FINANCIAL TIMES

MONDAY 12 JUNE 2023

EUROPE

**Ageing infrastructures hamper renewables**
BIG READ,PAGE 17

**Parts of the US have become uninsurable**
RANA FOROOHAR, PAGE 19

## On the march
# Ukraine steps up fightback

68th Separate Hunting Brigade 'Oleksy Dovbusha'/Handout/Reuters

Ukrainian soldiers plant their flag yesterday during an operation to liberate a village, reported to be Blahodatne, as the Ukraine counter-offensive steps up.

It comes as Volodymyr Zelenskyy, Ukraine's president, acknowledged for the first time at the weekend that an operation was under way to liberate parts of the Russian-occupied territories in the south-east of the country.

"It's important that Russia feels, fully feels . . . that they don't have much time left," Zelenskyy said.

Ukraine's leader said that the aim was to liberate some 18 per cent of occupied territory in south-eastern regions of the country, but that no further details would be made public about the offensive.

Russia's defence ministry said on Saturday that Ukraine had yet to break through its defensive lines.

**News & analysis** page 3

# UBS draws lines for Credit Suisse staff amid fears of 'cultural contamination'

- Ban on high-risk products and clients
- Takeover near completion
- Loans to oligarchs scrutinised

**OWEN WALKER AND ROBERT SMITH**
LONDON

UBS is to impose tight restrictions on Credit Suisse bankers including a ban on new clients from high-risk countries and on complex financial products as it prepares to take over its ailing rival as early as today.

UBS executives have drawn up a list of nearly two dozen "red lines" that prohibit Credit Suisse staff from a range of activities from the first day that the two banks are combined, according to people with knowledge of the measures.

Prohibited activities include taking on clients from countries such as Libya, Russia, Sudan and Venezuela and launching new products without approval from UBS managers.

Ukrainian politicians and state-owned enterprises will also be blocked to prevent potential money laundering

"We are worried about 'cultural contamination'," UBS chair Colm Kelleher said last month about the taking on of Credit Suisse staff. "We are going to have an incredibly high bar for who we bring into UBS."

The prohibitions, written by UBS's compliance department, are designed to reduce the risk of the transaction, which was orchestrated by Swiss authorities three months ago to save Credit Suisse from collapse.

> 'We are going to have an incredibly high bar for who we bring into UBS'
>
> Colm Kelleher, UBS chair

UBS executives fear they are taking on a bank that has traditionally been much more willing to accept risky clients and offer them high-stakes products. Credit Suisse's final few years as an independent company were marked by a series of scandals and crises, which one internal report said was because of its "lackadaisical attitude towards risk".

UBS finalised a deal with Bern on Wednesday that will provide the bank with up to SFr9bn ($10bn) to protect it from losses on the rescue. The aid would kick in after UBS covered the first SFr5bn of losses. The loss protection agreement was the final hurdle for UBS to cross before completing the takeover.

The restrictions, which UBS bosses have named "red lines", cover 11 financial risks and 12 non-financial risks.

While many of the risks are operational — concerning issues such as the distribution of research and use of offices — other decrees affect areas of Credit Suisse's business more directly.

Under the rules, Credit Suisse bankers are unable to trade in a range of arcane financial products, including Korean derivatives and options of certain quantitative indices. In 2006, Credit Suisse lost $120mn on Korean derivatives, leading to a shake-up of the unit's management team.

But the bank has continued to operate in the market.

Credit Suisse employees must also ask UBS executives for permission to extend loans backed by assets such as yachts, ships and property of more than $60mn. As the banker to some of the world's richest people, Credit Suisse has long provided loans to fund billionaires' private-jet purchases, while it has also engaged in yacht finance.

Last year Credit Suisse asked hedge funds and other investors to destroy documents relating to its richest clients' yachts and private jets following revelations in the Financial Times of a securitisation deal involving loans it made to oligarchs who were later hit with sanctions.

Staff at Credit Suisse's Swiss bank must ask permission from UBS to extend loans to borrowers outside the country and for foreign property.

UBS and Credit Suisse declined to comment on the rules.

## Briefing

**▸ Trump backers offer support as tensions rise**
Donald Trump's allies defended him, days before he surrenders to authorities as criminal charges add to tensions over his election bid.— PAGE 2; FT VIEW, PAGE 18

**▸ Odey firm criticised**
The women who said they were assaulted by UK financier Crispin Odey have denounced efforts by his firm's partners to distance themselves from him.— PAGE 6

**▸ US rate rises predicted**
A majority of leading academic economists polled by the FT have predicted at least two more quarter-point interest rate rises by the US Fed this year.— PAGE 4

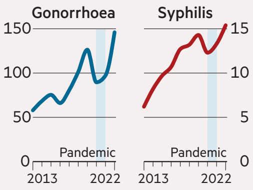
**▸ Covid lawsuits launched**
BioNTech is facing compensation claims in Germany brought by law firms that say their clients suffered lasting health damage from its coronavirus jab.— PAGE 9

**▸ Soros hands reins to son**
Billionaire investor George Soros has handed control of one of the wealthiest global philanthropic foundations to his 37-year-old son Alex Soros.— PAGE 9

**▸ Iran ship to be offloaded**
The US is soon expected to unload oil from the Suez Rajan, an Iranian ship seized off Texas, threatening to escalate a shadow tanker war with Tehran.— PAGE 4

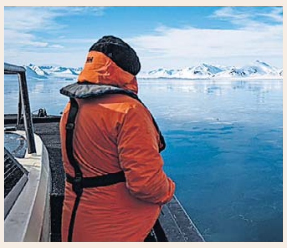
## Datawatch

**Top of the pox**
New diagnoses per 100,000, England



Source: UKHSA

England experienced a surge in sexually transmitted infections in 2022. Young adults recorded the highest diagnosis rates. Across all age groups, 83,000 cases of gonorrhoea were diagnosed. Syphilis diagnoses are the highest since 1948.



**Oslo ignores green lobby with deep-sea mining plan**

**Ocean exploration** ▸ PAGE 2

| | | | |
|---|---|---|---|
| Austria | €4.50 | Morocco | Dh50 |
| Bahrain | Din1.8 | Netherlands | €4.30 |
| Belgium | €4.50 | Norway | NKr45 |
| Croatia | Kn33.91/€4.50 | Oman | OR1.60 |
| Cyprus | €4.20 | Pakistan | Rupee350 |
| Czech Rep | Kc125 | Poland | Zl 25 |
| Denmark | DKr46 | Portugal | €4.20 |
| Egypt | E£80 | Russia | €5.00 |
| France | €4.50 | Serbia | NewD530 |
| Germany | €4.50 | Slovenia | €4.20 |
| Greece | €4.20 | Spain | €4.20 |
| Hungary | Ft1450 | Switzerland | SFr6.70 |
| India | Rup220 | Tunisia | Din7.50 |
| Italy | €4.20 | Turkey | TL80 |
| Luxembourg | €4.50 | UAE | Dh24 |
| Malta | €4.20 | | |

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# Scotland's ex-leader Sturgeon arrested then released as part of finances probe

**LUKANYO MNYANDA** — EDINBURGH

**Police arrested Nicola Sturgeon, Scotland's former first minister, yesterday as part of a probe into alleged financial misconduct by the Scottish National party that has plunged the independence movement into turmoil.**

Sturgeon was later released without charge pending further investigations.

But her arrest and questioning mark a major escalation in the police probe into how the SNP, which has governed Scotland since 2007, used more than £600,000 in donations meant for future independence referendum campaigns.

It is also a blow for Sturgeon's successor, Humza Yousaf, in his attempts to stabilise the SNP after a succession battle that exposed deep party divisions.

Sturgeon, who formally resigned as party leader and first minister in March, is the third person to be arrested in connection with the investigation.

In a move that sent shockwaves across Scotland, the SNP's former chief executive, Peter Murrell, who is also Sturgeon's husband, was arrested in April.

Colin Beattie, the SNP's then treasurer, was arrested later that month. Both men were released pending further investigation.

Murrell, who became the SNP's CEO in 1999 and married Sturgeon in 2010, resigned in March after the party admitted that it had about 30,000 fewer members than it claimed after Sturgeon announced her intention to resign as first minister in February and the race to replace her began.

A spokesperson for Sturgeon said that the former first minister had attended an interview with Scotland Police "by arrangement", where she would be arrested and questioned in relation to the investigation, known as Operation Branchform.

"Nicola has consistently said she would co-operate with the investigation if asked and continues to do so."

Scotland's governing party, previously known for its discipline and tight control by a small group close to Sturgeon and Murrell, has been mired in division and complaints about its governance since Sturgeon's resignation.

Yousaf, who was perceived as the continuity candidate, narrowly defeated Kate Forbes, the former cabinet secretary for finance.

Yousaf says that he is committed to reforming the party, but a legacy of controversies have overshadowed attempts to promote his agenda.

## World Markets

**STOCK MARKETS**

| | Jun 9 | Prev | %chg |
|---|---|---|---|
| S&P 500 | 4297.17 | 4293.93 | 0.08 |
| Nasdaq Composite | 13257.04 | 13238.52 | 0.14 |
| Dow Jones Ind | 33823.95 | 33833.61 | -0.03 |
| FTSEurofirst 300 | 1819.29 | 1823.20 | -0.21 |
| Euro Stoxx 50 | 4288.22 | 4297.68 | -0.22 |
| FTSE 100 | 7562.36 | 7599.74 | -0.49 |
| FTSE All-Share | 4133.32 | 4150.90 | -0.42 |
| CAC 40 | 7213.14 | 7222.15 | -0.12 |
| Xetra Dax | 15949.84 | 15989.96 | -0.25 |
| Nikkei | 32265.17 | 31641.27 | 1.97 |
| Hang Seng | 19389.95 | 19299.18 | 0.47 |
| MSCI World $ | 2882.13 | 2866.59 | 0.54 |
| MSCI EM $ | 994.08 | 995.41 | -0.13 |
| MSCI ACWI $ | 665.76 | 662.65 | 0.47 |
| FT Wilshire 2500 | 5563.14 | 5533.43 | 0.54 |
| FT Wilshire 5000 | 43392.20 | 43166.50 | 0.52 |

**CURRENCIES**

| | Jun 9 | Jun 2 | | Jun 9 | Jun 2 |
|---|---|---|---|---|---|
| $/€ | 1.076 | 1.073 | €/$ | 0.930 | 0.932 |
| $/£ | 1.258 | 1.248 | £/$ | 0.795 | 0.801 |
| £/€ | 0.855 | 0.859 | €/£ | 1.170 | 1.164 |
| ¥/$ | 139.375 | 139.660 | ¥/€ | 149.925 | 149.792 |
| ¥/£ | 175.341 | 174.331 | £ index | 81.218 | 80.683 |
| SFr/€ | 0.970 | 0.973 | SFr/£ | 1.135 | 1.132 |

**CRYPTO**

| | Jun 9 | Prev | %chg |
|---|---|---|---|
| Bitcoin ($) | 26485.50 | 26506.44 | -0.08 |
| Ethereum | 1841.58 | 1846.17 | -0.25 |

**COMMODITIES**

| | Jun 9 | Jun 2 | %Week |
|---|---|---|---|
| Oil WTI $ | 71.49 | 71.66 | -0.24 |
| Oil Brent $ | 76.23 | 75.96 | 0.36 |
| Gold $ | 1966.40 | 1974.35 | -0.40 |

**GOVERNMENT BONDS**

| Yield (%) | Jun 9 | Jun 2 | Chg |
|---|---|---|---|
| US 2 yr | 4.60 | 4.50 | 0.09 |
| US 10 yr | 3.74 | 3.72 | 0.03 |
| US 30 yr | 3.89 | 3.89 | 0.00 |
| UK 2 yr | 4.55 | 4.48 | 0.08 |
| UK 10 yr | 4.34 | 4.33 | 0.01 |
| UK 30 yr | 4.44 | 4.43 | 0.01 |
| JPN 2 yr | -0.07 | -0.06 | -0.01 |
| JPN 10 yr | 0.43 | 0.44 | -0.01 |
| JPN 30 yr | 1.26 | 1.27 | -0.01 |
| GER 2 yr | 2.91 | 2.89 | 0.01 |
| GER 10 yr | 2.37 | 2.40 | -0.03 |
| GER 30 yr | 2.53 | 2.56 | -0.04 |

Prices are latest for edition
Data provided by Morningstar

Criminal trial

# Trump allies scorn charges as tensions rise

## Indictment leaves voters evenly split as ex-president prepares to face court

**COLBY SMITH AND JAMES POLITI**
WASHINGTON

Donald Trump's allies rallied to his defence days before the former US president surrenders to authorities on criminal charges, amid rising political tensions over what is set to be a protracted legal battle during an election campaign.

Trump is expected to be arraigned in Miami, Florida, tomorrow. He will plead not guilty to 37 criminal counts in connection with his alleged possession of sensitive material after departing the White House in 2021.

The charges range from violating the Espionage Act, with the wilful retention of national defence information without authorisation, to conspiracy to obstruct justice and making false statements.

Many Republicans have continued to back him. Lindsey Graham, the Republican senator from South Carolina and one of the leading defence hawks on Capitol Hill, said yesterday Trump was "overcharged".

"President Trump will have his day in court, but espionage charges are absolutely ridiculous," he said. "He did not disseminate, leak or provide information to a foreign power or a news organisation to damage this country. He is not a spy."

Representative Jim Jordan of Ohio said the indictment was "as political as it gets" and represented an "affront to the rule of law".

The indictment unsealed on Friday by special counsel Jack Smith has sent shockwaves through the US political system. It has propelled Trump's legal troubles and questions about his fitness for office to the top of the 2024 election agenda. It also presents a new test for US democracy that will be closely watched around the world.

"We have now reached a war phase," Andy Biggs, a Republican lawmaker from Arizona, tweeted on Friday.

But not all Republicans have come to the former president's defence. Asa Hutchinson, the previous Arkansas governor and a 2024 presidential hopeful, has called on Trump to drop out of the running in the wake of his second indictment, while Bill Barr, Trump's own former attorney-general, said Trump was "not a victim here".

"If even half of it is true, he is toast," he said. "It is a very detailed indictment and it is very, very damning."

Chris Christie, the former New Jersey governor who announced last week that he was joining the 2024 race, drew a similar conclusion. "The bigger issue for our country is, is this the type of conduct that we want from someone who wants to be president of the United States?"

Underscoring the divide over Trump's indictment, two polls showed the public evenly split over the indictment.

According to an ABC News/Ipsos poll released yesterday, 48 per cent thought Trump should have been charged with a crime, while 35 per cent said he should not. Those surveyed were similarly split on whether the former president should suspend his bid for the White House.

A separate CBS News poll showed that among likely Republican primary voters, most were concerned the indictment was "politically motivated" rather than being a national security risk.

**See FT View**

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Court case

# Bank fraud hearing tests Ukraine's efforts to curb corruption

**BEN HALL** — EUROPE EDITOR

**A legal effort by Ukraine's largest bank to recover billions of dollars in assets from its former oligarch owners opens in England's High Court today — a fraud trial that has become a test of Kyiv's commitment to tackling corruption.**

The London trial was postponed last year because of Russia's full-scale invasion of Ukraine.

PrivatBank is claiming $1.9bn together with interest of up to $2.5bn from Igor Kolomoisky and Gennadiy Bogolyubov, who co-owned the bank until it was nationalised in 2016. The state took it over after regulators found a $5.5bn hole in its balance sheet, allegedly from fraudulent lending.

Its recapitalisation cost the state 6 per cent of Ukraine's gross domestic product, making it one of the biggest banking collapses in Europe relative to national output.

Since the bank's nationalisation, Kyiv has been under pressure from its lenders, including the IMF, to claw back the money. Kolomoisky, meanwhile, has tried to reverse the nationalisation in Ukrainian courts.

Kolomoisky has been under investigation in the US for fraud and money laundering. The US government imposed sanctions on him in 2021 over his "involvement in significant corruption" while he was a provincial governor in Ukraine from 2014 to 2015.

Kolomoisky was an early supporter of Ukraine president Volodymyr Zelenskyy. His TV channel carried Zelenskyy's hit show, *Servant of the People,* and helped propel him to election victory by giving his campaign wall-to-wall coverage. Suspicions of complicity between the two men deepened when the president appointed an ex-lawyer for the tycoon as his chief of staff.

Zelenskyy subsequently turned against Kolomoisky, pushing through a law that would prevent former bank owners from regaining their assets in the courts.

His government has also adopted anti-oligarch legislation to reduce their political and media influence. Some of Kolomoisky's energy assets were temporarily nationalised in 2022 and his Dnipro home was raided by Ukrainian prosecutors this year.

Assets worth $2.5bn owned by Kolomoisky and Bogolyubov were first frozen by an English court in 2017. The case is being heard in England because some of the companies through which the loans were channelled are English, while three others are registered in the British Virgin Islands. The companies are also defendants.

PrivatBank alleges that from 2013-14 the loans were channelled to sham companies controlled by Kolomoisky and Bogolyubov as payment for fictitious commodity trades. The bank claims it was an elaborate scheme to siphon money from the group and launder it overseas, evading Ukrainian capital controls.

Fieldfisher, the law firm representing Kolomoisky, said he "firmly denies any wrongdoing".

George Maling, a senior partner at Enyo Law representing Bogolyubov, said his client "utterly rejects the allegations".

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Arctic. Ocean exploitation

# Norway pushes on with vast deep-sea mining plan

## Oslo defies international opposition and green fears to develop rare metal deposits

**KENZA BRYAN** — LONDON
**RICHARD MILNE** — OSLO

Norway's government is preparing plans to open an area of ocean nearly the size of Germany to deep-sea mining as it seeks to become the first country to extract battery metals from its seabed.

The country's energy ministry is racing to submit to parliament in the next two weeks a proposal to open the vast area to applications for exploration and extraction. The plan would then face a parliamentary vote in autumn.

But Oslo faces a battle with fishing businesses and environmentalists over the proposals and risks opening a dispute with other nations as it pushes to enable mining close to Svalbard, the Norwegian archipelago in the Arctic.

Norway argues that it commands exclusive mining rights over a larger area of water there than Russia, the UK and the EU contend that it does. Volcanic springs up to 4,000 metres deep that surge from the Earth's crust on faultlines between tectonic plates in the proposed area contain an estimated 38mn tonnes of copper, more than is mined around the world each year.

Amund Vik, state secretary in the Norwegian Ministry of Petroleum and Energy, told the Financial Times that deep-sea mining would help Europe meet the "desperate need for more minerals, rare earth materials to make the transition happen". The government would take a "precautionary approach" on environmental issues, he added.

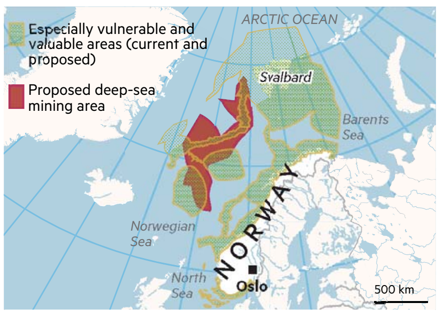
The fluid that emerges from hydrothermal vents such as those in Norway's waters also contains other metals used in electric-car batteries, including cobalt. Metallic seabed crusts can be mined for rare earth metals such as neodymium and dysprosium. These are used to make the magnets in wind turbines and in the engines of electric vehicles, but their supply chain is largely controlled by China.

**Archipelago: a trawler off the coast of Svalbard. Fishing groups fear toxic particles from mining will end up in catches**
Wirestock/Dreamstime

Of the region earmarked for potential mining, the most contentious would be the area close to Svalbard. The Svalbard Treaty, which gives Norway sovereignty over the islands, also gives other countries the right to mine on land and in the territorial waters around the archipelago. Russia, the EU and the UK are at odds with Norway over how large an area of water this treaty covers.

Meanwhile, fishing operations are concerned that pollution from the mining may taint catches. Jane Sandell, chief executive of UK Fisheries — whose super trawler Kirkella is one of the last UK fishing vessels to operate so far north — said she was "deeply concerned" about the possibility of toxic heavy metal particles being released.

**Norway's plans for deep-sea mining**



Source: Barentswatch

Sverre Johansen, general secretary of the Norwegian Fishermen's Association, said Norway's fishing industry was "not at all impressed" by the proposal.

Norway's environment agency has strongly opposed the plan. It said in a consultation response this year that the proposal violated Norway's legal framework for seabed exploration by failing to provide enough sustainability data.

It warned of "significant and irreversible consequences for the marine environment" from mining and argued that hydrothermal vents should remain untouched and only small areas be opened up to mining.

One problem for the energy ministry is Norway's claim on the international stage that it is a protector of its oceans, and a source of sustainably sourced fish.

Kaja Lønne Fjærtoft, a marine biologist at the Norwegian branch of campaign group WWF, said "the government is speaking in two tongues" by defending marine conservation while "bulldozing ahead" with mining plans. Norwegian prime minister Jonas Gahr Støre, currently co-chair of the Ocean Panel network of world leaders committed to protecting the oceans, said in March that deep-sea mining could be done without harming biodiversity.

> 'We are a big fishery nation, we live by the sea, the ocean is our biggest resource'

Miners operating in other countries including China, Papua New Guinea, the Cook Islands, Japan and New Zealand have been exploring how to extract metals from coastal waters. The UN-backed regulator overseeing bids to mine international waters, primarily in the Pacific, is expected to reach a crunch point in negotiations next month.

Egil Tjåland, secretary-general of the Norwegian Forum for Marine Minerals, an industry group, said deepwater was a "speciality" for Norway because of its strong offshore oil and gas base. The group recently held a workshop in Berlin to discuss mining partnerships between Norwegian and German industry.

"If someone gets there first, it should be us," said Walter Sognnes, chief executive of Loke Marine Minerals, which plans to mine Norway's metallic crusts and recently took on two UK-sponsored exploration contracts in the Pacific.

"We are a big fishery nation, we live by the sea, the ocean is our biggest resource . . . We would not be reinventing the wheel."

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# Gulf money brings excitement as rulers play in league of their own

**FOOTBALL**

Simon Kuper

When Manchester City lifted their first Champions League trophy in Istanbul on Saturday night, the Gulf's rapid takeover of European football's commanding heights was complete.

City's owner, watching his team in a competitive match for the first time since 2010, is Emirati royal Sheikh Mansour bin Zayed Al Nahyan. His Qatari neighbours hosted this winter's World Cup. Saudi clubs have spent the past few months signing some of the world's best players, including Cristiano Ronaldo. Meanwhile, in the week of City's triumph, Saudi Arabia in effect took control of golf's PGA tour.

No region outside western Europe has had such a grip on football's shiniest baubles. Many fans lament this, partly because of the Gulf monarchies' mistreatment of women, LGBT+ people and dissidents, and partly from a feeling that football shouldn't be for sale.

There are still attempts to contest the Gulf's dominance. The Premier League has referred City to an independent commission, which will review more than 100 allegations of financial rule-breaking, charges that the club denies. But football faces a dilemma. Gulf money has made the contest at the top of the European game much more exciting than it would have been otherwise.

Look at how Emirati funds lifted Manchester City from joke status into football's trendsetting team.

That old City survives only in memories. On the field, the Emiratis transformed the club. Their money bought players who won trophies, in the process wiping out the old football cliché that held: "You can't buy a winning team."

In fact, if you want a winning team, you have to buy it, with salaries and usually with transfer fees, too. The ugly truth of football economics is that the only way for Cinderella to become a princess is to be bought by a prince.

City are following in the oil-fuelled slipstream of Chelsea, who were bought by Russian oligarch Roman Abramovich in 2003. The two clubs between them have won 12 of the last 19 English titles. They are also the only European clubs since 1999 to win a Champions League for the first time. Oil money has allowed two upstarts to beat the established powers.

English football could have taken a different route, rejecting Gulf money. It could have followed Germany, with its "50 + 1" rule, which states that club members must hold a majority of voting rights. That stops outsiders from taking over clubs. The rule is often praised by football traditionalists. But it means that German football has no oil-fuelled upstarts. The consequence is that the German club with historically the highest revenues, Bayern Munich, faces no serious challengers, and has won 11 league titles in a row.

**Top team: Manchester City celebrate winning the Champions League**

The rule also means that no other club from Europe's biggest economy has a hope of winning the Champions League, whereas three different English clubs have won in just the past five seasons.

Gulf money will probably keep shaping football for a while yet. Qatari Sheikh Jassim bin Hamad Al Thani is bidding to buy Manchester United from the Glazer family, and Saudi Arabia may bid to host the World Cup of 2030, perhaps jointly with Greece and Egypt.

The monarchies' spending on football is often explained as a cunning plan to "sportswash" their reputations, or as an "investment" to diversify their economies away from oil and gas, even though football clubs typically lose money, especially given the salaries that the Gulf royals pay.

In fact, there is a simpler explanation for why these people went into football: it's fun. It makes their friends and neighbours jealous. It's an affordable hobby for billionaires. And they face almost no competition from their peers elsewhere.

**Serie A in talks** see Companies

# Putin opposition struggles to form a united front against Kremlin

## War in Ukraine deepens existing fissures among Russian dissidents

**MAX SEDDON** — BRUSSELS

Russia's browbeaten opposition gathered in Brussels to plot a path back to democracy last week, with Vladimir Putin's main rivals in jail or exiled and squabbling about how to move forward.

Rather than uniting Russia's liberals, the war in Ukraine has deepened existing rifts and added new controversies, such as backing a military defeat for Moscow and Kyiv's demands for reparations, which some see as politically toxic among Russians.

"They have these infights, and maybe it will take some time," said Andrius Kubilius, a Lithuanian MEP who invited the opposition groups to the European parliament last week. "It would be good if they were able to show more unity around some kind of strategy."

Though the EU had hoped to bring them together, the splits were yet again on display when followers of jailed anti-corruption activist Alexei Navalny, the most popular Russian opposition leader, refused to take part in the parliament's event. Navalny's Anti-Corruption Foundation, which operates out of Lithuania, declined invitations to the conference for fear of being "in the same boat" with rival opposition activists who did not share their views, according to Leonid Volkov, Navalny's longtime chief of staff.

> Anyone who associates with Navalny's group or protests against the war faces potential arrest

The EU, which sent senior officials to the conference, sought to cajole the opposition into crafting a cogent plan for democracy and rallying Russians against the war. "We want to work with Russia, but a different Russia," said Michael Siebert, eastern Europe and central Asia director for the EU diplomatic service.

But the opposition groups remain divided on how to achieve that different Russia and who should lead it.

Mikhail Khodorkovsky, once Russia's richest man and now Putin's most prominent opponent after Navalny, blamed Navalny's group for perpetuating "conflict situations".

"In their minds, there can only be the leader," Khodorkovsky said in an interview. "It doesn't fit [in] their worldview that you can have lots of leaders, that this room is full of them."

Navalny, 47, first shot to fame in the early 2010s in large part by ignoring the opposition's internal squabbles and focusing on building a dynamic, web-savvy movement that exposed corruption. Unlike his rivals, he mostly avoided western embassy parties and travels to European conferences, insisting that focusing on Russians' real concerns gave him more legitimacy.

In 2021, he returned to Moscow from Berlin, where he was recovering after being poisoned with a nerve agent that Navalny blamed on Putin. He was promptly arrested upon his return and his organisation banned.

Anyone who associates with Navalny's group or protests against the war faces potential arrest.

Vladimir Milov, who informally advises Navalny but is not part of the Anti-Corruption Foundation, said that "they have this huge, political capital, developed with blood, sweat, and tears" and that the prospect of being just one of many opposition groups was simply not appealing to them.

Khodorkovsky — he devoted the bulk of his 50 minute-interview to criticising Navalny's team — said the difference was between a "revolutionary party and a popular front coalition", much like in Russia before the October Revolution in 1917.

"We don't know of any cases when a revolutionary party has taken power and democracy comes out at the end," Khodorkovsky said. "With a popular front, it doesn't always happen, but it quite often does."

Though Khodorkovsky has made an effort to build a broader coalition by reaching out to younger activists, he is not immune to the squabbling either.

At another recent closed-door forum in Vilnius that he and Navalny's team both attended, a close ally of Khodorkovsky loudly railed against Volkov about perceived slights until the moderator took his microphone away. Khodorkovsky's YouTube broadcasts have so far failed to match the Navalny audience.

Nonetheless, Khodorkovsky said the war had put Navalny's team on an equal footing with the rest of the opposition.

Oleksiy Arestovich, a former senior Ukrainian official and popular commentator on Russian-language YouTube, implored the conference attendees to patch up their differences. "If you have a common goal, like an open, democratic Russia, that should be enough of a basis to work together," Arestovich said.

Some European officials hoped the Russian opposition could follow its Belarusian counterparts in creating a united platform and centralised office that could lobby westerners on Russians' behalf and help the anti-war diaspora. But the Brussels conference ended without immediate prospects for such a step.

Kubilius, the EU lawmaker, warned that all the parties could be overtaken by events. "When the revolution starts, and it can come out of nowhere, who will be the leader is very difficult to predict."

**Speaking out: Dmitry Muratov, editor in chief of independent newspaper Novaya Gazeta and Nobel Peace laureate (on screens), addresses the conference in Brussels**
Olivier Hoslet/EPA-EFE/Shutterstock

> 'It would be good if they were able to show more unity around some kind of strategy'
> **Andrius Kubilius, Lithuanian MEP**

Military push

# Ukraine counter-offensive gathers steam in south-east

**ROMAN OLEARCHYK** — KYIV
**MAX SEDDON** — RIGA

**Ukrainian forces intensified their counter-offensive over the weekend and claimed to have liberated two villages, after President Volodymyr Zelenskyy for the first time acknowledged that an operation is under way to liberate parts of the Russian-occupied territories in the south-east of the country.**

Kyiv had long been reluctant to admit that the campaign had started. But on Saturday, Zelenskyy said that "the counter-offensive and respective defensive actions are under way".

"It's important that Russia feels, fully feels . . . that they don't have much time left," Zelenskyy said during a news conference with Justin Trudeau, the Canadian prime minister.

The Ukrainian leader said that the aim was to liberate some 18 per cent of occupied territory in south-eastern regions of the country, but that no further details would be made public about the offensive.

The Ukrainian army said yesterday that it had liberated two villages — Blahodatne and Neskuchne, in south of Donetsk region — which would mark a break in at least one layer of Russian defences south of Velyka Novosilka where counter-attacks were reported last week. On Saturday, the Russian defence ministry said Ukraine had yet to break through its defensive lines.

The defence ministry has published several videos in recent days claiming to show successful strikes from helicopters and drones on Ukrainian armoured vehicles. Kyiv has not acknowledged any losses.

Russian president Vladimir Putin said on Friday that the Ukrainian counter-offensive had been under way for five days. In a rare admission, he said his country was short of modern weaponry, while claiming that his forces were so far resisting the push.

The intensified Ukrainian attacks come after Tuesday's Kakhovka dam breach, which triggered catastrophic flooding in both Ukrainian and Russian-held territories along the Dnipro river in the southern Kherson region. The flood has narrowed the front line by preventing Ukrainian forces from conducting offensive operations there.

Hanna Maliar, a deputy defence minister in Ukraine, said yesterday that Russia was already redeploying its "most combat-capable units" from the Kherson region to other frontline areas.

Inflation fight

# Experts predict two more Fed rate rises

## US central bank will need to tighten further to tame prices, claim economists

**COLBY SMITH** — WASHINGTON
**SAM LEARNER** — NEW YORK

The US Federal Reserve will need to take tougher action than expected to root out inflation, according to a majority of leading academic economists polled by the Financial Times, who predict at least two more quarter-point interest rate increases this year.

The latest survey, conducted in partnership with the Kent A Clark Center for Global Markets at the University of Chicago Booth School of Business, predicted the Fed would lift its benchmark rate to at least 5.5 per cent this year. Fed funds futures markets suggest traders favour just one more quarter-point rate rise in July.

Of the 42 economists surveyed between June 5 and 7, 67 per cent forecast the federal funds rate to peak between 5.5 per cent and 6 per cent this year. That is up from 49 per cent in the previous survey, which ran just days after a string of bank failures in March.

More than half said the peak rate would be achieved in or before the third quarter, while just over a third expected it to be reached in the final three months of the year. No cuts are expected until 2024, with the bulk forecasting the first in the second quarter or later.

"They haven't done enough for long enough yet to get inflation down," said Dean Croushore, who served as an economist at the Fed's Philadelphia Reserve Bank for 14 years. "They are on the right path, but the path is going to be longer and more tortuous than they ever thought."

Despite mounting expectations that the Fed has not yet finished its tightening campaign, most of the economists thought it would skip a June move. Moreover, nearly 70 per cent said that doing so would be the right move because it was not yet clear if the policy rate was high enough to get inflation down and that officials could also resume increases if necessary.

"The economy turned out to be much more resilient than we originally thought and the question is: is that resilience temporary and the hikes in the pipeline are sufficient or does the Fed need even further hiking?" said Jonathan Parker at the Massachusetts Institute of Technology's Sloan School of Management. "The Fed is pausing to see if it can get a better read on which of those two is correct." The biggest factors driving down the rate of inflation would be rising joblessness and falling wage gains, 48 per cent of the economists said, followed by global headwinds stemming from a weakening Chinese economy and strong US dollar.

Most economists did not expect an imminent, material jump in the unemployment rate, however. The median estimate for year-end stands at 4.1 per cent, slightly higher than its current 3.7 per cent level.

Predictions of a recession have been pushed forward as well. Most economists did not see the National Bureau of Economic Research declaring one until next year, compared with surveys conducted last year in which about 80 per cent expected a recession this year.

About 70 per cent said the peak unemployment rate in a forthcoming recession would not be reached until the third quarter of next year or later. Gabriel Chodorow-Reich of Harvard University said he was braced for a mild recession in which unemployment rises to about 6 per cent.

**See Market questions, Companies pages**

South America. Debt burden

# Argentina crisis leaves IMF with dilemma

## Soaring inflation, falling peso and drought add to economic woes ahead of elections

**MICHAEL STOTT AND CIARA NUGENT**
LONDON

**Buenos Aires: a soup kitchen employee hands out food to visitors in the Los Piletones neighbourhood in April**
Florencia Martin/dpa/AP

Argentina's increasingly desperate government is trying to stave off a currency crisis by going cap in hand to China and the IMF, presenting the Washington-based lender with a dilemma over how to support its largest debtor.

Inflation in the South American nation is expected to reach 145 per cent this year, a recession is looming and the central bank's net reserves of hard currency are negligible. The peso has fallen almost 40 per cent against the US dollar on the black market this year.

The Peronist government is striving to avoid a big devaluation or a lapse into hyperinflation during the politically turbulent season before presidential and congressional elections in October — and economy minister and would-be presidential candidate Sergio Massa has emerged as a central figure.

Massa has announced a number of emergency measures to keep the economy afloat, including special exchange rates to encourage soya exporters to ship their crops and swaps of domestic debt for longer maturities. He will travel to Washington later this month to seek extra IMF funds, but his task has been complicated by a severe drought, which has hit farm production and agricultural exports.

A trip by Massa to China earlier this month yielded Beijing's agreement for Argentina to access an additional $5bn from an existing renminbi currency swap agreement. Massa is also trying to persuade the New Development Bank, the Shanghai-based lender for the Brics nations, to allow Argentina to join.

Argentina has been cut off from international markets since its 2020 default and needs to fund a budget deficit estimated by JPMorgan at 3 per cent of its gross domestic product this year. With net international reserves estimated at close to minus $1.5bn, according to Buenos Aires-based analysts Ecolatina, Massa's hopes for dollars rest on the IMF.

"Massa's [plan], which is to do the impossible to keep the economic situation from spiralling out of control before the elections, has become really tough to achieve because of the drought's impact on soya exports," said Salvador Vitelli of business consultancy Romano Group. "But the macroeconomic instability we are facing isn't because of the drought, it's about a chain of failures and mismanagement."

Federico Sturzenegger, a central bank head under the conservative government of Mauricio Macri, was blunt: Massa's "strategy is to get more in debt to sustain a very large fiscal deficit that the government hasn't corrected. It's not a lot more complicated than that."

Massa's labours also serve another purpose: the minister has made no secret of his desire to be the Peronist movement's presidential candidate, and a decision is imminent. Nominations for nationwide primaries close on June 24 and both President Alberto Fernández and Cristina Fernández de Kirchner, his powerful deputy and a former president, have said they will not run.

The push for a greater cash injection from the IMF comes despite Argentina's failure to meet many of the targets set out in a $44bn loan programme agreed with the fund last year, including on reducing the fiscal deficit, raising revenue and accumulating reserves, according to a May report by economists at the University of Buenos Aires.

Yet IMF watchers expect the fund to approve more money in its next review, due by early July, to avoid a bigger crisis and allow Argentina to repay money to the Washington-based lender.

"The fund does not want to be responsible for Argentina going down the drain," said Alejandro Werner, a former head of the IMF's western hemisphere department. "It also does not want Argentina in arrears for a long period . . . so there are a lot of incentives for the fund to conclude the review."

The IMF said fund staff had been engaging "very closely" with Argentina on the latest review of the programme. "The focus has been on policies to strengthen the programme to safeguard stability, by enhancing reserves and fiscal sustainability, while recognising the impact of the drought," it said.

> 'The [IMF] does not want to be responsible for Argentina going down the drain'

An economy ministry source said Argentina wanted funds to compensate for the loss of export income triggered by the drought, with the amount still under discussion. Controversially, it also wants to use part of the IMF money to intervene in markets to prop up the peso. "What's being discussed is how much will be available to use to intervene," the source said. "At the moment, that discussion is looking good."

Hector Torres, a senior fellow at the Center for International Governance Innovation and former IMF executive director, was sceptical. "Argentina's central bank has run out of dollars and the official exchange rate is clearly unsustainable," he said. "The fund wants to avoid pushing the country into default . . . but I cannot see the fund's executive board allowing the use of IMF resources to buy pesos on the foreign exchange market."

A source familiar with the IMF talks said there was considerable frustration over Argentina. "There's very little support for more muddling through," the source said. "Massa should have made a big adjustment when he took office."

Sturzenegger said the fund might lend Argentina enough to meet upcoming repayments to the IMF itself, but not larger sums. "I think what the fund will do, instead of disbursing [all] of the rest of the funds from the programme, will just give money in line with what Argentina has to return to them . . . So I think the fund will defer the issue of Argentina's [broader] package to talk about it with the next government."

The risks are political as well as economic. Hard-right candidate Javier Milei is polling strongly and may top the primary elections in August, which are held simultaneously for all parties. Milei has advocated dollarising the economy, so a strong result for him could destabilise the situation further by increasing expectations of a big devaluation.

"If this guy would dollarise the economy and has a third of the vote in polls, why would you hold domestic debt?" asked a person familiar with the IMF talks.

Long viewed as the villain by many Argentines for its past role in austerity programmes, the IMF has few good options. "The fund will probably be criticised for doing something awful on top of an awful programme," said Werner, who oversaw a previous 2018 IMF bailout. "But at the end of the day they wouldn't have been repaid anyway. Either you lend to Argentina so they repay or they won't repay. Both sides will extend and pretend."

Tehran relations

# US to begin unloading oil from seized Iranian tanker

**FELICIA SCHWARTZ AND**
**STEFANIA PALMA** — WASHINGTON
**CHRIS COOK** — LONDON

**The US is expected to soon begin unloading oil from an Iranian vessel seized off the coast of Texas, threatening to escalate a shadow tanker war with Tehran.**

The Suez Rajan arrived offshore of Galveston on May 29 and is at anchor 70 miles from the Texas port, according to transponder location data and satellite imagery.

The US Department of Justice seized the ship under a court order with co-operation from at least one company involved with the vessel, the Financial Times previously reported. It has been the subject of scrutiny since it was accused last year of taking on board a cargo of Iranian oil, then intended for China, from another ship near Singapore.

The case of the Suez Rajan is one of several recent maritime incidents involving the US and Iran and threatens to increase tensions between the countries as Washington and its European allies discuss how to engage Iran on its nuclear activity.

The US seized the ship in April, prompting Iran to seize the Advantage Sweet, which was carrying Kuwaiti crude oil for US energy company Chevron.

The US recently increased patrols to respond to Iran's ship seizures in the Strait of Hormuz, where about a third of all seaborne oil cargoes pass through.

The Suez Rajan's arrival off the coast of Galveston probably indicates that Washington has reached a deal with the owners and operators of the vessel over criminal penalties, said a former official in the Joe Biden administration.

The vessel is carrying about 800,000 barrels of oil, a cargo worth about $56mn. It received a licence from the US Treasury department to import Iranian oil, according to the American Bureau of Shipping, which boarded the vessel to conduct a safety inspection upon its arrival off Texas.

The ship is expected to dock at Galveston port in the coming days. Typically, court documents related to a government's seizure tend to be unsealed after the assets are taken.

The US would sell the oil if it had not already and the proceeds were likely to go to a fund created by Congress for US victims of state-sponsored terrorism, former officials said.

But the government has leeway over what it can do with the funds from the sale and could choose to distribute them in other ways, such as for those who are standing up to the Iranian regime, the former administration official said.

The DoJ declined to comment. The Treasury's Office of Foreign Assets Control declined to comment.

Iran was once a big source of imported oil for the US, but this changed after the Iranian Revolution in 1979 and the steady deterioration of relations in the decades since.

US imports of sanctioned Iranian oil since then have been extremely rare. Some 2mn barrels were imported in 2021, which was sold after an oil tanker was seized off the coast of the United Arab Emirates, and 507,000 barrels last year, believed to be connected to the seizure of two tankers carrying Iranian oil.

Recovery funds

# Italy's labour shortage puts reboot plan at risk

**AMY KAZMIN AND GIULIANA RICOZZI**
ROME

**Italy has warned that a serious labour shortage is hindering the country's ability to implement projects worth billions of euros under the EU's post-pandemic recovery programme.**

In a report to parliament, the Italian government has warned that a shortage of skilled workers in construction, IT and engineering — and a lack of competent administrators — is causing delays and could "jeopardise full implementation of the plan".

Italy is the largest beneficiary of the bloc's €800bn programme and is due to receive grants and loans worth up to €191.5bn by 2026.

The report comes as Rome has been waiting for several months for Brussels to clear its next tranche of funds, worth €19bn. It is also an admission that Rome is likely to face more delays in the disbursement of further funds.

The recovery plan has been seen as a once-in-a-generation opportunity to reboot Italy's chronically underperforming economy and boost its long-term growth by financing infrastructure investments, such as railway lines, water systems, childcare facilities and health clinics.

But Rome says at least 20 per cent of the projects to be completed by 2026 are facing constraints, such as higher raw materials costs, bureaucratic delays, lack of business interest or technological deficiencies.

> A shortage of skilled workers could 'jeopardise full implementation of the plan'

The government is in talks with Brussels over a comprehensive overhaul to make the plan more realistic. Changes could include postponing deadlines or cutting projects.

The Bank of Italy had estimated that the ambitious package of investment would create 375,000 jobs next year in a programme due to be completed by 2026. But Rome said there was a lack of qualified personnel to fill the vacancies, which could have a "negative impact" on its progress.

With a rapidly ageing population, Italy is suffering from pervasive labour shortages, with complaints from employers of a struggle to fill about 40 per cent of vacancies.

The situation is expected to worsen over the next three years, when Eurostat estimates Italy's working population will shrink by about 630,000, as the number of people hitting retirement age exceeds the number of new entrants to the labour market.

The Bank of Italy has urged the government to create a "priority channel" to attract skilled workers from abroad to quickly boost the recovery plan.

Italy is issuing just 82,750 work permits for migrants from outside the EU this year from its annual lottery system, though employers requested more than 240,000 permits.

Chip plant subsidies

# German minister rules out extra Intel support

**GUY CHAZAN** — BERLIN

**Germany's finance minister Christian Lindner has said there is no money in the budget to meet Intel's demands for higher subsidies for its new €17bn plant in eastern Germany, damping hopes of a deal.**

The US chipmaker was due to receive €6.8bn in government support for its fabrication plant, or fab, in Magdeburg, but is now demanding about €10bn, citing higher energy and construction costs.

Lindner told the Financial Times he opposed an increase in support. "There is no more money available in the budget," he said. "We are trying to consolidate the budget right now, not expand it."

Intel's project is the largest foreign investment in postwar German history and is seen as pivotal to EU plans to double its share of the global semiconductor market from less than 10 per cent today to 20 per cent by 2030.

Some people in the German government, including economy minister Robert Habeck, think Berlin must match the huge levels of support provided by the Biden administration under the Chips and Science Act, which includes $52bn in funding to boost US domestic semiconductor manufacturing.

But economists have argued that subsidies are a waste of taxpayers' money. There are also fears that Germany's ambition to reduce its dependence on Asian suppliers is a pipe dream, given the complexity of supply chains in the chip industry.

**Christian Lindner: 'There is no more money available in the budget'**

Intel's demand for more money has caused a split in the government. Chancellor Olaf Scholz, a Social Democrat, and Habeck, a Green, are believed to be open to providing more financial backing. They have been encouraged by indications that Intel might increase the total volume of its investment from €17bn.

But Lindner, leader of the pro-business, fiscally hawkish Free Democrats, one of the smaller parties in Scholz's coalition, said he was "no great fan of subsidies" and would resist an increase in the level of support to Intel, even if it were to expand the scope of the project.

"The chancellery and the economy ministry will have to show where the additional financing is to come from."

Habeck declined to comment on Lindner's remarks.

Intel also declined to comment on the remarks, saying only that "there is a cost gap and we are working with the government on how to close it".

# An open letter from UBS

Today, we cross an important milestone.
It’s the start of a new chapter – for UBS and the global financial industry.
We have announced the legal closure of our acquisition of Credit Suisse.
We are privileged to be entrusted with writing history.

We will bring together the collective expertise, scale and wealth management leadership of both UBS and Credit Suisse to create an even stronger combined firm. One that will benefit all of our clients across the world.

We know there will be challenges.
But we also know there will be great opportunity.
For our clients. For our employees. For our shareholders. And for our communities.

And here is our commitment –
We will stay focused on what really matters: the safety and security of our clients’ assets and helping them achieve their goals.
We will work together as we combine our strengths and capabilities.
We will make decisions based on facts and with the bigger picture top of mind.
We will never compromise on UBS’s strong culture, conservative risk approach or quality service.

Many are counting on us to make this acquisition work.
And we have no doubt that we will.
To our clients – both at UBS and Credit Suisse – thank you for the trust you place in us and for the privilege of serving you. This is the start of a new, historic chapter.
And we look forward to showing you all that our combined firm can do.

**Colm Kelleher**
Chairman of the Board of Directors

**Sergio P. Ermotti**
Group Chief Executive Officer

UBS

**'It felt like a pure pyramid scheme'** Fake recruiters are targeting jobseekers with increasingly elaborate scams ➔ WORK & CAREERS

# Companies & Markets

## Odey accusers say partners at firm acted too late on claims

- Financier removed, insist executives
- Name of group is likely to change

**MADISON MARRIAGE AND ANTONIA CUNDY** — LONDON

The women who said they were assaulted or harassed by Crispin Odey in several incidents over a 25-year period have denounced efforts by his firm's partners to distance themselves from the scandal-hit financier.

In the wake of a Financial Times investigation detailing decades of abuse inflicted by Odey on female staff and acquaintances, the partners at his eponymous firm, Odey Asset Management, on Saturday said they had removed him from the business.

This followed a number of financial institutions acting swiftly to cut ties with the hedge fund, including Morgan Stanley, Exane, Goldman Sachs and Schroders.

> 'They [senior figures] might have got rid of the disgraceful head but they are still guilty'

Peter Martin, chief executive of OAM, and Michael Ede, chief operating and financial officer, said on Saturday Odey was leaving the partnership and that as of then he "will no longer have any economic or personal involvement".

The name of the company, which has about $4.4bn of assets under management, will also change, according to people familiar with the situation.

Some of the 13 women who came forward for the FT investigation said efforts by the partners to finally hold Odey to account had come far too late.

One of the women, who said she was assaulted by Odey in his London townhouse in 2013, said: "When are people in power going to do the right thing when it's the right time? The right time is not after significant public exposure and opinion is affecting cash flows. It's appallingly transparent his abuse was only relevant when the bottom line was relevant." She added: "It is positive that there are repercussions, but there has been complicit consent when management doesn't act with integrity and intent for nearly 20 years. Odey's senior management should be held accountable and feel some of the shame I've felt for the past 10 years."

It is not clear what mechanism the firm's executive committee had used to remove Odey, who is the majority owner. Odey suggested to the FT he might fight the move.

As part of the FT's investigation, several women suggested Odey's behaviour was "normalised" at the company.

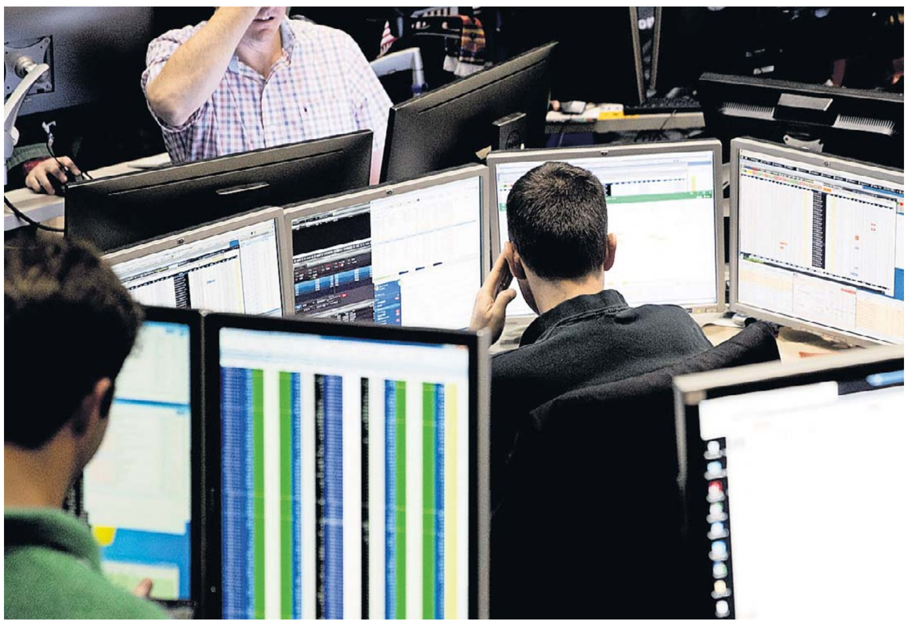
One, who worked there as a marketing assistant in the early 2010s, has said that Martin, then her boss and now chief executive, explicitly told her not to agree to any shopping trips with Odey. "You were just told to avoid that situation," she previously told the FT.

A woman who said she was violently assaulted by Odey at his Gloucestershire mansion in late 2021 said: "[Senior figures at the firm] are still guilty of hiding his behaviour and they are complicit. They might have got rid of the disgraceful head but they are still guilty."

Odey Asset Management said: "We can only reiterate that the executive committee takes all allegations of misconduct extremely seriously and its robust policies and procedures have been followed at all times," echoing comments in a statement it issued on Saturday announcing Odey's departure.

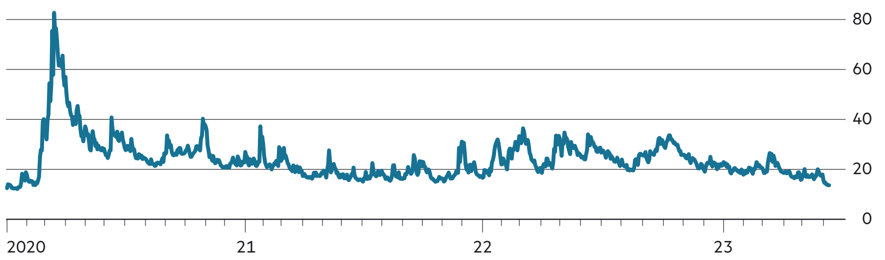
A law firm representing Odey previously told the FT allegations against him were "strenuously disputed".

## Keeping calm Vix volatility index drops to lowest level since start of Covid pandemic


Daniel Acker/Bloomberg

**Stock market volatility falls to pre-pandemic levels**

Cboe Vix volatility index



Source: Bloomberg

**GEORGE STEER** — LONDON

**A closely watched measure of US stock market volatility has fallen to its lowest level since the start of the coronavirus pandemic, even as investors fret over the direction of interest rates and inflation.**

The Vix index — which measures the options-implied volatility of the S&P 500 over the next 30 days — this week fell to 13.5. It was last as low in late January 2020, shortly before the pandemic shut economies around the world and panicked markets.

The Vix has fallen since a previous peak in October and despite rising interest rates, the collapse of several US regional banks in March and widespread uncertainty over the future path of inflation, which remains far above the 2 per cent target set by many central banks.

Led by a handful of technology stocks, the S&P 500 last week returned to bull market territory, defined as a rise of 20 per cent or more from the most recent low, which was hit last October. It last fell by more than 1 per cent in a day on February 3, Refinitiv data shows.

But the market's tranquility may not last long. "Typically, when investors are this complacent, volatility surges in the coming weeks," said James Demmert, chief investment officer at Main Street Research.

Others argue that the Vix is no longer fit for purpose given the rising popularity of short-term trading and derivatives known as zero-day-to-expiry options in particular. The 1-day Volatility Index was launched in late April in response, and has since fallen 4 percentage points, suggesting that even by this measure the stock market is far from jittery.

Bond markets, in comparison, are relatively turbulent. The Merrill Lynch Option Volatility Estimate index, or Move, which is to bonds what the Vix is to equities, was "flirting with levels typically seen during [the] crisis" in March following the collapse of Silicon Valley Bank, said Kevin Thozet, a member of the investment committee of French asset manager Carmignac.

The Move index has fallen about 70 percentage points to 115 over the past two-and-a-half months but remains 65 percentage points higher than it was at the start of 2021.

## Overseas lenders left out of more China IPOs

**THOMAS HALE** — SHANGHAI
**KAYE WIGGINS AND HUDSON LOCKETT** — HONG KONG

**Foreign banks' involvement in initial public offerings in mainland China has fallen to its lowest level in more than a decade, in a sign of the difficulties they face retaining a foothold in the country's closed financial system.**

So far this year, foreign banks have been involved in just $297mn worth of new listings, or 1.2 per cent of the total. The proportion is lower than in any full year since Dealogic began collecting the data in 2009, when the banks were involved in about half of total listings by value. Last year's 3.1 per cent represented the third-worst year on record.

Not a single US bank has been involved in the 109 IPOs in China's vast stock market in 2023, where a total of $26bn has been raised to date in deals that frequently attract big demand from domestic investors. Only Credit Suisse and Deutsche Bank have acted as bookrunners this year.

While the operations of foreign banks are dwarfed by mainland competitors, the data reflects their struggle to hold on to a meaningful presence in a fast-evolving but insulated market with different regulatory and due diligence requirements. Severe Covid-19 restrictions over the past three years limited access to the country, adding to the distance between mainland subsidiaries and their overseas headquarters.

In 2019, foreign banks were involved in about a fifth of all funds raised in Shanghai and Shenzhen, home to two of the country's biggest bourses, but that proportion has fallen every year since.

"I'm amazed that there's [billions of dollars' worth] of issuance for IPOs in Shanghai every week, and the banks underwriting them are almost exclusively domestic," said a senior executive at a global bank in Asia.

"The [global] banks have onshore ventures, yet we seem to be involved in [few] of the domestic deals. Something needs to happen — the big banks either need to be involved in these A-share [mainland Chinese listing] deals, or we should leave the business and stop having resources allocated to it."

Foreign banks require multiple licences to operate across different sectors in China. Many of those with securities businesses struggled to make a profit last year, according to a Financial Times analysis of their data.

## Legal Notices

HSBC

12 June 2023

**THE HONGKONG AND SHANGHAI BANKING CORPORATION LIMITED**
**NOTICE OF REDEMPTION AND CANCELLATION OF LISTING**

**To the holders of US$400,000,000 Primary Capital Undated Floating Rate Notes (Third Series),**
**ISIN Code: GB0004355490**
**(the 'Notes')**

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ends/all

**Banks.** Commercial real estate

## Twitter rent refusal adds to Goldman's property loan woes

**STEPHEN GANDEL** — NEW YORK

Goldman Sachs was hit by a surge in commercial real estate loan delinquencies in the first quarter, fuelled in part by Elon Musk's refusal to pay Twitter's rent.

The value of loans to commercial real estate borrowers behind on repayments climbed 612 per cent in the first quarter to $840mn, according to reports filed by Goldman's licensed banking entity with the US Federal Deposit Insurance Commission.

That was much higher than the rise in delinquent CRE loans reported by the entire US banking industry, which were up 30 per cent over the same period to just over $12bn, according to Bankingregdata.com, which collates the FDIC reports. The jump in delinquencies at Goldman's deposit-taking business comes at a time when rival banks are warning over growing losses on commercial real estate loans, most of which are tied to office buildings and were made before the pandemic ushered in a work-from-home culture.

Goldman has much less exposure to commercial real estate lending than its larger rivals. At the end of the first quarter, it had $8.4bn of outstanding loans backed by commercial property, according to the FDIC report. Wells Fargo had $91bn and Bank of America had $60bn.

However, the surging delinquencies are another sign of the frustrations the bank has faced as it tries to diversify its business away from its traditional focus on deals and trading.

Goldman was among a group of banks, including Citigroup and Deutsche Bank, that lent $1.7bn to Columbia Property, a real estate investment trust, against seven office buildings in San Francisco and New York, including two that house large offices for Twitter.

Twitter stopped paying its rent in November and Elon Musk, the billionaire owner of the social media network, has told employees he does not intend to restart payments or cover past dues, according to lawsuits. Columbia Property, which is suing Twitter over the missed payments, defaulted on the loan in February.

Columbia Property declined to comment. Twitter, which has adopted a policy of not replying to the press, could not be reached for comment.

Given Goldman's relatively small exposure to the sector, the bad loans will not have a material impact on its earnings. "Lending doesn't matter that much for Goldman," said Christopher Kotowski, a banking analyst at Oppenheimer. Commercial real estate lending accounts for less than 20 per cent of the bank's overall loan book, according to Goldman's own calculations.

**Elon Musk's refusal to pay Twitter's rent contributed to a surge in commercial real estate loan delinquencies in Goldman Sachs' first quarter**
David Paul Morris/Bloomberg

Still, more than 10 per cent of its CRE loans held in its banking subsidiary, which accounts for 90 per cent of its overall loans, are in some form of delinquency, according to Bankingregdata.com, whereas the average delinquency at its peers is less than 1 per cent.

In SEC filings and discussions with investors, Goldman defines its CRE lending more broadly and includes loans made to investment firms that buy and sell real estate debt as well as loans used to pool CRE loans into investment securities.

On that yardstick, delinquencies are lower, but still higher than peers. "If you look at the entirety of our commercial real estate lending activities, our delinquency rate is below 2 per cent," said Goldman.

The FDIC, though, puts these loans, which tend to have much lower default rates, into a different category.

Goldman, which became a regulated bank in the wake of the financial crisis, has spent the past decade putting more resources into lending. The firm now has nearly $180bn of bank loans outstanding, up from $3bn a decade ago.

In 2020, Goldman said corporate lending was one of the firm's priorities. "We are embracing the bank model," said then chief financial officer Stephen Scherr during a presentation to investors. "We believe this will be an important source of future upside for the firm."

The bank has benefited from higher interest rates, with profits at its lending entity rising to $3.7bn in the first quarter — an all-time high and a 20 per cent jump from the same period last year.

Nonetheless, the larger loan book is also a source of potential losses given Goldman's willingness to lend to riskier corporate borrowers compared with its rivals. Just over 65 per cent of its commercial loans are to "junk" borrowers without an investment-grade credit rating, compared with 28 per cent and 17 per cent for JPMorgan Chase and Citi, respectively.

Goldman's total volume of delinquent loans, according to FDIC data, jumped to $3.2bn at the end of the first quarter, or about 2 per cent of its loans outstanding, up from $2.4bn a year ago. Most of those are tied to credit cards and other consumer loans, which make up about 65 per cent of its loan loss provisions, according to Bankingregdata.com.

Goldman this year signalled its intention to pull back from lending to consumers by selling off $1bn of loans tied to its Marcus consumer bank.

David Fanger, who follows Goldman for bond rating firm Moody's Investors Service, said: "Even though their risk appetite may be larger than other firms, they are generally more proactive in risk management."

# Pirelli boss takes on China's Communist party

## Veteran executive says Italian tyremaker's future is under threat from Beijing as Rome reviews Sinochem's stake

**SILVIA SCIORILLI BORRELLI** — MILAN

**Dedication: Marco Tronchetti Provera trod carefully to maintain his grip on Pirelli but has become concerned about Beijing's interventions**
Alberto Bernasconi/FT

In May 2018, three years after ChemChina's $7.7bn takeover of Italy's Pirelli, the chemicals group founder and chair Ren Jianxin celebrated the "wonderful marriage" as he hosted the tyremaker's chief executive, Marco Tronchetti Provera, at the state guest house in Beijing.

But Pirelli's happy union — now with Sinochem after the state-owned giant's absorption of ChemChina — has fallen into crisis, with the Italian tycoon warning a Rome committee this week that "the Chinese are dangerous" and the company's future is under threat from the Chinese Communist party.

The Italian government has been reviewing Sinochem's Pirelli holding under so-called golden power rules that give it broad oversight of strategic national assets that it could decide include the tyremaker's technology, which 75-year-old Tronchetti Provera likes to describe as an example of "Italian excellence".

After marrying into Pirelli's founding family, the Milanese son of a steel entrepreneur first took a stake in the company in the mid-1980s. The investment was funded through the sale of a logistics company he had founded in his twenties after returning from a stint with P&O Ferrymasters in London.

Tronchetti Provera took over in 1992 when his then father-in-law, Leopoldo Pirelli, was forced to resign following a failed hostile takeover of German rival Continental that left the Italian group on the brink of collapse.

Following a painful but successful turnround, divesting non-core assets and focusing on the development of high-end tyre technology, he established himself as a fixture of Italian corporate life, known both for his dedication to Pirelli and his contrarian and at times controversial views.

"He still works 15 hours a day, seven days a week," said Federico Imbert, former head of Credit Suisse in Italy who has worked on several deals with Pirelli since the 1990s. "There's no one who knows the company better."

One former Pirelli executive described Tronchetti Provera as "the undisputed *deus ex machina*" of the group.

The Chinese deal, which raised eyebrows in the west and provoked investor fears of technology transfer, fed Tronchetti Provera's reputation for single-mindedness gained through moves including his disputed takeover in the early 2000s of former monopoly Telecom Italia, which he sold six years later, and Pirelli's expansion into Vladimir Putin's Russia.

Tronchetti Provera prefers to characterise himself as "willing to go it alone", saying in 2019: "One crucial thing in life is that it is important to stick to your word and deliver. When you deliver, no one wants to change anything."

After the Chinese takeover, he trod carefully to maintain his grip on the group. Before returning Pirelli to the market in a 2017 public offering, he managed to quell investors' concerns by negotiating new company bylaws to stem the risk of turning one of Italy's most venerable manufacturing groups into a Chinese-run entity.

"He dedicated his life to Pirelli, which is one of the few Italian global brands left," said Imbert.

Under a three-year pact with the Chinese side, Tronchetti Provera — who had been due to step down in 2020 — had the right to appoint his own successor and four board members. While his designated successor is his deputy, Giorgio Bruno, allies and executives say the chief executive secretly hopes his role will eventually be inherited by his son Giovanni, who has been on the board since 2017. "He's on top of everything," said Domenico De Sole, a Pirelli board member and the former chief executive of Gucci and Tom Ford.

Investors and colleagues were impressed by Tronchetti Provera's ability to remain firmly in the saddle even after Sinochem took over. "He is the de facto owner of a company in which he only actually owns a minority stake," said one person close to Pirelli.

But the status quo has shifted as the communist party seeks to exert more influence on the 150-year-old Italian group. The imposition by the US of a 76 per cent anti-dumping duty on the value of Pirelli imports from China five years ago was a wake-up call, according to two executives in Milan.

Then, in late 2020, the Trump administration included Sinochem and ChemChina in a Pentagon watchlist of companies with close ties to China's military that were operating in the US.

Tronchetti Provera resolved to do something and sounded out potential alternative investors in Europe and the Middle East, but the Chinese would not budge.

The situation came to a head last summer after Sinochem's respected chair, Frank Ning, retired and was replaced by Li Fanrong.

Meanwhile, Bai Xinping, chair of Sinochem's tyre division CNRC, was replaced by Wang Feng, who will become a Pirelli director at the upcoming shareholder meeting and is described as the antithesis of Tronchetti Provera by people who know both men.

Then in September, Sinochem demanded that Pirelli inform it in advance of any meetings with public officials, including Italians.

Instructions by Sinochem's internal communist party committee followed.

Pirelli subsidiaries in China were told to select board members and talent according to President Xi Jinping's "vision of socialism with Chinese characteristics for a new era".

De Sole said: "As businesspeople we look at the numbers, and so did Sinochem up until a certain point. Then it shifted and the issue became purely political."

As the expiry of the shareholder pact loomed, the new Chinese management updated the agreement with terms more favourable to them.

Tronchetti Provera was horrified but wanted to resolve the issue without escalating it all the way to Rome, according to people close to the executive.

He hopped on his private jet and flew to Hong Kong to meet Sinochem's new chair and try to persuade him to sell down his company's 37 per cent stake to about 10 per cent.

But Li refused, saying he did not have the authority to decide, according to multiple people briefed on the discussions.

A notification to Rome about the shareholder pact's revision dragged Italy's government into a corporate dispute that has been years in the making, setting up a litmus test of Sino-Italian business ties as Rome considers curbing Chinese influence over one of the crown jewels of Italian industry.

In the words of one ally, "it is also the battle on which Tronchetti's legacy is hinged".

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Travel & leisure

# Italy's Serie A in talks to sell media rights stake

**IVAN LEVINGSTON AND WILL LOUCH**
BERLIN
**SILVIA SCIORILLI BORRELLI** — MILAN

Italy's top football league has started talks with private equity firms over the sale of a stake in its media rights business as it considers options to secure funding.

Serie A is working with advisers at Lazard on a possible deal, according to people familiar with the details. Private equity owners may look to purchase a 10-20 per cent stake in the league's media rights that could net Serie A a multibillion-euro investment, one of the people said.

That process comes alongside a separate series of negotiations. Two other people close to the talks said Serie A would first negotiate a five-year media rights contract with broadcasters, starting in 2024. Talks with the private equity firms would only move forward if the clubs failed to agree on a price with media companies such as Sky and DAZN, the people said.

A deadline for broadcasters to turn in their bids will expire next week. People close to Serie A expect the bids to be below the clubs' target and anticipate that negotiations over price will extend into July.

"It's early days but we hope to ultimately find an agreement on price with the broadcasters," said the owner of one of the football clubs. "In which case we won't need additional funds."

> 'It's early days but we hope to ultimately find an agreement on price with the broadcasters'

Only if those talks fail will Serie A begin exploring other options, the people said. A group of investment firms is expected to be among the interested parties in the sale of a stake in media rights, and discussions have begun with at least one lender that would help finance any deal, some of the people said.

Italian football clubs have long been reluctant to give up ownership of their media rights. An attempt led by private equity firm CVC to buy a minority stake in the media rights business for €1.6bn was rejected by the clubs in 2021.

Any deal is likely to be fraught with complications, despite continued interest in sports media rights from financial investors. Serie A has held talks with private equity firms on multiple occasions before, but opposition from individual clubs and their executives derailed negotiations.

The Italian league, however, remains in dire need of fresh funds as its revenues continue to trail significantly behind those of other main European leagues, such as England's Premier League and Germany's Bundesliga.

The Bundesliga last month rejected an offer to sell a stake in its media and commercial rights to private equity firms. La Liga in Spain and France's Ligue 1 have clinched media rights deals with private equity firms after the pandemic hit their revenues. Serie A and Lazard declined to comment.

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Aerospace & defence

# Air taxi chief bristles at EU safety regulations

**CLAIRE BUSHEY** — CHICAGO
**SYLVIA PFEIFER** — LONDON

**The head of a leading group in the race to bring electric aircraft to the skies has hit out at Europe's aviation regulator, warning its rules threatened to put the fledgling sector out of business.**

Adam Goldstein, chief executive of Archer Aviation, said in an interview that certification guidance published by the EU Aviation Safety Agency would make it "extremely hard" to bring the new vehicles — often described as air taxis — to market.

"EASA has openly said: 'We know our regulations are harder and not good for business, and we don't care,'" Goldstein said. California-based Archer is among the companies seeking approval to operate so-called electric vertical take-off and landing, or eVTOL, aircraft to provide a range of services from short-hop flights over congested urban areas to longer regional flights.

The company, co-founded by Goldstein, went public in 2021 and has a market capitalisation of about $800mn.

Several companies hope aviation safety regulators will begin to certify their vehicles for flight from as early as next year.

EASA is the only regulator to have published formal guidance for eVTOLs offering commercial services to passengers. Its approach assumes relatively large flight volumes over urban areas.

Goldstein criticised the regulation as too strict, saying there was no point in fostering an industry only "to regulate it out of business", when it was possible to take "an approach that can still be at the highest levels of safety but . . . that is more amendable to allowing companies to build around".

**Adam Goldstein with one of Archer Aviation's all-electric aircraft**

The EU regulator said the safety objectives it had set out were based on risk assessment and had been "evaluated to be equivalent to bus transportation safety, once eVTOL operations have reached a moderate scale".

The US Federal Aviation Administration has yet to publish a standard. Industry publications have reported it was likely to set the target safety level at one catastrophic failure per 10mn or per 100mn flight hours.

The FAA said the new electric aircraft are mechanically simpler than commercial jets, allowing for a regulatory approach that uses certification standards "applicable to the size and complexity of aircraft and types of operations involved".

The FAA's approach to eVTOLs is philosophically different than EASA's, but no less safe, US officials said.

The regulator believes it can reach the same level of safety in operations without the same requirements for back-up systems to be built into aircraft because it will have accounted for risks in other ways, including counting the pilot as an extra safeguard, according to the officials.

Financials

# Soros puts son in charge of foundation

## Alex, 37, vows to support democracy as head of philanthropic body

**JOSHUA OLIVER** — LONDON

George Soros, one of the world's best-known investors and liberal donors, has handed over leadership of his multibillion-dollar foundation to his son, Alex Soros.

The appointment as chair of the Open Society Foundations, which was made quietly in December, places Alex at the head of one of the wealthiest global philanthropic foundations.

"We are going to double down on defending voting rights and personal freedom at home and supporting the cause of democracy abroad," Alex Soros told the Financial Times through a spokesperson.

His comments signal a more prominent role for the 37-year-old as US political parties gear up for the 2024 presidential election. George Soros has been one of the biggest donors to Democratic candidates.

In his first interview after taking on the role, Alex Soros told the Wall Street Journal yesterday that he was "more political" than his father. "As much as I would love to get money out of politics, as long as the other side is doing it, we will have to do it, too," he said.

A source close to the family said the Soros' priorities in US politics would be unchanged by Alex's appointment. Leadership of the foundation will make Alex, who this week tweeted a photo of himself posing with US vice-president Kamala Harris, a potential target for the rightwing groups and leaders who have attacked his father.

In an opinion piece for CNN this month, Alex praised the Biden administration's move to fight antisemitism and condemned attacks on his father by Hungarian prime minister Viktor Orbán and by Elon Musk. He also rebuked Donald Trump for "dog-whistle language" in a campaign ad featuring George Soros.

The 92-year-old made his fortune as a prominent hedge fund investor, including his famous 1992 bet against the value of the British pound, on which he made a more than $1bn profit.

Alex, a child of George's second marriage to Susan Weber, studied history at New York University and earned a PhD from the University of California, Berkeley. While he has sometimes received media attention for his celebrity connections, he has also focused on his own philanthropic initiatives such as progressive Jewish organisations, environmental causes and aiding domestic workers in the US.

He became his father's deputy as chair of the OSF in 2017 and also sits on the investment committee for the foundation that oversees Soros Fund Management. The vast majority of SFM's $25bn assets under management belongs to OSF.

The OSF received $18bn from George Soros in 2018 and is expected to benefit from the bulk of his remaining fortune, estimated by Forbes at nearly $7bn. The foundation spent $1.5bn in 2021. It supports a range of causes, including recently backing "activists documenting war crimes" in Ukraine.

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Market questions. Week ahead

# Slowing inflation points to Fed pause in rate increases

### Will US inflation continue to slow?

US inflation is expected to have slowed meaningfully again in May after only a marginal easing in April, offering the Federal Reserve a strong justification for pausing interest rate increases in June.

The Bureau of Labor Statistics will release its latest US consumer price index report tomorrow, which is expected to show headline inflation was 4.1 per cent in May, year on year, according to economists surveyed by Reuters.

That would mark a dramatic improvement from the rate in April of 4.9 per cent, after March's 5 per cent reading. Compared with the previous month, the consumer price index is expected to have risen 0.4 per cent.

The data comes ahead of the Fed's June rate-setting meeting, which will conclude on Wednesday. The CPI figure is expected to add to the Fed's conviction that a pause in the central bank's historic rate rise campaign is warranted this month.

The decline in the headline rate is expected to have been driven by weaker energy prices, Bank of America analysts argue, citing data from the American Automobile Association. This shows average regular petrol prices declined 2.1 per cent month on month.

Core CPI, which strips out the volatile food and energy sectors, is expected to come in at 5.2 per cent year on year, down slightly from the previous month's rate of 5.5 per cent. Bank of America analysts argue that core prices will have been kept high by used car prices. *Kate Duguid*

**Falling prices: a customer refuels at a Shell petrol station in Hercules, California. Average regular petrol prices declined 2.1 per cent month on month in the US**
David Paul Morris/Bloomberg

### Will UK wage growth add to inflationary pressures?

UK economic data is expected to show an acceleration in wage growth this week, driven by a higher minimum wage and the economy returning to growth in April, which could bolster higher interest rates expectations.

Economists polled by Reuters forecast that total annual pay growth, published tomorrow, will have accelerated to 6.1 per cent in the three months to April from 5.8 per cent in the previous three months, reflecting about 1.6mn people benefiting from a 9.7 per cent rise in the minimum wage that took effect in April.

"From the point of view of reducing aggregate cost pressures on inflation, higher earnings growth would not be helpful," said Sandra Horsfield, an economist at Investec. Strong wage growth could support current market expectations that the Bank of England will raise the bank rate above 5 per cent, as it tries to bring inflation back down to its 2 per cent target.

The expected acceleration in wage growth comes despite analysts forecasting that the unemployment rate will reach 4 per cent in the three months to April, up from 3.9 per cent in the three months to March.

A stronger than expected rise in gross domestic product, due out on Wednesday, could support the view that the economy will be able to withstand more interest rate increases. Analysts forecast that GDP grew 0.3 per cent between March and April, reversing the 0.3 per cent contraction in March, partially because of fewer strikes in the transport and education sectors.

That would mean the economy largely stagnated in the three months to April as it has done for the previous six months. Yet "the fact that the UK economy managed to avoid an outright contraction over the winter months considering the many headwinds to growth — particularly from the energy space — is a success story", said Horsfield.
*Valentina Romei*

'The fact that the UK economy managed to avoid an outright contraction over the winter months is a success story'

### How much higher will the ECB raise interest rates?

Eurozone inflation is falling and the currency bloc's economy is shrinking slightly. But economists are still convinced that the European Central Bank will raise interest rates by another quarter percentage point when it meets this week.

There is more doubt about how much higher borrowing costs will go in the 20-country zone, so ECB watchers will be paying close attention to what its president, Christine Lagarde, says about likely future rate moves.

Annual inflation in the eurozone has fallen from a peak of 10.6 per cent in October to 6.1 per cent in May. But ratesetters are still likely to be worried that underlying inflation — which excludes volatile energy and food prices — is still too high, even after dipping to 5.3 per cent last month.

"In essence, data continues to be conducive to the ECB raising rates," said Andrzej Szczepaniak, an economist at Japanese bank Nomura, pointing out that accelerating eurozone wage growth would keep services inflation stubbornly high.

Investors are betting that the ECB will raise rates this week and again in July before pausing.

A key signal on future policy will be whether the central bank lowers its inflation forecast — but Szczepaniak says it is more likely to raise it.

Dirk Schumacher, an economist at French bank Natixis, expects Lagarde to "stress that an end of the hiking cycle will crucially depend on a further decline in the core inflation rate in the coming months and that additional rate hikes remain a clear possibility".
*Martin Arnold*

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Pharmaceuticals

# BioNTech faces flurry of claims over Covid-19 jab

**LAURA PITEL** — BERLIN

**BioNTech is facing a barrage of compensation claims in Germany brought by two law firms that allege their clients suffered lasting health damage from the company's coronavirus vaccine.**

The Mainz-based pharmaceuticals producer will face its first German court hearing today over the claims in a case brought on behalf of a middle-aged medical worker.

She is seeking €150,000 in damages for symptoms, including heart arrhythmia and brain fog, that she says were caused after receiving the jab.

The challenge, in a regional court in Hamburg, is one of several hundred claims for compensation of up to €1mn being pursued by the two law firms.

The most prominent of the firms, the Düsseldorf-based Rogert & Ulbrich, is headed by Tobias Ulbrich, a specialist in transport and freight law who has railed against the vaccine makers on social media. The other firm is Cäsar-Preller, which is based in Wiesbaden. The firms won damages for consumers from the German carmaker Volkswagen over its diesel emissions scandal.

Given that close to three-quarters of the 224mn vaccine doses administered in Germany were produced by BioNTech in collaboration with Pfizer, the vast majority of the claims are being brought against the Mainz-based company, which pioneered the use of messenger RNA in vaccines. The German cases represent the biggest number of compensation claims that BioNTech has faced worldwide since it shot to fame during the pandemic.

'Monitoring of its safety profile has not identified potential side effects other than those already listed'

Ulbrich is a controversial figure, who has claimed that American billionaire Bill Gates wanted to use vaccination to reduce the population of Germany to 27mn people, a claim dismissed as false by Gates's foundation.

Ulbrich also claimed that blood tests on some of his clients had shown them to be suffering from a "vaccine-acquired immunodeficiency syndrome" or "V-AIDS", a syndrome that respected scientists say is not real.

The lawyer told the Financial Times that German media reports painting him as a conspiracy theorist showed he was "doing a good job" of scaring the pharmaceutical companies.

Peer-reviewed studies have shown that side effects of Covid-19 vaccinations are rare but do exist, including four types of neurological complications and an inflammation of the heart known as myocarditis.

But the publicly listed BioNTech said it was confident that the cases would be dismissed, pointing to the fact that it has decided not to set aside provisions to cover possible compensation claims.

More than 2.6bn doses of its Covid-19 vaccine have been administered worldwide, BioNTech said, and "continuous monitoring of its safety profile has to date not identified potential side effects other than those already listed in the respective product information".

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Technology. Trade tensions

# China-linked businesses find their way back into lucrative India market

## Online fashion brand and game-maker among those working around tight rules

**BENJAMIN PARKIN** — NEW DELHI
**MERCEDES RUEHL** — SINGAPORE
**ELEANOR OLCOTT** — HONG KONG

China-linked tech companies are finding ways to break back into India, giving fresh hope to investors that their businesses can overcome trade tensions between the countries and power new growth.

Online fashion company Shein has pursued an alternative deal structure to relaunch in India in partnership with Reliance Industries, the country's biggest listed company. It had been among dozens of Chinese apps banned in 2020 over national security concerns following deadly clashes on India's border with China.

*Battlegrounds Mobile India*, a shooter game published by the Tencent-backed South Korean company Krafton, relaunched on app stores last week, a year after it was banned over fears that Indian user data was being transferred to servers in China.

Without naming China, Indian minister Rajeev Chandrasekhar said last month that *BGMI* would be available for a three-month trial after addressing concerns over "server locations [and] data security".

Shein's partnership with Reliance — recently approved by the government — is a licensing agreement under which the Chinese group will receive a percentage of Reliance's profits from sales of its clothing rather than invest directly in India.

Shein last year also made its Singapore arm its de facto holding company, a strategy known as "Singapore-washing" that is being deployed by Chinese investors looking to take corporate stakes in countries that are sensitive to mainland investment.

*BGMI*'s return could prove significant to a gaming sector hit by a series of abrupt bans on popular games for alleged links with China. Krafton said last month that the ban on *BGMI*, which had 100mn downloads as of last year, had hit the growth of its mobile business but it had now "put in place several measures to ensure compliance with all applicable regulations".

The Shein and *BGMI* developments do not follow any official policy change in New Delhi, and severe curbs on investment from China remain. Regulations introduced in 2020 stipulated that any deal in which the "beneficial owner" was Chinese or based in China would require New Delhi's approval.

Investors expect this to continue, keeping out all but the most determined companies. But deals such as Shein's tie-up with Reliance, which does not involve foreign direct investment, do not require the same approvals.

The 2020 rules led to a sharp slowdown in deals. Investors in China participated in 53 Indian tech funding rounds worth $2.8bn last year, compared with 72 worth $3.1bn in 2019, according to figures from data provider Tracxn.

Indian finance minister Nirmala Sitharaman said in March that 54 investment proposals from China and Hong Kong were awaiting government sign-off. By contrast, Indian venture capital deals involving a Singaporean entity jumped from 68 in 2019 before the rule change to 205 in 2022, according to data from Refinitiv.

Some lawyers and investors argue that routing investments through other countries such as Singapore has helped, despite the restrictions on beneficial ownership. A number of Indian companies also have holding companies in Singapore. "There is nothing illegal about it but there is a sense now after a few deals have been successful that having the investor entity based in Singapore rather than China might help with the approval process," said one Singapore-based lawyer who advises Chinese clients on investments in India.

**Online fashion group Shein has formed a partnership with Reliance**

Shunwei Capital — established by Chinese smartphone maker Xiaomi's founder Lei Jun — invested in the Indian market automation platform WebEngage and dairy brand Country Delight last year through its Singaporean affiliate, SWC Global, set up in 2020. Shunwei declined to comment.

One Indian official disputed the point that attitudes had softened but said New Delhi was receptive to proposals. "There was never a blanket ban on anything Chinese," the official said. "Wherever there is a case which seems to be good for the country, we do what is good for the country."

But onerous delays and strict data storage requirements still put off many would-be investors. One Hong Kong-based venture capitalist who invests in early-stage companies in India said that while "there has always been interest . . . India is one of the most bureaucratic countries in the world", adding: "When investors see it could take over a year to get approvals, they just walk away."

Rajeev Suri, managing partner at Mumbai-based Orios Venture Partners, said a slowdown in tech funding over the past year meant India could no longer be as picky.

"If you go to the government today and say, 'Hey, I want to do a [deal]', they're not likely to shut the door on you," he said. But he added that this had not yet translated into more activity. "If there's no certainty . . . money is not going to start to flow back in," he said. "Not too many players can play the regulatory game that Reliance can play."

The director of one Chinese venture capital fund with a Singaporean entity said: "I got the sense that India had a painful realisation of how important mainland investment was to the growth of its start-up industry after tech fundraising fell off a cliff in 2022.

"Shutting the taps off entirely did not work out well."

# MARKET DATA

## WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

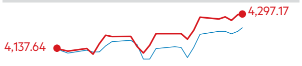
| S&P 500 | Nasdaq Composite | Dow Jones Ind | FTSE 100 | FTSE Eurofirst 300 | Nikkei | Hang Seng | FTSE All World $ | $ per € | $ per £ | ¥ per $ | £ per € | Oil Brent $ Sep | Gold $ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.08% | 0.14% | -0.03% | -0.49% | -0.21% | 1.97% | 0.47% | 0.27% | -0.093% | 0.399% | 0.281% | -0.466% | 0.18% | -0.05% |

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

### AMERICAS

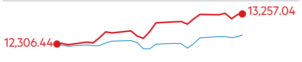
May 10 - - — Index — All World

S&P 500 New York



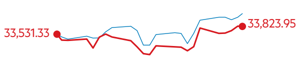
Day ↗ 0.08% Month ↗ 4.33% Year ↗ 6.96%

Nasdaq Composite New York



Day ↗ 0.14% Month ↗ 8.87% Year ↗ 12.81%

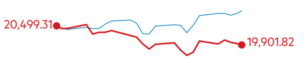
Dow Jones Industrial New York



Day ↘ -0.03% Month ↗ 0.81% Year ↗ 4.84%

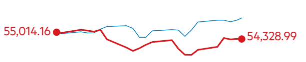
May 10 - Jun 09 — Index — All World

S&P/TSX COMP Toronto



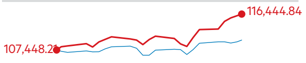
Day ↘ -0.39% Month ↘ -3.50% Year ↘ -3.40%

IPC Mexico City



Day ↗ 0.44% Month ↘ -1.55% Year ↗ 10.76%

Bovespa São Paulo

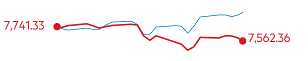


Day ↗ 1.68% Month ↗ 9.60% Year ↗ 9.62%

### EUROPE

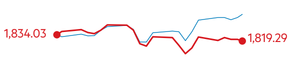
May 10 - Jun 09 — Index — All World

FTSE 100 London



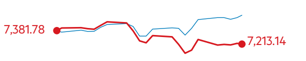
Day ↘ -0.49% Month ↘ -2.63% Year ↗ 1.12%

FTSE Eurofirst 300 Europe



Day ↘ -0.21% Month ↘ -1.23% Year ↗ 6.88%

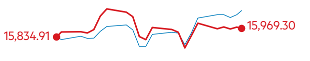
CAC 40 Paris



Day ↘ -0.12% Month ↘ -3.06% Year ↗ 11.86%

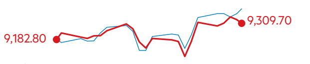
May 10 - Jun 09 — Index — All World

Xetra Dax Frankfurt



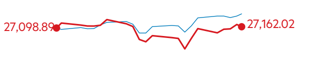
Day ↘ -0.25% Month ↗ 0.61% Year NaN%

Ibex 35 Madrid



Day ↘ -0.31% Month ↗ 1.07% Year ↗ 5.28%

FTSE MIB Milan

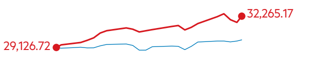


Day ↘ -0.41% Month ↘ -0.96% Year ↗ 12.07%

### ASIA

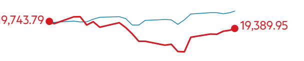
May 10 - Jun 09 — Index — All World

Nikkei 225 Tokyo



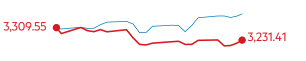
Day ↗ 1.97% Month ↗ 11.52% Year ↗ 14.35%

Hang Seng Hong Kong



Day ↗ 0.47% Month ↘ -4.43% Year ↘ -11.89%

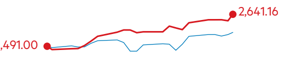
Shanghai Composite Shanghai



Day ↗ 0.55% Month ↘ -4.82% Year ↘ -0.99%

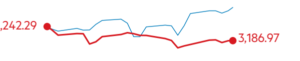
May 10 - Jun 09 — Index — All World

Kospi Seoul



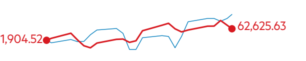
Day ↗ 1.16% Month ↗ 5.09% Year ↗ 0.57%

FTSE Straits Times Singapore



Day ↗ 0.01% Month ↘ -2.25% Year ↘ -1.28%

BSE Sensex Mumbai



Day ↘ -0.35% Month ↗ 1.42% Year ↗ 14.11%

| Country | Index | Latest | Previous |
|---|---|---|---|
| Argentina | Merval | 379912.39 | 380907.48 |
| Australia | All Ordinaries | 7312.30 | 7288.30 |
| | S&P/ASX 200 | 7122.50 | 7099.70 |
| | S&P/ASX 200 Res | 6028.00 | 5976.20 |
| Austria | ATX | 3160.73 | 3160.22 |
| Belgium | BEL 20 | 3639.40 | 3641.39 |
| | BEL Mid | 10166.34 | 10170.00 |
| Brazil | IBovespa | 117428.70 | 115488.16 |
| Canada | S&P/TSX 60 | 1193.92 | 1198.12 |
| | S&P/TSX Comp | 19864.12 | 19942.70 |
| | S&P/TSX Div Met & Min | 1755.10 | 1764.95 |
| Chile | S&P/CLX IGPA Gen | 28995.14 | 29022.72 |
| China | FTSE A200 | 10075.34 | 10030.07 |
| | FTSE B35 | 9000.71 | 8988.96 |
| | Shanghai A | 3387.29 | 3368.56 |
| | Shanghai B | 274.41 | 275.13 |
| | Shanghai Comp | 3231.41 | 3213.59 |
| | Shenzhen A | 2099.08 | 2084.30 |
| | Shenzhen B | 1128.41 | 1123.37 |
| Colombia | COLCAP | 1261.61 | 1260.21 |
| Croatia | CROBEX | 2013.05 | 2011.29 |
| Cyprus | CSE M&P Gen | 68.46 | 68.68 |
| Czech Republic | PX | 1308.12 | 1315.21 |
| Denmark | OMXC Copenahgen 20 | 2036.69 | 2049.79 |
| Egypt | EGX 30 | 17521.36 | 17347.57 |
| Estonia | OMX Tallinn | 1885.66 | 1877.81 |
| Finland | OMX Helsinki General | 10343.53 | 10307.66 |
| France | CAC 40 | 7213.14 | 7222.15 |
| | SBF 120 | 5509.51 | 5515.21 |
| Germany | M-DAX | 27154.14 | 27182.35 |
| | TecDAX | 3198.39 | 3202.00 |
| | XETRA Dax | 15949.84 | 15989.96 |
| Greece | Athens Gen | 1261.67 | 1258.17 |
| | FTSE/ASE 20 | 3062.57 | 3054.45 |
| Hong Kong | Hang Seng | 19389.95 | 19299.18 |
| | HS China Enterprise | 6589.32 | 6540.03 |
| | HSCC Red Chip | 3844.35 | 3827.53 |
| Hungary | Bux | 49320.70 | 49342.40 |
| India | BSE Sensex | 62625.63 | 62848.64 |
| | Nifty 500 | 15877.40 | 15921.05 |
| Indonesia | Jakarta Comp | 6694.02 | 6666.33 |
| Ireland | ISEQ Overall | 8503.43 | 8604.04 |
| Israel | Tel Aviv 125 | 1790.51 | 1790.51 |
| Italy | FTSE Italia All-Share | 29282.40 | 29387.40 |
| | FTSE Italia Mid Cap | 43031.00 | 42939.46 |
| | FTSE MIB | 27162.02 | 27275.04 |
| Japan | 2nd Section | 7228.27 | 7239.06 |
| | Nikkei 225 | 32265.17 | 31641.27 |
| | S&P Topix 150 | 1940.21 | 1908.85 |
| | Topix | 2224.32 | 2191.50 |
| Jordan | Amman SE | 2511.19 | 2502.64 |
| Kenya | NSE 20 | 1588.83 | 1583.33 |
| Kuwait | KSX Market Index | 6633.44 | 6603.51 |
| Latvia | OMX Riga | 1152.72 | 1150.41 |
| Lithuania | OMX Vilnius | 992.80 | 992.80 |
| Luxembourg | LuxX | 1483.51 | 1483.78 |
| Malaysia | FTSE Bursa KLCI | 1376.08 | 1374.64 |
| Mexico | IPC | 54575.37 | 54338.18 |
| Morocco | MASI | 11025.23 | 11017.43 |
| Netherlands | AEX | 759.32 | 760.94 |
| | AEX All Share | 1028.93 | 1030.13 |
| New Zealand | NZX 50 | 11690.34 | 11715.74 |
| Nigeria | SE All Share | 56024.52 | 56038.85 |
| Norway | Oslo All Share | 1017.37 | 1006.88 |
| Pakistan | KSE 100 | 41904.21 | 41686.46 |
| Philippines | Manila Comp | 6507.15 | 6539.36 |
| Poland | Wig | 66542.76 | 66093.75 |
| Portugal | PSI 20 | 5966.71 | 5953.65 |
| | PSI General | 4615.29 | 4598.14 |
| Romania | BET Index | 12251.01 | 12249.96 |
| Russia | Micex Index | 2436.57 | 2445.30 |
| | RTX | 1245.71 | 1212.57 |
| Saudi-Arabia | TADAWUL All Share Index | 11372.83 | 11316.87 |
| Singapore | FTSE Straits Times | 3186.97 | 3186.61 |
| Slovakia | SAX | 316.91 | 317.50 |
| Slovenia | SBI TOP | - | - |
| South Africa | FTSE/JSE All Share | 76936.11 | 77015.21 |
| | FTSE/JSE Res 20 | 68392.51 | 69196.53 |
| | FTSE/JSE Top 40 | 71602.07 | 71696.22 |
| South Korea | Kospi | 2641.16 | 2610.85 |
| | Kospi 200 | 346.79 | 342.75 |
| Spain | IBEX 35 | 9309.70 | 9338.30 |
| Sri Lanka | CSE All Share | 8818.39 | 8767.34 |
| Sweden | OMX Stockholm 30 | 2301.98 | 2302.98 |
| | OMX Stockholm AS | 855.10 | 854.75 |
| Switzerland | SMI Index | 11254.42 | 11308.90 |
| Taiwan | Weighted Pr | 16886.40 | 16733.69 |
| Thailand | Bangkok SET | 1555.10 | 1555.25 |
| Turkey | BIST 100 | 5626.84 | 5554.00 |
| UAE | Abu Dhabi General Index | 9222.93 | 9251.11 |
| UK | FT 30 | 2768.80 | 2770.80 |
| | FTSE 100 | 7562.36 | 7599.74 |
| | FTSE 4Good UK | 6909.20 | 6945.60 |
| | FTSE All Share | 4133.32 | 4150.90 |
| | FTSE techMARK 100 | 6727.30 | 6750.43 |
| USA | DJ Composite | 11190.52 | 11234.52 |
| | DJ Industrial | 33823.95 | 33833.61 |
| | DJ Transport | 14244.52 | 14401.16 |
| | DJ Utilities | 915.49 | 920.85 |
| | Nasdaq 100 | 14519.06 | 14484.54 |
| | Nasdaq Cmp | 13257.04 | 13238.52 |
| | NYSE Comp | 15491.81 | 15502.64 |
| | S&P 500 | 4297.17 | 4293.93 |
| | Wilshire 5000 | 42053.18 | 41446.59 |
| Venezuela | IBC | 34072.78 | 33653.78 |
| Vietnam | VNI | 1107.53 | 1101.32 |
| Cross-Border | DJ Global Titans ($) | 495.95 | 493.59 |
| | Euro Stoxx 50 (Eur) | 4288.22 | 4297.68 |
| | Euronext 100 ID | 1345.81 | 1346.99 |
| | FTSE 4Good Global ($) | 10861.95 | 10831.15 |
| | FTSE All World ($) | 440.40 | 439.20 |
| | FTSE E300 | 1819.29 | 1823.20 |
| | FTSE Eurotop 100 | 3613.07 | 3619.85 |
| | FTSE Global 100 ($) | 2938.10 | 2923.57 |
| | FTSE Gold Min ($) | 1887.35 | 1886.08 |
| | FTSE Latibex Top (Eur) | 4440.00 | 4432.20 |
| | FTSE Multinationals ($) | 3029.11 | 3009.18 |
| | FTSE World ($) | 803.49 | 801.30 |
| | FTSEurofirst 100 (Eur) | 4876.58 | 4883.23 |
| | FTSEurofirst 80 (Eur) | 5820.27 | 5833.65 |
| | MSCI ACWI Fr ($) | 665.76 | 662.65 |
| | MSCI All World ($) | 2882.13 | 2866.59 |
| | MSCI Europe (Eur) | 1858.85 | 1859.67 |
| | MSCI Pacific ($) | 2791.72 | 2788.12 |
| | S&P Euro (Eur) | 1897.62 | 1901.72 |
| | S&P Europe 350 (Eur) | 1866.05 | 1868.94 |
| | S&P Global 1200 ($) | 3192.47 | 3189.25 |
| | Stoxx 50 (Eur) | 3972.21 | 3976.42 |

(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 |
|---|---|---|---|
| Tesla | 277.6 | 247.49 | 12.63 |
| Nvidia | 89.7 | 388.30 | 3.20 |
| Advanced Micro Devices | 53.4 | 124.88 | 3.83 |
| Apple | 38.5 | 180.88 | 0.31 |
| Microsoft | 33.8 | 325.49 | 0.23 |
| Amazon.com | 31.9 | 123.57 | -0.68 |
| Netflix | 28.2 | 419.89 | 10.52 |
| Meta Platforms | 24.2 | 265.07 | 0.49 |
| Adobe | 20.1 | 457.69 | 18.66 |
| Alphabet | 11.6 | 122.32 | 0.18 |

| BIGGEST MOVERS | Close price | Day's change | Day's chng% |
|---|---|---|---|
| **Ups** | | | |
| Tesla | 247.49 | 12.63 | 5.38 |
| Etsy | 91.57 | 4.01 | 4.58 |
| Adobe | 457.69 | 18.66 | 4.25 |
| Match | 40.67 | 1.62 | 4.15 |
| Corning | 32.87 | 1.19 | 3.74 |
| **Downs** | | | |
| Dish Network | 6.72 | -0.72 | -9.62 |
| Paramount Global | 15.99 | -0.59 | -3.56 |
| Int Flavors & Fragrances | 77.16 | -2.60 | -3.25 |
| Fmc | 106.64 | -3.32 | -3.02 |
| Corteva | 56.11 | -1.73 | -2.98 |

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

### LONDON

| ACTIVE STOCKS | stock traded m's | close price | Day's change |
|---|---|---|---|
| Shell | 198.4 | 2294.50 | -14.50 |
| Experian | 148.6 | 2868.00 | -48.00 |
| Unilever | 122.7 | 3970.00 | -29.50 |
| London Stock Exchange | 120.2 | 8650.00 | -90.00 |
| Flutter Entertainment | 109.0 | 15240.00 | -200.00 |
| Astrazeneca | 93.7 | 11712.00 | -38.00 |
| Glencore | 92.7 | 435.00 | -1.45 |
| Bp | 88.2 | 468.90 | -3.75 |
| Croda Int | 87.4 | 5274.00 | -750.00 |
| Diageo | 77.7 | 3320.50 | -5.50 |

| BIGGEST MOVERS | Close price | Day's change | Day's chng% |
|---|---|---|---|
| **Ups** | | | |
| Network Int Holdings | 383.00 | 20.20 | 5.57 |
| Ocado | 386.60 | 20.10 | 5.48 |
| Ithaca Energy | 153.20 | 7.20 | 4.93 |
| Apax Global Alpha | 178.80 | 6.80 | 3.95 |
| Firstgroup | 139.90 | 4.70 | 3.48 |
| **Downs** | | | |
| Croda Int | 5274.00 | -750.00 | -12.45 |
| Synthomer | 88.00 | -5.40 | -5.78 |
| Vanquis Banking | 210.00 | -12.00 | -5.41 |
| Lancashire Holdings | 586.00 | -32.50 | -5.25 |
| Asos | 325.10 | -18.00 | -5.25 |

Based on the constituents of the FTSE 350 index

### EURO MARKETS

| ACTIVE STOCKS | stock traded m's | close price | Day's change |
|---|---|---|---|
| Nestle N | 267.6 | 110.43 | 0.16 |
| Roche Gs | 251.8 | 290.71 | -1.91 |
| Novartis N | 238.1 | 92.92 | -0.21 |
| Abb Ltd N | 203.5 | 35.55 | 0.27 |
| Richemont N | 197.8 | 146.23 | -1.13 |
| Unicredit | 193.4 | 18.35 | -0.31 |
| Novo Nordisk B A/s | 145.7 | 146.49 | -0.99 |
| Eni | 143.7 | 12.98 | -0.13 |
| Asml Holding | 141.4 | 668.00 | 5.30 |
| Dt.telekom Ag Na | 125.8 | 19.02 | 0.16 |

| BIGGEST MOVERS | Close price | Day's change | Day's chng% |
|---|---|---|---|
| **Ups** | | | |
| Orsted A/s Dk 10 | 11.82 | 0.29 | 2.49 |
| Stmicroelectronics | 44.39 | 0.82 | 1.89 |
| Airbus | 128.72 | 2.18 | 1.72 |
| Umg | 19.38 | 0.24 | 1.23 |
| Infineon Tech.ag Na O.n. | 37.04 | 0.44 | 1.19 |
| **Downs** | | | |
| Lonza N | 579.98 | -15.66 | -2.63 |
| A.p. M__ller - M__rsk B A/s | 1652.59 | -41.60 | -2.46 |
| Sika N | 255.16 | -6.08 | -2.33 |
| Dassault Systemes | 40.26 | -0.96 | -2.32 |
| A.p. M__ller - M__rsk A A/s | 1635.81 | -34.89 | -2.09 |

Based on the constituents of the FTSEurofirst 300 Eurozone index

### TOKYO

| ACTIVE STOCKS | stock traded m's | close price | Day's change |
|---|---|---|---|
| Advantest | 1269.9 | 17850.00 | 500.00 |
| Tokyo Electron | 1255.2 | 18910.00 | 110.00 |
| Fast Retailing Co., | 1016.1 | 35280.00 | 1550.00 |
| Softbank . | 873.3 | 5901.00 | -11.00 |
| Mitsubishi Ufj Fin,. | 781.4 | 967.90 | 8.30 |
| Toyota Motor | 764.7 | 2051.50 | 27.50 |
| Mitsubishi | 727.8 | 6285.00 | 210.00 |
| Keyence | 682.9 | 68410.00 | 1420.00 |
| Sony | 667.5 | 13665.00 | 285.00 |
| Daikin Industries, | 489.6 | 28885.00 | 1065.00 |

| BIGGEST MOVERS | Close price | Day's change | Day's chng% |
|---|---|---|---|
| **Ups** | | | |
| Konami | 7777.00 | 424.00 | 5.77 |
| Marubeni | 2221.50 | 98.00 | 4.62 |
| Fast Retailing Co., | 35280.00 | 1550.00 | 4.60 |
| Sojitz | 3056.00 | 133.50 | 4.57 |
| Mitsui & Co., | 5033.00 | 207.00 | 4.29 |
| **Downs** | | | |
| Mitsui Eng & Shipbuilding Co., | 488.00 | -9.00 | -1.81 |
| Ntn | 285.00 | -4.60 | -1.59 |
| Sekisui House, | 2763.00 | -27.00 | -0.97 |
| Sharp | 818.00 | -6.60 | -0.80 |
| Okuma | 6893.00 | -52.00 | -0.75 |

Based on the constituents of the Nikkei 225 index

## UK MARKET WINNERS AND LOSERS

| FTSE 100 | Jun 09 price(p) | %Chg week | %Chg ytd |
|---|---|---|---|
| **Winners** | | | |
| Melrose Industries | 523.80 | 6.3 | 29.8 |
| Hargreaves Lansdown | 861.60 | 5.4 | 0.6 |
| Ocado | 386.60 | 5.3 | - |
| Abrdn | 214.30 | 5.3 | 13.2 |
| Ashtead | 5368.00 | 5.0 | 13.7 |
| Airtel Africa | 128.10 | 4.4 | 14.6 |
| Smiths | 1659.50 | 2.5 | 3.8 |
| Bt | 147.00 | 2.3 | 31.2 |
| London Stock Exchange | 8650.00 | 1.8 | 21.2 |
| United Utilities | 1055.50 | 1.8 | 6.5 |
| Burberry | 2225.00 | 1.8 | 9.6 |
| Anglo American | 2457.00 | 1.6 | - |
| **Losers** | | | |
| Croda Int | 5274.00 | -15.3 | - |
| Endeavour Mining | 2024.00 | -7.1 | 15.5 |
| Beazley | 578.00 | -6.8 | -14.9 |
| Jd Sports Fashion | 148.65 | -5.3 | 17.8 |
| Reckitt Benckiser | 6034.00 | -4.3 | 4.9 |
| Sainsbury (j) | 267.00 | -4.1 | 22.6 |
| Flutter Entertainment | 15240.00 | -4.1 | 35.0 |
| Barratt Developments | 462.90 | -3.9 | 16.7 |
| Johnson Matthey | 1736.00 | -3.8 | - |
| Taylor Wimpey | 113.90 | -3.8 | 11.8 |
| Mondi | 1243.00 | -3.7 | - |
| Prudential | 1114.00 | -3.4 | -1.2 |

| FTSE 250 | Jun 09 price(p) | %Chg week | %Chg ytd |
|---|---|---|---|
| **Winners** | | | |
| Firstgroup | 139.90 | 18.2 | 38.5 |
| Indivior | 1710.00 | 15.9 | -7.7 |
| Paragon Banking | 561.00 | 13.7 | -0.4 |
| Discoverie | 912.00 | 13.2 | 24.8 |
| Apax Global Alpha | 178.80 | 9.4 | -5.1 |
| Ithaca Energy | 153.20 | 8.2 | - |
| Chemring | 292.00 | 7.6 | -1.8 |
| Investec | 469.30 | 7.5 | -8.2 |
| Ti Fluid Systems | 132.60 | 6.8 | -0.7 |
| Iwg | 165.50 | 6.6 | -1.5 |
| Petershill Partners | 161.20 | 5.9 | -4.6 |
| Carnival | 909.40 | 5.8 | 57.0 |
| **Losers** | | | |
| Warehouse Reit | 89.40 | -14.9 | - |
| Crest Nicholson Holdings | 229.00 | -9.8 | -3.2 |
| Dr. Martens | 127.50 | -9.3 | - |
| Urban Logistics Reit | 130.60 | -7.9 | -2.9 |
| Asos | 325.10 | -7.2 | - |
| Lancashire Holdings | 586.00 | -7.0 | -9.8 |
| Cls Holdings | 131.60 | -6.4 | - |
| Vanquis Banking | 210.00 | -6.3 | 9.8 |
| Cmc Markets | 169.80 | -5.7 | - |
| Victrex | 1524.00 | -5.1 | -4.6 |
| Travis Perkins | 855.80 | -5.1 | -3.8 |
| Bellway | 2226.00 | -5.0 | 16.7 |

| FTSE SmallCap | Jun 09 price(p) | %Chg week | %Chg ytd |
|---|---|---|---|
| **Winners** | | | |
| 888 Holdings | 102.60 | 43.7 | 17.9 |
| Alfa Fin Software Holdings | 188.00 | 16.0 | 13.3 |
| Bloomsbury Publishing | 455.00 | 11.5 | 1.2 |
| Galliford Try Holdings | 197.00 | 9.7 | 23.9 |
| Chrysalis Investments | 76.70 | 8.8 | -2.1 |
| Funding Circle Holdings | 59.80 | 8.7 | 8.7 |
| Foresight Holdings | 455.00 | 8.6 | 4.6 |
| Paypoint | 434.00 | 8.0 | - |
| Schroders Capital Global Innovation Trust | 14.83 | 6.9 | -4.6 |
| Blackrock Latin American Investment Trust | 414.00 | 6.4 | 8.9 |
| Fisher (james) & Sons | 401.00 | 6.4 | 2.7 |
| Mears | 260.00 | 6.1 | 25.0 |
| **Losers** | | | |
| Esken | 4.38 | -10.2 | - |
| De La Rue | 36.50 | -8.0 | - |
| Kin And Carta | 59.50 | -7.7 | - |
| Vpc Specialty Lending Investments | 72.00 | -6.9 | - |
| Dfs Furniture | 111.00 | -6.7 | - |
| Superdry | 79.20 | -6.6 | -38.1 |
| Empiric Student Property | 87.20 | -6.2 | 3.6 |
| Greencore | 77.15 | -6.0 | 20.3 |
| Costain | 48.80 | -5.8 | 23.9 |
| Ncc | 87.60 | -5.3 | -56.2 |
| Renewi | 507.00 | -5.2 | - |
| Capita | 33.18 | -5.2 | 36.4 |

| Industry Sectors | Jun 09 price(p) | %Chg week | %Chg ytd |
|---|---|---|---|
| **Winners** | | | |
| Industrial Transportation | 3846.67 | 4.9 | 11.5 |
| General Financial | 13793.97 | 2.1 | 19.4 |
| Automobiles & Parts | 1787.50 | 1.2 | 20.4 |
| Industrial Metals | 6445.59 | 0.8 | - |
| Aerospace & Defense | 6357.79 | 0.7 | 23.9 |
| Tobacco | 28461.98 | 0.4 | - |
| Mobile Telecommunications | 2118.31 | 0.3 | -0.6 |
| Industrial Engineering | 14401.64 | 0.2 | 4.3 |
| Banks | 3593.07 | 0.1 | 9.0 |
| Pharmaceuticals & Biotech. | 21495.83 | 0.1 | 2.4 |
| Gas Water & Multiutilities index | 6028.62 | -0.1 | 6.2 |
| Personal Goods | 30707.64 | -0.1 | -0.3 |
| **Losers** | | | |
| Chemicals | 9721.22 | -10.5 | -17.3 |
| Mining | 10954.96 | -6.1 | -2.2 |
| Nonlife Insurance | 3178.43 | -4.5 | -5.3 |
| Household Goods | 10931.97 | -3.4 | 9.9 |
| Food & Drug Retailers | 4099.87 | -2.5 | -0.6 |
| Health Care Equip.& Services | 10620.84 | -2.4 | -2.5 |
| Real Estate & Investment Servic | 2157.77 | -2.3 | 1.8 |
| Food Producers | 6427.31 | -2.0 | 12.9 |
| Real Estate Investment Trusts | 2215.17 | -2.0 | -0.7 |
| Life Insurance | 6775.19 | -1.9 | -3.9 |
| Electronic & Electrical Equip. | 10217.54 | -1.7 | 18.1 |
| Beverages | 25771.60 | -1.6 | -7.5 |

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

## CURRENCIES

| Jun 09 | Currency | DOLLAR Closing Mid | DOLLAR Day's Change | EURO Closing Mid | EURO Day's Change | POUND Closing Mid | POUND Day's Change |
|---|---|---|---|---|---|---|---|
| Argentina | Argentine Peso | 244.9530 | 0.7050 | 263.4952 | 0.4273 | 308.1635 | 2.0116 |
| Australia | Australian Dollar | 1.4828 | -0.0081 | 1.5950 | -0.0107 | 1.8654 | -0.0033 |
| Bahrain | Bahrainin Dinar | 0.3770 | - | 0.4055 | -0.0005 | 0.4743 | 0.0017 |
| Bolivia | Bolivian Boliviano | 6.9100 | - | 7.4331 | -0.0094 | 8.6931 | 0.0318 |
| Brazil | Brazilian Real | 4.8777 | -0.0473 | 5.2469 | -0.0575 | 6.1363 | -0.0368 |
| Canada | Canadian Dollar | 1.3317 | -0.0044 | 1.4325 | -0.0065 | 1.6753 | 0.0006 |
| Chile | Chilean Peso | 785.2600 | -6.0450 | 844.7017 | -7.5752 | 987.8976 | -3.9614 |
| China | Chinese Yuan | 7.1244 | -0.0059 | 7.6637 | -0.0160 | 8.9629 | 0.0255 |
| Colombia | Colombian Peso | 4197.8450 | 9.3450 | 4515.6084 | 4.3736 | 5281.1081 | 31.0450 |
| Costa Rica | Costa Rican Colon | 543.2950 | 2.4900 | 584.4207 | 1.9454 | 683.4931 | 5.6227 |
| Czech Republic | Czech Koruna | 22.0326 | 0.0513 | 23.7004 | 0.0254 | 27.7181 | 0.1658 |
| Denmark | Danish Krone | 6.9275 | 0.0097 | 7.4519 | 0.0011 | 8.7152 | 0.0441 |
| Egypt | Egyptian Pound | 30.9483 | 0.0160 | 33.2910 | -0.0247 | 38.9346 | 0.1626 |
| Hong Kong | Hong Kong Dollar | 7.8395 | 0.0037 | 8.4329 | -0.0067 | 9.8624 | 0.0407 |
| Hungary | Hungarian Forint | 342.0099 | -0.4998 | 367.8989 | -1.0019 | 430.2660 | 0.9483 |
| India | Indian Rupee | 82.4613 | -0.1125 | 88.7033 | -0.2329 | 103.7405 | 0.2387 |
| Indonesia | Indonesian Rupiah | 14840.0000 | -55.0000 | 15963.3482 | -79.3640 | 18669.4995 | -0.6274 |
| Israel | Israeli Shekel | 3.5895 | -0.0645 | 3.8612 | -0.0743 | 4.5158 | -0.0643 |
| Japan | Japanese Yen | 139.3750 | 0.3900 | 149.9252 | 0.2311 | 175.3409 | 1.1306 |
| ..One Month | | 139.3744 | 0.3887 | 149.9248 | 0.2302 | 175.3402 | 1.1292 |
| ..Three Month | | 139.3730 | 0.3860 | 149.9239 | 0.2283 | 175.3387 | 1.1261 |
| ..One Year | | 139.3673 | 0.3747 | 149.9196 | 0.2197 | 175.3402 | 1.1203 |
| Kenya | Kenyan Shilling | 139.4000 | 0.1500 | 149.9521 | -0.0274 | 175.3724 | 0.8299 |
| Kuwait | Kuwaiti Dinar | 0.3073 | -0.0003 | 0.3305 | -0.0007 | 0.3865 | 0.0011 |
| Malaysia | Malaysian Ringgit | 4.6140 | -0.0045 | 4.9633 | -0.0111 | 5.8046 | 0.0156 |
| Mexico | Mexican Peso | 17.3295 | -0.1012 | 18.6413 | -0.1325 | 21.8014 | -0.0471 |
| New Zealand | New Zealand Dollar | 1.6315 | -0.0106 | 1.7549 | -0.0136 | 2.0524 | -0.0058 |
| Nigeria | Nigerian Naira | 462.0000 | -3.0000 | 496.9719 | -3.8574 | 581.2198 | -1.6330 |
| Norway | Norwegian Krone | 10.7451 | -0.1462 | 11.5585 | -0.1720 | 13.5179 | -0.1338 |
| Pakistan | Pakistani Rupee | 286.8700 | -0.4000 | 308.5851 | -0.8197 | 360.8972 | 0.8195 |
| Peru | Peruvian Nuevo Sol | 3.6430 | -0.0124 | 3.9188 | -0.0182 | 4.5831 | 0.0013 |
| Philippines | Philippine Peso | 56.0500 | -0.0720 | 60.2928 | -0.1535 | 70.5138 | 0.1678 |
| Poland | Polish Zloty | 4.1250 | -0.0329 | 4.4372 | -0.0411 | 5.1894 | -0.0223 |
| Romania | Romanian Leu | 4.6068 | 0.0071 | 4.9555 | 0.0014 | 5.7955 | 0.0301 |
| Russia | Russian Ruble | 82.6250 | -0.2250 | 88.8794 | -0.3543 | 103.9465 | 0.0984 |
| Saudi Arabia | Saudi Riyal | 3.7505 | 0.0001 | 4.0344 | -0.0050 | 4.7183 | 0.0174 |
| Singapore | Singapore Dollar | 1.3434 | -0.0001 | 1.4451 | -0.0019 | 1.6901 | 0.0061 |
| South Africa | South African Rand | 18.7013 | -0.1500 | 20.1169 | -0.1869 | 23.5271 | -0.1019 |
| South Korea | South Korean Won | 1291.6500 | -12.0500 | 1389.4238 | -14.7294 | 1624.9623 | -9.1566 |
| Sweden | Swedish Krona | 10.8297 | 0.0140 | 11.6494 | 0.0004 | 13.6243 | 0.0674 |
| Switzerland | Swiss Franc | 0.9021 | 0.0012 | 0.9704 | 0.0000 | 1.1349 | 0.0056 |
| Taiwan | New Taiwan Dollar | 30.7225 | -0.0395 | 33.0481 | -0.0842 | 38.6505 | 0.0920 |
| Thailand | Thai Baht | 34.6150 | -0.1925 | 37.2352 | -0.2543 | 43.5475 | -0.0819 |
| Tunisia | Tunisian Dinar | 3.1053 | 0.0018 | 3.3404 | -0.0022 | 3.9066 | 0.0166 |
| Turkey | Turkish Lira | 23.3580 | -0.0127 | 25.1261 | -0.0454 | 29.3856 | 0.0916 |
| United Arab Emirates | UAE Dirham | 3.6730 | - | 3.9510 | -0.0050 | 4.6208 | 0.0169 |
| United Kingdom | Pound Sterling | 0.7949 | -0.0029 | 0.8550 | -0.0042 | - | - |
| ..One Month | | 0.7950 | -0.0029 | 0.8550 | -0.0042 | - | - |
| ..Three Month | | 0.7951 | -0.0029 | 0.8547 | -0.0042 | - | - |
| ..One Year | | 0.7949 | -0.0029 | 0.8535 | -0.0043 | - | - |
| United States | United States Dollar | - | - | 1.0757 | -0.0014 | 1.2581 | 0.0046 |
| ..One Month | | - | - | 1.0755 | -0.1777 | 1.2581 | 0.0046 |
| ..Three Month | | - | - | 1.0752 | -0.1778 | 1.2582 | 0.0046 |
| ..One Year | | - | - | 1.0737 | -0.1778 | 1.2581 | 0.0046 |
| Vietnam | Vietnamese Dong | 23473.5000 | -11.0000 | 25250.4211 | -43.6222 | 29530.9307 | 94.3180 |
| European Union | Euro | 0.9296 | 0.0012 | - | - | 1.1695 | 0.0057 |
| ..One Month | | 0.9294 | 0.0012 | - | - | 1.1694 | 0.0057 |
| ..Three Month | | 0.9291 | 0.0012 | - | - | 1.1692 | 0.0057 |
| ..One Year | | 0.9277 | 0.0011 | - | - | 1.1680 | 0.0057 |

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

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| | £ Strlg Jun 09 | Day's chge% | Euro Index | £ Strlg Jun 08 | £ Strlg Jun 07 | Year ago | Div yield% | Cover | P/E ratio | X/D adj | Total Return |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FTSE 100 (100) | 7562.36 | -0.49 | 6894.67 | 7599.74 | 7624.34 | 7476.21 | 3.77 | 1.83 | 14.53 | 159.51 | 7932.62 |
| FTSE 250 (250) | 19091.66 | -0.08 | 17406.02 | 19107.55 | 19152.27 | 20073.40 | 3.32 | 0.67 | 45.21 | 286.63 | 16141.58 |
| FTSE 250 ex Inv Co (169) | 19724.94 | -0.21 | 17983.39 | 19765.63 | 19796.62 | 20717.04 | 3.44 | 0.75 | 38.55 | 307.14 | 17026.62 |
| FTSE 350 (350) | 4173.74 | -0.43 | 3805.23 | 4191.92 | 4204.96 | 4164.27 | 3.70 | 1.68 | 16.08 | 84.43 | 8681.27 |
| FTSE 350 ex Investment Trusts (266) | 4120.30 | -0.46 | 3756.51 | 4139.45 | 4151.97 | 4098.34 | 3.76 | 1.75 | 15.19 | 85.09 | 4430.89 |
| FTSE 350 Higher Yield (135) | 3503.22 | -0.31 | 3193.92 | 3514.27 | 3522.70 | 3633.36 | 5.15 | 1.69 | 11.51 | 94.94 | 8276.30 |
| FTSE 350 Lower Yield (215) | 4441.00 | -0.55 | 4048.90 | 4465.61 | 4482.61 | 4265.97 | 2.28 | 1.66 | 26.43 | 59.71 | 5544.37 |
| FTSE SmallCap (226) | 6262.34 | 0.01 | 5709.43 | 6261.93 | 6262.89 | 6709.86 | 3.60 | -0.54 | -51.80 | 96.93 | 10713.15 |
| FTSE SmallCap ex Inv Co (119) | 5088.57 | -0.10 | 4639.29 | 5093.60 | 5081.69 | 5645.20 | 3.71 | 0.97 | 27.80 | 80.78 | 9053.55 |
| FTSE All-Share (576) | 4133.32 | -0.42 | 3768.38 | 4150.90 | 4163.52 | 4132.16 | 3.70 | 1.63 | 16.59 | 83.15 | 8680.79 |
| FTSE All-Share ex Inv Co (385) | 4045.89 | -0.46 | 3688.67 | 4064.51 | 4076.53 | 4030.99 | 3.76 | 1.74 | 15.27 | 83.31 | 4417.28 |
| FTSE All-Share ex Multinationals (515) | 1088.59 | -0.12 | 823.26 | 1089.93 | 1094.65 | 1151.15 | 4.09 | 1.10 | 22.31 | 21.61 | 2367.78 |
| FTSE Fledgling (78) | 11588.73 | 0.06 | 10565.54 | 11582.34 | 11620.15 | 12870.91 | 3.22 | -1.02 | -30.44 | 172.47 | 25527.47 |
| FTSE Fledgling ex Inv Co (30) | 15565.99 | -0.07 | 14191.64 | 15576.83 | 15702.91 | 18150.78 | 3.52 | 6.20 | 4.58 | 294.40 | 33390.83 |
| FTSE All-Small (304) | 4365.71 | 0.01 | 3980.25 | 4365.30 | 4366.75 | 4686.42 | 3.58 | -0.56 | -49.79 | 67.43 | 9578.94 |
| FTSE All-Small ex Inv Co (149) | 3830.35 | -0.10 | 3492.16 | 3834.08 | 3826.69 | 4256.97 | 3.70 | 1.17 | 23.18 | 61.24 | 8631.56 |
| FTSE AIM All-Share (713) | 793.34 | 0.05 | 723.29 | 792.90 | 793.05 | 965.22 | 1.82 | 1.57 | 34.88 | 5.95 | 939.70 |
| FTSE All-Share Technology (18) | 2086.43 | -0.25 | 1807.75 | 2091.60 | 2095.76 | 1791.96 | 1.84 | 1.50 | 36.34 | 20.62 | 3054.34 |
| FTSE All-Share Telecommunications (6) | 1362.99 | 0.40 | 1180.93 | 1357.57 | 1406.16 | 2021.62 | 7.76 | 1.50 | 8.58 | 39.79 | 2154.80 |
| FTSE All-Share Health Care (13) | 14984.00 | -0.23 | 12982.58 | 15017.96 | 15031.68 | 14349.68 | 2.39 | 1.14 | 36.84 | 216.02 | 14079.77 |
| FTSE All-Share Financials (254) | 4793.53 | -0.34 | 4153.26 | 4810.06 | 4830.27 | 4539.40 | 3.93 | 1.62 | 15.67 | 124.95 | 5477.51 |
| FTSE All-Share Real Estate (54) | 811.58 | -0.41 | 735.60 | 814.93 | 821.23 | 1061.63 | 4.40 | -1.48 | -15.37 | 15.57 | 873.13 |
| FTSE All-Share Consumer Discretionary (82) | 5078.57 | -0.46 | 4400.22 | 5102.02 | 5121.89 | 4597.56 | 2.34 | 1.32 | 32.39 | 66.92 | 5459.85 |
| FTSE All-Share Consumer Staples (22) | 18104.46 | -0.38 | 15686.24 | 18172.66 | 18296.63 | 19077.63 | 4.31 | 1.64 | 14.14 | 335.26 | 16954.99 |
| FTSE All-Share Industrials (84) | 6883.89 | -0.66 | 5964.40 | 6929.82 | 6926.28 | 6119.22 | 2.25 | 1.14 | 38.81 | 85.63 | 8076.57 |
| FTSE All-Share Basic Materials (21) | 7733.92 | -0.82 | 6700.90 | 7797.77 | 7799.79 | 9568.10 | 6.58 | 3.43 | 4.43 | 255.73 | 10877.27 |
| FTSE All-Share Energy (14) | 8245.55 | -0.65 | 7144.19 | 8299.14 | 8273.92 | 8473.03 | 4.14 | 1.65 | 14.60 | 177.52 | 10234.24 |
| FTSE All-Share Utilities (8) | 8998.06 | 0.21 | 7796.19 | 8978.79 | 9016.63 | 8973.97 | 4.67 | 0.68 | 31.74 | 218.79 | 14073.60 |
| FTSE All-Share Software and Computer Services (16) | 2259.37 | -0.25 | 1957.58 | 2264.94 | 2269.56 | 1927.38 | 1.82 | 1.52 | 36.21 | 21.94 | 3498.66 |
| FTSE All-Share Technology Hardware and Equipment (2) | 4128.43 | -0.32 | 3576.99 | 4141.87 | 4134.97 | 4968.45 | 3.17 | 0.65 | 48.61 | 89.37 | 5466.40 |
| FTSE All-Share Telecommunications Equipment (1) | 412.43 | 0.38 | 357.34 | 410.86 | 407.51 | 534.70 | 3.40 | 2.14 | 13.70 | 9.21 | 603.57 |
| FTSE All-Share Telecommunications Service Providers (5) | 2115.10 | 0.40 | 1832.59 | 2106.69 | 2185.41 | 3148.92 | 7.92 | 1.49 | 8.47 | 62.32 | 3049.36 |
| FTSE All-Share Health Care Providers (2) | 11062.18 | -1.72 | 9584.60 | 11255.66 | 11255.66 | 10146.36 | 0.49 | 2.90 | 70.38 | 18.58 | 10284.29 |
| FTSE All-Share Medical Equipment and Services (2) | 5690.64 | -0.17 | 4930.53 | 5700.15 | 5738.15 | 5868.93 | 2.65 | 1.16 | 32.48 | 92.56 | 5589.73 |
| FTSE All-Share Pharmaceuticals and Biotechnology (9) | 21437.50 | -0.22 | 18574.09 | 21485.71 | 21498.80 | 20456.68 | 2.38 | 1.13 | 37.05 | 310.15 | 18139.77 |
| FTSE All-Share Banks (12) | 3544.80 | -0.47 | 3071.32 | 3561.72 | 3583.16 | 3179.98 | 4.54 | 2.67 | 8.26 | 136.68 | 3257.85 |
| FTSE All-Share Finance and Credit Services (8) | 11888.49 | -0.96 | 10300.53 | 12003.56 | 12005.71 | 9939.72 | 1.77 | 1.87 | 30.24 | 148.60 | 16197.37 |
| FTSE All-Share Investment Banking and Brokerage Services (31) | 9410.63 | -0.09 | 8153.65 | 9418.94 | 9379.51 | 8472.53 | 4.76 | 2.36 | 8.89 | 182.55 | 13574.20 |
| FTSE All-Share Closed End Investments (191) | 11432.95 | 0.11 | 9905.85 | 11420.79 | 11469.90 | 12019.84 | 2.87 | -0.66 | -53.23 | 147.70 | 7263.82 |
| FTSE All-Share Life Insurance (6) | 6892.73 | -0.50 | 5972.06 | 6927.06 | 6977.58 | 6856.30 | 4.67 | 0.57 | 37.35 | 215.96 | 8702.87 |
| FTSE All-Share Nonlife Insurance (6) | 3594.68 | -1.29 | 3114.53 | 3641.60 | 3678.00 | 3477.21 | 4.67 | 1.24 | 17.31 | 56.37 | 7776.74 |
| FTSE All-Share Real Estate Investment and Services (10) | 2069.10 | -0.35 | 1792.73 | 2076.36 | 2087.35 | 2526.14 | 2.40 | 1.67 | 24.93 | 27.21 | 6273.58 |
| FTSE All-Share Real Estate Investment Trusts (44) | 2013.73 | -0.42 | 1744.76 | 2022.26 | 2038.80 | 2666.61 | 4.77 | -1.76 | -11.89 | 40.87 | 3126.07 |
| FTSE All-Share Automobiles and Parts (3) | 1796.66 | -0.99 | 1556.68 | 1814.70 | 1798.85 | 2164.44 | 0.25 | -25.17 | -15.97 | 2.74 | 1871.92 |
| FTSE All-Share Consumer Services (1) | 3580.33 | -0.18 | 3102.10 | 3586.92 | 3605.05 | 2930.93 | 1.71 | 1.17 | 50.21 | 61.00 | 4625.95 |
| FTSE All-Share Household Goods and Home Construction (11) | 9115.26 | -0.98 | 7897.73 | 9205.11 | 9282.91 | 11095.58 | 7.54 | 1.98 | 6.70 | 287.84 | 8459.92 |
| FTSE All-Share Leisure Goods (2) | 25737.91 | 0.69 | 22300.08 | 25561.58 | 25735.11 | 18479.32 | 3.49 | 1.14 | 25.05 | 666.68 | 29535.11 |
| FTSE All-Share Personal Goods (4) | 26371.82 | -0.07 | 22849.32 | 26390.74 | 26622.46 | 24563.07 | 2.15 | 2.93 | 15.93 | 81.05 | 20804.91 |
| FTSE All-Share Media (10) | 9948.13 | -0.75 | 8619.35 | 10023.56 | 10094.44 | 8822.51 | 2.55 | 1.85 | 21.18 | 172.51 | 7117.43 |
| FTSE All-Share Retailers (22) | 2166.10 | -0.50 | 1876.77 | 2176.95 | 2183.78 | 2012.16 | 2.57 | 3.49 | 11.15 | 17.80 | 2852.23 |
| FTSE All-Share Travel and Leisure (29) | 7377.14 | -0.20 | 6391.77 | 7391.62 | 7381.63 | 6343.49 | 0.72 | -6.62 | -20.89 | 34.60 | 7667.97 |
| FTSE All-Share Beverages (5) | 25881.50 | -0.26 | 22424.49 | 25948.61 | 26014.20 | 27533.25 | 2.40 | 2.29 | 18.16 | 273.41 | 20965.34 |
| FTSE All-Share Food Producers (8) | 6586.44 | -0.59 | 5706.68 | 6625.45 | 6733.39 | 6328.53 | 2.34 | 2.40 | 17.79 | 38.29 | 6453.02 |
| FTSE All-Share Tobacco (2) | 28462.03 | 0.30 | 24660.34 | 28375.59 | 28444.34 | 36491.09 | 8.46 | 1.58 | 7.50 | 752.81 | 27714.47 |
| FTSE All-Share Construction and Materials (15) | 8409.58 | -1.18 | 7286.31 | 8510.36 | 8450.98 | 7400.30 | 3.01 | 0.53 | 62.94 | 185.09 | 10490.04 |
| FTSE All-Share Aerospace and Defense (8) | 6664.19 | 0.02 | 5774.05 | 6663.09 | 6631.53 | 5047.16 | 1.85 | 0.15 | 355.73 | 74.85 | 8219.45 |
| FTSE All-Share Electronic and Electrical Equipment (11) | 12016.04 | -0.99 | 10411.05 | 12136.40 | 12254.63 | 10772.69 | 1.51 | 2.32 | 28.62 | 81.67 | 11985.51 |
| FTSE All-Share General Industrials (7) | 5054.51 | -1.45 | 4379.38 | 5128.95 | 5135.38 | 5007.99 | 3.46 | 1.32 | 21.84 | 93.04 | 6811.57 |
| FTSE All-Share Industrial Engineering (6) | 15898.23 | -0.34 | 13774.69 | 15953.11 | 16022.39 | 14860.67 | 1.97 | 2.38 | 21.31 | 210.47 | 21626.95 |
| FTSE All-Share Industrial Support Services (29) | 10207.19 | -0.90 | 8843.81 | 10299.73 | 10330.14 | 9466.18 | 2.02 | 1.61 | 30.75 | 109.85 | 11887.13 |
| FTSE All-Share Industrial Transportation (8) | 5773.84 | 0.61 | 5002.63 | 5739.10 | 5691.00 | 4763.35 | 2.00 | 0.90 | 55.44 | 16.99 | 6073.58 |
| FTSE All-Share Industrial Materials (1) | 18253.41 | 1.11 | 600.82 | 18053.37 | 17753.31 | 16002.99 | 1.86 | 1.34 | 40.08 | 231.04 | 23348.32 |
| FTSE All-Share Industrial Metals and Mining (8) | 6944.15 | -0.14 | 6016.61 | 6954.12 | 6940.35 | 8673.23 | 7.04 | 3.54 | 4.01 | 243.73 | 11021.17 |
| FTSE All-Share Precious Metals and Mining (5) | 10369.54 | -0.65 | 8984.48 | 10437.32 | 10580.56 | 9936.69 | 3.25 | 1.79 | 17.21 | 169.32 | 7433.61 |
| FTSE All-Share Chemicals (7) | 10813.53 | -7.56 | 9369.16 | 11698.01 | 11893.38 | 13391.27 | 3.30 | 1.80 | 16.84 | 207.36 | 11046.26 |
| FTSE All-Share Oil. Gas and Coal (13) | 8004.45 | -0.65 | 6935.29 | 8056.47 | 8032.01 | 8223.39 | 4.14 | 1.65 | 14.59 | 172.35 | 10303.47 |
| **FTSE Sector Indices** | | | | | | | | | | | |
| **Non Financials (322)** | **4992.69** | **-0.45** | **4551.88** | **5015.15** | **5028.62** | **5070.43** | **3.63** | **1.63** | **16.90** | **91.47** | **9210.01** |

| 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 | 7619.10 | 7605.49 | 7602.26 | 7577.83 | 7567.03 | 7555.65 | 7562.22 | 7563.20 | 7575.72 | 7619.10 | 7546.54 |
| FTSE 250 | 19051.87 | 19082.40 | 19086.36 | 19027.38 | 18975.95 | 19004.18 | 19037.12 | 19063.14 | 19078.87 | 19099.16 | 18970.70 |
| FTSE SmallCap | 6250.85 | 6257.47 | 6255.91 | 6256.14 | 6254.98 | 6254.82 | 6254.51 | 6253.46 | 6253.56 | 6262.34 | 6250.38 |
| FTSE All-Share | 4157.91 | 4152.70 | 4151.32 | 4138.36 | 4131.85 | 4127.49 | 4131.49 | 4132.70 | 4138.91 | 4157.91 | 4124.52 |

Time of FTSE 100 Day's high:07:03:00 Day's Low12:34:45 FTSE 100 2010/11 High: 8014.31(20/02/2023) Low: 7335.40(17/03/2023)
Time of FTSE All-Share Day's high:07:03:00 Day's Low12:35:00 FTSE 100 2010/11 High: 4377.36(16/02/2023) Low: 4007.66(17/03/2023)

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## FT 30 INDEX

| | Jun 09 | Jun 08 | Jun 07 | Jun 06 | Jun 05 | Yr Ago | High | Low |
|---|---|---|---|---|---|---|---|---|
| FT 30 | 2768.80 | 2770.80 | 2789.80 | 2777.10 | 2757.00 | 0.00 | 2895.30 | 2454.10 |
| FT 30 Div Yield | - | - | - | - | - | 0.00 | 3.93 | 2.74 |
| P/E Ratio net | - | - | - | - | - | 0.00 | 19.44 | 14.26 |

**FT 30 hourly changes**

| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | High | Low |
|---|---|---|---|---|---|---|---|---|---|---|
| 2770.8 | 2773.4 | 2771.5 | 2767.5 | 2762 | 2759 | 2763.2 | 2766.2 | 2769.9 | 2777.8 | 2757.9 |

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

## FT WILSHIRE 5000 INDEX SERIES

| | Jun 08 |
|---|---|
| FT Wilshire 5000 | 43392.20 |
| FT Wilshire 2500 | 5563.14 |
| FT Wilshire Mega Cap | 5655.53 |
| FT Wilshire Large Cap | 5632.81 |
| FT Wilshire Mid Cap | 5510.72 |
| FT Wilshire Small Cap | 5057.93 |
| FT Wilshire Micro Cap | 4778.79 |

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## FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

| | |
|---|---|
| Aerospace & Defense | 23.88 |
| Fixed Line Telecomms | 21.12 |
| Automobiles & Parts | 20.08 |
| Travel & Leisure | 18.44 |
| Electronic & Elec Eq | 17.53 |
| Construct & Material | 15.53 |
| Financial Services | 14.89 |
| General Retailers | 14.36 |
| Consumer Services | 13.27 |
| Food Producers | 12.16 |
| Leisure Goods | 11.58 |
| Industrials | 11.32 |
| Food & Drug Retailer | 9.72 |
| Software & Comp Serv | 9.44 |
| Banks | 9.21 |
| Industrial Eng | 8.93 |
| Support Services | 8.16 |
| Media | 7.58 |
| Household Goods & Ho | 6.63 |
| Gas Water & Multi | 6.42 |
| Utilities | 5.74 |
| Technology | 5.19 |
| Financials | 4.53 |
| Electricity | 3.89 |
| Real Est Invest & Se | 2.85 |
| Pharmace & Biotech | 2.24 |
| Health Care | 2.22 |
| Health Care Eq & Srv | 1.66 |
| FTSE 100 Index | 1.48 |
| FTSE All{HY-}Share Index | 1.43 |
| FTSE 250 Index | 1.27 |
| NON FINANCIALS Index | 0.37 |
| FTSE SmallCap Index | 0.36 |
| Beverages | 31.66 |
| Telecommunications | -0.78 |
| Real Est Invest & Tr | -1.26 |
| Equity Invest Instr | -1.27 |
| Oil & Gas Producers | -1.79 |
| Oil & Gas | -1.84 |
| Life Insurance | -3.90 |
| Nonlife Insurance | -4.60 |
| Personal Goods | -4.65 |
| Industrial Metals & | -5.24 |
| Consumer Goods | -6.42 |
| Beverages | -7.41 |
| Oil Equipment & Serv | -8.45 |
| Industrial Transport | -8.57 |
| Mobile Telecomms | -9.91 |
| Chemicals | -16.32 |
| Basic Materials | -17.20 |
| Tech Hardware & Eq | -17.34 |
| Mining | -17.37 |
| Tobacco | -20.15 |

## FTSE GLOBAL EQUITY INDEX SERIES

| Jun 09 Regions & countries | No of stocks | US $ indices | Day % | Mth % | YTD % | Total retn | YTD % | Gr Div Yield |
|---|---|---|---|---|---|---|---|---|
| FTSE Global All Cap | 9490 | 744.81 | 0.4 | 1.8 | 9.5 | 1209.35 | 10.7 | 2.2 |
| FTSE Global All Cap | 9490 | 744.81 | 0.4 | 1.8 | 9.5 | 1209.35 | 10.7 | 2.2 |
| FTSE Global Large Cap | 1936 | 674.75 | 0.5 | 2.0 | 11.0 | 1129.56 | 12.3 | 2.2 |
| FTSE Global Mid Cap | 2228 | 925.34 | 0.1 | 0.6 | 4.8 | 1413.37 | 5.9 | 2.2 |
| FTSE Global Small Cap | 5326 | 960.57 | -0.2 | 2.7 | 6.6 | 1400.89 | 7.6 | 2.1 |
| FTSE All-World | 4164 | 439.20 | 0.5 | 1.7 | 9.8 | 755.34 | 11.1 | 2.2 |
| FTSE World | 2658 | 801.30 | 0.5 | 2.0 | 10.7 | 1849.70 | 12.0 | 2.2 |
| FTSE Global All Cap ex UNITED KINGDOM In | 9210 | 786.71 | 0.4 | 2.0 | 9.6 | 1252.40 | 10.8 | 2.1 |
| FTSE Global All Cap ex USA | 7700 | 520.72 | 0.2 | -1.4 | 6.5 | 943.64 | 8.3 | 3.2 |
| FTSE Global All Cap ex JAPAN | 8068 | 775.98 | 0.4 | 1.7 | 9.5 | 1270.98 | 10.7 | 2.2 |
| FTSE Global All Cap ex Eurozone | 8849 | 785.79 | 0.4 | 2.3 | 9.3 | 1246.72 | 10.4 | 2.1 |
| FTSE Developed | 2148 | 735.66 | 0.5 | 1.9 | 10.7 | 1202.71 | 12.0 | 2.1 |
| FTSE Developed All Cap | 5775 | 763.59 | 0.5 | 2.0 | 10.3 | 1229.75 | 11.6 | 2.1 |
| FTSE Developed Large Cap | 815 | 697.23 | 0.6 | 2.2 | 12.1 | 1160.34 | 13.4 | 2.1 |
| FTSE Developed Europe Large Cap | 205 | 415.77 | 0.6 | -3.4 | 9.8 | 845.06 | 12.6 | 3.2 |
| FTSE Developed Europe Mid Cap | 346 | 616.22 | 0.5 | -3.6 | 8.8 | 1081.22 | 10.9 | 3.1 |
| FTSE Dev Europe Small Cap | 735 | 844.01 | 0.6 | -3.4 | 5.5 | 1425.32 | 7.7 | 3.2 |
| FTSE North America Large Cap | 234 | 933.24 | 0.7 | 3.9 | 13.6 | 1415.35 | 14.5 | 1.6 |
| FTSE North America Mid Cap | 413 | 1137.12 | 0.0 | 2.1 | 4.1 | 1596.12 | 4.9 | 1.7 |
| FTSE North America Small Cap | 1319 | 1139.97 | -0.3 | 4.9 | 7.4 | 1531.84 | 8.1 | 1.7 |
| FTSE North America | 647 | 603.01 | 0.6 | 3.6 | 11.7 | 935.13 | 12.6 | 1.6 |
| FTSE Developed ex North America | 1501 | 282.30 | 0.4 | -1.6 | 8.5 | 552.31 | 10.7 | 3.1 |
| FTSE Japan Large Cap | 175 | 414.48 | -0.1 | 4.1 | 11.7 | 617.93 | 13.1 | 2.3 |
| FTSE Japan Mid Cap | 339 | 558.36 | -0.2 | -0.5 | 5.5 | 791.58 | 6.9 | 2.5 |
| FTSE Global wi JAPAN Small Cap | 908 | 609.98 | -0.2 | -2.5 | 2.6 | 899.57 | 4.2 | 2.8 |
| FTSE Japan | 514 | 169.18 | -0.1 | 3.2 | 10.5 | 282.49 | 11.9 | 2.4 |
| FTSE Asia Pacific Large Cap ex Japan | 1123 | 685.65 | 0.0 | -0.8 | 2.1 | 1265.61 | 3.1 | 3.2 |
| FTSE Asia Pacific Mid Cap ex Japan | 839 | 991.35 | -0.4 | -1.3 | 3.0 | 1766.87 | 4.0 | 3.2 |
| FTSE Asia Pacific Small Cap ex Japan | 2090 | 560.21 | -0.5 | -0.2 | 4.9 | 967.26 | 5.7 | 2.8 |
| FTSE Asia Pacific Ex Japan | 1962 | 547.01 | 0.0 | -0.8 | 2.2 | 1073.26 | 3.2 | 3.2 |
| FTSE Emerging All Cap | 3715 | 722.19 | -0.2 | 0.0 | 2.5 | 1276.10 | 3.7 | 3.5 |
| FTSE Emerging Large Cap | 1121 | 663.27 | -0.1 | -0.2 | 2.0 | 1178.35 | 3.1 | 3.6 |
| FTSE Emerging Mid Cap | 895 | 1060.14 | -0.3 | -0.3 | 3.7 | 1890.29 | 5.2 | 3.6 |
| FTSE Emerging Small Cap | 1699 | 794.13 | -0.5 | 1.6 | 5.4 | 1340.68 | 6.5 | 3.2 |
| FTSE Emerging Europe | 147 | 127.99 | 0.4 | 1.7 | -0.4 | 274.36 | 1.8 | 3.0 |
| FTSE Latin America All Cap | 252 | 792.12 | -0.1 | 6.2 | 13.5 | 1626.91 | 16.8 | 8.8 |
| FTSE Middle East and Africa All Cap | 330 | 703.77 | 0.4 | -2.1 | -2.8 | 1319.47 | -0.7 | 3.6 |
| FTSE Global wi UNITED KINGDOM All Cap In | 280 | 334.43 | 0.3 | -3.0 | 6.4 | 699.03 | 8.6 | 3.7 |
| FTSE Global wi USA All Cap | 1790 | 1033.93 | 0.5 | 4.0 | 11.6 | 1511.06 | 12.4 | 1.6 |
| FTSE Europe All Cap | 1468 | 468.22 | 0.6 | -3.4 | 9.2 | 912.51 | 11.7 | 3.1 |
| FTSE Eurozone All Cap | 641 | 463.29 | 0.7 | -3.3 | 11.8 | 897.08 | 14.6 | 3.1 |
| FTSE EDHEC-Risk Efficient All-World | 4164 | 478.49 | 0.1 | -0.4 | 3.3 | 765.19 | 4.6 | 2.6 |
| FTSE EDHEC-Risk Efficient Developed Europe | 551 | 337.77 | 0.5 | -3.9 | 7.7 | 607.91 | 10.1 | 3.2 |
| Oil & Gas | 133 | 391.83 | 0.0 | -0.1 | -4.1 | 822.28 | -2.2 | 4.8 |
| Oil & Gas Producers | 88 | 392.69 | 0.0 | -0.3 | -3.6 | 847.40 | -1.6 | 5.0 |

| Jun 09 Sectors | No of stocks | US $ indices | Day % | Mth % | YTD % | Total retn | YTD % | Gr Div Yield |
|---|---|---|---|---|---|---|---|---|
| Oil Equipment & Services | 25 | 265.37 | 0.1 | 0.4 | -4.5 | 503.17 | -2.7 | 4.7 |
| Basic Materials | 405 | 601.13 | 0.3 | -2.8 | 0.6 | 1130.16 | 2.4 | 4.2 |
| Chemicals | 202 | 808.83 | -0.2 | -2.1 | 3.8 | 1456.94 | 5.3 | 3.1 |
| Forestry & Paper | 19 | 238.34 | 0.7 | -1.0 | -5.4 | 495.37 | -3.1 | 4.2 |
| Industrial Metals & Mining | 104 | 510.41 | 0.4 | -0.2 | 3.3 | 997.93 | 5.1 | 4.6 |
| Mining | 80 | 928.43 | 0.8 | -5.6 | -5.0 | 1854.72 | -2.8 | 5.6 |
| Industrials | 811 | 526.34 | 0.1 | 1.8 | 7.9 | 850.78 | 9.2 | 2.1 |
| Construction & Materials | 163 | 628.12 | 0.3 | 0.3 | 12.8 | 1072.37 | 14.2 | 2.1 |
| Aerospace & Defense | 36 | 941.59 | 0.9 | 2.5 | 4.1 | 1484.94 | 5.0 | 1.5 |
| General Industrials | 79 | 264.55 | 0.0 | 2.0 | 10.9 | 475.25 | 12.5 | 2.4 |
| Electronic & Electrical Equipment | 158 | 655.64 | -0.8 | 2.1 | 9.3 | 950.06 | 10.1 | 1.5 |
| Industrial Engineering | 159 | 1069.41 | 0.2 | 2.5 | 8.8 | 1724.02 | 10.1 | 2.0 |
| Industrial Transportation | 129 | 932.34 | 0.0 | -1.7 | 3.4 | 1547.62 | 5.1 | 3.6 |
| Support Services | 87 | 540.87 | 0.0 | 3.7 | 7.0 | 812.68 | 7.9 | 1.5 |
| Consumer Goods | 562 | 585.28 | 0.6 | -1.4 | 8.8 | 999.56 | 10.2 | 2.4 |
| Automobiles & Parts | 132 | 573.86 | 1.7 | 12.6 | 31.6 | 945.78 | 34.0 | 2.0 |
| Beverages | 71 | 776.77 | 0.5 | -5.9 | 0.2 | 1336.36 | 1.2 | 2.4 |
| Food Producers | 137 | 727.46 | 0.1 | -6.0 | 0.9 | 1276.07 | 2.5 | 2.5 |
| Household Goods & Home Construction | 61 | 558.24 | 0.5 | -4.3 | 3.9 | 954.17 | 5.3 | 2.6 |
| Leisure Goods | 54 | 263.22 | -0.6 | 3.8 | 14.6 | 375.28 | 15.4 | 1.1 |
| Personal Goods | 94 | 968.57 | 0.2 | -8.7 | 4.8 | 1507.31 | 5.7 | 1.8 |
| Tobacco | 13 | 925.72 | 0.2 | -4.3 | -7.2 | 2710.03 | -5.6 | 6.8 |
| Health Care | 337 | 721.74 | 0.6 | -3.1 | -0.9 | 1163.47 | 0.1 | 1.8 |
| Health Care Equipment & Services | 131 | 1363.12 | 0.2 | -3.3 | -1.2 | 1681.67 | -0.7 | 1.1 |
| Pharmaceuticals & Biotechnology | 206 | 491.19 | 0.8 | -2.9 | -0.8 | 854.57 | 0.6 | 2.3 |
| Consumer Services | 424 | 572.65 | 0.9 | 1.9 | 11.5 | 823.82 | 12.3 | 1.2 |
| Food & Drug Retailers | 69 | 301.17 | 0.4 | -2.4 | -4.2 | 485.66 | -3.0 | 2.5 |
| General Retailers | 139 | 999.71 | 1.1 | 3.7 | 12.3 | 1374.78 | 12.9 | 1.0 |
| Media | 75 | 337.45 | 0.8 | 2.0 | 16.5 | 488.64 | 17.2 | 1.3 |
| Travel & Leisure | 141 | 503.52 | 0.6 | -1.0 | 13.7 | 740.94 | 14.5 | 1.2 |
| Telecommunication | 83 | 127.76 | 0.1 | -5.3 | -0.7 | 308.19 | 1.3 | 4.4 |
| Fixed Line Telecommuniations | 29 | 100.75 | -0.2 | -5.5 | 0.1 | 280.32 | 2.4 | 5.2 |
| Mobile Telecommunications | 54 | 150.18 | 0.3 | -5.2 | -1.2 | 311.45 | 0.7 | 4.0 |
| Utilities | 201 | 317.96 | 0.5 | -3.4 | -1.3 | 759.33 | 0.5 | 3.5 |
| Electricity | 145 | 357.28 | 0.5 | -2.9 | -2.2 | 838.04 | -0.7 | 3.3 |
| Gas Water & Multiutilities | 56 | 319.41 | 0.5 | -4.6 | 1.1 | 794.42 | 3.5 | 3.9 |
| Financials | 853 | 260.96 | 0.1 | 0.1 | 0.6 | 511.93 | 2.4 | 3.4 |
| Banks | 271 | 195.33 | 0.4 | 0.6 | -1.4 | 430.17 | 1.0 | 4.5 |
| Nonlife Insurance | 72 | 370.52 | 0.1 | -2.2 | 1.3 | 633.12 | 3.5 | 3.0 |
| Life Insurance | 51 | 219.63 | 0.3 | -2.7 | -3.6 | 432.75 | -1.6 | 4.1 |
| Financial Services | 213 | 444.49 | 0.1 | 1.9 | 4.8 | 682.14 | 5.7 | 1.7 |
| Technology | 355 | 599.69 | 0.7 | 9.4 | 35.6 | 786.80 | 36.2 | 0.9 |
| Software & Computer Services | 180 | 894.93 | 0.5 | 8.2 | 32.0 | 1086.80 | 32.5 | 0.6 |
| Technology Hardware & Equipment | 175 | 538.17 | 1.0 | 10.8 | 39.5 | 760.97 | 40.2 | 1.2 |
| Alternative Energy | 20 | 159.36 | -0.9 | 2.2 | -12.9 | 229.15 | -12.7 | 0.4 |
| Real Estate Investment & Services | 139 | 241.81 | 0.1 | -2.3 | -3.7 | 478.69 | -2.2 | 3.2 |
| Real Estate Investment Trusts | 107 | 431.75 | -0.6 | -1.5 | -0.8 | 1031.47 | 0.6 | 4.1 |
| FTSE Global Large Cap | 1936 | 674.75 | 0.5 | 2.0 | 11.0 | 1129.56 | 12.3 | 2.2 |

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see www.ftse.com/geis. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

## FTSE 100 SUMMARY

| FTSE 100 | Closing Price | Week's Change |
|---|---|---|
| 3I Group PLC | 1991.5 | 31.50 |
| Abrdn PLC | 214.30 | 10.80 |
| Admiral Group PLC | 2294 | -80.00 |
| Airtel Africa PLC | 128.10 | 5.40 |
| Anglo American PLC | 2457 | 39.00 |
| Antofagasta PLC | 1467.5 | 11.00 |
| Ashtead Group PLC | 5368 | 256.00 |
| Associated British Foods PLC | 1859.5 | -10.00 |
| Astrazeneca PLC | 11712 | -36.00 |
| Auto Trader Group PLC | 617.80 | 0.80 |
| Aviva PLC | 400.90 | -8.20 |
| B&M European Value Retail S.A. | 533.20 | -6.60 |
| Bae Systems PLC | 940.00 | -2.40 |
| Barclays PLC | 156.34 | -0.42 |
| Barratt Developments PLC | 462.90 | -18.90 |
| Beazley PLC | 578.00 | -42.50 |
| Berkeley Group Holdings (The) PLC | 3977 | -67.00 |
| BP PLC | 468.90 | -5.45 |
| British American Tobacco PLC | 2590.5 | 20.00 |
| British Land Company PLC | 347.00 | -8.30 |
| Bt Group PLC | 147.00 | 3.35 |
| Bunzl PLC | 3070 | -86.00 |
| Burberry Group PLC | 2225 | 39.00 |
| Centrica PLC | 116.90 | -3.55 |
| Coca-Cola Hbc AG | 2338 | -51.00 |
| Compass Group PLC | 2172 | -35.00 |
| Convatec Group PLC | 203.20 | -5.40 |
| Crh PLC | 3862 | -49.00 |
| Croda International PLC | 5274 | -956.00 |
| Dcc PLC | 4733 | -19.00 |
| Diageo PLC | 3320.5 | -52.00 |
| Endeavour Mining PLC | 2024 | -154.00 |
| Entain PLC | 1296 | -32.00 |
| Experian PLC | 2868 | -30.00 |
| F&C Investment Trust PLC | 896.00 | -10.00 |
| Flutter Entertainment PLC | 15240 | -645.00 |
| Frasers Group PLC | 684.50 | -15.50 |
| Fresnillo PLC | 677.20 | -14.60 |
| Glaxosmithkline PLC | 1378 | 10.40 |
| Glencore PLC | 435.00 | 1.10 |
| Haleon PLC | 320.85 | -6.35 |
| Halma PLC | 2415 | -47.00 |
| Hargreaves Lansdown PLC | 861.60 | 44.40 |
| Hiscox LTD | 1130 | -39.00 |
| HSBC Holdings PLC | 607.50 | 4.80 |
| Imperial Brands PLC | 1725 | -6.00 |
| Informa PLC | 707.20 | 2.40 |
| Intercontinental Hotels Group PLC | 5442 | 40.00 |
| International Consolidated Airlines Group S.A. | 159.80 | 1.90 |
| Intertek Group PLC | 4287 | 19.00 |
| Jd Sports Fashion PLC | 148.65 | -8.25 |
| Johnson Matthey PLC | 1736 | -68.50 |
| Kingfisher PLC | 237.70 | -1.20 |
| Land Securities Group PLC | 613.60 | -12.00 |
| Legal & General Group PLC | 239.40 | 3.40 |
| Lloyds Banking Group PLC | 45.27 | -0.18 |
| London Stock Exchange Group PLC | 8650 | 156.00 |
| M&G PLC | 201.70 | -2.30 |
| Melrose Industries PLC | 523.80 | 31.10 |
| Mondi PLC | 1243 | -48.00 |
| National Grid PLC | 1054.5 | -0.50 |
| Natwest Group PLC | 261.00 | -4.00 |
| Next PLC | 6434 | -68.00 |
| Ocado Group PLC | 386.60 | 28.40 |
| Pearson PLC | 819.40 | -1.20 |
| Pershing Square Holdings LTD | 2786 | -4.00 |
| Persimmon PLC | 1213 | -39.50 |
| Phoenix Group Holdings PLC | 558.80 | -8.20 |
| Prudential PLC | 1114 | -39.00 |
| Reckitt Benckiser Group PLC | 6034 | -274.00 |
| Relx PLC | 2531 | -35.00 |
| Rentokil Initial PLC | 643.40 | -4.80 |
| Rightmove PLC | 521.80 | -15.00 |
| Rio Tinto PLC | 5125 | 55.00 |
| Rolls-Royce Holdings PLC | 149.25 | -0.75 |
| Rs Group PLC | 800.00 | 1.00 |
| Sage Group PLC | 859.60 | -12.60 |
| Sainsbury (J) PLC | 267.00 | -11.50 |
| Schroders PLC | 458.90 | -4.40 |
| Scottish Mortgage Investment Trust PLC | 686.60 | -11.00 |
| Segro PLC | 800.60 | -27.00 |
| Severn Trent PLC | 2749 | 43.00 |
| Shell PLC | 2294.5 | 4.50 |
| Smith & Nephew PLC | 1194 | -15.00 |
| Smith (Ds) PLC | 310.90 | -4.70 |
| Smiths Group PLC | 1659.5 | 40.50 |
| Smurfit Kappa Group PLC | 2890 | -80.00 |
| Spirax-Sarco Engineering PLC | 11190 | 10.00 |
| Sse PLC | 1843 | -25.00 |
| St. James's Place PLC | 1160 | 6.50 |
| Standard Chartered PLC | 660.80 | -3.20 |
| Taylor Wimpey PLC | 113.90 | -4.15 |
| Tesco PLC | 261.90 | -0.50 |
| Unilever PLC | 3970 | -86.50 |
| Unite Group PLC | 923.00 | 7.50 |
| United Utilities Group PLC | 1055.5 | 19.00 |
| Vodafone Group PLC | 74.88 | -0.75 |
| Weir Group PLC | 1794.5 | 12.00 |
| Whitbread PLC | 3372 | -2.00 |
| Wpp PLC | 862.20 | -16.80 |

## UK STOCK MARKET TRADING DATA

| | Jun 09 | Jun 08 | Jun 07 | Jun 06 | Jun 05 | Yr Ago |
|---|---|---|---|---|---|---|
| Order Book Turnover (m) | 142.60 | 46.25 | 160.98 | 177.63 | 131.54 | 131.54 |
| Order Book Bargains | 488528.00 | 461255.00 | 482800.00 | 488711.00 | 531888.00 | 531888.00 |
| Order Book Shares Traded (m) | 2702.00 | 1557.00 | 1634.00 | 1561.00 | 1648.00 | 1648.00 |
| Total Equity Turnover (£m) | 4732.67 | 5907.60 | 6576.15 | 5739.34 | 7432.78 | 7432.78 |
| Total Mkt Bargains | 663206.00 | 643013.00 | 655769.00 | 664075.00 | 720864.00 | 720864.00 |
| Total Shares Traded (m) | 6775.00 | 5142.00 | 6087.00 | 4865.00 | 4806.00 | 4806.00 |

† 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Barings Emerging EMEA Opportunities | Int | | | 1.619L | 24.167L | 14.070L | 204.220L | 6.00000 | 6.00000 | Jul 28 | 6.000 | 17.000 |
| Dukemount Capital | Pre | 0.000 | 3.297 | 1.127L | 0.914L | 0.220L | 0.200L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| JPMorgan Indian Investment Trust | Int | | | 66.148L | 19.956L | 90.050L | 20.710L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| Katoro Gold | Pre | 0.000 | 0.000 | 1.250L | 1.142L | 0.230L | 0.270L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| KEFI Gold and Copper | Pre | 0.000 | 0.000 | 6.355L | 4.924L | 0.180L | 0.226L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| Renalytix | 3rd | 2.885 | 2.139 | 34.505L | 40.123L | 0.440L | 0.560L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| Renalytix | Pre | 2.885 | 2.139 | 34.505L | 40.123L | 0.440L | 0.560L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| Safestay | Pre | 19.146 | 5.810 | 0.723L | 6.107L | 0.440L | 0.930L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |
| Versarien | Int | 2.621 | 3.892 | 3.400L | 2.164L | 1.550L | 1.060L | 0.00000 | 0.00000 | - | 0.000 | 0.000 |

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) |
|---|---|---|---|---|---|---|---|---|---|
| 06/08 | 81.00 | | AMIF | Amicorp FS (UK) Plc | 1.50 | - | 0.00 | 0.00 | 0.0 |
| 06/06 | 3.00 | | ASHI | Ashington Innovation PLC | 3.50 | -0.25 | 4.75 | 4.00 | 0.0 |
| 06/05 | 1.00 | | TAB | Becket Invest PLC | 1.13 | - | 0.00 | 0.00 | 0.0 |
| 05/25 | 5.00 | | ONE | Oneiro Energy PLC | 8.00 | 0.90 | 8.40 | 5.98 | 356.2 |
| 05/17 | 10.00 | | ADMR | Admiral Acquisition UK Ltd | 9.80 | 0.16 | 10.10 | 9.00 | 529.0 |
| 05/10 | 8.50 | AIM | GMET | Golden Metal Resources PLC | 8.13 | 0.50 | 8.80 | 6.20 | 684.1 |
| 05/03 | 100.00 | | AWEM | Ashoka WhiteOak Emerging Markets Trust plc | 102.25 | 0.03 | 110.91 | 98.50 | 0.0 |

§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

| | | | 52 Week | | | | |
|---|---|---|---|---|---|---|---|
| Stock | Price | +/-Week | High | Low | Yld | P/E | MCap m |
| **Australia (A$)** | | | | | | | |
| ANZ Bank | 22.85 | 0.12 | 26.08 | 20.78 | 6.61 | 9.56 | 46282 |
| BHP Group | 44.72 | 2.65 | 50.09 | 35.83 | 9.20 | 10.48 | 152780.89 |
| CmwBkAu | 95.80 | -1.00 | 111.38 | 86.98 | 3.66 | 17.98 | 108897.16 |
| CSL | 305.30 | -4.99 | 314.21 | 254.30 | 0.99 | 43.64 | 99317.06 |
| NatAusBk | 25.20 | -0.84 | 32.83 | 25.10 | 3.57 | 13.40 | 53342.85 |
| Telstra | 4.31 | -0.08 | 4.43 | 3.62 | 2.32 | 35.00 | 33584.79 |
| Wesfarmers | 47.58 | -0.35 | 52.79 | 40.03 | 3.75 | 24.42 | 36387.48 |
| Westpac Bank | 20.25 | -0.35 | 24.50 | 18.80 | 4.39 | 14.70 | 47922.06 |
| Woolworths | 37.57 | -0.52 | 39.88 | 31.67 | 2.88 | 42.77 | 30878.49 |
| **Belgium (€)** | | | | | | | |
| AnBshInBv | 51.17 | 0.26 | 62.01 | 45.56 | 1.02 | 25.99 | 95621.22 |
| KBC Grp | 62.44 | -0.32 | 72.46 | 45.53 | 5.41 | 10.34 | 28019.81 |
| **Brazil (R$)** | | | | | | | |
| Ambev | 15.01 | 0.55 | 16.88 | 12.60 | 3.69 | 23.09 | 48479.27 |
| Bradesco | 14.64 | 1.26 | 17.71 | 11.15 | 5.56 | 6.90 | 15998.64 |
| Cielo | 4.72 | 0.01 | 6.22 | 3.66 | 3.03 | 16.27 | 2629.01 |
| ItauHldFin | 23.58 | 0.69 | 26.04 | 18.86 | 3.22 | 9.51 | 23969.86 |
| Petrobras | 33.33 | 2.91 | 42.08 | 23.61 | 14.12 | 4.84 | 50855.85 |
| Vale | 69.54 | 1.60 | 94.48 | 61.90 | 18.32 | 3.16 | 64712.04 |
| **Canada (C$)** | | | | | | | |
| Bausch Hlth | 9.49 | -1.57 | 13.81 | 5.10 | - | -2.91 | 2578.85 |
| BCE | 61.26 | -0.12 | 68.49 | 55.66 | 5.59 | 20.92 | 41962.78 |
| BkMontrl | 116.31 | -0.34 | 137.64 | 111.88 | 3.81 | 9.13 | 62292.39 |
| BkNvaS | 66.15 | -0.56 | 84.41 | 63.19 | 5.49 | 8.44 | 59519.57 |
| Brookfield | 58.88 | 10.36 | 63.88 | 41.28 | 1.09 | 19.91 | 69948.82 |
| CanadPcR | 102.28 | -3.38 | 112.27 | 86.42 | 0.73 | 24.99 | 71511.85 |
| CanImp | 57.02 | -0.34 | 70.03 | 53.58 | 10.31 | 4.03 | 39296.3 |
| CanNatRs | 75.52 | 0.25 | 85.81 | 58.75 | 2.59 | 11.94 | 62182.35 |
| CanNatRy | 152.44 | -5.54 | 175.39 | 137.26 | 1.58 | 22.59 | 75932.22 |
| Enbridge | 50.51 | 0.25 | 59.21 | 47.66 | 6.48 | 17.97 | 76796.77 |
| GtWesLif | 38.13 | -0.69 | 39.88 | 27.99 | 4.96 | 10.93 | 26663.39 |
| ImpOil | 66.91 | 2.47 | 79.83 | 52.67 | 1.51 | 19.64 | 29351.3 |
| Manulife | 25.69 | -0.19 | 27.50 | 20.81 | 4.46 | 7.41 | 35610.57 |
| Nutrien | 78.21 | 4.61 | 132.75 | 70.69 | 2.91 | 11.46 | 29136.09 |
| RylBkC | 123.31 | -0.75 | 140.18 | 116.75 | 3.54 | 11.17 | 128777.89 |
| SHOP | 81.83 | 3.58 | 87.53 | 33.00 | - | 2.89 | 73571.84 |
| Suncor En | 40.50 | 1.25 | 53.62 | 36.39 | 2.54 | 14.93 | 39899.24 |
| ThmReut | 163.87 | -2.05 | 180.93 | 121.67 | 1.22 | 11.52 | 57956.89 |
| TntoDom | 78.75 | -0.15 | 94.81 | 76.32 | 4.06 | 10.06 | 108780.55 |
| TrnCan | 55.15 | -0.08 | 73.82 | 50.70 | 6.18 | 30.28 | 42635.35 |
| **China (HK$)** | | | | | | | |
| AgricBkCh | 3.10 | 0.17 | 3.28 | 2.20 | 7.12 | 3.92 | 12155.36 |
| Bk China | 3.19 | 0.14 | 3.45 | 2.51 | 7.22 | 3.80 | 34027.58 |
| BkofComm | 5.31 | 0.30 | 5.65 | 3.83 | 6.82 | 4.23 | 23714.94 |
| BOE Tech | 0.66 | 0.00 | 0.85 | 0.53 | - | 10.25 | 16.75 |
| Ch Coms Cons | 4.90 | 0.29 | 5.52 | 3.09 | 4.30 | 3.91 | 2761.72 |
| Ch Evrbrght | 2.50 | 0.10 | 2.78 | 2.03 | 9.92 | 3.26 | 4043.25 |
| Ch Rail Cons | 6.21 | 0.17 | 7.46 | 3.75 | 4.37 | 3.18 | 1644.74 |
| Ch Rail Gp | 5.33 | 0.09 | 6.30 | 3.41 | 3.99 | 4.13 | 2860.56 |
| ChConstBk | 5.14 | 0.17 | 5.70 | 4.10 | 7.48 | 3.60 | 157632.02 |
| China Vanke | 11.16 | 1.00 | 19.90 | 9.87 | 13.21 | 4.84 | 3141.13 |
| ChinaCitic | 4.35 | 0.22 | 4.74 | 2.92 | 6.68 | 3.89 | 8257.96 |
| ChinaLife | 13.54 | 0.50 | 15.84 | 8.53 | 5.22 | 5.70 | 12852.1 |
| ChinaMBank | 37.85 | 2.30 | 53.00 | 25.40 | 3.91 | 6.72 | 22165.51 |
| ChinaMob | 65.15 | 1.90 | 70.20 | 46.80 | 5.12 | 9.68 | 170042.85 |
| ChinaPcIns | 21.10 | 1.52 | 26.50 | 12.10 | 6.44 | 6.62 | 7469.78 |
| ChMinsheng | 3.19 | 0.15 | 3.52 | 2.19 | 7.98 | 3.97 | 3385.69 |
| ChMrchSecs | 13.88 | 0.03 | 15.98 | 12.12 | 3.38 | 11.55 | 14459.77 |
| Chna Utd Coms | 5.31 | 0.29 | 6.45 | 3.30 | 2.26 | 24.83 | 23079.63 |
| ChShenEgy | 26.05 | 1.60 | 28.70 | 20.50 | 8.14 | 7.61 | 11223.17 |
| ChShpbldng | 4.52 | -0.22 | 5.32 | 3.37 | - | -313.23 | 14010.85 |
| ChStConEng | 6.18 | 0.17 | 7.35 | 4.68 | 3.73 | 4.46 | 35842.96 |
| ChUncHK | 5.97 | 0.16 | 6.58 | 3.27 | 2.73 | 12.66 | 23301.39 |
| CNNC Intl | 6.88 | -0.12 | 7.33 | 5.78 | 1.94 | 16.76 | 18222.64 |
| CSR | 4.88 | 0.11 | 5.26 | 2.37 | 4.39 | 12.91 | 2720.94 |
| Daqin | 7.74 | 0.18 | 8.21 | 5.95 | 6.66 | 10.93 | 16453.04 |
| GuosenSec | 9.14 | -0.04 | 10.55 | 8.43 | 2.70 | 9.79 | 11324.49 |
| HaitongSecs | 5.27 | 0.16 | 6.01 | 3.77 | 5.65 | 5.51 | 2292.05 |
| Hngzh HikVDT | 32.36 | -3.54 | 48.84 | 26.80 | 2.65 | 16.58 | 41373.29 |
| Hunng Pwr | 4.95 | -0.01 | 5.28 | 2.62 | 4.13 | -5.35 | 2967.92 |
| IM Baotou Stl | 1.82 | -0.02 | 2.71 | 1.75 | - | 28.88 | 8046.25 |
| In&CmBkCh | 4.34 | 0.21 | 4.73 | 3.37 | 7.25 | 3.83 | 48050.05 |
| IndstrlBk | 17.10 | 0.55 | 21.00 | 14.91 | 4.87 | 4.37 | 49862.39 |
| Kweichow | 1666 | 30.08 | 2077 | 1333 | 1.24 | 34.98 | 293754.68 |
| Midea | 0.36 | -0.02 | 0.49 | 0.32 | - | -3.76 | 13.82 |
| New Ch Life Ins | 21.45 | 1.45 | 25.00 | 12.04 | 7.40 | 3.92 | 2829.48 |
| PetroChina | 5.77 | 0.59 | 5.79 | 2.95 | 4.29 | 11.20 | 15529.21 |
| PingAnIns | 53.45 | 4.15 | 63.10 | 31.30 | 4.86 | 8.18 | 50778.18 |
| PngAnBnk | 11.88 | 0.29 | 15.27 | 10.22 | 1.57 | 6.61 | 32358.94 |
| Pwr Cons Corp | 5.75 | -0.62 | 8.45 | 5.61 | 1.66 | 11.14 | 8871.05 |
| SaicMtr | 13.80 | 0.31 | 19.29 | 13.09 | 4.62 | 6.44 | 22630.98 |
| ShenwanHong | 0.13 | 0.01 | 0.18 | 0.07 | - | 3.56 | 140.41 |
| ShgPdgBk | 7.56 | 0.28 | 8.22 | 6.63 | 6.53 | 4.51 | 31146.77 |
| Sinopec Corp | 5.17 | 0.22 | 5.47 | 3.06 | 2.79 | 6.00 | 16342.78 |
| Sinopec Oil | 2.02 | -0.06 | 2.39 | 1.81 | - | 626.03 | 3847.33 |
| **Denmark (kr)** | | | | | | | |
| DanskeBk | 160.65 | 12.35 | 165.35 | 86.90 | 1.22 | 11.18 | 19994.08 |
| MollerMrsk | 12315 | 45.00 | 22650 | 11100 | 2.72 | 2.04 | 14884.07 |
| NovoB | 1091.6 | 10.60 | 1185.6 | 730.60 | 0.84 | 53.50 | 270643 |
| **Finland (€)** | | | | | | | |
| Nokia | 3.78 | -0.05 | 5.20 | 3.66 | - | 13.28 | 22904.7 |
| SampoA | 43.11 | -0.47 | 49.97 | 39.86 | 3.90 | 9.34 | 23695.72 |
| **France (€)** | | | | | | | |
| Airbus Grpe | 128.42 | 0.04 | 131.22 | 86.52 | - | 23.97 | 109186.02 |
| AirLiquide | 156.60 | -2.78 | 164.52 | 114.48 | 1.72 | 29.42 | 88213.99 |
| AXA | 26.52 | -0.74 | 30.34 | 20.34 | 5.29 | 9.09 | 65441.69 |
| BNP Parib | 56.07 | -0.41 | 67.02 | 40.67 | 4.69 | 8.22 | 74447.87 |
| ChristianDior | 778.50 | -13.50 | 872.00 | 525.00 | 0.88 | 28.93 | 151162.4 |
| Cred Agr | 10.83 | -0.12 | 12.03 | 8.09 | 7.25 | 6.02 | 35257.66 |
| Danone | 53.62 | -2.44 | 61.88 | 46.76 | 3.55 | 18.57 | 39072.81 |
| EDF | 12.00 | 0.00 | 12.05 | 7.27 | 3.97 | 9.44 | 53889.44 |
| Engie SA | 14.23 | 0.12 | 15.56 | 10.07 | 3.66 | 10.20 | 37272.06 |
| EssilorLuxottica | 167.82 | -3.50 | 188.40 | 132.70 | 0.63 | 52.11 | 80818.22 |
| Hermes Intl | 1916.4 | -40.80 | 2036 | 957.60 | 0.23 | 83.76 | 217627.68 |
| LOreal | 402.20 | -5.60 | 442.60 | 300.45 | 0.98 | 49.89 | 231881.88 |
| LVMH | 820.00 | -10.90 | 904.60 | 535.00 | 0.84 | 34.96 | 442842.51 |
| Orange | 10.53 | -0.50 | 11.87 | 9.08 | 5.60 | 3558.09 | 30124.98 |
| PernodRic | 198.90 | -5.40 | 218.00 | 166.60 | 1.54 | 30.58 | 55189.41 |
| Renault | 33.09 | -0.01 | 43.96 | 22.33 | - | -25.16 | 10524.59 |
| Safran | 136.64 | -2.40 | 145.52 | 87.85 | 0.31 | 1391.54 | 62800.13 |
| Sanofi | 95.40 | 0.42 | 105.18 | 76.45 | 3.29 | 19.64 | 129546.51 |
| Sant Gbn | 55.82 | 1.15 | 58.53 | 35.18 | 2.39 | 13.59 | 30970.87 |
| Schneider | 163.94 | -1.68 | 166.96 | 110.02 | 1.56 | 29.45 | 100712.08 |
| SocGen | 23.33 | 0.72 | 28.39 | 18.97 | 2.33 | 4.01 | 20278.47 |
| Total | 54.95 | -0.23 | 60.93 | 45.81 | 4.83 | 10.75 | 147198.24 |
| UnibailR | 49.68 | 0.09 | 73.09 | 39.68 | - | -7.44 | 7615.7 |
| Vinci | 106.70 | -0.88 | 112.40 | 80.84 | 2.48 | 24.09 | 68456.55 |
| Vivendi | 8.14 | -0.24 | 11.05 | 7.59 | 7.24 | -14.80 | 9656.96 |
| **Germany (€)** | | | | | | | |
| Allianz | 207.95 | -2.20 | 228.40 | 156.22 | 4.53 | 13.38 | 90217.77 |
| BASF | 46.03 | -0.77 | 53.77 | 37.90 | 7.04 | 7.76 | 44253.81 |
| Bayer | 51.15 | -1.46 | 66.21 | 46.70 | 3.84 | 51.07 | 54054.83 |
| BMW | 108.08 | 1.92 | 109.84 | 68.44 | 1.73 | 5.86 | 69988.75 |
| Continental | 68.88 | 2.20 | 79.24 | 44.31 | - | 10.81 | 14819.24 |
| Deut Bank | 9.84 | -0.02 | 12.09 | 7.25 | - | 9.86 | 21602.26 |
| Deut Tlkm | 19.05 | -0.09 | 23.13 | 17.35 | 3.09 | 22.29 | 102161.17 |
| DeutsPost | 41.80 | -1.08 | 44.64 | 29.68 | 3.25 | 10.77 | 55713.23 |
| E.ON | 11.40 | 0.08 | 12.29 | 7.28 | 4.05 | 6.45 | 32390.33 |
| Fresenius Med | 42.34 | 1.76 | 52.90 | 25.95 | 3.11 | 13.03 | 13363.52 |
| Fresenius SE | 25.83 | -0.40 | 31.17 | 19.69 | 3.42 | 8.32 | 15518.12 |
| HenkelKgaA | 66.38 | -1.32 | 70.10 | 56.55 | 2.71 | 17.98 | 18550.66 |
| Linde | 334.80 | -0.40 | 345.00 | 261.20 | 1.09 | 52.97 | 176591.64 |
| Mercedes-Benz | 72.60 | 0.36 | 75.92 | 50.19 | 1.83 | 7.39 | 83549.59 |
| MuenchRkv | 323.40 | -19.20 | 346.90 | 212.70 | 2.98 | 15.74 | 47474.59 |
| SAP | 123.20 | -1.16 | 125.10 | 79.58 | 1.47 | 28.13 | 162808.56 |
| Siemens | 158.14 | -1.14 | 161.02 | 93.67 | 2.17 | 24.22 | 136088.55 |
| Volkswgn | 155.90 | 5.75 | 212.70 | 138.70 | 3.02 | 5.37 | 49486.9 |
| **Hong Kong (HK$)** | | | | | | | |
| AIA | 80.75 | 5.55 | 93.65 | 57.25 | 1.54 | 19.84 | 119689.33 |
| BOC Hold | 24.45 | 1.40 | 31.85 | 23.05 | 4.74 | 12.05 | 32974.81 |
| Ch OSLnd&Inv | 17.70 | 2.00 | 25.60 | 14.40 | 6.34 | 4.22 | 24711.47 |
| ChngKng | 45.15 | 1.40 | 57.00 | 42.00 | 3.66 | 9.92 | 20691.38 |
| Citic Ltd | 9.90 | 0.85 | 10.86 | 7.01 | 5.08 | 4.40 | 36736.35 |
| Citic Secs | 15.08 | 0.44 | 18.52 | 11.60 | 2.96 | 7.46 | 5039.98 |
| CK Hutchison | 49.30 | 2.65 | 54.55 | 38.55 | 4.32 | 6.00 | 24086.04 |
| CNOOC | 11.88 | 0.06 | 13.36 | 9.22 | 3.56 | 9.96 | 67552.07 |
| HangSeng | 112.80 | 8.20 | 141.40 | 103.80 | 5.05 | 17.43 | 27509.05 |
| HK Exc&Clr | 308.80 | 17.80 | 404.20 | 208.20 | 2.77 | 33.43 | 49940.76 |
| MTR | 37.05 | 1.30 | 42.75 | 33.15 | 3.10 | 25.76 | 29311.56 |
| SandsCh | 27.30 | 2.50 | 30.20 | 12.50 | - | -28.95 | 28184.13 |
| SHK Props | 102.70 | 3.90 | 114.80 | 83.10 | 4.50 | 11.27 | 37962.11 |
| Tencent | 336.00 | 20.60 | 397.60 | 188.69 | 0.45 | 12.70 | 410953.32 |
| **India (Rs)** | | | | | | | |
| Bhartiartl | 833.50 | 5.55 | 888.75 | 628.75 | - | 172.93 | 60325.93 |
| HDFC Bk | 1610.6 | 6.60 | 1734.45 | 1271.6 | - | 26.54 | 109167.58 |
| Hind Unilevr | 2636.2 | -61.70 | 2741.6 | 2100 | 1.25 | 68.63 | 75113.99 |
| HsngDevFin | 2652.9 | 6.20 | 2867 | 2026 | 0.89 | 21.94 | 59345.01 |
| ICICI Bk | 938.05 | 1.95 | 958.85 | 669.95 | 0.22 | 28.92 | 79547.46 |
| Infosys | 1265.95 | -53.55 | 1672.6 | 1185.3 | 2.47 | 24.31 | 63709.13 |
| ITC | 438.45 | -1.25 | 452.00 | 258.55 | 2.53 | 35.40 | 66080.27 |
| L&T | 2363 | 155.20 | 2416.35 | 1456.35 | 0.78 | 38.09 | 40275.09 |
| OilNatGas | 154.25 | 0.60 | 169.00 | 119.85 | 6.08 | 4.24 | 23532.42 |
| RelianceIn | 2481.95 | 18.70 | 2789.9 | 2180 | 0.29 | 27.60 | 203648.92 |
| SBI NewA | 578.70 | -4.05 | 629.55 | 430.70 | 0.71 | 15.68 | 62631.5 |
| SunPhrmInds | 983.95 | -3.75 | 1070.95 | 789.90 | 0.79 | 35.63 | 28629.53 |
| Tata Cons | 3209.3 | -114.70 | 3575 | 2926.1 | 1.17 | 29.79 | 142406.22 |
| **Israel (ILS)** | | | | | | | |
| TevaPha | 26.92 | -0.77 | 38.39 | 23.83 | - | 21.08 | 8257.25 |
| **Italy (€)** | | | | | | | |
| Enel | 6.07 | 0.03 | 6.26 | 3.96 | 5.93 | 28.77 | 66415.97 |
| ENI | 12.98 | -0.16 | 14.98 | 10.45 | 5.10 | 5.57 | 47151.22 |
| Generali | 18.30 | 0.16 | 19.23 | 13.67 | 7.89 | 10.47 | 30694.85 |
| IntSPaolo | 2.31 | 0.04 | 2.60 | 1.58 | 1.55 | 72.90 | 45420.32 |
| Unicred | 18.35 | -0.51 | 20.05 | 8.24 | 0.64 | 27.75 | 38309.09 |
| **Japan (¥)** | | | | | | | |
| AstellasPh | 2259.5 | 23.50 | 2360.5 | 1823.5 | 2.29 | 30.99 | 29337.64 |
| Bridgestne | 5857 | 251.00 | 5915 | 4548 | 3.18 | 12.14 | 29991.97 |
| Canon | 3576 | 76.00 | 3608 | 2754.5 | 3.07 | 15.76 | 34220.9 |
| CntJpRwy | 17525 | 560.00 | 17920 | 14730 | 0.83 | -29.94 | 25902.42 |
| Denso | 9152 | 489.00 | 9288 | 6389 | 1.72 | 22.85 | 51740.07 |
| EastJpRwy | 7887 | 194.00 | 8325 | 6525 | 1.43 | -7.21 | 21386.57 |
| Fanuc | 5051 | 309.00 | 24930 | 4409 | 10.06 | 5.47 | 36351.76 |
| FastRetail | 35280 | 2550 | 35430 | 21903.33 | 1.67 | 15.09 | 80551.29 |
| Fuji Hvy Ind | 2566.5 | 178.00 | 2684 | 1938.5 | 2.45 | 26.87 | 14163.87 |
| Hitachi | 8666 | 629.00 | 8719 | 5983 | 1.49 | 11.57 | 58337.57 |
| HondaMtr | 4249 | 271.00 | 4297 | 2990.5 | 3.41 | 8.19 | 55223.39 |
| JapanTob | 3141 | 80.00 | 3153 | 2275.5 | 4.89 | 14.57 | 45072.64 |
| KDDI | 4472 | 128.00 | 4560 | 3825 | 3.02 | 13.65 | 73885.06 |
| Keyence | 68410 | -20.00 | 71890 | 44880 | 0.33 | 52.09 | 119374.62 |
| MitsbCp | 6285 | 508.00 | 6300 | 3740 | 2.47 | 12.78 | 64822.6 |
| MitsubEst | 1011.37 | 3.59 | 1036.81 | 876.51 | - | - | - |
| MitsubishiEle | 1982 | 133.50 | 1993 | 1273 | 2.27 | 16.14 | 30534.56 |
| MitsuiFud | 980.66 | 30.00 | 1023.66 | 684.38 | - | - | - |
| MitUFJFin | 967.90 | 4.00 | 999.50 | 632.60 | 3.02 | 8.94 | 88110.7 |
| Mizuho Fin | 2124 | 51.00 | 2238 | 1486.5 | 4.13 | 9.25 | 38696.8 |
| Murata Mfg | 8448 | 226.00 | 8620 | 6438 | 1.60 | 15.45 | 40962.01 |
| Nippon TT | 4133 | 142.00 | 4334 | 3674 | 2.86 | 11.85 | 107406.48 |
| Nissan Mt | 525.10 | 5.90 | 570.00 | 408.10 | - | 15.19 | 15901.67 |
| Nomura | 518.60 | 25.30 | 573.90 | 464.30 | 4.99 | -31.77 | 11771.3 |
| Nppn Stl | 2895 | 138.50 | 3294 | 1838 | 3.11 | 4.07 | 19739.41 |
| Panasonic | 1624 | 160.50 | 1650 | 1006.5 | 1.73 | 14.63 | 28594.72 |
| Seven & I | 6128 | 180.00 | 6619 | 5041 | 1.89 | 20.77 | 38974.82 |
| ShnEtsuCh | 4525 | 219.00 | 21055 | 3797 | 7.20 | 3.86 | 65715.93 |
| Softbank | 5901 | 176.00 | 7180 | 4708 | 0.84 | 4.52 | 62238.14 |
| Sony | 13665 | 255.00 | 14025 | 9213 | 0.49 | 15.54 | 123642.56 |
| SumitomoF | 5759 | 47.00 | 6261 | 3907 | 3.90 | 9.98 | 56802.49 |
| Takeda Ph | 4537 | 120.00 | 4629 | 3497 | 4.46 | 14.50 | 51508.03 |
| TokioMarine | 3221 | 132.00 | 3330 | 2417.67 | 7.68 | 4.66 | 46278.4 |
| Toyota | 2051.5 | 108.50 | 2232 | 1764 | 2.79 | 8.24 | 240144.87 |
| **Mexico (Mex$)** | | | | | | | |
| AmerMvl | 19.73 | 0.57 | 20.25 | 15.67 | 1.56 | 16.94 | 48044.24 |
| FEMSA UBD | 185.24 | 5.55 | 186.34 | 120.63 | 1.03 | 160.77 | 23101.46 |
| WalMrtMex | 68.47 | 1.24 | 79.15 | 64.81 | 0.69 | 36.22 | 68991.22 |
| **Netherlands (€)** | | | | | | | |
| ASML Hld | 666.60 | -8.00 | 698.10 | 375.75 | 0.50 | 52.41 | 289074.09 |
| Heineken | 93.10 | -1.22 | 106.30 | 78.28 | 1.03 | 16.43 | 57685.15 |
| ING | 12.08 | 0.11 | 13.55 | 8.43 | 4.88 | 10.01 | 47049.02 |
| Unilever | 46.38 | -0.82 | 50.93 | 41.24 | 3.09 | 23.81 | 146836.59 |
| **Norway (Kr)** | | | | | | | |
| DNB | 194.20 | 3.65 | 209.50 | 168.20 | 10.14 | 10.96 | 28182.7 |
| Equinor | 313.65 | 18.90 | 410.95 | 278.70 | 1.78 | 11.95 | 92692.13 |
| Telenor | 109.70 | -3.20 | 135.80 | 87.60 | 9.29 | 16.37 | 14287.49 |
| **Qatar (QR)** | | | | | | | |
| QatarNtBk | 16.10 | 0.09 | 23.00 | 14.31 | 3.25 | 12.53 | 40853.46 |
| **Saudi Arabia (SR)** | | | | | | | |
| AlRajhiBnk | 73.10 | 2.40 | 7317 | 0.00 | 3.02 | 13.48 | 77971.24 |
| Natnlcombnk | 37.85 | 0.95 | 1552.5 | 0.00 | 3.52 | 13.82 | 60558.36 |
| SaudiBasic | 89.20 | 1.00 | 2115 | 0.00 | 3.35 | 12.62 | 71358.09 |
| SaudiTelec | 43.00 | -0.25 | 8480 | 0.00 | 8.55 | 8.27 | 57331.8 |
| **Singapore (S$)** | | | | | | | |
| DBS | 30.91 | 0.31 | 36.40 | 29.45 | 3.68 | 12.93 | 59340.1 |
| JardnMt US$ | 50.17 | 1.73 | 59.00 | 42.60 | 3.18 | 8.99 | 14560 |
| OCBC | 12.39 | 0.16 | 13.23 | 11.20 | 3.13 | 12.60 | 41471.35 |
| SingTel | 2.43 | -0.07 | 2.82 | 2.31 | 2.85 | 41.85 | 29858.89 |
| UOB | 28.16 | 0.32 | 31.40 | 25.91 | 3.25 | 12.78 | 35139.97 |
| **South Africa (R)** | | | | | | | |
| Firstrand | 68.04 | 6.49 | 71.00 | 56.80 | 4.21 | 11.15 | 20408.78 |
| MTN Grp | 136.26 | 12.21 | 160.00 | 107.35 | - | 16.83 | 13729.35 |
| Naspers N | 3117.54 | -79.03 | 3510 | 1693.51 | 0.21 | 15.18 | 72600.58 |
| **South Korea (KRW)** | | | | | | | |
| HyundMobis | 222500 | 1000.00 | 239500 | 189500 | 1.81 | 8.60 | 16241.58 |
| KoreaElePwr | 19080 | -310.00 | 23200 | 16500 | 6.49 | -11.04 | 9482.96 |
| SK Hynix | 115400 | 5100 | 115600 | 60600 | 1.35 | 8.18 | 65041.98 |
| SmsungEl | 72000 | 1100 | 79000 | 51800 | 2.02 | 12.35 | 332771.5 |
| **Spain (€)** | | | | | | | |
| BBVA | 6.51 | 0.02 | 7.56 | 3.97 | 5.60 | 9.02 | 42227.64 |
| BcoSantdr | 3.20 | -0.01 | 3.87 | 2.32 | 2.35 | 6.53 | 56664.93 |
| CaixaBnk | 3.60 | -0.03 | 4.14 | 2.64 | 0.74 | 24.09 | 29035.95 |
| Iberdrola | 11.50 | -0.09 | 11.96 | 9.09 | 3.60 | 20.08 | 79710.13 |
| Inditex | 33.25 | 1.10 | 34.20 | 20.53 | 0.65 | 35.71 | 111473.04 |
| Repsol | 13.49 | 0.12 | 16.23 | 11.19 | 4.37 | 8.38 | 19262.04 |
| Telefonica | 3.89 | -0.01 | 4.96 | 3.22 | 8.74 | 2.89 | 24037.84 |
| **Sweden (SKr)** | | | | | | | |
| AtlasCpcoB | 137.90 | 0.30 | 139.65 | 82.30 | 5.88 | 8.36 | 19875.51 |
| Ericsson | 56.61 | 0.09 | 82.11 | 53.36 | 4.41 | 7.58 | 16060.4 |
| H & M | 143.22 | 0.88 | 157.30 | 98.27 | 4.88 | 17.92 | 19317.1 |
| Investor | 217.20 | -4.60 | 223.60 | 158.20 | 1.79 | 8.48 | 36540.85 |
| Nordea Bk | 113.22 | 2.52 | 134.94 | 88.32 | 14.34 | 11.99 | 37618.32 |
| SEB | 119.25 | 0.90 | 133.50 | 99.42 | 9.40 | 9.05 | 23298.35 |
| SvnskaHn | 92.48 | 2.58 | 112.90 | 80.88 | 6.00 | 8.24 | 16607.46 |
| Swedbank | 179.30 | 5.10 | 219.90 | 124.50 | 9.02 | 8.70 | 18741.94 |
| Telia Co | 24.60 | -0.55 | 40.53 | 24.44 | 9.03 | 7.88 | 8931.94 |
| Volvo | 213.00 | 5.15 | 219.75 | 154.28 | 3.39 | 12.60 | 31242.28 |
| **Switzerland (SFr)** | | | | | | | |
| ABB | 34.50 | 0.56 | 34.50 | 23.84 | 2.22 | 17.10 | 75139.91 |
| CredSuisse | 0.81 | 0.01 | 6.74 | 0.66 | 11.38 | -1.31 | 3584.69 |
| Nestle | 107.16 | -2.44 | 118.70 | 103.42 | 2.36 | 19.23 | 317167.94 |
| Novartis | 90.17 | 0.80 | 93.95 | 73.33 | 3.08 | 10.12 | 227646.79 |
| Richemont | 141.90 | -3.85 | 161.10 | 91.80 | 1.27 | 34.97 | 82110.41 |
| Roche | 282.10 | -10.70 | 335.85 | 256.05 | 2.87 | 19.53 | 219701.74 |
| Swiss Re | 88.14 | -5.06 | 99.68 | 68.16 | 6.17 | 22.01 | 31021.19 |
| Swisscom | 557.20 | -11.60 | 619.40 | 443.40 | 3.63 | 17.13 | 31996.5 |
| UBS | 18.20 | 0.12 | 20.85 | 13.87 | 1.94 | 8.74 | 63010 |
| Zurich Fin | 426.80 | -5.50 | 458.30 | 384.70 | 4.32 | 14.70 | 71185.46 |
| **Taiwan (NT$)** | | | | | | | |
| Chunghwa Telecom | 125.50 | 0.50 | 130.50 | 105.50 | 3.52 | 26.51 | 31688.78 |
| Formosa PetChem | 88.90 | 3.40 | 97.80 | 75.20 | 0.68 | 16.62 | 27564.7 |
| HonHaiPrc | 108.00 | 0.00 | 115.00 | 98.00 | 3.82 | 10.57 | 48733.13 |
| MediaTek | 764.00 | 16.00 | 934.00 | 533.00 | 5.00 | 10.55 | 39779.6 |
| TaiwanSem | 565.00 | 14.00 | 574.00 | 370.00 | 1.95 | 21.82 | 476901.94 |
| **Thailand (THB)** | | | | | | | |
| PTT Explor | 31.75 | 1.75 | 38.25 | 29.50 | 6.12 | 8.70 | 26198.84 |
| **United Arab Emirates (Dhs)** | | | | | | | |
| Emirtestele | 24.30 | - | 38.98 | 11.60 | 2.75 | 27.17 | 57535.64 |
| **United Kingdom (p)** | | | | | | | |
| Anglo American | 2457 | 39.00 | 4005 | 2223.5 | 7.26 | 4.87 | 41344.97 |
| AscBrFd | 1859.5 | -10.00 | 2076 | 1223 | 0.33 | 30.74 | 18213.8 |
| AstraZen | 11712 | -36.00 | 12828.45 | 9399 | 1.77 | 1983.07 | 228362.49 |
| Aviva | 400.90 | -8.20 | 473.70 | 366.70 | 5.33 | 52.75 | 13809.97 |
| Barclays | 156.34 | -0.42 | 198.86 | 128.12 | 1.92 | 3.79 | 30590.54 |
| BP | 468.90 | -5.45 | 570.57 | 359.20 | 3.36 | 17.01 | 103339.87 |
| BrAmTob | 2590.5 | 20.00 | 3645 | 2543 | 8.32 | 8.76 | 72882.15 |
| BT | 147.00 | 3.35 | 196.60 | 22.98 | - | 14.27 | 18368.69 |
| Compass | 2172 | -35.00 | 2250 | 1630.5 | 0.64 | 52.85 | 47500.83 |
| Diageo | 3320.5 | -52.00 | 3960 | 3304.32 | 2.18 | 25.54 | 93881.67 |
| GlaxoSmh | 1378 | 10.40 | 2753.96 | 16.64 | 5.81 | 15.91 | 70990.56 |
| Glencore | 435.00 | 1.10 | 584.50 | 395.40 | 2.04 | 15.92 | 68212.12 |
| HSBC | 607.50 | 4.80 | 653.80 | 434.70 | 2.66 | 13.27 | 152111.42 |
| Imperial Brands | 1725 | -6.00 | 2185 | 1692.5 | 8.01 | 5.77 | 19861.55 |
| Jardine Mathes. | 62.50 | 0.00 | 55.30 | 46.89 | 2.55 | 11.20 | 18138.33 |
| LlydsBkg | 45.27 | -0.18 | 54.33 | 38.51 | 5.68 | 6.29 | 37025.62 |
| LSE Group | 8650 | 156.00 | 8893.86 | 6710 | 0.89 | 88.45 | 55050.85 |
| Natl Grid | 1054.5 | -0.50 | 1229.21 | 844.29 | 4.66 | 24.58 | 48796.58 |
| Natwest Group | 261.00 | -4.00 | 308.65 | 210.90 | 4.02 | 10.28 | 29444.8 |
| Prudential | 1114 | -39.00 | 1336 | 782.40 | 1.06 | 18.09 | 38585.42 |
| ReckittB | 6034 | -274.00 | 6824 | 5502 | 2.89 | -26.11 | 54464.55 |
| RELX | 2531 | -35.00 | 2735 | 2064 | 1.88 | 33.39 | 60410.57 |
| RioTinto | 5125 | 55.00 | 6329 | 4424.5 | 9.80 | 5.36 | 80655.01 |
| RollsRoyce | 149.25 | -0.75 | 160.00 | 64.44 | - | 101.53 | 15711.33 |
| Shell PLC | 2294.5 | 4.50 | 2613.5 | 1908.6 | 2.64 | 12.09 | 197276.15 |
| StandCh | 660.80 | -3.20 | 797.40 | 515.60 | 1.34 | 14.82 | 23396.59 |
| Tesco | 261.90 | -0.50 | 307.23 | 194.35 | 3.49 | 13.34 | 23767.14 |
| Unilever | 3970 | -86.50 | 4868.64 | 3531.5 | 3.65 | 20.38 | 125688.08 |
| Vodafone | 74.88 | -0.75 | 132.04 | 73.96 | 10.33 | -167.52 | 25429.38 |
| WPP | 862.20 | -16.80 | 1082 | 713.00 | 3.07 | 16.42 | 11656.35 |
| **United States of America ($)** | | | | | | | |
| 21stC Fox A | 33.81 | 1.94 | 37.26 | 28.02 | 1.29 | 14.74 | 9096.8 |
| 3M | 100.81 | -1.72 | 152.30 | 92.38 | 5.45 | 10.72 | 55614.08 |
| AbbottLb | 101.92 | -2.28 | 115.69 | 93.25 | 1.64 | 27.85 | 177233.46 |
| Abbvie | 138.47 | 1.60 | 168.11 | 131.10 | 3.49 | 23.11 | 244292.37 |
| Accenture | 309.10 | -2.29 | 322.88 | 242.80 | 1.11 | 33.79 | 204808.32 |
| Activision Bli. | 80.32 | -0.18 | 87.01 | 70.94 | 0.54 | 25.14 | 62994.98 |
| Adobe | 457.69 | 21.32 | 466.59 | 274.73 | - | 48.47 | 209942.4 |
| Advanced Micro | 124.88 | 7.02 | 130.79 | 54.57 | - | 52.31 | 201101.99 |
| AEP | 84.09 | 0.64 | 105.60 | 80.30 | 3.31 | 18.25 | 43211 |
| Aflac | 68.82 | 2.22 | 74.02 | 52.07 | 1.78 | 11.60 | 41582.9 |
| AirProd | 278.23 | -2.81 | 328.56 | 218.88 | 2.00 | 31.47 | 61801.2 |
| Allstate | 112.75 | 2.67 | 142.15 | 103.20 | 2.67 | 7.15 | 29635.24 |
| Alphabet | 122.32 | -2.35 | 129.04 | 83.34 | - | 1.17 | 726703.12 |
| Altria | 45.37 | 0.04 | 50.32 | 40.35 | 7.21 | 36.45 | 80978.32 |
| Amazon | 123.57 | -0.68 | 146.57 | 81.43 | - | 2.05 | 1267871.91 |
| AmerAir | 15.58 | 0.71 | 17.64 | 11.65 | - | -4.48 | 10168.92 |
| AmerExpr | 171.52 | 2.96 | 182.15 | 130.65 | 1.01 | 17.93 | 127485.99 |
| AmerIntGrp | 56.21 | 1.01 | 64.88 | 45.66 | 2.12 | 5.59 | 40682.13 |
| AmerTower | 187.76 | -3.40 | 282.47 | 178.17 | 2.58 | 35.71 | 87501.95 |
| Amgen | 219.35 | 1.28 | 296.67 | 211.71 | 2.98 | 22.97 | 117204.54 |
| Amphenol Corp | 78.23 | 0.66 | 82.86 | 61.67 | 0.93 | 33.56 | 46571.81 |
| Analog Devices | 181.33 | 1.53 | 198.25 | 133.48 | 1.43 | 65.55 | 90922.13 |
| Anthem | 482.58 | 21.82 | - | - | - | - | - |
| Aon Cp | 313.50 | -0.30 | 338.27 | 246.21 | 0.59 | 60.81 | 64030.97 |
| Apple | 180.88 | -0.07 | 184.95 | 124.17 | 0.44 | 32.30 | 2845006.04 |
| Applied Materi. | 136.12 | 1.49 | 138.80 | 71.12 | 0.65 | 20.22 | 114306.42 |
| Aptiv | 96.81 | 3.12 | 124.88 | 77.96 | - | 53.73 | 26187.72 |
| ArcherDan | 72.79 | 0.82 | 98.28 | 69.92 | 1.89 | 16.36 | 39643.97 |
| AT&T | 16.04 | 0.83 | 21.39 | 14.46 | 12.05 | 6.25 | 114634.22 |
| Autodesk | 198.51 | -5.73 | 235.01 | 163.20 | - | 94.51 | 42838.46 |
| AutomData | 214.15 | -2.37 | 274.92 | 196.61 | 1.66 | 35.69 | 88470.24 |
| AutoZone | 2360.5 | -20.73 | 2750 | 1959.58 | - | 22.96 | 43427.78 |
| Avago Tech | 806.24 | -5.76 | 921.78 | 415.07 | 1.73 | 49.02 | 336140.53 |
| BakerHu | 30.05 | 0.47 | 37.26 | 20.42 | 2.29 | 74.88 | 30421.48 |
| Bank of NY | 44.12 | 1.38 | 52.26 | 36.22 | 2.74 | 11.47 | 34816.58 |
| BankAm | 29.20 | 0.49 | 38.60 | 26.32 | 2.48 | 8.80 | 232659.42 |
| Baxter | 42.19 | 0.86 | 73.63 | 37.35 | 2.39 | 17.95 | 21341.81 |
| BectonDick | 252.10 | 0.31 | 269.06 | 215.90 | 1.24 | 46.96 | 71600.16 |
| BerkshHat | 513276.97 | 10276.97 | 515000 | 393012.25 | - | 9.29 | 300702.29 |
| Biogen | 308.88 | 8.68 | 319.74 | 188.54 | - | 31.98 | 44708 |
| BlackRock | 682.21 | 0.35 | 785.65 | 503.12 | 2.25 | 19.22 | 102169.58 |
| Boeing | 216.59 | 3.27 | 221.33 | 113.02 | - | -32.61 | 130299.14 |
| Booking Holdings | 2606.38 | -19.28 | 2786.85 | 1616.85 | - | 99.61 | 96262.95 |
| Bristol-Myers | 64.96 | -0.70 | 81.44 | 63.07 | 2.87 | 22.42 | 136471.03 |
| Broadcom | 806.24 | -5.76 | 921.78 | 415.07 | 1.73 | 49.02 | 336140.53 |
| Cadence Design | 229.47 | -0.22 | 239.00 | 138.76 | - | 98.82 | 62572.8 |
| CapOne | 111.39 | 0.90 | 125.05 | 83.93 | 1.67 | 4.45 | 42529.39 |
| CardinalHlth | 86.51 | 1.92 | 87.03 | 49.70 | 2.10 | 48.26 | 22025.46 |
| Carnival | 13.15 | 0.97 | 13.39 | 6.11 | - | -1.69 | 14670.01 |
| Caterpillar | 232.20 | 5.57 | 260.50 | 160.60 | 1.71 | 21.13 | 119665.58 |
| Centene Corp | 68.96 | 2.50 | 98.53 | 61.34 | - | 32.56 | 37843.13 |
| CharlesSch | 54.88 | 0.51 | 86.63 | 45.00 | 1.22 | 20.88 | 97090.52 |
| Charter Comms | 328.43 | -0.89 | 496.37 | 297.66 | - | 14.45 | 49453.42 |
| Chevron Corp | 159.05 | 2.79 | 189.68 | 132.54 | 3.10 | 21.04 | 301343.05 |
| Chipotle Mexic. | 2037.94 | -24.29 | 2139.88 | 1196.28 | - | 95.81 | 56226.44 |
| Chubb | 191.65 | -0.71 | 230.27 | 173.78 | 1.54 | 10.71 | 79376.54 |
| Cigna | 265.94 | 8.91 | 340.11 | 240.11 | 1.40 | 18.20 | 78682.78 |
| Cintas Corp | 478.14 | -3.42 | 486.30 | 343.86 | 0.71 | 45.13 | 48627.7 |
| Cisco | 49.52 | -0.50 | 52.56 | 38.61 | 2.80 | 18.93 | 201796.88 |
| Citigroup | 48.11 | 1.79 | 66.00 | 40.01 | 3.94 | 5.11 | 93648.5 |
| CME Grp | 184.88 | -0.42 | 212.09 | 166.55 | 1.81 | 27.30 | 66504.02 |
| Coca-Cola | 60.49 | -0.67 | 65.47 | 54.02 | 2.58 | 28.94 | 261593.73 |
| Cognizant | 61.99 | -1.77 | 73.21 | 51.33 | 1.44 | 16.48 | 31459.93 |
| ColgtPlm | 75.71 | -0.34 | 83.81 | 67.84 | 2.20 | 31.97 | 62806.61 |
| Comcast | 40.23 | 1.04 | 43.72 | 28.39 | 2.31 | 14.25 | 167311.18 |
| ConocPhil | 104.08 | 1.73 | 138.49 | 78.30 | 1.74 | 18.46 | 125936.86 |
| Constellation | 242.52 | -2.90 | 261.32 | 208.12 | 1.18 | -1175.67 | 44437.42 |
| Corning | 32.87 | 1.36 | 37.73 | 28.98 | 2.71 | 27.64 | 27939.54 |
| Corteva | 56.11 | 0.19 | 68.43 | 50.03 | 0.88 | 25.48 | 39883.53 |
| Corteva | 56.11 | 0.19 | 68.43 | 50.03 | 0.88 | 25.48 | 39883.53 |
| Costco | 516.50 | 3.91 | 564.75 | 443.20 | 0.57 | 44.39 | 228886.19 |
| CrownCstl | 114.46 | 0.46 | 185.83 | 110.22 | 4.43 | 46.15 | 49638.02 |
| CSX | 32.20 | 0.28 | 34.71 | 25.80 | 1.13 | 19.14 | 65454.2 |
| CVS | 71.90 | 1.91 | 107.26 | 66.34 | 2.58 | 13.01 | 92177.62 |
| Danaher | 235.99 | 1.37 | 303.82 | 221.22 | 0.36 | 28.99 | 174136.74 |
| Deere | 377.99 | 6.92 | 448.40 | 283.81 | 0.97 | 22.34 | 112005.37 |
| Delta | 39.71 | 2.70 | 40.31 | 27.20 | - | 51.30 | 25519 |
| Devon Energy | 49.82 | 1.29 | 79.40 | 44.03 | 3.67 | 12.80 | 32582.28 |
| Digital Realty | 104.33 | -0.97 | 139.14 | 85.76 | 4.13 | 18.91 | 31012.3 |
| DiscFinServ | 114.07 | 4.98 | 118.71 | 87.64 | 1.53 | 6.89 | 28967.62 |
| Disney | 91.77 | 1.00 | 126.48 | 84.07 | - | 57.44 | 167691.78 |
| Dollar General | 153.44 | -12.68 | 261.59 | 153.26 | 1.03 | 16.09 | 33655.71 |
| DominRes | 53.23 | 3.37 | 86.28 | 48.48 | 4.40 | 17.97 | 44497.16 |
| DukeEner | 91.71 | 2.03 | 113.67 | 83.76 | 3.95 | 20.03 | 70676.47 |
| DuPont | 69.92 | -2.45 | 78.40 | 49.52 | 1.59 | 23.31 | 32094.45 |
| Eaton | 185.82 | -0.67 | 188.78 | 122.50 | 1.52 | 37.46 | 74065.86 |
| eBay | 46.10 | 1.71 | 50.82 | 35.92 | 1.45 | 130.61 | 24651.37 |
| Ecolab | 176.93 | 3.83 | 179.77 | 131.04 | 1.02 | 48.72 | 50375.68 |
| Edwards Lifesc. | 83.50 | -1.84 | 107.92 | 67.13 | - | 37.77 | 50619.22 |
| Eli Lilly | 446.93 | 4.60 | 454.95 | 283.11 | 0.71 | 78.62 | 424258.55 |
| Emerson | 83.92 | 1.11 | 99.65 | 72.41 | 2.25 | 19.73 | 47957.42 |
| EOG Res | 115.58 | 3.66 | 150.88 | 92.16 | 1.30 | 15.57 | 67595.04 |
| Equinix | 747.22 | -10.40 | 762.69 | 494.89 | 1.43 | 145.47 | 69883.71 |
| EquityResTP | 65.73 | 2.64 | 80.89 | 54.60 | 3.41 | 20.65 | 24905.4 |
| Exelon | 40.10 | 0.41 | 48.15 | 35.19 | 3.54 | 24.81 | 39882.22 |
| ExxonMb | 107.54 | 1.78 | 119.92 | 80.69 | 3.01 | 21.48 | 434782.6 |
| Fedex | 222.17 | 0.43 | 248.76 | 141.92 | 1.20 | 12.87 | 55842.86 |
| Fidelity NIS | 54.89 | -0.49 | 105.16 | 48.57 | 2.64 | 88.20 | 32518.84 |
| Fiserv | 114.23 | 1.27 | 122.39 | 87.03 | - | 62.66 | 71750.87 |
| FordMtr | 13.87 | 1.48 | 16.68 | 10.61 | 0.67 | 3.36 | 54507.97 |
| Franklin | 26.37 | 1.35 | 32.88 | 20.24 | 3.98 | 7.51 | 13205.26 |
| GenDyn | 212.18 | 3.09 | 256.86 | 202.35 | 2.04 | 19.78 | 58208.53 |
| GenElectric | 105.46 | -0.34 | 107.33 | 46.77 | 0.28 | -34.94 | 114841.72 |
| GenMills | 82.41 | -2.18 | 90.89 | 64.94 | 2.32 | 23.44 | 48403.51 |
| GenMotors | 36.70 | 2.42 | 43.63 | 30.33 | - | 5.90 | 51017.53 |
| GileadSci | 77.79 | -0.10 | 89.74 | 57.17 | 3.39 | 16.99 | 97031.57 |
| GoldmSchs | 333.25 | 9.60 | 389.58 | 277.84 | 1.81 | 6.04 | 110788.32 |
| Halliburton | 32.34 | 0.70 | 43.42 | 23.30 | 0.75 | 19.56 | 29172.47 |
| HCA Hold | 273.18 | -1.08 | 294.02 | 164.47 | 0.65 | 13.90 | 75176.35 |
| Hew-Pack | 30.01 | -0.55 | 38.12 | 24.08 | 2.60 | 5.83 | 29583.61 |
| Hilton Worldwi. | 141.50 | -1.30 | 152.89 | 108.41 | - | 104.34 | 37444.65 |
| HiltonWwde | 141.50 | -1.30 | 152.89 | 108.41 | - | 104.34 | 37444.65 |
| HomeDep | 297.39 | 1.45 | 347.25 | 264.51 | 2.08 | 20.42 | 298988.1 |
| Honywell | 196.86 | -2.00 | 220.96 | 166.63 | 1.78 | 26.79 | 131041.8 |
| HumanaInc | 515.96 | -4.82 | 571.30 | 418.70 | 0.50 | 24.50 | 64466.62 |
| IBM | 135.15 | 2.73 | 153.21 | 115.55 | 4.50 | 27.93 | 122722.34 |
| IDEXX Laborato. | 450.70 | -20.13 | 515.79 | 317.06 | - | 56.42 | 37363.03 |
| IllinoisTool | 234.43 | 5.25 | 247.09 | 173.52 | 1.87 | 29.66 | 71243.93 |
| Illumina | 200.82 | -6.49 | 248.87 | 173.45 | - | 42.90 | 31749.64 |
| Intcntl Exch | 109.95 | 1.97 | 113.07 | 88.60 | 1.12 | 16.49 | 61557.37 |
| Intel | 31.05 | -0.26 | 41.35 | 24.59 | 4.16 | 6.88 | 129509.55 |
| Intuit | 424.80 | -5.69 | 490.83 | 352.63 | 0.56 | 57.27 | 118969.37 |
| John&John | 160.20 | 3.23 | 183.35 | 150.11 | 2.43 | 22.08 | 416326.29 |
| JohnsonCn | 62.94 | 0.55 | 69.15 | 45.52 | 1.70 | 30.94 | 43183.06 |
| JPMrgnCh | 141.11 | 0.64 | 144.34 | 101.28 | 2.50 | 9.89 | 412364.13 |
| Kimb-Clark | 134.40 | -1.69 | 147.87 | 108.74 | 3.26 | 27.15 | 45343.87 |
| KinderM | 17.14 | 0.39 | 19.78 | 15.78 | 6.02 | 39.86 | 38414.18 |
| KLA Corp | 466.84 | 8.78 | 477.91 | 250.20 | 0.78 | 25.87 | 64049.94 |
| Kraft Heinz | 36.87 | -1.65 | 42.80 | 32.73 | 4.03 | 48.40 | 45242.11 |
| Kroger | 46.26 | 0.34 | 52.00 | 41.82 | 1.58 | 22.73 | 33198.41 |
| LasVegasSd | 57.96 | -0.98 | 65.58 | 30.14 | - | -41.33 | 44297.17 |
| LibertyGbl | 16.66 | 0.43 | 23.74 | 15.22 | - | 0.76 | 2850.36 |
| Lilly (E) | 446.93 | 4.60 | 454.95 | 283.11 | 0.71 | 78.62 | 424258.55 |
| Linde | 359.26 | -1.21 | 373.58 | 262.47 | 1.10 | 52.84 | 176158.54 |
| Lockheed | 460.88 | 6.39 | 508.10 | 373.67 | 2.24 | 21.31 | 116719.04 |
| Lowes | 209.56 | -0.25 | 221.42 | 170.12 | 1.34 | 18.56 | 122798.13 |
| Lyondell | 88.62 | -1.30 | 110.22 | 71.46 | 4.65 | 5.69 | 28825.79 |
| Marathon Ptl | 112.33 | 3.42 | 138.83 | 77.62 | 1.92 | 59.87 | 47659.69 |
| Marsh&M | 177.05 | 0.65 | 182.43 | 143.33 | 1.41 | 29.32 | 87590.41 |
| MasterCard | 368.82 | -4.91 | 392.20 | 276.87 | 0.57 | 45.33 | 346796.7 |
| McDonald's | 285.99 | -3.92 | 298.86 | 230.58 | 1.71 | 30.67 | 208799.55 |
| McKesson | 394.07 | 3.91 | 401.78 | 298.69 | 0.42 | 48.05 | 53436.11 |
| Medtronic | 83.20 | -0.56 | 95.60 | 75.77 | 2.78 | 24.44 | 110691.25 |
| Merck | 111.42 | -1.10 | 119.65 | 83.05 | 2.20 | 24.68 | 282721.11 |
| Meta | 265.07 | -7.54 | 276.57 | 88.09 | - | 20.72 | 586375.45 |
| Metlife | 53.88 | 0.91 | 77.36 | 48.95 | 3.28 | 7.94 | 41262.43 |
| Microsoft | 325.49 | -9.91 | 338.56 | 213.43 | 0.66 | 37.32 | 2420176.85 |
| Mnstr Bvrg | 57.09 | -2.40 | 60.47 | 41.95 | - | 23.91 | 57085 |
| MondelezInt | 72.86 | -1.41 | 78.59 | 54.72 | 1.70 | 25.80 | 99224.65 |
| Monsanto | 10.07 | -0.11 | 11.13 | 9.56 | - | 51.84 | 251.75 |
| MorganStly | 85.94 | 1.59 | 100.99 | 72.05 | 2.27 | 11.52 | 143529.57 |
| Netflix | 419.89 | 19.42 | 424.65 | 164.28 | - | 40.22 | 186656.59 |
| NextEraE | 74.52 | 0.67 | 91.35 | 69.64 | 2.03 | 105.39 | 150775.29 |
| Nike | 105.62 | -2.17 | 129.23 | 82.22 | 1.03 | 29.72 | 130127.35 |
| NorfolkS | 215.42 | -0.45 | 264.22 | 196.33 | 1.79 | 19.15 | 49038.12 |
| Northrop | 455.37 | 11.54 | 556.27 | 429.10 | 1.26 | 11.26 | 69152.24 |
| NXP | 184.92 | 3.32 | 194.71 | 132.08 | 1.13 | 29.32 | 47986.74 |
| Occid Pet | 59.43 | -0.26 | 77.13 | 54.30 | 0.06 | 31.06 | 52996.42 |
| Oracle | 109.02 | 3.13 | 110.15 | 60.78 | 1.10 | 44.38 | 294332.14 |
| Pepsico | 181.87 | -2.19 | 196.88 | 154.86 | 2.17 | 35.67 | 250561.05 |
| Perrigo | 33.65 | 0.66 | 43.90 | 30.78 | 2.65 | -36.97 | 4553.71 |
| Pfizer | 39.22 | 0.86 | 54.93 | 36.17 | 3.69 | 10.74 | 221408.94 |
| Phillips66 | 99.07 | 2.04 | 113.53 | 74.02 | 3.39 | 35.91 | 45459.49 |
| PhilMorris | 92.31 | 0.53 | 104.75 | 82.85 | 4.93 | 17.05 | 143283.28 |
| PNCFin | 129.01 | 5.43 | 176.34 | 110.31 | 3.46 | 10.94 | 51488.93 |
| PPG Inds | 139.14 | -0.44 | 145.51 | 107.06 | 1.59 | 32.87 | 32755.79 |
| ProctGmbl | 146.08 | -0.44 | 158.11 | 122.18 | 2.28 | 26.73 | 344306.08 |
| Prudntl | 84.57 | 1.53 | 110.96 | 75.37 | 5.05 | 4.67 | 30868.05 |
| PublStor | 287.91 | -0.48 | 357.13 | 270.13 | 2.58 | 31.41 | 50618.05 |
| Qualcomm | 118.87 | 3.25 | 156.66 | 101.47 | 2.10 | 14.66 | 132415.61 |
| Raytheon | 99.00 | 2.92 | 104.91 | 80.27 | 1.88 | 41.31 | 144653.06 |
| Regen Pharm | 746.59 | 6.64 | 837.55 | 538.01 | - | 11.17 | 81908.18 |
| S&P Global | 382.86 | 6.83 | 395.80 | 279.32 | 0.75 | 32.95 | 123279.31 |
| Salesforce | 213.92 | 0.89 | 225.00 | 126.34 | - | 154.15 | 208358.08 |
| Schlmbrg | 47.62 | 0.85 | 59.45 | 30.65 | 0.98 | 38.84 | 67629.38 |
| Sempra Energy | 148.06 | 3.49 | 176.47 | 136.54 | 2.76 | 39.75 | 46587.5 |
| Shrwin-Will | 239.82 | -1.01 | 273.85 | 195.24 | 0.85 | 36.99 | 61847.26 |
| SimonProp | 110.02 | 3.51 | 129.55 | 86.02 | 6.04 | 17.32 | 35975.27 |
| SouthCpr | 71.13 | 0.19 | 82.05 | 42.42 | 4.18 | 17.44 | 54990.72 |
| Starbucks | 97.70 | -1.81 | 115.48 | 70.35 | 1.75 | 28.43 | 111997.55 |
| StateSt | 74.08 | 2.53 | 94.74 | 58.62 | 2.73 | 11.09 | 24761.9 |
| Stryker | 277.98 | -0.33 | 306.56 | 188.84 | 0.86 | 57.44 | 105305.62 |
| Sychrony Fin | 33.73 | 0.69 | 40.89 | 26.59 | 2.49 | 4.78 | 14455.69 |
| T-MobileUS | 130.55 | -0.64 | 154.38 | 121.76 | - | 58.32 | 156645.96 |
| Target | 128.56 | -4.66 | 183.89 | 126.75 | 2.30 | 9.72 | 59338.1 |
| TE Connect | 128.03 | 1.76 | 138.24 | 104.76 | 1.44 | 18.73 | 40342.25 |
| Tesla Mtrs | 247.49 | 33.52 | 314.67 | 101.81 | - | 54.38 | 784420.62 |
| TexasInstr | 169.63 | -5.60 | 186.30 | 144.46 | 2.31 | 22.11 | 153965.32 |
| TheTrvelers | 175.52 | 0.39 | 194.45 | 149.65 | 1.92 | 11.65 | 40541.01 |
| ThrmoFshr | 520.22 | 0.08 | 611.06 | 475.77 | 0.19 | 28.78 | 200659.93 |
| TJX Cos | 79.21 | 1.10 | 83.13 | 54.55 | 1.23 | 31.29 | 91031.18 |
| Truist Financial Corp | 32.80 | 0.72 | 52.22 | 25.56 | 5.27 | 7.90 | 43680.25 |
| Twitter | 53.70 | 1.26 | 60.16 | 31.30 | - | -224.30 | 41093.72 |
| UnionPac | 199.00 | 0.34 | 242.36 | 183.69 | 2.16 | 19.80 | 121440.42 |
| UPS | 170.27 | 0.13 | 209.39 | 154.87 | 2.23 | 12.49 | 123408.24 |
| USBancorp | 33.10 | 1.36 | 51.65 | 27.27 | 4.94 | 6.99 | 50732.01 |
| UtdHlthcre | 495.27 | -4.31 | 558.10 | 449.70 | 1.05 | 29.49 | 461112.23 |
| ValeroEngy | 112.06 | 2.79 | 146.01 | 96.93 | 3.25 | 53.15 | 40511.59 |
| Verizon | 35.46 | 0.88 | 52.18 | 33.72 | 6.64 | 7.18 | 149052.52 |
| VertexPharm | 331.74 | -2.04 | 354.46 | 243.17 | - | 39.64 | 85440.17 |
| VF Cp | 18.98 | 0.86 | 49.31 | 16.77 | 9.64 | 6.70 | 7375.15 |
| Visa Inc | 223.57 | -5.22 | 235.57 | 174.60 | 0.55 | 39.85 | 361786.2 |
| Walgreen | 31.66 | 0.47 | 42.74 | 29.48 | 5.63 | 4.94 | 27316.11 |
| WalMartSto | 152.98 | 4.16 | 154.64 | 117.90 | 1.35 | 33.50 | 411951.8 |
| Walt Disney | 91.77 | 1.00 | 126.48 | 84.07 | - | 57.44 | 167691.78 |
| Waste Manage. | 161.29 | -3.67 | 175.98 | 138.89 | 1.32 | 40.48 | 65615.47 |
| WellsFargo | 42.15 | 0.91 | 48.84 | 35.25 | 1.70 | 9.17 | 158156.22 |
| Williams Cos | 30.74 | 0.51 | 36.96 | 27.80 | 4.96 | 26.69 | 37447.07 |
| Workday | 202.10 | -11.40 | 218.88 | 128.72 | - | 1796.12 | 41632.6 |
| Yum!Brnds | 133.08 | -1.46 | 143.25 | 103.97 | 1.40 | 27.50 | 37272.58 |
| Zoetis | 163.19 | -8.69 | 187.82 | 124.15 | 0.57 | 41.15 | 75412.08 |
| Zoom | 67.08 | -0.01 | 124.05 | 60.45 | - | 15.90 | 16828.7 |
| **Venezuela (VEF)** | | | | | | | |
| Bco de Vnzla | 4.00 | -0.15 | 4.59 | 1.00 | 137.42 | - | 543.86 |
| Bco Provncl | 8.25 | -0.64 | 70000 | 6.80 | - | 0.00 | 115.34 |

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 | Prev | Day | | Week | | Month |
|---|---|---|---|---|---|---|---|
| | price | price | change | change % | change | change % | change % |
| Tesla Mtrs | 247.49 | 234.86 | 12.63 | 5.38 | 20.89 | 15.7 | 46.22 |
| Ch OSLnd&Inv | 17.70 | 17.80 | -0.10 | -0.56 | 2.10 | 12.7 | -13.45 |
| FordMtr | 13.87 | 13.58 | 0.29 | 2.14 | 1.19 | 11.9 | 16.91 |
| PetroChina | 5.77 | 5.62 | 0.15 | 2.67 | 0.44 | 11.4 | 5.29 |
| Panasonic | 1624.00 | 1610.50 | 13.50 | 0.84 | 147.00 | 11.0 | 24.37 |
| Firstrand | 68.04 | 65.86 | 2.18 | 3.31 | 4.31 | 10.5 | 7.18 |
| SandsCh | 27.30 | 27.25 | 0.05 | 0.18 | 2.45 | 10.1 | 4.41 |
| MTN Grp | 136.26 | 134.47 | 1.79 | 1.33 | 10.42 | 9.8 | 15.54 |
| China Vanke | 11.16 | 11.32 | -0.16 | -1.41 | 1.16 | 9.8 | -7.43 |
| Citic Ltd | 9.90 | 9.89 | 0.01 | 0.10 | 0.84 | 9.4 | -6.24 |
| Volkswgn | 155.95 | 155.20 | 0.75 | 0.48 | 12.00 | 8.9 | 8.90 |
| Nutrien | 78.24 | 78.70 | -0.46 | -0.58 | 6.81 | 8.8 | -8.42 |
| MitsbCp | 6285.00 | 6075.00 | 210.00 | 3.46 | 298.00 | 8.8 | 24.72 |
| ShenwanHong | 0.13 | 0.13 | 0.00 | 0.00 | 0.01 | 8.7 | -3.85 |
| Continental | 68.64 | 68.64 | 0.00 | 0.00 | 5.36 | 8.5 | 8.50 |
| PingAnIns | 53.45 | 53.40 | 0.05 | 0.09 | 4.10 | 8.4 | -12.35 |
| DanskeBk | 160.65 | 161.55 | -0.90 | -0.56 | 13.25 | 8.3 | 14.87 |
| Carnival | 13.15 | 12.75 | 0.40 | 3.10 | 0.57 | 7.9 | 23.33 |
| Bradesco | 14.44 | 14.22 | 0.22 | 1.55 | 0.84 | 7.9 | 8.75 |
| Petrobras | 32.43 | 32.20 | 0.23 | 0.71 | 2.14 | 7.9 | 17.86 |

Based on the FT Global 500 companies in local currency

## FT 500: BOTTOM 20

| | Close | Prev | Day | | Week | | Month |
|---|---|---|---|---|---|---|---|
| | price | price | change | change % | change | change % | change % |
| Bausch Hlth | 9.43 | 9.51 | -0.08 | -0.84 | -1.53 | -14.6 | 20.41 |
| Hngzh HikVDT | 32.36 | 34.55 | -2.19 | -6.34 | -1.35 | -9.9 | -9.91 |
| Pwr Cons Corp | 5.75 | 5.77 | -0.02 | -0.35 | -0.60 | -9.7 | -25.90 |
| Deut Tlkm | 19.02 | 18.86 | 0.16 | 0.87 | -2.19 | -9.6 | -9.62 |
| Dollar General | 153.44 | 155.85 | -2.41 | -1.55 | -10.27 | -7.6 | -30.48 |
| Swiss Re | 88.14 | 89.70 | -1.56 | -1.74 | -3.50 | -5.4 | -1.87 |
| Workday | 202.10 | 204.49 | -2.39 | -1.17 | -9.01 | -5.3 | 13.28 |
| Midea | 0.36 | 0.36 | 0.00 | 0.00 | -0.02 | -5.3 | -10.00 |
| Zoetis | 163.19 | 164.30 | -1.11 | -0.68 | -7.58 | -5.1 | -11.48 |
| MuenchRkv | 323.90 | 329.40 | -5.50 | -1.67 | -10.30 | -4.7 | -4.68 |
| ChShpbldng | 4.52 | 4.55 | -0.03 | -0.66 | -0.19 | -4.6 | -13.90 |
| Danone | 53.59 | 54.68 | -1.09 | -1.99 | -1.38 | -4.4 | -11.38 |
| Orange | 10.55 | 10.60 | -0.05 | -0.43 | -0.43 | -4.4 | -9.38 |
| ReckittB | 6034.00 | 6114.00 | -80.00 | -1.31 | -194.00 | -4.3 | -6.71 |
| IDEXX Laborato. | 450.70 | 453.00 | -2.30 | -0.51 | -17.83 | -4.3 | -6.13 |
| Kraft Heinz | 36.87 | 37.19 | -0.33 | -0.87 | -1.32 | -4.3 | -9.78 |
| Infosys | 1265.95 | 1282.80 | -16.85 | -1.31 | -36.70 | -4.1 | 0.03 |
| Mnstr Bvrg | 57.09 | 57.53 | -0.45 | -0.77 | -1.95 | -4.0 | -2.66 |
| Roche | 282.10 | 283.95 | -1.85 | -0.65 | -8.85 | -3.7 | -0.70 |
| Target | 128.56 | 131.27 | -2.71 | -2.06 | -1.95 | -3.5 | -18.37 |

Based on the FT Global 500 companies in local currency

## BONDS: HIGH YIELD & EMERGING MARKET

| | Red | | Ratings | | | Bid | Bid | Day's chge | Mth's chge | Spread vs |
|---|---|---|---|---|---|---|---|---|---|---|
| Jun 09 | date | Coupon | S* | M* | F* | price | yield | yield | yield | US |
| **High Yield US$** | | | | | | | | | | |
| HCA Inc. | 04/24 | 8.36 | BB- | Ba2 | BB | 113.75 | 4.24 | 0.00 | 0.12 | - |
| **High Yield Euro** | | | | | | | | | | |
| Aldesa Financial Services S.A. | 04/21 | 7.25 | - | - | B | 71.10 | 28.23 | 0.00 | 0.64 | 25.98 |
| **Emerging US$** | | | | | | | | | | |
| Peru | 03/19 | 7.13 | BBB+ | A3 | BBB+ | 104.40 | 2.60 | - | - | 0.34 |
| Colombia | 01/26 | 4.50 | - | Baa2 | BBB- | 109.50 | 2.33 | 0.16 | 0.52 | 1.28 |
| Brazil | 04/26 | 6.00 | - | Ba2 | BB- | 115.15 | 2.78 | -0.01 | 0.65 | 1.73 |
| Poland | 04/26 | 3.25 | - | A2 | A- | 111.22 | 0.98 | 0.03 | 0.16 | -0.07 |
| Mexico | 05/26 | 11.50 | - | Baa1 | BBB- | 149.00 | 1.61 | 0.00 | -0.12 | 0.56 |
| Turkey | 03/27 | 6.00 | - | Ba2 | BB+ | 101.26 | 5.82 | 0.00 | 0.17 | 3.07 |
| Turkey | 03/27 | 6.00 | - | B2 | BB- | 102.88 | 5.43 | 0.14 | 0.83 | 4.38 |
| Peru | 08/27 | 4.13 | BBB+ | A3 | BBB+ | 103.50 | 3.66 | 0.01 | -0.02 | 0.80 |
| Russia | 06/28 | 12.75 | - | Baa3 | BBB | 168.12 | 2.48 | 0.07 | 0.05 | - |
| Brazil | 02/47 | 5.63 | - | Ba2 | BB- | 101.48 | 5.52 | 0.08 | 0.80 | - |
| **Emerging Euro** | | | | | | | | | | |
| Brazil | 04/21 | 2.88 | BB- | Ba2 | BB- | 103.09 | 0.05 | 0.01 | -0.09 | -1.19 |
| Mexico | 04/23 | 2.75 | BBB+ | A3 | BBB+ | 107.76 | 0.76 | 0.00 | -0.07 | -1.56 |
| Mexico | 04/23 | 2.75 | - | Baa1 | BBB- | 106.48 | -0.26 | - | - | -0.36 |
| Bulgaria | 03/28 | 3.00 | BBB- | Baa2 | BBB | 117.04 | 1.00 | 0.02 | -0.15 | -1.42 |

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

## BONDS: GLOBAL INVESTMENT GRADE

| | Red | | Ratings | | | Bid | Bid | Day's chge | Mth's chge | Spread vs |
|---|---|---|---|---|---|---|---|---|---|---|
| Jun 09 | date | Coupon | S* | M* | F* | price | yield | yield | yield | US |
| **US$** | | | | | | | | | | |
| FleetBoston Financial Corp. | 01/28 | 6.88 | BBB+ | Baa1 | A- | 129.00 | 2.54 | -0.01 | -0.05 | - |
| The Goldman Sachs Group, Inc. | 02/28 | 5.00 | BBB+ | A3 | A | 117.21 | 2.47 | 0.00 | 0.32 | - |
| NationsBank Corp. | 03/28 | 6.80 | BBB+ | Baa1 | A- | 127.69 | 2.72 | -0.01 | 0.06 | - |
| GTE LLC | 04/28 | 6.94 | BBB+ | Baa2 | A- | 128.27 | 2.80 | 0.00 | -0.11 | - |
| United Utilities PLC | 08/28 | 6.88 | BBB | Baa1 | A- | 130.43 | 2.62 | -0.07 | -0.22 | - |
| Barclays Bank plc | 01/29 | 4.50 | A | A1 | A+ | 96.46 | 5.02 | 0.00 | 0.02 | - |
| **Euro** | | | | | | | | | | |
| Electricite de France (EDF) | 04/30 | 4.63 | A- | A3 | A- | 137.45 | 0.82 | -0.01 | 0.10 | - |
| The Goldman Sachs Group, Inc. | 02/31 | 3.00 | BBB+ | A3 | A | 124.42 | 0.68 | 0.00 | -0.11 | - |
| The Goldman Sachs Group, Inc. | 02/31 | 3.00 | BBB+ | A3 | A | 121.70 | 0.93 | 0.00 | 0.02 | - |
| Finland | 04/31 | 0.75 | AA+ | Aa1 | AA+ | 111.08 | -0.27 | 0.00 | -0.05 | -0.87 |
| **Yen** | | | | | | | | | | |
| Mexico | 06/26 | 1.09 | - | Baa1 | BBB- | 98.73 | 1.34 | -0.02 | -0.14 | 0.27 |
| **£ Sterling** | | | | | | | | | | |
| innogy Fin B.V. | 06/30 | 6.25 | BBB | Baa2 | A- | 128.68 | 3.20 | 0.00 | -0.01 | 0.40 |
| innogy Fin B.V. | 06/30 | 6.25 | BBB | Baa2 | A- | 137.45 | 2.19 | -0.03 | 0.02 | - |

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

## INTEREST RATES: OFFICIAL

| Jun 09 | Rate | Current | Since | Last |
|---|---|---|---|---|
| US | Fed Funds | 4.75-5.00 | 22-03-2023 | 4.75-4.50 |
| US | Prime | 8.25 | 04-05-2023 | 8.00 |
| US | Discount | 5.00 | 02-05-2023 | 4.75 |
| Euro | Repo | 3.25 | 02-05-2023 | 2.899 |
| UK | Repo | 4.50 | 11-05-2023 | 4.25 |
| Japan | O'night Call | 0.00-0.10 | 01-02-2016 | 0.00 |
| Switzerland | Libor Target | -1.25-0.25 | 15-01-2015 | -0.75--0.25 |

## INTEREST RATES: MARKET

| | Over | Change | | | One | Three | Six | One |
|---|---|---|---|---|---|---|---|---|
| Jun 09 (Libor: Jun 08) | night | Day | Week | Month | month | month | month | year |
| US$ Libor | 5.06929 | 0.003 | 0.006 | 0.041 | 5.22243 | 5.53971 | 5.65657 | 5.78800 |
| Euro Libor | -0.64957 | -0.064 | 0.000 | 0.001 | -0.61943 | -0.58057 | -0.55600 | -0.48571 |
| £ Libor | 0.18063 | -0.005 | 0.000 | 0.001 | 4.20130 | 4.92310 | 4.74470 | 0.81363 |
| Swiss Fr Libor | | | | -0.002 | -0.77540 | -0.75300 | -0.70280 | -0.55320 |
| Yen Libor | | | | 0.000 | -0.06005 | -0.02617 | 0.07165 | 0.04867 |
| Euro Euribor | | | | -0.013 | 3.25800 | 3.48600 | 3.75700 | 3.93600 |
| Sterling CDs | | | | 0.000 | 0.50000 | 0.63000 | 0.78500 | |
| US$ CDs | | | | 0.000 | 5.22000 | 5.46000 | 5.57000 | |
| Euro CDs | | | | 0.020 | 3.27000 | 3.46000 | 3.66000 | |

| | Short | | 7 Days | | One | | Three | | Six | | One | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jun 09 | term | | notice | | month | | month | | month | | year | |
| Euro | 2.89 | 3.19 | 2.93 | 3.23 | 3.12 | 3.42 | 3.31 | 3.61 | 3.51 | 3.81 | 3.58 | 3.88 |
| Sterling | | | | | 0.45 | 0.55 | 0.58 | 0.68 | 0.71 | 0.86 | 0.90 | 1.05 |
| US Dollar | 4.89 | 5.09 | 4.96 | 5.16 | 5.12 | 5.32 | 5.36 | 5.56 | 5.47 | 5.67 | 5.47 | 5.67 |
| Japanese Yen | -0.30 | -0.10 | -0.30 | -0.10 | -0.25 | 0.05 | -0.15 | 0.05 | -0.05 | 0.15 | 0.00 | 0.20 |

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

## BOND INDICES

| | Index | Day's change | Month's change | Year change | Return 1 month | Return 1 year |
|---|---|---|---|---|---|---|
| **Markit IBoxx** | | | | | | |
| ABF Pan-Asia unhedged | 207.20 | -0.26 | 0.17 | 1.71 | -2.07 | 1.54 |
| Corporates( £) | 323.25 | -0.09 | -0.13 | 0.04 | -2.29 | -7.85 |
| Corporates(€) | 211.87 | 0.10 | -0.38 | 2.20 | -0.26 | -2.47 |
| Eurozone Sov(€) | 211.63 | 0.10 | -0.77 | 1.98 | -0.22 | -5.43 |
| Gilts( £) | 259.63 | -0.19 | -0.29 | -3.68 | -3.55 | -16.28 |
| Overall( £) | 271.00 | -0.16 | -0.25 | -2.69 | -3.17 | -14.06 |
| Overall(€) | 208.07 | 0.10 | -0.64 | 1.90 | -0.23 | -4.81 |
| **FTSE** | | | | | | |
| Sterling Corporate (£) | - | - | - | - | - | - |
| Euro Corporate (€) | 104.47 | -0.05 | - | - | 0.54 | -1.73 |
| Euro Emerging Mkts (€) | 678.03 | 13.36 | - | - | 12.91 | 11.07 |
| Eurozone Govt Bond | 110.04 | -0.19 | - | - | -0.34 | -0.64 |
| **CREDIT INDICES** | Index | Day's change | Week's change | Month's change | Series high | Series low |
| **Markit iTraxx** | | | | | | |
| Crossover 5Y | 407.97 | -1.52 | -2.39 | -45.51 | 510.17 | 406.74 |
| Europe 5Y | 76.92 | 0.02 | -0.13 | -9.99 | 101.15 | 76.27 |
| Japan 5Y | 71.13 | -0.54 | -0.75 | -10.49 | 99.54 | 69.88 |
| Senior Financials 5Y | 87.67 | -0.17 | 0.06 | -15.44 | 124.01 | 86.56 |
| **Markit CDX** | | | | | | |
| Emerging Markets 5Y | 223.22 | 1.08 | -18.40 | -23.49 | 265.81 | 222.03 |
| Nth Amer High Yld 5Y | 442.14 | -7.51 | -23.13 | -55.04 | 511.98 | 442.14 |
| Nth Amer Inv Grade 5Y | 70.71 | -1.19 | -2.97 | -10.21 | 88.71 | 70.71 |

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

## VOLATILITY INDICES

| | Jun 09 | Day Chng | Prev | 52 wk high | 52 wk low |
|---|---|---|---|---|---|
| VIX | 13.98 | 0.33 | 13.65 | 35.05 | 13.50 |
| VXD | 13.27 | 0.17 | 13.10 | 37.57 | 10.88 |
| VXN | 19.00 | 0.34 | 18.66 | 41.12 | 5.85 |
| VDAX | 14.59 | -0.18 | 14.77 | 93.30 | - |

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility.
‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

## BONDS: BENCHMARK GOVERNMENT

| | Red Date | Coupon | Bid Price | Bid Yield | Day chg yield | Wk chg yield | Month chg yld | Year chg yld |
|---|---|---|---|---|---|---|---|---|
| Australia | - | - | - | - | - | - | - | - |
| | 05/32 | 1.25 | 79.40 | 4.02 | 0.18 | 0.40 | 0.62 | 0.46 |
| | 02/50 | 1.00 | 94.57 | 1.88 | 0.12 | 0.22 | 0.28 | 0.37 |
| Austria | 02/29 | 0.50 | 87.49 | 2.92 | -0.01 | 0.16 | 0.18 | 1.34 |
| | 02/47 | 1.50 | 71.26 | 3.26 | 0.00 | 0.12 | 0.07 | 1.17 |
| Belgium | 06/27 | 0.80 | 92.43 | 2.82 | -0.02 | 0.18 | 0.19 | 1.50 |
| | 06/47 | 1.60 | 69.30 | 3.51 | -0.01 | 0.12 | 0.08 | 1.05 |
| Canada | 03/25 | 1.25 | 94.61 | 4.54 | -0.08 | 0.32 | 0.75 | 1.44 |
| | 06/30 | 1.25 | 86.47 | 3.45 | -0.05 | 0.25 | 0.52 | 0.19 |
| | 12/48 | 2.75 | 90.42 | 3.31 | -0.03 | 0.20 | 0.17 | 0.11 |
| Denmark | 11/29 | 0.50 | 87.56 | 2.63 | -0.01 | 0.17 | 0.11 | 1.03 |
| | 11/52 | 0.25 | 50.85 | 2.69 | -0.01 | 0.13 | 0.06 | 0.81 |
| Finland | 09/24 | 0.00 | 96.17 | 3.15 | -0.01 | 0.15 | 0.26 | 2.34 |
| | 09/29 | 0.50 | 86.58 | 2.87 | -0.02 | 0.15 | 0.11 | 1.28 |
| France | 05/28 | 0.75 | 90.78 | 2.77 | -0.02 | 0.17 | 0.14 | 1.35 |
| | 05/48 | 2.00 | 76.76 | 3.40 | -0.02 | 0.12 | 0.07 | 1.08 |
| Germany | 08/29 | 0.00 | 86.58 | 2.36 | -0.02 | 0.17 | 0.13 | 1.17 |
| | 08/50 | 0.00 | 51.20 | 2.49 | -0.01 | 0.12 | 0.09 | 0.93 |
| Greece | - | - | - | - | - | - | - | - |
| | 01/28 | 3.75 | 102.30 | 3.20 | -0.01 | 0.04 | -0.28 | 0.54 |
| Ireland | - | - | - | - | - | - | - | - |
| | 05/26 | 1.00 | 94.88 | 2.85 | -0.02 | 0.14 | 0.21 | 1.74 |
| | 02/45 | 2.00 | 79.44 | 3.35 | -0.02 | 0.11 | 0.06 | 1.06 |
| Italy | 02/25 | 0.35 | 95.08 | 3.47 | 0.01 | 0.16 | 0.20 | 1.66 |
| | 05/30 | 0.40 | 91.04 | 1.78 | -0.01 | 0.08 | -0.02 | 1.12 |
| | 03/48 | 3.45 | 84.51 | 4.49 | 0.00 | 0.10 | -0.05 | 0.84 |
| Japan | 04/25 | 0.05 | 100.05 | 0.02 | 0.00 | 0.01 | -0.03 | -0.01 |
| | 12/29 | 0.10 | 99.43 | 0.19 | 0.01 | 0.01 | 0.00 | 0.00 |
| | 12/49 | 0.40 | 81.17 | 1.23 | 0.01 | 0.00 | -0.01 | 0.22 |
| Netherlands | 07/27 | 0.75 | 92.59 | 2.69 | -0.02 | 0.17 | 0.18 | 1.45 |
| | 01/47 | 2.75 | 98.59 | 2.83 | -0.01 | 0.12 | 0.08 | 1.04 |
| New Zealand | 05/31 | 1.50 | 80.11 | 4.51 | 0.11 | 0.23 | 0.39 | 0.77 |
| | 09/40 | 2.50 | 119.53 | 2.63 | 0.09 | 0.16 | 0.32 | 0.65 |
| Norway | 08/30 | 1.38 | 86.55 | 3.53 | 0.08 | 0.20 | 0.33 | 0.56 |
| Poland | - | - | - | - | - | - | - | - |
| | 07/27 | 2.50 | 88.24 | 5.79 | -0.02 | -0.03 | -0.02 | -1.38 |
| | 04/47 | 4.00 | 77.02 | 5.80 | 0.00 | -0.05 | -0.04 | -0.92 |
| Portugal | 04/27 | 4.13 | 104.87 | 2.77 | 0.01 | 0.16 | 0.07 | 1.07 |
| Spain | - | - | - | - | - | - | - | - |
| | 10/29 | 0.60 | 85.56 | 3.13 | -0.03 | 0.14 | 0.05 | 1.05 |
| | 10/46 | 2.90 | 84.40 | 3.93 | -0.01 | 0.10 | 0.05 | 0.96 |
| Sweden | 06/30 | 0.13 | 114.01 | 0.69 | 0.01 | 0.11 | -0.10 | 1.88 |
| | 03/39 | 3.50 | 111.75 | 2.58 | -0.01 | 0.15 | 0.10 | 0.62 |
| Switzerland | 04/28 | 4.00 | 114.34 | 0.94 | 0.06 | 0.15 | -0.06 | 0.25 |
| | 06/29 | 0.00 | 94.54 | 0.94 | 0.05 | 0.13 | -0.09 | 0.14 |
| United Kingdom | 07/23 | 0.75 | 99.55 | 4.57 | -0.01 | 0.15 | 0.12 | 2.88 |
| | 07/27 | 1.25 | 88.45 | 4.34 | -0.01 | 0.18 | 0.69 | 2.47 |
| | 07/47 | 1.50 | 55.91 | 4.52 | 0.02 | 0.05 | 0.33 | 2.04 |
| United States | - | - | - | - | - | - | - | - |
| | 03/25 | 0.50 | 92.89 | 4.64 | -0.02 | 0.18 | 0.59 | 1.69 |
| | 02/30 | 1.50 | 86.59 | 3.79 | -0.07 | 0.14 | 0.30 | 0.76 |
| | 02/50 | 0.25 | 69.36 | 1.68 | -0.06 | 0.02 | 0.04 | 0.92 |

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

## GILTS: UK CASH MARKET

| | | Red | Change in Yield | | | | 52 Week | | Amnt |
|---|---|---|---|---|---|---|---|---|---|
| Jun 09 | Price £ | Yield | Day | Week | Month | Year | High | Low | £m |
| | - | - | - | - | - | - | - | - | - |
| Tr 0.75pc '23 | 99.60 | 4.38 | 0.69 | 1.15 | 4.78 | 148.86 | 99.60 | 97.34 | 34.36 |
| Tr 0.125pc '24 | 97.16 | 4.72 | 0.85 | 0.64 | 14.01 | 151.06 | 97.53 | 94.34 | 35.55 |
| Tr 2pc '25 | 94.44 | 4.64 | 0.00 | 4.27 | 20.83 | 140.41 | 101.22 | 93.15 | 39.93 |
| Tr 0.125pc '26 | 89.38 | 4.44 | 0.00 | 4.23 | 21.98 | 133.68 | 95.25 | 86.33 | 35.32 |
| Tr 1.25pc '27 | 88.50 | 4.33 | 0.00 | 3.34 | 20.28 | 122.05 | 98.68 | 85.65 | 40.99 |
| Tr 0.5pc '29 | 81.15 | 4.30 | -0.23 | 2.87 | 16.53 | 103.79 | 95.06 | 78.21 | 28.92 |
| Tr 1pc '32 | 77.11 | 4.19 | -0.48 | 2.20 | 14.48 | 80.60 | 122.11 | 76.20 | 35.96 |
| Tr 4.25pc '36 | 99.21 | 4.33 | -0.69 | 1.64 | 12.76 | 74.60 | 125.01 | 94.91 | 31.68 |
| Tr 4.5pc '42 | 100.35 | 4.47 | -0.67 | 0.90 | 9.29 | 75.29 | 135.11 | 93.79 | 28.35 |
| Tr 3.75pc '52 | 88.54 | 4.46 | -0.67 | 0.22 | 8.25 | 80.57 | 132.80 | 82.51 | 25.11 |
| Tr 4pc '60 | 93.71 | 4.34 | -1.14 | -0.46 | 7.96 | 83.90 | 147.23 | 87.32 | 25.13 |

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

## GILTS: UK FTSE ACTUARIES INDICES

| Price Indices<br>**Fixed Coupon** | Jun 09 | Day's chg % | Total Return | Return 1 month | Return 1 year | Yield |
|---|---|---|---|---|---|---|
| 1 Up to 5 Years | 80.36 | 0.03 | 2330.00 | -0.98 | -2.74 | 4.53 |
| 2 5 - 10 Years | 141.99 | 0.14 | 3055.24 | -2.62 | -9.92 | 4.18 |
| 3 10 - 15 Years | 149.91 | 0.34 | 3492.52 | -3.30 | -14.49 | 4.33 |
| 4 5 - 15 Years | 142.84 | 0.20 | 3157.53 | -2.83 | -11.20 | 4.24 |
| 5 Over 15 Years | 196.80 | 0.69 | 3446.81 | -3.95 | -26.93 | 4.41 |
| 7 All stocks | 129.38 | 0.29 | 2925.05 | -2.51 | -14.58 | 4.38 |

| **Index Linked** | Jun 09 | Day's chg % | Month chg % | Year's chg % | Total Return | Return 1 month | Return 1 year |
|---|---|---|---|---|---|---|---|
| 1 Up to 5 Years | 324.78 | -0.03 | -0.31 | 0.61 | 2760.42 | -0.14 | 1.72 |
| 2 Over 5 years | 515.50 | 0.18 | -2.36 | -25.69 | 3940.72 | -2.25 | -25.28 |
| 3 5-15 years | 446.27 | 0.02 | -0.99 | -9.78 | 3625.06 | -0.83 | -9.02 |
| 4 Over 15 years | 564.78 | 0.29 | -3.35 | -33.98 | 4187.46 | -3.25 | -33.73 |
| 5 All stocks | 493.01 | 0.14 | -2.02 | -22.20 | 3846.22 | -1.89 | -21.70 |

| **Yield Indices** | Jun 09 | Jun 08 | Yr ago | | Jun 09 | Jun 08 | Yr ago |
|---|---|---|---|---|---|---|---|
| 5 Yrs | 4.25 | 4.25 | 1.96 | 20 Yrs | 4.47 | 4.50 | 2.56 |
| 10 Yrs | 4.25 | 4.28 | 2.32 | 45 Yrs | 4.27 | 4.31 | 2.30 |
| 15 Yrs | 4.40 | 4.43 | 2.52 | | | | |

| | inflation 0% | | | | inflation 5% | | | |
|---|---|---|---|---|---|---|---|---|
| **Real yield** | Jun 09 | Dur yrs | Previous | Yr ago | Jun 09 | Dur yrs | Previous | Yr ago |
| Up to 5 yrs | 1.58 | 2.25 | 1.56 | -2.37 | 1.19 | 2.27 | 1.16 | -2.84 |
| Over 5 yrs | 0.92 | 18.76 | 0.93 | -1.06 | 0.90 | 18.81 | 0.90 | -1.08 |
| 5-15 yrs | 0.76 | 9.16 | 0.76 | -1.46 | 0.68 | 9.17 | 0.67 | -1.54 |
| Over 15 yrs | 0.96 | 25.53 | 0.97 | -1.00 | 0.95 | 25.54 | 0.96 | -1.01 |
| All stocks | 0.94 | 15.87 | 0.95 | -1.08 | 0.90 | 15.94 | 0.91 | -1.11 |

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

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## COMMODITIES

www.ft.com/commodities

| **Energy** | | Price* | Change |
|---|---|---|---|
| Crude Oil† | Jun | 71.42 | 0.13 |
| Brent Crude Oil‡ | | 76.23 | 0.27 |
| RBOB Gasoline† | Jun | 2.61 | 0.00 |
| Natural Gas† | Jun | 2.27 | -0.08 |
| **Base Metals (♠ LME 3 Months)** | | | |
| Aluminium | | 2268.00 | 4.50 |
| Aluminium Alloy | | 2150.00 | -75.00 |
| Copper | | 8388.00 | 16.00 |
| Lead | | 2042.00 | -6.50 |
| Nickel | | 21405.00 | 355.00 |
| Tin | | 26400.00 | 540.00 |
| Zinc | | 2395.00 | -17.50 |
| **Precious Metals (PM London Fix)** | | | |
| Gold | | 1966.40 | -0.95 |
| Silver (US cents) | | 2367.00 | 8.50 |
| Platinum | | 1020.00 | -15.00 |
| Palladium | | 1381.00 | -30.00 |
| **Bulk Commodities** | | | |
| Iron Ore | | 111.43 | 2.25 |
| Baltic Dry Index | | 1055.00 | 15.00 |
| Richards Bay ICE Futures | | 106.50 | 0.50 |

| **Agricultural & Cattle Futures** | | Price* | Change |
|---|---|---|---|
| Corn♦ | Jul | 605.75 | -4.50 |
| Wheat♦ | Jul | 627.25 | 1.00 |
| Soybeans♦ | Jul | 1368.50 | 5.25 |
| Soybeans Meal♦ | Jul | 405.60 | 1.60 |
| Cocoa (ICE Liffe)✠ | Jul | 2457.00 | 43.00 |
| Cocoa (ICE US)♥ | Jul | 3146.00 | -3.00 |
| Coffee(Robusta)✠ | Jul | 2730.00 | -30.00 |
| Coffee (Arabica)♥ | Jul | 194.25 | -0.60 |
| White Sugar✠ | | 682.30 | -6.50 |
| Sugar 11♥ | | 25.44 | -0.04 |
| Cotton♥ | Jul | 84.13 | -0.18 |
| Orange Juice♥ | Jul | 262.70 | 4.35 |
| Live Cattle♣ | Jun | 178.70 | -0.30 |
| Feeder Cattle♣ | May | 134.88 | - |
| Lean Hogs♣ | Jul | 87.50 | 0.58 |

| | Jun 08 | % Chg Month | % Chg Year |
|---|---|---|---|
| S&P GSCI Spt | 543.33 | -1.94 | -33.47 |
| DJ UBS Spot | 101.28 | -2.18 | -25.85 |
| TR/CC CRB TR | 290.80 | -0.19 | -17.09 |
| LEBA EUA Carbon | 58.91 | -1.98 | 129.94 |
| LEBA UK Power | 1048.00 | -37.43 | -39.60 |

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

## BONDS: INDEX-LINKED

| | Price | Yield | | Month | Value | | No of |
|---|---|---|---|---|---|---|---|
| | Jun 08 | Jun 08 | Prev | return | stock | Market | stocks |
| Can 4.25%' 26 | 107.96 | 1.870 | 1.896 | -0.66 | 5.25 | 70125.90 | 8 |
| Fr 0.25%' 24 | 99.79 | 0.436 | 0.424 | -0.01 | 17.92 | 261804.02 | 17 |
| Swe 1.00%' 25 | 126.57 | 1.116 | 1.127 | -0.13 | 35.93 | 226289.34 | 7 |
| UK 2.500%' 24 | 374.36 | 2.889 | 2.866 | -0.05 | 6.82 | 530294.39 | 31 |
| UK 2.50%' 24 | 374.36 | 2.889 | 2.866 | -0.05 | 6.82 | 530294.39 | 31 |
| UK 2.00%' 35 | 239.58 | 0.795 | 0.780 | 0.64 | 9.08 | 530294.39 | 31 |
| US 0.625%' 26 | 96.26 | 2.110 | 2.165 | 0.08 | 42.42 | 1659528.68 | 48 |
| US 3.625%' 28 | 108.56 | 1.775 | 1.840 | 0.00 | 16.78 | 1659528.68 | 48 |

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 | 4.02 | 1.65 | 0.23 | Netherlands | 2.69 | 0.33 | -1.10 |
| Austria | 2.92 | 0.56 | -0.87 | New Zealand | 4.51 | 2.15 | 0.72 |
| Canada | 3.45 | 1.09 | -0.34 | Norway | 3.53 | 1.16 | -0.26 |
| Denmark | 2.63 | 0.27 | -1.16 | Portugal | 2.77 | 0.41 | -1.02 |
| Finland | 2.87 | 0.51 | -0.92 | Spain | 3.13 | 0.77 | -0.66 |
| Germany | 2.36 | 0.00 | -1.43 | Sweden | 0.69 | -1.67 | -3.10 |
| Italy | 1.78 | -0.58 | -2.01 | Switzerland | 0.94 | -1.42 | -2.85 |
| Japan | 0.19 | -2.17 | -3.60 | United States | 3.79 | 1.43 | 0.00 |

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

# MANAGED FUNDS SERVICE

## SUMMARY

FT.COM/FUNDS

### Winners - US Fund Foreign Large Growth

| Fund Name | 1yr Return GBP | 3yr Return GBP | 5yr Return GBP | 3yr Sharpe Ratio | 3yr Std Dev |
|---|---|---|---|---|---|
| Chautauqua International Growth Fund | 10.00 | 7.65 | 5.33 | 0.55 | 18.84 |
| Fiera Capital International Equity Fund | 11.36 | 7.47 | 6.94 | 0.54 | 19.15 |
| Buffalo International Fund | 9.06 | 7.00 | 5.39 | 0.50 | 19.41 |
| Goldman Sachs GQG Partners International Opportunities Fund | -0.56 | 6.31 | 5.84 | 0.46 | 15.41 |
| WCM International Equity Fund | 3.38 | 6.29 | - | 0.49 | 17.38 |

### Losers - US Fund Foreign Large Growth

| Fund Name | 1yr Return GBP | 3yr Return GBP | 5yr Return GBP | 3yr Sharpe Ratio | 3yr Std Dev |
|---|---|---|---|---|---|
| Invesco International Select Equity Fund | 0.53 | -3.84 | -0.89 | -0.13 | 19.44 |
| Morgan Stanley Institutional Fund, Inc. International Opportunity Portfolio | 5.43 | -2.77 | 0.39 | -0.01 | 26.55 |
| Wasatch International Select Fund | 5.64 | -1.26 | - | -0.02 | 22.61 |
| Baillie Gifford International Growth Fund | 1.73 | -1.07 | 1.74 | 0.03 | 25.58 |
| Touchstone International Growth Fund | -1.03 | -0.98 | -0.92 | 0.01 | 18.30 |

### Morningstar Star Ratings

| Fund Name | Base Currency | Morningstar Rating 3 Yr | Morningstar Rating 5 Yr | Morningstar Rating 10 Yr |
|---|---|---|---|---|
| Managed Growth {CLUB} | Pound Sterling | ★★★★★ | ★★★ | ★★★★ |
| Select Global Equities | Pound Sterling | ★★★★ | ★★★ | ★★★★ |
| UK | Pound Sterling | ★★★ | ★★★ | ★★★ |
| Candriam Bds Euro Sh.Term Cap | Euro | ★★★ | ★★★ | ★★★ |
| Janus Henderson UK Alpha Fund A Acc | Pound Sterling | ★★ | ★ | ★★ |

### Global Broad Category Group - Miscellaneous

| Morningstar Category | Base Currency | Total Ret 1Yr GBP | Total Ret 3Yr GBP | Total Ret 5Yr GBP |
|---|---|---|---|---|
| Guaranteed Funds Equities | Mexican Peso | -4.87 | 6.66 | - |
| Capital Protected Funds | Mexican Peso | 5.30 | 4.21 | 4.96 |
| Other | Mexican Peso | -4.06 | -0.60 | 0.10 |
| Capital Protected | Baht | 0.21 | -0.66 | -0.10 |
| ELF/DLF | US Dollar | -0.60 | -4.38 | - |

### Advertising Feature

TROY ASSET MANAGEMENT

Please remember that past performance is not necessarily a guide to future performance

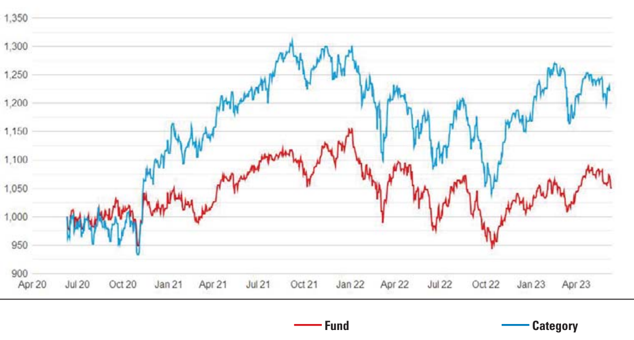
| | |
|---|---|
| **Firm Name** | |
| Troy Asset Management Limited | |
| **Fund Name** | |
| Trojan Ethical Income O Acc | |
| **Morningstar Category** | |
| UK Large-Cap Equity | |
| **Max Annual Charge** | |
| - | |
| **3Yr Rating** | |
| ★ | |
| **Morningstar Sustainability Rating** | |
| ●●●●○ | |

| | | | |
|---|---|---|---|
| **Bid Price** | - | KIID Ongoing Charge | 1.02 |
| **Offer Price** | - | Day-End One Year Return | 0.45 |
| **+/-** | -1.60 | **Total Ret 3Yr** | 2.11 |

### Performance

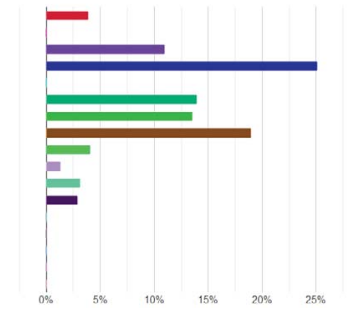
Jun 2020 - Jun 2023

*Trojan Ethical Income O Acc*



**Day** ↘ **-1.14%** **Month** ↘ **-2.07%** **Year** ↗ **1.89%**

### Weightings - As of 30/04/2023



| Sector | Weighting | Cat Avg. |
|---|---|---|
| Basic Materials | 3.95% | 6.95% |
| Communication Services | - | 5.03% |
| Consumer Cyclical | 11.23% | 14.62% |
| Consumer Defensive | 25.66% | 11.18% |
| Energy | - | 10.02% |
| Financial Services | 14.27% | 15.78% |
| Healthcare | 13.83% | 8.94% |
| Industrials | 19.39% | 10.65% |
| Real Estate | 4.13% | 1.37% |
| Technology | 1.34% | 2.63% |
| Utilities | 3.22% | 3.06% |
| Cash & Equivalents | 2.98% | 7.68% |
| Corporate | - | 0.78% |
| Derivative | - | 0.47% |
| Government | - | 0.79% |
| Municipal | - | 0.00% |
| Securitized | - | 0.05% |

### Risk Measures - As of 31/05/2023

| | 1Yr | 1Yr Cat Ave | 3Yr | 3Yr Cat Ave | 5Yr | 5Yr Cat Ave |
|---|---|---|---|---|---|---|
| **Alpha** | -0.59 | -0.22 | -4.87 | -1.21 | 1.05 | -0.80 |
| **Beta** | 0.75 | 1.00 | 0.69 | 1.01 | 0.66 | 1.01 |
| **Information Ratio** | 0.00 | -0.18 | -1.01 | -0.36 | 0.05 | -0.28 |
| **R Squared** | 77.37% | 88.50% | 62.60% | 86.36% | 68.31% | 87.85% |
| **Sharpe Ratio** | -0.12 | 0.28 | 0.15 | 0.49 | 0.27 | 0.25 |
| **Std Dev** | 13.16 | 14.85 | 11.29 | 14.29 | 11.49 | 15.04 |

### Top 10 Holdings - As of 30/04/2023

| Holding | Sector | Weighting |
|---|---|---|
| Unilever PLC | Consumer Defensive | 7.08% |
| RELX PLC | Industrials | 6.98% |
| Reckitt Benckiser Group PLC | Consumer Defensive | 5.73% |
| Compass Group PLC | Consumer Cyclical | 4.09% |
| Nestle SA | Consumer Defensive | 3.94% |
| Experian PLC | Industrials | 3.51% |
| Bunzl PLC | Consumer Defensive | 3.43% |
| Novartis AG Registered Shares | Healthcare | 3.34% |
| GSK PLC | Healthcare | 3.31% |
| National Grid PLC | Utilities | 3.15% |

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**abrdn Capital (CI) Limited** ( JER )
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
**FCA Recognised**
**abrdn Capital Offshore Strategy Fund Limited**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Bridge Fund | £2.1942 | - | -0.0047 | 2.10 | -1.02 | 3.84 |
| Global Equity Fund | £3.3842 | - | -0.0116 | 1.37 | 2.57 | 6.81 |
| Global Fixed Interest Fund | £0.7426 | - | 0.0014 | 6.37 | -2.08 | -3.22 |
| Income Fund | £0.6293 | - | -0.0013 | 3.20 | -3.14 | 4.32 |
| Sterling Fixed Interest Fund | £0.6629 | - | 0.0031 | 4.54 | -9.24 | -6.40 |
| UK Equity Fund | £1.9078 | - | -0.0137 | 3.70 | -5.04 | 4.12 |

**Algebris Investments** ( IRL )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Algebris Core Italy I EUR | €149.71 | - | 0.55 | 0.00 | 1.31 | 13.07 |
| Algebris Core Italy R EUR | €141.58 | - | 0.52 | 0.00 | 0.55 | 13.36 |
| Algebris Financial Credit I EUR | €175.63 | - | 1.04 | 0.00 | -2.13 | -0.24 |
| Algebris Financial Credit R EUR | €150.56 | - | 0.88 | 0.00 | -2.82 | -0.84 |
| Algebris Financial Credit Rd EUR | € 89.44 | - | 0.53 | 6.08 | -2.81 | -0.79 |
| Algebris Financial Equity B EUR | €170.00 | - | -0.36 | - | 10.69 | 18.84 |
| Algebris Financial Equity R EUR | €142.25 | - | -0.30 | - | 9.60 | 17.71 |
| Algebris Financial Income I EUR | €182.72 | - | -0.01 | 0.00 | 1.53 | 9.25 |
| Algebris Financial Income R EUR | €165.51 | - | -0.02 | 0.00 | 0.61 | 8.28 |
| Algebris Financial Income Rd EUR | € 99.12 | - | -0.01 | 4.96 | 0.61 | 8.27 |
| Algebris Global Credit Opportunities I EUR | €129.12 | - | -0.04 | 0.00 | 3.49 | 2.11 |
| Algebris Global Credit Opportunities R EUR | €125.71 | - | -0.04 | 0.00 | 2.93 | 1.72 |
| Algebris Global Credit Opportunities Rd EUR | €108.52 | - | -0.03 | 2.65 | 2.94 | 1.84 |
| Algebris IG Financial Credit I EUR | € 97.47 | - | -0.34 | 0.00 | -2.81 | -2.15 |
| Algebris IG Financial Credit R EUR | € 95.72 | - | -0.34 | 0.00 | -3.29 | -2.64 |
| Algebris Sust. World B | €107.43 | - | -0.10 | - | - | - |
| Algebris Sust. World R | €106.56 | - | -0.10 | - | - | - |

**The Antares European Fund Limited**
**Other International**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| AEF Ltd Usd | $558.22 | - | 2.55 | 0.00 | 5.81 | -1.53 |
| AEF Ltd Eur | €510.72 | - | 2.48 | 0.00 | 4.15 | -2.34 |

**Artemis Fund Managers Ltd (1200)F** ( UK )
57 St. James's Street, London SW1A 1LD 0800 092 2051
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Artemis SmartGARP UK Eq I Acc | 2360.59 | - | -20.81 | - | 1.69 | 16.61 |
| Artemis Corporate Bond I Acc | 96.80 | - | 0.43 | 3.69 | -5.85 | -2.75 |
| Artemis SmartGARP Eur Eq I Acc | 448.03 | - | -2.85 | - | 8.24 | 11.97 |
| Artemis European Opps I Acc | 128.63 | - | -1.40 | - | 11.25 | 4.87 |
| Artemis SmartGARP GloEmr Eq I Acc | 170.15 | - | 0.30 | - | 3.59 | 9.11 |
| Artemis SmartGARP Glo Eq I Acc | 378.32 | - | -0.89 | - | -2.44 | 9.36 |
| Artemis Global Income I Inc | 105.56 | - | -0.36 | 4.62 | -5.61 | 10.32 |
| Artemis Global Select I Acc | 164.44 | - | -0.73 | - | -0.27 | 6.63 |
| Artemis High Income I Q Inc | 68.76 | - | 0.11 | 6.30 | 0.36 | 2.13 |
| Artemis Income I Inc | 248.78 | - | -1.73 | 4.07 | 3.87 | 9.92 |
| Artemis Monthly Dist I Inc | 67.35 | - | -0.05 | 4.94 | -5.10 | 4.42 |
| Artemis Positive Future Fund | 67.30 | - | -0.40 | 0.00 | -0.09 | - |
| Artemis Strategic Assets I Acc | 100.07 | - | -0.17 | 0.00 | 14.77 | 8.66 |
| Artemis Strategic Bond I Q Acc | 101.04 | - | 0.40 | - | -3.28 | -1.82 |
| Artemis Target Return Bond I Acc | 106.28 | - | 0.06 | 3.77 | 0.02 | 1.49 |
| Artemis UK Select Fund Class I Acc | 813.65 | - | -6.75 | 2.80 | 7.11 | 15.31 |
| Artemis UK Smaller Cos I Acc | 1983.70 | - | -13.84 | - | -4.61 | 9.39 |
| Artemis UK Special Sits I Acc | 793.17 | - | -4.61 | - | 3.20 | 10.83 |
| Artemis US Abs Return I Hdg Acc | 113.63 | - | 0.30 | 0.24 | 1.66 | 0.18 |
| Artemis US Extended Alpha I Acc | 339.08 | - | -0.14 | 0.00 | 3.81 | 10.00 |
| Artemis US Select I Acc | 300.38 | - | -0.02 | - | 1.25 | 6.40 |
| Artemis US Smlr Cos I Acc | 291.00 | - | -3.06 | 0.00 | -6.77 | 4.24 |

**Ashmore Group**
61 Aldwych, London WC2B 4AE. Dealing team: +352 27 62 22 233
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Emerging Markets Equity Fund | $123.27 | - | 0.71 | - | -0.06 | 5.38 |
| Emerging Markets Equity ESG Fund | $142.29 | - | 0.37 | 0.00 | 3.03 | 4.69 |
| Emerging Markets Active Equity Fund | $121.44 | - | 0.41 | 0.00 | -8.84 | -1.27 |
| Emerging Markets Frontier Equity Fund | $177.89 | - | 0.13 | 1.04 | -8.06 | 7.79 |
| Emerging Markets Blended Debt Fund | $ 52.39 | - | 0.13 | 5.10 | -4.86 | -7.25 |
| Emerging Markets Blended Debt ESG Fund | $ 87.26 | - | 0.00 | 0.00 | -1.73 | -5.13 |
| Emerging Markets Debt Fund | $ 56.74 | - | -0.04 | 6.11 | -6.16 | -7.90 |
| Emerging Markets Corporate Debt Fund | $ 57.84 | - | 0.12 | 7.67 | -6.37 | -5.57 |
| Emerging Markets Local Currency Bond Fund | $ 63.87 | - | 0.15 | 4.47 | 7.99 | -1.13 |

**Atlantas Sicav** ( LUX )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| American Dynamic | $6659.18 | - | 80.68 | 0.00 | -1.81 | 7.46 |
| American One | $7217.40 | - | 90.44 | - | 5.45 | 12.05 |
| Bond Global | €1546.20 | - | 4.43 | 0.00 | -0.26 | 0.58 |
| Eurocroissance | €1400.27 | - | 1.09 | - | 2.65 | 7.88 |
| Far East | $1035.33 | - | 32.65 | - | -1.69 | 3.46 |

**Blue Whale Investment Funds ICAV** ( IRE )
www.bluewhale.co.uk, info@bluewhale.co.uk
**FCA Recognised - Ireland UCITS**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Blue Whale Growth USD T | $ 9.91 | - | 0.05 | - | 9.48 | - |

**Brooks Macdonald International Fund Managers Limited** ( JER )
5 Anley Street, St Helier, Jersey, JE2 3QE
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8000 (UK)
**Brooks Macdonald International Investment Funds Limited**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Euro High Income | €1.2120 | - | 0.0014 | 2.50 | -4.62 | -4.98 |
| High Income | £0.6347 | - | 0.0025 | 3.77 | -8.28 | -6.09 |
| Sterling Bond | £1.2237 | - | 0.0048 | 2.06 | -7.43 | -6.06 |

**Brooks Macdonald International Multi Strategy Fund Limited**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Cautious Balanced Strategy | £1.2387 | - | -0.0017 | 0.00 | -1.87 | -0.53 |
| Cautious Balanced Strategy A | £0.8835 | - | -0.0012 | - | -1.39 | - |
| Balanced Strategy | £0.9203 | - | -0.0019 | 0.09 | 0.63 | - |
| Balanced Strategy A | £0.9189 | - | -0.0019 | 0.56 | 0.64 | - |
| Growth Strategy | £1.9574 | - | -0.0044 | 0.00 | 0.88 | 2.38 |
| Growth Strategy A | £0.9332 | - | -0.0021 | 0.49 | 0.90 | - |
| High Growth Strategy | £2.7512 | - | -0.0074 | 0.00 | 2.12 | 3.80 |
| High Growth Strategy A | £0.9359 | - | -0.0026 | 0.12 | 2.62 | - |
| US$ Growth Strategy | $1.7602 | - | 0.0055 | 0.00 | 3.43 | 1.37 |

Dealing Daily. Initial Charge Nil for A classes and up to 2% for other classes

**Brown Advisory Funds plc** ( IRL )
http://www.brownadvisory.com Tel: 020 3301 8130
**FCA Recognised**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| US Small Cap Blend Fund USD B | $ 21.95 | - | -0.08 | - | 2.76 | 8.28 |
| US Flexible Equity Fund USD B | $ 25.10 | - | 0.07 | 0.00 | 5.64 | 9.88 |
| Global Leaders Fund USD C | $ 22.32 | - | 0.11 | - | 8.77 | 9.59 |
| US Sustainable Growth Fund USD C | $ 25.51 | - | 0.14 | - | 6.65 | 9.48 |
| Global Leaders Sustainable Fund USD C | $ 13.50 | - | 0.06 | - | 7.23 | 9.58 |
| US Equity Growth Fund USD B | $ 50.60 | - | 0.37 | - | 5.02 | 3.05 |
| US Smaller Companies Fund USD B | $ 35.91 | - | -0.08 | - | 3.73 | 6.13 |
| US Mid-Cap Growth Fund USD C | $ 17.27 | - | 0.06 | 0.00 | 3.23 | 2.28 |
| Global Sustainable Total Return Bond GBP B | £ 9.42 | - | 0.01 | 0.90 | -1.39 | - |

**CG Asset Management Limited** ( IRL )
25 Moorgate, London, EC2R 6AY
Dealing: Tel. +353 1434 5098 Fax. +353 1542 2859
**FCA Recognised**
**CG Portfolio Fund Plc**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Absolute Return Cls M Inc | £133.37 | 133.97 | -0.11 | 1.69 | -4.42 | 3.10 |
| Capital Gearing Portfolio GBP P | £36676.78 | 36879.01 | -22.80 | 1.71 | -4.90 | 3.55 |
| Capital Gearing Portfolio GBP V | £178.38 | 179.36 | -0.11 | 1.71 | -4.90 | 3.55 |
| Dollar Fund Cls D Inc | £163.11 | 163.60 | 0.06 | 1.24 | -4.97 | -0.20 |
| Dollar Hedged GBP Inc | £ 94.28 | 94.56 | 0.58 | 1.21 | -6.62 | -1.12 |
| Real Return Cls A Inc | £195.07 | 195.66 | -0.04 | 1.73 | -4.77 | -0.54 |

CANDRIAM A NEW YORK LIFE INVESTMENTS COMPANY

**Candriam Investors Group** ( LUX )
**FCA Recognised**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Candriam Eqts L Australia Cap | A$1898.34 | - | -8.87 | 0.00 | 3.34 | 13.60 |

**Candriam Investors Group**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Candriam Eqts L Emerging Mkts Cap | €857.53 | - | -6.58 | 0.00 | -13.35 | 0.73 |
| Candriam Bonds Credit Opportunities | €199.02 | - | 0.11 | 0.00 | 3.07 | -0.08 |
| Candriam Bds Euro High Yield Cap | €1205.19 | - | 1.60 | - | 3.23 | 0.43 |
| Candriam Bds Euro Sh.Term Cap | €1996.73 | - | -2.56 | 0.00 | -1.28 | -1.19 |

**Chartered Asset Management Pte Ltd**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| CAM-GTF VCC | $294965.31 | 294965.31 | 7567.86 | - | -6.36 | 3.78 |
| CAM GTi VCC | $780.49 | - | -32.39 | - | 12.31 | 4.69 |
| RAIC VCC | $ 1.64 | 1.64 | 0.03 | 2.06 | 5.74 | -1.66 |

**Consistent Unit Tst Mgt Co Ltd (1200)F** ( UK )
Stuart House, St John's Street, Peterborough, PE1 5DD
Dealing & Client Services 0345 850 8818
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Consistent UT Inc | 59.19 | 59.19 | -0.06 | 1.05 | -8.12 | 11.35 |
| Consistent UT Acc | 160.80 | 160.80 | -0.20 | 1.05 | -8.11 | 11.34 |
| Practical Investment Inc | 242.60 | 242.60 | -0.80 | 3.77 | 4.12 | 9.88 |
| Practical Investment Acc | 1545.00 | 1545.00 | -5.00 | 3.77 | 4.18 | 9.25 |

**CP Global Asset Management Pte. Ltd.**
www.cpglobal.com.sg, Email: customer_support@cpglobal.com.sg
**International Mutual Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| CP Multi-Strategy Fund | $313.61 | - | -0.01 | - | 8.57 | 12.35 |

**CP Capital Asset Management Limited**
www.cpgbl.com, email: fundservices@cpgbl.com
**International Mutual Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| CPS Master Private Fund | $428.64 | - | 1.04 | - | 8.74 | 11.68 |
| CP Global Alpha Fund | $354.05 | - | 0.31 | - | 9.75 | 12.06 |

**DWS** ( LUX )
Tel: +44 (0) 20 7541 8999 www.dws.com
**FCA Recognised**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| DWS Invest Top Dividend | £146.87 | 146.87 | -0.14 | 3.29 | -3.00 | 6.00 |
| DWS Invest Top Euroland | £160.45 | 160.45 | -0.24 | - | 9.02 | 6.40 |
| DWS Invest Multi Opportunities | £118.01 | 118.01 | -0.46 | 0.00 | 3.51 | 5.78 |
| DWS Invest Global Bonds | £ 93.08 | 93.08 | -0.01 | 0.00 | -3.07 | -2.84 |

DODGE & COX WORLDWIDE FUNDS

**Dodge & Cox Worldwide Funds** ( IRL )
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.worldwide.com 020 3713 7664
**FCA Recognised**
**Dodge & Cox Worldwide Funds plc - Global Bond Fund**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| EUR Accumulating Class | € 16.12 | - | -0.07 | - | 3.53 | 2.23 |
| EUR Accumulating Class (H) | € 10.67 | - | 0.03 | - | 1.23 | -0.98 |
| EUR Distributing Class | € 11.54 | - | -0.05 | - | 2.37 | 1.26 |
| EUR Distributing Class (H) | € 7.57 | - | 0.02 | - | 0.04 | -2.04 |
| GBP Distributing Class | £ 12.17 | - | -0.08 | - | 3.98 | 1.11 |
| GBP Distributing Class (H) | £ 8.17 | - | 0.03 | 3.49 | 1.47 | -1.16 |
| USD Accumulating Class | $ 12.54 | - | 0.04 | 0.00 | 4.15 | 0.65 |

**Dodge & Cox Worldwide Funds plc-Global Stock Fund**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| USD Accumulating Share Class | $ 30.41 | - | 0.11 | - | 0.90 | 12.34 |
| GBP Accumulating Share Class | £ 39.83 | - | -0.26 | - | 0.73 | 12.86 |
| GBP Distributing Share class | £ 26.74 | - | -0.17 | - | 0.34 | 12.47 |
| EUR Accumulating Share Class | € 42.37 | - | -0.17 | - | 0.28 | 14.10 |
| GBP Distributing Class (H) | £ 13.99 | - | 0.05 | 0.79 | -1.52 | 10.53 |

**Dodge & Cox Worldwide Funds plc-U.S. Stock Fund**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| USD Accumulating Share Class | $ 38.59 | - | 0.03 | 0.00 | -0.64 | 12.09 |
| GBP Accumulating Share Class | £ 47.80 | - | -0.45 | - | -0.79 | 12.61 |
| GBP Distributing Share Class | £ 28.58 | - | -0.26 | 0.18 | -1.38 | 12.26 |
| EUR Accumulating Share Class | € 46.42 | - | -0.33 | - | -1.26 | 13.86 |
| GBP Distributing Class (H) | £ 15.20 | - | 0.01 | 0.37 | -2.95 | 10.36 |

**Dragon Capital**
www.dragoncapital.com
Fund information:info@dragoncapital.com
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Vietnam Equity (UCITS) Fund A USD | $ 26.60 | - | 0.26 | 0.00 | -23.76 | 9.28 |

**EdenTree Investment Management Ltd** ( UK )
PO Box 3733, Swindon, SN4 4BG, 0800 358 3010
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Amity Balanced For Charities A Inc | 97.97 | - | -0.63 | 5.87 | -4.46 | 4.60 |
| Amity Global Equity Inc for Charities A Inc | 155.50 | - | -1.10 | - | 2.93 | 7.08 |
| EdenTree European Equity Cls A Inc | 323.40 | - | -3.00 | 1.96 | 8.11 | 11.21 |
| EdenTree European Equity Cls B Inc | 327.20 | - | -3.00 | - | 8.76 | 11.86 |
| EdenTree Global Equity Cls A Inc | 341.20 | - | -1.50 | - | 4.74 | 6.76 |
| EdenTree Global Equity Cls B Inc | 344.50 | - | -1.60 | - | 5.28 | 7.33 |
| EdenTree Responsible and Sust S Dtd Bd B | 92.37 | - | 0.13 | - | -2.02 | -1.45 |
| EdenTree Sterling Bond Cls A Inc | 83.05 | - | 0.28 | 4.22 | -7.35 | -3.75 |
| EdenTree Sterling Bond Cls B Inc | 94.02 | - | 0.33 | - | -6.79 | -3.13 |
| EdenTree UK Equity Cls A Inc | 222.40 | - | -2.00 | - | -0.24 | 1.49 |
| EdenTree UK Equity Cls B Inc | 222.10 | - | -2.00 | - | 0.34 | 2.08 |
| EdenTree UK Equity Opps Cls A Inc | 276.20 | - | -1.00 | - | 0.08 | 2.11 |
| EdenTree UK Equity Opps Cls B Inc | 282.40 | - | -1.00 | - | 0.63 | 2.70 |
| Edentree Global Impact Bond B | 85.26 | - | 0.32 | 3.14 | -2.52 | - |
| Edentree Green Future B Net Inc | 101.90 | - | -0.60 | - | 4.02 | - |
| EdenTree Managed Income Cls A Inc | 120.90 | - | -0.80 | 4.96 | -3.31 | 5.32 |
| EdenTree Managed Income Cls B Inc | 129.40 | - | -0.70 | 4.96 | -2.79 | 5.89 |

**Euronova Asset Management UK LLP** ( CYM )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Smaller Cos Cls One Shares | € 54.48 | - | -0.85 | 0.00 | -3.47 | 3.85 |
| Smaller Cos Cls Two Shares | € 34.69 | - | -0.54 | 0.00 | -3.96 | 2.46 |
| Smaller Cos Cls Three Shares | € 17.31 | - | -0.27 | 0.00 | -3.94 | 2.15 |
| Smaller Cos Cls Four Shares | € 22.82 | - | -0.36 | 0.00 | -3.96 | 3.02 |

**Fidelity Investments International**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Emerging Mkts NAV | £ 7.21 | - | -0.16 | 2.06 | -5.92 | -4.50 |

Fidelity INTERNATIONAL

**FIL Investment Services (UK) Limited (1200)F** ( UK )
Beech Gate, Millfield Lane, Lower Kingswood, Tadworth, KT20 6RP
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181
**OEIC Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Allocator World Fund W-ACC-GBP | £ 2.70 | - | -0.01 | - | 2.27 | 8.54 |
| American Fund W-ACC-GBP | £ 56.96 | - | -0.08 | - | 8.74 | 5.97 |
| American Special Sits W-ACC-GBP | £ 21.51 | - | -0.11 | - | -5.91 | 11.47 |
| Asia Fund W-ACC-GBP | £ 15.14 | - | -0.01 | 0.82 | -5.96 | 0.85 |
| Asia Pacific Ops W-Acc | £ 2.84 | - | 0.00 | 1.36 | -2.64 | 8.53 |
| Asian Dividend Fund W-ACC-GBP | £ 2.27 | - | 0.00 | 3.14 | -2.78 | 6.46 |
| Cash Fund W-ACC-GBP | £ 1.05 | - | 0.00 | 1.80 | 2.78 | 0.94 |
| China Consumer Fund W-ACC-GBP | £ 2.46 | - | 0.00 | 0.32 | -16.23 | -9.15 |
| Emerging Asia Fund W-ACC-GBP | £ 1.85 | - | 0.00 | 0.65 | -2.64 | 3.94 |
| Enhanced Income Fund W-INC-GBP | £ 0.83 | - | -0.01 | 6.69 | 2.64 | 8.56 |
| European Fund W-ACC-GBP | £ 25.06 | - | -0.15 | - | 13.60 | 10.61 |
| Extra Income Fund W-ACC-GBP | £ 1.26 | - | 0.01 | 4.70 | -5.70 | -2.20 |
| Global Dividend Fund W-ACC-GBP | £ 3.04 | - | -0.01 | - | 6.22 | 7.20 |
| Global Enhanced Income W-ACC-GBP | £ 2.38 | - | -0.01 | 4.37 | 6.35 | 6.89 |
| Global High Yield Fund W-ACC-GBP | £ 13.89 | - | 0.02 | - | -1.84 | -1.10 |
| Global Property Fund W-ACC-GBP | £ 1.82 | - | -0.02 | 2.10 | -14.79 | -2.05 |
| Global Special Sits W-ACC-GBP | £ 55.96 | - | -0.14 | - | 1.36 | 8.53 |
| Index Emerging Markets P-ACC-GBP | £ 1.67 | - | 0.00 | - | -4.24 | 2.20 |
| Index Europe ex UK P-ACC-GBP | £ 1.98 | - | -0.01 | - | 10.34 | 9.20 |
| Index Japan P-ACC-GBP | £ 2.03 | - | 0.03 | 2.11 | 10.80 | 5.47 |
| Index Pacific ex Japan P-Acc-GBP | £ 1.86 | - | 0.00 | 3.84 | -2.26 | 5.47 |
| Index Sterling Corporate Bond Fund P-ACC-GBP | £ 0.82 | - | 0.01 | 3.02 | -8.00 | - |
| Index UK Gilt Fund P-ACC-GBP | £ 0.72 | - | 0.01 | - | -14.84 | - |
| Index UK P-ACC-GBP | £ 1.60 | - | -0.01 | 3.47 | 2.59 | 9.12 |
| Index US P-ACC-GBP | £ 3.58 | - | -0.01 | - | 5.69 | 11.97 |
| Index World P-ACC-GBP | £ 2.79 | - | 0.00 | - | 5.52 | 10.50 |
| Japan Fund W-ACC-GBP | £ 6.05 | - | 0.08 | 1.46 | 10.98 | 11.53 |
| Japan Smaller Companies Fund W-ACC-GBP | £ 3.62 | - | 0.06 | - | 7.68 | 0.10 |
| MoneyBuilder Balanced Fund W-ACC-GBP | £ 0.59 | - | 0.00 | 3.30 | -4.33 | 1.70 |
| MoneyBuilder Dividend Fund W-INC-GBP | £ 1.26 | - | 0.00 | 4.22 | 1.26 | 8.71 |
| Multi Asset Allocator Adventurous Fund W-ACC-GBP | £ 2.15 | - | 0.00 | - | 1.27 | 5.96 |
| Multi Asset Allocator Defensive Fund W-ACC-GBP | £ 1.31 | - | 0.00 | 1.18 | -1.80 | -1.62 |
| Multi Asset Allocator Growth Fund W-ACC-GBP | £ 1.86 | - | 0.00 | 1.03 | 0.22 | 3.35 |
| Multi Asset Allocator Strategic Fund W-ACC-GBP | £ 1.59 | - | 0.00 | - | -0.87 | 0.79 |
| Multi Asset Balanced Income Fund W-INC-GBP | £ 0.94 | - | 0.00 | 4.02 | -5.15 | -0.61 |
| Multi Asset Income & Growth Fund W-INC-GBP | £ 1.00 | - | -0.01 | 3.88 | -4.90 | 1.31 |
| Multi Asset Income Fund W-INC-GBP | £ 0.86 | - | 0.00 | 4.86 | -7.49 | -2.18 |
| Multi Asset Open Advent W-ACC-GBP | £ 1.76 | - | 0.00 | 1.53 | 0.17 | 5.94 |
| Multi Asset Open Defen W-ACC-GBP | £ 1.33 | - | 0.00 | 2.07 | -2.20 | 0.71 |
| Multi Asset Open Growth Fund W-ACC-GBP | £ 1.66 | - | -0.01 | 1.72 | 0.12 | 5.41 |
| Multi Asset Open Strategic Fund W-ACC-GBP | £ 1.51 | - | 0.00 | - | -1.44 | 2.81 |
| Open World Fund W-ACC-GBP | £ 2.31 | - | -0.01 | - | 2.21 | 8.59 |
| Select 50 Balanced Fund PI-ACC-GBP | £ 1.14 | - | -0.01 | - | -2.22 | 1.97 |
| Short Dated Corporate Bond Fund W-ACC-GBP | £ 10.56 | - | 0.00 | 3.79 | -1.46 | -0.53 |
| Special Situations Fund W-ACC-GBP | £ 42.84 | - | -0.30 | - | -0.49 | 11.89 |
| Strategic Bond Fund W-ACC-GBP | £ 1.18 | - | 0.00 | 3.49 | -4.37 | -3.76 |
| Sustainable Emerg Mkts Equity Fund A-ACC Shares | £ 1.52 | - | 0.01 | 4.74 | -13.81 | -0.91 |
| Sustainable Emerg Mkts Equity Fund A-ACC Shares | £ 1.52 | - | 0.01 | 4.74 | -13.81 | -0.91 |
| Sustainable European Equity Fund W-ACC-GBP | £ 5.67 | - | -0.05 | - | 11.12 | 6.13 |
| Sustainable Global Equity Fund W-ACC-GBP | £ 33.88 | - | -0.11 | 0.41 | 4.15 | 7.18 |
| Sustainable MoneyBuilder Income Fund W-ACC-GBP | £ 12.00 | - | 0.05 | - | -8.68 | -5.10 |
| Sustainable Multi Asset Balanced Fund W-ACC-GBP | £ 0.94 | - | 0.00 | - | -2.44 | - |
| Sustainable Multi Asset Conservative Fund W-ACC-GBP | £ 0.89 | - | 0.00 | 1.71 | -5.14 | - |
| Sustainable Multi Asset Growth Fund W-ACC-GBP | £ 0.96 | - | 0.00 | 1.43 | -1.60 | - |
| Sustainable Water & Waste W-ACC-GBP | £ 1.17 | - | 0.00 | 0.54 | -0.93 | 5.21 |
| UK Opportunities Fund W-ACC-GBP | 243.70 | - | -1.90 | 1.26 | -14.22 | 3.61 |
| UK Select Fund W-ACC-GBP | £ 3.67 | - | -0.03 | - | 1.86 | 8.12 |
| UK Smaller Companies W-ACC-GBP | £ 3.64 | - | -0.05 | 2.21 | -0.44 | 17.86 |

**Findlay Park Funds Plc** ( IRL )
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900
**FCA Recognised**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| American EUR Unhedged Class | €159.85 | - | -0.51 | - | 3.61 | - |
| American Fund USD Class | $172.21 | - | 0.47 | - | 4.02 | 7.95 |
| American Fund GBP Hedged | £ 84.09 | - | 0.21 | 0.00 | 1.72 | 6.63 |
| American Fund GBP Unhedged | £137.37 | - | -0.44 | - | 4.15 | 8.42 |

FOORD ASSET MANAGEMENT www.foord.com

**Foord Asset Management**
Website: www.foord.com - Email: info@foord.com
**FCA Recognised - Luxembourg UCITS**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Foord International Fund \| R | $ 49.78 | - | 0.03 | 0.00 | -0.64 | 4.12 |
| Foord Global Equity Fund (Lux) \| R | $ 16.81 | - | 0.07 | - | -1.47 | - |

**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Foord Global Equity Fund (Sing) \| B | $ 20.08 | - | 0.09 | 0.00 | -1.81 | 3.96 |
| Foord International Trust (Gsy) | $ 48.53 | - | 0.04 | 0.00 | -0.61 | 4.15 |

Fundsmith Equity Fund

**Fundsmith LLP (1200)F** ( UK )
PO Box 10846, Chelmsford, Essex, CM99 2BW 0330 123 1815
www.fundsmith.co.uk, enquiries@fundsmith.co.uk
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Fundsmith Equity T Acc | 607.81 | - | -5.74 | - | 6.84 | 6.84 |
| Fundsmith Equity T Inc | 553.95 | - | -5.23 | - | 6.84 | 6.84 |

**GAM**
funds@gam.com, www.funds.gam.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| LAPIS GBL TOP 50 DIV.YLD-Na-D | £117.97 | - | -0.36 | 2.98 | -3.87 | 8.09 |
| LAPIS GBL F OWD 50 DIV.YLD-Na-D | £103.79 | - | -0.37 | - | 4.62 | 3.98 |
| LAPIS GBL MED DEV 25.YLD-Na-D | £ 94.97 | - | -0.85 | - | - | - |

**Guinness Global Investors**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Guinness Global Equity Income Y GBP Dist | £ 19.02 | - | -0.05 | - | 6.70 | 11.65 |
| Guinness Global Innovators Y GBP Acc | £ 28.14 | - | 0.01 | - | 8.03 | 10.56 |
| Guinness Sustainable Global Equity Y GBP Acc | £ 11.33 | - | -0.03 | - | 5.70 | - |

**HPB Assurance Ltd**
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490
**International Insurances**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Holiday Property Bond Ser 1 | £ 0.48 | - | 0.00 | 0.00 | 1.26 | -2.57 |
| Holiday Property Bond Ser 2 | £ 0.63 | - | 0.00 | 0.00 | 0.32 | -0.63 |

**Hermes Property Unit Trust** ( UK )
**Property & Other UK Unit Trusts**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Property | £ 6.35 | 6.82 | -0.01 | - | -12.57 | -1.71 |

**Janus Henderson Investors** ( UK )
PO Box 9023, Chelmsford, CM99 2WB Enquiries: 0800 832 832
www.janushenderson.com
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Janus Henderson Asia Pacific Capital Growth Fund A Acc | 1127.00 | - | 6.00 | 0.06 | -5.61 | -0.96 |
| Janus Henderson Asian Dividend Income Unit Trust Inc | 77.24 | - | 0.05 | 6.23 | -6.85 | 0.26 |
| Janus Henderson Cautious Managed Fund A Acc | 281.30 | - | 0.00 | 2.91 | -2.90 | 2.50 |
| Janus Henderson Cautious Managed Fund A Inc | 137.50 | - | 0.00 | 2.96 | -2.93 | 2.77 |
| Janus Henderson China Opportunities Fund A Acc | 1078.00 | - | 1.00 | 0.31 | -22.22 | -10.98 |
| Janus Henderson Emerging Markets Opportunities Fund A Acc | 194.00 | - | 0.50 | 0.76 | -6.91 | 0.80 |
| Janus Henderson European Growth Fund A Acc | 298.90 | - | -2.10 | - | 5.39 | 8.55 |
| Janus Henderson European Selected Opportunities Fund A Acc | 2268.00 | - | -15.00 | - | 8.10 | 8.21 |
| Janus Henderson Fixed Interest Monthly Income Fund Inc | 17.12 | - | 0.07 | 4.94 | -6.96 | -4.33 |
| Janus Henderson Global Equity Fund Acc | 4180.00 | - | -14.00 | 0.00 | -1.85 | 3.94 |
| Janus Henderson Global Equity Income Fund A Inc | 65.22 | - | -0.30 | 3.35 | 3.84 | 7.83 |
| Janus Henderson Global Sustainable Equity Fund A Inc | 487.80 | - | -0.90 | - | 4.99 | 8.44 |
| Janus Henderson Global Technology Leaders Fund A Acc | 3172.00 | - | 6.00 | - | 9.64 | 8.80 |
| Janus Henderson Instl UK Index Opportunities A Acc | £ 1.14 | - | -0.01 | 2.97 | 2.19 | 8.59 |
| Janus Henderson Multi-Asset Absolute Return Fund A Acc | 162.60 | - | -0.20 | - | -1.75 | 4.20 |
| Janus Henderson Multi-Manager Active Fund A Acc | 256.50 | - | -0.50 | - | -1.72 | 4.05 |
| Janus Henderson Multi-Manager Distribution Fund A Inc | 123.90 | - | -0.10 | - | -2.53 | 1.09 |
| Janus Henderson Multi-Manager Diversified Fund A Acc | 86.44 | - | 0.02 | 2.44 | -2.83 | -0.96 |
| Janus Henderson Multi-Manager Global Select Fund Acc | 315.60 | - | -0.90 | - | 0.90 | 7.35 |
| Janus Henderson Multi-Manager Income & Growth Fund A Acc | 187.50 | - | -0.20 | - | -2.14 | 1.56 |
| Janus Henderson Multi-Manager Income & Growth Fund A Inc | 144.60 | - | -0.10 | - | -2.19 | 1.55 |
| Janus Henderson Multi-Manager Managed Fund A Acc | 313.60 | - | -0.50 | 0.31 | -1.13 | 3.60 |
| Janus Henderson Multi-Manager Managed Fund A Inc | 302.60 | - | -0.50 | 0.31 | -1.16 | 3.61 |
| Janus Henderson Sterling Bond Unit Trust Acc | 199.20 | - | 0.90 | - | -9.21 | -6.59 |
| Janus Henderson Sterling Bond Unit Trust Inc | 54.10 | - | 0.26 | - | -9.18 | -6.59 |
| Janus Henderson Strategic Bond Fund A Inc | 100.70 | - | 0.60 | 3.33 | -7.23 | -5.19 |
| Janus Henderson Absolute Return Fund A Acc | 169.60 | - | -0.50 | 0.00 | 2.91 | 1.94 |
| Janus Henderson UK Alpha Fund A Acc | 138.30 | - | -1.30 | - | -5.92 | 2.24 |
| Janus Henderson UK Equity Income & Growth Fund A Inc | 497.50 | - | -4.60 | - | -2.96 | 8.57 |
| Janus Henderson US Growth Fund A Acc | 1793.00 | - | -3.00 | - | 7.69 | 6.77 |

# MANAGED FUNDS SERVICE

**Kleinwort Hambros Bank Limited** ( UK )
5TH Floor, 8 St James's Square, London, SW1Y 4JU
Dealing and enquiries: 033 0024 0785
**Authorised Inv Funds**
**Unit Trust Manager/ACD - Host Capital**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| HC Kleinwort Hambros Growth A Acc | 241.52 | - | -0.27 | 1.36 | 0.45 | 3.84 |
| HC Kleinwort Hambros Growth A Inc | 219.14 | - | -0.23 | 1.38 | 0.45 | 3.84 |
| HC Kleinwort Hambros Equity Income A Inc | 95.27 | - | 0.61 | 3.06 | -2.44 | 6.06 |
| HC Kleinwort Hambros Equity Income A Acc | 192.22 | - | 1.24 | 4.50 | -2.43 | 6.06 |
| HC Kleinwort Hambros Multi Asset Balanced A Acc | 171.07 | - | -0.20 | 0.81 | -1.46 | 1.26 |
| HC Kleinwort Hambros Multi Asset Balanced A Inc | 161.70 | - | -0.19 | 0.81 | -1.46 | 1.26 |
| HC Kleinwort Hambros Fixed Income A Acc | 123.89 | - | -0.03 | 3.44 | -10.06 | -2.73 |
| HC Kleinwort Hambros Fixed Income A Inc | 93.86 | - | -0.02 | 3.44 | -10.06 | -2.73 |

**Lazard Fund Managers Ltd (1200)F** ( UK )
P.O. Box 364, Darlington, DL1 9RD
Dealing: 0870 6066408, Info: 0870 6066459
**Authorised Inv Funds**
**Lazard Investment Funds (OEIC) B Share Class**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Developing Markets Acc | 117.84 | - | 0.82 | 0.53 | -7.88 | -0.53 |
| Developing Markets Inc | 113.56 | - | -0.92 | 0.54 | -3.63 | 3.25 |
| Emerging Markets Acc | 371.19 | - | 1.62 | 4.85 | 3.35 | 6.75 |
| Emg Mkts Inc | 277.88 | - | 1.20 | 5.09 | 3.35 | 6.75 |
| European Alpha Acc | 1079.42 | - | -7.85 | - | 7.48 | 7.23 |
| European Alpha Inc | 922.27 | - | -6.70 | - | 7.49 | 7.23 |
| European Smaller Cos Acc | 671.17 | - | -3.91 | - | -6.32 | 5.24 |
| Global Equity Income Acc | 227.41 | - | 0.27 | 3.44 | -0.32 | 9.42 |
| Global Equity Income Inc | 113.20 | - | 0.14 | 3.52 | -0.32 | 9.42 |
| Managed Bal Inc | 181.09 | - | -0.43 | 2.22 | -2.79 | 3.63 |
| UK Income Acc | 1629.01 | - | -11.37 | - | -0.09 | 8.63 |
| UK Income Inc | 582.03 | - | -4.06 | - | -0.10 | 8.62 |
| UK Omega Acc | 291.23 | - | -2.27 | 1.96 | 5.82 | 9.67 |
| UK Omega Inc | 238.69 | - | -1.86 | 2.00 | 5.83 | 9.67 |
| UK Smaller Cos Inc | 2001.70 | - | 8.44 | - | -24.24 | 1.74 |

**Lothbury Property Trust (UK)**
155 Bishopsgate, London EC2M 3TQ +44(0) 20 3551 4900
**Property & Other UK Unit Trusts**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Lothbury Property Trust GBP | £ 1635.01 | 1679.92 | 2.15 | 3.42 | -24.86 | - |

**M & G Securities (1200)F** ( UK )
PO Box 9038, Chelmsford, CM99 2XF
www.mandg.co.uk/charities Enq./Dealing: 0800 917 4472
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Charifund Inc | 1453.60 | - | -6.89 | 5.69 | -1.28 | 8.60 |
| Charifund Acc | 29341.86 | - | -139.16 | 4.81 | -1.28 | 8.60 |
| M&G Charibond Charities Fixed Interest Fund (Charibond) Inc | £ 1.06 | - | 0.00 | 2.91 | -4.52 | -3.09 |
| M&G Charibond Charities Fixed Interest Fund (Charibond) Acc | £ 38.54 | - | 0.12 | 2.43 | -4.53 | -3.05 |
| M&G Charity Multi Asset Fund Inc | £ 0.89 | - | 0.00 | 4.00 | 1.20 | 7.65 |
| M&G Charity Multi Asset Fund Acc | £ 107.89 | - | -0.31 | 3.80 | 1.19 | 7.66 |

**MMIP Investment Management Limited** ( GSY )
**Regulated**
**Multi-Manager Investment Programmes PCC Limited**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| UK Equity Fd Cl A Series 01 | £ 3312.15 | 3338.48 | 59.65 | - | 4.51 | 17.87 |
| Diversified Absolute Rtn Fd USD Cl AF2 | $ 1688.02 | - | 45.93 | - | -1.51 | 1.32 |
| Diversified Absolute Return Stlg Cell AF2 | £ 1579.00 | - | -1.96 | - | 0.70 | 2.45 |
| Global Equity Fund A Lead Series | £ 1752.47 | 1755.76 | -19.13 | - | -1.30 | 8.17 |

**Marwyn Asset Management Limited** ( CYM )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Marwyn Value Investors | £ 329.72 | - | -6.14 | 0.00 | - | -7.17 |

**McInroy & Wood Portfolios Limited** ( UK )
Easter Alderston, Haddington, EH41 3SF 01620 825867
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Balanced Fund Personal Class Units | 5975.40 | - | -37.00 | 1.40 | 3.06 | 5.38 |
| Income Fund Personal Class Units | 2834.60 | - | -13.90 | 2.40 | 0.62 | 4.95 |
| Emerging Markets Fund Personal Class Units | 2249.20 | - | -12.70 | 1.48 | 3.89 | 3.59 |
| Smaller Companies Fund Personal Class Units | 6208.10 | - | -46.80 | 1.30 | -1.16 | 3.46 |

**Milltrust International Managed Investments ICAV** ( IRL )
mimi@milltrust.com, +44(0)20 8123 8316 www.milltrust.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| British Innovation Fund | £ 121.92 | - | 2.89 | 0.00 | - | - |
| MAI - Buy & Lease (Australia) | A$ 103.45 | - | 0.50 | 0.00 | -16.53 | 1.41 |
| MAI - Buy & Lease (New Zealand) | NZ$ 91.20 | - | -6.06 | 0.00 | -7.20 | -2.67 |
| Milltrust Global Emerging Markets Fund - Class A | $ 95.03 | - | -0.06 | 0.00 | -9.05 | 6.71 |

**Milltrust International Managed Investments SPC**
em@milltrust.com, +44(0)20 8123 8316, www.milltrust.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Milltrust Alaska Brazil Fund SP A | $ 96.35 | - | 0.65 | 0.00 | 10.99 | 11.54 |
| Milltrust Laurium Africa Fund SP A | $ 90.47 | - | -0.30 | 0.00 | -14.88 | 8.47 |
| Milltrust Marcellus India Fund SP | $ 127.19 | - | -1.15 | 0.00 | 4.76 | - |
| Milltrust Singular ASEAN Fund SP Founders | $ 127.70 | - | 0.98 | 0.00 | -7.82 | 8.09 |
| Milltrust SPARX Korea Equity Fund SP A | $ 122.90 | - | 1.56 | 0.00 | 1.28 | 4.47 |
| Milltrust Xingtai China Fund SP A | $ 93.69 | - | -0.26 | - | -16.07 | -8.82 |
| The Climate Impact Asia Fund SP A | $ 78.82 | - | 0.06 | 0.00 | -6.85 | - |
| The Climate Impact Asia Fund (Class B) | $ 78.00 | - | 0.06 | 0.00 | -7.31 | - |

**Ministry of Justice Common Investment Funds** ( UK )
**Property & Other UK Unit Trusts**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| The Equity Idx Tracker Fd Inc | 1904.00 | - | -15.00 | - | 1.78 | 7.14 |

Distribution Units

**Mirabaud Asset Management** ( LUX )
www.mirabaud.com, marketing@mirabaud-am.com
Please find more details on our website: www.mirabaud-am.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Mir. - Glb Strat. Bd I USD | $ 116.33 | - | 0.19 | 0.00 | -0.89 | -0.03 |
| Mir. - DiscEur D Cap GBP | £ 163.49 | - | -0.38 | - | -11.93 | 3.89 |
| Mir. - UKEq HA Cap I GBP | £ 135.78 | - | 0.33 | 0.00 | -0.08 | 1.95 |

**Oasis Crescent Global Investment Funds (UK) ICVC** ( UK )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Oasis Crescent Global Equity Fund USD A (Dist) | $ 35.27 | - | 0.23 | - | -4.22 | 3.78 |
| Oasis Crescent Global Income Fund USD A (Dist) | $ 10.00 | - | 0.01 | 3.17 | 0.45 | 0.39 |
| Oasis Crescent Global Low Equity Fund USD D (Dist) | $ 12.29 | - | 0.04 | 1.04 | -3.90 | 1.28 |
| Oasis Crescent Global Medium Equity Fund USD A (Dist) | $ 13.73 | - | 0.06 | 0.33 | -3.55 | 2.29 |
| Oasis Crescent Global Property Equity Fund USD A (Dist) | $ 7.88 | - | -0.04 | - | -11.06 | 1.01 |
| Oasis Crescent Global Short Term Income Fund USD A (Dist) | $ 0.93 | - | 0.00 | 2.29 | -0.20 | 0.04 |
| Oasis Crescent Variable Fund GBP A (Dist) | £ 9.69 | - | -0.02 | 0.39 | -5.89 | 2.03 |

**Omnia Fund Ltd**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Estimated NAV | $ 916.73 | - | -24.68 | 0.00 | 18.76 | 18.34 |

**Orbis Investments (U.K.) Limited** ( GBR )
28 Dorset Square, London, NW1 6QG
www.orbis.com 0800 358 2030
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Orbis OEIC Global Cautious Standard | £ 12.04 | - | 0.00 | 0.00 | 1.38 | 6.45 |
| Orbis OEIC Global Balanced Standard | £ 19.92 | - | -0.01 | 0.37 | 3.91 | 11.92 |
| Orbis OEIC Global Equity Standard | £ 22.42 | - | -0.10 | - | 4.12 | 8.67 |

**Platinum Capital Management Ltd**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Platinum All Star Fund - A | $ 147.71 | - | - | - | -1.91 | 5.84 |
| Platinum Global Growth UCITS Fund | $ 8.35 | - | -0.06 | 0.00 | -9.92 | -9.91 |
| Platinum Essential Resources UCITS Fund SICAV USD Class E | $ 9.77 | - | 0.16 | 0.00 | -27.84 | 9.41 |
| Platinum Global Dividend UCITS Fund | $ 45.91 | - | 0.03 | 0.00 | -11.08 | -4.84 |

**Polar Capital Funds Plc** ( IRL )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Automation & Artificial Intelligence CL I USD Acc | $ 17.04 | 17.04 | 0.05 | 0.00 | 9.37 | 8.07 |
| Asian Starts I USD Acc $ | $ 14.43 | - | -0.04 | 0.00 | -4.31 | 3.07 |
| Biotechnology I USD | $ 40.04 | 40.04 | 0.38 | 0.00 | 14.17 | 8.88 |
| China Stars I USD Acc $ | $ 10.51 | 10.51 | 0.05 | 0.00 | -14.69 | -4.74 |
| Emerging Market Stars I USD Acc | $ 11.48 | - | -0.03 | 0.00 | -4.49 | 1.25 |
| European Ex UK Inc EUR Acc | € 15.19 | 15.19 | -0.03 | 0.00 | 10.47 | 10.07 |
| Financial Opps I USD | $ 14.04 | - | 0.04 | 2.20 | 1.14 | 8.64 |
| Global Convertible I USD | $ 13.68 | 13.68 | 0.05 | 0.00 | -3.05 | -0.96 |
| Global Insurance I GBP | £ 9.93 | - | -0.09 | 0.00 | 8.58 | 12.21 |
| Global Technology I USD | $ 77.87 | - | 0.67 | 0.00 | 8.71 | 6.37 |
| Healthcare Blue Chip Fund I USD Acc | $ 19.08 | 19.08 | 0.07 | 0.00 | 3.81 | 8.74 |
| Healthcare Dis I Acc USD $ | $ 13.13 | - | 0.07 | 0.00 | 5.38 | 6.43 |
| Healthcare Opps I USD | $ 70.29 | - | 0.31 | 0.00 | 16.32 | 7.63 |
| Income Opportunities B2 I GBP Acc | £ 2.96 | 2.96 | 0.00 | 0.00 | 3.25 | 11.93 |
| Japan Value I JPY | ¥ 164.74 | 164.74 | 1.87 | 0.00 | 21.10 | 14.74 |
| North American I USD | $ 34.03 | 34.03 | 0.07 | 0.00 | 0.32 | 9.44 |
| Smart Energy I USD Acc $ | $ 10.03 | 10.03 | 0.01 | 0.00 | 12.07 | - |
| Smart Mobility I USD Acc $ | $ 9.37 | 9.37 | 0.05 | 0.00 | 4.58 | - |
| UK Val Opp I GBP Acc | £ 12.68 | 12.68 | -0.07 | 0.00 | -3.43 | 6.56 |

**Private Fund Mgrs (Guernsey) Ltd** ( GSY )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Monument Growth 06/06/2023 | £ 540.44 | 545.59 | -1.01 | - | -2.57 | 5.32 |

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

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Prusik Asian Equity Income B Dist | $ 181.60 | - | 0.66 | 4.95 | 1.27 | 7.25 |
| Prusik Asia Emerging Opportunities Fund A Acc | $ 181.99 | - | -0.01 | 0.00 | -6.62 | 8.81 |
| Prusik Asia Fund U Dist. | £ 203.74 | - | -1.03 | 0.00 | -11.67 | 2.15 |
| Prusik Asia Sustainable Growth Fund A Acc | $ 88.69 | - | 0.13 | 0.00 | -3.16 | - |

**Purisima Investment Fds (UK) (1200)F** ( UK )
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 922 0044
**Authorised Inv Funds**
**Authorised Corporate Director - Link Fund Solutions**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Global Total Fd PCG A | 410.44 | - | -0.07 | 0.17 | 9.05 | 10.62 |
| Global Total Fd PCG B | 404.81 | - | -0.07 | 0.00 | 8.78 | 10.35 |
| Global Total Fd PCG INT | 396.84 | - | -0.07 | 0.00 | 8.51 | 10.07 |

**Purisima Investment Fds (CI) Ltd** ( JER )
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| PCG B ✠ | 316.66 | - | -0.95 | 0.00 | 5.89 | 9.15 |
| PCG C ✠ | 307.74 | - | -0.93 | 0.00 | 5.67 | 8.92 |

**Ram Active Investments SA**
www.ram-ai.com
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| RAM Systematic Emerg Markets Eq | $ 222.46 | 222.46 | 0.42 | - | 0.85 | 9.84 |
| RAM Systematic European Eq | € 530.63 | 530.63 | 0.28 | - | -3.84 | 9.18 |
| RAM Systematic Funds Global Sustainable Income Eq | $ 151.45 | 151.45 | 0.21 | 0.00 | -0.35 | 9.33 |
| RAM Systematic Long/Short European Eq | € 147.00 | 147.00 | 0.47 | - | -5.88 | 4.59 |
| RAM Systematic US Sustainable Eq | $ 352.70 | 352.70 | 0.60 | - | 0.47 | 4.07 |
| RAM Tactical Global Bond Total Return | € 139.39 | 139.39 | 0.27 | - | -2.52 | -2.88 |
| RAM Tactical II Asia Bond Total Return | $ 146.23 | 146.23 | -0.11 | - | -0.61 | -0.82 |

**Royal London** ( UK )
55 Gracechurch Street, London, EC3V rlam.co.uk
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Royal London Sustainable Diversified A Inc | £ 2.34 | - | -0.02 | - | 1.46 | 1.71 |
| Royal London Sustainable World A Inc | 351.20 | - | -3.00 | - | 4.32 | 4.25 |
| Royal London Corporate Bond Mth Income | 73.48 | - | 0.26 | 4.34 | -6.35 | -3.91 |
| Royal London European Growth Trust | 209.90 | - | -2.10 | - | 11.26 | 9.07 |
| Royal London Sustainable Leaders A Inc | 787.70 | - | -9.60 | - | 7.75 | 6.86 |
| Royal London UK Growth Trust | 626.90 | - | -5.50 | - | 2.79 | 7.68 |
| Royal London UK Income With Growth Trust | 202.00 | - | -0.80 | 5.32 | -3.51 | 5.82 |
| Royal London US Growth Trust | 391.50 | - | -0.50 | - | 9.24 | 12.54 |

Additional Funds Available
Please see www.royallondon.com for details

**Ruffer LLP (1000)F** ( UK )
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 601 9610
**Authorised Inv Funds**
**Authorised Corporate Director - Link Fund Solutions**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| LF Ruffer Diversified Rtrn C Acc | 100.41 | - | -0.06 | 1.88 | -4.93 | - |
| LF Ruffer Diversified Rtrn C Inc | 98.58 | - | -0.05 | 1.89 | -4.89 | - |
| LF Ruffer European C Acc | 770.94 | - | 5.09 | 0.81 | -2.46 | 7.41 |
| LF Ruffer European C Inc | 138.30 | - | 0.92 | 0.85 | -2.44 | 7.42 |
| LF Ruffer Equity & General C Acc | 571.77 | - | 3.76 | 0.76 | -0.76 | 9.31 |
| LF Ruffer Equity & General C Inc | 516.56 | - | 3.40 | 0.77 | -0.76 | 9.31 |
| LF Ruffer Gold C Acc | 255.03 | - | 9.86 | 0.00 | -5.84 | -3.38 |
| LF Ruffer Gold C Inc | 154.35 | - | 5.96 | 0.00 | -5.84 | -3.38 |
| LF Ruffer Japanese C Inc | 169.82 | - | 3.42 | 0.24 | 5.95 | 6.12 |
| LF Ruffer Japanese C Acc | 365.87 | - | 7.38 | 0.23 | 5.95 | 6.12 |
| LF Ruffer Total Return C Acc | 545.22 | - | 5.45 | 2.92 | -4.05 | 4.71 |
| LF Ruffer Total Return C Inc | 335.58 | - | 3.35 | 2.99 | -4.04 | 4.72 |

**Rubrics Global UCITS Funds Plc** ( IRL )
www.rubricsam.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Rubrics Emerging Markets Fixed Income UCITS Fund | $ 140.13 | - | 0.24 | 0.00 | 3.50 | 0.85 |
| Rubrics Global Credit UCITS Fund | $ 16.91 | - | 0.01 | - | -0.56 | -0.26 |
| Rubrics Global Fixed Income UCITS Fund | $ 171.77 | - | 0.45 | 0.00 | -0.35 | -1.92 |

**Scottish Friendly Asset Managers Ltd** ( UK )
Scottish Friendly Hse, 16 Blythswood Sq, Glasgow G2 4HJ 0141 275 5000
**Authorised Inv Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Managed Growth ♦ | 347.00 | - | -1.80 | 0.00 | -0.23 | 8.93 |
| UK Growth ♦ | 404.90 | - | -3.40 | 0.00 | -0.22 | 11.22 |

**SICO BSC (c)** ( BHR )
+973 17515031.
www.sicobank.com

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Khaleej Equity Fund | $ 559.15 | - | 21.22 | 0.00 | -15.41 | 18.08 |
| SICO Kingdom Equity Fund | $ 32.48 | - | 1.06 | 0.00 | -18.71 | 19.96 |
| SICO Gulf Equity Fund | $ 152.31 | - | 1.68 | 0.00 | -16.41 | 15.38 |

**Slater Investments Ltd** ( UK )
www.slaterinvestments.com; Tel: 0207 220 9460
**FCA Recognised**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Slater Growth A Acc | 605.20 | 605.20 | -3.16 | 0.00 | -17.53 | 3.22 |
| Slater Income A Inc | 138.32 | 138.32 | -0.42 | 5.22 | -4.38 | 9.34 |
| Slater Recovery A Acc | 315.32 | 315.32 | -1.12 | 0.00 | -14.92 | 6.80 |
| Slater Artorius | 271.47 | 271.47 | 4.26 | - | -20.81 | 7.02 |

**Stewart Investors** ( UK )
23 St Andrew Square, Edinburgh, EH2 1BB
enquiries@stewartinvestors.com
Client Services: 0800 587 4141
Dealing Line: 0800 587 3388
**Authorised Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| SI Asia Pacific A Acc | 1580.76 | - | -6.17 | 0.00 | 7.07 | 9.32 |
| SI Asia Pacific A Inc | £ 2.80 | - | -0.01 | 0.00 | 6.79 | 8.86 |
| SI Asia Pacific Leaders A Acc | 861.38 | - | -5.33 | 0.00 | 0.64 | 8.06 |
| SI Asia Pacific Leaders A Inc | £ 2.93 | - | -0.01 | 0.00 | 0.67 | 8.02 |
| SI Asia Sustainability A Acc | 736.36 | - | -3.29 | 0.00 | 7.74 | 10.62 |
| SI Global Emerging Mkts A Acc | 798.24 | - | -4.32 | 1.75 | 1.82 | 6.59 |
| SI Global Emerging Mkts Leaders A Acc | 550.06 | - | -2.61 | 1.06 | 0.72 | 4.92 |
| SI Global Emerging Mkts Sus A Acc | 365.26 | - | -1.97 | 0.00 | 4.69 | 4.13 |
| SI Indian Sub-Cont A Acc | 787.05 | - | -4.91 | - | 12.23 | 22.81 |
| SI Latin America A Acc | £ 2.18 | - | -0.01 | 2.87 | -4.66 | -8.93 |
| SI Worldwide Equity A Acc | £ 2.36 | - | 0.05 | - | 21.94 | 8.37 |
| SI Worldwide Equity A Inc | £ 2.39 | - | 0.05 | - | 23.40 | 8.80 |
| SI Worldwide Leaders A Acc | 611.63 | - | -2.08 | - | 11.39 | 9.05 |
| SI Worldwide Sus A Acc | £ 2.69 | - | -0.01 | - | 8.10 | 5.06 |
| SI Worldwide Sus A Inc | £ 2.60 | - | -0.01 | - | 8.07 | 5.14 |

STONEHAGE FLEMING
GLOBAL BEST IDEAS EQUITY FUND

**Stonehage Fleming Investment Management Ltd** ( IRL )
www.stonehagefleming.com/gbi
enquiries@stonehagefleming.com
**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| SF Global Best Ideas Eq B USD ACC | $ 244.07 | - | 1.30 | - | 5.84 | 5.95 |
| SF Global Best Ideas Eq D GBP INC | £ 295.42 | - | -0.16 | - | 5.98 | 6.41 |

SUPERFUND INVEST BETTER

**Superfund Asset Management GmbH**
www.superfund.com, +43 (1) 247 00
**Other International Funds**
**Other International Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Superfund Green Gold | $ 990.50 | - | 1.88 | 0.00 | -41.73 | -9.90 |
| Superfund Green Silver | $ 874.48 | - | 22.40 | 0.00 | -38.58 | -5.18 |

**Regulated**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Superfund Green US$ | $ 728.53 | - | -6.17 | 0.00 | -43.12 | -11.87 |

**Thesis Unit Trust Management Limited** ( UK )
Exchange Building, St Johns Street, Chichester, West Sussex, PO19 1UP
**Authorised Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| TM New Court Fund A 2011 Inc | £ 18.98 | - | -0.05 | 0.00 | 1.55 | 4.95 |
| TM New Court Fund - A 2014 Acc | £ 19.14 | - | -0.05 | 0.00 | 1.54 | 4.94 |
| TM New Court Equity Growth Fund - Inc | £ 20.75 | - | -0.06 | 0.00 | 1.42 | 5.94 |

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

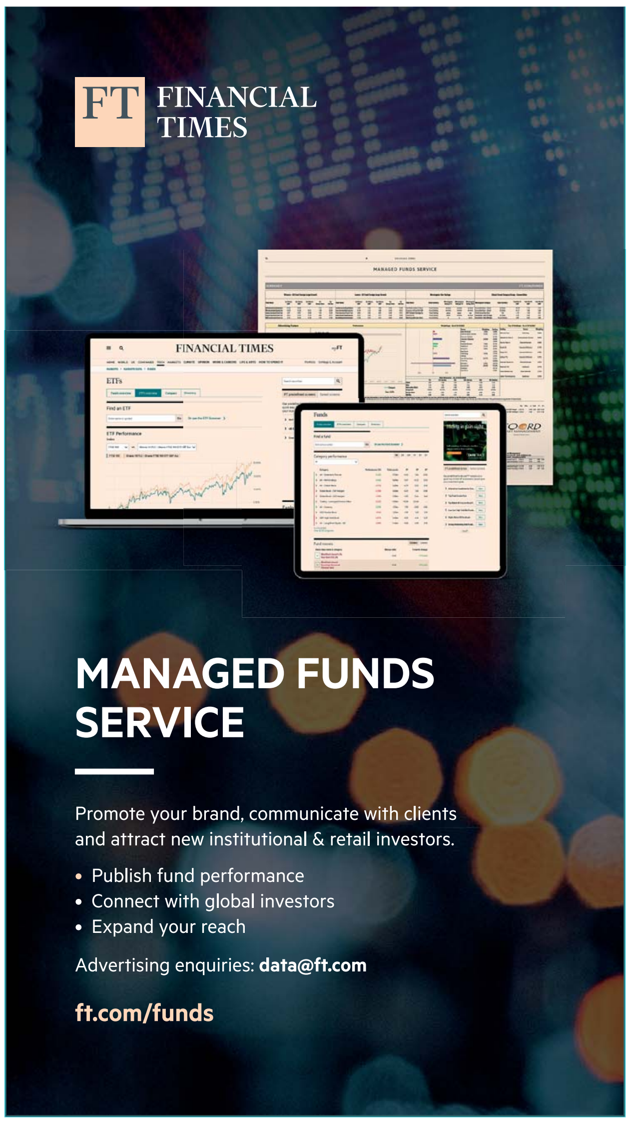
| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Aptus Global Financials B Acc | £ 5.10 | - | -0.01 | 3.49 | 11.80 | 18.71 |
| Aptus Global Financials B Inc | £ 3.25 | - | -0.01 | - | 11.82 | 20.17 |

**Toscafund Asset Management LLP**
www.toscafund.com

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Tosca A USD | $ 453.88 | - | 17.64 | 0.00 | 8.16 | 19.08 |
| Tosca Mid Cap GBP | £ 151.32 | - | 1.21 | 0.00 | - | -4.36 |
| Tosca Opportunity B USD | $ 252.81 | - | -15.03 | 0.00 | -29.95 | -19.96 |
| Pegasus Fund Ltd A-1 GBP | £ 36.13 | - | 0.32 | 0.00 | -30.18 | -4.42 |

**Troy Asset Mgt (1200)** ( UK )
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 608 0950
**Authorised Inv Funds**
**Authorised Corporate Director - Link Fund Solutions**
**Trojan Investment Funds**

| Fund | Bid | Offer | +/- | Yield | 1Yr | 3Yr |
|---|---|---|---|---|---|---|
| Trojan Ethical O Acc | 127.13 | - | -0.13 | 0.07 | 0.14 | 3.44 |
| Trojan Ethical Global Inc O Acc | 100.80 | - | -0.39 | 2.74 | 0.81 | - |
| Trojan Ethical Global Inc O Inc | 96.93 | - | -0.37 | 2.78 | 0.82 | - |
| Trojan Ethical O Inc | 126.81 | - | -0.13 | 0.08 | 0.17 | 3.44 |
| Trojan Ethical Income O Acc | 138.27 | - | -1.60 | - | 1.89 | 1.62 |
| Trojan Ethical Income O Inc | 114.12 | - | -1.32 | - | 1.90 | 1.62 |
| Trojan Fund O Acc | 383.83 | - | -0.42 | 0.26 | -0.25 | 3.79 |
| Trojan Fund O Inc | 309.90 | - | -0.33 | 0.26 | -0.24 | 3.79 |
| Trojan Global Equity O Acc | 499.35 | - | -2.23 | 0.00 | 7.43 | 6.64 |
| Trojan Global Equity O Inc | 412.01 | - | -1.83 | 0.00 | 7.43 | 6.64 |
| Trojan Global Income O Acc | 151.27 | - | -0.55 | 3.22 | -1.54 | 4.35 |
| Trojan Global Income O Inc | 124.33 | - | -0.45 | 3.29 | -1.54 | 4.35 |
| Trojan Income O Acc | 339.62 | - | -3.74 | 2.89 | 0.82 | 1.50 |
| Trojan Income O Inc | 165.09 | - | -1.82 | 2.96 | 0.81 | 1.50 |



## Guide to Data

The fund prices quoted on these pages are supplied by the operator of the relevant fund. Details of funds published on these pages, including prices, are for the purpose of information only and should only be used as a guide. The Financial Times Limited makes no representation as to their accuracy or completeness and they should not be relied upon when making an investment decision.

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**Guide to pricing of Authorised Investment Funds:** (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. 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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## WORK & CAREERS

# What made you think housebuilders want to build houses?

**Rutherford Hall**
**Critical Comms**

**WhatsApp to Stephen:** Good news. We've landed the contract for TickyTacky, one of the UK's biggest housebuilders. They are very worried about the state of the market and evolving political policy.

**WhatsApp to Stephen:** Yes, they are especially concerned about the political pressure for more housebuilding.

**WhatsApp to Stephen:** No, that's a common mistake. Housebuilders don't want to build more homes. They aren't in this to build houses. They are in it to sell houses — at good margins.

**WhatsApp to Stephen:** Exactly. They don't want a rapid rise in new homes. They just want people to stop blaming them for not building them and start blaming the politicians instead. Oh and government help to those who can't currently afford a home because the housebuilders aren't building enough.

----------------

*From: Rutherford@Monkwellstrategy.com*
*To: dansmith@tickytacky.com*
Dan, great to talk. This is clearly a hot issue and will remain so until the election so our work can't start too soon. Our line is that we want to build more and so need reforms of planning laws that stymie development.

We frame the issue as one of nimbyism and bureaucracy, in other words government failure. We need planning reform, mandatory targets and we need to strip away absurd environmental regulations that put crested newts, fruit bats or clean water in the way of development.

But people must recognise we also need other conditions to be in place; infrastructure, realistic expectations on the number of margin-eroding social housing units and, of course, rising property prices. So until we can meet our key goal of building more homes, we need government support for people priced out of the market by short supply. Best Rutherford

*Find me on Strava, KoM Sydenham Hill, PR London to Brighton 3h 37m*

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**WhatsApp to DanSmith:** Don't worry. I know our key goal isn't really to boost supply. But it sounds better than "our approach is to maintain prices by ensuring supply tracks demand and so we prefer to boost demand".

**WhatsApp to Dan Smith**: Can we come up with a number of how many more homes we could build if our remedies were adopted? Don't worry; they won't be. All those who wanted action were thrown out with Liz Truss.

----------------

*From: Rutherford@Monkwellstrategy.com*
*To: Eleanorsh@No10.gov.uk*
Just wanted to ping over a few talking points for your policy and manifesto thinking. TickyTacky are desperate to build more houses. Their five-point plan could increase output by 60 per cent if adopted in full.

But between us, this will take a long time to feed through. So we may need to work up measures that might have a more rapid impact on the market — financial support for first-time buyers seeking that first step on the ladder? How about extending the equity loans under the Help to Buy scheme to support those who can't afford to buy the houses already on offer? Best R

*Find me on Strava . . .*

*To: Eleanorsh@No10.gov.uk*
Yes, those schemes do inflate prices but that gives housebuilders that crucial incentive to build houses. I think your Opec analogy is a little unfair. We do have shareholders to consider.

I know lower house prices feels like a win for those trying to get on the ladder but it's less appealing to those already on it, which is most of your voters. Do we really want to depress the market when we can just help people buy what's already there? Better to spend a bit of government money so people can afford the unaffordable than make the unaffordable more affordable.

On the green homes, no one is more supportive of eco-friendly energy-efficient housing than TickyTacky, it's just it does put the price up, so without government subsidies it's not an efficient use of their energy to build them. Best, R.

*Find me on Strava . . .*

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> **They just want people to stop blaming them for not building new homes and start blaming the politicians instead**

**WhatsApp to DanSmith**: We are making progress. It helps that the election is so close and there's no time for longer term ideas. But they are still pushing on more affordable housing.

**WhatsApp to DanSmith:** Yes, they mean the ones you build with smaller windows so those in the expensive homes can spot the poorer neighbours.

**WhatsApp to DanSmith:** I'm not sure the fact you can afford it makes something an affordable home :-). Try this soundbite when doing interviews:

"Housebuilding is about fulfilling dreams. That is our purpose. The more we can build, the more dreams we can fulfil. We just need the government to work with us to build those dreams."

*Messages recovered by Robert Shrimsley*

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## Employment

# Too good to be true? The fake recruiters targeting jobseekers

Elaborate scams are on the rise, putting candidates and reputable employers at risk, write *Ian Johnston* and *Emma Jacobs*

**Scammers have been helped by many hiring processes moving online during the pandemic and their schemes are becoming more sophisticated**
FT montage/Dreamstime

Mia* became suspicious when she was asked basic questions during a Zoom interview for a human resources job. Her doubts were confirmed when her would-be employer demanded £275 upfront for recruitment training. Suspecting it was fraudulent, she backed out.

"When you think about scamming, you might think of a pickpocketer or, online, someone sending a faulty link to you. Not something this elaborate and not in the employment market," she said. "I'm glad I was suspicious."

Mia first came across scammers after moving to London from Australia. She applied and failed to get a job as an HR administrator with an entity trading as Inglemoss Consultants, advertised on the jobsite Indeed. A week later, she was contacted and told she had been shortlisted for a different HR role.

She was right to be wary. Three other people told the Financial Times they had been scammed by Inglemoss Consultants. One, Jamie Glover, a 23-year-old Sussex university graduate, said he took a role with the organisation last year and paid the £275 for training. After a day he was tasked with recruiting more candidates. He found little work and wasn't paid. "It felt like a pure pyramid scheme," he said.

On recruitment website Glassdoor, seven anonymous reviewers said Inglemoss Consultants' representatives had lied about the nature of a job, did not pay staff and did not answer phone calls or emails. Indeed said it had removed the organisation's account in November 2022 after a fraud investigation and complaints from jobseekers.

"Inglemoss Consultants" does not appear in Companies House, messages sent to the email addresses listed on its website bounced back and the business, including one of the scam victims' managers, did not respond to phone calls.

Recruitment experts said scammers had been helped by many hiring processes moving online during the Covid-19 pandemic, and their sophisticated schemes were becoming more familiar to jobseekers. "We are seeing a scary amount of it on a daily basis," said Steve Sully, UK regional director of recruiter Robert Half. "We are regularly seeing candidates forwarding WhatsApps they receive from individuals claiming to be consultants for [us]." With so much remote work, it is "easier for scammers to take advantage of the vulnerable".

Job-related fraud is more than just a time-consuming nuisance. Victims can be duped out of money and personal data, while businesses can suffer reputational damage. In February, LinkedIn acknowledged a rise in the number and sophistication of scams on its platform. The trend extends to a range of jobsites, recruitment companies and other businesses. Figures from the US Federal Trade Commission show there were more than 92,000 job-related and business scams in 2022 with $367mn reported lost, considerably higher than the previous year's $209mn.

JobsAware, a UK not-for-profit organisation to which Mia reported Inglemoss Consultants, collates complaints of job scams and unfair working practices and provides advice to workers. Its chair Keith Rosser said more people were "looking for additional work because of the cost of living crisis". "This is putting a lot of people into the job market and leaving them exposed."

Ben King, head of customer trust at Okta, the digital identity specialist, said the threat was intensifying. "I expect [fake job scams] to only increase with access to online generative AI [and] logic learning machine tools, which make fake job ads and emails more realistic from criminals, targeted towards specific victim demographics."

Already, fraud attacks are becoming more elaborate, with scammers often setting up fake websites, conducting interviews via Skype and, in some cases, showcasing impressive command of the industry they claim to work in.

Jonathan Waterman-Smith, a recruitment consultant at TRG Recruitment, said his experience revealed scammers were approaching targets using industry-specific terminology that showed a high degree of research. He was contacted on LinkedIn by a person posing as a "talent acquisition team lead" at a manufacturing company that wanted help hiring workers. Waterman-Smith spoke to the scammer by phone and he explained how he worked and the fees involved. Initially, he was convinced the caller was genuine. "He wasn't a novice," he said. "This guy knew the terminology we use within the recruitment industry. He either had lots of experience of doing this or he knew about recruitment jargon and potentially had been in the industry in the past."

Recruiters such as Waterman-Smith usually identify potential candidates for clients. When this supposed client suggested three potential candidates to interview, he realised something odd was happening. He rang the company in question and was told they had no record of the person having been an employee. Had the scam gone to plan, Waterman-Smith expected his company would have paid the applicants — and presumed associates of the scammer — and invoiced the fraudster, only for the bill to go unpaid. "I was very fortunate," Waterman-Smith said. "I got off relatively scot-free, apart from wasting half an hour talking to this guy."

Scammers prey on those they identify as vulnerable, such as people who have recently lost their jobs or those unfamiliar with employment practices. "I could be considered an easy target," said Mia.

> 'I was fortunate. I got off relatively scot-free, apart from wasting half an hour talking to this guy'

"Definitely, they could target international [workers] because they're not as privy to UK employment laws and the norms here."

In December, Alex Ellis, the British High Commissioner to India, warned scammers were using his name to persuade individuals to hand over information and money to gain UK work visas.

For Mohammed Yasar Farath, a technician based in Hyderabad, south India, a link via a job posting site on Instagram led him to a supposed offer from an energy company in the UK. One drawback: he would have to pay £500 for a visa application. After he refused, the "so-called lawyer . . . got very irritated". Farath walked away after realising the offer didn't exist and the visa was a scam.

Scammers are not just a risk to candidates, said Sully, but also to recruiters' and employers' reputations "using [a] brand as a facade". Many businesses are including advice on how to avoid scams on their websites and social media.

Last summer, Amanda Chilcott, global human resources director at Neptune Energy, was alerted to a "major increase in scammers" pretending to be her employer when potential victims called reception about fraudulent emails. The company hired a cyber security group to block unauthorised domains using its name. This is harder for smaller companies, said King, that "lack the resources to monitor . . . this threat effectively".

While evolving AI tools may make the scams more ubiquitous and believable, they will also prove "a valuable tool for organisations to monitor and control content at a velocity no human review can match," he added. "Significant research is ongoing to detect machine-generated content over large data sets, and simply having a post or job ad flagged as 'suspicious' may save many from falling victim in the first place or jog them to investigate more fully before continuing a job application."

Employers are also vulnerable to dishonest candidates. Satish Kumar, chief executive of Glider AI, a tech platform providing virtual assessments and video interviews for recruitment that screens for suspicious activity, said remote hiring had driven a rise in fraudulence by job candidates, for example, being fed the answers by friends. Once a candidate goes through the recruitment process, it can take at least a month to discover they're not up to the job. Rehiring is costly. "The company loses so much time and has to restart the process," he said.

For individuals, fraud can be scarring. Fatima, who issued a claim against Inglemoss Consultants at an employment tribunal to which the organisation did not reply, said: "It caused me a lot of anxiety. They played on vulnerable people and it was hard to know it was a scam until you were already in it."

**Some names have been changed*

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## Dear Jonathan

YOUR QUESTION FOR OUR EXPERT — AND READERS' ADVICE

# How do I move from academia to management consultancy?

### This week's question

I am a senior academic (not quite professor) working in international development. I would like to leave the sector — I am exhausted by it — and move into management consultancy. I worked in NGOs before academia but don't wish to return to this. I have project management and evaluation expertise, as well as skills in research and analysis rooted in anthropology. How do I set myself up to make the shift? **Anonymous**

### Jonathan's answer

If you are looking for a way to apply your international development expertise and your core skills such as research and analysis to consultancy, options include joining a firm or starting your own company.

However, there is no easy path. Joining an established firm is not very common for academics. Andrew Sturdy, professor of management at the University of Bristol's business school said that consultancies do sometimes use academics for "expert advice" but cautions that the applied nature of their expertise would have to be exceptional.

A preparatory step could be to provide external expert advice on a short-term basis (a couple of days here and there) as part of larger consultancy projects, run by others. You could use your specialist knowledge, and learn organisation-specific consultancy techniques and approaches, while retaining your academic position. The experience may also benefit your academic career, help you to achieve the valuable full professorship, while preparing you for a more permanent step into consulting if and when the right opportunity arises.

Joe O'Mahoney, professor of consulting at Cardiff University's business school, suggests that the primary question you need to answer as a potential consultant is: "What demonstrable value can I provide to a client that wants improvements to efficiency or productivity?"

You could further develop your public position as an expert in international development by disseminating your research findings with potential clients who would find it important. This would help you build the network of contacts who may become clients were you to set up on your own.

As Sturdy observed: "Success in consulting can only occur with clients, which (if you set up alone) can be hard to find without prior experience or contacts."

A second option is to find a boutique consulting practice, focused on your specialist field; despite wanting to avoid NGOs, you might consider large international organisations such as the World Bank or United Nations. According to O'Mahoney, the large management consulting firms have very well-defined career structures that you may struggle to fit into. A smaller boutique firm, or INGO, may be more flexible in accommodating your skills and experiences.

### Readers' advice

I would encourage you to identify a very narrow niche which plays to your strengths. What skills can you offer employers and clients that are not yet readily available? **KYSCOT**

It might be helpful to move into a policy or project management role first in local or central government before moving into consultancy. **Finance21**

You will need to be persistent in making direct contact with the consulting firms and the head hunters that feed them — don't be put off by rejection or non-replies. **Opinionated**

### The next question

I work in a leadership role at a start-up in Nigeria and have worked for a decade in small and medium-sized businesses in West Africa, from technology to solar energy. I want to return to the UK but I'm struggling to secure interviews. I joined a Big Four firm straight out of school without a degree, and my experience in Africa has left me with a generalist skill set. How should I adjust my strategy and what sorts of roles might be the best place to start? **Anonymous, 30s**

**Jonathan Black is director of the Careers Service at the University of Oxford. Every fortnight he answers your questions on personal and career development and working life. Do you have a question for him? Email: dear.jonathan@ft.com**

Leadership. Hayes Barnard, founder and chief executive, GoodLeap

# Half the organisation thought ‘this guy’s out of his mind’

CEO of GoodLeap, the US solar installation fintech, learnt bold ideas are not for everyone, writes *Andrew Edgecliffe-Johnson*

Hayes Barnard says his dyslexia and the fact his father walked out when he was a child ‘created a drive and an ambition to prove yourself’ — John Davidson/FT

Hayes Barnard was sitting at a football match with a fellow chief executive when he decided to test a theory about what might account for his neighbour’s success.

“I gotta know,” ventured the founder of US fintech GoodLeap “Is it daddy issues, near-death experience or learning difficulties?”

The CEO took a moment to recover from his shock at the question, but eventually replied that, indeed, he could attribute his entrepreneurial drive to a brush with disaster and a troubled relationship with his father. After another 15 minutes of brooding over the question, Barnard recalls, “he looks over [and says]: ‘It’s the formula, isn’t it?’”

Long before he founded GoodLeap, the green-themed fintech that finances about a third of all US residential solar installations, Barnard was a dyslexic child being brought up by a single mother who struggled to pay the rent. Ridiculed at school for his poor spelling, he was living in Creve Coeur, Missouri, a million metaphorical miles from the hubs of Silicon Valley and Wall Street that would one day make him a billionaire.

“I had a chip on my shoulder because of the learning disability. I had a chip on my shoulder because my father left me when I was two or three years old,” he says. “It creates a drive and an ambition to prove yourself.”

Barnard also had his own figurative near-death experience as he built a company valued at $12bn in its most recent fundraising round. After a few years selling software for Oracle in California and studying its founder, Larry Ellison, he set up a business called Paramount Equity Mortgage with two friends in 2003.

Five years later, an imploding US mortgage market precipitated a financial crisis and a reversal in Barnard’s fortunes that included a six-figure settlement with the State of Washington over mis-steps including some carelessly worded radio ads he had presented.

> ‘I used to try to push [staff] to be like me, and that’s not what they want to do. They want security’

“I got smacked to the ground in ’08,” he says, recalling the loyal employees he had to lay off. But in the remains of his first business he saw an opportunity: to apply what he had learnt selling software and mortgages to the nascent home solar industry.

Among the customers of Barnard’s Paramount Solar business was SolarCity, the manufacturer and installer run by Elon Musk and his cousin. SolarCity bought Paramount Solar in 2013 for about $120mn, making Barnard its chief revenue officer.

Barnard left when Musk’s Tesla bought SolarCity in 2016, but began working on a “moonshot” plan to overhaul his old mortgage business. At a company meeting in a Sacramento theatre in early 2018 he told its 1,500 people that they were going to build “the largest fintech for sustainable solutions”.

Instead of leasing or selling solar systems, they would finance homeowners’ purchases, letting them install the costly equipment with little or no cash upfront and pay off the competitively priced loans over several years.

The first management lesson Barnard says he learnt was that “leadership is measured by followship”. But when he set out this plan, an unnerving number of the people he led did not follow.

“About half the organisation thought ‘this guy’s out of his mind’ and left,” he recalls. Most people dislike change, he argues, and “it was too bold of an idea”.

The fact that hundreds of people who had worked with Barnard for years could not see the opportunity that he did raised a question: how does someone with his entrepreneurial drive make it infectious?

“The truth is, you don’t,” he says bluntly, estimating that 80 per cent of people “don’t have an entrepreneurial bone in their body”. “I used to try to shake them up and push them to be like me,” he admits, “and the reality is, no, that’s not what they want to do. They want security.”

Barnard credits his drive to his dyslexia, which forced him to work harder than his peers in school, gave him the ambition to prove himself to them and meant “I could see things a little bit differently than others”.

His vision for the business that became GoodLeap was to bundle loans for solar installations, connecting lenders needing a sustainable finance story, a fragmented industry of manufacturers and installers, and homeowners wanting lower power bills and carbon footprints.

The company has financed $23bn worth of solar equipment, batteries and other sustainable fixtures, with default rates on its loans of less than 1 per cent.

Barnard’s pitch has persuaded private-market investors to put $2.25bn into GoodLeap and helped him build an eclectic advisory council, which includes Jeff Immelt, the former GE chief executive, actor Edward Norton and NFL star Tony Gonzalez.

“[GoodLeap] uses technology to link Wall Street to somebody who’s in Tucson putting solar panels on their roof. That is easy to say and hard to do,” says Immelt. “[Barnard] has a really compelling back-story and that transforms itself into an incredible drive.”

“Really good people know how to forcefully drive and listen at the same time,” he adds. “Hayes is one of these guys who can move at 100mph in a very driven way but at the same time be accepting feedback and [asking] ‘what can I do better?’”

Barnard admits that two years ago the company gave “serious consideration” to going public to give them liquidity but pulled back. An IPO is still “always on the table”, he says, but won’t happen this year.

After his scarring rejection in Sacramento, Barnard has honed his thoughts on how to be persuasive to his employees. His thesis is that the strongest leaders are the ones who focus on people: in a world where good ideas will be copied, companies must execute better than their rivals, he says, “and if you’re going to win the execution competition, you have to win the talent competition.”

They do that by satisfying top performers’ need for a sense of mission, according to Barnard. His recent distillation of that mission into a two-page document exhorts colleagues to “live for impact” and “sail blue oceans”.

Barnard has built a philanthropic agenda into GoodLeap’s business model. After his setbacks in 2008, he took his top team to Mali to build a school. There he saw the need for electricity to power classrooms and clean water for people drinking “poison”.

> ‘If you’re going to win the execution competition, you have to win the talent competition’

So within a few years of launching his solar business, he also set up a non-profit group. GivePower deploys solar-powered water and energy systems everywhere, from schools to elephant orphanages in countries from Nicaragua to Nepal.

GoodLeap covers GivePower’s overheads but much of its funding comes from companies, whose donations give them a social responsibility programme and the opportunity to send employees on team-building treks to install its systems.

Barnard describes the brainwave when he worked out this funding model, in the shower on a yacht in Croatia, as “one of the best I’ve ever had in my life”.

He has taken his son and two daughters on those treks, saying he hopes “to shape their hearts”. Does he worry that, without the tougher start in life he had, they will lack his ambition?

“I think they are driven by mission and purpose,” he replies, “and that’s all I can hope for. But they’re not driven as much by fear as I was.” If his kids have daddy issues, they will not include the worry that their father might leave them unable to pay the rent.

At 51, meanwhile, Barnard still claims to worry that he could “lose it all tomorrow”. But, he adds: “I’ve learnt to dance with my fear a little bit.”

GivePower employees distribute fresh drinking water in Kenya. Barnard set up the non-profit to deploy solar-powered water and energy systems — GivePower

# Singer at the peak of his powers

POP

**The Weeknd**
Etihad Stadium, Manchester
★★★★★

*Ludovic Hunter-Tilney*


**The Weeknd — real name Abel Tesfaye — on stage at the Etihad Stadium, Manchester** — Samir Hussein/WireImage

There was good and bad timing as The Weeknd's After Hours Til Dawn tour touched down in the UK. Manchester was where the Canadian star launched his first British gigs since 2017. Fortuitously adding to the sense of occasion, he had commandeered the home stadium of Manchester City on the same night that the footballers were labouring to victory in the Champions League final in Turkey. The singer made no reference to the coincidence as he soaked up screams and cheers from tens of thousands of fans. This evening the Etihad Stadium was to be his space.

He made spectacular use of it. The stage set was a fantasy city consisting of vertiginous buildings that looked as if they were made from stainless steel. A model of the landmark from The Weeknd's home city of Toronto, the CN Tower, was at the forefront. A runway stretched the length of the pitch, ending in a circular stage above which was a suspended big photorealist Moon. A massive metallic statue of a female robot stood in the middle of the runway, rotating to fix all parts of the venue with lit-up eyes.

The scheme was inspired by The Weeknd's last two albums, *After Hours* and *Dawn FM*. Intended as a diptych, they epitomise the beguiling imaginative world that the singer, real name Abel Tesfaye, has made in his music. As The Weeknd, he plays the part of a nocturnal pleasure-seeker at the mercy of appetites for sex and drugs that can never be satisfied. This risky act of role-play has made him the most enigmatic of pop's megastars. But here's where the bad timing comes in.

His tour coincides with the screening of the new HBO television series *The Idol*, a knowingly trashy music-industry fable devised in the dubious spirit of 1990s erotic thrillers. Tesfaye co-developed the story. He also stars in it as a sleazy nightclub figure who is more a menacing version of his musical persona. The show has been peppered by hostile reviews. Would the related character of The Weeknd suffer collateral damage?

The answer turned out to be an emphatic no. After spending a rumoured $7mn on his Super Bowl half-time show in 2021, Tesfaye has pulled out the stops for his current staging. There were huge plumes of pyrotechnics and the best light show I've seen at a stadium gig. For a teasing slow intro to his monster hit "Blinding Lights", the longest-charting song ever in the US, vertical columns of light switched on and off in time with the notes in the melody. When the beat kicked in, the lighting exploded into action.

Tesfaye was dressed in white, a shift from his usual shades of night. For the first half of the show, he wore a metallic face mask. The effect was reminiscent of Kanye West, whose song "Hurricane" was briefly covered. But Tesfaye exhibited none of West's edgelord contempt for entertainment. He serenaded the robot statue, designed by Japanese illustrator Hajime Sorayama, and then turned to do the same to the audience. The full length of the runway was used to ensure proximity to all parts of the stadium.

Twenty-eight dancers joined him, all apparently female, dressed in flowing white outfits. Resembling occult brides from a Dario Argento horror film, they performed ritualistic movements such as ringed dances around the robot She. This enjoyably portentous troupe also possessed a sense of playfulness, as shown by the star jumps they did as Tesfaye sang "Starboy".

A drummer, guitarist and keyboardist were placed among the buildings on the main stage. Stark hip-hop beats dominated at certain points, while other tracks, usually the hits, had the propulsive grandeur of 1980s synth-pop. Like a rap show, the songs were truncated and mixed into one another.

This brooding, highly stylised, somewhat uniform soundscape was enlivened by Tesfaye's singing. His high tones, pitched intriguingly between innocence and needling, gave the songs their dramatic power. Amid the barrage of lights and beats, vocal melodrama was withheld.

He removed the mask for the song "Faith" and held it out in front of himself as he sang. This was a performer at his peak, in full control of his role, with an ardent audience hanging on his every word.

*theweeknd.com*

# Grange Park matches Wagner's vision

OPERA

**Tristan und Isolde**
Grange Park Opera, Surrey
★★★★☆

*Richard Fairman*

As the number of summer opera festivals in the UK has blossomed, so each is doing its best to cultivate a distinct personality. With its 700-seat theatre, the largest outside Glyndebourne, Grange Park Opera in Surrey is ambitious about the scale of work it presents.

There are three operas on this season's programme: Wagner's *Tristan und Isolde*, Massenet's *Werther* and a revival of Puccini's *Tosca*, the production that opened Grange Park Opera's splendid, miniature La Scala in 2017. All come from the peak of the romantic era and nobody would doubt that the company is up for the challenge.

Without breaking new ground, the opening production of *Tristan und Isolde* looks handsome and projects a potent sense of atmosphere. The scale of Wagner's conception — its eternal, Platonic ideals of love and suffering — never feels short-changed.

The main setting, a richly upholstered Victorian living room, with a passing resemblance to Wagner's own Villa Wahnfried in Bayreuth, his writing desk covered in pages of the score, affords multiple possibilities. Its walls are painted with a ship, a forest and a castle, potential sets for the three acts, though everything remains suggestive.

As both director and designer, Charles Edwards has devised a production in which the visual element plays a big role — symbolic daylight streaming through the doors, decay and detritus littering the final act, a radiant vision of Isolde near the end.

Elsewhere, some odd things happen. Why do people wander in and out during the love duet if Brangäne is on watch? Why does Tristan exit early through one door, presumably to death, while Isolde goes out at the back of the stage, transfigured in a heavenly cloud of light? The stage crew were so energetic with the dry ice that the curtain calls disappeared into a thick fog.

It is Isolde's character that comes across most vividly. Rachel Nicholls plays her as a tempestuous Irish princess, all injured fury, not at all the passive victim of fate, though more vocal beauty from her would be welcome. Gwyn Hughes Jones, who withdrew from the role of Tristan earlier in the year in Paris, appeared here at the more helpfully sized Grange Park, singing with stamina and a clear, true musicianship that compensated for some lack of power.

Singing Wagner in a theatre of this size is a very different experience. Even so, the other roles were cast from strength. Christine Rice was a glowingly sung Brangäne, David Stout an impressively strong Kurwenal, and Matthew Rose a deeply considered, resonant King Marke. The off-stage chorus, singing from the balcony, sounded noisily lusty.

For once in this opera the singers were not drowned by the orchestra. Grange Park's excellent acoustics must help, but the conductor, Stephen Barlow, was always considerate and drew a convincing Wagnerian sound from the Gascoigne Orchestra. Though the pace dragged in the early stages, the emotions gained in heat and the electricity started to crackle by the end. A performance of *Tristan und Isolde* away from the main highways of the opera world should not be as good as this.

*To July 9, grangeparkopera.co.uk*


**Rachel Nicholls in Grange Park's 'Tristan und Isolde'** — Marc Brenner

# Vivid portrait of a city in motion

**PODCASTS**

Fiona Sturges

*Intersections: Detroit* is a new 10-part podcast which tells the story of Detroit via interviews with people who live and work there. Its 100 or so contributors were handpicked by their peers as "agents of change" — people attempting in different ways to improve a city that is often viewed negatively by outsiders.

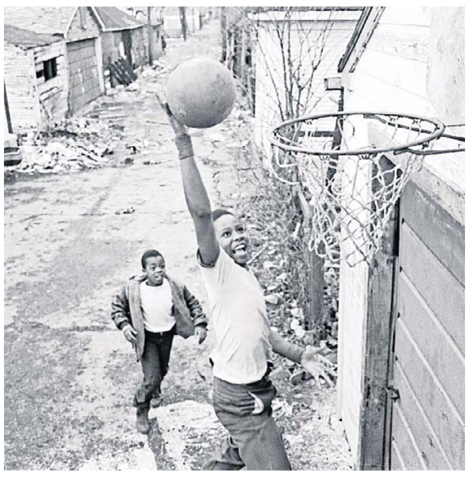
Each episode of the series, which is an offshoot of a broader multimedia project *I, Detroit*, by the artist and photographer Marcus Lyon, opens with the resident poet Jessica Care Moore sharing her memories of city life: "[As children] we played baseball in the street, we played relay races, we rode our bikes . . . You only stayed in your house to sleep. You went outside because you wanted to see what everyone else was doing." She then hands over to the interviewees, whose contributions form an artful audio tapestry about a bruised but resilient town focused on renewal.

And so we hear from Satori Shakoor, founder of the arts organisation The Secret Society of Twisted Storytellers, who recalls how the block where she lived in East Detroit "looked like a mouth with a lot of teeth missing" owing to the state of the houses, yet "was full of people and life and diversity". Local historian Jamon Jordan talks of the destruction of the Black Bottom neighbourhood that began in the late 1950s to make way for a freeway, and the Detroit rebellion of 1967, as pivotal moments in black history. He also recalls his curiosity as a child when he saw his grandmother cleaning wealthy people's houses — why, he wondered, didn't he live in a house like that? Studying history gave him necessary context. "I was able to understand my place in the world," he says.

Elsewhere we hear from a man helping young boxers who have skipped high school to improve their literacy and an eco-entrepreneur getting young people in touch with agricultural practices. Wrapped around their testimony are elegant, immersive soundscapes that weave in the hubbub of the city — car horns honk, pedestrians talk on their phones, life bubbles away. There is original music, too, courtesy of Detroit musicians Efe Bes and Marcus Elliot and, unexpectedly, Brian Eno. Their soundtrack is ambient and unobtrusive in parts, but in other instances takes centre stage.

Those who, like me, come to this series knowing little about Detroit beyond the big historical markers — cars, Motown, economic decline — get a different picture, one that is full of creativity and community, and one in which a bright future beckons.

*This City*, hosted by Clara Amfo, is a podcast about London as seen through the eyes of its famous residents and visitors. Each of the guests, who include writer Candice Brathwaite, rapper and TV presenter Big Zuu and singer Olly Alexander, discusses the places that mean something to them, from music venues and museums to the city's green spaces.


**Boys play basketball in the Poletown neighbourhood of Detroit, 1982; the city is the subject of a new podcast series**
David Turnley/Getty

## FT BIG READ. CLIMATE CHANGE

# Gridlock: the problem with power lines

A backlog of wind and solar projects is waiting to connect to infrastructure built for another era. Calls for more cables have been largely unheeded, threatening net zero targets the world over.

*By Attracta Mooney*

**Wind farms and other renewable energy sources rely on connection to the grid, the infrastructure which transports electricity to people's homes. But in most countries grids were not designed with renewables in mind**

FT montage; Dreamstime

The Couture wind farm in Poitou-Charentes, southwest France, is in limbo. Despite having planning permission, construction of the 33.3 megawatt wind farm, which could power 30,000 houses, is on hold. The problem: gridlock on the grid.

The project's developer BayWa RE says the wind farm is facing an eight-year wait before it can obtain a connection to the grid — the network of cables, substations and transformers that takes electricity around regions, countries and across borders to power our homes, offices and factories.

It is a lengthy delay, but not exceptional. Around the world, developers of renewable energy infrastructure are being told they must wait anything from a couple of years in parts of the US to up to 15 years in the UK before they can plug projects into grids that are struggling to keep pace with shifts in electricity generation.

There is a dawning realisation that these connection delays could have a calamitous impact on global efforts to cut greenhouse gas emissions. Scientists say the world must rapidly transform the global energy system, ditching fossil fuels in favour of cleaner sources of power such as wind and solar to limit global warming and avoid the catastrophic effects of climate change.

But this switch can only happen if renewable projects can connect to electricity grids, which are state owned in some countries but privatised in others.

Two decades ago, the grid was just one way to get energy. There were also other options, such as petrol and gas. "But now the grid is becoming the main way to get energy," says Frédéric Godemel, executive vice-president of power systems and services at Schneider Electric, the French energy management company. "The grid needs to be upgraded. It needs to be changing league."

Matthias Taft, chief executive of BayWa RE, which has operations in more than 30 countries, says grid connection delays are now the "major obstacle" to the rollout of the renewable projects not just in Europe, but in the US and Australia among other countries.

"We are facing a very real situation where we have to wait five, 10 years [for grid connection]. We have a permit [to build projects], but the physical grid connection is not available," says Taft.

It "really is a threat" to the energy transition, he adds.

### Bottlenecks ahead

Politicians across the world have clamoured to back renewable energy projects, both to improve energy security by reducing reliance on fossil fuels that are often imported, and as part of efforts to cut emissions in the wake of the Paris agreement. Parties agreed to limit global temperature rises to below 2C and ideally 1.5C above pre-industrial levels.

To keep the 1.5C target alive, the renewable power generated must more than triple from 3,000GW today to more than 10,000GW in 2030, according to the International Renewable Energy Agency, or Irena.

Countries have been busy setting ambitious green energy targets. In March, the EU reached a provisional agreement to require at least 42.5 per cent of electricity to come from renewable sources by 2030. Then in April, the G7 group of rich countries pledged to increase offshore wind capacity by 150GW by 2030 and solar capacity to more than a terawatt. A global goal for renewables may be formalised at this year's UN COP28 climate summit in December in Dubai.

But underneath the noise, few politicians are talking about the grid, the infrastructure vital for achieving the ambitious targets and net zero plans.

"Grids are not part of public consciousness," says Stephanie Bätjer from the Renewables Grid Initiative, a non-profit promoting the development of grids. "We are all aware that for our energy future, we need wind, solar, renewables. But grids aren't often part of the conversation."

Problems with the electricity network are so entrenched that even the British prime minister paid for a private upgrade to the local grid to heat a swimming pool at his home. Greenpeace activists held a protest outside the Yorkshire property in March where, dressed in swimwear and holding banners, they called for Rishi Sunak to update the country's grid.

As the world moves to increased electrification, such as the switch to electric vehicles and heat pumps, we will "need to transport more electricity than we did in the past", adds Bätjer.

"I don't know of any country where the grid is not currently some level of obstacle to the energy transition," says Mark Hutchinson, director for Asia at the Global Wind Energy Council, the international trade association. One of the big issues, he adds, is there is "not enough grid" infrastructure to meet the needs of the changing energy system. BloombergNEF, a data provider, estimates that 80mn km of new grid is needed by 2050, more than enough to replace the entire global grid today.

In much of the western world, grids were developed after the second world war to serve big power stations burning a fossil fuel such as coal or gas. The electricity generated at the power station was then sent via a network of power lines and cables to our homes.

The green transition will require an overhaul of the set-up. Several wind and solar farms are often needed to replace a large power plant, partly due to the intermittent nature of renewable energy. These farms all need grid connections, yet typically they are in remote areas or off coasts, where grids are patchier.

"The grid is in the wrong place to deliver the power from [renewable energy] to economic centres," says Peter Crossley, a professor of power systems at Exeter university.

Alongside this obstacle, the rollout of solar panels on homes and businesses that feed into the grid — plus the shift towards electric vehicles and heat pumps — has increased the complexity of managing electricity networks. Grid operators face a tricky balancing act — they must keep the lights on and expand the network without ramping up costs for consumers.

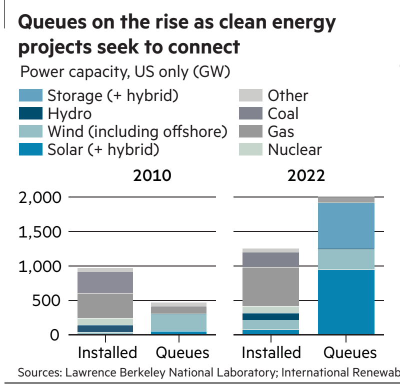
Right now, a huge bottleneck is emerging. "We see massive short-term bottlenecks that stem from grid operators not having enough people to do the processing jobs needed, owing to a chronic lack of investment," says Harald Overholm, chief executive of the Swedish solar company Alight. "It's a huge problem, to the extent I think we could double the pace of the global renewables rollout if these bottlenecks were not the case."

In the UK, Spain and Italy more than 150GW of wind and solar projects are stuck in grid connection queues in each country, according to figures from BloombergNEF.

In the US, grid connection requests grew by 40 per cent in 2022, a study led by Lawrence Berkeley National Laboratory found. The researchers discovered that nearly 2,000GW of solar, wind and storage projects were in queues to connect to transmission grids — the long-distance, high-voltage electricity network — far more than the capacity of the entire US power plant fleet.

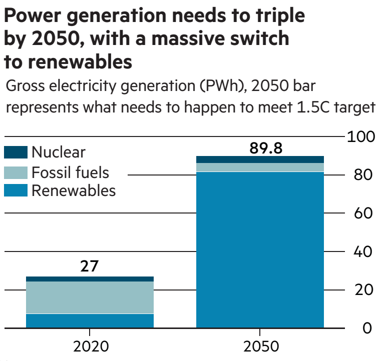
Many of these projects will never be built. Developers often submit speculative applications, says the lead author, Joseph Rand. His research looking at connection requests submitted between 2000 and 2017 found that typically only a fifth of projects were built.

One of the reasons for the fall-off in construction is that developers have limited information about grid capacity — or the ability to accept a new project — prior to submitting an application. Potential issues and additional costs only emerge when the operator carries out a study on the possible connection.



**Queues on the rise as clean energy projects seek to connect**

Power capacity, US only (GW)



**Power generation needs to triple by 2050, with a massive switch to renewables**

Gross electricity generation (PWh), 2050 bar represents what needs to happen to meet 1.5C target

Sources: Lawrence Berkeley National Laboratory; International Renewable Energy Agency

Developers back away from projects when they find out their development triggers a huge bill for a grid upgrade or reinforcement. Nick Pincott, a partner at TLT, a law firm, says a project in the UK was scrapped when the developer was told they would face a £19mn "reinforcement charge" to upgrade the grid — more than the project was worth.

Even when projects get a connection, "more and more there are restrictions on when you can use that connection", such as constraints on when they can sell electricity, says Pincott.

Despite countries setting out legal targets to cut emissions and increase renewable energy generation, operators and politicians have been slow to spend money to upgrade grids.

"The reason we have people queueing up for grid connections", says Nick Dunlop, co-founder of Climate Parliament, a group focused on getting politicians to take action on global warming, "is because governments are not yet taking climate change seriously. They are not really bending their will towards attracting investments in grids."

Figures from the International Energy Agency show that rather than capital investment in grids globally increasing after the Paris agreement, it fell between 2017 to 2020 and only recovered to 2016 levels in 2022 at $330bn. Grid investments in Europe were stagnant between 2015 and 2020 at about $50bn per year, picking up only slightly in the past couple of years. In China, after falling between 2019 and 2021, investments in grids grew by 16 per cent to almost $83bn last year.

But Irena says to keep the 1.5C goal alive, global annual investment in power grids and so-called flexibility, which includes energy storage, will need to hit almost $550bn a year by 2030. The European Commission estimates some €584bn needs to be invested in Europe's grid by 2030.

> 'We could double the pace of the global renewables rollout if these bottlenecks were not the case'

Crossley says there has been a reluctance to invest in grids because this cost is often at least partially passed on to consumers through bills. Even when there are plans to extend the grid, operators complain the proposals get stuck in the planning system, often because of concerns about building overhead transmission lines in green fields.

Keith Anderson, chief executive of ScottishPower, a UK utility company that operates a grid and develops wind farms, says it took 10 years to get planning permission to replace and increase capacity of an existing transmission line between Beauly and Denny in Scotland.

Grids are the "forgotten giant of decarbonisation and net zero", he adds.

### Grids go global?

The queues and cost of upgrades have prompted fears that efforts to cut emissions will be undermined not by a lack of interest in renewables but by the basic infrastructure underpinning the system.

"It is going to be boring old cables that literally trips us up on the path to decarbonisation," says Marlon Dey, head of research for the UK and Ireland at Aurora Energy Research.

"There is only one solution and that is to physically reinforce and build more grid," Dey says. "And if you can't do that quickly enough, then you can't build the renewable power we need and can't get away from fossil fuels fast enough. And then you can't decarbonise fast enough."

Politicians and policymakers are slowly waking up to the problems, says Lisa Fischer, a programme lead at E3G, a climate think-tank. "They are starting to understand that grids are becoming strategic priority assets."

Fischer says countries need to consider innovative solutions such as building transmission lines alongside roads or gas pipelines, where planning permission is more likely to be granted.

> 'I don't know of any country where the grid is not currently some level of obstacle to the energy transition'

Frank Jotzo, a professor of environmental economics at the Australian National University, says another option is to develop renewable energy "zones" in geographically suitable areas and prioritise grid development there. This is already taking place in parts of Australia, he adds.

Last year, the US's Federal Energy Regulatory Commission set out proposals to shake up the grid connection queues, including overhauling the "first come, first served" system by prioritising projects that were most likely to be built, such as those with planning permission. It also proposed developers have access to more information about grid capacity — such as where transmission lines are already congested.

There is also a growing focus from countries on building grids beyond borders, with the idea of being able to rely on energy from different places at different times. The Netherlands and the UK, for example, are working on the so-called LionLink power line between the two countries.

"You can easily power the world, but only if you have the right grids," Climate Parliament's Dunlop says. "You have to have large-scale continental-wide grids, even transcontinental grids."

Irena chief Francesco La Camera argues there needs to be more focus on developing both local and international grids in Africa, arguing the continent could be the "most important powerhouse for clean energy in the world" due to the potential for large solar farms to be based there. But it lacks the grid infrastructure from cables to battery storage that is needed. "We think multilateral development banks should focus on the building of the physical structure that is needed to build the path for the new energy system," he adds.

Despite all the issues, Berkeley's Rand says the huge queues for grid connections show the appetite is there. "We have all of these developers wanting to build solar wind and battery storage projects. That's the very positive side of the story," he says.

Back at the Couture wind farm in France, BayWa estimates the project will take just 12 months to build. But there is no point starting the construction of a wind farm that cannot get a grid connection. Taft, the BayWa chief executive, recently met politicians in Europe, where he called for the bloc and individual countries to double down on efforts to tackle the problems with grid infrastructure. His message is unambiguous. If governments and grid operators fail to take urgent action, "we will fail with the energy transition".

# The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

## Trump's mounting legal jeopardy

*Former president's attack on rule of law creates great risk for the US republic*

The charge sheet against Donald Trump keeps getting longer. After the 34-count indictment against him in late March for falsifying records of hush money paid to a porn star, we can now add his 37-count indictment for hiding classified documents. Those will be read out in a Miami court tomorrow. In August, Trump is likely to be indicted for attempting to overturn the results of the presidential election in Georgia. At any point, he could also be charged for his role in the January 6 2021 mob attack of Capitol Hill.

Each one of these cases breaks precedent. Never has a former US president been charged with a crime, let alone one who is seeking to become president again. The special counsel, Jack Smith, was at pains to underline that Trump, like any other US citizen, is innocent until proven guilty. But the volume and range of charges against him suggest he faces high odds of an eventual prison sentence. The latest allegations alone entail up to 400 years in prison time. Even a convicted Trump could continue to run for office from jail.

The US system thus faces two grave tests: the judiciary will be put under acute stress to show it is working fairly and methodically. Though the rule of law applies equally to every citizen, it is critical that treatment of America's most powerful alleged criminal is both fair and seen to be fair. That works both ways. So far, America's judiciary has held up well.

However, the fact that the Florida judge assigned to the case is Aileen Cannon, a Trump appointee, is a windfall for Trump. As the presiding judge, Cannon bent over backwards last year to slow the legal process following the FBI raid on Mar-a-Lago last summer. No one can force Cannon to recuse herself from the case, which is a matter for her conscience. She has the scope to delay trial until after the 2024 presidential election. Either way, Trump's mounting docket of upcoming trials is likely to be subject to many stops and starts. Justice could well be repeatedly delayed.

The even graver test is political. Far from harming Trump's popular standing, each indictment appears to solidify his grip over the Republican base. Most of Trump's rivals for the nomination, including Florida's governor, Ron DeSantis, have echoed Trump's claims of a corrupt judiciary doing President Joe Biden's bidding.

Though Biden has been scrupulous about leaving his Department of Justice to its own devices, Trump's conspiracy theories are being amplified by most of the Republican establishment. They are playing with fire. Support for the rule of law and the FBI's mission used to be bedrock principles of the Republican party. Now it is openly agitating against both.

> It is critical that treatment of America's most powerful alleged criminal is both fair and seen to be fair

On Saturday, Trump said 2024 would be a "final battle" between the forces of good and evil. If he were elected, there would be "retribution". He has every incentive to turn the 2024 election into an existential showdown. Should Trump win next year, he would surely pardon himself.

The US republic is thus entering a period of even greater risk than during the failed attempt to overturn the 2020 election. Should Trump be the Republican nominee, which now looks probable, Americans will essentially be voting in a plebiscite on the rule of law next year. According to Trump, the deep state is out to get the average American and he is the only one standing in its way. Millions of Americans believe this self-serving nonsense. The judiciary must do its job without fear or favour. The verdict of the political system will be more important still. The only thing more powerful than the rule of law is the will of America's people. Trump's fate ultimately rests on that.

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Opinion Asia

## J-pop abuse scandal puts spotlight on governance

María Hergueta

### Leo Lewis

In mid-May, mainstream Japanese television stations broadcast a one-minute apology from Julie Fujishima. Four sentences. Four bows. And a formidable absence of anything resembling regret, reflection or responsibility.

It was a terse, but rather necessary, response to claims of nearly 60 years of open-secret sexual abuse and paedophilia allegations surrounding her late uncle, Johnny Kitagawa — enigmatic svengali, pioneer of the Asian boy band genre and founder of one of Japan's most powerful talent agencies for young male performers.

His alleged victims, who have been said to number as many as 100 now adult men, have begun to break decades of silence. Three of them did so in a BBC documentary this year that set out to challenge the agency's omertà. Fujishima's apology was primarily for the social kerfuffle this exposure has caused. The company says it cannot verify the claims since Kitagawa is dead.

> The godlike status conferred on Kitagawa as a pioneer has echoes across corporate Japan

The collective picture painted by the victims' stories is horrifying. The question is whether Japan will be collectively horrified enough to decide nothing like this should ever happen again, to men or women of any age.

There are many other powerful talent agencies, many teenagers yearning for stardom and a terrifying failure to care how routinely this yearning is treated as a licence to abuse. For all the grimness of Kitagawa's sexual predations, the fundamental, far-reaching — and perhaps fixable — crisis is one of power and governance.

The continuing centrality of Kitagawa's empire (now run by Fujishima) to the Japanese entertainment and media industries is hard to overstate. So, too, is the societal waiver that Kitagawa was granted even as the allegations swirled. His company, Johnny & Associates, was and remains a prodigious generator of stars and hits. Consequently, it is a pre-eminent source of the high-energy silage on which Japanese media — the scores of variety shows, dramas and adverts in which Johnny's stars abound — insatiably grazes.

That status as an essential service granted Kitagawa, with the exception of a revelatory magazine article in 1999 and a related civil case that reached the Tokyo high court in 2004, near-total protection from serious scrutiny, which lasted until his death in 2019.

After the BBC documentary on Kitagawa was broadcast in March, parallels were drawn with Britain's painful reckoning with the crimes of the entertainer Jimmy Savile. Here, too, was a catalogue of sexual abuse by a vile eccentric leveraging extraordinary power over decades and hiding, with the collusion of the media, in plain sight. Here, too, was an abuser around whom allegations swirled for years but whose comeuppance, while explosive, made a hollow posthumous boom.

And while it is tempting to suggest that Japan is on the brink of some similarly great deluge of truth-telling and hand-wringing, it is likely that the media will decide that it simply has too much to lose. At worst it will not investigate; at best it will, but may conclude firmly that Kitagawa was the exception, not the rule.

There is, though, a way to approach this that treats the matter as cautionary and creates a focus on the wider crisis: that of good corporate governance and the egregious concentration of power that its absence allows.

The godlike status conferred on Kitagawa as a pioneering industrial founder has echoes across corporate Japan. There is a profound reluctance to let higher standards of governance constrain these figures, but increasingly there is also a grudging recognition that it may be the only way to reduce the potential for abuse.

The pivotal difference between Savile and Kitagawa is that the latter was the president and founder of a large company, and the relationships that protected him were corporate. The customers of J&A are the huge media groups that dominate Japanese TV and the hundreds of companies that use it — and other agencies — to promote their products.

Those companies are under mounting pressure to demonstrate better governance, and to question much that has for years been unchallenged. If stronger governance norms can push managements to take responsibility for wrongdoing across their supply chains, that should include the human supply chains on which they rely for adverts, brand ambassadors and filling endless airwave hours.

This is easier said than done. Kitagawa's skill was to provide what corporate Japan needed as tidily as possible: perfectly packaged talent, ready to sing, dance and pose on command. But better governance is often messy. The companies knew there was a high price for that tidiness, and it is time to admit they should not have paid it.

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# Letters

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## UK watchdog's tough stance on Big Tech should reassure MPs

David Parker (Opinion, May 30) argues that if the UK Competition and Markets Authority stops big tech firms buying start-ups, entrepreneurs will avoid the UK.

This argument is regularly trotted out. But it falsely assumes that tech firms can avoid the CMA's writ by starting a business elsewhere.

The CMA has examined, and sometimes prohibited, deals where both parties are based outside the UK and have little business in Britain — as it did when Facebook's owner was made to sell the gif creation site Giphy.

Parker's broader point — that the CMA's merger scepticism could undermine business dynamism — is also unconvincing. He points to Microsoft's attempt to acquire the gaming giant Activision. The European Commission accepted Microsoft's promises to allow Activision's products to be played on competitors' cloud gaming platforms, not just Microsoft's. The commission argued this could help new cloud gaming platforms succeed. The CMA rejected the promises and banned the deal outright.

But whose approach is more consistent with business dynamism? Microsoft's commitments would have only protected one particular business model (where consumers buy games direct from Activision, and then later want to play their pre-purchased game on a cloud gaming service). It would have done nothing to protect alternative business models, which could have been even better for consumers. Those alternative models might thrive without the merger. For example, without the merger, Activision would probably do everything possible to increase its customer base, including allowing consumers to buy its games via cloud gaming platforms, not just directly from Activision.

Tech markets, when they function at their best, are unpredictable and experimental. They require businesses to take big risks to find out what consumers value. It is that type of risk-taking — rather than detailed and static rules proposed by Microsoft — that led to the past "big leaps" in tech innovation.

The CMA was right to reject Microsoft's commitments. Rather than harming business dynamism, the CMA's approach shows one thing: it understands competitive markets always deliver more than stifling rules imposed upon giant companies.

That free-market philosophy should reassure MPs, as they are about to debate handing over new powers to the CMA to regulate Big Tech.

**Zach Meyers**
*Senior Research Fellow, Centre for European Reform, London SW1, UK*

## Global energy investment race is far from decided

There are certainly reasons to be happy that solar power, once a technological also-ran around the turn of century has now overtaken Big Oil as the largest destiny of global energy investment projected for 2023 ("Solar investments set to exceed oil spending", Report, May 26).

As the article discusses, in the new edition of the International Energy Agency's energy investment outlook, there are other and more worrying facts provided by the IEA. Investments in solar and wind, the key renewables, had been growing over recent years to reach an estimated $600bn in 2023 but the entire fossil fuel investments are close to $1tn and growing again after the Covid-19 crisis. $CO_2$ emissions were at an all-time high in 2022. Adding significant renewable energy does not do the trick if simultaneously fossil fuels are not being reduced — particularly in the non-electric sectors like transport, heating etc. Energy efficiency, including investments into electric cars, is seeing about $600bn as well in 2023, but what is needed is a tripling of that figure by 2030. Most of that is in improving buildings' energy efficiency across the globe.

We also concur with the IEA, which has slightly lower numbers, that we need a global annual growth of new renewable energy capacity, mostly solar, wind and geothermal of 1500GW until 2030 and beyond to avoid a global climate disaster.

**Stephan Singer**
*Senior Climate Science and Global Energy Policy Adviser, Climate Action Network International, Brussels, Belgium*

## As if artificial intelligence had a mind of its own!

Sarah O'Connor's article "Let's not write people off as 'AI losers'" (Opinion, May 24) was a breath of fresh air. The entire debate around the regulation of artificial intelligence seems to proceed upon the basis that this technological man-made development literally has a mind of its own which is beyond human control.

It can be compared to the introduction of the motor car. When faced with the obvious dangers posed by speeding vehicles, the approach was to consider imposing speed limits.

**Raj Parkash**
*London W4, UK*

**India plans to drop Darwin and the periodic table from school textbooks**

## Brexit and the problem of square-the-circle thinking

The problem Robert Shrimsley addresses ("Thatcherites lost their Brexit and their party", Opinion, June 1) is the cavernous gulf between winning the referendum on quitting the EU and having policies to deal with the complexities that follow. Brexit promised voters a multitude of outcomes. But a rational Brexit policy was impossible for this smorgasbord of Brexits. Dissimulation became embedded.

The "thoughtful" Lord Hannan — as Shrimsley describes the former MEP eurosceptic Daniel Hannan — is an exemplar of the wider problem. Here was a man who wanted a sovereignty that would be different from and better than the sovereignty the UK exercised to initiate the single market. Hannan supported this single market. He also, notably, claimed we wouldn't leave. "Absolutely nobody is talking about threatening our place in the single market," he claimed in May 2016, just weeks before the vote. Hannan has also claimed deregulation could be a Brexit benefit but the whole point of the single market is that harmonised regulation would enable easier access, important for small firms, to a huge market and so encourage actual competition. Competitive deregulation to reach some ideal tends rather to put up obstacles when markets are differently regulated.

Of course we could have argued for reform within the single market but, oh dear, that scope for sovereignty has now passed. Today's free marketeers have helped sabotage a key Thatcher policy. Their square-the-circle thinking is characteristic of both right and left marginal groups for whom recruitment to a cause has priority over the consistency needed for practical contact with reality.

Seeking to hide behind alibis is really no substitute for the serious rethinking of Brexit that Britain now needs.

**William Dixon**
*London SE18, UK*
**David Wilson**
*Walton-on-the-Naze, Essex, UK*

## One area ONS must adopt European best practice

The failure of the Office for National Statistics to come up with a robust and accurate methodology for quantifying migration (Report, May 31) must rank as one of the most egregious and expensive in British civil service history. It arguably cost us our EU membership: people's lived experience of eastern European immigration was so much at odds with official figures that it fuelled the "nobody's listening" sentiment which underpinned many of the 2016 "Leave" votes.

Many EU countries, with far more permeable borders than ours, and far less of an incentive to control them than that driven by our non-contributory benefits system, have for years had more effective systems for measuring and recording migrant flows. Our civil service needs to overcome its arrogance and exceptionalism and begin to implement some European best practice.

**Gary Backler**
*London TW1, UK*

## An affront to the Indian scientists who went before

I read with disappointment of India's plan to remove Charles Darwin's theory of evolution and the periodic table of elements from the national school curriculum (Report, June 7).

The move is an affront to the likes of the physicist Subrahmanyan Chandrasekhar, the neuroscientist VS Ramachandran and the space scientist Venkatraman Radhakrishnan; Indians who advanced science immeasurably and made their countrymen and women proud. How does the national government expect others to emulate their achievements?

**Rajiv Radhakrishnan**
*London NW8, UK*

## Wessex Water's structure — 'simple and transparent'

In the letter "Wessex Water is example of a layered family tree" (June 6), Steve Priddy made reference to the ownership of the company and a "highly engineered" corporate structure. On the contrary, the structure is simple and transparent with all Wessex Water's activities being entirely within the scope of Ofwat's supervision. YTL, a family-run business, has been a stable owner of Wessex Water since 2002 and pays all UK taxes. There are no payments or transactions with any parent other than dividend payments as declared in Wessex Water's accounts.

**Ruth Jefferson**
*Group General Counsel, Wessex Water Bath, Somerset, UK*

## How Hume's model defined gold standard era

In his insightful Alphaville piece (FT.com, June 7) Michael Pettis argues for the "unprecedented" role of the US dollar relative to sterling in the gold standard era. Yet, two things are also important to highlight with regard to the period before the first world war.

First, the theoretical background of the gold standard. In 1752, David Hume presented his famous model of the "price-specie flow mechanism", depicting an automatic mechanism, under which a monetary regime could eliminate imbalances in the balance of payments between two countries.

According to Hume's model, a deficit country must pay for the excess import of goods using the currency of the surplus country. This means that according to the monetary arrangements of the gold standard system, gold will be transferred via their central banks from the deficit country to the surplus country, thus reducing the money supply and the general price level in the former, improving its relative competitiveness, and increasing its exports as opposed to imports; this will finally rebalance the payments of the deficit country versus the surplus country.

Hume's model remains the dominant conceptual approach in economic thought regarding the gold standard.

Second is the dominance of the Bank of England during the prewar period — eloquently expressed by Keynes, who describes it as the "conductor of the international orchestra".

In the absence of an American central bank — the Federal Reserve was only created in 1913 — the role of the dollar in the international monetary system was limited, as for central banks and governments alike the British pound provided the same collateral as gold. In fact, the dollar's ranking among world currencies, on the eve of the first world war, testifies to the fact that the absence of a central bank harmed the American currency, despite the US being the largest economy in the world. As Barry Eichengreen puts it in *Exorbitant Privilege*, not only the French franc, the Deutschemark, the Swiss franc and the Dutch guilder, but also the Italian lire, the Belgian franc and the Austrian schilling all ranked higher than the US dollar.

**Konstantinos Gravas**
*University of Economics and Business (AUEB), Athens, Greece*

## Correction

- Doug Leone is not one of the current leaders of Sequoia Capital, as wrongly stated in an article on June 8. Leone is a former leader of the group.

# Opinion

## Reforming the failing pensions system is a priority

**FINANCE**

**Martin Wolf**

As a result of a series of narrow, short-sighted and overly theoretical decisions, the UK has ended up with a pensions system that is incapable of generating the supply of long-term risk capital on which development depends or of providing the population as a whole (not just a few favoured groups) with adequate and secure pensions. Symptoms of this disaster include a moribund stock market, underinvested companies, an undue dependence of foreign capital and even a stagnant economy.

The origins and consequences of this policy failure are documented in Investing in the Future: Boosting Savings and Prosperity for the UK, from the Tony Blair Institute for Global Change. I have discussed aspects of it in a number of columns, most recently in late March. In particular, the narrow focus on making pension promises absolutely safe made them unaffordable. This crippled the businesses liable for these exorbitantly expensive promises. It also deprived new businesses of the risk-taking capital they needed. Finally, as defined benefit plans collapsed, the public was pushed into defined contribution plans that impose too much risk for individuals to manage easily.

None of this matters in fantasy financial economics, in which borders are unimportant, domestic investment is independent of domestic savings, corporations have frictionless access to liquid financial markets, and markets are rational and far-sighted. But these are fairy stories, not a reflection of reality.

Between 2001 and 2022, notes the paper, "UK private sector pension fund holdings of UK equities fell from an average of 50 per cent of the portfolio to just 4 per cent today. Over the same period, their holdings of fixed-income securities (mainly gilts and corporate bonds) increased from 15 per cent of total assets to approximately 60 per cent." Not surprisingly, with companies forced to use their cash flows for filling the nearly bottomless pit of pension fund deficits, rather than investing, the businesses became ever less dynamic. The UK stock market's performance has been startlingly bad relative to those elsewhere. But the market is moribund because the corporate sector has become a zombie.

A big question is how far 'superfunds' should be encouraged or required to invest in UK assets

Who has benefited? The answer is pension consultants, insurance companies (profitably picking up the pieces) and the government, enjoying a captive source of ultra-cheap funding. Meanwhile, the returns of such defensively managed pension funds have been far below those otherwise possible.

Meanwhile, the country has moved from one corner solution, in which all the risk fell on scheme sponsors, to another in which it falls on individual contributors. The sensible alternative, however, is in the middle — collective defined contribution schemes: eternal funds that promise pensions based on actual long-term returns. This arrangement would share risks across individuals and generations and takes advantage of the economies of scale available to large long-term investors able to bear risks others cannot.

All this is spelt out in detail in this important report. The question is how to move to something better. Here the authors have a clever idea. They note that the Pension Protection Fund (PPF) now invests £40bn and has, since its founding in 2004, enjoyed an impressive performance. It has generated a surplus of assets over estimated liabilities of £12bn. At present, however, the PPF fund only takes over when the corporate sponsor goes bankrupt. Instead, suggest the authors, the PPF could be turned into the first of a number of UK pension "superfunds". This would be done by allowing voluntary transfer of solvent funds into the PPF with a required payment of a capital buffer for continuity of benefits. This commitment would replace the previously open-ended obligation of the sponsor.

Rather than ending up in the hands of insurance companies, assets would then be actively managed. In addition, they argue, the National Employment Savings Trust could also be folded into the new superfund, to be called GB Savings. The ultimate aim should be to consolidate other defined benefit pension funds. It would make sense to give people now investing in defined contribution schemes the option of shifting into the new collective superfunds.

A big question is how far the new superfunds should be encouraged or required to invest in UK assets. Some such requirement might make sense. But it would be dangerous for the government to force funds to invest in specific assets or specific classes of assets beyond that national mandate.

Myopic decision-making has led the UK into a pension cul de sac. It is time to exit and so to think big and act boldly.

*martin.wolf@ft.com*

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## What happens when the US is uninsurable

Matt Kenyon

**BUSINESS**

**Rana Foroohar**

I thought we were done with masks. But no. New Yorkers were wearing them again last week, at least those of us who dared to go out on the street, as the city was blanketed with thick plumes of smoke from Canadian wildfires that have been burning for more than a month. School and outdoor events were cancelled and residents were warned to stay inside, as air quality hit its worst recorded level ever. New York became, albeit briefly, one of the most dangerous places on the planet to breathe.

Bizarre as it was to see the city covered in a Delhi-esque haze, this was no black swan event. Wildfires have raged in recent years across California, south-east Australia, Canada and parts of the Mediterranean, thanks to higher temperatures and longer dry seasons. According to the reinsurer Munich Re, global losses from wildfires between 2018 and 2022 reached $69bn, with insurers paying out $39bn in claims.

Four out of the five of most economically costly wildfires in the past decade have been in California. That's a big reason that State Farm, one of the country's largest insurance companies, announced late last month that it would stop selling coverage to California homeowners — not just those in wildfire zones but *everywhere* across the state.

Allstate, the fourth largest property insurer in California, is also holding off on signing new policies. Between wildfires, rising sea levels and non-climate related problems such as the high replacement costs for homes, California has become by some measures the most uninsurable state in the US.

Florida, Texas, Colorado, Louisiana and New York aren't far behind, however, as climate change-related natural disasters make it much harder — in some cases even impossible — to insure homes and commercial properties there as well. In hurricane-prone Florida, which is also notorious for insurance fraud, many big providers have pulled out, leaving the market to a handful of smaller players that are struggling to survive. Homeowner premiums in the state were just under triple the national average last year, according to the Insurance Information Institute.

But amazingly, that hasn't stopped people from building, or moving, to Florida — the state population (more than three-quarters of which lives in a coastal area) went up 15 per cent from 2010-20, even as places such as Miami are very clearly sinking. Last year, while travelling to a conference in South Beach, I noticed water rising in the street. By the time my taxi got to the venue, I had to roll up my jeans to wade across the street to the beachfront hotel. Despite such clear indications that the coastline has a sell-by date, there were new condos going up all around me. I asked the driver, a life-long resident, what he thought. "The weather is definitely getting worse," he said. "But the people that buy these things have so much money that they don't care if the buildings are washed away in 20 years."

Certainly that's true in parts of Miami and California. It's less true in, say, Louisiana, a poor state now offering millions of dollars in subsidies to lure insurers back into the market, or eastern Kentucky where the price of flood insurance is set to quadruple. But one can hardly blame the insurance companies for their reluctance to be in these markets given the rise in the accumulation of risk in disaster-prone areas. There is also the overall jump in residential building replacement costs nationally, which have risen more than 55 per cent since 2019 thanks to labour and materials inflation.

Despite clear indications the coastline has a sell-by date, there were new condos going up all around me

Indeed there is a strong argument to be made that America has been unwisely subsidising risk for decades through things such as federal flood insurance, which is slowly but surely being phased out by the government. Federal flood insurance has kept average premiums less than half of what they might be if risk was priced appropriately. Meanwhile, states such as California have rules dating back to the 1980s that bar insurers from pricing risk prospectively based on new and improved climate models, or incorporating the cost of reinsurance (also rising).

As prices increase, we will surely see some demographic shifts away from uninsurable parts of America. Those who stay in place are likely to be rich enough to afford the rising premiums, or become much more vulnerable. The White House is offering some help on the latter front, with $24bn put towards increasing climate resistance in at-risk communities.

But the insurance industry needs to become more proactive too. "We need to move from a detect and correct mindset to a repair and prevent model," says Insure Information Institute chief executive Sean Kevelighan. He wants the industry to work more closely with the building trades and real estate agents to better publicise the potential risks and costs of insurance in vulnerable areas.

This isn't a trend that's likely to be limited to the US either. A recent Munich Re report looking at America's wildfire issues notes "similar developments can be seen in many parts of the world, including the European Mediterranean region or parts of Australia. Given the high exposed values in these areas, risk management needs to keep a close eye on these developments."

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## Johnson goes full Trump in search of one last act

**BRITAIN**

**Robert Shrimsley**

There is no cunning plan. No secret wheeze to secure Boris Johnson's return to power. All there is, is all there ever was, a hazy gut instinct that it is better to walk away now, keep his options open and see how the land lies in a few months. Johnson's entire career has been a series of such gambles to delay reckonings. Often they have paid off. But the former prime minister is running out of road.

The simple facts are that upon receiving a draft of the Commons investigation into whether he lied to parliament over lockdown breaches, Johnson saw the game was up. Even a Tory-dominated committee had found him guilty. He faced a sanction serious enough to raise the probability of a by-election. His parliamentary colleagues were not going to save him and, although a recent poll suggested he might win, he did not fancy the risk.

So he quit and cried foul. His accompanying statement was a self-exculpatory wail of petulant nihilism. It was a "kangaroo court"; he was a victim of a "witch-hunt to take revenge for Brexit" and (a nod here to his future caucus) ultimately a plot to reverse it. It was a devious Labour and Remainer coup.

This was Johnson going full Trump. Never mind that the committee investigating him has a Tory majority; never mind that the evidence of his deceit is manifest and that there are seemingly details of more lockdown breaches emerging. This is the Trump playbook; the resort to the betrayal myth that appeals to his hardcore supporters. He was cheated, not defeated.

And to underpin this nonsense, he shamelessly blames his successor Rishi Sunak for the lack of a US trade deal which he failed to secure and cowardice over housing policy which he demonstrated. The message is unavoidable. Johnson is still planning a next act.

But beyond this positioning and opportunism, is there any real strategy? It is clear he will not fade quietly away. Even if he cannot return to the top, he intends to be a nuisance, sniping from outside parliament, drawing the limelight and bolstering his fantasy claims to vindication. Some Tories muse that the imminent sale of The Telegraph offers Johnson other possibilities for mischief.

The political nihilism and trouble-making can be seen in the rash of by-elections prompted by him and two of his most slavish allies, Nigel Adams and Nadine Dorries, both of whom have brought forward their already announced departure from parliament to land Sunak with three uncomfortable contests, all of which could be lost.

Even if he cannot return to the top, he intends to be a nuisance, sniping from outside parliament

It may be a short-term pain for the long-term gain of their exit. It could also backfire if Tories turn on them for an act of destructive disloyalty. But the hope is to destabilise the prime minister. Any Johnson hopes of a return depend on Sunak losing the general election.

But there are only two paths back to the top for Johnson and neither is easy. The really long shot is to build a new party around him amid general disgust with the existing ones. But the electoral system works against such plans. The more obvious route is for Johnson to step back before seeking another, safer Tory seat at the general election, putting himself in contention to return as leader in the event of defeat for the party.

The theory may be clear but the reality is more complex. First he has to secure that seat. There are probably a few constituencies that would take him, though a truly ruthless Tory leader has the levers to prevent this, not least by suspending him from the party and candidates' list for the breaches exposed by the parliamentary investigation. It will be interesting to see if Sunak is prepared to be that openly brutal.

But even if Johnson were selected and elected, he would face a different landscape. His most fervent acolytes will have left Westminster; the shrewd tacticians he relied on may well have moved to other camps. Ambitious cabinet members will not stand aside for him. But even if all the cards fell in his favour, Johnson will have to face multiple years in opposition, a post not ideally suited to his work ethic.

Above all that, there is one big difference. Once Johnson was an unknown canvas on to which voters could project their own hopes. This time he is a known quantity, tried, tested and found wanting. Voters have experienced the dishonesty, amorality and, above all, chaos of a Johnson premiership.

Tories know he was gifted a huge majority and frittered it away. It is true that he faced shocks that would have taxed any leader but they were not what cost him his job. It was his character that brought him down.

It is a cliché of politics that you should never bet against Boris Johnson. This time, it may finally be worth a flutter.

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## *Bringing GPs into the fold would complete the NHS*

**Ara Darzi**

For as long as I have worked in Britain's NHS, politicians and commentators have declared it to be in a state of crisis, and the calls for reform grow daily.

The challenges of the moment are certainly significant. At the height of the pandemic, routine care was postponed to prioritise Covid patients who needed to be hospitalised. This created an enormous backlog, while demand for services has risen inexorably. Unmet health needs also mean economic harm, as the rise in economic activity due to sickness attest.

It's a dire situation. But the system would need reform even without the pandemic — not because the NHS is flawed but because its aspiration is to deliver high-quality care for all. And since healthcare exists at the limits of science, high-quality care will always be a moving target. To stand still is to fall back.

In the seventh decade of the NHS's existence, no patient would expect to be offered the standards of care from 1948, the year it was founded. And we all intuitively understand that medicine progresses. Just look at how mRNA technologies have revolutionised vaccines. Yet some aspects of the health service appear to have been frozen in time.

Chief among them is keeping general practice at arm's length. Most GPs are private contractors, not NHS employees — an arrangement central to launching the NHS in the postwar period. But that model of general practice cannot keep up with today's demands.

Quality care demands 'hub' facilities with diagnostic capabilities like MRI, but based in the community

Modern medicine means people are living with multiple health conditions and for longer, multiplying the complexity of care. Small GP practices — often operating out of converted residential buildings — are unable to meet patient needs. Whether it's the best digital technology, diagnostics, treatment in the community or just longer opening hours, our primary care system is struggling to provide it.

As a former health minister, my big regret was our failure to persuade GPs to change the way they work, to improve access for patients while raising the quality of care — particularly for people with long-term health conditions such as diabetes or asthma. This demands modern "hub" facilities with routine diagnostic capabilities such as X-ray or even MRI, but based in the community.

The previous Labour government concentrated on reforms to hospitals. The coalition and Conservative governments then focused on changing how the purchasing of care is organised. There has been relatively limited attention paid to care outside hospitals. "More care closer to home" has been the ministerial rhetoric, but not the reality. As I proposed in a 2018 review for the Institute for Public Policy Research, now part of Labour's health proposals, we need a "neighbourhood NHS".

Without the best new interventions at their fingertips, GPs are having to run ever harder to keep up with demand. Burnout, chronic stress and mental illness are far too common as a result. Young medics have taken note that life as a GP partner offers the painstaking admin of running a business while simultaneously managing heavy clinical workloads. It is hardly surprising that their number is down 20 per cent since 2015 — the number of salaried GPs has risen by 50 per cent in the same period.

Keeping GPs separate from the rest of the NHS is an impediment to reorganising care to meet today's needs. Offering GPs a right to NHS employment would be a big step forward, as the IPPR recently proposed — and the Labour party has recently backed.

Good GPs can have a positive impact on population health in a way that I and my fellow specialists can only dream of. We must welcome our colleagues from general practice on the same terms as those working in hospitals, and finally complete a joined-up, unified NHS.

*The writer is a former health minister, Paul Hamlyn Chair of Surgery at Imperial College London and co-chairs the IPPR's Commission on Health and Prosperity*

**Rutherford Hall**
‘What makes you think housebuilders want to build houses?’
WORK & CAREERS

# Big Tech is doing small talk no favours

Pilita Clark
Business Life

Kenneth Andersson

Technology writers fell over themselves to praise the “extraordinary”, “powerful” and “magical” virtual reality headset that Apple unveiled last week.

But some also admitted to feeling “oddly lonely” and perplexed after wearing the $3,499 goggles, which can apparently transform the experience of watching a home video or a movie.

“This isn’t something I’ll do with my partner,” wrote one reviewer after sampling the device’s cinema-like charms. “This still gives off a use-on-your-own vibe.”

The contraption therefore strikes me as approximately the last thing needed in a world where technology is already driving diabolical levels of distraction and disconnection.

If history is a guide though, we will let this new tech wave, or something like it, roll over us, just because it can. All of which is a reminder that, from the boardroom to the schoolroom, you can never learn enough about how to communicate well.

I was alerted to this the other day when a friend asked if I thought of myself as a radiator or a drain.

She was talking about the persistent idea that there are two types of people in the world: radiators who exude warmth and energise those around them, and self-absorbed, negative drains who do the opposite.

The concept is alluring because it is so recognisable. We can instantly think of bosses, colleagues and friends who either radiate or drain.

At least, we think we can. In fact, both behaviours can exist in the same person. As my other half will attest, I can be a right drain when I get home from a long day of radiating at work.

What matters is understanding the impact of your behaviour, and how to moderate it.

Company executives have long paid good money to learn such skills from corporate leadership coaches such as Elke Edwards. She has spent decades training FTSE 100 clients and, as she told me last week: “Any kind of leadership development worth its salt teaches people this concept of conscious choice.”

> **“Communication skills seem unlikely to be enhanced by spending hours with Apple goggles clamped to your head”**

Gaining this knowledge seems unlikely to be enhanced by spending hours with a set of Apple goggles clamped to your head. Ditto the hours we spend texting, posting and scrolling on the small screens we are glued to.

And that raises a question for the school children who are among the most distracted tech users. Although it is important for business leaders to communicate well, shouldn’t this skill be taught in classrooms too?

As it happens, it is, up to a point. Edwards’ firm, Ivy House, runs leadership courses at Eton and other big private schools. But it also has a corporate sponsorship programme that offers training in state schools.

Edwards says the results can be life-changing for underprivileged students.

She tells the story of a pupil with a Saturday job in a shop who had deployed what she had learnt about using “radiator energy” to talk about herself with a customer, who turned out to run a large local organisation. The customer was impressed enough to offer her work experience she would have struggled to secure otherwise.

Clearly it would be better if any school could offer such help, and hundreds in the UK now can, largely thanks to efforts from charities that promote “oracy”, or the ability to use spoken language effectively.

But many more are needed, according to advocates such as Neil Mercer, emeritus professor of education at Cambridge university.

He says, correctly, oracy ought to be taught as widely as the maths skills Prime Minister Rishi Sunak has been championing. “I wish I had been taught oracy at school like I was taught maths. I was never taught how to make a speech in public, yet I do it all the time.”

Mercer says oracy teachers do not talk of radiators and drains. But they do believe transformative levels of self-confidence come from learning how to speak, listen and converse well.

Many oracy skills will sound familiar to any executive who has been through a leadership course. Address a large audience persuasively. Chair a meeting effectively. Make small talk with strangers. And one more thing: really listen to people and make them feel listened to.

Preferably without a headset.

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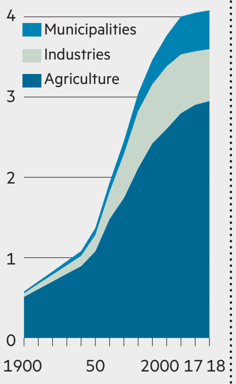
# Lex.

## Water: conserve, recycle, desalinate

### Global water withdrawals

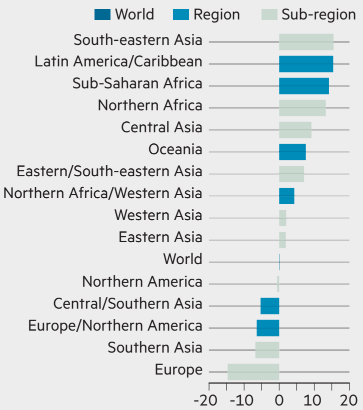
('000 Km³/year)



FT graphic Source: Unesco

### Change in level of water stress

By region and at the global level, 2008-18 (%)



Source: Unesco

Spanish strawberries are a spring treat for northern Europeans. They are also a flashpoint in a broader scramble for access to dwindling water resources.

German campaigners are calling for a boycott of “drought strawberries”. The illegal extraction of water for this crop has drained a once-thriving Andalucían wetland.

Water scarcity will be a defining characteristic of the next few decades, Lex believes, creating opportunities and new risks for investors.

Demand for fresh water is rising in tandem with population and prosperity. Climate change is cutting rainfall. While water stress in Europe as a whole has declined, Spain has been hard hit: this April was the hottest and driest on record, extending a persistent drought.

By 2030, water demand will be 40 per cent higher than supply, according to a study by McKinsey. Bridging this gap will require investment into three main water technologies.

Water conservation is the lowest on the cost curve. It is particularly important in agriculture, which accounts for 70 per cent of water consumed globally. Some companies, such as Israel’s Netafim, focus on drip irrigation. Others are developing drought-tolerant crops. State subsidies may be required to fund adaptation by poorer farmers.

Next up are technologies to treat and re-use water. Water scarcity poses an existential threat to businesses, such as mines, that are heavy users. Unless they can create closed-loop water systems, they risk losing their licences to operate. This creates opportunities for “water-tech” entrepreneurs.

Farthest up the water-tech cost curve is desalination. This uses similar technologies to purification plants but sifts out smaller molecules. Over the past 15 years, the cost of making fresh water from seawater has declined from $1.50 to $0.50 per cubic meter. It will fall further as renewables become cheaper.

This will make desalination a genuine option for water-stressed coastal areas.

Saudi Arabia’s ACWA Power has built the world’s largest plant in Abu Dhabi. Jefferies, a broker, says that a number of companies offer exposure to the sector, including Sweden’s Azelio AB and Japan’s Hitachi Zosen Corporation.

Big data projects and machine learning can help optimise all three technology types.

In the past, water-tech adoption has proceeded at a glacial pace. The recent round of droughts may — finally — encourage investment to flow.

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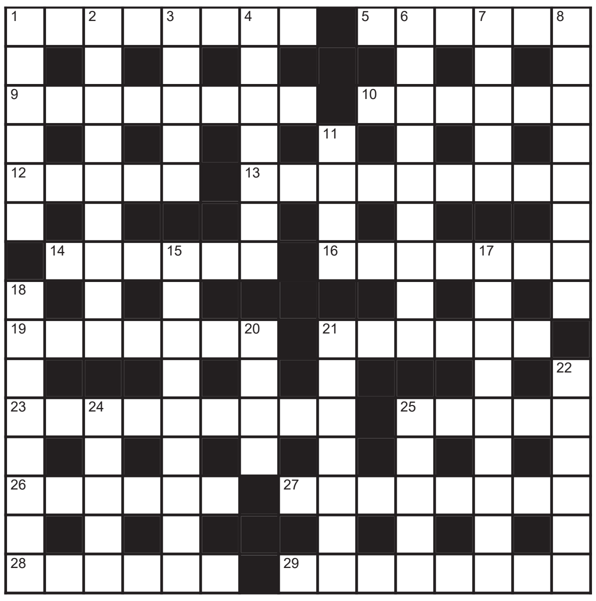
## CROSSWORD

No 17,440 Set by FLIMSY



**ACROSS**

**1** Disarm me at sea? They might (8)
**5** In the morning, American editor’s occupied (6)
**9** Spot about to be covered by ointment (8)
**10** Youtube finally releases episodes (6)
**12** Caught fish east of island — it could be smoked (5)
**13** Academic performs so badly without money (9)
**14** Left with one pound held in cash (6)
**16** Food popular with setters? (3,4)
**19** Exemption from inhaling marijuana? Not initially (7)
**21** Single out sailor with hook (6)
**23** Tangle almost tears net in harbour (9)
**25** Cheer story about Spain (5)
**26** Large piece of wood maiden found in river (6)
**27** I had gone round harsh area (8)
**28** Diet regularly reduced father’s hunger (6)
**29** Threaten article probing changing gender (8)

**DOWN**

**1** Shy people concealing a lecturer’s spitefulness (6)
**2** Identify corgi seen barking (9)
**3** Performer’s tarot cards partly turned over (5)
**4** Abandoned diamonds queen selected after a change of heart (7)
**6** Most I’ve wasted on a River Cruise? (5,4)
**7** Police leader’s got no time for grasses (5)
**8** Is tenor wearing robe suffering? (8)
**11** Relative picked up hot food (4)
**15** Boxers perhaps constrained by sport (9)
**17** Adjust apron and I get working (9)
**18** Frantically feed cat — if not one’s upset (8)
**20** How one addresses a lady from the north or the south (4)
**21** Retiree’s source of income beginning to change, creating anxiety (7)
**22** Teetotal — cutting alcohol makes you healthier (6)
**24** Couples welcoming magician’s first spells (5)
**25** Former lover with mouth cut — one doesn’t speak on film (5)

JOTTER PAD

Solution 17,438

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| A | N | T | L | E | R | ■ | I | N | S | O | L | E | N | T |
| ■ | D | ■ | O | ■ | R | ■ | M | ■ | E | ■ | ■ | ■ | N | ■ |
| C | Y | A | N | ■ | I | C | E | B | R | E | A | K | E | R |
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| S | T | R | A | I | G | H | T | ■ | ■ | ■ | P | L | O | D |
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| C | O | S | T | A | R | I | C | A | N | ■ | R | O | A | N |
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FT SPECIAL REPORT

# Business Education

## Financial Training

Monday June 12 2023

www.ft.com/reports

# French schools retain dominance in MiF teaching

Illustration: Daniel Pudles

Five of the top 14 schools are French, including all of the strongest four, write *FT reporters*

Léon Laulusa has had some welcome news as he starts his new role as dean of Paris-based ESCP Business School.

Admissions are up, and so are favourable assessments of its masters in finance degree, too — with the school top of this year's FT ranking overall and rated highly by past students for its careers service, alumni network, and aims achieved.

"This year our applications for MiF have doubled," he says. "Students are looking for impact and employability."

French business schools continue to dominate the FT Masters in Finance ranking of pre-experience programmes for those with little or no relevant previous work experience.

Five of the top 14 schools are French, including the strongest four, led by ESCP and two other elite Paris-based "grandes écoles": HEC and Essec. France's Skema and Edhec, which has campuses in France as well as London and Singapore, complete the group.

Three Chinese schools — Tsinghua University School of Economics and Management, Peking University: Guanghua and Shanghai Advanced Institute of Finance at SJTU — are also in the first tier, as well as two from the UK: London Business School and Oxford's Saïd Business School. Imperial and Warwick lead the second tier of schools offering the qualification.

The ranking is based on data collected from alumni and schools that agree to participate, and reflects the performance using metrics including salaries and assessments of how far former students feel they achieved their aims, as well as the gender mix and diversity by citizenship of students and faculty.

*Continued on page 3*

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**The top courses for finance professionals**
The complete ranking for 2023 with analysis
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Schools urged to do more to support MiF graduate start-ups
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**Gender gap narrows as more women enrol**
Number of female finance students is rising as more women join faculty in senior roles
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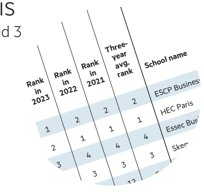


## Financial Times Masters in Finance 2023 — pre-experience programmes

### The top 55 Masters in Finance programmes

| | | | | | | Alumni career progress | | | | | | | | School diversity | | | | | | International experience, research and carbon footprint | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rank in 2023 | Rank in 2022 | Rank in 2021 | Three-year avg. rank | School name | Location (main campus) | Salary today (US$) | Salary increase (%) | Value for money rank | Career progress rank | Aims achieved (%) | Alumni network rank | Careers service rank | Employed at three months (%) | Female faculty (%) | Female students (%) | Women on board (%) | International faculty (%) | International students (%) | International board (%) | International work mobility rank | International course experience rank | Faculty with doctorates (%) | Carbon footprint rank | Average course length (months) * | Overall satisfaction * | Rank in 2023 |
| 1 | 2 | 2 | 2 | ESCP Business School | France | 158,176 | 63 | 11 | 3 | 96 | 1 | 1 | 100 (100) | 42 | 33 | 70 | 91 | 67 | 95 | 4 | 2 | 100 | 6 | 13 | 9.81 | 1 |
| 2 | 1 | 1 | 1 | HEC Paris | France | 175,703 | 120 | 13 | 7 | 93 | 5 | 2 | 100 (98) | 32 | 31 | 41 | 66 | 88 | 94 | 2 | 8 | 98 | 27 | 10 | 9.85 | 2 |
| 3 | 4 | 4 | 4 | Essec Business School | France | 135,371 | 71 | 14 | 5 | 91 | 4 | 18 | 100 (99) | 37 | 33 | 50 | 80 | 81 | 88 | 11 | 5 | 100 | 6 | 13 | 9.14 | 3 |
| 4 | 3 | 3 | 3 | Skema Business School | France | 114,504 | 76 | 17 | 14 | 87 | 25 | 25 | 100 (98) | 40 | 40 | 50 | 68 | 79 | 78 | 8 | 1 | 100 | 6 | 12 | 9.17 | 4 |
| 5 | 7 | 12 | 8 | Tsinghua University School of Economics and Management | China | 205,387 | 95 | 10 | 15 | 90 | 13 | 6 | 100 (100) | 33 | 39 | 8 | 6 | 42 | 92 | 37 | 28 | 98 | 45 | 25 | 9.56 | 5 |
| 6 | 9 | 8 | 8 | London Business School | UK | 135,158 | 57 | 37 | 34 | 93 | 3 | 9 | 92 (98) | 30 | 42 | 35 | 87 | 99 | 92 | 1 | 31 | 99 | 25 | 12 | 9.38 | 6 |
| 7 | 8 | 8 | 8 | IE Business School | Spain | 148,414 | 78 | 32 | 33 | 90 | 30 | 32 | 93 (100) | 49 | 12 | 50 | 75 | 88 | 100 | 9 | 21 | 100 | 2 | 12 | 8.68 | 7 |
| 8 | 14 | 6 | 9 | University of St Gallen | Switzerland | 141,526 | 74 | 1 | 35 | 90 | 2 | 7 | 100 (100) | 28 | 24 | 33 | 84 | 74 | 53 | 22 | 10 | 100 | 6 | 26 | 9.55 | 8 |
| 9 | 5 | 5 | 6 | Edhec Business School | France | 129,706 | 70 | 25 | 6 | 87 | 9 | 11 | 98 (77) | 29 | 31 | 50 | 65 | 48 | 89 | 6 | 6 | 98 | 6 | 10 | 9.00 | 9 |
| 10 | 6 | 10 | 9 | University of Oxford: Saïd | UK | 142,556 | 54 | 35 | 36 | 91 | 17 | 12 | 93 (94) | 25 | 56 | 39 | 67 | 100 | 73 | 3 | 42 | 100 | 21 | 12 | 9.45 | 10 |
| 11 | 11 | 14 | 12 | Nova School of Business and Economics | Portugal | 119,153 | 59 | 18 | 38 | 91 | 18 | 28 | 100 (100) | 35 | 26 | 44 | 41 | 78 | 100 | 7 | 3 | 100 | 6 | 18 | 9.15 | 11 |
| 12 | 19 | 20 | 17 | Peking University: Guanghua | China | 191,477 | 59 | 8 | 41 | 83 | 22 | 14 | 98 (100) | 34 | 55 | 40 | 9 | 4 | 90 | 47 | 42 | 100 | 21 | 22 | 9.62 | 12 |
| 13= | 13 | 6 | 11 | SDA Bocconi/Università Bocconi | Italy | 125,432 | 75 | 27 | 8 | 85 | 31 | 19 | 100 (69) | 41 | 25 | 30 | 45 | 40 | 70 | 10 | 12 | 99 | 1 | 25 | 8.82 | 13= |
| 13= | 21 | 17 | 17 | Shanghai Advanced Institute of Finance at SJTU | China | 186,161 | 70 | 6 | 28 | 84 | 16 | 8 | 100 (100) | 23 | 43 | 42 | 58 | 9 | 83 | 54 | 20 | 100 | 35 | 23 | 8.88 | 13= |
| 15 | 16 | 11 | 14 | Imperial College Business School | UK | 129,354 | 69 | 38 | 31 | 88 | 36 | 38 | 90 (99) | 30 | 33 | 44 | 97 | 90 | 83 | 14 | 39 | 100 | 27 | 14 | 8.40 | 15 |
| 16 | 12 | 13 | 14 | Warwick Business School | UK | 91,422 | 87 | 43 | 2 | 83 | 38 | 30 | 94 (96) | 43 | 39 | 29 | 83 | 91 | 36 | 33 | 42 | 100 | 6 | 14 | 8.97 | 16 |
| 17 | - | 15 | - | EMLyon Business School | France | 112,566 | 67 | 20 | 22 | 86 | 19 | 15 | 98 (48) | 41 | 31 | 50 | 63 | 61 | 67 | 34 | 16 | 100 | 36 | 13 | 9.00 | 17 |
| 18 | 20 | 22 | 20 | Stockholm School of Economics | Sweden | 104,834 | 49 | 5 | 52 | 90 | 7 | 21 | 94 (100) | 36 | 42 | 43 | 46 | 57 | 39 | 26 | 15 | 96 | 39 | 22 | 9.27 | 18 |
| 19 | 24 | 19 | 21 | Grenoble Ecole de Management | France | 92,993 | 65 | 24 | 25 | 87 | 26 | 33 | 98 (94) | 50 | 38 | 50 | 55 | 60 | 60 | 25 | 18 | 88 | 6 | 18 | 8.89 | 19 |
| 20 | 15 | 18 | 18 | WHU — Otto Beisheim School of Management | Germany | 135,234 | 41 | 22 | 50 | 88 | 10 | 3 | 92 (100) | 35 | 21 | 23 | 34 | 52 | 12 | 27 | 7 | 100 | 45 | 20 | 9.21 | 20 |
| 21 | 17 | 23 | 20 | Católica Lisbon School of Business and Economics | Portugal | 79,210 | 110 | 26 | 17 | 85 | 46 | 41 | 97 (95) | 43 | 35 | 50 | 40 | 88 | 90 | 41 | 11 | 100 | 45 | 18 | 8.52 | 21 |
| 22 | 22 | 25 | 23 | Bayes Business School (formerly Cass) | UK | 96,603 | 63 | 40 | 24 | 86 | 6 | 20 | 92 (75) | 37 | 23 | 50 | 74 | 94 | 60 | 17 | 36 | 96 | 27 | 12 | 8.95 | 22 |
| 23 | 34 | 35 | 31 | ISEG — Lisbon School of Economics and Management | Portugal | 74,798 | 83 | 12 | 19 | 84 | 14 | 24 | 100 (90) | 36 | 48 | 50 | 11 | 47 | 100 | 48 | 22 | 94 | 6 | 22 | 9.05 | 23 |
| 24 | 29 | 31 | 28 | University Carlos III de Madrid | Spain | 69,199 | 78 | 21 | 4 | 87 | 45 | 51 | 87 (66) | 43 | 38 | 26 | 38 | 56 | 0 | 15 | 35 | 100 | 36 | 11 | 8.84 | 24 |
| 25= | 35 | 28 | 29 | Vlerick Business School | Belgium | 87,356 | 73 | 15 | 42 | 85 | 11 | 10 | 99 (100) | 33 | 27 | 20 | 40 | 36 | 40 | 18 | 17 | 100 | 45 | 10 | 9.38 | 25= |
| 25= | 31 | 34 | 30 | Rotterdam School of Management, Erasmus University | Netherlands | 91,108 | 54 | 9 | 37 | 87 | 43 | 37 | 87 (88) | 29 | 26 | 36 | 58 | 38 | 14 | 16 | 25 | 100 | 3 | 17 | 8.66 | 25= |
| 25= | - | - | - | EBS Business School | Germany | 107,804 | 51 | 28 | 53 | 88 | 20 | 16 | 98 (85) | 30 | 41 | 50 | 33 | 66 | 100 | 32 | 9 | 100 | 45 | 22 | 9.22 | 25= |
| 28 | 37 | - | - | Università della Svizzera italiana (USI) | Switzerland | 86,197 | 89 | 16 | 1 | 84 | 47 | 53 | 96 (82) | 17 | 23 | 27 | 76 | 81 | 55 | 5 | 27 | 100 | 33 | 26 | 9.14 | 28 |
| 29 | 33 | 33 | 32 | CUHK Business School | Hong Kong | 101,447 | 77 | 45 | 13 | 88 | 8 | 4 | 94 (85) | 33 | 61 | 13 | 41 | 1 | 87 | 53 | 40 | 98 | 26 | 12 | 9.44 | 29 |
| 30 | 26 | 27 | 28 | Trinity College Dublin, Trinity Business School | Ireland | 69,253 | 45 | 31 | 27 | 85 | 51 | 42 | 89 (91) | 41 | 43 | 44 | 57 | 80 | 24 | 13 | 42 | 100 | 6 | 12 | 8.00 | 30 |
| 31 | - | - | - | University of Southern California: Marshall | US | 118,750 | 65 | 44 | 44 | 81 | 40 | 54 | 74 (82) | 34 | 49 | 29 | 31 | 78 | 6 | 30 | 42 | 85 | 4 | 16 | 8.37 | 31 |
| 32 | 30 | 21 | 28 | Kozminski University | Poland | 56,480 | 72 | 33 | 18 | 83 | 35 | 31 | 97 (92) | 41 | 45 | 15 | 17 | 58 | 62 | 12 | 14 | 91 | 45 | 24 | 8.76 | 32 |
| 33= | 27 | 31 | 30 | Frankfurt School of Finance and Management | Germany | 122,088 | 44 | 34 | 40 | 88 | 21 | 26 | 92 (90) | 19 | 28 | 35 | 30 | 51 | 30 | 28 | 26 | 100 | 45 | 24 | 8.80 | 33= |
| 33= | 31 | 28 | 31 | Eada Business School Barcelona | Spain | 90,176 | 57 | 39 | 9 | 86 | 37 | 45 | 97 (89) | 32 | 28 | 33 | 54 | 95 | 42 | 21 | 32 | 93 | 45 | 11 | 8.74 | 33= |
| 35 | 23 | 24 | 27 | Rennes School of Business | France | 73,144 | 52 | 23 | 23 | 79 | 44 | 49 | 100 (58) | 39 | 35 | 40 | 86 | 69 | 100 | 36 | 4 | 98 | 39 | 18 | 8.76 | 35 |
| 36= | 28 | 26 | 30 | HEC Lausanne | Switzerland | 95,544 | 54 | 4 | 11 | 82 | 52 | 55 | 93 (56) | 25 | 27 | 17 | 84 | 54 | 33 | 20 | 24 | 100 | 39 | 28 | 7.80 | 36= |
| 36= | 39 | 37 | 37 | Lund University School of Economics and Management (Lusem) | Sweden | 70,542 | 41 | 2 | 32 | 88 | 34 | 36 | 83 (92) | 36 | 28 | 33 | 41 | 67 | 28 | 31 | 23 | 89 | 39 | 9 | 8.93 | 36= |
| 38 | 45 | 43 | 42 | University of Texas at Austin: McCombs | US | 114,467 | 54 | 30 | 54 | 88 | 24 | 13 | 98 (100) | 32 | 36 | 32 | 32 | 20 | 0 | 45 | 42 | 89 | 39 | 10 | 9.34 | 38 |
| 39 | - | 38 | - | University of Bath School of Management | UK | 52,829 | 51 | 50 | 12 | 76 | 15 | 27 | 79 (71) | 41 | 35 | 29 | 67 | 89 | 6 | 23 | 42 | 100 | 27 | 12 | 9.00 | 39 |
| 40 | 38 | 39 | 39 | Henley Business School | UK | 55,274 | 50 | 48 | 29 | 79 | 39 | 35 | 76 (84) | 47 | 28 | 50 | 70 | 97 | 38 | 42 | 13 | 99 | 6 | 12 | 8.63 | 40 |
| 41 | 40 | 41 | 41 | Singapore Management University: Lee Kong Chian | Singapore | 68,604 | 45 | 47 | 30 | 84 | 49 | 43 | 79 (79) | 27 | 54 | 55 | 63 | 95 | 55 | 19 | 41 | 99 | 33 | 13 | 8.09 | 41 |
| 42 | 43 | - | - | University of Rochester: Simon | US | 94,634 | 55 | 51 | 20 | 87 | 33 | 39 | 59 (71) | 26 | 48 | 7 | 43 | 96 | 20 | 29 | 33 | 74 | 45 | 14 | 8.90 | 42 |
| 43 | 42 | 40 | 42 | University of Edinburgh Business School | UK | 61,750 | 39 | 46 | 48 | 79 | 50 | 46 | 88 (46) | 40 | 54 | 50 | 74 | 97 | 50 | 38 | 42 | 98 | 27 | 12 | 8.68 | 43 |
| 44 | - | 54 | - | Bentley University | US | 91,000 | 41 | 41 | 51 | 89 | 32 | 17 | 71 (51) | 41 | 34 | 38 | 21 | 70 | 10 | 39 | 38 | 73 | 6 | 15 | 8.68 | 44 |
| 45 | 41 | 51 | 46 | Iscte Business School | Portugal | 49,327 | 56 | 19 | 10 | 81 | 55 | 40 | 96 (88) | 48 | 34 | 40 | 13 | 26 | 80 | 52 | 30 | 99 | 45 | 26 | 8.45 | 45 |
| 46= | 46 | 45 | 46 | Lancaster University Management School | UK | 66,205 | 48 | 36 | 26 | 78 | 41 | 47 | 96 (29) | 34 | 34 | 43 | 64 | 92 | 21 | 40 | 37 | 99 | 21 | 12 | 8.41 | 46= |
| 46= | 47 | 48 | 47 | Tilburg University, School of Economics and Management | Netherlands | 66,188 | 45 | 3 | 43 | 85 | 48 | 50 | 86 (84) | 31 | 22 | 38 | 56 | 25 | 0 | 44 | 19 | 92 | 45 | 11 | 8.59 | 46= |
| 48 | 44 | 50 | 47 | Cranfield School of Management | UK | 75,057 | 47 | 42 | 46 | 77 | 42 | 48 | 84 (26) | 39 | 33 | 39 | 57 | 99 | 28 | 35 | 42 | 89 | 6 | 12 | 8.86 | 48 |
| 49= | 50 | 43 | 47 | University of Exeter Business School | UK | 52,042 | 38 | 49 | 16 | 79 | 28 | 22 | 84 (95) | 45 | 20 | 36 | 53 | 80 | 14 | 50 | 42 | 77 | 6 | 14 | 9.26 | 49= |
| 49= | - | 52 | - | University of Glasgow: Adam Smith | UK | 47,857 | 45 | 53 | 45 | 81 | 27 | 5 | 67 (24) | 40 | 52 | 42 | 68 | 99 | 0 | 49 | 42 | 88 | 6 | 12 | 9.33 | 49= |
| 51 | 48 | - | - | BI Norwegian Business School | Norway | 65,631 | 30 | 29 | 21 | 81 | 53 | 44 | 100 (88) | 33 | 28 | 63 | 37 | 28 | 13 | 24 | 29 | 82 | 39 | 24 | 8.71 | 51 |
| 52 | - | - | - | VU Amsterdam School of Business and Economics | Netherlands | 79,066 | 42 | 7 | 39 | 83 | 54 | 52 | 57 (74) | 35 | 29 | 60 | 51 | 26 | 0 | 43 | 42 | 69 | 38 | 16 | 8.41 | 52 |
| 53 | 53 | 46 | 51 | Durham University Business School | UK | 47,993 | 25 | 52 | 49 | 76 | 29 | 23 | 95 (44) | 37 | 63 | 40 | 80 | 94 | 70 | 55 | 34 | 98 | 27 | 12 | 9.08 | 53 |
| 54 | 55 | - | - | University of Liverpool Management School | UK | 35,211 | 27 | 54 | 47 | 77 | 23 | 34 | 71 (41) | 43 | 33 | 41 | 65 | 96 | 12 | 46 | 42 | 94 | 21 | 12 | 8.78 | 54 |
| 55 | 54 | - | - | University of Maryland: Smith | US | 52,983 | 27 | 55 | 55 | 76 | 12 | 29 | 63 (73) | 33 | 30 | 21 | 31 | 28 | 11 | 51 | 42 | 84 | 4 | 14 | 9.00 | 55 |

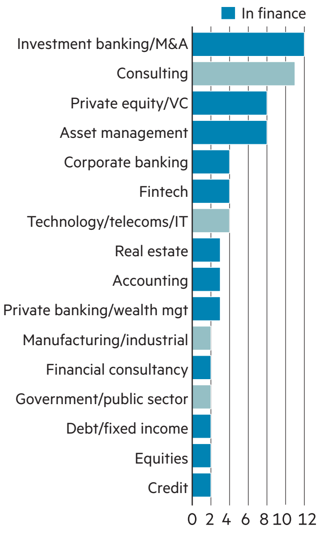
Footnotes
* Data in these columns are for information only and are not used in the ranking calculations.

Some 225 points separate the top school from the school ranked number 55. The schools are divided into three groups, indicated by bold lines.
The difference in scores between schools ranked consecutively is greater within groups one and three than in group two.
The top 14 schools, from ESCP Business School to Shanghai Advanced Institute of Finance at SJTU, form the elite group of providers of masters in finance programmes.
The second group spans 27 places from Imperial College Business School to Singapore Management University: Lee Kong Chian. The third group of 14 schools is headed by University of Rochester: Simon.

# Enrolment rises in US but stalls in Europe

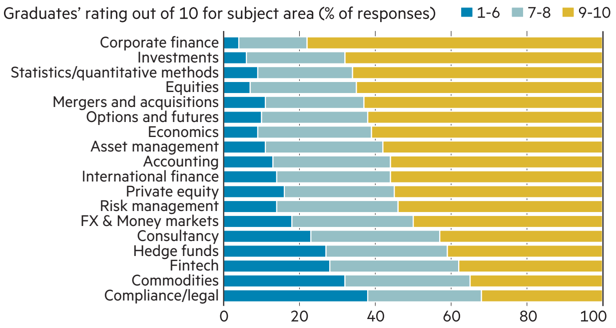
### Investment banking is biggest draw for MiF graduates

MiF alumni employment, by sector (%)



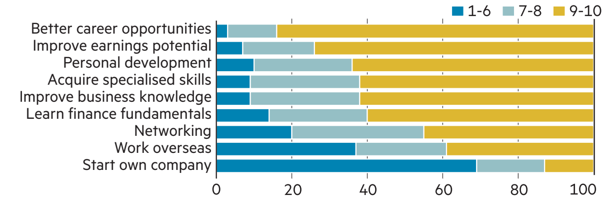
### Corporate finance teaching at schools is rated highly

Graduates' rating out of 10 for subject area (% of responses)



### Career progression is the main motivation for studying a MiF

Graduates' rating out of 10 for reasons to enrol on MiF (% of responses)



*Continued from page 1*

Last year, there was stagnating student demand for the MiF degree in Europe with a drop in applications offset by growth in the US, according to the most recent survey conducted last year across a broader sample of 227 schools around the world by GMAC, the organisation that runs the GMAT business school test.

There is also fresh competition with a growing number of other specialist masters, in subjects such as data analytics, as well as rivals to traditional degrees, including the CFA (Chartered Financial Analyst) exams for investment professionals and accountancy qualifications such as the ACCA.

However, GMAC's separate survey of recruiters from business schools showed that last year there was an increase in demand for MiFs by employers compared with 2021, with 85 per cent of recruiters in western Europe saying they intended to hire during the year, 55 per cent in the US and 96 per cent in the Middle East.

For the first time, the FT ranking credits schools which produce and publicly release reports on their carbon emissions and set net zero targets, with Università Bocconi in Milan ranked top followed by IE in Madrid and Rotterdam School of Management.

The analysis encapsulates growing demand by students, recruiters and faculty for sustainability courses including climate finance, and expanding initiatives by business schools and wider universities to provide more specialist training in the topic.

Schools choose whether to participate in the FT ranking, and must be recognised by one of the two leading international accreditation agencies — AACSB or Equis — and have sufficient responses by alumni to a range of questions to reach statistical significance. That resulted in 55 being ranked in 2023.

Adjusted for purchasing power parity, alumni of Tsinghua reported the highest salaries after completion of their degree at over $205,000 a year, followed by those from Peking University: Guanghua and Shanghai Advanced Institute of Finance.

The French schools led among those ranked in Europe, with HEC graduates reporting salaries of nearly $176,000 on average and the highest growth in remuneration with salary increases of 120 per cent three years after their first post-degree wage.

Nearly two-thirds of alumni said they were employed in the financial sector, with the majority in investment banking. Private equity and asset management are also popular sectors.

Only a quarter of graduates reported an improvement in seniority in the three years since completing their programme, with those working in trading and the public sector experiencing the greatest gains for financial and non-financial sectors, respectively. Alumni who work in trading reported the highest average salary at completion as well as three years later.

While alumni from schools in mainland Europe represent more than 50 per cent of the cohort surveyed, UK business schools have the highest number of graduates from other countries — reaching 100 per cent at the University of Oxford: Saïd.

The Shanghai Advanced Institute of Finance at Shanghai Jiao Tong University and Peking University's Guanghua School of Management both rose in the rankings to enter the top 14. ISEG — Lisbon School of Economics and Management is the highest riser, climbing 11 places to 23rd.

> 'The masters gave me the skillset, mindset and network to get the job I wanted before graduating'

Improvements in student diversity and alumni's fulfilment of their goals or reasons for doing a masters added to ISEG's success.

Germany's EBS Business School is this year's highest new entrant, in joint 25th place. Alumni praised its exchange programme, careers events and networking opportunities. "The finance masters gave me the skillset, mindset and network to get the job I wanted before even graduating," said one graduate.

The quality of teaching of corporate finance, investments and statistical methods received high scores from respondents. They gave lower marks to courses on private equity, one of the more popular career choices.

Nearly all graduates cited bettering their career opportunities as one of their main motivations for starting a masters course, as well as improving earnings potential. Early career graduates showed less interest in working overseas and starting their own companies.

Ranked 31, University of Southern California: Marshall enters the placings for the first time and is the top school in the US. Its alumni earn $118,750 on average, the highest weighted salary among US institutions in the ranking. Graduates praised Marshall's faculty and the network opportunities.

There is no ranking this year of post-experience programmes, for students with about three years of relevant work experience in finance, due to an insufficient number of survey responses.

*By Andrew Jack, Leo Cremonezi and Sam Stephens*

## Key: ranking criteria and weighting

**Weights for the ranking criteria are shown below in brackets, as a percentage of the overall ranking.**

**Salary today US$ (16):** average alumni salary three years after completion, US$ purchasing power parity equivalent. †

**Salary percentage increase (10):** average difference in alumni salary between completion and today. †

**Value for money (6):** calculated according to alumni salaries today, course length, tuition fees and other costs. †

**Career progress (6):** calculated according to changes in the level of seniority and the size of the company/organisation alumni are working for between completion and now. †

**Aims achieved (5):** the extent to which alumni considered they fulfilled their study goals. †

**Alumni network (3):** effectiveness of the alumni network for career opportunities, starting companies, gaining new ideas, recruiting staff and giving event information (such as career-related talks), as rated by alumni.

**Careers service (5):** effectiveness of the school careers service for career counselling, personal development, networking events, internship search and recruitment, as rated by alumni. †

**Employed at three months (%) (5):** percentage of the most recent graduates that found work within three months of finishing their degree. Not all schools have jobs data for their entire cohort. *

**Female faculty (%) (5):** percentage of full-time female faculty in the school.

**Female students (%) (5):** percentage of female students on the masters.

**Women on board (%) (1):** percentage of women on the school advisory board.

**International faculty (%) (5):** calculated according to full-time faculty diversity by citizenship and the percentage whose citizenship differs from their country of employment (published figure).

**International students (%) (5):** calculated according to the diversity of current students by citizenship and the percentage whose citizenship differs from their country of study.

**International board (%) (1):** percentage of the board whose citizenship differs from the school's home country.

**International work mobility (7):** based on alumni citizenship and the countries where they worked before their masters, on completion and three years after completion. †

**International course experience (6):** calculated according to whether the most recent completing masters class carried out exchanges and internships, lasting at least a month, in countries other than where the school is based.

**Faculty with doctorates (%) (5):** percentage of full-time faculty with doctoral degrees.

**Carbon footprint (4):** calculated using the net zero target year for carbon emissions set by the university or school, and a publicly available carbon emissions audit report within the last three years, approximately.

**The following are for information only and are not used in the rankings:**

**Average course length:** average completion of the masters programme in months for the latest graduating class.

**Overall satisfaction:** average evaluation by alumni of the masters course, scored out of 10.

***For gender-related criteria, schools with 50:50 male/female composition receive the highest possible score.***

*† Includes data from current and two previous rankings where available.*

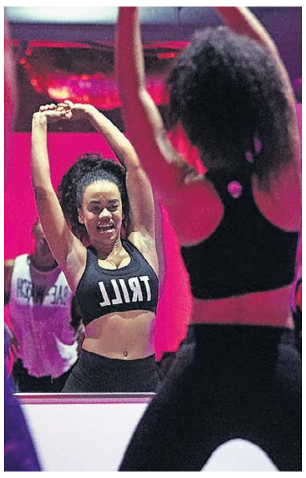
** Class that completed masters between April 2022 and March 2023*

**Methodology:** *ft.com/mif/method*

# Students manage funds to learn on the job

**Investments**

### Funds with a particular focus on social impact have grown significantly in recent years, writes *Andrew Jack*



NUImpact backs Boston's TRILLFIT

Shivi Sharma, a business student at Northeastern University in Boston, was committed to environmental and social causes, and had little interest in pursuing a career in finance until she enrolled in a programme last year that gave her practical experience with real money.

The NUImpact Fund is an example of a trend across business education. It deploys students to conduct due diligence on early stage local "mission-driven" businesses, and invests up to $50,000 of donors' money each semester in the project they consider has the greatest potential.

The portfolio includes EatWell, which prepares healthy food for poorer families in Boston; TRILLFIT, a black-owned fitness studio for marginalised groups; TOP, providing socially conscious menstrual hygiene products; and Imago Rehab, to help patients adhere to physical rehabilitation programmes.

"I have spoken to 24 entrepreneurs, and it has changed my idea of how impact can be blended with finance," says Sharma. "We mirror what venture capital does. It's really amazing to have that access to deploy capital. I have learnt more from NUImpact than in any single class: it teaches you more and you are able to be more confident."

Student-managed investment funds have a long history, dating back at least to a project launched by Lafayette College in Pennsylvania in 1946. There were roughly 600 collectively managing $750mn in assets in 2021, according to Scott College of Business.

Those with a particular social impact focus have grown significantly in recent years. The SIILK Network, part of the US Intentional Endowments Network, which tracks and supports such student projects, has identified at least 40. The majority invest funds either from individual donors or carved out of their university's endowment.

Georges Dyer, executive director of the network, says: "The importance of experiential learning is growing. We see demand from industry for talent that has exposure to sustainability and traditional investment techniques. A student managed fund is one way to get that." He points to rising demand from students for training and careers in sustainability, and broader growth in impact investing among fund managers.

Fund strategy varies widely. The David S. Kidwell Funds Enterprise at the Carlson School of Management at the University of Minnesota oversees $47mn in capital split between a fixed income and an equity-based growth fund, with money contributed by external institutions and a small share of the university's own endowment.

"We are the BlackRock of student funds," says Susanna Gibbons, the managing director, who previously worked in fund management. It is a standalone legal entity with the mantra: "This is not a project; this is an ongoing asset management business." It aims to simulate an entire asset management operation rather than simply apply stock picking, and is a signatory to the Principles for Responsible Investment initiative.

> '[Student] funds are becoming less nice-to-have electives and more a core part of education'

The Haas School of Business at UC Berkeley claims to have launched the first student-managed socially responsible investment fund for students in 2008, since when its assets have grown from $1mn to $4.5mn. In 2019, it added a private equity impact investing unit alongside its public markets division.

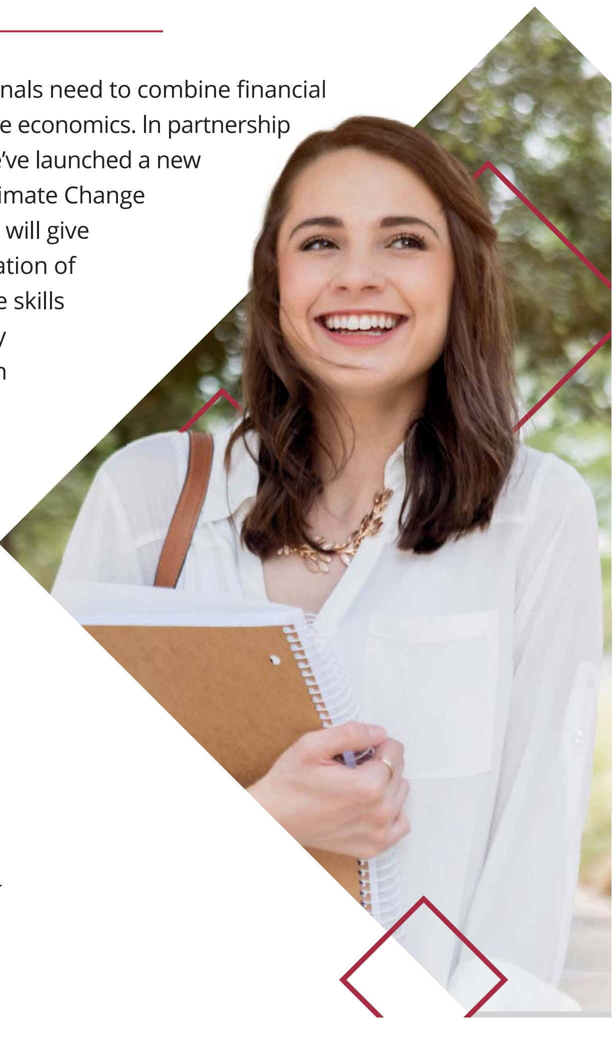
Katherine Baird, associate director for sustainability, at Haas says: "We have really seen that, through careful asset allocation and understanding of risk, students can achieve equivalent or better than market returns."

She says an important distinguishing characteristic of the funds she oversees is that they are fully integrated into teaching, and require applicants to have studied a course in financial information analysis the previous year. "We see these funds becoming less nice-to-have electives and more a core part of the education offered," she says.

However, Lloyd Kurtz, senior portfolio manager at Wells Fargo Wealth and Investment Management, remains cautious over student funds. "I'm personally a little sceptical," he says. "There are a lot of vanity projects. It's great to get out and learn some respect for the markets. You can teach kids the basics about investing but there's a level of reality below that. I'm worried we're not looking hard enough at the complexities of the world, systemic analysis, labour contracts and externalities."

To better train students and reward their ideas, there are a range of competitions they can enter, in addition to managing funds. For example, the Kellogg-Morgan Stanley Sustainable Investing Challenge asks students to pitch their ideas on how capital markets can address social or environmental challenges.

This year, it awarded $10,000 to kickstart the winning project: a crop insurance project for smallholders presented by students from Gulu University's Faculty of Agriculture and Environment in Uganda. Lilian Kisebe, one of the team preparing to launch the project, says: "Many of us are from smallholder families. We've grown up seeing the life they live and the difficulties caused by climate change." Her classmate Silver Tumwa adds: "The challenge guided us to improve our model and objectives and linked to us a network of mentors and professors."



# Alternative courses improve access to training

**Qualifications** Providers say workplace accreditations can pair well with degrees and bring unique benefits at each stage of a career, writes *Seb Murray*

For those considering the best route to get ahead in finance, a masters degree is not the only option.

Beyond academic qualifications, there is a wide range of industry certifications, such as Chartered Financial Analyst (CFA) and Financial Risk Manager (FRM). These globally recognised qualifications provide training in specialised areas, from sustainable finance to financial planning and alternative investments such as private equity and hedge funds.

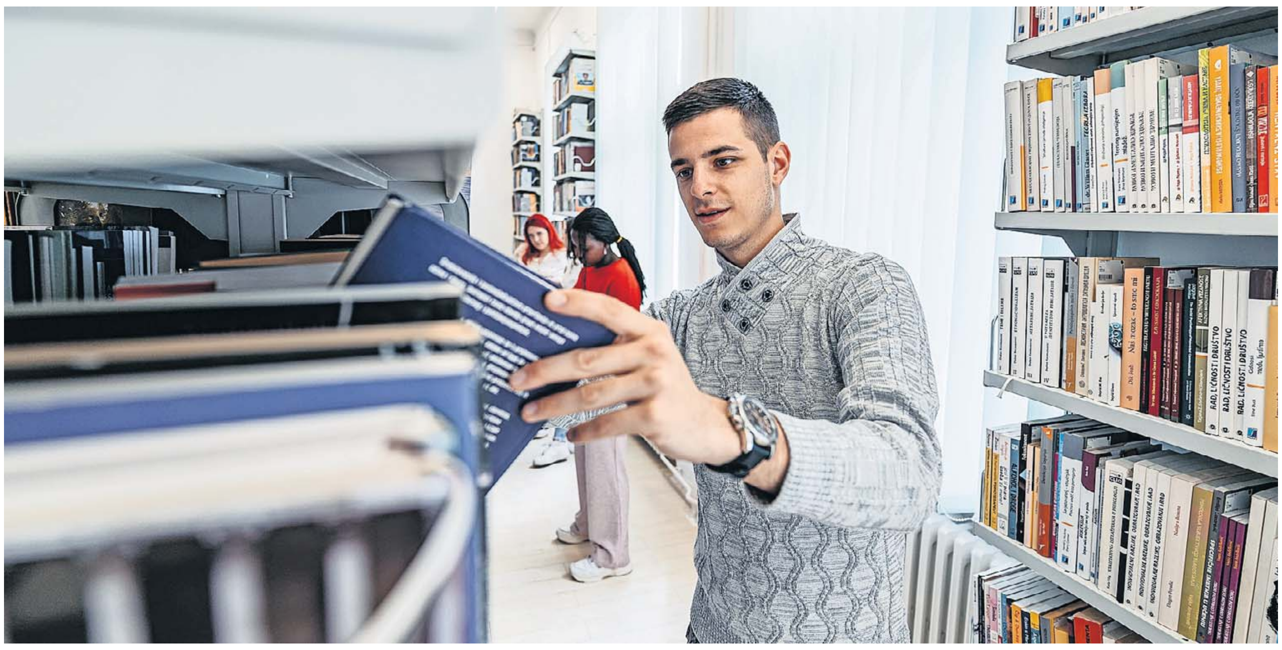
Often billed as alternatives to a masters degree in finance (MiF), the two types of qualifications can in fact work in tandem, say training providers. Adding an industry designation to a CV can help finance students pursue specific career paths and roles that require niche expertise, such as portfolio manager or climate-change analyst.

"When you think about job readiness, it does augment quite nicely with academia," says Margaret Franklin, chief executive and president at the CFA Institute, of the CFA programme. Known as the toughest exam in finance, it is split into three levels and focuses on investment analysis, portfolio management and wealth planning.

To some extent, CFA overlaps with the masters in finance curriculum, but Franklin says it offers different opportunities for learning, including a focus on emerging finance trends such as sustainable investing and fintech. "Our programme has very significant input from investment professionals, so we understand what employers are looking for," she adds.

As a result, the CFA curriculum is being adapted to add practical skills modules and specialised pathways in private finance, but demand for the credential has not recovered from a slowdown during the pandemic. Last year, there were 262,380 exam registrations, compared with 352,085 in 2019.

In contrast, the pandemic delivered a boost to MiF courses, as many young people put off entering a difficult jobs market and decided to remain in full-time education. The proportion of MiF programmes reporting growth in overall applications reached 78 per cent in 2020, up from 41 per cent in 2019, according to the Graduate Management Admission Council. Application growth has since slowed to more normal levels, but business schools say there is no sign of CFA cannibalising demand.



**Fully booked: maintaining an industry designation typically requires continuous learning**
Urbazon/Getty Images

Still, there are benefits to pursuing an industry certification, and an array of options. Dorothy Wood, head of education relationships at ACCA UK (the Association of Chartered Certified Accountants), says these qualifications can improve the accessibility of financial training, at a time when the strength of the job market has thrown into sharp relief the opportunity cost of full-time education: lost earnings.

"You can work and qualify as an accountant at the same time. It gives people who don't have huge financial resources the chance to gain a professional qualification," Wood says.

The ACCA certificate focuses on accounting, unlike the CFA for investment professionals, or the MiF, which is a more rounded qualification. But it can be a much cheaper option, with exam and certificate fees for the ACCA qualification costing £2,160 — excluding the price of tuition, which varies. A MiF can cost tens of thousands.

Additionally, maintaining an industry designation typically requires continuous learning and keeping skills relevant in a changing environment. ACCA has developed certificates in sustainability and data analytics for its 241,000 members and other professionals. "When data and digital are changing everything so quickly, you can't rely on something you learnt 20 years ago. You need to keep up to date," adds Wood.

ACCA membership is growing, up 3.4 per cent last year compared with 2021, at a time when young accountants are in short supply. But David Simpson, masters in finance recruitment and admissions director at London Business School, sees no threat to demand, with applications "stable" and competition healthy. A place on the school's degree programme for experienced professionals costs £58,700 in fees.

He says industry designations pair nicely with academic qualifications. There is some overlap between the CFA curriculum and the LBS post-experience finance masters course, giving students a head start on the exams. "Many students chose to do both qualifications at the same time. We think so highly of CFA that applicants to our finance masters do not have to take a standardised test if they have Level II," he says.

Simpson adds that different qualifications bring unique benefits at each stage of a career: "The CFA gives a solid foundation in technical concepts, which is especially useful at the start of a career, but, as candidates progress, building leadership skills and a diverse network becomes even more important."

That is when a MiF is applicable, as it provides greater breadth of study, says Olivier Bossard, executive director of the MSc Finance at HEC Paris. "CFA is really geared towards the investment management industry, whereas our role is to prepare students for a much wider spectrum of jobs, including private equity and private debt," he explains.

Indeed, Paul Grimes, chief professionalism officer at the Financial Planning Standards Board, says its Certified Financial Planner credential is no substitute for a MiF, as the offering is distinct. The CFP is geared towards those who are providing services such as tax, estate and retirement planning. "A masters in finance wouldn't give you that depth of specific knowledge," he adds.

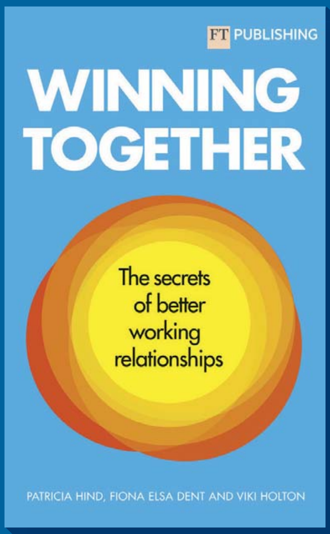
And the CFP goes beyond theory, with a requirement to complete 6,000 hours of professional experience in financial planning, or 4,000 hours of apprenticeship work, to earn the designation. At the end of 2022, the number of CFP-holders topped 213,000, up 4.8 per cent year on year and marking 26 consecutive years of growth.

Ultimately, finance professionals may need to mix and match qualifications based on their goals and the evolving needs of employers.

"Think of your career as a complex jigsaw puzzle of little pieces you need to constantly put together," says William Kelly, chief executive of the Chartered Alternative Investment Analyst Association, which offers qualifications in other asset classes, such as private equity.

He warns professionals cannot be complacent, given the velocity of change in finance. "We have to be working as hard as we can to fill gaps in our knowledge, every single day. This sector is accelerating at warp speed. If you're sitting back on your credentials, you will be quickly marginalised."

> 'Think of your career as a jigsaw puzzle you need to constantly put together'



# Persistent US political drama fuels wider ESG investment backlash

Teaching case study

Republicans' pushback against ethical investing is hitting sentiment elsewhere, write *Diane-Laure Arjaliès* and *Tima Bansal*

Action to block asset managers' use of "green" filters in a growing number of US states reflects an escalating political backlash against mission-driven investment, with great relevance to students of business.

According to deal data provider PitchBook, 61 per cent of North American investors applied environmental, social and governance (ESG) criteria to at least part of their portfolio in 2022, up from 58 per cent in 2021.

But while many investors and fund managers want to use ESG frameworks to identify promising investments that also advance societal goals, some Republican lawmakers have argued they impose unnecessary constraints on corporations and undermine financial returns. At least 49 anti-ESG bills have been introduced across the US this year, according to the law firm Ropes & Gray. Twenty-two were introduced in 2022.

Politicians have accused asset managers including BlackRock, Vanguard and State Street of failing to honour their fiduciary duty. They argued that applying ESG to business decisions compromised financial returns, although the evidence is less clear-cut.

BlackRock, the world's largest asset manager and a backer of ESG, was targeted by Republican state treasurers from Arkansas, Utah, Texas, Florida, Louisiana, Missouri, Arizona, North Carolina and West Virginia, who withdrew billions of dollars from its funds. Other states have threatened to follow. Florida's Republican governor and presidential hopeful Ron DeSantis has accused corporations of using it to impose an "ideological agenda on the American people through the perversion of financial investment priorities under euphemistic banners".

Last August, his home state required state pension funds to prioritise the highest return on investment without considering nonpecuniary factors.

However, such attacks have also faced resistance. The Indiana Bankers Association, which represents 116 banks, is lobbying against legislation that would require the state to divest and cancel contracts with financial groups that consider "social, political, or ideological" factors.

There is also debate on the symbolism versus the substance of such "anti-woke" moves. Researchers led by Shivaram Rajgopal at Columbia Business School recently concluded that the effect of three Texan public pension plans withdrawing from ESG funds was neither statistically nor economically significant. "The legislation appears to be political posturing and may serve no other purpose," they wrote.

In March, Joe Biden vetoed his first bill: a Republican-led initiative to prevent pension fund managers from basing investment decisions on ESG. He argued the legislation "would put at risk the retirement savings of individuals across the country".

Although some investment funds celebrated Biden's decision, they have reconsidered ESG investments. Vanguard, the world's second-largest asset manager, pulled out of the Net Zero Asset Managers initiative, a coalition of 301 investors committed to reducing greenhouse gas emissions. Its chief executive said Vanguard did not have the right to tell corporations in which it invested what to do and that its voice was being drowned out or confused.

Similarly, BlackRock removed the largest sustainable fund in the US from one of its popular portfolio allocation strategies. Investors did not react well, pulling $6.5bn from the fund, roughly a third of BlackRock's overall assets, according to Morningstar.

Despite the acrimony in the US, the EU has pushed ahead with support for ESG. In January, it adopted the Corporate Sustainability Reporting Directive, which requires companies that operate in the EU or have listed securities in the bloc to disclose their ESG activities.

It mandated reporting not only by 50,000 companies based in the EU, but also their suppliers, including US-based companies.

*Tima Bansal is a professor and Diane-Laure Arjaliès an associate professor at Ivey Business School. Stephanie Turner provided additional research assistance.*

## Classroom questions

- What are the potential long-term consequences of the ESG backlash on the US investment industry, notably from the perspective of its global competitiveness?
- As the CEO of an asset manager employing ESG methodologies, how would you react to the US debates?
- If you were a board member of a US corporation, how would you respond to ESG reporting requirements?
- What suggestions would you make to a European institutional investor or corporation interested in developing business in the US?

Read more about the ESG backlash at **www.ft.com/esg-investing**

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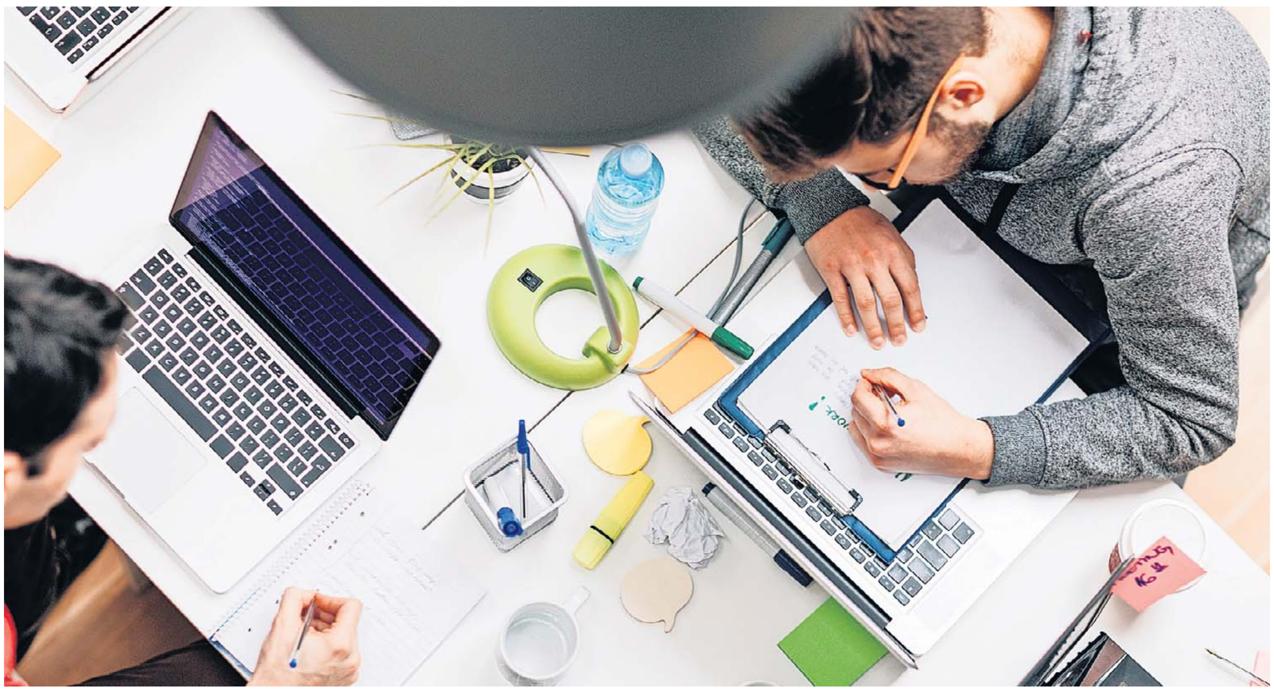
**Start-ups** Students welcome progress but urge more teaching on business launches, says *Ian Wylie*

# Schools step up efforts to support MiF entrepreneurs



**Theory to practice: students yearn for guidance on how to deal with financial issues during the early years of a start-up's life** — Vgajic/Getty Images

When Martim Gois enrolled on his masters in finance, he might have expected a career in banking or bonds — not bugs. But last year, Valpas, the company he co-founded, raised €1.6mn in seed capital to expand its business of providing a tech-based, pesticide-free solution to tackling bedbugs.

"Managing cash, so you don't run out of money, is a crucial function at a start-up and the masters in finance has helped us develop and scale to more than 30 destinations, and grow 100 per cent year on year while running profitable operations," says Gois, who met most of his leadership team while studying at Aalto University School of Business in Helsinki.

"But," he adds, "it would have been really helpful to have had more practical help with fundraising and bootstrapping — and maybe bringing in, as professors of practice, a few entrepreneurs who have exited, or even failed!"

Many masters in finance (MiF) graduates enjoy successful careers working for large financial corporates, but some seek a more entrepreneurial path. Some are inspired by the success of start-ups like Stripe and Revolut and, while there has been a slowdown in fintech investment in recent months, global fintech funding exceeded $75bn in 2022, according to CB Insights.

Recent financial downturns and the Covid pandemic have also prompted many finance graduates to rethink their career plans, says Professor Sami Attaoui, head of the finance department at Neoma Business School in France.

"After these crises, some graduates shifted their interest away from pursuing careers in banks to risk management and investment funds," he adds. "But others have also been attracted by careers in digitally disruptive, small to medium-sized firms."

The Martin Trust Center for MIT Entrepreneurship, which offers expertise and support to entrepreneurial students across Massachusetts Institute of Technology, reports a 50 per cent rise since 2020 in finance-related student start-ups applying to its capstone accelerator, MIT delta v. The centre's executive director, Paul Cheek, says fintech companies launched as a result of its support include Sigma Ratings, Posh Technologies, Almond FinTech, Zumma and CashEx.

Most business school incubators will welcome start-ups founded by MiF students. At Grenoble Ecole de Management, for example, its incubator has helped one graduate launch a business producing reusable period pants, and another to set up a venture helping village mayors access public financing. "Fifteen years ago, our graduates launched businesses to make money — today, they often launch them to build a more sustainable world," says Stéphanie Boyer, programme director for the MSc in Finance at Grenoble Ecole de Management.

Schools have also been adding entrepreneurship modules to their MiF programmes. In the UK, Durham University Business School's New Venture Creation module helps students build some of the competencies needed to launch a business, exploring entrepreneurial finance, managing growth strategies, execution intelligence and exit strategies. Programme director Saadat Saeed says students are encouraged to develop ventures based on ethical, sustainable and responsible business practices.

But, for Alexandre Prot, co-founder of French challenger bank Qonto and a MiF graduate from HEC Paris, entrepreneurship should be a fully integrated part of courses. "There are many ways these courses could encourage an entrepreneurial mindset," he suggests, "from entrepreneurship contests and campus meetups to conferences for interaction with successful entrepreneurs who could share their stories and experiences."

Hubert Pellerin, co-founder of flexible jobs platform Parents on Board, says his MiF from Paris-based Iéseg School of Management gave him "a range of in-depth knowledge and hard and soft skills, essential to make a company run".

"But," he adds, "it could be a good idea to have theoretical and practical courses that deal with the major financial issues that start-ups face during their first years — and perhaps bring in a business angel who could explain their vision and points of attention."

> 'It'd have been helpful to get more help with fundraising and bootstrapping'
>
> **Martim Gois, co-founder, Valpas**

There ought to be more courses on how finance is evolving, says Sylvain Pages, an MiF graduate from Edhec Business School who has launched corporate finance firm AltfinPartners and software as a service (SaaS) Altgency. "Edhec has a brand that's well respected by banks and investment funds in France and we've been able to recruit a third of our staff from the school.

"But finance is also about building a new world based on more environmentally friendly assets, on companies with new governance models, on new financial relationships focusing on trust and transparency. This world needs to be imagined, thoughtfully planned and shared in order to develop the finance structure that will support it."

It is a view shared by Audencia MiF graduate Jean-David Bar, co-founder of royalty-based crowd investing platform We Do Good. "In just the last couple of years, revenue-based finance has become a global trend, blockchain technology is pretty much mainstream and environmental issues are leading to environmental footprint accounting. Future financial leaders need a wider vision than they may have now."

That's some wishlist for business schools to consider. "Entrepreneurship and finance-related ventures often demand interdisciplinary expertise," says Saeed at Durham, "and finding faculty members with both academic qualifications and relevant industry experience can be a challenge".

Madeleine Bjørnestad Røed, who studied for her MiF at NHH Norwegian School of Economics, points out that a career in "big finance" can itself be the place to incubate a business idea.

"Yes, a course in fundraising for start-ups and more contact with venture capitalists and accelerators during my studies could probably have helped me," says Røed, who co-founded social media and investment platform Stack by.me after working in investment banking. "But I would never have worked eight years in finance without my masters in finance, and then I would never have had this idea — or the competence to execute."

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# Humanity is entering uncharted climate territory

**INSIGHT**

**Riccardo Rebonato**

As global temperatures rise, financial and policy planners badly need a way to forecast the implications. Yet the unprecedented nature of climate change means we must devise new approaches to complement the traditional statistical tools used to better tame risk.

International bodies, including the Intergovernmental Panel on Climate Change (IPCC) and the Network for Greening the Financial System (NGFS), have sought to fill the gap by setting out several different climate warming scenarios. These have provided much-needed guidance to policymakers and financial planners, from investment managers to corporate executives. But they all share conceptual features that limit their usefulness.

Think of the existing approach to scenario mapping as a table, which sets out five socio-economic narratives (so-called Shared Socioeconomic Pathways, or SSPs) on one side and possible warming scenarios (Representative Concentration Pathways, or RCPs) on the other.

Each option — for instance "Middle of the Road", where there is slow progress towards changes in environmental behaviour — sets out the projected impact on factors such as economic growth, population and technological development. Each narrative must be coupled with each possible end-of-century warming level.

This coupling is achieved using a model that combines economics and physics modules. The parameters are adjusted to reflect the socio-economic narrative, and the models calculate the implied "carbon tax" required to achieve the temperature target.

Recent scrutiny, however, has highlighted several flaws in this approach. For each "story", the links between the macro-financial variables are totally rigid: one assumption on economic growth results in a certain assumed level of population growth, or to a particular level of technological development, and so on. This greatly limits the possible outcomes and can engender an unwarranted sense of control. Climate black swans are shot down before they can even take flight.

**Socio-economic models aid predictions**

Yet there is a deeper problem: no attempt is made to assign a probability to the various story/warming combinations. There are good reasons to remain probability-agnostic. However, a scenario without any probability attached to it is of little use. Precisely because resources are limited and the scale of a serious abatement push is little short of a war effort, financial and policy planners need an idea of which scenarios they should most worry about.

Absent any guidance to the contrary, assigning equal probabilities to the narratives and the projected warmings is intuitive. But it is also unwarranted and potentially dangerous. For example, one scenario, the RCP8.5, has been criticised in science journal *Nature* for being virtually impossible, yet it is one of the most frequently quoted scenarios in applied work.

> We can build tools that track uncertainties and make good use of the information that we have

Is there a way out of this impasse? Does the uncharted nature of the problem condemn us to live without probabilities? Not necessarily. Assigning probabilities to the socio-economic narratives is very difficult. But if we are interested in their climate consequences, these narratives ultimately translate into paths for economic growth, emissions and technological development.

We know less about these factors than we would like. But we do have some information about economic growth; on how technological barriers limit the speed with which we can cut emissions; about the fastest rates of decarbonisation observed to date; or the link between investment in abatement technology and technological progress (what economists call "learning by doing").

From this knowledge, imperfect though it is, we can build analytical tools that both keep track of uncertainties and make good use of the information that we do have.

Some exciting possibilities are being explored. Dynamic Bayesian Nets, for instance, try to add a probabilistic dimension to the SSP/RCP framework by combining our degree of ignorance with what we do know. These probabilities will never be precise, but being able to say "Scenario A is 10 times more likely than Scenario B" or "Scenario C is much less likely than all the others" would already be a very useful step in the right direction.

This will make a difference. Financial planners desperately want to assess "what climate change may mean" for them. They have made extensive use of the NGFS scenarios, yet few realise that all of these scenarios are offshoots of the "Middle of the Road" (SSP2) narrative. Not surprisingly, rare events are totally missing, and there is no way to gauge their likelihood. As a result, planning is difficult and the risk of complacency is high.

Equity prices barely seem to reflect either the major reallocation of investments required to seriously tackle climate change and the resulting losers and winners in different industrial sectors; or the aggregate impairment to economic output that failure to take climate action will entail.

A better understanding of the likelihood of the full range of possible outcomes, and of what we should really worry about, could change this picture for the better.

*Riccardo Rebonato is Professor of Finance at Edhec Business School and Scientific Director of the EDHEC-Risk Climate Institute*

# Schools make progress on gender balance

### A rise in women taking MiF degrees reflects more women being appointed to faculty, finds *Jonathan Moules*

More women are taking a masters in finance degree.

The number of women studying for the specialist postgraduate qualifications has been rising by double digits since the start of the Covid pandemic in 2020, which academics and accreditation bodies say has been propelled by curricular changes and schools appointing more female faculty.

According to the AACSB (Association to Advance Collegiate Schools of Business), the global business school accreditation body, female enrolments on finance masters degrees for the 2021/22 academic year jumped 41 per cent year on year in the US, and 70 per cent year on year for the rest of the world. Across 278 accredited schools, 41.6 per cent of the masters in finance class intakes were women, and female enrolment was up 62 per cent on the 2017/18 intake, compared with an overall increase in enrolment of 33 per cent.

While female domestic US students tend to favour broader postgraduate management courses, masters in finance (MiF) degrees are popular with Asian students, attracted by the prospect of being able to work in the country after they have completed their studies.

"It is a great entry point for them to get into the country," says Elissa Sangster, chief executive of the Forté Foundation, a US-based not-for-profit body that works to encourage women to build careers through business education.

"It also gives you a leg up in the recruitment process if you have that specialisation, better than an MBA," Sangster adds, noting that a qualification focused on finance can be more help in advancing a career in financial services.


Role models: a principal reason for the higher intake of female students has been schools increasing the number of female teaching staff — Morsa Images/Getty Images

A principal reason cited for the higher intake of female students has been schools increasing the number of female teaching staff. This has been driven from the top at some schools, such as France's Neoma Business School, whose dean Delphine Manceau has championed gender balance.

The percentage of female faculty at the school has risen from 40 to 48 per cent since she took office in October 2017, and Manceau has appointed women to lead Neoma's masters in finance and masters in management degree programmes.

Seeing women in leadership roles at schools encourages female students to seek similar positions in their own careers, according to Anne-Sophie Courtier, an associate professor of law who teaches on the Neoma MiF programme. "They inspire our students . . . to believe that they can reach high positions," she says. "We are trying to change the financial services market because that market is still really difficult for women."

Women in top leadership roles in business remain rare. Just 6 per cent of companies globally have a female chief executive, 15 per cent have a female CFO, and 8 per cent have a female chair of the board, according to gender data provider Equileap.

The improvement in gender balance among students has been helped by curriculum changes for MiF courses aimed at making them more attractive to liberal arts students, a group that has long had higher female representation, according to Geoff Perry, AACSB's executive vice-president and chief officer for the Asia Pacific region.

"Course organisers have branched out into green finance and responsible finance, which makes the subject more attractive to a broader range of potential students," Perry says. "It's not that women are more attracted to this than men, but it has made it attractive to a wider group of people."

Jessica Jeffers, an associate professor at HEC Paris, points out: "There is of course a representation problem — not only in the students who take and have historically taken these classes, but also in the faculty who teach the classes. Lack of representation makes it hard to project ourselves in a field."

> 'There is of course a representation problem. Lack of representation makes it hard to project ourselves in a field'

Beyond the classroom, careers in finance have a reputation for a difficult work-life balance, which can deter women (and increasingly men) who want to ensure they will have time for family alongside work. "This is all a shame, because there are many exciting challenges facing finance in the years ahead, and we need bright people from all backgrounds and genders to help us meet these challenges," Jeffers says.

MiF courses can be a gateway for women with arts degrees to pivot into banking jobs.

"Very often, the finance proposition for undergraduates closes up after two years because the banks recruit from internships, so a masters in finance becomes one of the only entry points into a job," Sangster says.

Camille Fossaert switched her career plans to banking after joining the masters in international finance programme at HEC Paris. She had applied to study a masters in data science in France at the École Polytechnique when she discovered that she could combine this with an MiF at HEC Paris. Having declined offers from two other banks, she is soon to start an internship at Goldman Sachs in Paris.

"If someone hadn't told me about the international finance course, I would never have thought about a career in finance," Fossaert says, adding that she had previously wanted to start her own business.

She says that many of her colleagues on the course had not previously studied finance but have been attracted to the financial services industry "because of the money they earn".

At London Business School, the proportion of women taking its masters in financial analysis programme has climbed by a third since the course launched in 2017. Women now make up 41.5 per cent of the intake, even as the class size has almost trebled in the past six years.

Arnold Longboy, executive director of recruitment and admissions at the school, says role models and recommendations are vital to encourage more women to sign up to courses. "Our number one source of candidates is word of mouth marketing [because] our students and alumni go out and talk about their experiences," he says. "Ultimately, this is a chicken and egg problem."