	-	-0.01	0.00
Pictet Total Ret-Corto Europe I EUR	€ 133.04	-	0.46	0.00
Pictet Total Ret-Divers Alpha I EUR	€ 104.42	-	0.00	0.00
Pictet Total Ret-Kosmos I EUR	€ 109.96	-	-0.13	0.00
Pictet Total Ret-Mandarin I USD	$ 112.45	-	0.38	0.00
Pictet-US Equity Selection-I USD	$ 187.64	-	2.18	0.00
Pictet-US High Yield-I USD F	$ 146.25	-	0.34	0.00
Pictet-USA Index-I USD F	$ 182.34	-	1.11	0.00
Pictet-USD Government Bonds-I F	$ 652.72	-	-0.14	0.00
Pictet-USD Short Mid-Term Bonds-I F	$ 130.89	-	0.07	0.00
Pictet-USD Sov.ST.Mon.Mkt-I	$ 102.85	-	0.00	0.00
Pictet-Water-I EUR F	€ 286.98	-	1.92	0.00

Pimco Fds: Global Investors Series Plc (IRL)
PIMCO Europe Ltd,11 Baker Street,London W1U 3AH
http://gisnav.pimco-funds.com/
Dealing: +44 20 3640 1000
PIMCO Funds: +44 (0)20 3640 1407
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Capital Securities Inst Acc	$ 14.75	-	0.04	0.00
Commodity Real Return Fund Inst Acc	$ 6.23	-	0.01	0.00
Credit Absolute Return Fund Inst Acc	$ 11.10	-	0.02	0.00
Diversified Income - Inst Acc	$ 20.12	-	0.03	0.00
Diversified Income Durat Hdg Fund Inst Acc	$ 11.44	-	0.01	0.00
Emerging Asia Bond Fund Inst Acc	$ 10.14	-	0.03	0.00
Emerging Local Bond - Inst Acc	$ 11.31	-	0.06	0.00
Emerging Markets Bond - Inst Acc	$ 39.94	-	0.09	0.00
Emerging Markets Corp.Bd Fund Inst Acc F	$ 13.16	-	0.02	0.00
Emerging Markets Short-Term Local Currency Fund	$ 12.04	-	0.05	0.00
Euro Bond - Inst Acc	€ 23.08	-	0.01	0.00
Euro Credit - Inst Acc	€ 15.11	-	0.00	0.00
Euro Income Bond - Inst Acc F	€ 13.26	-	0.00	0.00
Euro Long Average Duration - Inst Acc	€ 23.54	-	-0.01	0.00
Euro Low Duration Fund Inst Acc	€ 11.31	-	0.00	0.00
Euro Real Return - Inst Acc	€ 13.64	-	0.01	0.00
Euro Short-Term - Inst Acc	€ 12.25	-	0.00	0.00
Euro Ultra Long Duration - Inst Acc	€ 31.71	-	-0.02	0.00
Global Advantage - Inst Acc	$ 12.40	-	0.02	0.00
Global Advantage Real Return Fund Inst Acc	$ 8.60	-	0.02	0.00
Global Bond - Inst Acc	$ 28.62	-	0.02	0.00
Global Bond Ex-US - Inst Acc	$ 20.19	-	0.03	0.00
Global High Yield Bond - Inst Acc	$ 20.52	-	0.07	0.00
Global Investment Grade Credit - Inst Income	$ 12.31	-	0.01	3.80
Global Investment Grade Credit Fund Inst Acc €	€ 11.89	-	0.00	0.00
Global Investment Grade Credit Fund Inst Acc $	$ 17.19	-	0.02	0.00
Global Multi-Asset - Inst Acc	$ 14.16	-	0.07	0.00
Global Real Return - Inst Acc	$ 18.39	-	-0.01	0.00
Income Fund Inst Acc	$ 12.68	-	0.02	0.00
Inflation Strategy Fund Inst Acc	$ 9.01	-	0.03	0.00
Low Average Duration - Inst Acc	$ 14.93	-	0.01	0.00
PIMCO RAE Fundam.PLUS Em.Mkts Inst Acc	$ 8.33	-	0.04	0.00
PIMCO RAE Fundam.PLUS Gl.Dev.Inst Acc	$ 10.77	-	0.08	0.00
PIMCO RAE Fundam.PLUS US Inst Acc	$ 12.40	-	0.08	0.00
Socially Resp.Emerg.Mkts Bd Fd Inst Acc F	$ 13.20	-	0.01	0.00
StocksPLUS(TM) - Inst Acc	$ 23.34	-	0.15	0.00
Total Return Bond - Inst Acc	$ 27.77	-	0.01	0.00
UK Corporate Bond - Inst Acc	£ 17.76	-	-0.02	0.00
UK Long Term Corp. Bnd Inst Acc	£ 19.86	-	-0.04	0.00
UK Low Duration - Inst Acc	£ 14.12	-	-0.01	0.00
UK Real Return - Inst Acc	£ 22.94	-	-0.04	0.00
UK Sterling Long Average Duration - Inst Acc	£ 23.16	-	0.04	0.00
Unconstrained Bond - Inst Acc	$ 12.03	-	0.02	0.00
US High Yield Bond Fund Inst Acc	$ 28.43	-	0.10	0.00

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A (Est)	$ 114.57	-	-	-
Platinum Global Dividend Fund - A	$ 49.22	-	-	-
Platinum Maverick Enhanced Fund Limited (Est)	$ 89.93	-	-	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Asian Financials I USD	$ 276.90	276.90	1.08	1.16
Biotechnology I USD	$ 15.46	15.46	0.27	0.00
European Income Acc EUR	€ 10.96	10.96	0.14	0.00
European Ex UK Inc EUR Acc	€ 9.47	9.47	0.12	-
Financial Opps I USD	$ 11.16	-	0.05	1.94
GEM Growth I USD	$ 8.18	-	0.05	0.00
GEM Income I USD	$ 9.20	-	0.03	0.00
Global Alpha I USD	$ 12.73	12.73	0.11	0.00
Global Convertible I USD	$ 11.25	11.25	0.04	0.00
Global Insurance I GBP	£ 4.38	-	0.05	0.00
Global Technology I USD	$ 22.70	-	0.38	0.00
Healthcare Blue Chip Fund I USD Acc	$ 10.32	10.32	0.12	0.00
Healthcare Opps I USD	$ 34.63	-	0.42	0.00
Income Opportunities B2 I GBP Acc	£ 1.70	1.70	0.02	0.00
Japan Alpha I JPY	¥ 173.66	173.66	-0.76	0.00
Japan I JPY	¥ 1724.82	-	-0.52	1.19
North American I USD	$ 17.48	17.48	0.14	0.00
UK Absolute Equity I GBP	£ 13.19	13.19	0.03	0.00

Polar Capital LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
ALVA Convertible A USD	$ 128.55	-	0.41	0.00
European Conviction A EUR	€ 143.45	-	-1.26	0.00
European Forager A EUR	€ 172.73	-	1.78	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 17/05/2016	£ 486.47	491.54	1.30	1.25

Prusik Investment Management LLP (IRL)
Enquiries - 0207 493 1331
Regulated

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 156.49	-	0.03	3.97
Prusik Asia A	$ 183.12	-	0.91	0.00
Prusik Asian Smaller Cos A	$ 141.16	-	1.18	0.00

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ♦	160.23	-	-0.01	0.00
PCG C ♦	157.88	-	-0.01	0.00

Putnam Investments (Ireland) Ltd (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Putnam New Flag Euro High Yield Plc - E	€ 1000.94	-	0.51	4.03

Robeco Asset Management (LUX)
Coolsingel 120, 3011 AG Rotterdam, The Netherlands.
www.robeco.com/contact
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Asia-Pacific Equities (EUR)	€ 122.25	-	-0.35	0.00
Chinese Equities (EUR)	€ 65.68	-	0.26	0.00
Em Stars Equities (EUR)	€ 154.75	-	0.98	0.00
Emerging Markets Equities (EUR)	€ 133.67	-	1.03	0.00
Flex-o-Rente (EUR)	€ 111.05	-	0.01	0.00
Glob.Consumer Trends Equities (EUR)	€ 145.44	-	1.00	0.00
High Yield Bonds (EUR)	€ 129.64	-	0.17	0.00
Lux -O- Rente (EUR)	€ 148.23	-	0.18	0.00
New World Financials (EUR)	€ 47.74	-	0.45	0.00
US Premium Equities (EUR)	€ 179.70	-	1.38	0.00
US Premium Equities (USD)	$ 201.28	-	1.55	0.00

S W Mitchell Capital LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
S W Mitchell European Fund Class A EUR	€ 279.01	-	3.39	-
S W Mitchell Small Cap European Fund Class A EUR	€ 216.31	-	2.15	-
The Charlemagne Fund EUR	€ 247.09	-	-68.80	-

S W Mitchell Capital LLP (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
SWMC European Fund B EUR	€ 1398.42	-	210.65	0.00
SWMC UK Fund B	£ 1282.56	-	158.44	0.00
SWMC Small Cap European Fund B EUR	€ 1262.64	-	88.85	0.00
SWMC Emerging European Fund B EUR	€ 935.04	-	59.90	0.00

RobecoSAM (LUX)
Tel. +41 44 653 10 10 http://www.robecosam.com/
Regulated

Fund	Bid	Offer	D+/-	Yield
RobecoSAM Sm.Energy/A	€ 11.27	-	0.20	1.65
RobecoSAM Sm.Energy/N	€ 11.09	-	0.14	0.00
RobecoSAM Sm.Materials/A	€ 125.01	-	1.65	1.38
RobecoSAM Sm.Materials/N	€ 139.83	-	1.08	0.00
RobecoSAM Sm.Materials/Na	€ 96.52	-	0.75	-
RobecoSAM Gl.Small Cap Eq/A	€ 79.44	-	1.07	1.27
RobecoSAM Gl.Small Cap Eq/N	€ 153.87	-	1.22	0.00
RobecoSAM Sustainable Gl.Eq/B	€ 173.19	-	1.04	0.00
RobecoSAM Sustainable Gl.Eq/N	€ 149.91	-	0.89	0.00
RobecoSAM S.HealthyLiv/B	€ 173.31	-	0.96	0.00
RobecoSAM S.HealthyLiv/N	€ 162.02	-	0.90	0.00
RobecoSAM S.HealthyLiv/Na	€ 109.18	-	1.21	-
RobecoSAM S.Water/A	€ 181.70	-	2.28	1.14
RobecoSAM S.Water/N	€ 169.83	-	1.20	0.00

Schroder Property Managers (Jersey) Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Indirect Real Estate SIRE	£ 132.66	139.49	0.17	2.35

SIA (SIA Funds AG) (CH)
Other International Fds

Fund	Bid	Offer	D+/-	Yield
LTIF Stability Growth	SFr 192.20	-	-1.20	-
LTIF Stability Inc Plus	SFr 165.00	-	-1.00	0.53

Standard Life Wealth (JER)
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
FCA Recognised
Standard Life Offshore Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Bridge Fund	£ 1.6151	-	0.0113	1.85
Diversified Assets Fund	£ 1.1773	-	0.0034	3.23
Global Equity Fund	£ 1.8952	-	0.0184	0.97
Global Balanced Fund - Income Units	£ 1.3546	-	0.0067	2.00
Global Balanced Fund - Accumulations Units	£ 1.5850	-	0.0079	1.97
Global Fixed Interest Fund	£ 0.9957	-	0.0012	4.63
Sterling Fixed Interest Fund	£ 0.8496	-	0.0018	3.91
UK Equity Fund	£ 1.9733	-	0.0090	2.77

Stenham Asset Management Inc
www.stenhamassetmanagement.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Stenham Asia USD	$ 122.12	-	-1.29	0.00
Stenham Credit Opportunities A Class USD	$ 99.58	-	1.93	0.00
Stenham Growth USD	$ 196.98	-	-2.42	-
Stenham Healthcare USD	$ 162.72	-	3.22	0.00
Stenham Managed Fund USD	$ 106.75	-	-0.25	0.00
Stenham Macro UCITS USD	$ 99.82	-	0.00	0.00
Stenham Multi Strategy USD	$ 108.98	-	-0.90	-
Stenham Quadrant USD A	$ 399.31	-	3.86	-
Stenham Trading Inc USD	$ 115.63	-	1.12	-
Stenham Universal USD	$ 409.59	-	-1.20	-
Stenham Universal II USD	$ 151.42	-	-0.51	0.00

Stratton Street Capital (CI) Limited (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Japan Synthetic Warrant Yen Class	¥ 1243.57	-	-34.21	0.00
Japan Synthetic Warrant GBP Hedged Class	£ 132.09	-	-9.67	0.00
Japan Synthetic Warrant USD Class	$ 14.95	-	-0.29	0.00
Japan Synthetic Warrant USD Hedged Class	$ 132.10	-	-8.49	0.00
Renminbi Bond Fund AUD Cls A	A$ 62.12	-	-1.06	3.30
Renminbi Bond Fund AUD Cls B	A$ 124.07	-	-1.07	3.08
Renminbi Bond Fund CHF Cls A	SFr 117.30	-	-1.03	3.41
Renminbi Bond Fund CHF Cls B	SFr 117.19	-	-1.03	3.16
Renminbi Bond Fund CNH Cls A	CNH 130.11	-	-0.96	3.26
Renminbi Bond Fund CNH Cls B	CNH 129.93	-	-0.95	3.02
Renminbi Bond Fund Euro Cls B	€ 119.36	-	-1.05	3.08
Renminbi Bond Fund GBP Cls B	£ 121.89	-	-1.05	3.14
Renminbi Bond Fund SGD Cls B	S$ 121.56	-	-1.05	3.07
Renminbi Bond Fund USD Cls A	$ 121.69	-	-1.06	2.93
Renminbi Bond Fund YEN Cls B	¥ 13748.41	-	-121.36	0.00
Renminbi Bond Fund USD Cls A	$ 167.63	-	-1.45	3.18
Renminbi Bond Fund GBP Cls A	£ 162.31	-	-1.39	3.39
Renminbi Bond Fund SGD Cls A	S$ 160.86	-	-1.39	3.32
Renminbi Bond Fund YEN Cls A	¥ 20345.00	-	-179.00	0.00
Renminbi Bond Fund EUR Cls A	€ 109.67	-	-0.97	3.33

E.I. Sturdza Strategic Management Limited (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Nippon Growth Fund Limited	¥ 84405.00	-	823.00	0.00
Strat Evarich Japan Fd Ltd JPY	¥ 72292.00	-	372.00	0.00
Strat Evarich Japan Fd Ltd USD	$ 720.64	-	3.77	0.00

E.I. Sturdza Funds PLC (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Nippon Growth (UCITS) Fund Euro Hedged Class EUR	€ 919.38	-	5.99	0.00
Nippon Growth (UCITS) Fund Yen Hedged Institutional Class EUR	€ 1082.63	-	6.98	0.00
Nippon Growth (UCITS) Fund JPY Class A shares	¥ 85535.00	-	563.00	0.00
Nippon Growth (UCITS) Fund JPY Class B Acc shares	¥ 71707.00	-	472.00	0.00
Nippon Growth (UCITS) Fund JPY Class C Dis shares	¥ 82112.00	-	966.00	0.00
Nippon Growth (UCITS) Fund Class D Institutional JPY	¥ 46589.00	-	307.00	0.00
Strategic China Panda Fund USD	$ 1970.79	-	12.26	0.00
Strategic China Panda Fund Hedged EURO	€ 1912.42	-	11.85	0.00
Strategic China Panda Fund Hedged Sterling	£ 1941.20	-	12.09	0.00
Strategic Euro Bond Accumulating Class CHF	SFr 984.31	-	0.05	0.00
Strategic Euro Bond Institutional Class EUR	€ 1016.59	-	0.09	0.00
Strategic Euro Bond Fund Accumulating Class Shares	€ 1138.32	-	0.09	0.00
Strategic Euro Bond Fund Distributing Class Shares	€ 1027.95	-	0.08	1.32
Strategic European Smaller Companies Fund EUR Class	€ 969.65	-	0.05	-
Strategic Global Bond RMB Acc	¥ 1076.20	-	0.34	0.00
Strategic Global Bond USD Acc	$ 1062.25	-	0.24	0.00
Strategic US Momentum and Value Fund	$ 720.55	-	5.70	0.00
Strategic US Momentum & Value Fund USD I Class	$ 479.76	-	3.80	0.00
Strategic US Momentum and Value Fund GBP Hedged Class EUR	€ 501.37	-	3.99	0.00
Strategic US Momentum and Value Fund GBP Hedged Class CHF	SFr 497.35	-	3.91	0.00

The Hartford International Funds (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Gbl Govt Bond (Ex Japan) Index (GBP)	£ 1710.13	-	8.26	0.00
UK Corporate Bond	£ 1628.88	-	3.38	0.00
Gilt	£ 1541.00	-	4.90	0.00
Global Eq (Ex Japan) Index Fund	¥ 1.36	-	0.01	0.00
Global Eq (ex Japan) Class HJ4	¥ 1.42	-	0.01	0.00
Global Eq (ex Japan) Class JP5	¥ 1.41	-	0.02	0.00
Gbl Eq Ex Japan Index Fund (Hedge)	¥ 1.29	-	0.02	0.00
Gbl Govt Bond (Ex Japan) Index	¥ 1.26	-	0.01	0.00
Gbl Govt Bond (ex Japan) Class JP4	¥ 1.23	-	0.00	0.00
Japan Equity Index Fund	¥ 0.93	-	0.03	0.00
Japan Equity Class JP3	¥ 1.13	-	0.03	0.00

The National Investor (TNI)
www.tni.ae
Other International Funds

Fund	Bid	Offer	D+/-	Yield
TNI Blue Chip UAE Fund *	AED 10.11	-	-0.07	0.00
TNI Funds Ltd (BMU)				
MENA Hedge Fund	$ 954.01	-	32.16	0.00

Toscafund Asset Management LLP (UK)
www.toscafund.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 2.87	-	0.04	4.65
Aptus Global Financials B Inc	£ 2.51	-	0.04	4.81

Toscafund Asset Management LLP
www.toscafund.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 268.48	-	3.15	-
Tosca Mid Cap GBP	£ 261.94	-	2.08	0.00
Tosca Opportunity B USD	$ 359.70	-	3.16	0.00
Pegasus Fund Ltd A-1 GBP	£ 61.12	-	0.06	0.00

TreeTop Asset Management S.A. (LUX)
Regulated
TreeTop Convertible Sicav

Fund	Bid	Offer	D+/-	Yield
International A	€ 269.38	-	2.39	0.00
International B	£ 347.87	-	3.24	0.00
International C	£ 117.55	-	1.11	0.00
International D	€ 250.16	-	2.24	3.35
TreeTop Global Sicav				
Global Opp A	€ 134.20	-	0.80	0.00
Global Opp B	£ 134.42	-	0.78	0.00
Global Opp C	£ 177.21	-	1.86	0.00
Sequoia Equity A	€ 130.32	-	0.90	0.00
Sequoia Equity B	£ 135.22	-	0.96	0.00
Sequoia Equity C	£ 159.69	-	1.91	0.00

Unicapital Investments (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
Investments III	€ 5.03	-	-22.38	-
Investments IV - European Private Eq.	€ 214.33	225.05	-33.42	-
Investments IV - Global Private Eq.	€ 321.82	337.91	-44.60	-

Value Partners Hong Kong Limited (IRL)
www.valuepartners.net, fis@vp.com.hk
Regulated

Fund	Bid	Offer	D+/-	Yield
Value Partners Asia ex-Japan Equity Fund	$ 8.04	-	0.05	-
Value Partners Classic Equity Fund USD Z Unhedged	$ 10.00	-	0.03	0.00
Value Partners Classic Equity Fund CHF Hedged	SFr 10.37	-	0.02	0.00
Value Partners Classic Equity Fund EUR Hedged	€ 10.51	-	0.03	0.00
Value Partners Classic Equity Fund GBP Hedged	£ 10.78	-	0.03	0.00
Value Partners Classic Equity Fund GBP Unhedged	£ 11.54	-	0.09	0.00
Value Partners Classic Equity USD Hedged	$ 12.27	-	0.03	0.00
Value Partners Greater China Equity Fund	$ 7.52	-	0.06	-
Value Partners Health Care Fund RMB Class Z Unhedged	CNH 9.30	-	-0.03	0.00
Value Partners Health Care Fund HKD Class A Unhedged	HK$ 8.74	-	-0.02	0.00
Value Partners Health Care Fund USD Class A Unhedged	$ 8.75	-	-0.03	0.00

Veritas Asset Management LLP (IRL)
HSSI Ltd, 1 Grand Canal Sq, Grand Canal Harbour, Dublin 2, Ireland
Veritas Funds Plc
www.veritas-asset.com
+353 1 635 6799
FCA Recognised
Institutional

Fund	Bid	Offer	D+/-	Yield
Veritas Asian Fund A USD H	$ 312.04	-	0.06	0.43
Veritas Asian Fund A GBP H	£ 401.20	-	3.01	0.24
Veritas Asian Fund A EUR H	€ 317.96	-	0.19	0.22
Veritas China Fund A USD	$ 121.76	-	0.97	0.40
Veritas China Fund A GBP	£ 126.06	-	1.00	0.42
Veritas China Fund A EUR	€ 119.83	-	0.94	0.42
Veritas Global Equity Income Fund D USD	$ 116.55	-	0.19	4.02
Veritas Global Equity Income Fund D EUR	€ 201.93	-	0.47	4.11
Veritas Global Equity Income Fund D GBP	£ 156.59	-	1.42	3.88
Veritas Global Focus Fund D USD	$ 25.95	-	-0.07	0.64
Veritas Global Focus Fund D EUR	€ 23.30	-	-0.08	0.66
Veritas Global Focus Fund D GBP	£ 30.20	-	0.04	0.60
Veritas Global Focus Fund A GBP	£ 29.14	-	0.04	0.35
Veritas Global Focus Fund A EUR	€ 13.57	-	-0.05	0.37
Veritas Global Focus Fund A USD	$ 25.02	-	-0.06	0.37
Veritas Global Focus Fund C GBP	£ 31.67	-	0.05	0.00
Veritas Global Focus Fund C EUR	€ 24.54	-	-0.09	0.00
Veritas Global Focus Fund C USD	$ 27.26	-	-0.07	0.00
Veritas Global Equity Income Fund A GBP	£ 149.89	-	1.36	3.89
Veritas Global Equity Income Fund A EUR	€ 195.93	-	0.44	4.12
Veritas Global Equity Income Fund A USD	$ 112.03	-	0.19	4.03
Veritas Global Equity Income Fund C GBP	£ 182.91	-	1.66	-
Veritas Global Equity Income Fund C EUR	€ 238.68	-	0.54	-
Veritas Global Equity Income Fund C USD	$ 135.95	-	0.22	-
Veritas Global Real Return Fund A USD	$ 21.50	-	-0.01	0.28
Veritas Global Real Return Fund A GBP	£ 12.08	-	0.00	0.31
Veritas Global Real Return Fund A EUR	€ 12.65	-	-0.01	0.11
Retail				
Veritas Asian Fund B USD	$ 217.50	-	-0.11	0.00
Veritas Asian Fund B GBP	£ 295.70	-	2.14	0.00
Veritas Asian Fund B EUR	€ 234.21	-	0.12	0.00
Veritas China Fund B GBP	£ 122.00	-	0.97	0.00
Veritas China Fund B EUR	€ 163.91	-	1.09	0.00
Veritas Global Focus Fund B USD	$ 18.03	-	-0.05	0.00
Veritas Global Focus Fund B GBP	£ 22.22	-	0.03	0.00
Veritas Global Focus Fund B EUR	€ 16.13	-	-0.06	0.00
Veritas Global Equity Income Fund B GBP	£ 137.53	-	1.24	3.92
Veritas Global Equity Income Fund B EUR	€ 179.33	-	0.40	4.14
Veritas Global Equity Income Fund B USD	$ 110.77	-	0.18	4.05
Veritas Global Real Return Fund B USD	$ 20.81	-	-0.01	0.00
Veritas Global Real Return Fund B GBP	£ 11.83	-	0.00	0.00
Veritas Global Real Return Fund B EUR	€ 13.50	-	0.00	0.00

Veritas Asset Management LLP
www.veritas-asset.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Real Return Asian Fund USD (Est)	€ 277.60	-	-26.20	0.00
Real Return Asian Fund GBP (Est)	£ 296.77	-	-7.03	0.00
Real Return Asian Fund EUR (Est)	€ 292.91	-	-10.89	0.00

Waverton Investment Funds Plc (1600)F (IRL)
waverton.investments@citi.com
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Waverton Asia Pacific A USD	$ 16.73	-	0.13	5.88
Waverton Global Bond Fund Cls A	$ 8.43	-	0.02	5.46
Waverton Global Equity Fund A GBP	£ 14.01	-	0.17	0.52
Waverton UK Fund A GBP	£ 12.86	-	0.05	1.80
Waverton Global Fund A GBP	£ 14.13	-	0.10	0.37
Waverton Sterling Bond Fund A GBP	£ 9.27	-	0.02	5.30

WA Fixed Income Fund Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
European Multi-Sector	€ 117.10	-	0.13	0.00

Yapi Kredi Asset Management (TUR)
Yapi Kredi Plaza A Blok Kat:13 Levent 34330 Istanbul / Turkey
Email: info@ykportfoy.com.tr; Tel: + 90 (212) 385 48 48
www.yapikrediassetmanagement.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Private Sector Bonds and Bills Fund	TRY 0.011450	-	0.00000	-
Eurobond (Dollar) Bonds and Bills Fund	TRY 0.078080	-	0.00049	-
Fourth Variable Fund	TRY 0.021290	-	0.00000	-
Koc Affiliate and Eq. Fund (Eq. Intense Fund)	TRY 0.756460	-	0.00146	-
Istanbul Hedge Fund	TRY 0.014410	-	0.00010	-

Yuki International Limited (IRL)
Tel +44-20-7269-0207 www.yukifunds.com
Regulated
Yuki Mizuho Umbrella Fund

Fund	Bid	Offer	D+/-	Yield
Yuki Mizuho Japan Dynamic Growth	¥ 7027.00	-	20.00	0.00
Yuki Mizuho Japan Large Cap	¥ 7772.62	-	-0.38	0.00
Yuki Japan Low Price	¥ 27575.00	-	-40.00	0.00
Yuki Japan Value Select	¥ 14040.00	-	-8.00	0.00
YMR Umbrella Fund				
YMR-N Growth	¥ 10821.83	-	-273.17	0.00
Yuki Asia Umbrella Fund				
Yuki Japan Rebounding Growth Fund JPY Class	¥ 24178.00	-	-46.00	0.00
Yuki Japan Rebounding Growth Fund USD Hedged Class	$ 940.17	-	-2.01	-

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund I GBP	£ 115.53	-	2.02	0.00

Data Provided by

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www.morningstar.co.uk

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Management Association, 65 Kingsway, London WC2B 6TD. Tel: +44 (0)20 7831 0898.)

OEIC: Open-Ended Investment Company. Similar to a unit trust but using a company rather than a trust structure.

Different share classes are issued to reflect a different currency, charging structure or type of holder.

Selling price: Also called bid price. The price at which units in a unit trust are sold by investors.

Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.

Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.

Treatment of manager's periodic capital charge: The letter C denotes that the trust deducts all or part of the manager's/operator's periodic charge from capital, contact the manager/operator for full details of the effect of this course of action.

Exit Charges: The letter E denotes that an exit charge may be made when you sell units, contact the manager/operator for full details.

Time: Some funds give information about the timing of price quotes. The time shown alongside the fund manager's/operator's name is the valuation point for their unit trusts/OEICs, unless another time is indicated by the symbol alongside the individual unit trust/OEIC name.

The symbols are as follows: ♦ 0001 to 1100 hours; ♦ 1101 to 1400 hours; ▲ 1401 to 1700 hours; # 1701 to midnight. Daily dealing prices are set on the basis of the valuation point, a short period of time may elapse before prices become available. Historic pricing: The letter H denotes that the managers/operators will normally deal on the price set at the most recent valuation. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis. The managers/operators must deal at a forward price on request, and may move to forward pricing at any time. Forward pricing: The letter F denotes that that managers/operators deal at the price to be set at the next valuation.

Investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers/operators. Scheme particulars, prospectus, key features and reports: The most recent particulars and documents may be obtained free of charge from fund managers/operators. * Indicates funds which do not price on Fridays.

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INSIGHT

Alberto Gallo

No swift or happy end in sight for the soap opera that is Brazil

Brazilians love *telenovelas*, soap operas that air every evening in prime time. President Dilma Rousseff's recent impeachment offered all the typical twists and turns. The show involved months of political infighting and media attention, with former president and mentor Lula da Silva turning against Ms Rousseff's policies, while singers Caetano Veloso and Gilberto Gil took her side, offering unconditional support. In a final twist, parliament first nullified the impeachment motion, then nullified the nullification.

Millions cheered as Ms Rousseff left the Palácio, while parliament welcomed Michel Temer's new government. But the drama is far from over, and in fact, I believe Brazil's Caipirinha Crisis is just beginning. Mr Temer will inherit an economy suffering from a bad hangover, after years of growth fuelled by generous pensions and government subsidies like Minha Casa Minha Vida (My House, My Life).

Mr Temer's first objective should be reducing Brazil's nearly double-digit deficit. The good news is the central bank is among the few with room for easing. New head, Ilan Goldfajn, will probably lower the Selic rate from its 14.25 per cent. Yet Brazil's issues are structural and deep-rooted. Monetary stimulus will be an anaesthetic, not the cure.

At the heart of the problem is Brazil's broken growth model. By focusing on energy and mining, Brazil followed China's investment train over the past decade. Today, however, it finds itself too geared to energy, mining and hard commodities, which account for more than 22 per cent of exports, up from 12 per cent in 2000. China's demand for commodities is likely to decline in the second half of the year, after recovering on revamped credit stimulus, as policymakers worry about rising debt.

Together with commodity investment, Brazil grew both its public and private debt, which rose by 10 and 23 percentage points respectively since 2007. The resulting overhang in industrial capacity and in debt is now engulfing the corporate and financial sector.

> 'Rebuilding will take longer than kicking out an unpopular president'

Brazil's state-owned enterprises appear far from efficient, as the Petrobras scandal highlighted. Petrobras, which has a dinosaur named after it — the Petrobrasaurus — has used periods of market calm to refinance its debt, including issuing 100-year bonds last year. It has not yet fully readjusted its capex plans and will need to do so if it wants to avoid its dinosaur's fate. Other Brazilian companies appear vulnerable too: most industrial blue-chips invested heavily over the past decade and owe over half of their debt in foreign currency, on average.

Like the borrowers, lenders are vulnerable too. Brazilian banks kept their lending taps open throughout the crisis, some refinancing up to a quarter of loan books every year. This extend-and-pretend strategy has allowed them to contain bad loans below 5 per cent, but it has also delayed restructuring of troubled companies, keeping inefficient businesses afloat.

The hardest challenge for Mr Temer will be to do all that is needed and at the same time retain support for his all-male, all-white cabinet. For foreign investors, his team means credibility, with former central bank governor Henrique Meirelles appointed as finance minister. But austerity, welfare reforms and corporate restructuring are tough medicine, as we have experienced in Europe's periphery. With their confidence sapped by unemployment and inflation nearly doubling over the past two years, Brazilians may not be ready to take more pain.

The risk is that past the Olympic Games this summer, social unrest on the streets and defections in parliament may eventually undermine Mr Temer. The new president's name has also been mentioned in some witness testimony relating to operation Lava Jato (Car Wash), a two-year investigation on government kickbacks to Petrobras and other companies involving over 200 executives and politicians.

Investors have celebrated Ms Rousseff's resignation with a rally in stocks, bonds and the real. This is wishful thinking. Rebuilding Brazil's growth model will take a lot longer than kicking out an unpopular president. After enduring years of corruption, stagnation and a 1:7 loss against Germany at the last World Cup, Brazilians have not lost hope. The *telenovela* continues, but for now, without a happy ending.

Alberto Gallo is portfolio manager and head of macro strategies at Algebris Investments

Equities

Eurozone investors look for rates relief

Hope ECB policy of lower borrowing costs will help boost earnings and stocks

ROCHELLE TOPLENSKY

The outlook for eurozone share prices in 2016 relies on whether aggressive European Central Bank policy can boost earnings for companies in the region and offset global headwinds.

More than a year has elapsed since European equities peaked in value, buoyed by the ECB's decision to undertake quantitative easing in March 2014. This year, the Euro Stoxx 600 is down nearly 8 per cent, with deteriorating earnings weighing heavily on sentiment.

Yesterday, Deutsche Bank forecast a further fall of 2 per cent in European earnings per share, highlighting weak global growth among other factors as undermining "the upside case for European equities from current levels".

One bullish element for eurozone equities rests on whether the ECB's policy of suppressing interest rates translates into better earnings performance. Borrowing costs for companies in the eurozone have hovered around 1 to 1.5 per cent for the past two years, falling from more than 5 per cent in late 2008.

Nick Nelson, strategist at UBS, said with an average coupon of 2.8 per cent on existing European corporate debt, refinancing can cut interest costs by 150 basis points. This was seen increasing net income by between 1 and 1.6 per cent annually for companies, and Mr Nelson said this was not insignificant growth given "that Europe has delivered no earnings growth for five years".

European earnings before interest, tax, depreciation and amortisation fell 22 per cent over the four years to 2015, said Citi. That has not changed — Reuters estimates a 9.9 per cent drop in earnings and 6.4 per cent fall in revenues in the first quarter of 2016. Even excluding the beleaguered energy sector, earnings are expected to be 4.6 per cent less than the first quarter of last year.

The Stoxx 600 currently trades at 15.4 times earnings for this year, while the S&P 500 is at 17.5.

Mr Nelson said banks, the construction, utilities and telecom sectors were expected to benefit most from lower borrowing costs, as they had relatively more expensive debt coming due soon.

Toby Gibb, investment director in Fidelity International, agreed that lower borrowing costs were "a potential positive" but said "[it] isn't going to be a massive driver for earnings for European companies". Most of Europe's companies have been cautious about building debt and, unlike American companies, it is distinctly uneuropean to borrow to fund buybacks.

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Tomas Lundquist, head of European corporate debt capital markets at Citi, said bond issuance was only 10 per cent greater this year than at the same point in 2015. The market had now caught up after "one of the lowest issuance volumes [in January and February 2016] since the inception of the euro market".

Of the companies in the Euro Stoxx 600 index, the eurozone benchmark, 510 had cut net debt by about 1 per cent between 2011 and 2015, while in contrast 31 of the largest companies had increased it by 81 per cent, said Citi. Many small and medium companies also borrow from banks rather than on the market, and there has been no uplift in demand.

Analysis. Equities

EM reprieve is over as Fed hawks take wing

Fledgling rebound comes to a halt with rouble, rand and lira weakening against the dollar

ELAINE MOORE

The brief reprieve in emerging markets is over, cancelled out by a reminder from the US that nobody should be betting on low rates to last for ever.

As markets absorbed the US Federal Reserve's April meeting minutes published last week, and realised that a summer rate rise was back on the table, a risk-off trade took hold that pushed the dollar up and sent commodity and equity prices down.

Amid the sell-off, the fledgling rebound in EM currencies, stocks and bonds that surprised investors in March and April ground to a halt. MSCI's emerging market share index fell almost 3 per cent last week, taking the index negative for 2016.

Currencies including Russia's rouble, South Africa's rand and Turkey's lira have weakened against the dollar. Investors profess themselves unsurprised. After years of underperformance, it will take more than a two-month rally to counter their misdoubts.

"The rally in March and April was only ever about short-covering," says Bryan Carter, head of EM fixed income at BNP Paribas Investment Partners. "Investors were so pessimistic about a long period of bad headlines and weak data they were severely underweight by the start of the year. All they did was go from underweight to neutral."

Data from JPMorgan show that even this move was less than wholehearted. The share of EM equity exchange traded funds as a percentage of all equity ETFs remained low even in the midst of the rebound — at about 9 per cent of the total, from 20 per cent in 2013.

What no one can forget, says Mr Carter, is the slowing growth, rising debt and widening deficits in EMs. In the first three months of the year, S&P downgraded more than 100 EM issuers while upgrading fewer than 30.

The driver for the rally came instead from external factors: a seemingly softer approach from the US towards raising interest rates, a weaker dollar and stabilising oil prices that helped drive money back into developing countries, ending in Argentina's record-breaking return to markets in April with a multibillion-dollar bond sale that was seven times oversubscribed.

Regardless of the promise of a new government, Argentina is still a subinvestment grade credit, says Carl Shepherd, portfolio manager at Newton Investment Management.

"Although macro headwinds have turned to tailwinds for the time being, the growth backdrop for many emerging markets remains challenging. We feel the market's response to the Argentine sovereign debt offer has perhaps been somewhat overenthusiastic."

Then again, it was difficult for investors to pass up the chance for a bond paying out 7 per cent for 10 years when equivalent US bonds pay 1.8 per cent.

"Valuations were so cheap at the start of the year that it made sense to buy," says Claudia Calich, EMs fund manager at M&G. "But in the long term all bets are off. I added a bit of local currency exposure, but you can see that investors across the board are still positioned cautiously."

Investors in EMs have had to contend with the fact that, in spite of expectations that young workforces and untapped potential would mean unrivalled performances in EMs, investments have been lagging behind those in developed markets for years.

Some investors date the decline to 2011, when dispiriting data emerged from EMs. But the standout moment for most was the taper tantrum of 2013 when the US signalled plans to tighten monetary policy, sending investment flows in EMs into reverse.

The subsequent sell-offs, including the decline at the end of last year, made EM assets cheap, says Bill O'Neill at UBS Wealth Management. "We like equities in China and India, where we think there is a possible turn in earnings. But it still all depends on the dollar and US Fed."

What the brief window of higher risk appetite in global financial markets has done is buy EM governments time. As currencies lifted, policymakers in India, Indonesia, Turkey and Hungary cut interest rates in the hope of countering lower economic growth.

This may boost consumer spending. As populations grow wealthier, governments cut interest rates and low oil prices put more money into households, spending by consumers in EMs is expected to jump, which some hope will drive growth back up.

Euromonitor International predicts that between 2015 and 2030, consumer spending growth in developing markets will be three times faster than that of developed markets.

Or as Wei Li, iShares investment strategist at BlackRock puts it, do not write off surprises in EMs. "The recent positive performance in emerging markets took research houses by surprise. We are looking at the short term and waiting to see what happens in June. If the MSCI considers including Chinese A-shares in the index, that's the sort of event that could support another rally in EM."

The Russian rouble, Turkish lira and South African rand have all faded against the dollar — FT graphic

Source: Thomson Reuters Datastream

Commodities

Iron ore hits 10-week low as China stocks swell

NEIL HUME
COMMODITIES EDITOR

Iron ore, the key ingredient in steelmaking, slumped to a 10-week low yesterday, tracking futures price declines in Asia overnight and data showing stocks at Chinese ports had reached more than 100m tonnes.

The commodity has been one of the best-performing raw materials this year, posting gains of almost 80 per cent between mid-January and the end of April. That move wrongfooted many analysts and investors who expected another year of price declines as new supply hit the market.

Stronger steel demand in China and supply disruptions in Australia and Brazil were the initial drivers for this year's surprise advance. The gains accelerated as Chinese retail investors piled in, looking for ways to bet on the credit surge engineered by policymakers to prop up the economy and currency.

But after reaching almost $69 a tonne a month ago, prices have been in retreat. Chinese steel prices have eased as regulators cracked down on speculative trading on domestic bourses.

Iron ore is a major source of profits for some of the world's biggest mining companies including Anglo American, BHP Billiton, Rio Tinto and Brazil's Vale. Every $1 per tonne move in the price can add hundreds of millions of dollars to the earnings of these companies.

Yesterday, benchmark Australian ore for immediate delivery into China was down $3.00, or 5.4 per cent, to $52.70 a tonne, according to The Steel Index, a price reporting agency.

The steelmaking commodity has fallen nearly 25 per cent from its April peak, with a rising US currency also weighing on prices.

A strong US dollar makes commodities such as iron ore, which are denominated in greenbacks, more expensive for holders of other currencies.

Some analysts think iron ore will remain supported as China's vast credit injection continues to work its way through the system. On the supply side, several big producers have flagged slower than expected growth.

"Both BHP and Rio have downgraded guidance for 2017, and we expect that Vale is likely to disappoint in its delivery of S11D [a new iron ore project] as well as its ongoing struggles with the Southern System mines," said analysts at Macquarie in a report published last week.

"We also believe the political climate in China will continue to be a tailwind to growth into 2017," they added.

Currencies

Yen strengthens after US feud escalates at G7

ROGER BLITZ

Three weeks of yen weakness ended yesterday as Japan's currency strengthened against the dollar, but the country's currency feud with the US spilled over into a verbal confrontation at the weekend's G7 finance gathering.

The yen has been subdued by the dollar momentum, but investors jumped back in on the back of demand for haven assets and a rebound in Japan's trade surplus. The yen was 0.7 per cent firmer to ¥110.23 late in London, after earlier rallying to ¥109.34. The yen appreciated 0.8 per cent against the euro to ¥122.61, a two-week high.

A stronger yen is likely to make Japan's authorities fret about the need for action to stop another bout of appreciation which is hurting companies. The country's share markets eased yesterday after rising last week. The Topix has fallen 13.5 per cent so far this year.

In the year to May 3, the value of the yen rose 6.3 per cent, triggering interventionist noises from the Bank of Japan and the finance ministry.

The past three weeks pushed the yen more than 4 per cent lower, but did nothing to quell the Japan-US currency dispute. The US Treasury wants countries to refrain from driving their currencies lower for competitive gain, and says that the yen's FX moves this year have been "orderly".

At the G7 talks in Sendai, Japan, US Treasury secretary Jack Lew said G7 members should not only refrain from competitive devaluations but also "communicate so that we don't surprise each other".

He added: "It's a pretty high bar to have disorderly [currency] conditions."

But his Japanese counterpart, Taro Aso, insisted the yen's gains against the dollar had indeed been disorderly, labelling recent currency moves as "one-sided and speculative".

To Commerzbank FX strategist Ulrich Leuchtmann, the "barely disguised confrontation" at Sendai was significant. Further yen appreciation may not necessarily make the BoJ intervene, he said.

Much depends on what happens on the US side of the currency trade. The Federal Reserve's more hawkish tone should help ease pressure on the yen in the near-term, said Lee Hardman, currency analyst at MUFG.

"If the Fed resumes rate hikes in the coming months, it should make it even less likely that Japan will have to intervene in the currency market, allowing it to avoid drawing international criticism," he added.

MARKETS & INVESTING

TRADING POST

Jamie Chisholm

If you think Brexit risk is underplayed and the economic impact of Canadian wildfires overplayed, there's a punt for you: short the sterling/Canadian dollar cross.

That is the suggested bet of RBC Capital Markets in its latest "Thematic Trade of the Week", which focuses on ideas designed to last just several sessions.

The trigger for the trade is the Bank of Canada's policy meeting that concludes tomorrow. What will the bank say about the hit to growth from Alberta's conflagration, and how will it respond to the Canadian dollar (CAD) being of late a bit stronger than forecast at the previous monetary policy report?

"We think the former will be seen as transitory and requiring no policy response and the latter in line with fundamentals," RBC says.

"The overall message is therefore likely to be seen as CAD-positive".

On the other side of the cross, RBC thinks recent pound (GBP) strength is partly based on overconfidence that the UK electorate will vote on June 23 to remain in the EU.

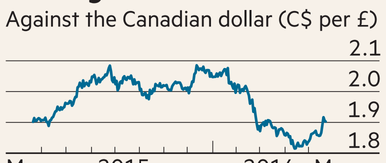
"We think the collapse in implied UK exit risk last week (from 31 per cent to 21 per cent probability, using the bookmakers' odds as a proxy) and associated GBP outperformance are both likely to turn round if the evidence continues to accumulate that last week's two telephone polls were outliers".

RBC has shorted GBP/CAD at C$1.9033 with a target of C$1.8660 and a stop loss at C$1.9250.

jamie.chisholm@ft.com

Sterling

Against the Canadian dollar (C$ per £)



Source: Thomson Reuters Datastream

Global overview

Hesitant note on stocks as oil loses ground and focus turns to US rates

Dollar broadly stable after last week's gains but purchasing managers' economic figures for eurozone disappoint

DAVE SHELLOCK

Global equities started the week on a hesitant note as oil prices lost ground and participants continued to focus on the possibility of a summer interest rate rise in the US.

The dollar put in a broadly stable performance following last week's gains while shorter-term US Treasury yields inched higher. Gold touched its lowest level for more than three weeks.

By midday in New York, the S&P 500 equity index was off a fraction higher at 2,053 although the technology-heavy Nasdaq Composite was up 0.4 per cent.

In Europe, a 5.7 per cent slide for Bayer shares — after it confirmed a $62bn bid for Monsanto — helped drag down the pan-regional Stoxx 600 by 0.4 per cent as the Xetra Dax in Frankfurt shed 0.7 per cent.

The mood was not helped by some disappointing eurozone economic figures.

But Greek stocks outperformed with a gain of 1.5 per cent, and the country's government bond prices rose sharply, after Athens agreed new fiscal measures in return for talks on debt relief.

In Tokyo, the Nikkei 225 fell 0.5 per cent as the yen strengthened in the wake of the G7 meeting.

Energy stocks on both sides of the Atlantic came under pressure as **oil** prices fell.

Brent crude, which last week reached a six-month high within a whisker of the $50 a barrel level, was down 1 per cent at $48.23, while West Texas Intermediate was 0.9 per cent lower at $47.96.

"While we expect to see higher prices later in the year, potentially with Brent at $60 a barrel at times in 2016, we have some concerns for the short-term picture," said Bjarne Schieldrop, chief commodities analyst at SEB.

"We forecast that Canadian supply is likely to return in June. Also, there will be periods of risk aversion in the run-up to the [UK's] EU referendum and probably a stronger dollar at the same time. Further, we expect some increases for periods in Libyan supply and exports," he added.

Indeed, the dollar index remained within sight of last week's two-month high as the euro fell 0.2 per cent against the US **currency** to $1.1195, supported by continued speculation that the Federal Reserve could raise interest rates again in either June or July.

Such talk was fuelled by the release last week of the minutes of the Fed's Open Market Committee April meeting, which left little room for doubt that the June gathering was "live" in terms of possible rate rise.

Further, a recent chorus of hawkish comments from Fed policymakers has suggested that the economy is close to meeting most of the conditions set by the central bank to justify an increase.

"We do not think that there will be enough data between now and the June 14-15 [FOMC] meeting to prompt a rate hike then," said Robert Mellman, a US economist at JPMorgan. "And the Brexit vote shortly thereafter may argue for delay in any case.

"But we think the Fed's conditions for a rate hike will be met and that the next Fed policy move will come in July," he added.

The Fed fund futures market has moved to price in a more than 30 per cent probability of a rise in June, up from only 4 per cent a week ago, and a greater than 50 per cent chance of a July move.

The yield on the two-year US **Treasury** note, which is particularly sensitive to expectations for Fed policy, was up 2 basis points at 0.91 per cent, after reaching 0.92 per cent on Thursday — its highest level since mid-March.

The 10-year US yield was flat at 1.85 per cent while that on its German counterpart edged up 1bp to 0.18 per cent.

The "flash" estimate of the eurozone purchasing managers' composite index dipped to a 16-month low of 52.9 in May from 53.0 in April.

"The flash PMIs tally with our forecast of a slowdown in [eurozone] GDP growth in the second quarter to 0.3 per cent quarter-on-quarter from 0.5 per cent in the first quarter," said Chris Scicluna, an economist at Daiwa Capital Markets.

"At the country level, the weakness in the latest month appears to be related to Italy and Spain as the flash composite PMIs of Germany and France rose to five and seven-month highs respectively," he pointed out.

Meanwhile, the dollar was down 0.7 per cent against the yen at ¥109.41 following a verbal confrontation between the US and Japan at the weekend meeting of G7 finance ministers.

The broader strength of the dollar, however, weighed on metals prices. **Gold** was down $4 at $1,247 an ounce, after earlier hitting $1,251, the lowest since April 28.

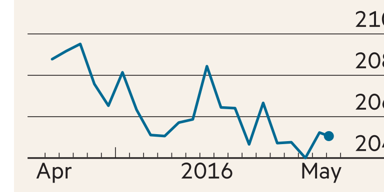
Copper fell 0.4 per cent in London to 4,562 a tonne.

— Michael Nagle/Bloomberg

S&P's one-year anniversary explained: FT.com/video
It's a year since the S&P 500 hit a record high. Why the index has failed to peak again this year, explained in 90 seconds

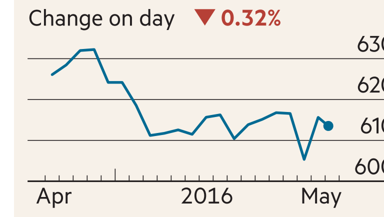
Markets update

S&P 500 index
Change on day ▼ 0.06%



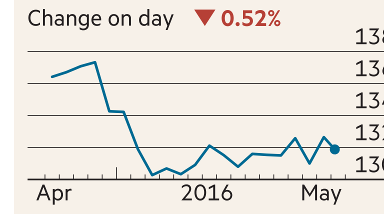
US equities Wall Street struggled in the face of renewed weakness for oil prices and continued speculation that the Federal Reserve could raise interest rates over the summer

FTSE 100 index
Change on day ▼ 0.32%



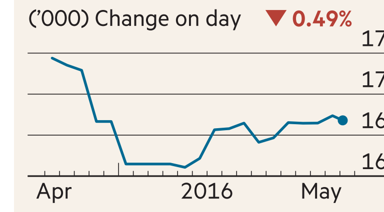
UK equities Losses for commodity-focused stocks weighed on the FTSE 100 as oil and metals prices came under pressure. BP fell 1.1 per cent while BHP Billiton shed 0.8 per cent

Eurofirst 300 index
Change on day ▼ 0.52%

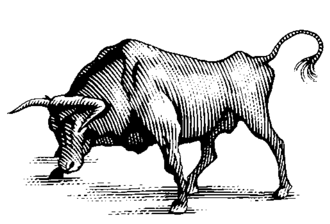


European equities Aixtron bucked the weaker trend in European markets as it rose 16.2 per cent after a group of Chinese investors made an offer for the German semiconductor group

Nikkei 225 index
('000) Change on day ▼ 0.49%



Japanese equities The firmer tone of the yen unsettled the Tokyo market although the Nikkei did manage to trim an early 1 per cent fall



Wall Street

Universal Display rallies on iPhone prospects

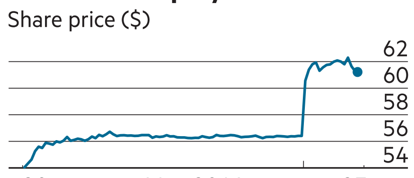
Adam Samson and Mamta Badkar

Universal Display shares rallied yesterday after analysts at Goldman Sachs issued a bullish note on the group.

Analyst Brian Lee said the investment bank was "increasingly confident" that tech-industry heavyweight Apple would adopt the type of display Universal develops in its iPhone smartphones as early as 2017, joining Samsung and others.

The move would not only provide a big boost to Universal's earnings, Mr Lee said, but could pave the way for broader adoption in the handset industry of the technology, called organic light-emitting diode displays, which allow manufacturers to make thinner, more power-efficient screens.

Universal Display
Share price ($)



Source: Thomson Reuters Eikon

Indices	Close	Day's change
S & P 500	2049.70	-2.62
DJ Industrials	17502.86	1.92
Nasdaq Comp	4773.95	4.39
Russell 2000	1204.70	-8.35
VIX	15.77	0.57
US 10 yr Treas Bd	1.85	0.01
US 2 yr Treas Bd	0.91	0.02

He upgraded the stock from "neutral" to "buy", adding that he saw the shares hitting $76 in the next 12 months from a closing price of $56.41 on Friday.

Universal's shares rallied 9.2 per cent yesterday to $61.68.

Elsewhere, **Ares Capital** was in the red after it said it would buy **American Capital** in a deal valued at $3.4bn.

Ares, a middle-market lender that is managed by alternative asset manager Ares Management, said it would buy American for $14.95 a share. The tie-up excludes American Capital Mortgage Management, which American said it would sell to American Capital Agency for $562m.

"The growing demand for capital from middle-market borrowers has created the need for flexible capital providers like us to fill the financing gap as banks continue to retrench from the market," said Michael Arougheti, co-chairman of Ares Capital's board.

Ares Capital's shares fell 2.6 per cent to $14.80, while American Capital rose 0.8 per cent to $15.75.

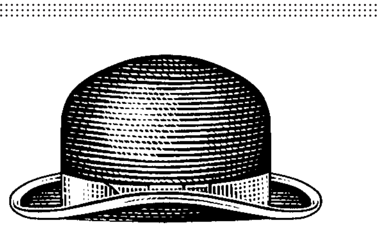
In midday trading, the Dow Jones Industrial Average rose 0.1 per cent to 17,514.5, the S&P 500 fell by the same margin to 2,050.9 and the Nasdaq Composite climbed 0.2 per cent to 4,780.8.

The energy sector was the worst performer on the benchmark S&P 500 index, declining by 0.6 per cent. The drop came as the price of US crude oil fell by almost 1 per cent to $47.96 a barrel, and international marker Brent shed 1.5 per cent to $47.98.

Among the laggards in the sector was **Transocean**, an offshore rig operator, which dropped 4.3 per cent to $8.92. **Newfield Exploration**, an oil and natural gas exploration and production company, slid 2.9 per cent to $39.45.

On the other side of the spectrum, the materials sector got a lift, rising by 1.2 per cent, after Germany's **Bayer** unveiled a $62bn all-cash offer for **Monsanto**, the US agribusiness.

Monsanto shares jumped 4.6 per cent to $106.22, extending their year-to-date rise to 7.8 per cent. Meanwhile, Bayer declined by 5.6 per cent to €84.50 in German trading.



London

Sports Direct declines after losing support of joint house broker

Bryce Elder

Mike Ashley's **Sports Direct** was a faller yesterday after losing the support of its joint house broker.

Goldman Sachs took Sports Direct off its "buy" list for the first time since 2012. It forecast the retailer's full-year results due in July to show sales had gone into reverse — with both UK volumes and average selling prices deteriorating — and warned that longer-term earnings growth could stall.

Sports Direct's currency hedges will catch up with recent dollar strength against sterling just as wage costs are due to spike higher, Goldman said.

"In the current demanding apparel market environment, there is limited opportunity to pass this input cost inflation on to the consumer."

Sports Direct closed 4 per cent lower at 354.1p. Goldman has a long relationship with Mr Ashley, Sports Direct's founder and deputy chairman, who has been called to parliament next month to answer MPs' questions about the group's pay and working practices.

The broker has since 2013 handled share sales for Mr Ashley and acted as counterparty to Sports Direct's put options in **Debenhams** and **Tesco**.

A quiet wider market left the FTSE 100 lower by 0.3 per cent, down 19.89 points to 6,136.43. Most of the moves were in response to broker research.

Inmarsat lost 4 per cent to 724.5p. Morgan Stanley took its "overweight" rating off the satellite operator for the first time in three years.

Industry overcapacity and slowing growth, with data pricing under severe pressure, make Inmarsat's 2018 targets "look ambitious", said Morgan Stanley.

It cut forecasts to reflect a recession in the global maritime market, which provides about half of Inmarsat's revenues, and tougher competition in growth areas such as broadband for cruise liners and oil rigs.

ICAP lost 4.1 per cent to 414p after Credit Suisse downgraded the interdealer broker to "neutral".

Volumes are likely to remain subdued this year and, at 17 times 2017 earnings, ICAP is at an "appropriate" valuation in line with the global diversified exchanges sector, said Credit Suisse.

While takeover multiples suggest a value of more than 590p per share, "we do not believe management plan to sell while we think the probability of a takeover approach has receded as the most likely acquirers await the fallout from the proposed merger of LSE and Deutsche Börse", it added.

Royal Mail was up 4.3 per cent to 513p after RBC moved from "underperform" to "sector perform". "This summer/autumn should see greater certainty emerge of the direction of future wage inflation, cash pension costs, and more detail start to emerge from Ofcom," said RBC. "With stability on these, we think Royal Mail will be free to increase focus on efficiency efforts like OneWave (that might improve the logistics, sorting and delivery processes)."

Markets & Investing
FINANCIAL TIMES

INSIGHT

Stephen Foley

Reluctant buyers dip their toes in the equities shallow end

Rarely is there a sector so widely owned and yet so little loved as the US utilities sector today. Here is a collection of stocks, of heavily regulated power and water companies that offer predictable earnings and chunky dividends, which has outperformed every other sector of the S&P 500 so far this year. The S&P 500 utilities index is up 10.9 per cent, versus 0.4 per cent for the broader market.

What is odd about that performance is how it is the result of so much reluctant buying.

There are two major types of investor who are in utilities right now who might be said to be out of their comfort zones. First, there are conservative savers who would normally be in the fixed income markets but who have been forced, by perpetually low interest rates, to dip their toes in the shallow end of the equity markets.

Second, there are equity market investors who are nervous about the economy but not yet so nervous that they want to leave the stock market entirely. They are clinging on but have rotated into defensive stocks such as telecoms and consumer staples, which surged earlier in the year, and most of all, utilities.

Exchange traded funds that track the utilities sector have seen some of the biggest inflows this year. In the first four months of 2016, the FTSE US high-dividend index outperformed the rest of the market by 300 basis points.

The alarm bells have been pealing a while. Last month, at the Milken Institute Global Conference in Los Angeles, David Hunt, who runs Prudential's asset management division PGIM, told an audience that the entire stock market looked precarious.

> 'The market is driven by bond money that is in there for dividends'

"There is an enormous amount of money in the equities markets that I would call 'bond money'. It is one of the only explanations you can have for our current pricing levels in the equities market," he said. "The market is not being driven by top line growth views and not being driven by a belief there will be increased margins — most of us think those will come down — it's driven by bond money that is in there for dividends, and that is not an equilibrium, that is a somewhat fragile place to be."

The fragile equilibrium is not going to hold. Either we will discover that all the fretting about recession in the first quarter was unnecessary, in which case equity investors can safely accelerate their rotation back into growth stocks and the Fed will reward fixed-income investors with higher rates on their bonds. Or we will discover that the cycle has turned, in which case a large equity market sell-off is on the cards and utilities are unlikely to be spared.

Utilities investors might be able to be sanguine in the latter scenario, except that this year's rise has taken valuations in the sector to extremes. The price/earnings ratio on the S&P 500 Utilities index is currently above 18, compared with an average for the past 25 years of less than 15, and not far off a modern record of just over 19 times.

There are other potential negatives. Policies aimed at tackling climate change risk putting pressures on utilities, such as investing in the switch from coal-fired power plants to renewables, that it may take them time to recoup from customers. Meanwhile, the biggest tech companies now pay dividends that have put them on the radar of income-oriented investors, meaning utilities shares are no longer the only game in town.

For the time being, utility companies are taking advantage of their high share prices to raise money in the equity markets. Earlier this month, Consolidated Edison raised $724m in its first equity deal since September 2010; Southern Company raised $900m.

But some of the smart investors who are traditionally big players in the sector have been trimming their holdings. The Franklin Income Fund, the $78bn mutual fund led by Ed Perks, which can invest across dividend-paying equities and fixed income securities, reduced its weighting in utilities stocks in two big tranches of selling late last year and after the January/February spike. The fund's combined weighting in utilities and telecoms, another sector which saw a similar spike, was 15 per cent a year ago; now it is less than half that.

It may not be long until others follow suit, and if many of the reluctant buyers who have camped out in utilities this year start to reassess their holdings, the best performing sector of 2016 so far could be in for a sharp reversal.

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Analysis. Capital markets

Triple A quality fades as groups embrace debt

Demise of top rating reflects rise in leverage for takeovers and shareholder returns

ERIC PLATT — NEW YORK

The triple A rated company is nearly extinct.

Just a handful of companies in the world retain a coveted triple A rating from Standard & Poor's after ExxonMobil was downgraded last month. In the US, the number has fallen to two — Johnson & Johnson and Microsoft.

The demise of triple A rated companies — there were 98 US companies that held the highest credit rating from S&P in 1992 — reflects a dramatic rise in the use of debt to help bolster shareholder returns and fund takeover activity.

This trend shows little sign of ending in the current era of ultra-low borrowing costs.

For example, investment grade and junk-rated companies have added nearly $4tn of debt to their balance sheets since the start of 2008, according to Bank of America Merrill Lynch, roughly the size of the market for US state and city bonds.

"One thing is clear: the trend away from financial conservatism that began in the early 1980s continues to this day," says Thomas Watters of S&P.

Management teams have long relied on debt to increase the value of their companies, spurring a steady decline in rating quality.

The benefit when a company with no debt begins to add leverage, is often a higher market valuation.

But too much corporate paper, at companies such as Sears, TXU and debt-burdened radio operator iHeartMedia, can stifle business and ultimately lead to failure.

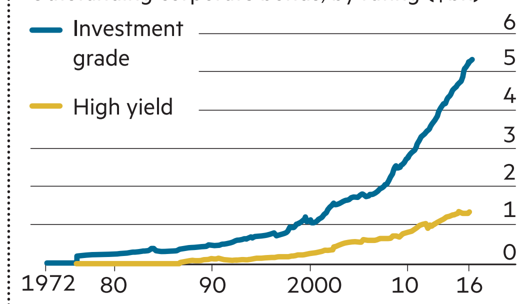
Groups holding the top credit rating in the US, which includes offerings from Harvard, MIT and Stanford, yield roughly 2.6 per cent, according to Barclays. Double A rated companies by contrast have a slightly lower average yield of 2.3 per cent. Bond yields fall when prices rise.

Doubling down

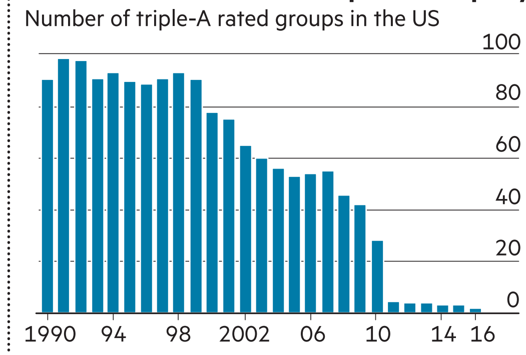
The last eight US companies to lose their AAA rating from S&P

Issuer	Initially assigned 'AAA'	Lost 'AAA'	Reason for rating action	Current rating (May 10, 2016)
ExxonMobil	1949	2016	Financial policy	AA-
General Electric	1956	2009	Business issues	AA+
Merck	1975	2004	Business issues	AA
Bristol-Myers Squibb	1977	2002	Business issues	A+
Amoco (acquired by BP)	1966	1999	Acquired	A-
3M	1975	1998	Financial policy	AA-
Frontier Communications (formerly Citizens Utilities)	1981	1995	Financial policy	BB-
IBM	1979	1993	Business issues	AA-

US corporate leverage surges
Outstanding corporate bonds, by rating ($bn)



The near extinction of a triple-A company
Number of triple-A rated groups in the US



FT graphic Sources: Bank of America Merrill Lynch; Standard & Poor's

> 'The trend away from financial conservatism that began in the early 1980s continues to this day'

Part of the divergence is the lack of triple A rated debt and the weight Microsoft and Johnson & Johnson exert on the indices.

There is roughly $62bn of triple A rated corporate debt outstanding — more than four-fifths of which is from the two companies — dwarfed by the $419bn of double A debt and $1.78tn of single A paper in the US.

"In a way, double A has become the new triple A, when you have a lot less triple A debt out there," says Nick Gartside of JPMorgan.

Exxon sold $12bn of debt this year after investors were notified the company was on review for a downgrade, with 10-year yields near 3 per cent.

Jeremy Siegel of the Wharton School at the University of Pennsylvania says the most recent financial crisis highlights the speed at which companies — even high-quality ones — could lose access to capital markets. At its depths in September 2008, corporate lending evaporated as banks retrenched, leaving groups with immediate financing needs on the edge.

"It is the result of the financial crisis," he says. "The severity of this shock is now being factored into a lot of these [rating] models. Credit may not be available at any price in a crisis and that's something to consider."

Prof Siegel adds: "Companies, unless they are unbelievably cash-rich, are just not being given triple A ratings. We won't get back to the number of issues we had in the 1960s that might have had a triple A rating. Those are perhaps gone forever alongside the rise of global competition."

Investors and strategists say they do not anticipate companies will rapidly cut their leverage, limiting a broad improvement in rating quality.

So far, triple A companies that have increased leverage have not had to pay tremendously more to borrow.

While investors are seeing defaults from energy and mining groups as a result of the shake out across the commodity market, they say the risk of default at the upper tiers of the rating spectrum remains *de minimis*.

Corporate debt rated triple A suffered a loss of 0.02 cents on average because of default over a five-year period, says Jeffrey Rosenberg, chief fixed income strategist at BlackRock. In comparison, double A bonds lost 0.2 cents on average over the same period.

"The difference is not a very large amount in absolute sense, in terms of the value," Mr Rosenberg adds. "What benefits does the issuer get for a triple A rating versus a double A, and what benefits do they give up?"

Capital markets

Russia unveils first bond sale since Ukraine crisis

MAX SEDDON — MOSCOW
THOMAS HALE AND ELAINE MOORE — LONDON

Russia launched its first sovereign debt offering since the Ukraine crisis yesterday in a move designed to show that Moscow can still access western capital markets despite US and EU sanctions.

The 10-year dollar-denominated bond is expected to be worth about $3bn and could be priced to yield between 4.65 and 4.9 per cent. VTB Capital, part of the state-run giant VTB, is the sole bookrunner on the deal.

Russia last tapped international markets in 2013, raising $7bn. The country was placed under sectoral sanctions by the US and EU in 2014 after Moscow annexed Crimea and fomented a separatist conflict in eastern Ukraine.

Moscow turned to VTB Capital to place the bond directly after US and EU regulators warned nearly all the 22 western investment banks invited to participate that doing so could violate the spirit of the sanctions.

"$3bn is a drop in the ocean. It's about image — to show Russia is still in business," said a banker in Moscow familiar with the deal.

Many investors and brokerages interpreted the warnings as a sign they should also steer clear, said Bruce Johnston, a partner in law firm Morgan Lewis's international finance practice. Nonetheless, Mr Johnston added: "It's only illegal if the proceeds were used to fund a sanctioned entity."

The bond's prospectus has a promise not to divert the money to sanctioned companies. It says proceeds will be used to pay off Russia's sovereign debt with the rest going to shore up the central bank's foreign currency reserves.

A big issue for global investors is whether the bond can be processed through internationally recognised settlement houses, such as Euroclear and Clearstream.

The market utilities are the final link in the trading chain where assets are swapped for cash and deals are finalised.

The prospectus of the bond said it would be settled through Russia's National Settlement Depository (NSD), and that "no assurance can be given as to whether interests in the Global Bonds will be eligible to be held through any clearing system other than NSD".

International investors said the terms of the deal were likely to limit the number of bondholders able to participate.

Aberdeen Asset Management, one of Europe's largest fund houses, said it did not expect to buy the bonds.

"It will be interesting to see how much investor interest this will attract and whether a lot of foreign investors can and will participate — particularly from the US and Europe given the sanctions," said one investor in emerging market fixed income.

People familiar with the process said they assumed Clearstream and Euroclear were in the process of assessing the eligibility of the bond for a link to the NSD. Both Clearstream and Euroclear declined to comment.

Russian bankers were confident that there was enough demand to sustain the unusual placement.

Corporate Aviation

Tuesday May 24 2016

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Private jets ride out turbulence

Demand has stalled for now, but new technology and supersonic projects could drive growth, writes *Peggy Hollinger*

As business jets go it is hard to beat Air Force One, the airliner used by US presidents, which comes complete with a hospital and conference room.

But as usual, Donald Trump, the outsider who has stormed the Republican primaries ahead of November's US presidential election, has his own views on what makes a suitable business tool. His version comes with gold-plated safety belts, marble sinks, leather-covered toilet seats and a cinema.

Such luxury gives business jets a bad name and while the jet-loving Mr Trump may be friendlier to the industry than outgoing President Barack Obama, should he win the election, such brash exhibitionism is the last thing many industry executives want.

Corporate aviation is still struggling to recover from years of depression that have been further exacerbated by a collapse in oil prices, sluggishness in the global economy and political travails of once-booming jet markets such as Brazil and Russia. From a peak of 1,317 deliveries in 2008, manufacturers last year sent out just 718 aircraft. This year deliveries are expected to go down even further.

"There is a clear lack of confidence in the market, even with a record number of high net-worth individuals," says Marco Túlio Pellegrini, chief executive of Embraer Executive Jets.

Given the climate, companies are still wary of being targeted for owning private aircraft at the same time as cracking down on costs and jobs.

While there has been some revival in corporate profits in recent years, David Strauss, aerospace analyst at UBS, believes the nature of the corporate recovery means the market is likely to be depressed this year and next, with any recovery likely to be muted. The UBS business jet market index for April, which surveys manufacturers, brokers and financiers, showed the most downbeat results since 2009.

According to Mr Strauss, "companies . . . that used to have three, four, five aeroplanes have figured out how to get by with one or none."

The paralysis in the market means that private jet owners are holding on to their aircraft for longer, or buying second hand. This has hit pricing in both the new and used markets. Meanwhile, there are signs that demand for the largest category of business jets, which had remained relatively strong through the downturn, is beginning to slow.

The good news is customers are coming back to the small and medium-sized jets that are typically priced below \$26m. The bad news is manufacturers such as Textron and Embraer are moving into the bigger segments of the market just as it begins to turn down, and as leaders in the heavier jet segment, Gulfstream and Bombardier, develop new aircraft. The market is ripe for consolidation, say analysts. Hawker Beechcraft has already been a casualty and as a result fell into Textron's grasp.

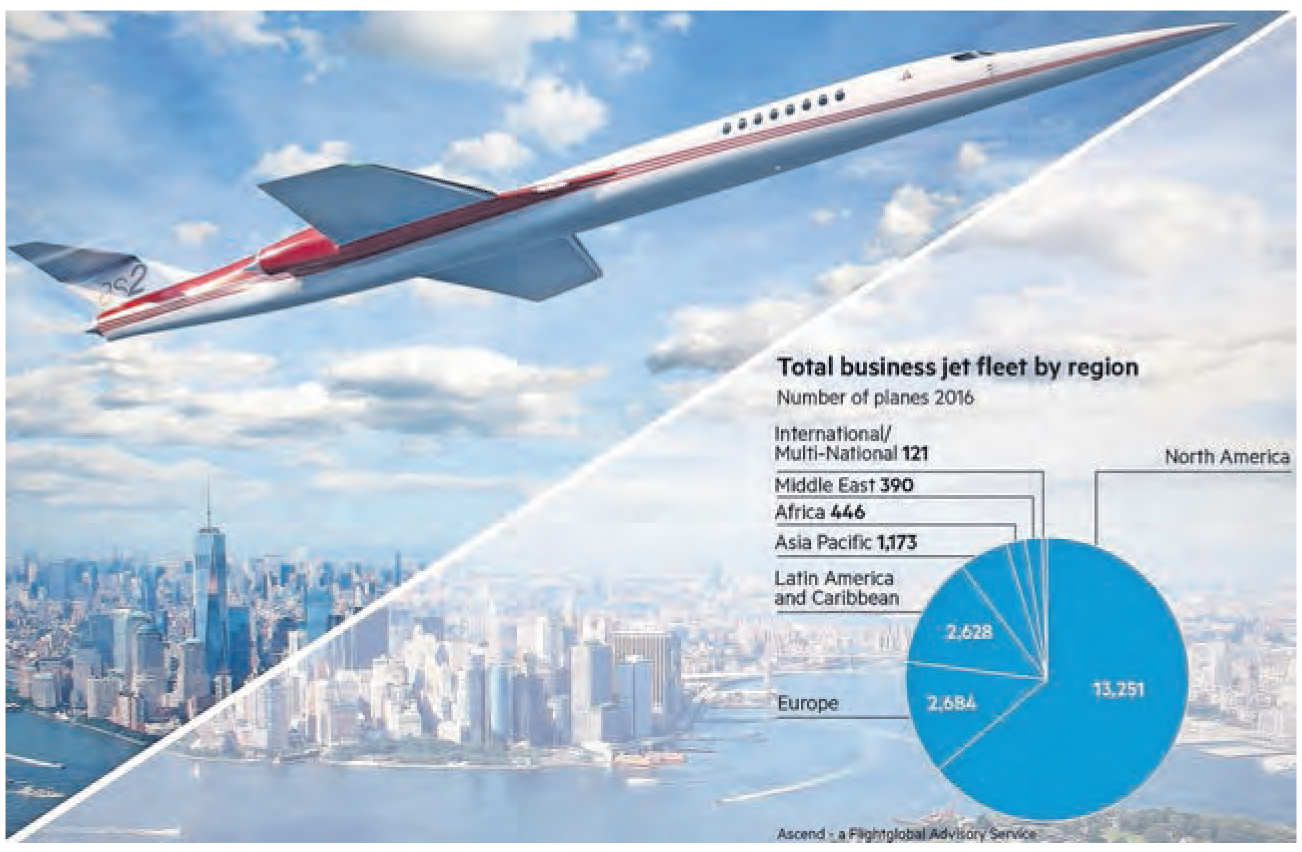
While the majority of commercial passenger jets sold last year were made by just two companies, Boeing and Airbus, the 718 executive aircraft delivered in 2015 were manufactured by nine companies.

Despite the difficult climate, aircraft makers believe the future for business aviation is bright. Bombardier is forecasting approximately 9,000 business aircraft will be delivered globally over the next decade.

Meanwhile, there are those who believe new technology might help to transform the market. Aerion is developing a supersonic business jet, the AS2, which has already taken a firm order for 20 aircraft at \$120m each, even though there will be no jet delivered before 2023 at the earliest. Capable of flying twice as fast as a conventional jet, it will cut the travel time from London to New York from more than seven hours to four, says chief executive Doug Nichols.

But growth could also come by opening up the private aviation industry to a wider audience. California-based Stellar Labs believes software will do for private aviation what Uber did for the taxi industry. It has developed an online marketplace where customers can buy trips from private jet operators within minutes.

"Private aviation measures success or depression based on how many new aircraft are sold . . . We will be looking at how many people are flying privately . . . Anyone with a mobile phone or computer can hire a jet," says Stellar Labs chairman, Paul Touw.



Business boom: Aerion's AS2 supersonic jet could transform the business aviation market

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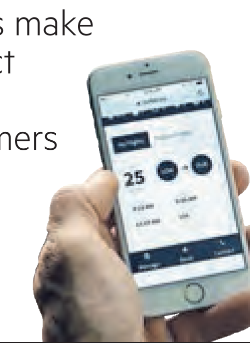

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Ailing second-hand market offers buyer bargains

Used aircraft

Factors from oil prices to the UK's EU referendum are depressing pre-owned jet sales, writes *Liz Moscrop*

As if the global economic slowdown was not bad enough, more recent uncertainties over the outcome of the forthcoming US presidential election and the UK vote over whether to leave the EU have been cited as reasons for the poor market in used business aircraft.

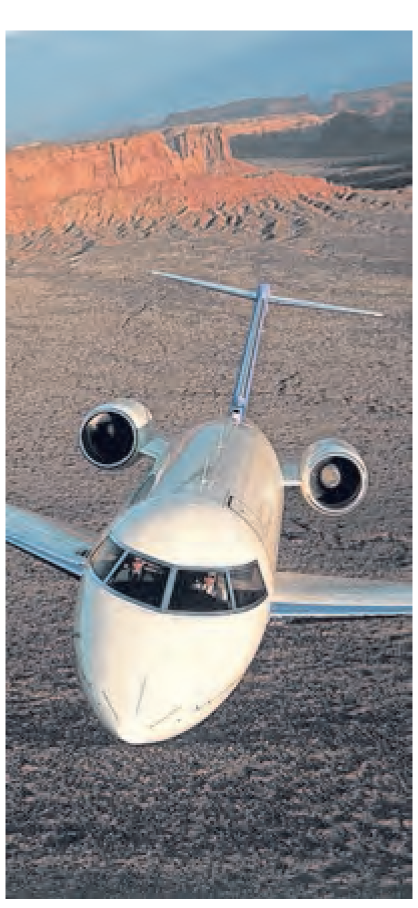
Last year saw sales of 2,200 used jets, fewer than the annual industry average of 2,500. Some brokers think this year's total could be as low as 1,900, although the number of aircraft on the market is now as high as it has been since the start of the financial crisis.

"The large cabin marketplace is slow, to the point where even the Gulfstream G650 is difficult to sell," says Brendan Lodge, business development director for UK-based JetBrokers. Of 98 Gulfstream G650 jets sold worldwide, there are 13 for sale, or more than 13 per cent of the active fleet. "Ten per cent is generally accepted as a soft market. We are well into that territory," he says.

Five-year-old Bombardier Challenger 605s and versions of the manufacturer's Global XRS range are now priced at less than 50 per cent of their retail price. The long-range Global 6000, however, is weathering well, with just over 3 per cent of its active fleet for sale. Embraer's super midsize Legacy 650s, too, have depreciated to 56 per cent of their original price over the past five years with nearly 14 per cent of the fleet on the market. There are 28 Dassault Falcon 7Xs available, representing more than 10 per cent of the 255 in service, and prices for 2011 models have dropped by \$9m since the end of 2014.

It does not help that sales of new jets are sluggish and manufacturers have reportedly been heavily discounting their products. This then pushes down the price of second-hand aircraft. It is also worth noting that there are 2,700 used aircraft brokers hungry to cut a sale even at bargain prices for clients.

Another factor hurting the market is the practice of unscrupulous brokers giving owners inflated prices in order to get an aircraft on their books. Aoife O'Sullivan, founding partner of London's Air Law Firm, said she has frequently received requests for broker recommendations from sellers when they have been unhappy with the service they have received.



Used: Challenger jets saw a price drop

"A good broker needs to have a strong sense of the market, and a good understanding of the service suppliers that surround aircraft ownership," she says.

Bad brokers are so destructive that it can take 18 months to sell a private jet.

> 'Two aircraft of the same vintage and type can have different values. It depends on quality of maintenance'

Kurosh Tehranchian, chief executive of UK-based leasing and sales specialist Axon aviation, says this is because "on day one the owner was told his jet would sell for \$15m, when actually he'd be lucky to get \$12m". This means a vendor is reluctant to accept offers approaching the actual market value, causing transactions to stall and likely sales prices to be forced down still further.

Other factors also affect buyer confidence. It can cost more than \$100,000 to upgrade some older aircraft to be compliant with future regulatory requirements and owners are reluctant to do the modifications. However, without them, they may be unable to sell their aircraft.

As ever, in this entrepreneurial market, there are solutions. Financing has become easier with leasing firms entering the scene. Global Jet Capital's chairman Simon Davies says: "Two aircraft of the same vintage and type can have very different values. It depends on quality of maintenance, who has owned them and where they've come from."

Although many potential buyers are shy at the moment, there are real bargains to be had. For example, according to specialist researchers at Amstat, the worldwide inventory for used Gulfstream G450s stands at 30. Over the past year, the price of a five-year-old version has dropped by about \$6m.

"This process has been repeated by many aircraft before and will be repeated again — inventory rises, price falls until a point when everyone wakes up and realises that the aircraft represents great value for money," says Tim Barber, Cabot Aviation's senior vice-president of private jet remarketing.

For older types of jet, while it is important to factor in the cost of future proofing their value with upgrades, an aircraft's lifespan is measured in pressurisation cycles rather than years. Business aircraft do not fly anything like the amount of hours that their commercial cousins do, so last a lot longer.

Values do not necessarily drop massively. Five-year old smaller jets have held their prices well. Embraer's Phenom 300 stands at 80 per cent of its list price, while Cessna's Citation CJ4 stands firm at 78 per cent of what it sold for. Mr Barber says: "Manufacturers are doing a very good job of keeping the momentum going by selling new aircraft. There'll always be people who can afford them."

Mr Tehranchian is positive that the market will pick up. He argues that appreciation of the US dollar against other currencies is also boosting the market by increasing the purchasing power of US buyers over foreign-built executive jets.

Lockheed seeks commercial innovation from Sikorsky

Helicopters

The oil price slide has hit the defence company's plan to diversify into the civilian sector, says *Robert Wright*

The regular buzz of helicopters landing and taking off is one of the distinctive sounds of the airport on the outskirts of Aberdeen, the UK's most important oil city. With 36,487 take-offs and landings by rotary-wing aircraft during 2015, the windswept facility is the world's busiest heliport, handling hundreds of thousands of passenger journeys annually to and from North Sea oil platforms.

But, for Dana Fiatarone, head of commercial systems and services at Sikorsky, one of the world's biggest helicopter makers, that level of traffic is a concern. While Aberdeen's heliport remains busy, 2015 movements were 8 per cent down on the previous year, thanks to a slide that has taken the price of a barrel of North Sea crude down from a peak of $112 in June 2014 to a low of just above $26 in February this year.

The declining traffic poses acute questions about whether Lockheed Martin, which bought Sikorsky for $9bn late last year from United Technologies, will achieve one of its aims in the purchase — to diversify away from military business. While Sikorsky — maker of the US military's Black Hawk helicopter — is the world's biggest supplier of military helicopters by sales, Mr Fiatarone points out Sikorsky is Lockheed's first sizeable acquisition of a company with substantial civilian business.

Demand for Sikorsky's two main civilian models — the S-76D, which can lift up to 5,386kg and the S-92, which can lift 12,018kg — has traditionally depended heavily on offshore oil and gas customers.

"The oil and gas downturn is probably steeper than anyone really anticipated," Mr Fiatarone says.

Richard Aboulafia, an analyst for the Virginia-based Teal Group, says that United Technologies chose an "impossibly good time" to sell the business. "Lockheed Martin didn't really choose an optimal time to buy," he adds.

Nevertheless, Mr Fiatarone insists that Sikorsky can be competitive in the commercial market, particularly if it pushes ahead on the introduction of new, innovative models. "We have a technology and innovation group inside Sikorsky that thinks about things like clean sheet designs," Mr Fiatarone says.

The existing products undoubtedly face tough conditions, however.

The heavy-lift S-92 won a competition to provide the new Marine One helicopters, as the aircraft that carry the US president are known. The aircraft is also in use as a search-and-rescue helicopter for the UK and Irish coastguards, while a variant is being developed to offer search-and-rescue services around the coast of Canada.

The aircraft still remains best suited to undertaking heavy lifts of people and equipment to and from oil platforms. Sikorsky has 263 orders for the aircraft over the next 10 years, according to Teal Group.

The prospects of the medium-sized S-76D, however, looks more uncertain.

AgustaWestland's competing AW139 model has 684 orders over the next decade, according to Teal, while Sikorsky has only 154 for the S-76, despite the introduction of a revamped D variant of the aircraft in 2013.

"That product has been around since the 1970s," Mr Aboulafia says of the S-76. "The D appears to be getting a lukewarm reception after a whole bunch of teething problems and development delays."

The Sikorsky S-92 is set to replace the current fleet of helicopters carrying the US president

Mr Fiatarone concedes that the process of gaining "acceptance in the marketplace" for the S-76D has been "a little slower" than he would have liked. But he adds: "As customers get to know the aircraft, they seem to like it."

One solution to the problems might be to develop new models to fill the sizeable gap in capabilities between the S-76 and the S-92. AgustaWestland's AW189, Airbus's EC175 and the 525 from Textron's Bell Helicopter all fit into the so-called "super-medium" gap between Sikorsky's two models.

Mr Fiatarone concedes it is "at least interesting" that three separate competitors all concluded there was space for a helicopter in that category, even if it might not make "perfect sense" to enter the segment at this point. "It's certainly something we'll take a look at," he says.

There may also be scope for bringing to the civilian side of the business the revolutionary technology that Sikorsky has been developing with an eye to US military business. The company's S-97 Raider helicopter is able to fly twice as fast as conventional helicopters — up to 276mph — because it has two main rotor blades spinning in opposite directions. This overcomes the problem facing traditional rotor designs — that, beyond a certain speed, each rotor catches up with the vacuum created by its predecessor and runs out of air to push.

Mr Fiatarone says there are "possibilities" for the application of such super-fast helicopter technology on a commercial front. "One is getting out to oil rigs that are 300 miles or more offshore — ultra-deep oil wells," he says. "Another is emergency medical services and search-and-rescue."

Yet the central problem facing Sikorsky's commercial business remains the depressed activity level at Aberdeen and other oil and gas-focused heliports. Mr Fiatarone expresses some hope that revival in the sector might be closer than it appears.

Nevertheless, he accepts that there is a considerable period of pain to come, particularly since many "capital assets" — including helicopters — are currently lying idle.

"As the oil price recovers, you'll first see those idle assets being put back to use," Mr Fiatarone says.

"But it may be 18 months after that before you start to see significant increases in orders placed."

Buzz around next-level business jets lures investors

Crowdfunding Entrepreneurs seek novel ways to finance blue-sky projects, discovers *Paul Sillers*

Vertical thinking: XTI used crowdfunding to get the TriFan 600 concept off the ground

Dodging the constraints of airline schedules and networks, and bypassing laborious procedures at big airports is the *raison d'être* of corporate aviation.

But what if you could take the advantages of private flying further? Imagine if there were a type of plane with the speed, comfort, range and privacy of a corporate jet — but combined with the ability to take off and land vertically, just like a helicopter. You would not only avoid delays getting in and out of airports — airports themselves would become obsolete.

That is precisely the vision Denver-based XTI Aircraft Company intends to bring to market in the form of the TriFan 600, a vertical take-off and landing (VTOL) aircraft which will have flight capabilities similar to those of tilt-rotorcraft such as the Boeing V-22 Osprey. Three ducted fans lift the plane vertically and within seconds, two of those fans, mounted in the wings, rotate so that the plane switches to forward high-speed flight, reaching a cruising speed of about 340 knots within 90 seconds. Carrying one pilot and five passengers, the TriFan is designed to fly at 35,000ft, avoiding bumpy weather, with a range of 1,500 nautical miles.

XTI is using crowdfunding as a route to "test the waters" of investor interest and to generate enough buzz to bring this aircraft to the attention of potential financial backers, owners, operators and the media.

So far, XTI has garnered $20m in expressions of interest and has been registered by the US Securities and Exchange Commission. It has already converted a little more than $1m of commitments into actual investments from more than 700 individuals, with investments ranging from $350 to $50,000 each, through the crowdfunding site StartEngine.

"The TriFan will save people hundreds of hours a year by reducing total trip time because they won't have to travel on the ground to and from major airports. All you need is a helipad or other paved surface that is 60x60ft," says David Brody, founder and chairman of XTI.

Industry insiders are already embracing Mr Brody's gusto. "If we look ahead to the commercial potential for the TriFan 600, it's a tantalising concept of aviation without boundaries," says Carol Cork, co-founder and marketing director of PrivateFly, a private jet booking service whose business provides access to a global network of more than 2,700 accredited private aircraft operators. "The one thing that unifies all our customers is the desire to save time. Private jets don't fly faster than commercial airlines on the whole — the time-saving aspect is largely on the ground. Over two-thirds of our customers choose private jets to fill gaps in airline schedules, so a VTOL aircraft obviously takes that potential time saving to a new level."

But why did the TriFan's creators turn to crowdfunding? Mr Brody explains that XTI is "pursuing several avenues to raising the funding needed and the idea of making the investment available to unaccredited and accredited investors was part of our effort to spread the word".

For early investors, Mr Brody says there are advantages to crowdfunding, including the ability to purchase shares in the company for $1 each.

XTI is not alone in the aviation sector in recognising the potential of crowdfunding as a way to promote a brand while diversifying the shareholder base at the same time. Hybrid Air Vehicles, based at Cardington Airfield in Bedford, is the latest in a long line of companies attempting to reinvent the commercial concept of airship transport with its Airlander, a vehicle that can stay airborne for up to five days. Its owners say it "will fulfil a wide range of roles in both the military and commercial sectors, all with a significantly lower carbon footprint than other forms of air transport".

Chris Daniels, HAV's head of partnerships and communications, says crowdfunding brought non-traditional investors into the funding mix and bolstered marketing efforts. "We've been inundated with requests from retail investors who want to invest in our game-changing technology. Historically there wasn't a practicable way to allow this class of investor to purchase equity in the company, but crowdfunding changed that."

> 'The increased profile has created benefits with potential customers and partners'
> Chris Daniels, HAV

Last year, HAV raised £2.1m from 983 investors over 45 days. This year, £1.25m was raised from 1,431 crowdfunding investors over 23 days, closing out early — having reached the limit allowed under the EU prospectus directive of raising €5m over any 12 month period. "Crowdfunding has proved to be a great tool for increasing awareness in Airlander," says Mr Daniels. "The increased profile has created benefits with potential customers, partners, sponsors and government."

But as with all opportunities in the crowdfunded sector, prospective punters may have to be patient to see a return on investment, if one is due at all. With the long design, testing, certification and manufacturing timeframes typical in the aeronautical sector, investors have to ask whether there is a balance between their propensity for risk-taking and the kudos that comes from being a part of what could be the next paradigm in corporate aviation.

As for the TriFan and the future of corporate aviation, XTI's plans a full-scale proof-of-concept aircraft for 2020 and deliveries of the could start between 2024-26. According to Mr Brody: "We expect to be able to sell between 40 and 100 aircraft a year."

Bombardier charts a return to profitability

Corporate fortunes

The aircraft maker looks set for recovery after winning new orders and investment, says *Robert Wright*

When Canada's Bombardier issued first-quarter results on April 28, observers' attention was focused mainly on good news for the commercial aircraft division.

The company was able, after 18 months with no firm new orders for its C Series commercial jet, to announce that Delta Air Lines planned to buy at least 75 of the aircraft, intended to compete with Boeing's 737 and Airbus's A320 narrow-body jets. The order was widely seen as rescuing a programme that, as recently as last year, threatened the future of the world's third-largest aircraft manufacturer by sales.

Yet the first-quarter performance of Bombardier's business aircraft division, until recently the world's biggest supplier of business jets, underlined the price this part of the company has paid for Bombardier's recent problems. Revenue for the quarter fell 15 per cent to $1.3bn, while earnings before interest and tax also fell 15 per cent to $82m.

The falls reflected Bombardier's decision last year to cut back on production of its top-of-the-range Global 5000 and 6000 business jets, which it had been producing unsustainably fast in an effort to earn cash. The cost and time overruns on the C Series consumed so many of the company's available resources that it had to postpone by two years entry into service of its Global 7000 and 8000 long-range jets, to 2018 and 2019 respectively.

The question for the company is whether Bombardier Business Aircraft can reclaim the powerful market position it has ceded during the past 18 months' upheavals. Forecasts from the Virginia-based Teal Group project that aircraft delivered by Bombardier will account for only 28 per cent of the total value of business aircraft delivered this year, against 38 per cent for Gulfstream, once a smaller competitor.

Alain Bellemare, the chief executive brought in last year to tackle the company's corporate crisis, told investors after the results were published that the division was "taking a disciplined approach" and adapting to "challenging market conditions".

However, Richard Aboulafia, an analyst for Teal Group, says the C Series' effect on Bombardier's business aircraft operation has been "devastating". He points particularly to the effect on the company of postponing work on the Global 7000 and 8000, which has left Gulfstream, part of General Dynamics, unchallenged as the leader in ultra-long-range aircraft.

The extended range version of Gulfstream's G650 can fly 7,500 nautical miles without refuelling. Such large aircraft have done disproportionately well since the last recession compared with smaller sizes. The Global 8000, when it eventually takes to the air, is due to have a 7,900 nautical mile range.

"They gave Gulfstream a six-year lead in the ultra-large market, which was arguably the only growth part of the business in the last few years, because of the delays to the Global 7000 and 8000," Mr Aboulafia says.

The core of the problem for Bombardier, according to one observer familiar with the company, is that the C Series' problems have starved development projects across many parts of the company of resources they might otherwise have received. The company last year scrapped its only outstanding development effort for a smaller business jet — the Learjet 85 — although some observers believe the challenges of producing that innovative aircraft might have justified its cancellation anyway. "I think it's good [Bombardier] killed it," says the observer, who asked not to be named.

> 'They're unlikely to get their number one position back — certainly not anytime soon'

Meanwhile, the sales performance of the Challenger 350 — which entered into service in 2014 — and many of the company's other midsize aircraft has proved disappointing. Competitors such as Gulfstream's new G500 have been taking market share. "They haven't been winning their share of that market," the observer says.

Bombardier declined to comment.

Yet the Delta C Series order is not the only reason to hope that Bombardier's business aircraft division may be past the worst. A $1.3bn investment in the company's trainmaking business, by a pension fund linked to the government of Bombardier's native province of Québec, helped to keep net debt for the group steady at $6.35bn at the end of March compared with December.

The company is also due to receive a $1bn investment from Québec's provincial government in a joint venture to build the C Series. It is in negotiations about a potential investment from the Canadian federal government.

Short reprieve: Bombardier's C Series order from Delta came with a cost — EPA

Mr Bellemare told investors in April that the further investments would give the company "additional flexibility" and the ability to keep investing.

He also predicted that, in cutting back production rates last year, the company had acted more promptly than other companies during difficult market conditions.

"We were proactive. We took some tough actions last year, but they are starting to pay off this year," said Mr Bellemare.

Yet there is little doubt that events over the past few years — when Bombardier struggled to invest in new products — will have a lasting effect on the business. Mr Aboulafia reflects how the company once offered strong products across the whole size range, from its smaller Learjets up to the Global products — which were the first truly intercontinental business aircraft. "They're unlikely to get their number one position back — certainly not anytime soon," he says.

New stretched jets bring more cabin comfort

Aircraft design As well as making planes go faster and further, leading jet makers are working to enhance the in-flight experience. By *Michael Dempsey*

Superficial similarities between most business jet designs can obscure the reality of continuous change and development. Speed and range are two obvious aspects of an aircraft where advances yield advantages to the business traveller. But going faster and further does not stop passengers wanting to make the best use of their time in the air.

Bombardier, the Canadian aerospace group, is working on the launch of stretched versions of its Global series business jet that will offer greater range and cabin comfort.

Brad Nolen, Bombardier's director of product strategies, explains how the Global 7000 and 8000 jets are being built with nonstop flights from North America to Asian locations in mind. Their numeric names refer to their approximate ranges in nautical miles.

This push towards longer-range aircraft is being accompanied by an emphasis on greater comfort and more elaborate interiors. One potential configuration for a large Global series jet consists of four different zones, the first of which is reserved for four seats. The other three rooms inside the aircraft can offer a dining room, bedroom and a stateroom.

"These aircraft are completely customisable" says Mr Nolen. "They can be set up to equal a boutique hotel that transports itself from Sydney to San Francisco." Travelling at just below the speed of sound, Mach 0.925, and at very high altitudes up to 51,000 feet, the Global 7000 will be much more than a swanky hotel with wings, according to Mr Nolen.

Those wings have been the subject of intensive research and are designed to handle high-speed flight and slow landings via slats and flaps that can configure the wing for approaches to shorter runways.

This need for advanced wing technology points to a contradiction that plagues business jet designers. More speed equals shorter journey times, and larger aircraft have the fuel reserves for long-distance flights. But business aviation is about convenience, and the airport closest to the passengers' final destination may not have the long runway required by larger jets. "We want to increase size and comfort," says Mr Nolen, "but we also want to be able to fly into the small, challenging airports with short runways."

Hotels in the skies: longer range jets can have elaborate interiors
AFP/Getty Images

Aircraft design is about compromises. A swept wing equates to speed and a straight wing allows for slow landings into limited space. With the fuel load necessary to fly 7,000 miles, a jet will need at least 6,000ft of runway to get off the ground, which in turn limits the number of available departure points.

Passengers who are airborne for long flights expect to remain in touch, and Bombardier's Global Series of jets offer satellite-based internet connectivity with enough download capacity to host online meetings or access Netflix.

The company's Challenger 650 jet allows passengers to control the cabin temperature, lighting and window shades using their smartphones. Mr Nolen says all of this convenience is about responding to the need for personal devices to be integrated into the cabin design.

"People are streaming media everywhere so we have to integrate that level of connectivity into the aircraft."

> People are streaming media everywhere so we want that level of connectivity on board

Others are competing with Bombardier in developing and enhancing their aircraft. Textron is the group that includes classic US aviation names such as Cessna and Beechcraft. It manufactures the long-established King Air twin turboprop that covers shorter distances. In its latest iterations, the King Air offers WiFi in its small cabin and incorporates touchscreen displays to lower the pilot workload.

Roomier cabin space in its mid-range jets is also on the agenda for Textron, which believes that in-flight meeting space demanding greater cabin height and width should not be restricted to longer-range aircraft.

The larger models in its Citation range reflect what Kriya Shortt, senior vice-president for sales and marketing, says is a customer demand for improved working environments that "allows people to be more effective while they are on board".

Flexjet, the fractional ownership business, has improved the odds on a supersonic business jet taking to the skies by placing a $2.4bn order for 20 Aerion AS2 aircraft.

The AS2 is yet to fly and has no shortage of critics, who point to the substantial technical challenges involved in sustained supersonic flight, the large associated development costs and apparently limited market for such an exotic machine.

Michael Silvestro, chief executive of Flexjet, is undeterred. "There is no question that building and operating a supersonic business jet will not be easy, but we've spent a lot of time with Aerion and so far we are confident they can pull this off."

He talks about taking delivery of this aircraft, which is designed to fly at speeds up to Mach 1.5, by 2024.

Mr Silvestro hopes that the relatively small size of the AS2 will prevent supersonic booms from reaching populations on the ground and hence the jet will be able to negotiate the restrictions that limited Concorde to supersonic flight over the sea.

The potential gains in time offered by boosting jet speeds beyond the sound barrier will appeal to Flexjet's customers, Mr Silvestro says, adding: "Time is much more valuable to executives than it was a generation ago."

How aircraft makers are catering for military uses

Armed services

World defence ministries' demand for business jets has surged with changes in modern warfare, writes *Angus Batey*

During the Dubai air show in November, the United Arab Emirates' defence ministry announced it was buying two surveillance aircraft from Saab of Sweden in a deal valued at $1.27bn. The news was a surprise, but one aspect attracted little comment: the aircraft selected to fly Saab's radar equipment was not military, but a Bombardier Global 6000 business jet.

"Our radars have been integrated on many platforms," Hakan Buskhe, chief executive of Saab, told reporters following the announcement. "The platform itself is extremely important for endurance, and the capability of using these types of sensors."

It is not just corporate executives who fuel demand for today's business aviation fleets. The combination of range, reliability, easy maintenance and comparative affordability has put business jets on the inventories of several of the world's defence forces. They are often used to transport VIPs, but are increasingly being deployed in air-ambulance and surveillance roles.

Civilian platforms have long been the backbone of military fleets. The venerable and distinctive Awacs surveillance aircraft — a jet with a large rotating radar antenna attached to the top of the fuselage, operated by the US, the UK, France, and Saudi Arabia among others — is a modified Boeing 707. The Awacs was itself a successor to a similar system installed on a piston-engined Lockheed Constellation airliner. The RAF's Nimrod R1 and MR2 fleets — which gathered electronic intelligence and maritime data respectively — were both built around modified de Haviland Comet jets.

Special: King Airs remain in service

The move to fielding reconnaissance equipment on smaller aircraft began in the middle of the 20th century. Since then, the market has surged after the increasing use of unmanned aircraft in the Iraq and Afghanistan conflicts fuelled a growing appetite for high-resolution streamed video.

Beechcraft's King Air range of utility turboprop aircraft, developed in the 1960s, were popular with military users. Today the type remains in service with dozens of military forces, with different antennas, camera turrets, bubble windows and other modifications.

Although it is third-party suppliers of surveillance or other equipment who usually carry out the modifications, aircraft manufacturers are not just providing an off-the-shelf product. Modification and maintenance work adds considerably to sales and profits. Several manufacturers have established business divisions to cater for the surveillance, inspection, air ambulance and utility markets, usually known collectively as "special missions".

Textron Aviation's special mission division employs more than 70 people. Tom Hammoor, president of the defence side of Textron, which owns aircraft brands including Cessna and Beechcraft, says significant work is done on these niche modifications, so that customers will not have to wait or pay for safety certifications for a particular pod, camera turret or internal equipment configuration.

Business jets are also increasingly popular for military reconnaissance roles. Pressurised cabins permit operating at altitude limits for normal airliners, which means greater range for optical or radar sensors; the fuel efficiencies and long flight durations expected by the business user are also prized by the military.

The RAF's Sentinel R1 is a Bombardier Global Express aircraft with a bespoke radar sensor and three computer workstations on board: it is able to monitor the movement of vehicles on land and to take radar imagery through cloud. Since entering service in 2008, the Sentinel was used during Nato's air campaign over Libya and also deployed over Afghanistan.

The fleet of five aircraft were modified by contractor and radar manufacturer Raytheon. The aircraft's success in such a wide variety of operations has piqued interest abroad, and Raytheon is in discussion with international customers to sell similar systems installed on business jet platforms. Enhancements to the UK's configuration make adding more analyst workstations and new sensors possible.

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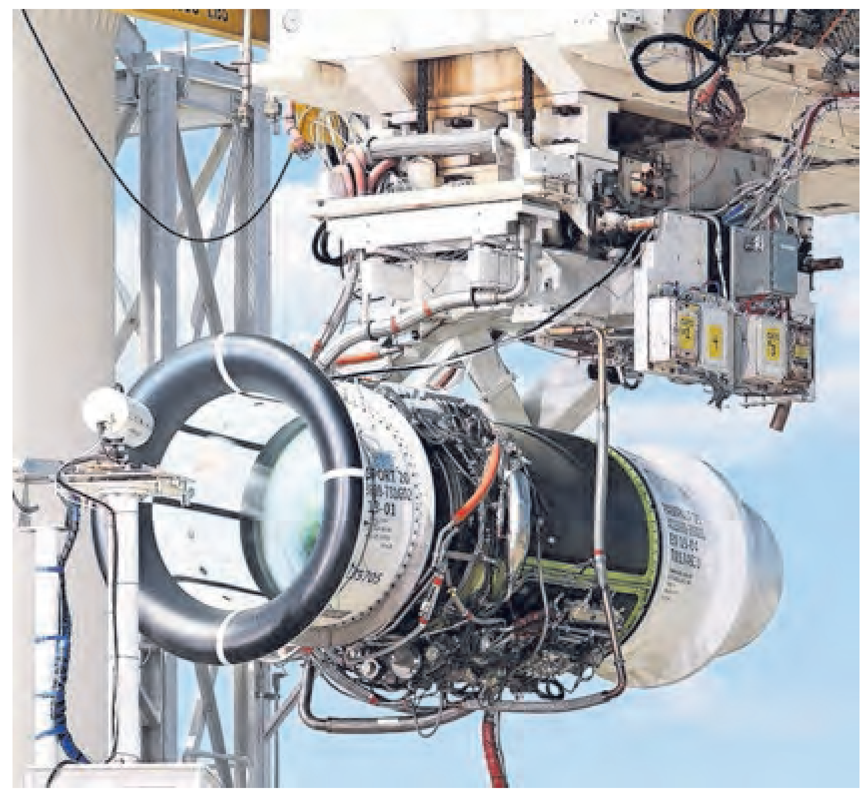
GE Aviation's engine is passport to the skies

Innovations New engine marks a turning point in energy efficiency, reports *Robert Wright*



Hitting the fan: latest engines are expected to achieve bigger fuel savings

When Bombardier's Global 7000 long-range business jet takes its maiden flight, scheduled for some time in the next two years, attention will focus on the impact of the aircraft's commercial appeal on the Canadian manufacturer.

But the flight will be a landmark for another company. The take-off will be the first powered by the new Passport engine developed by the aviation division of General Electric for business jets.

The Passport is the first of a series of new engines nearing introduction to service that draw on the latest innovations in commercial jet power. The Passport features some of the innovative materials that GE has developed for the Leap engine manufactured by CFM International, its joint venture with France's Snecma. The Leap — one of the two engine types available for Airbus's new A320neo narrow-body jet — uses newly-developed materials that allow the engine to run at higher — and hence more efficient — temperatures and greater pressures.

Brad Mottier, GE Aviation's manager of business and general aviation, says the Passport represents a significant efficiency breakthrough and will use an average 18 per cent less fuel than GE's existing comparable products. While using many of the elements of the Leap's core — the compressors, combustors and turbines that lie at the centre of the engine — the Passport uses a different, smaller intake fan.

"For a business jet, which flies faster and higher than a commercial airliner, you want to generate power efficiently, with as small a fan diameter as you can, to reduce drag," Mr Mottier says.

However, Philip Toy, co-head of the aerospace and defence practice at consultancy AlixPartners, points out the small size of the business jet market — and the relatively slim pickings to be made from maintaining the lightly-used engines — mean revolutionary products in the market are rare and innovation is normally a byproduct of developments in commercial jets.

"The business jet technology is a trickle-down from the commercial aircraft," Mr Toy says.

The best illustration of the challenges of transferring technology from commercial jet engines is the development of Pratt & Whitney's PW800, the engine due to power Gulfstream's new G500 and G600 medium-range jets.

The engine is based on P&W's revolutionary Geared Turbofan (GTF) engine, which uses far less fuel than conventional jet engines. The GTF has prompted a scramble of innovation in the industry as other manufacturers seek to catch up with its performance.

Pratt & Whitney had to decide how to adapt the GTF for the very different demands of powering a business jet, according to Michael Perodeau, head of marketing for Pratt & Whitney Canada, the division working on the new engine.

"There are different design choices that are made as a function of the aircraft that you're trying to power," Mr Perodeau says.

The company decided that a scaled-down recreation of the GTF would face unacceptable disadvantages. The GTF saves fuel because a gearbox allows its large intake fan and its turbine to run at two different speeds, each optimal for their functions.

A geared engine's likely weight, width and the drag it would create all had to be factored into the design's "overall optimisation", Mr Perodeau says. The company instead opted for a conventional design where the engine core turns the intake fan directly.

Business jet customers care far less than airlines about achieving fuel savings to cut costs but value new engines' capacity to carry the aircraft further between each refuelling.

The Global 7000 is due to have a maximum range of 7,300 nautical miles, close to the 7,500 nautical mile range of Gulfstream's G650ER, the longest-range business jet currently on the market. The still-larger Global 8000, likely to enter service a year after the 7000, will fly up to 7,900 nautical miles in one go.

Mr Toy of AlixPartners calls the PW800 and other new engines a "worthwhile optimisation exercise".

"Extending range is the main benefit," he says, adding that engine improvements were the main factor in allowing Gulfstream to introduce the G650ER — which can fly 500 nautical miles further than the original G650 — in 2014.

Yet the proof of the development process's complexity is that not every company manages it smoothly.

While GE and Pratt & Whitney have largely stuck to their development timetables, Snecma is set finally to win safety certification for its new Silvercrest engine — the company's first business jet engine — in 2018. The company had originally expected to reach that milestone as early as 2010 or 2011.

The problems have led to a two-year delay in the development schedule for Dassault's Falcon 5X, which had been due to make its maiden flight powered by the Silvercrest last year. The aircraft is now unlikely to fly until next year.

"We are deploying all the resources needed to meet our commitments and ensure that Silvercrest will be a success," the company says.

The ultimate perk

COLUMN

Paul Betts

The other day I asked a retired businessman, now living in the pretty and fragrant Italian hills of Chianti, what was his top luxury. A corporate jet, he replied without hesitation. "It gives you complete freedom. You can go wherever you want, whenever you need or feel like. You avoid all those ghastly queues and delays at congested airports. It is super convenient and comfortable, and flying in a corporate jet makes you feel a bit special," he rambled on.

Rather than a corporate jet, would you not regard one of those super yachts complete with helicopter, Riva speed boats, swimming pool, sauna, gym and grand state rooms as the ultimate luxury, I suggested meekly. A Monaco broker recently told me that a super yacht is probably the least necessary and most extravagant luxury that money can buy. After all, a corporate jet can pass as a business tool and expense.

The yacht broker was making, indirectly, a telling point. Even if a super yacht and a large sophisticated long-range corporate jet probably end up costing about the same, the big difference is that you own and pay for a yacht while in most cases you do not personally own a corporate jet. Far more conveniently, your company owns or leases a jet or a fleet of jets, your shareholders and investors pay for them, and you have extensive — if not exclusive — use of them. In other words, it is the ultimate perk.

Recipients of this largesse, mainly chief executives of Fortune 500 companies and other corporate tycoons, and their friendly and compliant boards, argue that corporate jets are necessary to fly top managers to business meetings and that it does not make economic sense for highly paid chief executives to waste time at airports. Security is also cited by boards as a reason for operating corporate jets as well as privacy to conduct business far from indiscreet ears.

During my days as an FT foreign correspondent and, at one stage, aerospace correspondent, I was invited from time to time to fly with a chief executive, a group of company managers or a politician for an interview in the sheltered and gilded confines of a Gulfstream or Embraer or Falcon cabin. But for all the practical arguments of the advantages of flying in this way, it still felt like a luxurious perk.

Not surprisingly, since the 2008 financial crash, this benefit has been one of the most closely examined and widely criticised. Although some chief executives are now reimbursing their companies for any private use of the company jet, the Institutional Shareholder Service has pointedly asked why should such highly paid individuals be given such perks that they could well afford to pay for themselves? If they can buy a super yacht with their own money, they could clearly buy their own jet.

The reason they probably do not, explained a yacht broker, is that buying a yacht is a very emotional and personal affair. Not so with a corporate jet which is widely seen as a business expense as its name implies. This may also explain why the market for very large super yachts is a rarefied world of some 150-200 yachts at most, compared with the 675-725 corporate jet deliveries expected this year according to the annual forecast by Honeywell International. The US avionics manufacturer, which has published a corporate jet market survey for the past 24 years, predicts a global market of 9,000 business jets worth $270bn over the next decade.

In a period of economic stress, one of the first luxuries to go is the yacht. As the old saying goes, the happiest day in a man's life is when he buys a yacht and the second happiest day is when he sells it. This certainly does not appear to apply to the corporate jet. My old business friend in Chianti would say quite the opposite. Once you have tasted the pleasure and convenience of travelling by private jet, it is extremely difficult to get used to flying again in a commercial airliner, even in first class.

Paul Betts is a former FT aerospace and foreign correspondent

Smartphones 'cannot replace the human touch'

Online booking

Technology makes contact with customers easier but it is not a complete solution, writes *Michael Dempsey*

Corporate aviation is experiencing a wave of newcomers, all eager to show their technological mettle. But while online booking has opened up the use of private aircraft, not everyone in the business thinks that this popular approach should deflect from the serious task of operating aircraft.

Adam Twidell, who founded PrivateFly in 2008, aims to bring the ease of online bookings to the private aircraft sector. His company, which offers a mobile app to customers, has grown rapidly: in the first quarter of 2016, it dealt with customers flying out of 237 airports worldwide.

He agrees his client base wants the convenience of quick access to flights and nearly one in three bookings is made within 48 hours of take-off. But Mr Twidell does not attribute PrivateFly's success solely to the adoption of digital technology. "We have never pretended to be an Uber; that is a lazy generalisation," he says. Business aviation requires both high-tech and a focus on customer contact, he insists. "It is not about being a one-dimensional online business. Technology can make it easier for corporate customers, but it cannot replace the human touch."

PrivateFly's quickest time between a customer logging on and taking off is 43 minutes. This was recorded by a lawyer whose flight on a budget carrier to a business meeting was delayed by four hours and who used the service to book a jet from the airport in which he was stranded. Mobile booking was the key to the lawyer's rapid change of plan, but it is worth noting that 63 per cent of PrivateFly customers still book from a desktop computer.

PrivateFly has 30 staff based in the UK and US providing round-the-clock support. "You can use a computer program for a lot of things, but you still need people for specifics," Mr Twidell says. "We just use technology to take the frustration out of booking a flight."

His company experienced what he calls "an intense period" while an accreditation team from Argus International, an aviation rating agency, assessed its procedures and protocols. Such accreditation of flight brokers is a relatively new development, and Mr Twidell's motivation in wanting Argus to scrutinise his business indicates a broader change in the way business aviation clients choose their operators.

Mr Twidell says there has been an emergence of savvier European business aviation customers in recent years, all asking far more pertinent questions of their flight operator. For example, rather than just querying how many flying hours a pilot has, they have learnt to ask how many hours the pilot has on a specific type of aircraft. Others ask whether air crew have access to simulator training which allows them to prepare for every possible emergency.

Patrick Hansen is chief executive of Luxaviation, an aircraft operator that manages 250 aircraft. Mr Hansen argues that safety has moved up the agenda while cost and online access to booking can be overrated. "For the end-client, price is just one element in the equation. There is a lot more involved and safety is very important. So apps might introduce a new group of clients but corporates are doing more and more vetting of operators for safety. You want your CEO to fly on a safe jet."

Simon Talling-Smith was in charge of ecommerce at British Airways from 2001 to 2004 and is now European chief executive of Surf Air, a model based around charging an upfront monthly subscription rather than taking bookings for individual fares from business travellers. Mr Talling-Smith says he learnt a lot from BA's move into online booking. "If you make it easy and take the friction away they [customers] will use it," he says.

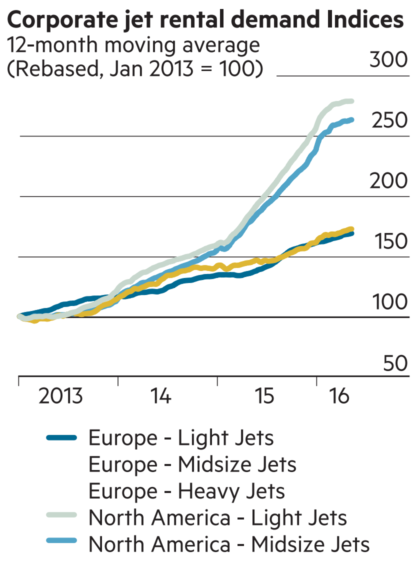
Launched in 2013, Surf Air has 90 flights a day on the West Coast of the US and plans to announce a European service during 2016. It targets a new class of passenger: frequent travellers who have defected from conventional airlines to avoid the normal time penalties of queueing in airports.

Operating eight seater Pilatus PC-12 turboprops, Surf Air allows customers to pay a $1,950 monthly subscription on top of a $1,000 joining fee and then make their booking via an app. Mr Talling-Smith claims that the subscription model also removes the rigmarole of payment that makes online booking a lengthier process than necessary.

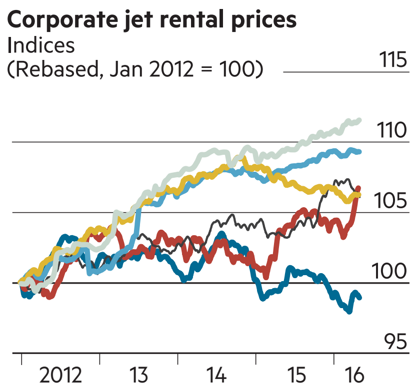
With 3,000 members, Mr Talling-Smith reckons Surf Air's private terminal saves customers two hours on every round-trip journey. One member uses the service 26 times a month between Santa Barbara and San Francisco. The key to the Surf Air model is the high utilisation rate of its aircraft which make several flights daily.

Mr Talling-Smith says an approach aimed at easing of customer access is what distinguishes its service, rather than the use of an app. Mr Hansen at Luxaviation agrees. He says operators must understand what their passengers are searching for. This means looking beyond smartphones. "The problems of corporate aviation are not going to be solved by a nice button on a phone."

Corporate jet rental demand Indices
12-month moving average
(Rebased, Jan 2013 = 100)



Corporate jet rental prices
Indices
(Rebased, Jan 2012 = 100)



Source: Avinode

'We just use technology to take the frustration out of booking a flight'
Adam Twidell, PrivateFly founder