FINANCIAL TIMES

THURSDAY 16 MAY 2024

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Battle for the last big studio in Hollywood

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Biden is pulling up America's drawbridge

EDWARD LUCE, PAGE 23

Slovak leader
Fico wounded in gun attack

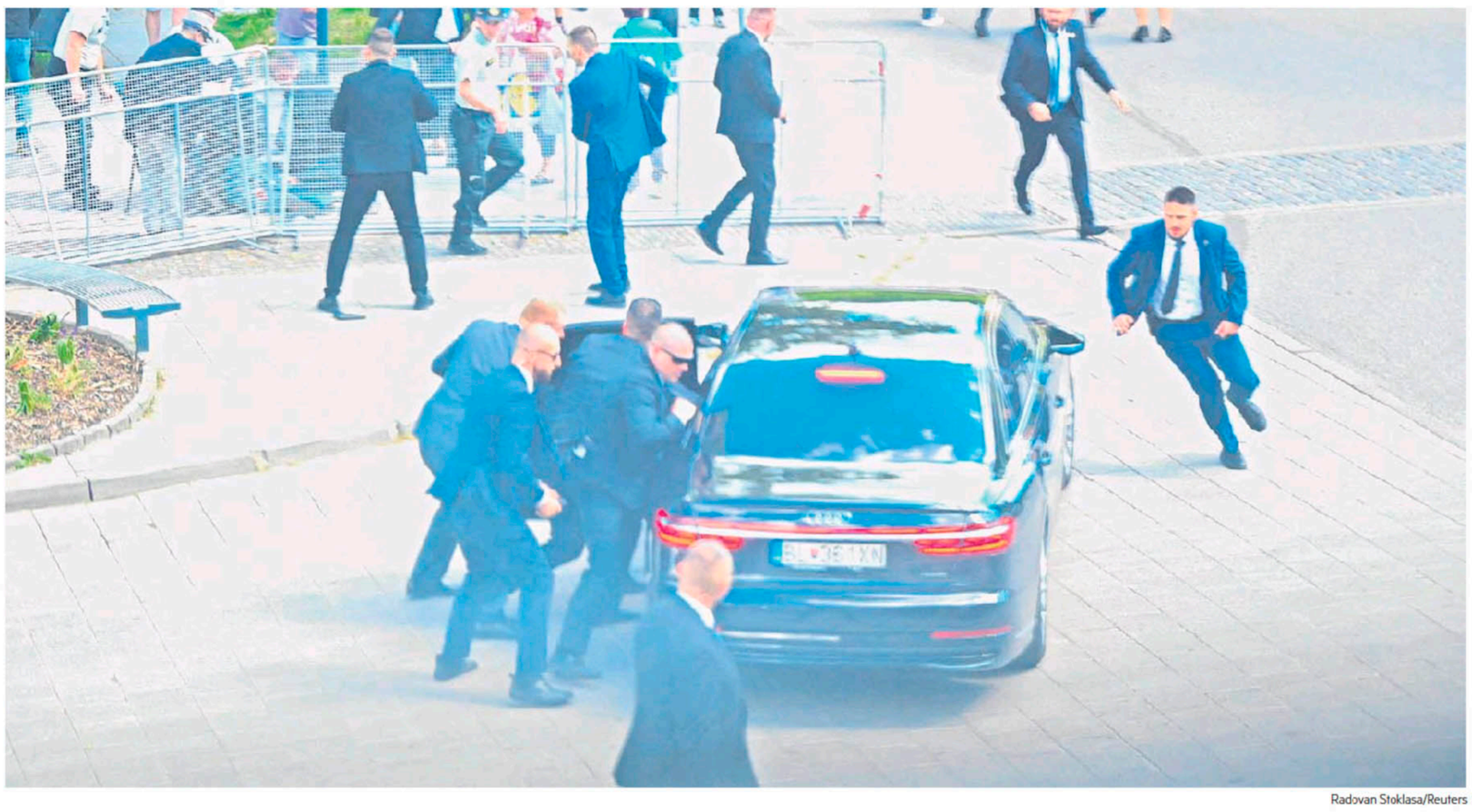
Security officers rush Prime Minister Robert Fico of Slovakia into a car after he was shot in an assassination attempt following a government meeting in Handlová yesterday.

Fico's office said he was in a "life-threatening condition" after being shot several times as he greeted people in the town, about 190km from Slovakia's capital, Bratislava. A man who held a gun licence was detained as a suspect, according to media reports.

The shooting comes at a time of deep polarisation in Slovakia. Fico, 59, founder of the populist Smer party, began his fourth term in office last October leading a three-way Eurosceptic coalition. His government has called on the EU to lift sanctions imposed on Russia over Moscow's war in Ukraine.

It also wants the bloc to take tough measures against migration.

Slovakia PM critical page 4



Radovan Stoklasa/Reuters

Business leaders warn Sunak that Tory migration policy threatens investment

● University sector undermined ● Rio Tinto and Anglo voice fears ● Visa curbs scotch job offers

MICHAEL O'DWYER
CHIEF UK BUSINESS CORRESPONDENT

Business leaders have warned Rishi Sunak that his migration policies risk weakening the university sector, undermining a key reason for companies to invest in the UK.

In a letter to the prime minister, bosses at groups including miners Anglo American and Rio Tinto and industrial conglomerate Siemens said they were "deeply concerned" by widening funding gaps and declining international student applications that were "a result of government policy".

They said this risked "undermining the positive impact that international students have on our skills base, future workforce and international influence", as well as reducing the funding available for research and industry collaboration.

The intervention came as ministers were urged not to abolish the graduate visa scheme, which allows foreign students to live and work in the UK for up to two years after graduation, by the independent Migration Advisory Committee advising the government.

The government has already introduced stricter visa rules for foreign graduates that have led to job offers being revoked at financial services firms. Deloitte and HSBC have joined KPMG in cancelling job offers to some overseas recruits after ministers raised the threshold for skilled visa workers from £26,200 to £38,700 this year.

> 'We choose to invest in the UK because of the talent, skills and innovative ideas that can be found here'

Amid pressure from the right of the Conservative party, the government is considering axing the graduate visa scheme over fears it is being misused as a backdoor entry route. Reducing overseas student numbers would cause "substantial financial difficulty" for universities, potentially causing some to "fail", the committee said on Tuesday.

However, Brian Bell, the committee's chair, added yesterday there was limited "compelling" evidence that people using the UK's graduate visa route boost the domestic workforce's skills level.

In their letter, executives including Stuart Chambers, chair of FTSE 100 miner Anglo American, which is at the centre of a £34bn takeover battle, said: "We choose to invest in the UK because of the talent, skills and innovative ideas that can be found here.

"To maintain global advantage and grow a resilient economy, the government must create an environment in which the university sector can succeed and remain at the cutting edge. There are early but clear warning signals that this position is at risk," said the letter, also signed by Carl Ennis, chief executive of Siemens in the UK and Ireland.

The business leaders urged Sunak not to change the graduate visa regime "without a detailed and comprehensive review of the consequences".

The letter, co-ordinated by the National Centre for Universities and Business, was also signed by Christine Hodgson, chair of water group Severn Trent; a representative of Rio Tinto, the FTSE 100's seventh most valuable group; and executives from defence electronics group Thales and energy groups EDF and Neptune.

The number of international students paying deposits to study at British universities has plummeted after changes to education visas restricted postgraduates from bringing family members, according to industry data.

The prime minister's spokesperson said this week the government had provided billions of pounds of support to higher education and the sector should focus on education, not immigration.

Visas effect & College closures page 2

Briefing

▸ Labour and chancellor press FCA over excess rules
The Labour party has formed an unlikely link-up with Jeremy Hunt, the chancellor, in pressing the City watchdog to stop holding back the country's financial services industry with allegedly excessive regulation.— PAGE 2

▸ OpenAI co-founder quits
Ilya Sutskever, the chief scientist and co-founder of the AI start-up, has left, six months after moving against the company's chief Sam Altman in a surprise coup that proved unsuccessful.— PAGE 9

▸ Israel rails at 'UN terror'
Gilad Erdan, Israel's ambassador to the UN, has said that the world body is a "terror organisation", escalating tensions between the two sides amid his country's war in Gaza.— GAZA REPORTS, PAGE 4

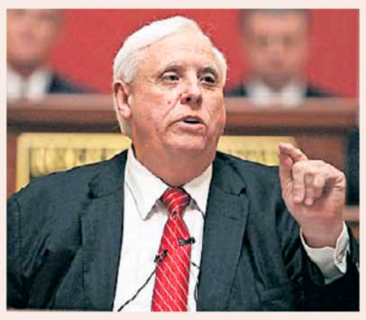
▸ Raspberry Pi in UK listing
The Cambridge-based maker of cheap, tiny computers plans to go public in London, in a boost to the UK stock market at a time when it has struggled to woo growing tech companies.— PAGE 12; LEX, PAGE 24

▸ Royal Mail bid endorsed
The postal service's owner, IDS, has said it would recommend a £5bn sweetened approach from Czech tycoon Daniel Křetínský, as long as conditions over the Royal Mail's future were met.— PAGE 12

▸ Glencore talks up S Africa
The chief of the Swiss commodity house has stoutly defended South Africa's mining sector as rumours continued that his group could mount a rival approach for all or part of Anglo American.— PAGE 10

▸ Cole departs Citigroup
Titi Cole, the executive in charge of the bank's sweeping rejig plan, has left for a position at a non-profit firm, depriving the global lender of one of the most senior Black women in finance.— PAGE 9

▸ Putin lashes out at west
Russia's president has delivered a fierce attack on the west the day before his visit to China, saying "western elites" were to blame for the Ukraine war and outlining a Beijing-Moscow union.— PAGE 8



Quest for Greensill billions bears down on coal baron

The collapse of supply-chain finance group Greensill three years ago started a worldwide hunt to recover the $10bn trapped in its funds. SoftBank and an Australian steel business were soon in the spotlight. But a Credit Suisse debt-recovery team is still trying to recoup $2.6bn, with its latest efforts centring on a small Virginia community bank, a coal baron with his eyes on the US Senate, and a grandiose hotel with a bunker big enough to house Congress.

State governor ▸ PAGE 13

Canteen caterer Compass likes Mondays as staff rediscover appetite for office life

ERI SUGIURA

A return to the office on Mondays has helped boost profits at Compass, even as the world's largest catering company quit China after international groups reined in investment in the country.

Chief executive Dominic Blakemore said higher office attendance on Mondays, particularly in North America, had helped operating profit grow nearly 20 per cent in the first half and allowed Compass to raise its full-year guidance.

"Mondays [have been] recovering quickly in the last six months or so," Blakemore told the Financial Times.

The UK-based company, which provides food for work and school canteens in about 30 countries, is "absolutely" seeing a benefit from US financial institutions' pressing their employees to come back to the office, he added.

North America accounts for about 70 per cent of the group's revenues.

The UK and Europe were catching up with the return-to-the-office trend, Blakemore pointed out.

Some Wall Street groups, including Goldman Sachs, require bankers to be in the office five days a week. That is partly because they are finding it challenging to train junior workers if their managers are not with them in the office.

"We talked about the importance of 'presenteeism' during more turbulent economic times [and] of the apprenticeship model and learning for people," Blakemore said. "I think all of those factors are playing in and they'll continue to do so."

He added that he expected a return to Fridays in the office to be "slow and steady".

Compass posted an operating profit of $1.47bn for the half-year, up 19 per cent, while revenue rose 11 per cent to $20.9bn. It expects full-year operating profit growth towards 15 per cent, up from an earlier forecast of 13 per cent.

Despite this growth, Compass also revealed yesterday that it had exited four countries including mainland China over the past six months. It is also planning to leave Brazil.

Compass said the decision to withdraw from China, where it mainly served factories and offices of international companies, was driven by clients either downsizing their operations there or relocating.

"We have seen the onshoring of manufacturing back into domestic home markets or into other Asian countries," Blakemore said. "A number of those firms either [are] investing less or relocating their manufacturing."

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World Markets

STOCK MARKETS

	May 15	Prev	%chg
S&P 500	5290.52	5246.68	0.84
Nasdaq Composite	16674.36	16511.18	0.99
Dow Jones Ind	39800.47	39558.11	0.61
FTSEurofirst 300	2078.40	2066.80	0.56
Euro Stoxx 50	5100.62	5080.29	0.40
FTSE 100	8445.80	8428.13	0.21
FTSE All-Share	4596.71	4583.23	0.29
CAC 40	8239.99	8225.80	0.17
Xetra Dax	18669.36	18716.42	0.82
Nikkei	38385.73	38356.06	0.08
Hang Seng	19073.71	19115.06	-0.22
MSCI World $	3435.15	3421.11	0.41
MSCI EM $	1080.96	1078.72	0.21
MSCI ACWI $	785.88	782.83	0.39
FT Wilshire 2500	6775.94	6738.91	0.55
FT Wilshire 5000	52750.75	52458.20	0.56

CURRENCIES

Pair	May 15	Prev	Pair	May 15	Prev
$/€	1.086	1.083	€/$	0.921	0.924
$/£	1.265	1.259	£/$	0.791	0.794
£/€	0.858	0.860	€/£	1.165	1.163
¥/$	155.325	156.395	¥/€	168.628	169.297
¥/£	196.462	196.887	£ index	82.435	82.338
SFr/€	0.982	0.981	SFr/£	1.144	1.141

CRYPTO

	May 15	Prev	%chg
Bitcoin ($)	64675.00	62036.00	4.25
Ethereum	2972.20	2906.00	2.28

COMMODITIES

	May 15	Prev	%chg
Oil WTI $	78.23	78.02	0.27
Oil Brent $	82.50	82.38	0.15
Gold $	2354.85	2343.80	0.47

GOVERNMENT BONDS

Yield (%)	May 15	Prev	Chg
US 2 yr	4.75	4.83	-0.08
US 10 yr	4.36	4.47	-0.11
US 30 yr	4.52	4.62	-0.10
UK 2 yr	4.23	4.31	-0.08
UK 10 yr	4.16	4.27	-0.11
UK 30 yr	4.53	4.64	-0.11
JPN 2 yr	0.33	0.34	-0.01
JPN 10 yr	0.95	0.96	-0.01
JPN 30 yr	2.05	2.05	-0.01
GER 2 yr	2.89	3.05	-0.15
GER 10 yr	2.42	2.55	-0.13
GER 30 yr	2.57	2.68	-0.11

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NATIONAL

City regulator

Labour and Tories turn up heat on FCA

Watchdog urged to curb regulation and focus on spurring growth

GEORGE PARKER AND SUZI RING

Labour has formed an unlikely double act with Tory chancellor Jeremy Hunt in putting pressure on the City watchdog to stop holding back Britain's financial services sector with allegedly excessive regulation.

The rare political alignment reflects rising concerns over the Financial Conduct Authority's leadership, its willingness to unlock competitiveness and worries that it has spooked businesses with a contentious plan to "name and shame" companies it is investigating.

Tulip Siddiq, shadow City minister, said Labour planned to push the FCA to enable greater competitiveness and more growth if elected this year.

She said Labour's proposed Regulatory Innovation Office would "improve accountability and promote innovation in regulation across sectors".

The Tory government is also putting increased pressure on the FCA, with Hunt set to tell the regulator in the coming weeks that it is failing to meet new requirements to spur growth. The chancellor is expected to tell a City audience at Mansion House in July that he is concerned that a new legal "secondary objective" for regulators on growth and competitiveness is failing to change behaviour.

The chancellor is also considering whether any legal changes are needed to make sure regulators are taking their new growth duty seriously.

Treasury insiders say that concerns about the FCA's approach came to a head this year with plans to name companies being investigated, which has provoked a fierce City backlash, and which Hunt fears will make London less attractive as a financial centre.

Ministers have also expressed concern about the performance of Ashley Alder, a former Hong Kong regulator, who became FCA chair in February 2023. "We brought in a new chairman to change things, but it hasn't happened," said one. The FCA declined to comment on the criticism of Alder.

Any incoming Labour government is also expected to put a focus on the regulator as Sir Keir Starmer tries to remove obstacles to growth. "Working in partnership with the City and regulators, a Labour government will streamline the regulatory burden on financial services and tear down the barriers to competitiveness and growth," Siddiq said.

Labour said the FCA played "a critical role in securing protection for UK consumers and the integrity of the financial sector" but there had to be "an appropriate balance" with the needs to maintain UK competitiveness.

The FCA said: "It's for the government and parliament to determine the approach to accountability and oversight. We are committed to being held accountable for our decisions and to working closely with other regulators to support innovation."

Higher education

Universities at risk of closure after student numbers fall, report warns

PETER FOSTER

Universities in England face a looming funding crisis as a result of a fall in student applications, with some requiring deep cutbacks to avoid closure, the sector's regulator has found.

The warning will be issued in the Office for Students' annual report on the financial health of the sector, to be published today.

The report, extracts of which were seen in advance by the Financial Times, has found that 40 per cent of English universities now expect to be in deficit in the 2023-24 academic year, with an "increasing number" showing low levels of cash flow.

"An increasing number of providers will need to make significant changes to their funding model in the near future to avoid facing a material risk of closure," the report will say.

The findings come as the higher education sector battles with Rishi Sunak's government over plans to restrict further the number of lucrative international graduate students who come to study in the UK.

The government already removed the right of overseas graduate students to bring family members and increased the salary threshold for skilled workers from £26,200 to £38,700, contributing to a sharp fall in applications.

Last week, the head of the Russell Group of top-tier universities warned that any further reduction in overseas recruitment would result in "significant destabilisation of the sector, [and] result in less spending in local communities, fewer opportunities for domestic students and less UK research".

The OFS statement notes a sharp deterioration in the financial outlook for the sector compared with last year's report, which said that "overall we are not currently concerned about the short-term viability of most providers".

The report also finds that current data on student applications indicates that numbers have declined this year, which it says "contrasts starkly" with earlier forecasts that there would be a 35 per cent increase in international students and a 24 per cent rise in domestic ones.

The report says: "Data on undergraduate applications and student sponsor visa applications indicates that there has been an overall decline in student entrance this year, including a significant decline in international students."

More than 50 UK universities are making budget and job cuts as a result of the growing financial pressures caused by the drop-off in overseas students and a decade-long freeze in the £9,250 tuition fees paid by domestic students.

The Russell Group estimates that universities are losing £2,500 a year on average per student, a figure that is set to rise to £5,000 by the end of the decade.

The OFS says that it is "concerned" about the decision some universities are making in response to mounting financial risk.

"Across the sector as a whole this may over time reduce student choice in some subject areas, or in some regions, or for some types of students," it adds.

The Department for Education did not immediately reply to a request for comment.

Policy pledges

Starmer to set out party's six 'first steps for change'

JIM PICKARD — DEPUTY POLITICAL EDITOR

Sir Keir Starmer will set out today Labour's central policy promises ahead of the general election in a move that echoes the party's "pledge card" published before its landslide 1997 victory.

Speaking at an event in Essex, the Labour leader will say the six "first steps to change Britain" represent a "down-payment on change" rather than the full extent of the party's ambitions for government.

Five of the priorities have already been outlined in Labour's "five missions" to deliver economic stability, cut NHS waiting times, set up a state-owned energy company, tackle antisocial behaviour and recruit more teachers.

The party will now emphasise a sixth policy to launch a Border Security Command in an attempt to try to match Tory efforts to counter illegal immigration.

Labour's policies are under increasing scrutiny with the party 20 points ahead of the Conservatives in the polls and an election expected this year.

The policies will be key to Labour's messaging in the coming months and will feature on a poster and local newspaper advertising drive starting today.

The first of Labour's "steps" is to provide economic stability and "tough spending rules" to grow the economy and keep taxes, inflation and mortgages as low as possible.

The second is to cut NHS waiting times by delivering 40,000 more appointments each week at evenings and weekends, to be paid for by cracking down on tax avoidance including by those with non-domiciled tax status.

The third is the establishment of a Border Security Command with hundreds of specialist investigators in a bid to smash criminal gangs that carry asylum seekers across the Channel.

Those first three pledges echo some of Prime Minister Rishi Sunak's "five priorities", reflecting how both parties are seeking to fight the election on the political centre ground.

But the Labour package also includes a new publicly owned clean power company called Great British Energy, a crackdown on antisocial behaviour with more neighbourhood police and the recruitment of 6,500 teachers.

Royal entrance King Charles at St Paul's for OBE service



King Charles and Queen Camilla enter St Paul's Cathedral yesterday for a service of dedication for the Order of the British Empire Chris Jackson/Getty Images

Migration policy

Graduate visa effect on skills level not 'compelling'

ANNA GROSS AND DELPHINE STRAUSS

There is limited "compelling" evidence that people who use the UK's graduate visa route raise the skills level of the domestic workforce, according to the government's top migration adviser.

"Had we been asked the question by government, 'do you think the graduate route is necessary . . . to bring skilled work into the UK?', the answer would probably have been 'the arguments are less compelling'," said Professor Brian Bell, Migration Advisory Committee chair, of its review into the scheme.

The comments, to the House of Commons home affairs select committee yesterday, will add weight to arguments for curtailing the route ahead of Prime Minister Rishi Sunak's decision on the matter in the coming weeks.

Bell's remarks follow a report by the migration committee on Tuesday that recommended the government retain the graduate visa route, which allows overseas students to spend two years working in the UK after graduation.

The committee, which advises the government on migration policy, warned that cutting overseas student numbers would cause universities "substantial financial difficulty" and could lead some to "fail".

The findings came as ministers consider ending the visa programme due to concerns it is being used as a backdoor entry route to the UK.

Bell's intervention will be taken as vindication by former migration minister Robert Jenrick and former health minister Neil O'Brien, who have criticised the MAC report, arguing it was guided by misleading parameters.

These included not asking the committee to review the government's goal of attracting 600,000 overseas students a year, and focusing on the extent of abuse in the visa system rather than the social and economic impact of this type of migration.

Sunak is under growing pressure from the right flank of his party to demonstrate he has a clear plan to reduce net migration, which reached record highs in 2022 and remained significantly up on pre-pandemic levels last year.

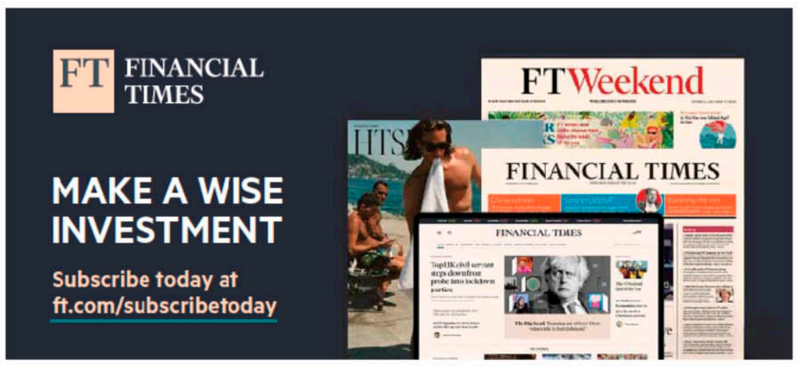
The premier is expected to announce new curbs on the graduate visa route despite strong opposition from the MAC and cabinet members, including education secretary Gillian Keegan.

Bell said it was "dangerous to pick and choose which objectives" to focus on when assessing the value of the graduate visa route, noting the MAC had looked at goals set out in the UK's national education strategy, including the target to draw 600,000 overseas students annually.

He also noted it was more relevant to look at graduates' earnings after they had been on the route for a year, rather than their first few months.

Bell added there was evidence that a larger proportion of international graduates earn in the top salary bracket of £2,500 a month compared with domestic students after their first year post-graduation, suggesting the route had a "small effect" on the UK's skills base.

Madeleine Sumption, a member of the MAC, said the evidence suggested the effects of the scheme on GDP were "very small".



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Court delays

Emergency prison measures put pressure on Sunak pledge

GEORGE PARKER AND ALISTAIR GRAY

Rishi Sunak, prime minister, has been accused of issuing "get out of jail free" cards after ministers launched new emergency measures to deal with overcrowded prisons.

The prisons crisis was thrust to the front of the political debate after bail hearings in England were delayed yesterday to prevent more prisoners arriving in bursting jails. Criminal suspects awaiting initial court hearings are to be kept in police custody until prison spaces are available under the contingency plans, named Operation Early Dawn.

The measures are in addition to a temporary scheme under which prisoners can be released up to 60 days early to alleviate pressure on jails. That will be extended to 70 days from May 23.

In a week in which Sunak promised to keep Britain safe if he wins the next election, the prime minister faced accusations that he was letting potentially dangerous criminals out of jail early.

"He should stop issuing 'get out of jail free cards' to prisoners considered a risk to children," said Sir Keir Starmer, Labour leader.

Starmer pointed to a recent report by the prisons watchdog on HM Prison Lewes where an individual with a history of stalking and domestic abuse was released early. The report said he "was a risk to children".

Sunak said no prisoner convicted of terrorism, serious violent crime or sexual offences could be released early, noting that prison governors could exercise a veto. Downing Street denied Sunak was passing the buck.

Downing Street said it was taking action to alleviate "local" problems and was engaged in "the biggest expansion of prison places for 100 years".

The instigation of Operation Early Dawn prompted lawyers to warn that some suspects could also be released on police bail. Magistrates, solicitors and barristers hit out at the measures, warning they would cause broad disruption and were the latest evidence of a developing prison overcrowding crisis.

Campaign fatigue

Opposition lifts staff holiday ban as early poll chances fade

JIM PICKARD AND RAFE UDDIN

Labour has relaxed its restrictions on staff members taking holiday in a tacit admission that the UK's opposition party no longer believes a general election will be held before August.

The party leadership told employees on Monday that limits on leave would be relaxed following a gruelling local election campaign earlier this month, said two people familiar with the matter.

The change of tack came after the Financial Times reported last week that some staffers had complained of exhaustion after being deprived of leave in anticipation of an early election.

The shift suggests the party no longer expects Prime Minister Rishi Sunak to call a national vote soon. Sunak could trigger an election at any point before the end of January, but general elections tend not to take place during the parliamentary recess from late July to early September.

Sunak has said his "working assumption" is for an election in the second half of the year, by which time his Conservative party hopes that green shoots of an economic recovery and falling mortgage rates will boost its prospects.

Since the end of last year, Labour's leadership has restricted advisers and officials to a minimum amount of holiday in case of a surprise early election. In a memo to staff dated December, the leadership said they should avoid taking more than two consecutive days of leave, although the party still allowed for individual circumstances and summer holidays.

Staffers were also told to anticipate six-day working weeks during the final six weeks of the "short campaign" of the election. In fresh guidance, staff were told this approach has been loosened, according to several party employees.

However, staff were cautioned that they would need to be ready to start election campaigning at short notice.

Staff professed "relief" at the change on Tuesday: "I might be able to slip off for a long weekend without facing [an] internal star chamber," one joked.

NATIONAL

Axing HS2's northern leg will stunt growth, warns adviser

Infrastructure head fears bottlenecks and threat to net zero and levelling up goals



End of the line: the construction site for the HS2 station in Birmingham in October, when Rishi Sunak scrapped the link to Manchester — Michael Kemp/Alamy

JENNIFER WILLIAMS — MANCHESTER
GILL PLIMMER AND RACHEL MILLARD
LONDON

Axing the northern leg of High Speed 2 will hit growth in the UK's biggest regional cities unless alternative rail capacity is built, the government's top infrastructure adviser has warned as it forecast soaring demand on the route over the next two decades.

Sir John Armitt, chair of the National Infrastructure Commission, said the body was "very concerned" that ministers appeared to have no plan to address the bottleneck over the coming years.

He was speaking as the NIC published its annual update, which warned that delays in investment in infrastructure risked holding back economic growth and threatening the government's net zero targets.

Armitt said it was "not too late" for ministers to catch up on infrastructure objectives in many areas, but warned that "the window to do so is closing", adding: "Ducking big decisions over the next 12 months will put the major goals of net zero, regional economic growth and . . . environmental protection in jeopardy."

The NIC said about two-thirds of infrastructure expenditure over the next 20 years would need to be financed by the private sector but urged ministers to uprate public spending in line with inflation. It warned that although the government planned to increase public investment in infrastructure from about £20bn a year to £30bn between 2023 and 2025, capital spending was due to be frozen after that point.

Extra private sector financing in the energy, water and telecoms networks would be needed over the next two decades, the commission said, paid for by consumers through bills.

This was particularly the case in water where bill increases would be required to address pollution, the NIC said, as it defended the privatised system as delivering more "reliable" supplies.

Although the number of unplanned water outages doubled in 2022-23 compared with 2021-22 and leakage rates had increased over the past two years, customers were five times less likely to experience unplanned supply interruptions now than in the early 1990s, the NIC said.

The advisory body reiterated its call for compulsory smart water metering to avoid shortages and drought.

The NIC also said the government was on course to miss its goals for decarbonising heating, including its target of having 600,000 electric heat pumps installed per year by 2028.

It repeated its call for the government to rule out hydrogen as an alternative to fossil fuels in domestic boilers and said it "must begin planning to decommission or repurpose the gas grid".

Armitt has previously been critical of Prime Minister Rishi Sunak's decision last October to cancel the Birmingham to Manchester leg of HS2, originally intended to free up capacity between England's two biggest regional cities.

The government has since argued that the route — part of the UK's busiest intercity rail corridor — may be able to cope at its current capacity into the future because of falling rail demand since the pandemic. But the NIC said its own analysis of central government and rail industry data for three major northern and midlands cities showed that "over the next two decades overall passenger arrival numbers could be significantly higher than in 2019", particularly in Birmingham.

> 'You run the risk of not achieving the benefits of growth and the levelling up of economic activity'

By 2045 arrival numbers in Birmingham could be up to 61 per cent above pre-pandemic levels, the NIC estimated, with increases of up to 38 per cent and 50 per cent in Manchester and Leeds.

Leeds was removed from the HS2 network by the government in 2021. "Without uplifts in capacity, this could lead to significantly worse crowding outcomes," said the NIC.

Armitt said "the honest answer" in relation to the knock-on effects of the northern leg's cancellation was that the commission was "concerned".

The NIC was not suggesting the northern leg of HS2 "has got to be reinstated", he said, "but . . . you can't ignore capacity constraints".

Ministers would need to "look at different ways that capacity can be improved", said Armitt, "otherwise you run the risk of not achieving the benefits of economic growth and the levelling up of economic activity in the UK".

The report, due to be published today, came after the House of Commons public accounts committee warned this week that the government lacked the necessary skills and capacity to deliver on its plans to oversee £805bn spending on infrastructure.

Responding to the NIC's annual update, the government said it was "making sure we have the infrastructure we need to grow the economy, improve people's lives and tackle climate change". It was building on that, it added, with a "long-term plan for transport" in the form of Network North, a set of proposed transport upgrades using reallocated HS2 money.

Industry. State assistance

Ministers split over aid for Harland & Wolff

Dispute over £200mn loan guarantee clouds the future of historic Belfast shipbuilder

LUCY FISHER AND SYLVIA PFEIFER
LONDON
JUDE WEBBER — DUBLIN

The government is split over a financial support package for Harland & Wolff in a row that casts uncertainty over the future of the Belfast shipbuilder behind the Titanic.

The Treasury has reservations about a taxpayer-backed £200mn guaranteed loan facility, while three rival ministries — Defence, Trade and Business, and the Northern Ireland Office — are all keen to press ahead, Whitehall officials say.

Chancellor Jeremy Hunt, who must approve the package, has not made up his mind and is still receiving advice, with some involved in the talks claiming he is dragging his feet, three people with knowledge of the talks said. Insiders expect a decision in the coming days.

H&W wants to borrow up to £200mn from a group of banks at a lower interest rate, with the government acting as a guarantor for those loans.

Without the guarantee, the lossmaking business will need to find other sources of financing to help meet its working capital requirements and fulfil contracts that include building three ships in a £1.6bn Royal Navy order.

The company's auditors last year warned the business faced "material uncertainty" unless it could source fresh financing and win more work.

The group is also engaged in pay negotiations with staff and "needs the money" to meet payroll needs, one person with knowledge of the business said.

Reports of the government split come days after defence secretary Grant Shapps claimed the UK was entering a "golden age" of shipbuilding, after he approved new warships as part of increased military spending.

Two of the officials said the government was inclined to help the Aim-listed company, which has operations in Scotland and England as well as the shipyard where the Titanic was built and whose yellow cranes dominate the Belfast skyline.

One insisted that the Treasury was concerned about the specific financing mechanism proposed but was not opposed to the principle of extending support to the 163-year-old company. Officials are weighing alternative support options in the event the chancellor blocks the guarantee scheme.

However, MPs have questioned whether it is right to use taxpayers' money to support the struggling business. Kevan Jones, Labour MP for North Durham, yesterday called on the National Audit Office to investigate.

"There are serious questions to answer around the use of taxpayer money in guaranteeing a multimillion-pound loan to Harland & Wolff, given its current financial position," Jones told the Financial Times. Jones, who has previously raised concerns in parliament about the intention to offer an unprecedented 100 per cent guaranteed loan, wrote to Gareth Davies, head of the NAO, this week asking it to look into guarantees to protect taxpayers.

Jones said there were also questions to be asked about the "due diligence that was done on the ability of H&W to deliver on the £1.6bn contract prior to it being awarded".

In a statement yesterday, H&W said its management was "comfortable with progress on what is a complex and large transaction for all parties involved".

H&W shares fell more than 28 per cent yesterday before recovering half their losses to close at £10.02, valuing the business at less than £18mn. The company's latest annual accounts, to the end of 2022, showed revenues of £27mn but losses of £70mn. H&W also had net debt of £82.5mn, in part thanks to high interest payments on a $100mn loan to New York-based Riverstone Credit Partners.

In December, H&W said it had "sufficient funds" to meet working capital requirements "until the new loan facility is completed".

> 'Awarding a £1.6bn contract to a company with a market value substantially below this is not best practice'

Francis Tusa, analyst and editor of the Defence Analysis newsletter, said "awarding a £1.6bn contract to a company with a market value substantially below this level is not best practice". H&W has not built a complex warship for more than two decades.

Ministers had agreed in December to advance the loan guarantee to the next stage so that H&W could work on financing with its bank syndicate.

The officials said the MoD, DBT and NIO want a financial package agreed swiftly to offer certainty over the future of the shipbuilding business.

The package is critical if H&W is to deliver on the £1.6bn contract to build three support ships for the Royal Navy, which it won in 2022 as part of a Spanish-led consortium. Unions have previously raised concerns that the work could migrate to Spain.

The NIO supports extending finance to H&W, mindful of its status as a Belfast-founded business of particular significance to the unionist community, according to one of the Whitehall insiders. The government pledged in January to support the region's shipbuilding and defence industries.

Unions remain confident. Alan Perry, senior organiser for the GMB in Belfast, said he was "definitely not" hearing the company was in any danger.

A government spokesperson said: "We continue to engage with Harland & Wolff with the export development guarantee. Due to commercial sensitivities, it would not be appropriate to comment further."

Energy research

EU rebuffs UK bid to stay in nuclear fusion experiment

ANDY BOUNDS — BRUSSELS
MICHAEL PEEL AND TOM WILSON
LONDON

The UK's attempt to continue collaborating on the world's largest nuclear fusion experiment has been rebuffed by the EU, which wants Britain to rejoin its civil atomic programme as part of the deal.

Brussels has told London it will be locked out of the Iter project, based in France, within months unless it affiliates with Euratom, which it quit when it left the bloc, said people familiar with the matter.

The UK has asked to continue with Iter as an outside partner, an arrangement granted to Australia. But the EU has said it must also join a Euratom research scheme, the people said. Australia has a such a deal with Euratom.

London left Euratom as it did not feel the programme provided value for money, and stayed out when it rejoined other EU research schemes last year.

Iter is an international project to build the world's biggest tokamak, the reaction vessel for nuclear fusion. After four decades of experiments the technology is still years from proving it can generate commercially viable power but supporters hope it will prove a viable source of plentiful low-carbon energy.

Apart from the EU, Iter's members are China, India, Japan, South Korea, Russia and the US.

A crunch point between the EU and UK has come as contracts with Iter for dozens of UK scientists that continued after Brexit come to an end in August. These cannot be extended beyond that point, said those close to the situation.

"The UK participated in Iter as part of Euratom and it should do so on that basis if it wants to remain involved," said an EU official. A second official said there should be no "cherry picking" of EU programmes.

EU nations must join Euratom's research and training programmes if they want to be part of the Fusion for Energy joint undertaking that manages the bloc's contribution to Iter.

Fusion for Energy has a €1.4bn budget for the period from January 2021 to December 2025. The UK's share, were it to rejoin, would be more than €150mn without discounts.

London and Brussels drew up a draft Brexit protocol in December 2020 that stated the UK would affiliate with both the Euratom training programme and Fusion for Energy. The European Commission, the bloc's executive arm, and the Council of the EU, which represents member states, last year noted "with regret that the UK has decided not to participate in these two measures".

The UK has its own fusion ambitions, managed by its Atomic Energy Authority. For 40 years, it hosted the EU-backed Joint European Torus project, which conducted its last experiment in December. Now Britain plans to build the world's first commercially viable fusion power plant in Nottinghamshire, using pioneering reactor technology,

Commons committee

BoE should review strategy regularly, Bernanke tells MPs

SAM FLEMING

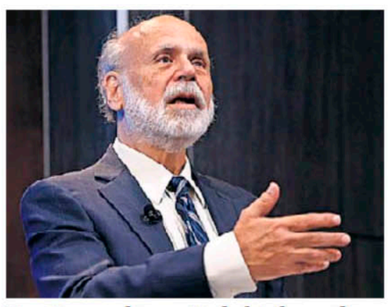
The Bank of England should regularly scrutinise its monetary policy framework and strategy as policymakers seek to learn lessons from their handling of the economy, the former chair of the US Federal Reserve has said.

Ben Bernanke told MPs yesterday that the central bank could mirror peers such as the Bank of Canada and the Fed in holding a wide review of tools and decision making about every five years.

Bernanke's comments come after his review of BoE forecasting and communications last month found "significant shortcomings" in the central bank's baseline economic model.

The BoE has come under heavy fire for being slow to anticipate the inflationary upsurge that took the rate of price rises above 11 per cent in late 2022.

As part of its response to that episode, the BoE last year announced a review focused narrowly on questions of how it models and forecasts the economy.



Ben Bernanke: ex-Fed chief urged BoE reviews every five or six years

Bernanke told the House of Commons Treasury committee it would have been impossible to prevent the surge in UK inflation to double-digit levels without driving the economy into a deep downturn, but he suggested the BoE could subject itself to broader self- scrutiny.

"What's specifically missing from the Bank of England, and I'm not volunteering, is something more focused on policy implementation and framework, which other central banks are beginning to do now," he pointed out. "Reviews are useful. Five and six years is a reasonable timeframe."

Responding to Bernanke's report, BoE governor Andrew Bailey said it marked a "once in a generation opportunity" to update forecasting approaches and tailor them to a "more uncertain world".

The central bank said it was "committed to action" on all 12 recommendations but has yet to set out its longer-term strategy on reviewing its approach to monetary policy.

Bernanke's review was particularly critical of the BoE's forecasting infrastructure, saying it needed to be replaced or at least thoroughly revamped.

He told MPs that he had not been able to get to the bottom of how these problems became so pronounced but suggested that the central bank had been so focused on "putting out current fires" that it did not devote enough time to maintaining or updating its software.

US inflation drop page 6

Treasury costing

Labour faces 'black hole' in non-dom plan, Tories warn

GEORGE PARKER AND EMMA AGYEMANG

Labour's Rachel Reeves will raise hundreds of millions of pounds less than expected from her non-dom inheritance tax crackdown, leaving the shadow chancellor facing a financial "black hole", Conservatives claim.

Tory officials said Treasury analysis, conducted for chancellor Jeremy Hunt before the March Budget, concluded that removing trust protections from inheritance tax would raise only £50mn-£100mn a year, rather than the £430mn claimed by Labour.

Tory sources said Hunt had considered the move in his Budget but the Treasury had warned that closing the loophole would "incentivise certain wealthy people to leave the UK".

But Labour insisted its costings were "rigorous", while some independent tax experts said the Treasury's "speculative" calculations appeared too low.

Hunt abolished non-dom status in his March Budget, copying a Labour policy, but he left open a carve-out that allowed non-doms, who will lose benefits from next April, to shield foreign assets held in a trust from inheritance tax forever.

That loophole was targeted by Reeves last month as she set out plans for a tougher crackdown on non-doms to help plug a gap in funding for Labour's health and education pledges.

A Conservative official claimed the Treasury costing, if correct, would create a £330mn-a-year funding gap over the five years of the forecast period, adding: "Labour will have to fill this £1.6bn black hole in their plans with tax rises elsewhere."

Labour said the Conservatives had always underplayed the likely gains for the exchequer from ending tax perks for non-doms. It said: "Labour is committed to closing the loopholes in the government's plan to end the non-dom status and to invest that money in our NHS."

Tax experts also questioned the Treasury analysis. Emma Chamberlain, a barrister at Pump Court Tax Chambers who specialises in non-dom work and trusts, said she was surprised the Treasury's projection of removing inheritance tax protection from existing trusts was so low. She suggested the government would make more than £100mn a year from it but stressed that calculations were intrinsically difficult.

"I think all of this is very speculative because we don't know how much excluded property is held in trusts," she said. "We [also] don't know the effect . . . of people leaving due to uncertainty over the tax changes."

However, Chris Etherington, partner at accounting firm RSM, said many non-doms were already considering their options, and if Labour's plans materialised it could lead to a "large outflow of wealthy foreigners leaving the UK".

The disclosure comes as Hunt prepares to launch a consultation on the detail of his wider plan to axe the colonial-era non-dom regime, which he expects to raise £3.6bn by 2027-28.

International troops

Arab states urged to join postwar Gaza force

US in talks on initiative, with Morocco, Egypt and UAE considering idea

ANDREW ENGLAND — LONDON
FELICIA SCHWARTZ — WASHINGTON

The US is encouraging Arab states to participate in a peacekeeping force that would be deployed in Gaza once the war ends, in the hope of filling a vacuum in the strip until a credible Palestinian apparatus is established.

Joe Biden's administration has been discussing the plan with Arab states and Egypt, the United Arab Emirates and Morocco are considering the idea. Biden is not willing to deploy US troops into Gaza, western and Arab officials said.

"Arab states have said it should be US-led, so the US is trying to work out how it can lead it without having boots on the ground," said a western official, adding that the Arab states discussing the idea "would want the US to recognise a Palestinian state first".

Other Arab nations, including Saudi Arabia, have rejected the idea of deploying their forces, fearing they would be seen to be complicit with Israel. They are also wary of being sucked into an insurgency in the strip, which has been controlled by Hamas since 2007.

But they have become more open to the notion of an international force in Gaza, as western and Arab states struggle to come up with a viable alternative to Israeli troops remaining there.

It is also unclear what Israel would be willing to agree to, with the US and its allies frustrated by uncertainty over Prime Minister Benjamin Netanyahu's intentions for the conflict. This includes how long he plans to keep troops in the strip, who his far-right government would accept as an administrator and how long Israel's offensive will continue.

> 'The Arab states say the west must recognise a Palestinian state but few of the western states are close to doing this'

US secretary of state Antony Blinken told CBS on Sunday that Washington had "been working for many, many weeks on developing credible plans for security, for governance, for rebuilding" with Arab states and other allies.

But he added: "We haven't seen that come from Israel."

Netanyahu has insisted that Israel will maintain responsibility for security of the strip and rejected the western and Arab-backed Palestinian Authority playing any role in the enclave's administration. He has also resisted any moves towards establishing a Palestinian state.

Some Israeli officials, such as defence minister Yoav Gallant, have expressed support for an international presence in Gaza after the war. But the lack of clarity has exacerbated further planning.

"Israel is refusing to talk to anybody about it; it's in denial. And everyone else is talking past each other," the western official said. "The Arab states say the west has to recognise a Palestinian state but very few of the major western states are really close to doing this."

An Arab official, who confirmed the US had raised the idea of a peacekeeping force, said there were also differences between Arab states on plans for after the conflict, as "nobody knows what the day after will be like".

Arab states insist that to ensure a sustainable resolution to the crisis, the US and other western nations must pressure Israel to take irreversible measures towards a two-state solution to the decades-long Israeli-Palestinian conflict.

As such, they want Gaza to be run by a reformed Palestinian leadership that governs the strip, the occupied West Bank and East Jerusalem, despite the PA's weakness and lack of credibility.

Humanitarian crisis

Israel envoy labels UN a terror group and Hamas collaborator

NERI ZILBER — TEL AVIV

Israel's ambassador to the UN has branded the body a "terror organisation", escalating tensions fuelled by the country's war against Hamas in Gaza and recent attacks on UN facilities in Jerusalem.

Gilad Erdan said on Israel's Army Radio yesterday that the UN had "turned into a collaborator with Hamas . . . maybe even more than that — a terror organisation unto itself".

"It co-operates with Hamas, it provides cover for it and [is led by] a secretary-general [António Guterres] who quickly criticises Israel," he added.

Relations between Israel and the UN have deteriorated over the course of the Gaza war. There have been mutual accusations over responsibility for the humanitarian crisis in the enclave, while Israel has alleged that Palestinian refugee agency staff played a role in the Hamas October 7 attack that triggered the conflict. Israel has also claimed that militants are using UN facilities.

UN officials and agencies, meanwhile, have been among the most prominent voices highlighting the devastation wrought by Israel's retaliatory assault in Gaza. Guterres, who has repeatedly condemned attacks on humanitarian workers, has warned that Gaza is becoming a "graveyard" for children and called for an immediate ceasefire.

Erdan's remarks came after at least two arson attacks in the past week on the East Jerusalem base of UNRWA, the agency for Palestinian refugees, by what the organisation described as "Israeli children and young people". Jewish ultranationalists protested at the facility a week ago, defying police officers, according to video seen by the FT.

Arieh King, deputy mayor of Jerusalem, then wrote on X that international facilities in the city could be attacked, calling the UN a "Natzi[sic] organisation". He said there was "no place for [the] enemy in our holy city".

According to a person familiar with the matter, the UN complained about the incidents to the Israeli police and foreign ministry but received no response. The authorities were not available for comment. No senior Israeli official has criticised King's remarks.

On Tuesday, the Israel Defense Forces released footage it claimed showed gunmen at a UN facility in the southern Gaza city of Rafah. Armed men can be seen entering white UN vehicles and firing on civilians near the compound.

Juliette Touma, UNRWA communications director, said the agency could not verify the footage but said it was "likely" to be from a warehouse in Rafah that it had been forced to evacuate last week ahead of an IDF operation in the area.

Meanwhile a UN vehicle this week came under fire near the Rafah border crossing to Egypt, which the IDF seized last week. The strike killed a former Indian army officer working for the UN and injured another foreign aid worker. The IDF said it was investigating the incident, with UN officials attributing the damage to an Israeli tank shell.

Also on Tuesday, an Israeli air strike hit an UNRWA school in a refugee camp at Nusseirat in Gaza. The IDF said the target was a "Hamas war room" and more than 10 key militants were killed.

Assassination attempt

Slovakia PM critical after being shot several times

RAPHAEL MINDER — POZNAŃ
HENRY FOY — BRUSSELS

Slovak Prime Minister Robert Fico was critically injured in a shooting yesterday that the government called an assassination attempt and several politicians linked to the country's stark polarisation.

Fico's office said he was in a "life-threatening condition" after being shot multiple times as he greeted people in the town of Handlová, about 190km from the central European country's capital, Bratislava. "The next few hours will decide," it said.

The government said the 59-year-old populist, pro-Russian leader was transferred by helicopter to a hospital in the nearby city of Banská Bystrica, rather than Bratislava, because of the need for "acute intervention". He was due to undergo surgery, an official said.

A man with a gun licence was held as a suspect, local media reported. No further information was available.

Some from the prime minister's coalition were quick to claim the opposition had provoked the attack. Deputy prime minister Tomáš Taraba said "the entire hateful opposition has bloody fingers".

Other politicians linked the shooting to the profound divisions in Slovakia. In a televised address, outgoing President Zuzana Čaputová called for a halt to vitriolic language against politicians. "The hateful rhetoric we witness leads to hateful acts. A physical attack on the prime minister is primarily an attack on a person, but also on democracy."

Fico, founder of the populist Smer party, began his fourth term in office in October leading a Eurosceptic coalition. That grouping has been deeply at odds with liberal and pro-EU groups as it calls for tough anti-migrant measures and an end to sanctions against Russia.

Michal Šimečka, leader of the liberal opposition, said on social media site X: "We absolutely and strongly condemn the violence and today's shooting of Prime Minister Robert Fico. We . . . call on all politicians to refrain from any statements and actions that may contribute to the escalation of tension."



Mercy dash
Brussels seeks patients move from enclave

A Palestinian woman holds a girl wounded in an Israeli strike, at a hospital in Rafah this month — Hatem Khaled/Reuters

The EU is seeking to establish a system to evacuate thousands of patients from war-torn Gaza to its member countries in response to a World Health Organization appeal to aid Palestinians trapped there who need urgent healthcare.

The European Commission has written to national governments asking them to treat thousands of severely ill patients who are at risk of death because Gaza's healthcare system is overwhelmed, with most hospitals badly damaged by Israel's offensive in the enclave.

Palestinians are blocked from leaving Gaza, even for medical reasons, after Israel last week took control of the Rafah border crossing with Egypt, but European officials said the WHO was hopeful it would be able to evacuate the sick.

"Many patients are in urgent need of specialised medical treatment that is simply not available due to the destruction of the healthcare infrastructure," said the letter, which was obtained by the Financial Times.

"These patients include women and children suffering from severe injuries, and individuals with chronic illnesses whose lives are at risk without immediate medical intervention," wrote EU health commissioner Stella Kyriakides and crisis management commissioner Janez Lenarčič.

The letter said the WHO had identified more than 9,000 patients in need of urgent treatment, and sent the EU a list of 109 "severely ill and injured" children.

The EU's humanitarian arm, ECHO, has vehicles, including aircraft, that could bring evacuees to Europe but national governments would need to provide hospital beds.

"It is crucial that we act swiftly to ensure the safe evacuation of these patients to hospitals outside Gaza where they can receive the life-saving treatment they need," the commissioners said.

"While we are aware of the practical and administrative complexities of this operation, we are convinced that this can be overcome by making a collective European effort."

EU officials said patients in Gaza had been missing treatments for chronic illnesses such as cancer and thalassaemia, a blood disorder that increases susceptibility to infection and requires regular transfusions.

Patients would be returned to Gaza after they recovered or could be cared for in the Palestinian enclave.

Israel's bombardment of Gaza over the past seven months has laid waste to most of the enclave's buildings and largely prevented hospitals from functioning, with scattered field facilities struggling to provide basic care.

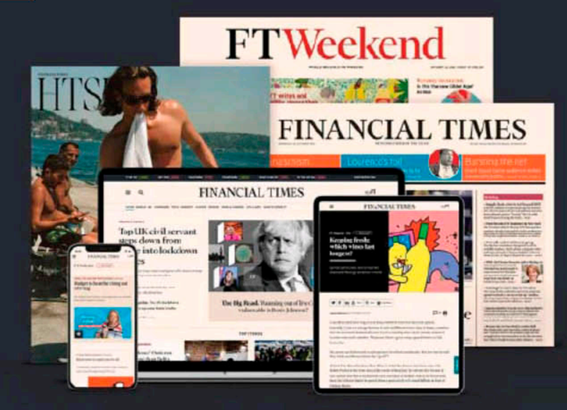
The WHO this month said only a third of Gaza's 36 hospitals and 30 per cent of primary healthcare centres were functioning amid "repeated attacks and shortages of vital medical supplies, fuel and staff". It added: "As part of contingency efforts, WHO and partners are urgently working to restore and resuscitate health services, including through expansion of services and pre-positioning of supplies."

It said that Israel's decision last week to send troops into Rafah, in the south of the strip, where more than 1mn Palestinians were sheltering, would increase casualties and a "broken health system would not be able to cope".

Aid flows through the Rafah crossing to Gaza have also been halted as Israel and Egypt blamed each other for the border post's closure.

Andy Bounds in Brussels

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Ukraine

Zelenskyy scraps trips abroad to focus on Russian offensive

ISOBEL KOSHIW — KYIV

Ukraine's President Volodymyr Zelenskyy has cancelled trips abroad as Kyiv focuses on attempting to thwart Russia's latest offensive.

Zelenskyy "has instructed that all international events involving him scheduled for the coming days be postponed", press secretary Serhiy Nykyforov said yesterday.

Russia opened a new front last week in the north-eastern Kharkiv region with the aim of stretching Ukrainian forces, which are struggling because of recruitment issues and delays in the delivery of US military aid.

Russian forces have occupied about 110 sq km of territory, forcing Ukraine to deploy reinforcements while simultaneously fending off a bigger offensive in the eastern Donetsk region.

Zelenskyy's move reflects increasing concern in Kyiv over the latest Russian attacks. Yesterday he said Ukrainian forces had managed to "partially stabilise" the front line in the northern Kharkiv region. But Russia was still attacking in multiple areas of Donetsk in an effort to make "our combat work less concentrated".

While the Russian advance south of the border village of Pylna appears to have slowed, maps published yesterday by Ukrainian open-source intelligence group Deepstate showed they had encroached into Vovchansk and occupied an area in the west of the town.

Ukraine's military intelligence chief, Kyrylo Budanov, has discussed the possibility of Russia opening an additional front in Sumy. The region, west of Kharkiv, has suffered a huge surge in shelling in the past week.

On the defence of the Kharkiv region, he said the reinforcements were stabilising the front line and the situation was currently "not catastrophic".

But Budanov and other Ukrainian military officials have suggested that Kyiv lacks the reserves to resist the latest offensive in the Kharkiv region because of its need to repel Russian advances in Donetsk.

'Foreign agents' legislation

EU threatens to freeze Georgia accession bid over divisive law

HENRY FOY — BRUSSELS
ANASTASIA STOGNEI — TBILISI

The EU will freeze Georgia's membership bid if Tbilisi enacts a "foreign agents" law that critics say is inspired by Vladimir Putin's Russia.

The ruling Georgian Dream party on Tuesday moved the bill, which obliges media and civil groups that receive foreign funding to register with the government, despite months of demonstrations against the proposal and repeated warnings from Brussels.

A decision by the bloc to start accession talks was likely to be indefinitely postponed if the law came into force, three EU officials said. "We've been very clear . . . this is a showstopper," said a person briefed on talks between Georgian and EU officials. "[The Georgian government] knows what the score is."

The country's president, Salome Zourabichvili, has promised to veto the bill, meaning it will return to parliament for a second vote in the coming weeks.

Georgia applied for EU membership in March 2022, weeks after Russia's invasion of Ukraine, and was granted candidate status in December. The next step is for the European Commission to ask EU governments to approve the start of membership talks.

Brussels has made clear that if the law is enacted, the commission will not recommend accession talks, the officials said.

"The adoption of this law negatively impacts Georgia's progress on the EU path," the commission said yesterday, adding that the bloc had "clearly and repeatedly stated that the spirit and content of the law are not in line with EU core norms and values".

The foreign ministers of Latvia, Lithuania, Estonia and Iceland met Zourabichvili yesterday and stressed that the law would close the EU path for Georgia.

Estonia's foreign minister Margus Tsahkna said Georgia stood at a crossroads: "This law is a symbol of the choice between Russia and the EU. This law separates Georgia from the EU."

INTERNATIONAL

Biden's new tariffs on China clean tech raise fears of increased trade tensions

Levies designed to appeal to swing state voters have ramifications for industries at home and abroad

AIME WILLIAMS — WASHINGTON

US President Joe Biden imposed fresh tariffs on billions of dollars of Chinese goods on Tuesday, sharply raising levies on clean energy imports including solar parts and electric vehicles.

It was a move designed to appeal to blue-collar voters in swing states — but one that will have ramifications far beyond the US, raising fears of deepening trade tensions between the world's two economic superpowers.

Biden is not only keeping the tariffs on Chinese goods worth $300bn that his predecessor Donald Trump imposed in his trade war with Beijing in 2018 but adding more, targeting strategic industries. The measures include quadrupling the tariff rate on Chinese EVs to 100 per cent, doubling the levy on solar cells to 50 per cent and more than tripling the rate on Chinese lithium-ion EV batteries to 25 per cent.

Why is the US doing this?

With the US presidential election less than six months away, the Biden administration is stressing job protection as it pushes ahead with plans to reindustrialise the economy. The president is especially keen to shore up union support in former industrial heartlands such as western Pennsylvania and Michigan.

The administration believes the tariffs can be part of its strategy to build domestic supply chains in critical sectors such as clean tech and EV manufacturing, supercharging the US industrial base while protecting it from cheap Chinese imports.

The new tariffs follow other recent moves to protect US manufacturing and blue-collar jobs, including Biden's opposition to the takeover of Pittsburgh-based US Steel by Japanese company Nippon Steel, and his support for workers in strikes against car companies.

The administration has also enacted billions of dollars of subsidies for green and clean industries, with tax credits designed to attract a wave of investment in clean tech manufacturing.

But US trade officials worry that China can produce its own subsidised goods so cheaply that it could undercut American manufacturers.

What does this mean for EVs?

The 100 per cent tariff is aggressive, but it is more of pre-emptive strike by the US, which at present imports very few EVs from China — just $365mn worth in 2023, according to Capital Economics.

Moody's estimates that only 16 per cent of EVs made in China are exported, and the US is not even in the top 10 destinations for Chinese cars overall.

China accounted for 2 per cent of EV imports into the US — including plug-in hybrids — in 2023, according to the Center for Strategic and International Studies, a US think-tank. That compared with 22 per cent for Germany, 21 per cent for South Korea and 18 per cent for Japan.

Leading Chinese carmakers such as BYD have shown little ambition yet to expand in the US as they focus their efforts on south-east Asia and Europe.

"We don't have any indication from the headquarters that we have plans to develop the market in the US," Michael Shu, managing director of BYD Europe, told the Financial Times' Future of the Car Summit last week.

But former White House official Jennifer Harris said that reluctance might stem from Chinese manufacturers being aware of the threat of higher tariffs. "I think they've been a bit holding their breath, knowing this was in the works," she said. "Which is categorically not the case . . . in the European market."

The tariffs could help pre-empt what analysts say could be a surge of cheap EVs as China makes more vehicles than the domestic market can absorb.

Will other sectors be more affected?

The US has already imposed steep tariffs on imports of Chinese solar parts, much to the concern of some installers, who would prefer access to the cheaper units. Meanwhile the Inflation Reduction Act's subsidies and tax credits are available only to developers that source batteries and critical minerals from the US or trade partners — excluding China.

David Oxley, chief climate and commodities economist at Capital Economics, said the tariff increase on lithium-ion batteries for EVs from 7.5 per cent to 25 per cent "could prove . . . meaningful" for a sector already struggling to keep down manufacturing costs.

The 17.5 percentage point increase in tariffs could "have a significant impact on their competitiveness in the US", he said. According to BloombergNEF data, average battery pack prices made in the US were 11 per cent more expensive than those made in China in 2023.

Close to 80 per cent of battery and solar module manufacturing supply chains were located in China in 2023 along with more than 60 per cent of the global wind power supply chain, according to the International Energy Agency.

Will the tariffs hurt the US too?

Analysts say that without competition, EVs in the US market will become more expensive and manufacturers less competitive, stunting the sector.

"It will decelerate the growth of EV adoption in the US," said Shay Natarajan, partner at Mobility Impact Partners, a private equity fund. "It risks making US automakers much less competitive in the automotive markets outside of the US, where Chinese EV [companies] can win based on price and technology."

Citi analysts also note that the US is heavily dependent on Chinese batteries for its fledgling EV industry, with Chinese batteries accounting for more than 70 per cent of those imported last year.

Chloe Herrera, lead battery analyst at Lux Research, said raising tariffs on the materials and components of EV batteries — such as graphite — "is really going to be a killer", making a rise in the cost of EVs "unavoidable".

The new Biden tariffs also impose levies of 50 per cent on Chinese semiconductors, affecting everything from mobile phones to laptops and cars and medical devices. In the next three to five years, China was expected to account for almost half of new capacity coming online for "legacy" semiconductor chips — larger chips used in consumer goods — according to the White House.

What can China do in response?

China could launch retaliatory tariffs on US goods or a case at the World Trade Organization in Geneva to argue that Washington is breaking global trade rules. Beijing has already begun a case at the WTO saying that US EV subsidies are "discriminatory".

China's dominance of clean tech supply chains also means Beijing has the potential to curb US access to scores of resources, materials and technologies, potentially reigniting a trade war.

Wang Wenbin, of China's ministry of foreign affairs, said that "China consistently opposes unilateral tariff increases that violate WTO rules and will take all necessary measures to safeguard its legitimate rights and interests".

How has Europe reacted?

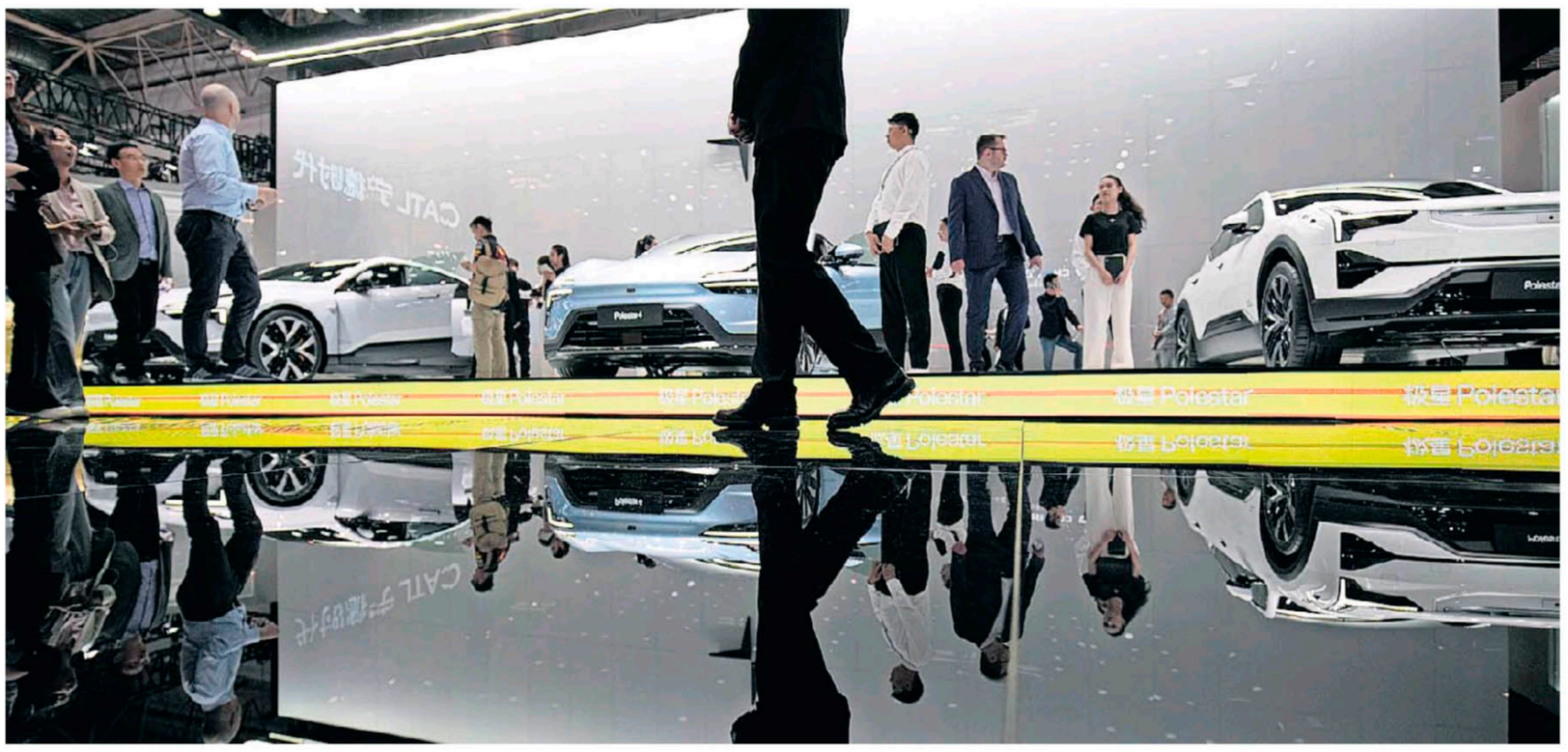
Swedish Prime Minister Ulf Kristersson said it was a "bad idea to start dismantling global trade", while German Chancellor Olaf Scholz said European manufacturers were "successful in the Chinese market".

But Europe now risks being caught in the middle of two heavyweights on the verge of a further serious trade conflict. Europe is carrying out its own anti-dumping review of Chinese EVs.

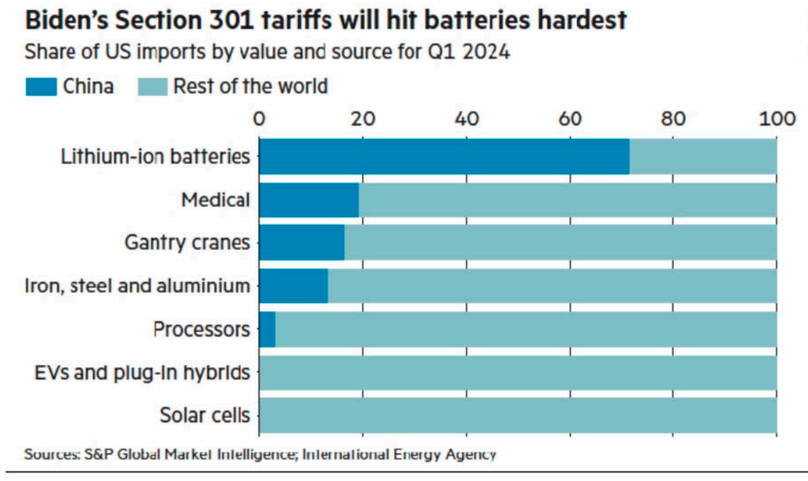
Joseph Webster of the Atlantic Council said the US tariffs might "force Brussels' hand", adding: "Brussels will have to act quickly, either to put its own tariffs in place or to accept a flood of Chinese-made products."

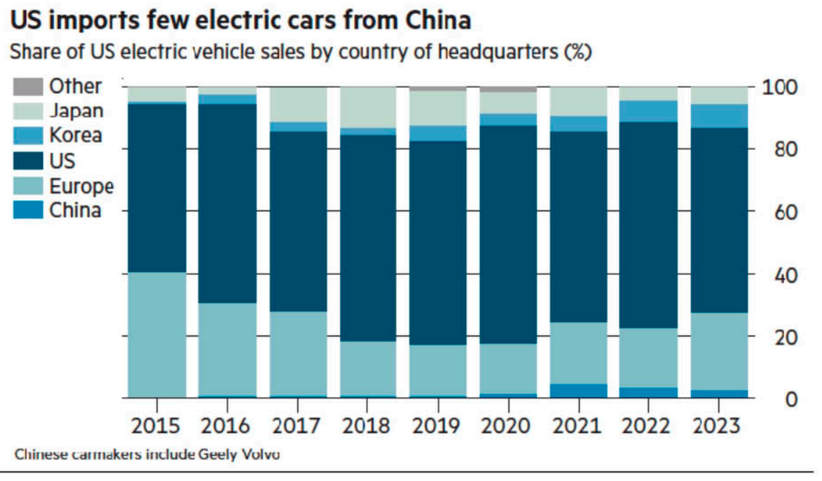
Additional reporting by Amanda Chu in New York, Claire Bushey in Chicago, Ed White in Shanghai, Kana Inagaki in Tokyo

Edward Luce see Opinion



In the line of fire: Polestar electric models at the Beijing Auto Show last month. The US is quadrupling tariff rates on Chinese EVs to 100 per cent
Qilai Shen/Bloomberg





Imports

Brussels looks for ways to halt flood of cheap goods after US move

ANDY BOUNDS, HENRY FOY AND JAMES KYNGE — BRUSSELS

New US tariffs on Chinese goods are likely to redirect shipments to Europe and put increased pressure on Brussels, which is scrambling to avoid being caught in the trade war between Washington and Beijing.

President Joe Biden on Tuesday slapped big tariffs on Chinese electric vehicles, metals and solar cells, as well as future levies on semiconductors.

"The US has sent a very clear message that it wants minimum Chinese participation in its green transition," said Yanmei Xie, a geopolitics analyst at Gavekal Research. "The EU being the remaining large developed market with green ambitions and generous subsidies will be a must-have market for Chinese exporters of clean-energy products."

The US move came as the European Commission struggles to protect domestic green industries from cheap Chinese competitors, with EU officials stressing that Brussels lacks the powers to compete with Washington and Beijing in a trade war.

They predicted the US measures would increase an uncomfortably large European trade deficit with China — €290bn in 2023 — and said Brussels was looking to deploy its available "powers" to address that imbalance.

"The EU cannot stay idle since it will be the key target for Chinese products. This means more pressure to impose countervailing duties," said Alicia García-Herrero, chief economist for Asia-Pacific at French bank Natixis.

Chinese President Xi Jinping had appeared to ignore requests by EU leaders to address overcapacities during a trip to Europe this month, she added. "The EU cannot do much but lift tariffs. I think we are heading for a trade war."

A senior EU official said Brussels was attempting to co-ordinate with western allies, such as the US, to avoid "taking different action" on Chinese overproduction and the "flooding" of products on the single market "which is really problematic for us".

But the EU was hamstrung by an insistence that all its trade measures were compliant with the World Trade Organization, another official said.

Xie played down the likely impact of WTO-compliant trade protections, saying they would be "no match to Chinese manufacturers' proven ability to scale up, cut cost and devise workarounds".

Investigators for the commission must painstakingly gather evidence that could survive a legal challenge, and tariffs can only be set at levels commensurate with the distortion. Analysts expect such tariffs to reach 25 per cent when a probe into subsidies for Chinese EVs finishes within weeks, far below the new US level of 100 per cent.

The bloc is divided on whether to take more muscular action against Chinese companies, for fear of possible retaliation against European businesses.

German Chancellor Olaf Scholz warned against tariffs on Chinese cars this week — given the exposure of many of his country's carmakers to Beijing retaliation.

Foreign funding

Beijing invests to skirt sanctions, EBRD says

RAPHAEL MINDER — WARSAW

Chinese investments across eastern Europe, north Africa and central Asia have far outpaced those from the US, as Beijing seeks to circumvent US trade sanctions, according to a new report.

Last year, the 36 countries in which the European Bank of Reconstruction and Development operates — ranging from Poland to Mongolia in the east and from Morocco to Turkey in the south — received just under 39 per cent of their combined greenfield investments from China, up from 5.1 per cent in 2022 and only 0.6 per cent 20 years ago, the international lender reported yesterday.

"China is dwarfing FDI from Germany and the US," Beata Javorcik, the EBRD's chief economist, said. The US and Germany each accounted for just under 8 per cent of greenfield foreign direct investment in the regions covered by the international lender.

This surge in part showed how "China has tried to diversify production locations in terms of potential trade barriers", she said.

For example, China was spearheading investments in Morocco, which had a trade agreement with the US and could export raw materials for electric vehicles without being subject to punitive tariffs and instead be eligible for US renewable energy subsidies.

CNGR Advanced Material, a Chinese battery components manufacturer, signed an agreement last year to build a cathode materials plant in Morocco to supply the US and European markets.

With this kind of investment, China was also hoping to tap into "the long reach of US subsidies", Javorcik said.

> '[It shows] China has tried to diversify production locations in terms of potential trade barriers'

In the light of fresh sanctions imposed by the US on Chinese goods this week, Javorcik highlighted the potential for Europe to attract Chinese manufacturers rather than block them, just as Washington prompted Japanese carmakers to open plants in the US in the 1980s. This strategy would help "create jobs and ensure that the EU remains a manufacturing base", she said.

China's FDI lags behind that of the US and Germany in the EU's central and eastern member states, as Brussels has taken a more forceful approach against Chinese companies that are subsidised by Beijing and compete at lower prices on the internal market.

The EBRD expects GDP growth across its regions to average 3 per cent this year and 3.6 per cent in 2025, up from 2.5 per cent in 2023.

The countries in which it operates struggled to bring down inflation, which surged during the Covid-19 pandemic and after Russia's full-scale invasion of Ukraine in 2022. While the pace of disinflation had been "somewhat quicker than expected a year ago", inflation was still about 2 percentage points above pre-pandemic levels, the EBRD said.

The bank lowered its GDP forecast by 0.2 percentage points from its previous report in September in part because of weakening growth in central Europe and the Baltic states, which are suffering from the Ukraine war and Germany's economic slowdown. "Half a percentage [point] growth in Germany is something that will be felt," Javorcik said.

The EBRD's chief economist, who is Polish, also noted countries in her own region continued to be hampered by a rise in borrowing costs, in contrast with other EBRD regions where the risk premium had fallen back to the levels before Russia's invasion. "It's yet another way in which you can see the long shadow of the war on the region," she said.

CPI figures

US inflation drop lifts rate cut expectations

JAMES POLITI AND MARTHA MUIR IN WASHINGTON
KATE DUGUID — NEW YORK

US inflation fell to a lower than expected 3.4 per cent last month, prompting investors to increase their bets on interest rate cuts this year and sending equities to record highs.

The consumer price index data for April, released yesterday, compared with March's rate of 3.5 per cent and ended a four-month streak in which inflation outstripped expectations.

"It is something of a relief that for the first time this year, CPI did not come in higher than forecast," said Eric Winograd, senior economist for fixed income at AllianceBernstein.

Earlier yesterday the European Commission said Eurozone inflation was set to drop faster than expected as the impact of Red Sea trade disruption proved milder than feared. Updated estimates suggested annual inflation in the single currency bloc would drop to 2.5 per cent this year, before reaching the European Central Bank's 2 per cent target in the second half of 2025.

The US data prompted futures traders to bolster bets that the Federal Reserve would cut interest rates twice this year.

US stocks hit record highs, while government bond yields fell. The blue-chip S&P 500 reach a new intraday peak, and was trading up 0.8 per cent at midday, while the technology-heavy Nasdaq Composite also rose 1 per cent.

The two-year Treasury yield, which moves with interest rate expectations, initially dropped as far as 4.71 per cent — its lowest since early April. It later retraced some of that move to be 0.07 percentage points lower at 4.75 per cent.

The figures came a day after Jay Powell, Fed chair, warned that the central bank might have to maintain high interest rates for longer as it struggles to tame persistent inflation. After yesterday's data, Winograd warned "there is nothing in here that tells us that inflation is going to come down to the Fed's [2 per cent] target in the near term".

With less than six months before the US election, high inflation has hit President Joe Biden's poll ratings on the economy. Even though the annual CPI has declined sharply since hitting a peak in 2022, many voters are still unhappy.

"Today's inflation number will be seen by some as progress and by others as a sign that inflation is still a problem. It probably is not good enough news for the Biden campaign but it could have been a lot worse," said Erik Gordon, a professor at the Ross School of Business at the University of Michigan.

Core consumer prices — which strip out volatile food and energy costs — rose 3.6 per cent last month, compared with last year. This was the lowest since April 2021. On a monthly basis, the core consumer price index rose 0.3 per cent in April, compared with increases of 0.4 per cent the previous three months.

Ryan Sweet, US economist at Oxford Economics, called the data "a very small step in [the] right direction . . . we would need to string together two or three more months of this before you hear the Fed sound more confident".

Additional reporting by Paola Tamma in Brussels and Martin Arnold in Frankfurt

See Markets



Jay Powell: warned on Tuesday of higher for longer interest rates

Bilateral meeting

Putin denounces west ahead of Beijing visit

President blames allies for Ukraine and backs China's pro-Russia peace plan

JOE LEAHY — BEIJING
MAX SEDDON — RIGA

Vladimir Putin delivered a blistering attack on the west yesterday on the eve of his visit to China, blaming "western elites" for the war in Ukraine and outlining Beijing and Moscow's alignment in a parallel world order.

In an interview published by Chinese state news agency Xinhua the Russian president said the two autocracies had "similar or coinciding positions" on geopolitical issues. Both Russia and China advocated for "international law", Putin said, but rejected "western attempts to impose an order based on . . . some mythical rules of no one knows whose making".

Publication of the interview comes as Putin is due to arrive in China today for a two-day state visit, the Russian leader's first foreign trip since he was sworn in for a fifth presidential term last week.

The trip will include talks with China's President Xi Jinping, who has also championed a "multipolar" model of global affairs with a diminished role for the US-led west.

"Today's global shocks have been provoked precisely by [the west's] policies," Putin said of the invasion of Ukraine, which he referred to as a "dramatic manifestation [of] the crisis on the planet today".

The UN has said Moscow's invasion directly violates its charter through the unilateral use of force.

China has refused to condemn Moscow's invasion, arguing that as an independent third party to the Ukraine conflict, it should not be blamed for the war and is entitled to pursue its own relations with Russia.

Instead, it has offered a position paper warning against the use of nuclear weapons, making veiled criticism of Nato and calling for a ceasefire without demanding a Russian withdrawal.

In his interview, Putin praised the "realistic and concrete steps" in China's peace plan, which largely echoed Russia's own talking points on the war, saying they could be the "foundation of a political-diplomatic process that takes into account Russia's security concerns and helps ensure a long-term, stable peace".

The Russian president added that the "main problem" with any future talks was the reliability of any security guarantees for Ukraine and Russia in the face of what he described as western duplicity, implying a greater role for China in ending the conflict.

He did not repeat his recent veiled threats that Russia could use its nuclear arsenal to deter western support for Ukraine. Xi warned Putin personally against using nuclear weapons in Ukraine during a visit to Moscow last year.

Beijing has insisted that it is not supplying weapons to its neighbour, which western powers have repeatedly warned against. But western leaders suspect China's economic support for Russia — including its trade in engines and machine tools — is helping Moscow's war effort.

In the Xinhua interview, Putin said "Russia stands ready for negotiations" but blamed the west for the collapse of talks at the beginning of the conflict.

Asia. Nuclear checks

Hunt under way for new North Korea watchdog

Western allies seek alternative to UN sanctions monitor after Moscow ends body's future

CHRISTIAN DAVIES — SEOUL

Western countries are trying to replace a UN body that monitors compliance with international sanctions on North Korea after it was disbanded earlier this month in a blow to global nuclear non-proliferation efforts.

The eight-member panel of experts was first appointed by then UN secretary-general Ban Ki-moon in 2009 to document sanctions violations for the UN Security Council as it sought to convince North Korea to abandon its illicit nuclear weapons and ballistic missile development programmes.

But mounting tensions between western countries and North Korea allies Russia and China over the sanctions, which can be lifted only with the unanimous support of permanent Security Council members, came to a head in March when Moscow blocked an extension of the panel's mandate.

That mandate expired on April 30, resulting in the body's dissolution and hindering international efforts to restrict Pyongyang's access to foreign finance, energy and technologies.

"The sanctions remain in place on paper, but Russia's veto removes the UN Security Council's one impartial source of information on who is breaching the sanctions and how," said Maya Ungar, UN analyst at the International Crisis Group.

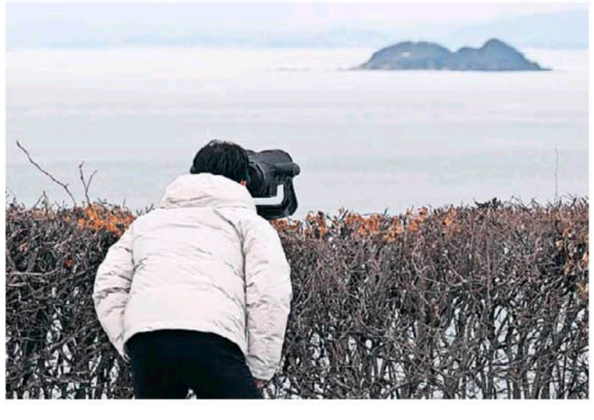
The UN Security Council introduced sanctions on North Korea in October 2006 after the country's first nuclear test. The body tightened restrictions on Pyongyang eight more times over the ensuing decade. But, as relations between the west and Russia and China deteriorated sharply in recent years, Moscow and Beijing have grown increasingly critical of the sanctions.

In March, the Financial Times reported that Russia had begun supplying oil and petroleum products to North Korea, in apparent exchange for ballistic missiles and millions of artillery shells for Moscow's war in Ukraine.

"Despite signing up to the sanctions, Russia never supported the work of the panel in any meaningful way," said Eric Penton-Voak, a former British official who served as co-ordinator of the panel between 2021 and 2023.



North Korea leader Kim Jong Un checks missile launcher vehicles at an undisclosed location on Tuesday. Below, a man looks at the North Korean coastline from the South
Korean Central News Agency; Jung Yeon-je/AFP/Getty



"But with weapons being traded and Russian oil being imported into North Korea — all of it clearly visible from satellite imagery — the panel would have become an increasingly annoying presence, so Moscow dispensed with it."

After the panel's mandate expired, US ambassador to the UN Linda Thomas-Greenfield delivered a statement on behalf of 50 countries stressing the need for ongoing monitoring efforts. "We must now consider how to continue access to this kind of objective, independent analysis in order to address [North Korea's] unlawful [weapons of mass destruction] and ballistic missile advancements," she said.

In a commentary issued after Moscow's veto, Russian foreign ministry spokesperson Maria Zakharova said the panel had become "an obedient tool of [North Korea's] geopolitical rivals".

One alternative under consideration by western countries, said Ungar, was establishing a new monitor under the auspices of the UN General Assembly, which unlike the Security Council would not be vulnerable to a Russian or Chinese veto. "But it would raise tricky legal and budgetary questions, while a lot of General Assembly members inside and outside Asia would prefer to avoid getting into a fight involving the US and China," she added.

> 'General Assembly members would prefer to avoid getting into a fight involving the US and China'

Analysts noted that any new body would face opposition from Beijing, which has been angered by western military surveillance of seaborne trade with North Korea near Chinese airspace.

This month a Chinese fighter jet dropped flares in front of an Australian helicopter patrolling the Yellow Sea to enforce the UN sanctions. Beijing has accused Canberra of using sanctions as a pretext for spying on its naval exercises.

Hugh Griffiths, a sanctions expert who served as co-ordinator of the panel between 2014 and 2019, said a monitoring mechanism would be "hugely improved" by operating outside the UN altogether. "A new panel could be better resourced and equipped and made up of professional investigators rather than diplomats and academics," said Griffiths, though he acknowledged that the authority of such a body could suffer without the UN's imprimatur.

The UN Security Council's investigations and pressure had persuaded countries including Namibia, Mozambique and Egypt to abandon co-operation with North Korea in the past, he noted.

Some analysts said that with the sanctions regime already in tatters, western countries should reconsider a strategy that has failed to halt Pyongyang's nuclear weapons programme.

Penton-Voak said western countries needed to articulate a clearer rationale for the sanctions. "Are they punitive? Are they to prevent the proliferation of North Korea's nuclear capabilities? Or are they to send a warning signal to others who might follow the same path?"

Freedom of expression

YouTube blocks Hong Kong protest anthem after court order

CHAN HO-HIM AND WILLIAM LANGLEY
HONG KONG

YouTube has blocked access to videos featuring a popular protest anthem in Hong Kong, one week after a local court granted a provisional injunction to ban the song in the territory.

The video platform said 32 variations of "Glory to Hong Kong" were now unavailable to view in Hong Kong due to the court order, adding that links to these videos would no longer show on Google searches for users in the territory.

Some other videos featuring the song were still available on YouTube in Hong Kong and the company, which voiced concerns about the chilling effect on freedom of expression, said it might appeal against the court's decision.

"We are disappointed by the court's decision but are complying with its removal order by blocking access to the listed videos for viewers in Hong Kong," YouTube said. "We'll continue to consider our options for an appeal, to promote access to information."

An appeals court in the Chinese territory last week granted a preliminary injunction sought by local officials to ban the song, which judges said could be used as a "weapon". The song, composed in 2019, became popular during pro-democracy protests that year.

Chinese foreign ministry spokesperson Wang Wenbin said yesterday it was "necessary" for Hong Kong to prevent people disseminating the song with the intention of "inciting secession and insulting our national anthem".

The court decision underlines the increasingly difficult conditions for technology companies in Hong Kong, which previously enjoyed unfettered access to the internet, as the government heightens its focus on national security following the protests in 2019.

Local officials including Paul Lam, Hong Kong's justice minister, asked Google, YouTube's parent company, to remove the content after the injunction was issued. Yesterday it was still available on iTunes and Spotify, among other platforms.

The Asia Internet Coalition, which counts X, Apple, Spotify and Meta among its members, said last week that the group was "assessing the implications" of the court injunction.

Amnesty International has described the court ban as a "senseless attack on Hongkongers' freedom of expression" and a "worrying sign" of shrinking freedoms in the territory.

The US state department said the ban was a "blow to the international reputation" of Hong Kong and would deepen concerns about the erosion of freedoms, including freedom of expression.

Authorities in Hong Kong had previously asked Google to amend its search results and rank the Chinese national anthem, "March of the Volunteers", above "Glory to Hong Kong". The requests, which Google refused, were made in the months before the government filed an injunction request to Hong Kong's court in June last year.

"Glory to Hong Kong" has been played in error at international sporting events with Hong Kong athletes, drawing the ire of local officials. The city uses "March of the Volunteers" as its anthem. *Additional reporting by Stephen Morris in San Francisco*

Voting reform

Paris calls state of emergency in New Caledonia

NIC FILDES — SYDNEY
LEILA ABBOUD — PARIS

France has declared a state of emergency in its Pacific overseas territory of New Caledonia as it seeks to quell riots sparked by plans for electoral reform.

Four people, including a police officer, have died this week in unrest across the south Pacific archipelago 1,500km east of Australia, despite the imposition of a curfew.

French President Emmanuel Macron yesterday condemned the "unacceptable violence" and called for the resumption of talks to end the crisis.

Declaring a state of emergency allows the government in Paris to restrict certain freedoms without judicial review, including banning protests, limiting travel and carrying out searches.

The unrest began when Paris pushed ahead with plans for electoral reform after years of failed negotiations over an accord to reconcile New Caledonia's pro and anti-independence camps.

France has proposed expanding the right to vote in New Caledonian elections to all citizens who have lived there for more than a decade, a change opposed by much of the indigenous Kanak population.

Provincial elections due this month were postponed to allow the French parliament to find a constitutional amendment to the voting laws, and the lower house passed a draft bill on Tuesday.

If finalised, the move would override the Nouméa Accord of 1998, which brought stability to New Caledonia in part by restricting the voting franchise to Kanaks and citizens who lived in the territory before the agreement.

> 'Without such an accord, then the Congress will meet in late June'
>
> President Emmanuel Macron

French interior minister Gérald Darmanin on Tuesday insisted Paris would not postpone the reform. "One cannot delay democracy," he told RTL radio.

But Macron opened the door to a diplomatic solution in a letter to New Caledonian leaders from the pro and anti-independence groups inviting them to Paris for talks. He offered to abandon the proposed voting change if they could agree a new definition of citizenship.

"Without such an accord, which I continue to call for and would be beneficial for all New Caledonians, then the Congress will meet in late June," he wrote, referring to the last step in the process to change the French constitution.

Tensions between residents loyal to France and Kanaks who support independence have worsened since a referendum on the issue in 2021. Those who took part overwhelmingly rejected independence but many Kanaks boycotted the vote saying the pandemic made campaigning impossible.

Denise Fisher, a former Australian consul-general in New Caledonia who is now a visiting fellow at Australian National University, said the attempt to force an agreement with a vote in the French parliament had "backfired".

She said Macron's call for calm risked inflaming the situation by including a commitment to push through the laws. "That is asking for trouble. I don't think the violence is over," she added.

City-state

Wong sworn in as Singapore prime minister

MERCEDES RUEHL — SINGAPORE

Lawrence Wong has been sworn in as Singapore's leader, as the city-state charts a new path after decades of rule by the founding Lee family.

Wong is only the fourth prime minister of the Asian financial hub. He succeeds Lee Hsien Loong, who had led the tightly governed island nation since 2004 but announced he was stepping down last month.

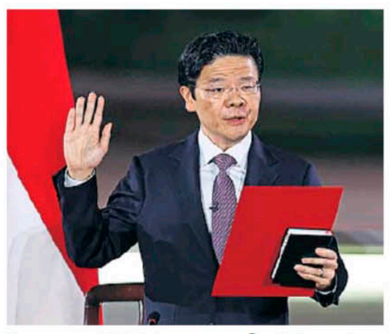
A US-trained economist who has been deputy prime minister since 2022 and who also serves as finance minister, Wong was sworn in yesterday at the presidential palace, completing the rare political transition.

Speaking afterwards, Wong warned that Singapore was grappling with a "dangerous and troubled world". The city-state had enjoyed 30 years of peace in Asia-Pacific since the end of the cold war but that "era is over", he said.

As a small country with an open economy, Singapore would be affected by international conflict and rivalry, "marked by geopolitical tensions, protectionism and rampant nationalism", Wong said in an often downbeat speech.

His succession was carefully choreographed by the People's Action party, which has governed Singapore continuously since 1959. Lee, who oversaw 20 years of economic success for the city-state, will stay on as a senior minister.

Wong called the moment a "significant milestone". "I am the first prime minister of Singapore to be born after independence [in 1965]," he said, adding that he and other so-called fourth-generation politicians would differ from their predecessors. "We will lead in our own way. We will continue to think boldly and think far. We know that there is still much more to do," he said.



Lawrence Wong: warned a 30-year era of peace in the region was over

On the domestic front, Wong and his team face increasing pressures over deepening inequality, higher living costs and local unhappiness over foreign workers, including expatriates.

Record capital inflows from greater China as well as countries such as India and the US since the pandemic have raised living costs and house prices.

A busy financial hub and trading centre of just 6mn people, Singapore is deeply reliant on overseas workers, from labourers to top-tier bankers. But the government has increasingly placed restrictions on businesses seeking to employ foreign talent in order to prioritise the local labour force.

Singapore, which has friendly relations with both the US and China, is also navigating a more febrile geopolitical backdrop in the Asia-Pacific region as a result of the superpowers' rivalry. Wong said Singapore was "not here to find a balance" between Washington and Beijing. "We have to be guided by what is in Singapore's national interest," he said.

Climate change Calpers to spend $25bn on real estate, private equity and infrastructure in green private investments PAGE 11

Companies & Markets

OpenAI's chief scientist leaves months after abortive coup

- Sutskever joined bid to oust Altman
- Co-founder helped hone ChatGPT

GEORGE HAMMOND — SAN FRANCISCO

OpenAI's co-founder and chief scientist Ilya Sutskever has left the artificial intelligence start-up six months after moving against its chief executive Sam Altman in a shock coup that ultimately proved unsuccessful.

"After almost a decade, I have made the decision to leave OpenAI," Sutskever wrote in a post on social media site X. "The company's trajectory has been nothing short of miraculous, and I'm confident that OpenAI will build AGI [artificial general intelligence] that is both safe and beneficial."

The San Francisco start-up has a valuation of more than $80bn, thanks to some extent to a partnership with Microsoft. Both OpenAI and Google — its chief competitor in AI — released cutting-edge updates to their models this week, which have pushed the frontier of the technology.

> 'This is very sad to me; [he] is easily one of the greatest minds of our generation, a guiding light of our field'

Sutskever is regarded as one of the leading researchers in deep learning and artificial intelligence, and a key factor in OpenAI's early dominance in the nascent field of generative AI, the development of tools that can generate multimedia responses to human queries.

Hours after the announcement late on Tuesday, Jan Leike, another senior researcher at OpenAI, wrote on X: "I resigned". He had worked closely with Sutskever on "alignment" — ensuring that AI systems act in the human interest if and when they surpass human-level intelligence. OpenAI did not confirm the departure of Leike.

Sutskever was one of the chief protagonists in an abortive coup in November in which he joined other members of the OpenAI board to oust Altman as chief executive and remove fellow co-founder Greg Brockman from the board.

The move against Altman came after a breakdown in trust between the company's leader and its board — a not-for-profit body with a mandate to ensure AI is developed in such a way that it "benefits all of humanity".

When company employees and investors rallied to Altman's side, Sutskever and others on the board reversed course, reinstating Altman as chief executive just four days after removing him. A subsequent review found Altman's sacking had been unwarranted.

"I deeply regret my participation in the board's actions," Sutskever wrote at the time. "I never intended to harm OpenAI. I love everything we've built together and I will do everything I can to reunite the company."

The chief scientist, a prominent figure within the company who was instrumental in the development of its ChatGPT chatbot and whose remit included ensuring AI tools were developed safely, has since stayed out of the public eye.

When OpenAI announced updates to its model on Monday, Sutskever was absent from the spotlight.

In announcing the departure on X, Altman described Sutskever as a "genuinely remarkable genius". "This is very sad to me; Ilya is easily one of the greatest minds of our generation, a guiding light of our field, and a dear friend . . . OpenAI would not be what it is without him," he wrote.

Jakub Pachocki will replace his former mentor Sutskever as chief scientist. Sutskever hinted he would launch a new project, without giving details.

Additional reporting by Cristina Criddle in London

On the move Citigroup executive responsible for implementing thousands of job cuts quits



The loss of Titi Cole will deprive the bank of one of the most senior Black women in finance — Meg Oliphant/Getty Images

STEPHEN GANDEL — NEW YORK

The Citigroup executive in charge of implementing the bank's sweeping restructuring plan has quit for a job at a non-profit firm, depriving the bank of one of the most senior Black women in finance.

Titi Cole's exit, after four years at the bank, comes a month after Citi said it had completed the core of a reorganisation that chief executive Jane Fraser unveiled in September.

Fraser, in an internal memo, also announced that Mike Whitaker, who leads the operations and technology teams, was leaving the bank. At the same time it is hiring Tim Ryan, the outgoing US head of PwC, as the new head of its technology and legacy franchises teams.

Ryan had been the favourite to become the global chair of the Big Four accounting firm, but bowed out of the race late last year after encountering opposition and had previously said he planned to retire at the end of June. PwC brought forward the US leadership transition, saying on Tuesday that Paul Griggs would become US senior partner immediately.

Cole is leaving with Citi well short of its goal of eliminating 20,000 jobs — roughly 10 per cent of its staff — by the end of next year. The bank said last month that it had told 7,000 employees that their jobs were going. It has said some of the remaining cuts would come from automation over time.

Investors have cheered the restructuring, which reoriented the bank around its five business lines, after years of lacklustre share price performance. Its stock has climbed about 50 per cent since September.

Inside the bank the verdict on the restructuring has been more mixed, as the thousands of lay-offs have unsettled employees.

First-quarter earnings were better than expected despite the disquiet, with fees from investment banking rising more than at rivals, though profits were still down about 25 per cent on the first quarter of last year.

Fraser has said the new structure has improved efficiency by eliminating a layer of upper management and support teams. But it has also created a new operating unit within the bank — Citi's client division — which has sucked up thousands of employees.

Cole's exit also removes one of the most senior women besides Fraser, after the chief executive appointed five men to head the new divisions. Cole joined Citi four years ago from Wells Fargo, where she had helped to revive the US-focused bank's consumer unit after multiple scandals.

A person familiar with the circumstances of Cole's departure said it was unrelated to the restructuring.

Additional reporting by Stephen Foley in New York

Google calls on AI to shield users from mobile thefts

STEPHANIE STACEY — LONDON

Google said it would use artificial intelligence to detect when Android smartphones have been snatched and lock the screen, as technology groups seek to protect sensitive data amid reports of rising mobile phone theft.

The Silicon Valley giant yesterday unveiled its new "theft prevention lock", powered by Google AI, which will be activated if the device detects "a common motion associated with theft" — such as if a thief takes a phone from an owner's hand and attempts to run, cycle, or drive away with it.

The measure is part of Google's efforts to reduce phone theft aimed at profiting from the sensitive financial information and personal data stored on mobile devices, as well as the value of the physical handset. The feature will be rolled out later this year to devices running later Android operating systems.

British police are dealing with the most "theft from the person" offences in 20 years, according to the latest official figures for England and Wales. Incidents of the crime — in which items are taken from people without the threat or use of violence, often through pickpocketing or snatching — rose 18 per cent in 2023. One in three items stolen in this manner is a mobile phone, according to data from the national Crime Survey.

Apple rolled out its own antitheft features in its Stolen Device Protection update this year. The update to iOS was designed to stop thieves from making critical security changes, such as accessing stored passwords and credit cards and changing an Apple ID. The feature works even if a passcode is stolen, as it calls for added security if a user's iPhone is in an unfamiliar location.

Apple's additional measures include requiring biometric authentication — with no fallback passcode option — and, in some cases, an hour-long time lag for important security actions. Google's latest upgrades also include more layers of security before allowing users to change sensitive settings, reset a device, and disable location tracking.

The company said requiring device or Google account credentials to reset a mobile phone after a factory reset would make a stolen phone "unsellable" and put off criminals. The new measures also include a designated "private space" — locked with a separate PIN — to offer extra protection for apps containing sensitive personal data.

Germany still has a long way to go fixing corporate governance

INSIDE BUSINESS
EUROPE
Olaf Storbeck



A US company is spurring a profound change in the way Deutschland AG works. For decades, Germany's top managers have trodden a familiar path from chief executive to chair at the same company.

The progression has underlined the consensual approach to management among German companies, prioritising continuity over fresh thinking in corporate culture.

Current examples include Norbert Reithofer at BMW, Michael Diekmann at Allianz, Kurt Bock at BASF and Nikolaus von Bomhard at Munich Re. Volkswagen chair Hans Dieter Pötsch and Karl-Ludwig Kley at Lufthansa also previously served as chief financial officer at their respective companies.

But things are changing. Since 2009, German law has stipulated there must be a two-year cooling off period between such job moves.

Then in December 2021, the Institutional Shareholder Service — one of the leading global firms that advise investors how to vote on corporate governance issues — announced that it would not back any former chief executive who aspired to become or remain chair of the same company.

While in effect since early 2022, the new ISS policy started to cause a stir this year as the proxy adviser recommended voting against the re-election of BASF's Bock and Munich Re's von Bomhard.

Despite protest votes at annual meetings, both won re-election because voting out a sitting chair seemed too much for most shareholders who feared that the lack of any obvious successor could do more harm than good.

Nevertheless, the re-elections signalled it is becoming harder to make the step from chief executive to chair. Few managers will be willing to see through the two-year cooling off period to then face significant uncertainty over winning enough shareholder votes.

This has the potential to change German boardrooms. Critics have long argued moving chief executives to the chair role contributed to groupthink and a general dislike of change that has undermined the ability of companies to adjust to trends.

> Critics have long argued moving chief executives to the chair role contributed to groupthink and a general dislike of change

Chairs are also often called on to sort out managements' past strategic mistakes. If they have personally been responsible for those decisions as CEO, they may be inclined to defend their personal legacy.

The new ISS policy aims to make German supervisory boards more independent and effective. But to achieve that, more than market pressure might be needed given the long-standing flaws in German corporate governance. Some shortcomings require the intervention of lawmakers and changes to German corporate and securities laws.

Take the fundamental competencies of supervisory boards. Under the country's two-tier boardroom structure, their role is to oversee the executive board which is solely in charge of day-to-day business. But apart from hiring and firing top management, and setting their pay, supervisory boards' power is limited. They cannot give orders to executives, and usually do not directly liaise with employees who are working below the management board.

Just as important as independent and powerful boards are effective checks and balances by external shareholders. And here, some shareholders complain German law falls well short of international best practice.

It is very difficult for outside investors to take legal action over potential violations of fiduciary duties by executives and supervisory boards.

"Shareholders in Germany have no reasonable way to stop decisions that blatantly violate their interests," says Thomas Schweppe, who runs Frankfurt-based boutique shareholder advisory firm 7 Square.

The built-in flaws and gaps in governance can easily be exploited by managements with bad intentions, as the Wirecard scandal shows.

But for now, there seems little political interest in beefing up the rights of supervisory boards or shareholders. On the contrary, the German parliament is actually discussing whether to make it harder for shareholders to challenge potentially flawed decisions taken at annual meetings in court — a move that some shareholders believe could undermine their rights even further.

Given much of Deutschland AG — particularly in the industrial sector — is facing significant challenges ranging from competition from China to navigating the green transition, it is not hard to make a case that raising shareholder confidence in companies through better corporate governance should be higher on Berlin's agenda.

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Mining

Glencore hails South Africa's potential

Boss lauds tax regime and defends sector in wake of BHP's move for Anglo

TOM WILSON AND HARRY DEMPSEY
LONDON

Glencore chief executive Gary Nagle issued a robust defence of South Africa's mining sector as speculation continued that the Swiss commodity house could yet mount a rival bid for all or part of Anglo American.

Nagle praised the tax regime and said infrastructure and power problems in the country were manageable.

He told a conference in Miami: "We have seen changes in royalties across the board except for South Africa. They have not touched royalties and taxes. Yes, it has issues on infrastructure and power, but the industry can work together to deal with that."

There had been "strong improvements" at state-owned rail operator Transnet. "We think Transnet will go to a public-private partnership and will continue to improve."

The comments came after Anglo announced that it would break itself up to thwart a £34bn bid by Australian rival BHP.

Mining has long been a bedrock of the South African economy, but in more recent years the sector has struggled, beset by electricity outages, crumbling infrastructure and labour disputes.

Several foreign mining companies have reduced or exited South African operations, and BHP's offer — including improved terms on Monday — excludes Anglo's iron ore and platinum businesses in the country.

BHP, which demerged its own South African operations in 2015, has said that the deal structure does not reflect a negative view of the country as an investment destination. The South African government, however, has criticised the decision to exclude the country's assets.

Glencore has extensive operations in the country. Nagle is a South African national who rose through Glencore's South African coal business, as is former chief executive Ivan Glasenberg, who remains the group's biggest investor.

Those connections and other potential synergies between parts of Glencore and Anglo have led some investors to suggest Glencore would be a better potential buyer than BHP.

Glencore has not commented on whether it is considering an approach. It is the most naturally acquisitive of the mining majors, having been built by Glasenberg, who favoured buying existing assets over developing new mines.

Mining analysts at Berenberg wrote that they expected Glencore to make a move. "We would also expect, at some point, Glencore to show its hand and likely submit its own proposal to merge with Anglo American."

In South Africa, it is unlikely Glencore would want to acquire Anglo's platinum operations. Glencore does not produce the metal, and when it merged with Xstrata in 2013, it inherited a stake in South African platinum producer Lonmin, which it later sold.

In contrast, Anglo's South African iron ore business, Kumba, would be attractive to Glencore, shareholders and analysts have said.

Glencore does not produce iron ore but trades about 100mn tons a year and is keen to grow. "It's a great business that provides value for customers," Nagle said.

Banks

US Treasury threatens Raiffeisen over Russia unit

CHRIS COOK — LONDON
MAX SEDDON — RIGA

Washington has warned Raiffeisen Bank International the lender is at risk of having its access to the US financial system curtailed because of its operations in Russia, according to a person with direct knowledge of the correspondence.

Washington could invoke national security grounds against the Austrian bank, according to a letter from deputy US Treasury secretary Wally Adeyemo dated May 6.

The warning mentioned an executive order issued by the White House in December 2023, authorising secondary sanctions on foreign financial institutions conducting transactions involving Russia's military-industrial base.

The letter underlines the concerns that have led the lender to fall into the crosshairs of the US administration. Among western banks, Raiffeisen has the largest operations in Russia. Its Russian unit paid more than €400mn in taxes to the Kremlin last year, according to aFinancial Times investigation.

The US Treasury warning, first reported by Reuters, explicitly raised concerns about plans for an asset-swap plan, which Raiffeisen Bank abandoned two days later.

The transaction would have entailed the bank trading some of its assets stranded inside Russia for a stake in Strabag, the Austrian construction company owned by Russian oligarch Oleg Deripaska. The founder of leading aluminium producer Rusal and its parent energy company En+ has been on the US sanctions list since 2018.

Raiffeisen had previously said the deal was compliant with EU and US sanctions regimes because it was transacting with Russian companies that were not connected to Deripaska and that it had not dealt with him to buy a stake in Strabag.

The letter stated that the swap deal would expose the bank to substantial sanctions risk, as a result of the involvement of sanctioned people, the person with knowledge of its content said.

When the asset swap was abandoned, the Vienna-based bank said: "In recent exchanges with the relevant authorities, RBI has been unable to obtain the required comfort in order to proceed with the proposed transaction".

The US sanctioned one Russian individual and three Russia-based companies on Tuesday on the ground that they had co-ordinated with Deripaska over "an attempted sanctions evasion scheme" to unfreeze $1.5bn of shares belonging to the oligarch.

According to aUS Treasury statement, which did not mention Raiffeisen directly, Deripaska co-ordinated with Dmitry Beloglazov, the owner of financial services firm Titul, to sell Deripaska's frozen shares in June last year. Titul then acquired Deripaska's frozen shares through two other holding companies, Iliadis and Rasperia.

Those two Russia-based companies also set up another firm, Atmosphere, in Ust-Labinsk, Deripaska's home town, earlier this year. Atmosphere director Igor Khokhlov, and Ksenia Potapova, a director of Titul and Iliadis, did not respond to requests for comment. A spokesperson for Deripaska did not respond to a request for comment.

Raiffeisen said it had "significantly reduced" activities in Russia and taken broad measures to mitigate the risks from sanctions. The bank "will continue to work towards the de-consolidation of its Russian subsidiary".

Pharmaceuticals

Novo Nordisk weight-loss drugs on trial for alcohol use

IAN JOHNSTON — LONDON
OLIVER BARNES — NEW YORK

Novo Nordisk is trialling its weight-loss drugs to explore if they can reduce alcohol intake and treat alcoholic liver disease, as it seeks to expand the uses of the blockbuster treatments.

The Danish pharmaceutical company has started recruitment for a mid-stage trial looking at whether an estimated 240 patients using semaglutide, the active ingredient in Wegovy, and cagrilintide, an ingredient in another Novo Nordisk drug in development for weight loss, can treat liver damage and reduce alcohol use in participants with alcoholic liver disease.

Novo Nordisk is already assessing semaglutide's effects in liver disease linked to obesity — metabolic dysfunction-associated steatohepatitis — but this is the first study to assess the effectiveness of the weight-loss treatments on alcoholic liver disease.

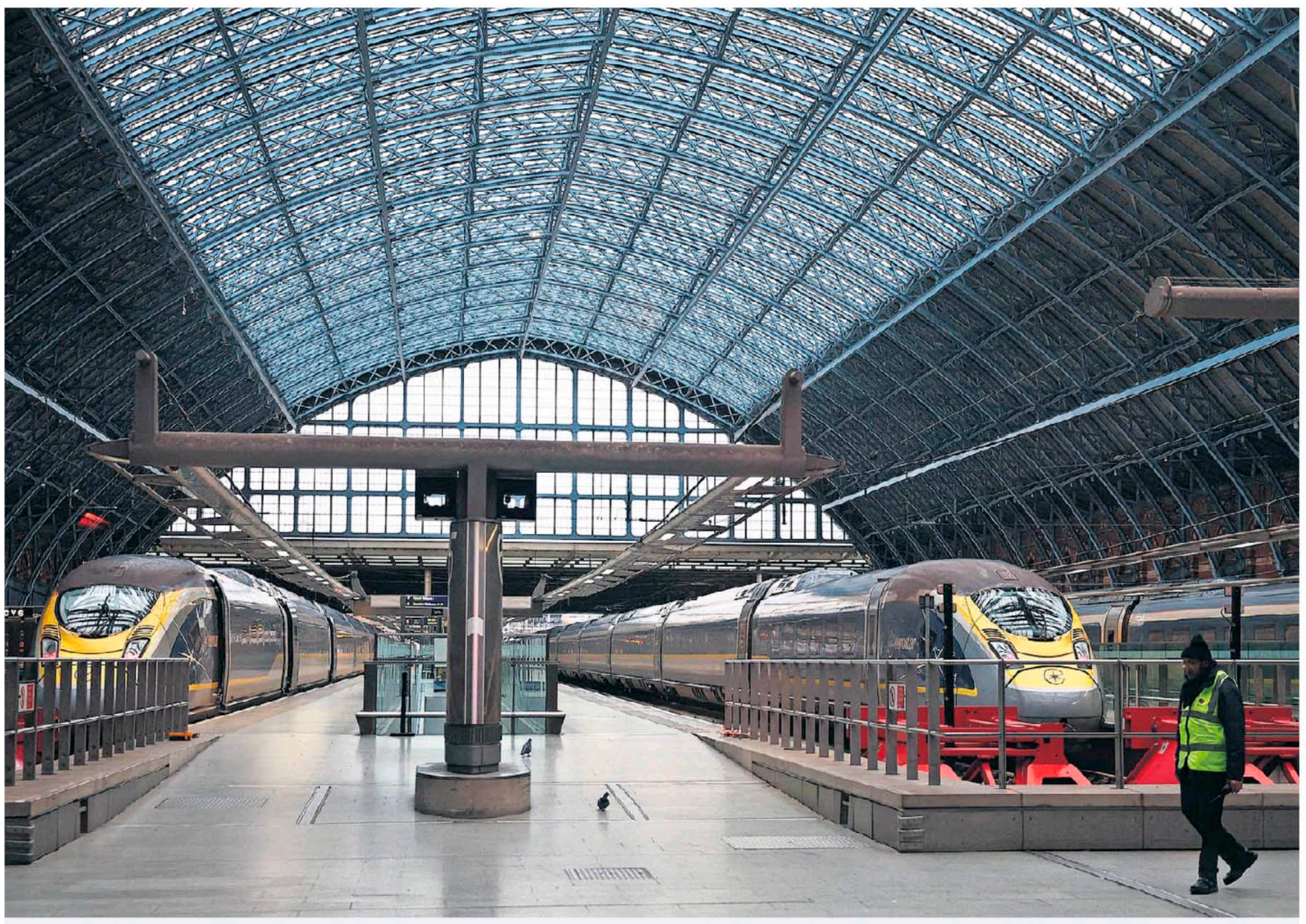
The phase-two trial, set to finish in June 2025, opens up the possibility of offering a treatment for a disease with few options. Treatments for alcoholic liver disease have remained largely unchanged for decades, and rely heavily on abstinence, nutrition therapy and steroids. The trial, first reported by Bloomberg, was posted on the Clinicaltrials.gov database last week.

The drug has shown health benefits beyond weight loss. A trial in November showed that it could reduce the risk of death in patients with cardiovascular disease by 18 per cent. Analysis of this data on Tuesday showed users of the drug could sustain weight loss over four years and gain cardiovascular benefits regardless of their weight. Novo Nordisk is also exploring the benefits of semaglutide in Alzheimer's disease.

The company is relying on expanding the use cases for its drugs to convince health systems to adopt them more broadly. In the US, the Food and Drug Administration approved Wegovy for use to lower the risk of heart disease in March, enabling it to be covered by Medicare Part D plans, which provide coverage for more than 50mn people.

However, health systems in Europe are struggling to afford the drug. The UK has limited its use to two years, and Denmark, where Novo Nordisk is based, only provides the drug privately.

Novo Nordisk declined to comment.



Eurostar to expand fleet and consider more routes

Growth engine: the train operator expects London's St Pancras station to be redesigned in the coming years, making more space for additional services to the continent — Henry Nicholls/AFP via Getty Images

Eurostar plans to buy up to 50 new trains and is considering launching more international routes from London to take advantage of "huge demand" for rail travel across Europe.

Gwendoline Cazenave, the train operator's chief executive, said the company was in "a race" to increase capacity and that this would require more space at some key stations.

"There is huge demand for our services," she said.

Eurostar merged with Thalys, a train company serving France, Belgium, the Netherlands and Germany, to form Eurostar Group in 2022. It is one of Europe's biggest high-speed rail operators.

The enlarged company is in talks with train manufacturers for an order for up to 50 new trains, Cazenave said, adding that these would replace older rolling stock and increase the size of the fleet from 51 trains.

Cazenave said Eurostar was "definitely" considering opening new routes from London to the Continent, adding to its services between London, Paris, Amsterdam and Brussels.

"With a new fleet we will study new routes, new European routes . . . I think by the end of the year or early 2025 we will be able to say more."

Eurostar's cross-channel service was having problems getting passengers through some of its stations, including St Pancras in London, largely because of passport checks that were introduced in 2021 after Brexit.

But Cazenave said these problems have been resolved, with average queueing times back to pre-Brexit levels, thanks to new passport gates and governments providing more border control officers.

Eurostar's terminal in Amsterdam is being expanded, while Cazenave said she expected St Pancras and Paris Gare du Nord to be redesigned to make more space over the next five years.

Still, Eurostar faces a potential problem arising from EU biometric border checks due to be introduced this year. Cazenave said she was confident passengers would not face big queues, and that the owners of St Pancras planned to redesign parts of the station to make more space for passengers going through the checks.

Eurostar also faces potential competition on the cross-channel route. The operator of the Channel Tunnel said this month that five companies — including Virgin Group, a consortium backed by the largest shareholders in Mobico, formerly known as National Express, and Dutch start-up Heuro — were "seriously" interested in launching train services between the UK and the continent. About 400 trains a day use the tunnel, which has capacity for 1,000.

During the pandemic, Eurostar was forced to shrink to avert bankruptcy and stopped using two stations — Ebbsfleet and Ashford — in south-east England.

Cazenave said that while Eurostar had no plans to reopen these stations, it is focusing on growth following a strong performance in 2023. Passenger numbers rose from 14.8mn in 2022 to just under 19mn last year, driving a 26 per cent rise in revenues to €2bn. Earnings before interest, tax, depreciation and amortisation rose 8 per cent to €423mn.

The company has reorganised and cut its debt from €964mn to €650mn over the past year. *Philip Georgiadis*

Banks

UBS chief attacks Credit Suisse oversight

OWEN WALKER
EUROPEAN BANKING CORRESPONDENT

UBS chief executive Sergio Ermotti has lambasted Swiss authorities for allowing Credit Suisse to fail, as his bank fights back against growing calls within the country to increase its capital requirements.

Ermotti, who was brought back to UBS just days after its state-orchestrated rescue of Credit Suisse last March, criticised the oversight of the fallen bank.

"It's especially confusing, if not extraordinary, to see many of the people who were in charge over the years saying they did everything correctly in relation to the management and supervision of Credit Suisse," he said at the University of Zurich yesterday.

"Everyone who was involved needs to critically analyse the role they played and face up to their responsibilities. It takes courage to own up to shortcomings. But we must learn from past mistakes."

His salvo comes a day after Stefan Walter, the new head of Finma, the Swiss financial regulator with supervisory responsibility for banks, said he supported rules proposed by the finance ministry that could significantly increase UBS's capital requirements. Analysts have predicted that the rule change could lead to between $15bn and $25bn of additional capital for UBS.

"Fourteen months after the Credit Suisse rescue, we are in the midst of an intense and often superficial debate over whether UBS is too big for Switzerland," Ermotti said yesterday.

"To be honest, it's quite surprising how quickly UBS went from being perceived as a saviour to a potential future problem for the country."

A report published by the finance ministry last month included a proposal that banks with international businesses should be forced to hold higher amounts of capital.

Ermotti told analysts at the bank's first-quarter results last week UBS had not been consulted on the proposals, even though as the country's most global lender, it would be hit the hardest.

While the report did not contain any details about the requirements — they are not due to be put to the Swiss parliament until next year — finance minister Karin Keller-Sutter has indicated that analyst estimates of $15bn and $25bn of additional capital are "plausible".

On Tuesday, Walter told a banking conference in Switzerland that he supported UBS increasing its capital on foreign subsidiaries.

"The more difficult it is to resolve a bank, the higher the precautionary capital buffers need to be," he said.

IMF managing director Kristalina Georgieva told Swiss media outlet SFR this week that the agency had concerns about supervision of the Swiss finance industry in 2019 and she expected other countries to follow Switzerland and propose raising the capital requirements.

Financials

Vanguard picks outsider Ramji for CEO role

BROOKE MASTERS — NEW YORK

Vanguard has chosen Salim Ramji, a former executive at BlackRock, to be its fifth chief executive, making him the first outsider to head the $9tn money manager.

Ramji will replace Tim Buckley, who said in March that he planned to retire after six years as chief executive of Vanguard, which pioneered passive investing under its late founder John Bogle. The Pennsylvania-based firm is the second-largest money manager behind BlackRock.

A former McKinsey partner, Ramji joined BlackRock a decade ago to head strategy. He rose to lead its iShares and exchange traded funds business during a period of growth. During his tenure, BlackRock launched its first spot bitcoin ETF as well as a suite of bond products.

Ramji was seen as one of BlackRock's rising stars until he announced his resignation in January as part of a reorganisation. At the time, people close to him said he would probably seek to run a firm of his own, given that BlackRock founder Larry Fink showed no sign of slowing down.

BlackRock congratulated Ramji on his appointment, saying it was "proud to have a track record of our firm's alumni going on to lead multiple investment management companies and financial institutions".

Mark Loughridge, Vanguard's lead independent director, described Ramji as an "exceptional leader" who would help the firm, which is owned by its investors, explore growth opportunities in wealth management and the greater use of technology.



Former BlackRock executive Salim Ramji will start his new job in July

Buckley plans to step down as chair and CEO, with Loughridge to become chair.

Ramji, who began his career as a lawyer with Clifford Chance in London and Hong Kong, said: "It's an honour to join Vanguard . . . The current investor landscape is changing, and that presents opportunities for Vanguard to further its mission of giving people the best chance for investment success."

He starts in July.

Vanguard also said that president and chief investment officer Greg Davis, who had been seen as a leading internal candidate to be chief executive, would join the firm's board of directors and expand his responsibilities for regulatory and government affairs.

Calpers to pour $25bn into green investments

US pension fund looks to private equity, real estate and infrastructure markets in effort to expand low-carbon portfolio

JOSEPHINE CUMBO AND ATTRACTA MOONEY

Calpers, the biggest public pension plan in the US, is to pour more than $25bn into green-related private market investments in one of the largest commitments by a major fund to unlisted climate assets.

The pension group was examining the private equity, real estate and infrastructure markets, particularly in Asia and Europe, as it looks to deploy the capital over the next six years, a senior executive told the Financial Times.

"Those are the ones [private market assets] that have very evident climate investment opportunities," said Peter Cashion, Calpers' managing investment director, sustainable investments.

The comments are the first time Calpers has publicly revealed how it plans to spend an extra $53bn it committed last November to an expanded low-carbon assets portfolio. The new goal would take the total portfolio to $100bn by 2030, or more than double the initial $47bn in funds.

"We're expecting [private markets will] represent more than half of the $53bn," he added. "It's pretty significant."

The allocation will propel the $483bn fund to become one of the world's largest investors in so-called climate solutions, in spite of the political pushback against environmental, social and governance-based investing in the US.

"The reason we have conviction around it, we're really doing this [is] to generate alpha and outperformance, because we see the investment opportunity set from this really fundamental change in the economy," said Cashion. "At the same time, it'll have a side benefit of having a portfolio that has a lower carbon intensity."

California is distinct for having set out a framework aimed at using the state's big public pension plans, including Calpers, to drive investments in sustainable technologies and other green assets.



Wind of change: Calpers is planning to build out its investments in renewable infrastructure and look at private equity investments in companies that supported the shift to clean energy, such as those servicing wind turbines
Sean Gallup/Getty Images

Calpers' green investment push comes as the issue of how to pay for a shift to a cleaner economy dominates global discussions about climate change.

Almost 200 countries agreed to transition away from fossil fuels at the UN COP28 climate summit in Dubai in December, leaving governments with already stretched budgets scrambling to drive investments to green solutions.

A report last year from the Climate Policy Initiative found that climate finance globally would need to increase to about $9tn a year by 2030, up from $1.3tn in 2021-2022, to meet the Paris accord, under which countries agreed to limit the long-term global temperature rise. Investments from pension funds and the private sector are expected to play a crucial role.

In real estate, Cashion said he saw opportunities in so-called green buildings. "The measurement for what qualifies in your real estate portfolio as green is becoming easier," he said.

Calpers would build out its investments in renewable infrastructure, he said, as well as looking at private equity investments in companies that supported the shift to clean energy, citing those servicing wind turbines or developing software to make solar panels more efficient as examples.

"[Renewables are] already an area where we're very active and we'll continue to do that and build out that portfolio," he said.

In terms of where the climate money would be deployed, Cashion said his "expectation is that Asia and Europe will present significant opportunities", with a particular focus on emerging markets.

Cashion, who was in Europe to meet other pension funds, said that with the rise in global greenhouse gas emissions now coming from non-western nations, "the opportunity set in emerging markets will be huge".

But he added that the emerging market countries where Calpers could operate at scale was a "pretty small number" and would be driven by where the asset managers it used saw the best opportunities.

The Biden administration has tried to make the US more attractive for climate investors with tax incentives, through the Inflation Reduction Act. But Cashion said its investment criteria were global.

> '[Renewables are] already an area where we're very active and we'll continue to build out that portfolio'

"The IRA has been has been excellent and has increased [investment] opportunities for us," he said. "But we'll be driven by where we see the opportunities."

As well as working with its existing asset managers, Calpers would look to work with "specialised, smaller managers who may well have access to deals that the bigger players do not".

Further details of the climate plan come two months after Calpers approved plans to increase its overall allocation to private markets from 33 per cent of plan assets to 40 per cent.

A spokesperson for Calpers said this increased allocation, approved by the Calpers Board of Administration in March, would not be measured on the same timeline as the $100bn climate plan, which is linked to 2030. No further details on investments from the wider private markets drive were disclosed.

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Royal Mail owner minded to back bid

IDS requires safeguards as Czech magnate raises offer for a £5bn valuation

IVAN LEVINGSTON, ARASH MASSOUDI, JIM PICKARD AND OLIVER TELLING

The owner of Royal Mail said it would recommend a £5bn takeover bid from Czech billionaire Daniel Křetínský, as long as conditions safeguarding the group's future are met.

International Distribution Services, the owner of Royal Mail, said yesterday that Křetínský's EP Group had raised its bid to 370p a share from 320p, which IDS rejected last month. Including debt, the new offer values London-listed IDS at £5bn, up from £4.5bn in the first bid. IDS also owns the fast-growing Netherlands-based parcels business GLS.

"The board is minded to recommend this offer price, which it considers to be fair," said Keith Williams, chair of IDS, adding that EP Group had agreed to several undertakings that "recognise Royal Mail's status as a key part of national infrastructure".

The undertakings include continuing six-day-a-week delivery of first-class letters and keeping the group's headquarters and tax residency in the UK. EP Group also committed to recognising existing unions. IDS's shares rose 16 per cent to 314.8p yesterday.

The shares have slid over the past three years as Royal Mail faces challenges relating to the cost of its UK-wide delivery service and a steep drop in letter volumes.

The universal service obligation forces the group to deliver items everywhere in the UK for the same price, including letters, six days a week.

"Our priority is to ensure that Royal Mail customers get the service they deserve, including six days a week deliveries and a guaranteed standardised price for post throughout the UK . . . regardless of the owner," the government said yesterday.

Williams said: "Despite four years of asking, the government has not seen fit to engage in reform of the universal service."

The Labour party — which polls suggest will win the general election that has to be held by the end of January — has written to Křetínský, calling for safeguards if the deal goes ahead. Jonathan Reynolds, shadow business secretary, demanded pledges that Royal Mail remain domiciled in the UK and pay tax in the country, and work closely with the Communication Workers Union, among other issues.

"Whilst it's important that Britain remains open and attractive to foreign investment, Royal Mail is an iconic British institution with a unique place in our society and infrastructure," he said.

In 2022, the government called off a probe under national security rules into Křetínský's plans to increase his stake in Royal Mail to more than 25 per cent, suggesting he was not seen as high-risk.

Křetínský, a lawyer-turned-energy tycoon, is the largest shareholder in IDS, with a 27.5 per cent stake. His other UK investments include stakes in J Sainsbury and West Ham United.

EP Group has until May 29 to make a firm offer for IDS under UK takeover rules. A successful takeover would risk inflaming the tensions with postal workers. Dave Ward, secretary-general of the CWU, said yesterday that the union would not allow anyone to "run letter deliveries into the ground".

Technology

AI assistant start-up gains near $500mn valuation

STEPHANIE STACEY — LONDON

London-based PolyAI has secured a valuation of close to $500mn from new investors including chipmaking group Nvidia, in the latest successful fundraise by an artificial intelligence start-up based in the UK.

The company, which produces AI voice assistants for call centres, said it had closed a new $50mn funding round led by Hedosophia, a group run by investor Ian Osborne, and NVentures, the venture capital arm of Silicon Valley heavyweight Nvidia.

There was participation from existing investors in PolyAI, including Khosla Ventures, an early backer of OpenAI, and Steve Cohen's Point72 Ventures.

The investment is another boost for the UK's ambitions of becoming a hub for AI research and development, the country so far having failed to grow and retain many of its most promising companies in the sector.

Last week, self-driving car start-up Wayve raised $1bn from investors including Japan's SoftBank, in Europe's largest AI deal to date.

PolyAI chief executive and co-founder Nikola Mrkšić, who previously worked on Apple's Siri voice assistant, said the company's technology would address call centre worker shortages with customer support AI assistants that were able conversationally to guide customers through complex inquiries.

"We want to make people fall in love with voice assistants, because [calling] is still the main way people interact with businesses," said Mrkšić. "It's been very sticky and has stayed past a digital transformation elsewhere."

Mrkšić founded PolyAI in 2017 with Tsung-Hsien Wen and Pei-Hao Su, who he met at Cambridge university's Dialogue Systems Group, part of the institution's Machine Intelligence Lab.

The start-up uses its proprietary large language model as well as tech from ChatGPT maker OpenAI. It said that it worked with linguists to build voice assistants that reflected speech patterns.

PolyAI made more than $10mn in revenue in 2023 and was on course to triple that figure this year, according to a person familiar with company finances.



Burberry blow

Profits hit by luxury sector slowdown

Off the pace: a Burberry store in London. The company said pre-tax profits fell to £383mn, but insisted that progress had been made on 'refocusing its brand'
Peter Nicholls/ Reuters

Burberry has warned that trading will remain "challenging" after slowing demand for luxury goods hit its full-year profits.

The group, best known for its trenchcoats, said pre-tax profits in the year to the end of March tumbled to £383mn, from £634mn a year earlier. Revenues fell 4 per cent to £2.9bn.

Chief executive Jonathan Akeroyd, who has been in the job for two years, acknowledged that the group had underperformed its expectations but insisted progress had been made "refocusing its brand".

Burberry remained confident in putting "Britishness" at the heart of the brand and trying to take it more upmarket, he added.

But it is trying to do so in the face of a much tougher luxury market as the industry's post-pandemic boom ends. Burberry warned in January that its profits would miss expectations.

Luca Solca, an analyst at Bernstein, said Burberry was "finding it tough to execute its brand development plan against a backdrop of moderating consumer demand".

The results underlined that Asian and US markets remained grim for the group. Overall like-for-like sales in the fourth quarter dropped 12 per cent year on year. Sluggish sales in the US reflected a wider industry slowdown including among the very wealthy, not just the pullback from aspirational shoppers "that we saw perhaps just over 12 months ago", Akeroyd said.

Meanwhile, sales in mainland China increased 2 per cent in the year but fell 19 per cent in the fourth quarter.

"China is clearly a very important market for us," Akeroyd said, with Asia-Pacific typically accounting for more than 40 per cent of sales. "One of the biggest areas of concern for us is [that] the malls are very quiet. We've seen a significant reduction in traffic into most of the malls that we're working with. I don't think this is exclusive to us."

Shares in Burberry were down 5.6 per cent yesterday.

Akeroyd, who has been working with creative director Daniel Lee to widen the appeal of the brand, is targeting sales of £5bn in the long term by selling more higher-margin leather goods, shoes and accessories, such as its Rocking Horse handbags, which can cost £1,890.

He insisted that prices "were balanced" across categories despite some increases, and they were not a deterrent for shoppers. Outerwear and scarves sold well during the year, but men's and women's ready-to-wear fashion declined by a mid-single-digit percentage.

The retailer said it expected currency headwinds to hit revenues by £30mn this year and adjusted operating profit by £20mn. Despite this, it proposed a full-year dividend of 61p.

Burberry's struggles echo that of Gucci owner Kering, which warned on profits last month and is trying to overhaul its flagship brand during the luxury downturn. *Laura Onita*

Financials

Deloitte and HSBC revoke foreigners' job offers after visas shake-up

SIMON FOY AND ORTENCA ALIAJ
LONDON

HSBC and Deloitte have become the latest businesses to withdraw job offers to foreign graduates, as large employers are forced to reconsider contracts after the government introduced stricter visa rules.

The two companies have told dozens of incoming staff in recent weeks that their job offers had been revoked, people familiar with the details told the Financial Times.

HSBC and Deloitte blamed the government's decision to increase the salary threshold for skilled worker visas, the people said.

Another big employer, KPMG, cancelled contracts for some foreign graduates last month.

The government has increased the salary threshold for skilled worker visas from £26,200 to £38,700, and to £30,960 for people under the age of 26 as of April, as part of its efforts to cut record levels of legal migration.

HSBC's decision affects "digital innovation" graduates who were due to work in its Sheffield office in the north of England. Those affected attended several welcome events in recent months, had "work buddies" assigned by the bank and were set to join in July.

"I had three other offers that I rejected," said one affected person. "Having spent £50,000 on attending university in the UK, I now have to go back to my home country."

> The salary threshold has risen from £26,200 to £38,700, and to £30,960 for people under 26

The bank brought in consultancy EY to review individual cases and advise it on the changes to visa eligibility rules, according to documents reviewed by the FT.

HSBC hired 720 graduates last year, while Deloitte hired more than 2,700 staff in the UK across its graduate, apprenticeship and internship schemes.

One person briefed on Deloitte's decision said about 3 per cent of the firm's autumn intake of graduates, about 35 people, had had their offers withdrawn as a result of visa changes.

"The new eligibility criteria mean that some of our roles no longer meet the requirements for sponsorship of skilled worker visas," they said.

The Migration Advisory Committee warned the government this week against abolishing its graduate visa programme, a separate scheme that allows overseas students to spend two years working in the UK after graduation.

According to polling, immigration is one of the top three issues for voters ahead of the next general election, which is due before the end of January.

The new skilled worker visa rules, which were announced in January, have left companies rushing to manage the fallout.

HSBC said that "due to changes in the rules covering those seeking sponsored visas to work in the UK, we are unable to take forward a small number of offers to candidates as part of our graduate scheme this year".

Deloitte and EY declined to comment.

Financials

Fraud agency reviews Libor prosecutions

SUZI RING — LONDON

The Serious Fraud Office is reviewing its Libor prosecutions, including the conviction of former UBS and Citi trader Tom Hayes, after problems with the agency's disclosure software systems forced it to revisit old cases.

The prosecutor was examining convictions from its probe into the rigging of the rate benchmark to assess whether any documents were missed in its disclosure exercise, the agency's chief operating officer said.

The Libor prosecutions are among more than a dozen cases likely to be re-examined in relation to problems with the agency's disclosure tools.

The SFO said it was also prioritising re-examination of cases where people were still in custody, which included its probes of Harlequin, Balli Steel and Global Forestry Investments.

Errors first emerged with the way the SFO used its legacy disclosure tool from provider Autonomy Introspect in 2022.

The agency is also reviewing ongoing cases after a software issue emerged with its disclosure system from provider OpenText Axcelerate.

"We're looking at Libor . . . [as] we've currently been asked to come back to that," Abigail Howarth said at the SFO's London offices yesterday. "We're looking at cases one by one to see whether we can identify any impact . . . We've started with the few that are the more recent ones where we've got some activity happening on an ongoing basis."

> 'We're looking at cases one by one to see whether we can identify any impact'
> Abigail Howarth, SFO

Hayes, the first to be found guilty over the Libor scandal, and who served five-and-a-half years in prison, has said he is seeking an appeal of his conviction in the Supreme Court after an attempt at the Court of Appeal failed in March.

"The SFO have confirmed they are reviewing the disclosure on the Ibor cases as a priority and we welcome this development," said Karen Todner, a lawyer for Hayes.

The agency has long been plagued with disclosure problems, which has led to the collapse of a string of cases. The Autonomy issue, which relates to how the tool recognised punctuation, contributed to the collapse of the agency's prosecution against three former G4S executives last year.

The SFO has set up a management-level committee called the "Gold Group" made up of roughly 13 individuals and chaired by Howarth to look at and manage the review into both the Autonomy and Axcelerate problems. The prosecutor was bringing in outside experts to ensure the approach and fixes have been applied properly, Howarth said.

While the Autonomy problem related to how search terms were used, the Axcelerate issues relate to encoding and problems with the software itself, which the agency said it has resolved.

The SFO had rerun searches on two live prosecutions — London Mining and Greenergy — and found no problems with its disclosure, the agency said.

Technology

Raspberry Pi raises hopes for UK tech listings

TIM BRADSHAW AND JONATHAN WHEATLEY — LONDON

Raspberry Pi, the British maker of cheap, tiny computers, plans to go public in London, in a boost to the UK stock market at a time when it has struggled to attract growing technology groups.

The Cambridge-based maker of computer modules and low-cost computers for industrial users, enthusiasts and educators aims to list on the main market of the London Stock Exchange.

A registration document published yesterday revealed Raspberry Pi was valued at $597mn in November, including the new funds raised, when UK chip designer Arm took a 3.4 per cent stake.

With its initial public offering, the company hopes to achieve a slight premium to that valuation, according to a person familiar with its plans. The listing, likely in early June, aims to help Raspberry Pi attract and retain staff in the competitive tech talent market.

The company began trading in 2012 and has since sold more than 60mn single-board computers and computer modules, it said. Revenues at the company, in which Japan's Sony also holds a 1.7 per cent stake, rose 41 per cent to $265.8mn in 2023 over the previous year, with pre-tax profits almost doubling to $38.2mn, according to filings.

Raspberry Pi expects to sell 8.4mn units in 2024, up from 7.4mn last year.

The business is a subsidiary of the Raspberry Pi Foundation, a UK charity founded in 2008 to promote computer science to young people. The foundation, which holds a 73 per cent stake in the company, will remain a shareholder after the IPO.


UK public markets have struggled to attract IPO interest from technology groups, which prefer New York

Other significant shareholders include the Ezrah Charitable Trust, a US-based private foundation that has also donated to the Raspberry Pi Foundation, and Lansdowne Partners, which together invested $45mn at an implied post-money valuation of $545mn in September 2021, according to yesterday's filing.

"When we released our first product in 2012, our goal was to provide a computer that was affordable enough for young people to own and explore with confidence," said Eben Upton, Raspberry Pi's chief executive. "But from the very beginning we saw customers using our products in a staggering variety of applications across a broad swath of markets, and as we recognised the potential for affordable technology to make a meaningful difference, not just in education but in countless other contexts, the scale of our ambition grew."

The proposed listing comes as the UK public markets have struggled to attract IPO interest from tech companies, which have increasingly preferred to list in New York. London-listed cyber security company Darktrace last month agreed to a takeover from US private equity group Thoma Bravo for £4.3bn, two years after it went public.

See Lex

Financials. Funds collapse

Hunt for missing Greensill billions moves to a small bank and the state governor

Credit Suisse debt collectors aim to recoup $226mn from Virginia lender's biggest client



A person involved in the Credit Suisse action dubbed Justice 'the Trump of the Blue Ridge Mountains'

OWEN WALKER — LONDON
JOSHUA FRANKLIN — WHITE SULPHUR SPRINGS, WEST VIRGINIA

The latest efforts by former Credit Suisse clients to reclaim billions of dollars lent on their behalf by failed finance firm Greensill Capital centre on a small Virginia community bank, a coal baron with his eyes on the US Senate and a grandiose hotel with a bunker big enough to house Congress.

The collapse of Greensill three years ago kick-started a worldwide hunt to recover funds that has so far involved legal action against Japanese conglomerate SoftBank, negotiations over an Australian steel business and $2.2bn of insurance claims.

But one of the most recent moves by debt collectors at Credit Suisse — which itself imploded last year and was rescued by its rival UBS — is a lawsuit lodged in the Commonwealth of Virginia. The target is local lender Carter Bank and the aim is to recoup $226mn from its biggest client, Jim Justice, governor of neighbouring West Virginia.

The lawsuit, filed in February, argues that Carter Bank received the $226mn in "legally improper transfers" from Justice's mining group, Bluestone Resources.

Bluestone is just one part of Justice's business empire, which includes more than 100 companies in energy and agriculture. His trophy asset is The Greenbrier, an 11,000-acre luxury golf resort, complete with a huge underground bunker designed to host all members of Congress in the event of a cold war nuclear attack in what was dubbed "Project Greek Island".

Justice, an imposing 6ft 7in tall, has been governor of West Virginia since 2017. But this year the 73-year-old is running for Joe Manchin's US Senate seat after winning the Republican primary on Tuesday.

"He's the Trump of the Blue Ridge Mountains," said a person involved in the attempts to recover Credit Suisse assets, given the two businessmen's political leanings, sprawling business interests and run-ins with lenders.

Revelations in 2021 of steep debts owed by Justice to Greensill cost him his spot on Forbes' billionaire list. Justice told the Washington Post in 2011 that describing his net worth at somewhat more than $1bn "would be a very conservative number".

Representatives for Jim Justice did not respond to requests for comment.

Through Bluestone, Justice was one of the biggest borrowers from Greensill, which packaged up invoice-backed loans and sold them to investment funds run by Credit Suisse.

The Swiss bank persuaded 1,200 of its most prized clients to invest in the group of so-called supply-chain finance funds, which promised enticing returns with little risk. But in March 2021, Greensill filed for bankruptcy, trapping $10bn in the funds. Justice filed a lawsuit against Greensill days later, accusing the financing firm of fraud and claiming not to know about Credit Suisse's involvement. But that suit has since been dropped.

The Credit Suisse debt recovery team, which has since transferred to UBS, is still trying to recoup $2.6bn. Out of the money left to reclaim, Bluestone owes $690mn.

Credit Suisse's plan to recover the money, formalised in a deal with Justice two years ago, involved regular repayments from Bluestone up to a total of $320mn. Then fund investors would be entitled to a share of the proceeds when Justice and his family eventually sold the mining business. UBS declined to comment.

For the plan to work, Bluestone mines need significant investment in their ageing infrastructure. The Credit Suisse debt collectors believe Justice has been unable to make the required investment because of the demands from Carter Bank, which is separately trying to recover $300mn from the family through another lawsuit.



Carter Bank was Jim Justice's biggest lender, financing his coal, farming and hospitality operations. Below, the Greenbrier resort in West Virginia
FT montage/Bloomberg; Andriy Blokhin/Alamy

Carter Bank, which was founded by Worth Carter, a former grocery cashier, has its origins in a series of community banks in Virginia and North Carolina that began in 1974. While it specialised in offering deposits and small loans to local residents and businesses, the Martinsville, Virginia-headquartered bank began a long-term relationship with Justice in 2001 with a $4.5mn real estate loan.

A close friendship between Justice and Carter soon developed and, along with it, Carter Bank's exposure to the future state governor. Carter Bank has about $4.5bn in assets and just 64 branches. By 2017, Justice's businesses had borrowed more than $750mn and Carter Bank was Justice's biggest lender, financing his coal, farming and hospitality businesses.

But soon after Carter's death in 2017 — when Justice gave a eulogy at his funeral — the bank's new management team started to take a tougher stance on calling in Justice's debts, culminating in the bank placing the loans owed by Justice's companies into default last year. The decision increased the amount of Carter Bank's non-performing loans by more than 3,000 per cent.

The bank is now in the process of trying to seize collateral from Justice to recoup the loan. First up is West Virginia's Greenbrier Sporting Club, but the lender could ultimately try to seize the five-star Greenbrier hotel, one of America's most renowned luxury resorts.

When the Credit Suisse debt recovery team first started to assess how to reclaim the money owed by Bluestone, it enlisted advisory business FTI Consulting to carry out an audit of the assets of Justice and his family, according to people with knowledge of the process.

FTI concluded that by far Justice's most valuable asset was the Greenbrier resort, but it was already heavily mortgaged, with Carter Bank holding a claim over the asset.

The new claim against Carter Bank accuses the lender of fraudulent conveyance, where a debtor passes on assets to another party that are owed to their creditor. The suit alleges Carter Bank has engaged in "aggressive efforts to collect on debt obligations" of Justice and his family businesses, which stymied investment in the Bluestone mines — and the ability of Credit Suisse to recover the Greensill money for clients.

"There is a three-way negotiation going on to see where we can unlock more money so that Justice can reinvest it in the mine," said a person involved in the Credit Suisse debt recovery.

In a regulatory filing this year, Carter Bank said it was not involved in any financing arrangement between Greensill and the Bluestone entities and that it believes the allegations in the Greensill lawsuit "are false and misleading".

It added in a statement that it was the bank's policy "to not comment on any customer information or pending litigation". It has filed a motion to dismiss the lawsuit.

Meanwhile, Justice has sought to bring back some glamour to the 710-room Greenbrier. The building, with its federalist architectural style and a resemblance to the White House, fell into bankruptcy in 2009, after which Justice beat Marriott in a bidding war in 2009 to reportedly buy it for only $20mn (or a little over double that with fees and the sporting club).

While the resort's claim to have hosted every US president since Dwight Eisenhower ended with Barack Obama, it now accommodates a different kind of spectacle: the Saudi-backed LIV golf tournament.

Additional reporting by Robert Smith

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Oil & gas

Brasília removes Petrobras chief after clashes over dividends and fuel pricing

MICHAEL POOLER — NEW YORK
BRYAN HARRIS — RIO DE JANEIRO

The head of Petrobras has been ousted following tensions with the leftwing Luiz Inácio Lula da Silva administration, which has sought to exert greater influence over Brazil's state-controlled oil major.

Chief executive Jean Paul Prates planned to offer his resignation to the board, Petrobras said on Tuesday evening, ending weeks of uncertainty over his future at the $108bn group.

The decision to remove the top manager of Latin America's biggest crude producer was taken by the government in Brasília, according to two people with direct knowledge of the matter.

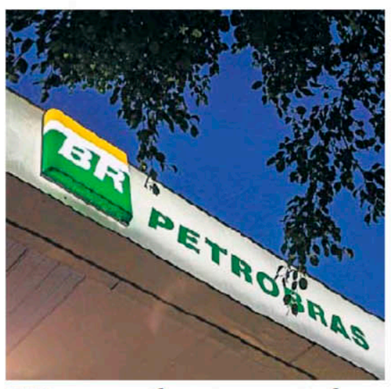
Friction had been mounting since Prates disagreed with government-appointed board members this year over whether Petrobras should pay an extraordinary dividend to investors.

Since returning to the presidency last year, Lula has pushed Petrobras to reduce investor payouts and instead invest more in areas such as renewable energy and refineries, aiming to stimulate economic activity.

The government has been accused of political interference by critics who fear a repeat of the mismanagement and scandal at Petrobras that occurred under past leftwing rule.

The company's American depositary receipts were down 6 per cent in after-hours trading in New York following the news of Prates' impending departure.

Petrobras said the energy and mines ministry had picked Magda Chambriard, a former head of the Brazilian oil and gas regulator, to replace Prates. Her nomination must be approved by the board.



Critics accuse the government of political interference at Petrobras

Formerly a senator from Lula's party, Prates, 55, had previous energy sector experience and began the role in January 2023 after being picked by the leftist leader. His exit is the fifth departure of a Petrobras chief in three years.

The company is the world's seventh-largest oil producer by output, according to consultancy Rystad Energy.

As he struggled to square the demands of external investors with the state, Prates also clashed with energy minister Alexandre Silveira, who criticised Petrobras for not reducing fuel prices enough. Leftwing politicians accused Prates of being too closely aligned with private sector investors.

Under previous rightwing president Jair Bolsonaro, the company sought to focus on offshore oil and gas production, selling off assets considered non-core. Lula has urged Petrobras to be a diversified group.

The company this week reported net profit of R$23.7bn ($4.8bn) for the first quarter of 2024, down 38 per cent on the same period a year ago.

Additional reporting by Beatriz Langella

Technology

SMIC warns of price pressures for less advanced chips as rivals expand capacity

CHENG TING-FANG AND LAULY LI
NIKKEI ASIA TECH CORRESPONDENTS

SMIC, China's top chipmaker, has warned of an increasingly fierce price war in the domestic market for less advanced semiconductors as well as global oversupply, as new plants begin production in the coming months.

Chipmakers in China have been increasing production to help Huawei and other companies withstand tightening US export controls, while other countries are boosting domestic output over economic and national security.

Against this backdrop, SMIC said its profit margin had dropped to its lowest level since 2009 and would continue to fall this quarter. Co-chief executive Zhao Haijun said the company had come under price pressure from domestic rivals expanding capacity.

"Sometimes orders worth tens of millions suddenly went to competitors," Zhao said. "We do see our peers' new capacity for similar products going online. Therefore, it is likely we will see further price dips for some standardised chips." He cited display driver chips and image processing sensors as examples.

Many analysts and industry executives are concerned about the oversupply of less advanced chips. According to SEMI, a US-based chip industry association, 42 plants globally will start operation in 2024. Of these, 18 will be in China, mainly for less advanced chips.

Price pressures aside, Zhao said SMIC saw signs of a recovery in global demand, especially in China's smartphone market. "All the Chinese smartphone makers have aggressive plans this year," he said. "They are either trying to secure their own shares or expanding shares."

> 'Sometimes orders worth tens of millions suddenly went to competitors'
> Zhao Haijun, SMIC

But new production capacity could outstrip that demand.

Zhao said there was a "fashionable global trend" of having local chip production and this also applied to China. "We foresee that this year and next year will be the peak for the chip industry to keep expanding capacity," he said. "If we are saying the industry will grow by 8 per cent this year and there will be 20 per cent new capacity, then that means there will be 12 per cent new capacity that won't get any orders."

Zhao said the company had been working closely with customers on its expansion plans. SMIC forecast revenue in the first half of this year to grow 20 per cent from the same time last year due to higher than expected orders.

SMIC's revenue grew 19.7 per cent year on year to $1.75bn in the first quarter of 2024. But its profit plunged 68.9 per cent from a year ago to $71.7mn. Its gross margin was 13.7 per cent, the lowest since the last quarter of 2009, when the global financial crisis hit.

But SMIC's main task now is to help supply key semiconductors as Washington steps up export controls aimed at curbing Beijing's tech advancement.

Huawei has been working with SMIC to churn out 5G mobile chipsets to revive its consumer devices business. SMIC's Chinese customers contributed 81.6 per cent of quarterly revenue, compared with 75.5 per cent the same time a year earlier.

Global tension is no reason to 'tear up the playbook'



Nathan Sheets

Markets Insight

Geopolitical pressures have posed unrelenting challenges for the global economy in recent years. Activity has been restrained by the Russia-Ukraine war, hostilities in the Middle East, and ongoing tension between the US and China.

In tandem, populist political voices are gaining increased prominence in countries around the world. Such developments have, at least at times, disrupted commodities markets, put pressure on supply chains, shifted patterns of trade and capital flows and amplified uncertainties.

These challenges have led to a perception that geopolitical pressures are becoming more frequent and severe. And some observers have argued that we're entering a new regime in which economic fundamentals will take a back seat to geopolitical developments.

But clearly, previous generations also faced significant geopolitical pressures. Since 1900, these have included the first and second world wars, the cold war, the 1970s oil shocks and the 9/11 attacks. Geopolitical tensions arise inevitably from the posturing and competing interests of nations. Their ebb and flow has been a fact of life for generations.

A corollary is that, although geopolitical tensions are frequently in the headlines, there is little evidence that they have shifted to a more threatening tack. As such, the imperative for investors and policymakers is to remain circumspect — and to strike a balance between overreacting and underreacting to the ongoing parade of challenges that arise.

Work from two researchers at the Federal Reserve Board — Dario Caldara and Matteo Iacoviello — sheds further light on this discussion. They created an empirical index of geopolitical risk derived from text searches of English-language news articles from 1900 to the present. These searches are broad and include words such as war, peace, threat, boycott, sanction, blockade and attack. The resulting index represents an impressive step forward in understanding geopolitical risk.

By this measure, geopolitical pressures peaked during the world wars in the 1910s and 1940s. And they remained comparatively elevated through the 1950s and 1960s as the cold war took hold. More recently, the Russia-Ukraine war and Middle East tensions have lifted readings to the highest levels since the 9/11 attacks and related turmoil in the early 2000s. While these readings are up from the relatively quiescent 2010s, the overall average for the 2020s is just above the centre of the longer-term distribution.

> We find the best strategy is generally to lean against markets' initial reaction to geopolitical events

Thus, judged from this historical perspective, the index from Caldara and Iacoviello provides little support for the view that geopolitical shocks have become more frequent or severe.

Indeed, the data suggest that such arguments may reflect a hint of "recency bias" — the natural human tendency to place too much significance on recent events.

Echoing these observations, Citi colleagues and I examined the behaviour of financial markets during geopolitical episodes. Our key finding is that markets typically overreact to geopolitical events, with their initial imprint tending to be quickly reversed.

The markets' upfront response reflects an uncertainty premium. Markets price in the expected effect of geopolitical challenges. But however bad things look, risk-averse investors are worried about "worse case" and "worst case" scenarios, and an uncertainty premium to compensate gets embedded in asset prices as well. As markets gain additional visibility into the shocks, the uncertainty premium tends to diminish and prices recover.

As such, we find that the best strategy for investors is generally to lean against the markets' initial reaction to geopolitical events. While this finding is somewhat less true for the oil market, even there the data point to a "buy the rumour, sell the news" approach.

To be clear, none of this questions the severity of current geopolitical events or diminishes the need for investors to remain vigilant. The 2020s are shaping up to be a more difficult decade than the 2010s — and the 2030s may be more challenging still. In particular, we share concerns about the trajectory of the US-China relationship and the risk of increased global fragmentation.

Even so, we see little evidence that these tensions are more severe than would be expected drawing on the experience of the past century. The upshot is that even as these challenges continue to evolve, it's too soon for investors and policymakers to "tear up the playbook" and seek entirely new frameworks for managing geopolitical developments.

Nathan Sheets is global chief economist at Citigroup

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The day in the markets

What you need to know

- **US and European stocks climb amid signs of easing in inflationary pressures**
- **Swaps markets move to price in two US interest rate cuts by end of this year**
- **Bonds rally, with two-year US Treasury yield falling 0.08 percentage points**

Stocks and bond markets rallied yesterday amid signs that inflationary pressures were easing.

The benchmark S&P 500 climbed to an all-time high, trading 0.8 per cent higher following data showing a decline in US inflation. The figures ended a four-month streak in which price rises outstripped expectations.

The tech-heavy Nasdaq Composite was up 1 per cent, also touching a record.

US consumer price inflation fell to 3.4 per cent in April, in line with economists' expectations, according to data from the US labour department.

"That we're at consensus is a relief, but we shouldn't get carried away as this still shows [US inflation is] in a slow downward trend," said Roger Aliaga-Diaz, an economist at Vanguard.

European stocks also gained, helped by European Commission forecasts suggesting that annual inflation in the euro area will fall to 2.5 per cent this year, down from 2.7 per cent at its previous projection in February.

The region-wide Stoxx Europe 600 climbed 0.6 per cent, also boosted by stronger than expected industrial output figures in the Eurozone.

Germany's Dax rose 0.8 per cent, France's Cac 40 was up 0.2 per cent and the UK's FTSE 100 was up 0.2 per cent.

Global stocks had suffered a setback last month amid fears that inflation was proving more stubborn than expected. But recent economic data has eased those concerns, helping to push indices back to record highs.

Bonds also rallied, with the interest-rate sensitive two-year US Treasury yield falling 0.08 percentage points to 4.74 per cent. Yields move inversely to prices.

Swaps markets moved to price in two US interest rate cuts by the end of this year. While that is more than the single cut priced in last month, it is still far less than the six quarter-point reductions expected at the start of the year.

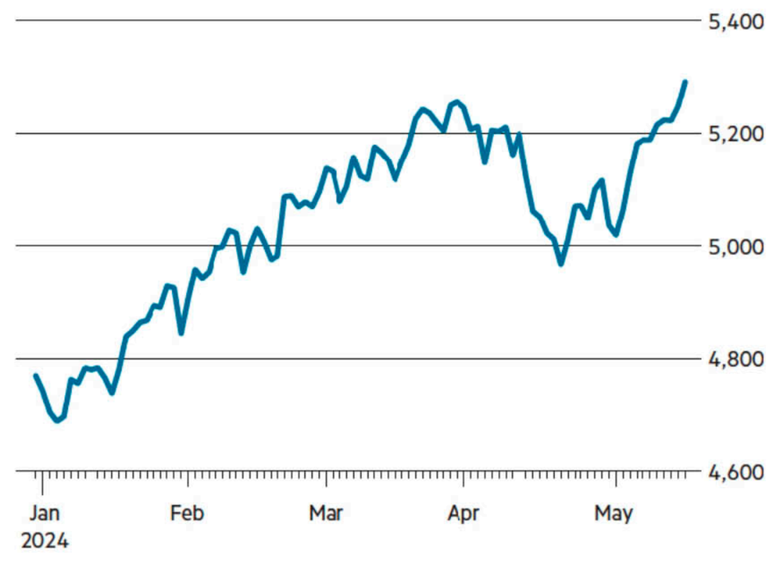
Aliaga-Diaz said that the market was "swinging back and forth" but that there was now broad agreement between the market's view on the path of interest rates and that of the Federal Reserve.

Powell said on Tuesday that the US central bank would have to be "patient and let restrictive policy do its work" in a sign that borrowing costs were unlikely to come down in the coming months.

Borrowing costs are expected to fall sooner in the Eurozone, with markets pricing in a near 90 per cent probability of a cut when the European Central Bank meets next month. **Rafe Uddin**

US stocks hit record high

S&P 500 Index (points)



Source: LSEG

Markets update

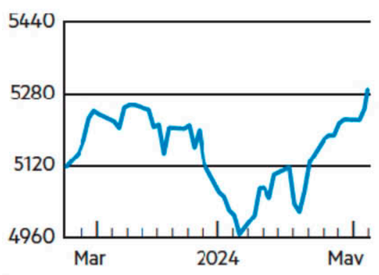
	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	5290.52	2078.40	38385.73	8445.80	3119.90	127726.47
% change on day	0.84	0.56	0.08	0.21	-0.82	-0.61
Currency	**$ Index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	104.812	1.086	155.325	1.265	7.220	5.133
% change on day	-0.191	0.277	-0.684	0.477	-0.245	0.003
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	4.364	2.420	0.949	4.162	2.337	11.194
Basis point change on day	-10.900	-12.800	-1.110	-10.900	0.700	-5.000

World index, Commods	FTSE All-World	Oil - Brent	Oil - WTI	Gold	Silver	Metals (LMEX)
Level	521.63	82.50	78.23	2354.85	28.43	4352.20
% change on day	0.81	0.15	0.27	0.47	1.08	-0.30

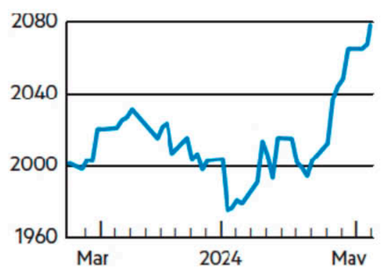
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

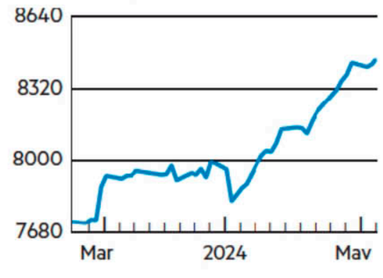
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Vistra	6.55	Casino Guichard	10.29	Experian	8.13
	Super Micro Computer	4.91	Commerzbank	4.82	Imperial Brands	5.75
	Nrg Energy	4.74	Merck	4.30	Segro	5.52
	Sba Communications	4.14	Grifols	3.57	Persimmon	4.47
	Aes	3.94	Rwe	3.35	Flutter Entertainment	4.41
Downs	Albemarle	-5.99	Carrefour	-4.29	Burberry	-7.28
	Solventum	-4.12	Raiffeisen Bank Internat	-2.65	Compass	-2.97
	Hasbro	-3.43	Galp Energia	-2.41	B&m Eur Value Retail S.a.	-2.44
	Synchrony Fin	-3.19	Solvay	-1.80	St. James's Place	-2.29
	Fmc	-3.11	Caixabank	-1.65	Barclays	-1.89

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone

All data provided by Morningstar unless otherwise noted.

Industrials

Thyssenkrupp Nucera hit by drop in orders of green hydrogen equipment

RACHEL MILLARD

Thyssenkrupp Nucera has reported a drop in demand for the equipment it supplies to develop green hydrogen, the latest evidence that the nascent technology aimed at cutting emissions risks losing momentum.

The Frankfurt-listed company, spun out of German industrial group Thyssenkrupp last year, said that potential customers in Europe and North America were holding off on projects while they wait for governments to finalise financial support.

"The situation is causing a level of uncertainty in the market and is therefore dampening investment momentum," said Christoph Noeres, head of green hydrogen at the group. "Obstacles to investment such as the design of regulatory requirements and the pace of funding commitments should be removed quickly," he added.

The EU, the US and the UK are among those backing the development of green hydrogen, which has been championed as a fuel for energy-intensive industries, transport and power stations.

Green hydrogen refers to hydrogen produced by splitting it from water using electricity generated from renewable sources. Thyssenkrupp Nucera manufactures the electrolyser systems used in the process.

Orders for the equipment fell 26 per cent in six months to the end of March to €120.8mn. The company slumped to a net loss of €4.4mn in the period, compared with €12.1mn profit a year ago.

> 'Obstacles to investment such as the . . . pace of funding commitments should be removed quickly'

Arno Pfannschmidt, chief financial officer, said he remained confident in the green hydrogen market and expected orders to pick up. Nevertheless, the group's shares fell 7 per cent yesterday, leaving them down almost 50 per cent since the company's listing.

Thyssenkrupp Nucera's caution echoes that of Engie, the French state-backed utility and Spanish energy group Iberdrola. In March, Engie pushed back its targets for installed electrolyser capacity by five years to 2035.

In the same month, Iberdrola cut its goal for the amount of green hydrogen it would produce by 2030 by roughly two-thirds. José Sainz Armada, finance chief, told investors that the company would "love to do more projects" but is "waiting for the funds to come through for the projects we have presented".

The European Commission has set a target of producing 10mn tonnes of green hydrogen within the EU by 2030 and to import another 10mn tonnes, while the US is heavily subsidising the technology.

Thyssenkrupp Nucera's customers include the vast Neom project in Saudi Arabia, which is being developed by companies including Acwa Power to produce 600 tonnes of green hydrogen a day when it starts up in 2026.

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 $
0.84%	0.99%	0.61%	0.21%	0.56%	0.08%	-0.22%	0.81%	0.277%	0.477%	-0.684%	-0.233%	-0.36%	0.47%

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

AMERICAS

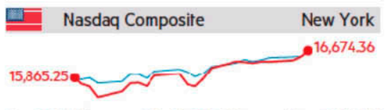
Apr 16 -- — Index — All World

S&P 500 — New York



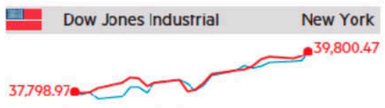
Day 0.84% Month 4.51% Year 27.89%

Nasdaq Composite — New York



Day 0.99% Month 4.97% Year 34.85%

Dow Jones Industrial — New York

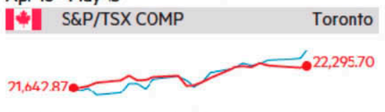


Day 0.61% Month 5.47% Year 19.34%

Country	Index	Latest	Previous
Australia	All Ordinaries	8020.90	7995.70
	S&P/ASX 200	7753.70	7726.80
	S&P/ASX 200 Res	5943.30	5885.30
Austria	ATX	3711.92	3722.29
Belgium	BEL 20	4029.25	3998.81
	BEL Mid	11317.74	11259.27
Brazil	Ibovespa	127726.47	128515.49
Canada	S&P/TSX 60	1332.98	1331.51
	S&P/TSX Comp	22284.65	22243.34
	S&P/TSX Div Met & Min	2226.24	2132.16
Chile	S&P/CLX IGPA Gen	34105.49	34032.00
China	FTSE A200	9634.71	9708.74
	FTSE B35	9000.71	8988.96
	Shanghai A	3270.35	3297.45
	Shanghai B	252.25	254.49
	Shanghai Comp	3119.90	3145.77
	Shenzhen A	1840.44	1854.50
	Shenzhen B	1123.65	1124.74
Colombia	COLCAP	1261.61	1250.21
Croatia	CROBEX	2013.05	2011.29

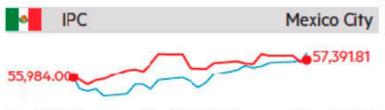
Apr 16 - May 15 — Index — All World

S&P/TSX COMP — Toronto



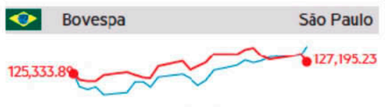
Day 0.19% Month 2.49% Year 8.47%

IPC — Mexico City



Day 1.46% Month 3.73% Year 5.09%

Bovespa — São Paulo



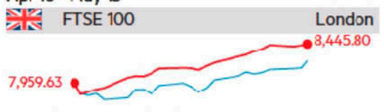
Day -0.61% Month 1.90% Year 17.14%

Country	Index	Latest	Previous
Czech Republic	PX	1563.43	1555.77
Denmark	OMXC Copenahgen 20	2752.44	2727.26
Egypt	EGX 30	25339.77	25381.25
Estonia	OMX Tallinn	1771.38	1778.04
Finland	OMX Helsinki General	10312.73	10371.23
France	CAC 40	8239.99	8225.80
	SBF 120	6244.16	6232.79
Germany	M-DAX	27451.38	27219.15
	TecDAX	3461.62	3422.77
	XETRA Dax	18009.36	18716.42
Greece	Athens Gen	1493.65	1471.78
	FTSE/ASE 20	3617.48	3561.61
Hong Kong	Hang Seng	19073.71	19115.06
	HS China Enterprise	6741.41	6761.64
	HSCC Red Chip	3955.67	3981.52
Hungary	Bux	68673.84	68864.24
India	BSE Sensex	72987.03	73104.61
	Nifty 500	20741.85	20683.80
Indonesia	Jakarta Comp	7179.83	7083.76
Ireland	ISEQ Overall	10012.18	9992.84
Israel	Tel Aviv 125	2031.15	2023.85

EUROPE

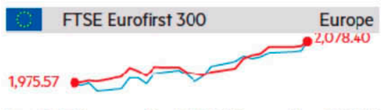
Apr 16 - May 15 — Index — All World

FTSE 100 — London



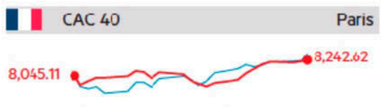
Day 0.21% Month 5.99% Year 8.55%

FTSE Eurofirst 300 — Europe



Day 0.56% Month 3.64% Year 12.54%

CAC 40 — Paris

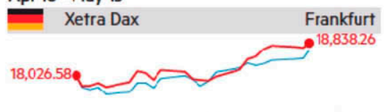


Day 0.17% Month 2.86% Year 11.13%

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	37595.57	37371.55
	FTSE Italia Mid Cap	48477.77	48137.64
	FTSE MIB	33940.03	33736.18
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	38385.73	38356.06
	S&P Topix 150	2419.40	2413.21
	Topix	2730.88	2730.95
Jordan	Amman SE	2408.69	2397.75
Kenya	NSE 20	1670.05	1660.10
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1262.56	1239.44
Lithuania	OMX Vilnius	977.78	973.43
Luxembourg	LuxX	1429.38	1421.07
Malaysia	FTSE Bursa KLCI	1603.23	1605.88
Mexico	IPC	58068.06	57231.74
Morocco	MASI	13501.46	13541.33
Netherlands	AEX	913.39	910.63
	AEX All Share	1234.01	1226.78
New Zealand	NZX 50	11525.88	11618.09
Nigeria	SE All Share	98255.72	98223.97
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	74663.98	74531.19

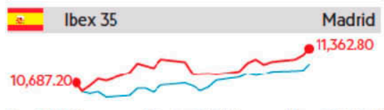
Apr 16 - May 15 — Index — All World

Xetra Dax — Frankfurt



Day 0.82% Month 2.38% Year NaN%

Ibex 35 — Madrid



Day 1.10% Month 6.33% Year 23.05%

FTSE MIB — Milan



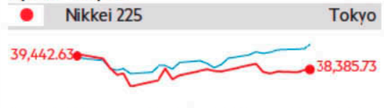
Day 0.46% Month 7.09% Year 32.76%

Country	Index	Latest	Previous
Philippines	Manila Comp	6558.63	6608.36
Poland	Wig	88029.75	87797.29
Portugal	PSI 20	6971.10	6919.54
	PSI General	4787.72	4748.54
Romania	BET Index	17291.92	17290.47
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	12120.91	12259.60
Singapore	FTSE Straits Times	3289.42	3313.35
Slovakia	SAX	309.23	309.23
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	79361.57	78632.58
	FTSE/JSE Res 20	62869.15	62434.29
	FTSE/JSE Top 40	73142.16	72372.32
South Korea	Kospi	2730.34	2727.21
	Kospi 200	371.04	370.99
Spain	IBEX 35	11362.80	11239.30
Sri Lanka	CSE All Share	12291.11	12358.80
Sweden	OMX Stockholm 30	2627.52	2632.85
	OMX Stockholm AS	998.17	995.22
Switzerland	SMI Index	11899.26	11784.07

ASIA

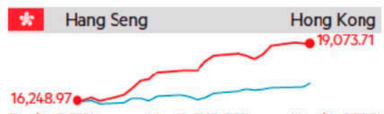
Apr 16 - May 15 — Index — All World

Nikkei 225 — Tokyo



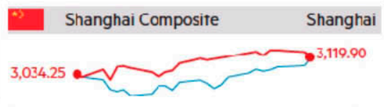
Day 0.08% Month -2.88% Year 30.61%

Hang Seng — Hong Kong



Day -0.22% Month 14.20% Year -2.70%

Shanghai Composite — Shanghai

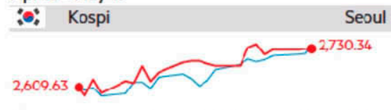


Day -0.82% Month 3.33% Year -4.66%

Country	Index	Latest	Previous
Taiwan	Weighted Pr	16915.54	16942.30
Thailand	Bangkok SET	1370.44	1376.57
Turkey	BIST 100	10143.88	10173.42
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2861.90	2839.40
	FTSE 100	8445.80	8420.13
	FTSE 4Good UK	7605.91	7590.28
	FTSE All Share	4596.71	4583.23
	FTSE techMARK 100	7012.55	6990.71
USA	DJ Composite	12712.50	12645.55
	DJ Industrial	39000.47	39056.11
	DJ Transport	15581.69	15552.87
	DJ Utilities	949.44	940.47
	Nasdaq 100	18500.87	18322.77
	Nasdaq Cmp	16674.36	16511.18
	NYSE Comp	18334.81	18220.81
	S&P 500	5290.52	5246.68
	Wilshire 5000	42053.18	41446.59
Venezuela	IBC	54769.87	63252.05
Vietnam	VNI	1254.39	1243.28

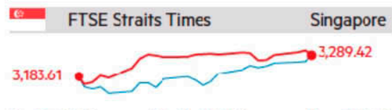
Apr 16 - May 15 — Index — All World

Kospi — Seoul



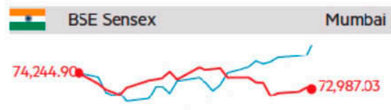
Day 0.11% Month 1.81% Year 10.30%

FTSE Straits Times — Singapore



Day -0.72% Month 2.26% Year 2.53%

BSE Sensex — Mumbai



Day -0.16% Month -1.62% Year 17.75%

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	631.99	626.56
	Euro Stoxx 50 (Eur)	5100.62	5080.29
	Euronext 100 ID	1557.64	1551.56
	FTSE 4Good Global ($)	13569.20	13418.11
	FTSE All World ($)	521.63	517.43
	FTSE E300	2078.40	2066.90
	FTSE Eurotop 100	4131.72	4112.14
	FTSE Global 100 ($)	3652.48	3618.48
	FTSE Gold Min ($)	2079.25	2062.06
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	3651.64	3634.05
	FTSE World ($)	957.42	949.26
	FTSEurofirst 100 (Eur)	5663.07	5641.53
	FTSEurofirst 80 (Eur)	6850.30	6814.01
	MSCI ACWI Fr ($)	785.88	782.83
	MSCI All World ($)	3435.15	3421.11
	MSCI Europe (Eur)	2105.88	2102.46
	MSCI Pacific ($)	3025.44	3025.83
	S&P Euro (Eur)	2224.84	2212.30
	S&P Europe 350 (Eur)	2131.00	2119.29
	S&P Global 1200 ($)	3817.13	3784.90
	Stoxx 50 (Eur)	4535.87	4522.41

(c) Closed. (u) Unavailable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Nvidia	121.3	933.91	20.35
Tesla	56.1	173.31	-4.24
Amazon.com	42.7	183.63	-3.47
Apple	28.8	189.53	2.15
Advanced Micro Devices	17.4	156.83	3.67
Super Micro Computer	17.3	862.73	40.41
Microsoft	15.8	419.33	2.83
Meta Platforms	12.4	474.23	2.41
Alphabet	9.6	171.62	1.28
Kenvue	8.2	20.43	-0.15

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Vistra	97.46	5.99	6.55
Super Micro Computer	862.78	40.41	4.91
Nrg Energy	85.97	3.83	4.74
Sba Communications	207.35	8.25	4.14
Aes	21.12	0.83	3.94
Downs			
Albemarle	127.35	-8.11	-5.99
Solventum	62.42	-2.63	-4.12
Hasbro	60.05	-2.14	-3.43
Synchrony Fin	43.74	-1.44	-3.19
Fmc	64.21	-2.03	-3.11

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
London Stock Exchange	312.9	9118.00	70.00
Shell	185.6	2869.00	-32.00
Astrazeneca	172.0	12172.00	-74.00
Bp	140.4	496.95	-5.35
Flutter Entertainment	135.8	16575.00	700.00
Compass	131.4	2252.00	-69.00
Vodafone	123.7	76.10	2.82
Glencore	120.5	487.90	-4.60
Prudential	116.3	803.80	11.60
Hsbc Holdings	112.1	701.70	-4.70

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Keller	1376.00	240.00	21.13
Hunting	443.00	70.50	18.93
Int Distributions Services	314.80	43.40	15.99
Britvic	1018.00	100.50	10.95
Experian	3752.00	282.00	8.13
Downs			
Tbc Bank	2530.00	-420.00	-14.24
Bank Of Georgia	4105.00	-615.00	-13.03
Wood (john)	185.60	-15.00	-7.48
Burberry	1102.00	-86.50	-7.28
Trainline	325.60	-16.80	-4.91

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Unicredit	266.8	36.31	-0.11
Intesa Sanpaolo	254.2	3.72	0.02
Nestle N	197.6	97.09	0.75
Roche Gs	181.7	231.69	3.05
Enel	174.4	6.84	0.13
Allianz Se Na O.n.	166.6	263.10	-2.30
Novartis N	145.4	95.16	-0.01
Asml Holding	144.9	848.00	7.30
Ing Groep N.v.	114.2	16.19	-0.22
Santander	114.1	4.82	0.07

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Lonza N	541.15	24.63	4.77
Bbva	10.18	0.28	2.83
Enel	6.84	0.13	1.86
Safran	212.00	3.60	1.73
Sika N	288.09	4.89	1.73
Downs			
Ing Groep N.v.	16.19	-0.22	-1.36
Volkswagen Ag St O.n.	140.90	-1.80	-1.26
Totalenergies	67.46	-0.86	-1.26
Bay.motoren Werke Ag St	102.50	-1.25	-1.20
Bay.motoren Werke Vze	98.00	-1.10	-1.11

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Lasertec	1862.2	42190.00	420.00
Disco	1647.2	53850.00	1880.00
Sony	1518.2	12950.00	985.00
Mitsubishi Ufj Fin	1120.3	1590.50	-15.00
Tokyo Electron	1033.4	35230.00	640.00
Softbank .	869.4	8359.00	12.00
Socionext	856.0	4478.00	69.00
Sumitomo Mitsui Fin	825.5	9203.00	44.00
Toyota Motor	804.0	3408.00	19.00
Mitsubishi Heavy Industries,	671.7	1351.00	51.50

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Isetan Mitsukoshi Holdings	2653.50	317.00	13.57
Sumitomo Mitsui Trust Holdings	3584.00	289.00	8.77
Sony	12950.00	985.00	8.23
Hoya	19200.00	1245.00	6.90
Amada Co.,	1868.50	113.50	6.47
Downs			
Nitori Holdings Co.,	17950.00	-3445.00	-16.10
Casio Computer Co.,	1165.00	-155.00	-11.74
Konica Minolta Holdings,	493.80	-48.80	-8.99
Sumitomo Dainippon Pharma Co Ltd	376.00	-37.00	-8.96
Ebara	11990.00	-1170.00	-8.89

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	May 15 price(p)	%Chg week	%Chg ytd
Winners			
Vodafone	76.10	12.7	9.1
Experian	3752.00	10.3	20.2
Jd Sports Fashion	126.85	8.6	-21.0
Bt	113.15	8.1	-9.6
Diploma	4122.00	8.0	19.5
Centrica	144.15	7.5	2.0
Imperial Brands	1986.50	6.1	9.3
Glencore	487.90	5.9	4.1
Spirax-sarco Eng	9655.00	5.5	-5.5
Ashtead	6000.00	5.1	14.0
Ocado	362.10	5.0	-50.9
Segro	936.80	4.8	6.9
Losers			
Burberry	1102.00	-4.2	-21.3
Admiral	2674.00	-3.6	-0.3
Intertek	4904.00	-3.4	16.0
Pearson	984.40	-3.0	1.7
Pershing Square Holdings Ltd	4056.00	-3.0	13.7
Hsbc Holdings	701.70	-2.6	11.3
Rightmove	546.20	-2.6	-2.0
Bunzl	3110.00	-1.5	-1.7
Compass	2252.00	-1.4	5.4
Bae Systems	1362.00	-1.3	22.1
Anglo American	2625.00	-1.1	33.4
Int Consolidated Airlines S.a.	182.05	-1.1	16.7

FTSE 250	May 15 price(p)	%Chg week	%Chg ytd
Winners			
Keller	1376.00	19.7	61.1
Hunting	443.00	16.7	49.2
Currys	70.95	13.2	42.6
Britvic	1018.00	13.1	21.3
Future	370.00	12.4	11.7
Int Distributions Services	314.80	11.9	15.4
Marshalls	315.00	11.1	14.8
Crest Nicholson Holdings	218.60	10.8	2.6
Hargreaves Lanscown	901.40	10.2	26.4
Hays	103.50	10.0	-5.3
Fagegroup	480.20	8.6	-0.2
Harbour Energy	302.90	8.3	-4.4
Losers			
Bank Of Georgia	4105.00	-13.3	2.5
Tbc Bank	2530.00	-11.8	-8.8
Syncona	111.60	-8.5	-7.2
Petershill Partners	200.00	-4.8	17.9
4imprint	6210.00	-4.8	38.6
Baltic Classifieds	235.50	-4.7	-2.7
Wood (jonh)	185.60	-3.8	10.0
Tp Icap	217.50	-3.5	12.9
Indivior	1385.00	-3.5	14.7
Hipgnosis Songs Fund	101.00	-3.4	36.9
Ferrexpo	47.10	-3.3	-46.3
Hollywood Bowl	331.00	-3.1	10.1

FTSE SmallCap	May 15 price(p)	%Chg week	%Chg ytd
Winners			
Marston's	35.60	23.2	5.6
Vanquis Banking	58.40	18.6	-53.7
Fdm (holdings)	414.50	18.1	-5.9
Zotefoams	476.00	15.8	36.4
Luceco	103.40	13.2	45.1
Onyx Int Growth Fund Ltd	1410.00	11.9	19.2
Jpmorgan Global Core Rea Assets	82.00	11.7	13.3
Saga	126.00	11.1	-7.4
Foxtons	68.40	11.0	45.8
Cls Holdings	95.20	10.7	-6.7
Synthomer	304.50	9.7	66.6
Gore Street Energy Storage Fund	64.40	9.5	-26.5
Losers			
Ultimate Products	147.50	-13.2	0.3
Headlam	158.00	-11.7	-26.2
Tt Electronics	153.50	-9.2	-2.6
India Capital Growth Fund	170.00	-7.6	2.3
On The Beach	136.60	-6.9	-19.0
Costain	80.00	-5.7	24.2
Life Science Reit	37.50	-5.3	-40.8
Reach	80.60	-5.2	11.6
Petra Diamonds	40.50	-4.6	-38.6
Oxford Biomedica	322.00	-3.9	53.3
Capital	97.00	-3.5	18.2
Alfa Fin Software Holdings	167.40	-3.5	18.3

Industry Sectors	May 15 price(p)	%Chg week	%Chg ytd
Winners			
Mobile Telecommunications	1993.16	10.2	4.7
Support Services	11603.55	5.2	9.6
Industrial Transportation	4442.44	5.2	11.3
Health Care Equip.& Services	12426.62	4.6	16.3
Construction & Materials	10730.04	4.0	15.0
Electricity	11175.93	3.7	1.3
Household Goods	14116.02	3.5	7.6
Gas Water & Multiutilities index	6475.30	3.5	5.6
Tobacco	28346.59	3.3	8.1
Industrial Engineering	14503.12	3.1	1.8
Mining	10647.29	2.4	7.6
Life Insurance	6170.81	2.1	-1.3
Losers			
Personal Goods	15598.09	-1.7	-27.5
General Retailers	3950.60	-1.6	4.8
Oil & Gas Producers	9431.51	-0.7	9.8
Industrial Metals & Mining	14398.01	-0.6	-1.5
Food Producers	8285.96	-0.5	12.6
Aerospace & Defense	10978.01	-0.5	28.0
Real Estate & Investment Servc	2342.96	-0.4	1.6
Nonlife Insurance	3649.57	-0.3	9.1
Chemicals	9589.29	-0.1	0.0
Automobiles & Parts	1178.60	0.0	-25.8
Pharmaceuticals & Biotech.	23543.28	0.1	16.0
Banks	4335.73	0.3	17.7

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

CURRENCIES

May 15	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	885.7562	0.5014	961.6183	3.3325	1120.3452	5.8928
Australia	Australian Dollar	1.5005	-0.0091	1.6290	-0.0051	1.8979	-0.0025
Bahrain	Bahraini Dinar	0.3770	-	0.4093	0.0012	0.4768	0.0022
Bolivia	Bolivian Boliviano	6.9100	-	7.5018	0.0218	8.7401	0.0410
Brazil	Brazilian Real	5.1333	0.0302	5.5730	0.0163	6.4928	0.0307
Canada	Canadian Dollar	1.3632	-0.0015	1.4799	0.0027	1.7242	0.0062
Chile	Chilean Peso	909.5350	-7.7300	987.5423	-5.5028	1150.5483	-4.3288
China	Chinese Yuan	7.2201	-0.0177	7.8385	0.0036	9.1323	0.0206
Colombia	Colombian Peso	3829.3450	-45.1300	4157.3162	-36.8256	4843.5345	-34.1075
Costa Rica	Costa Rican Colon	509.3050	-2.0050	552.9253	-0.5663	644.1925	0.5008
Czech Republic	Czech Koruna	22.7721	-0.1184	24.7225	-0.0565	28.8032	-0.0139
Denmark	Danish Krone	6.8731	-0.0196	7.4618	0.0004	8.6934	0.0161
Egypt	Egyptian Pound	46.8316	0.0183	50.8426	0.1673	59.2348	0.3012
Hong Kong	Hong Kong Dollar	7.8108	-0.0015	8.4797	0.0230	9.8794	0.0445
Hungary	Hungarian Forint	355.1099	-1.1258	385.5238	-0.1002	449.1593	0.6919
India	Indian Rupee	83.4988	-0.0150	90.6561	0.2467	105.6131	0.4770

May 15	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Indonesia	Indonesian Rupiah	16027.5000	-72.5000	17400.2314	-27.9904	20272.3383	3.9034
Israel	Israeli Shekel	3.6719	-0.0241	3.9864	-0.0145	4.6441	-0.0085
Japan	Japanese Yen	155.3250	-1.0700	168.6281	-0.6691	196.4622	-0.4245
		155.3243	-1.0715	168.6275	-0.6702	196.4613	-0.4263
		155.3228	-1.0743	168.6264	-0.6724	196.4596	-0.4297
		155.3172	-1.0857	168.6224	-0.6805	196.4613	-0.4347
Kenya	Kenyan Shilling	130.5000	-	141.6769	0.4110	165.0624	0.7751
Kuwait	Kuwaiti Dinar	0.3072	-0.0003	0.3335	0.0006	0.3885	0.0014
Malaysia	Malaysian Ringgit	4.7370	-0.0125	5.1101	0.0013	5.9535	0.0122
Mexico	Mexican Peso	16.7080	-0.1440	18.1390	-0.1033	21.1393	-0.0820
New Zealand	New Zealand Dollar	1.6427	-0.0137	1.7834	-0.0097	2.0773	-0.0075
Nigeria	Nigerian Naira	1545.0000	110.0000	1677.3241	123.9405	1954.1873	147.6563
Norway	Norwegian Krone	10.7434	-0.0691	11.6635	-0.0410	13.5887	-0.0232
Pakistan	Pakistani Rupee	278.2500	-	302.0812	0.8764	351.9434	1.6526
Peru	Peruvian Nuevo Sol	3.7116	-0.0150	4.0294	-0.0045	4.6945	0.0032
Philippines	Philippine Peso	57.5295	-0.3100	62.4567	-0.1544	72.7663	-0.0486

May 15	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Poland	Polish Zloty	3.9250	-0.0188	4.2622	-0.0080	4.9657	-0.0004
Romania	Romanian Leu	4.5823	-0.0146	4.9748	-0.0013	5.7959	0.0089
Russia	Russian Ruble	91.2750	-0.1000	99.0924	0.1792	115.4488	0.4162
Saudi Arabia	Saudi Riyal	3.7504	-	4.0716	0.0118	4.7437	0.0223
Singapore	Singapore Dollar	1.3472	-0.0047	1.4625	-0.0008	1.7039	0.0021
South Africa	South African Rand	18.3275	-0.0955	19.8972	-0.0458	23.1815	-0.0116
South Korea	South Korean Won	1369.1500	-	1486.4133	4.3122	1731.7643	8.1318
Sweden	Swedish Krona	10.7153	-0.1045	11.6330	-0.0795	13.5531	-0.0680
Switzerland	Swiss Franc	0.9049	-0.0013	0.9823	0.0014	1.1445	0.0037
Taiwan	New Taiwan Dollar	32.2725	-0.1550	35.0365	-0.0561	40.8197	-0.0035
Thailand	Thai Baht	36.5350	-0.1225	39.6641	-0.0175	46.2112	0.0628
Tunisia	Tunisian Dinar	3.1141	-0.0060	3.3808	0.0033	3.9388	0.0109
Turkey	Turkish Lira	32.2200	-0.0500	34.9795	0.0474	40.7533	0.1284
United Arab Emirates	UAE Dirham	3.6731	0.0001	3.9876	0.0117	4.6458	0.0219
United Kingdom	Pound Sterling	0.7906	-0.0037	0.8583	-0.0015	-	-
	..One Month	0.7906	-0.0037	0.8582	-0.0015	-	-

May 15	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
..Three Month		0.7907	-0.0037	0.8580	-0.0016	-	-
..One Year		0.7910	-0.0037	0.8571	-0.0016	-	-
United States	United States Dollar	-	-	1.0856	0.0031	1.2648	0.0059
	..One Month	-	-	1.0855	-0.1733	1.2649	0.0059
	..Three Month	-	-	1.0852	-0.1733	1.2649	0.0059
	..One Year	-	-	1.0837	-0.1733	1.2653	0.0059
Vietnam	Vietnamese Dong	25452.5000	-5.0000	27632.4770	74.7781	32193.5735	144.8595
European Union	Euro	0.9211	-0.0027	-	-	1.1651	0.0021
	..One Month	0.9210	-0.0027	-	-	1.1650	0.0021
	..Three Month	0.9207	-0.0027	-	-	1.1648	0.0021
	..One Year	0.9192	-0.0027	-	-	1.1638	0.0021

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg May 15	Day's chge%	Euro Index	£ Strlg May 14	£ Strlg May 13	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	8445.80	0.21	7671.63	8428.13	8414.99	7777.70	3.52	1.96	14.45	121.81	9169.00
FTSE 250 (250)	20775.63	0.76	18871.25	20618.52	20560.34	19258.75	3.30	1.36	22.28	237.75	18120.85
FTSE 250 ex Inv Co (167)	21689.22	0.84	19701.10	21507.70	21427.04	19922.92	3.42	1.24	23.63	260.91	19337.65
FTSE 350 (350)	4644.47	0.29	4218.74	4631.25	4623.23	4280.84	3.49	1.89	15.18	65.08	9993.31
FTSE 350 ex Investment Trusts (264)

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	27.68	-0.33	29.90	22.58	6.20	12.51	55480.48
BHP Group	44.09	0.94	50.84	41.66	5.83	20.33	149020.49
CmwBkAu	119.93	0.60	121.54	95.32	3.81	20.51	133786.09
CSL	283.05	3.47	312.99	228.65	1.25	37.35	91160.01
NatAusBk	33.75	-0.24	35.12	25.10	4.60	14.48	69789.29
Telstra	3.67	0.02	4.46	3.57	4.71	20.53	28260.63
Wesfarmers	69.05	0.22	71.11	46.64	2.81	30.74	52192.91
Westpac Bank	26.36	-0.24	28.05	20.03	5.10	13.46	61017.08
Woolworths	31.31	0.18	40.35	30.12	3.372569.67		25490.27
Belgium (€)							
AnBshInBv	61.06	0.64	61.25	49.17	1.25	25.70	119135.48
KBC Grp	70.02	1.10	71.70	48.78	5.77	8.62	31722.33
Brazil (R$)							
Ambev	12.36	0.20	15.78	11.83	6.19	12.67	37941.44
Bradesco	11.91	-0.08	15.77	11.85	8.18	9.58	12367.05
Cielo	5.57	-0.01	5.62	3.24	7.01	6.90	2947.93
ItauUnHldPn	28.66	-0.20	31.02	22.30	4.66	8.27	27682.88
Petrobras	39.77	-3.16	44.77	28.25	24.71	3.63	57660.04
Vale	64.05	-0.58	78.55	59.36	6.69	5.73	56634.79
Canada (C$)							
Bausch Hlth	9.68	-0.06	15.43	7.71	-	-4.42	2604.7
BCE	47.10	0.46	64.37	43.96	8.43	20.14	31521.37
BkMontr♦	129.61	0.64	133.95	102.67	4.60	17.59	69337.94
BkNvaS	65.83	0.30	70.40	55.20	6.48	10.63	59379.06
Brookfield	58.88	11.29	63.88	41.28	0.63	73.41	69948.82
CanadPcR	109.93	-1.02	123.37	94.45	0.71	25.46	75218.86
CanImp	67.01	0.12	69.42	47.44	5.28	10.11	46102.78
CanNatRs	103.11	-0.39	112.99	69.83	3.68	13.46	81097.54
CanNatRy	171.21	-1.36	181.34	143.13	1.89	19.57	79966.48
Enbridge	50.53	0.03	52.34	42.75	7.21	17.35	78806.05
GtWesLif	42.29	-0.31	45.14	37.06	5.04	14.07	28940.71
ImpOil	93.42	-0.76	101.63	60.48	2.13	10.73	36722.2
Manulife	35.47	-0.04	35.80	23.69	4.22	13.25	46719.06
Nutrien	78.19	-0.30	97.48	64.89	3.67	22.85	28369.52
RylBkC♦	142.63	0.29	143.26	107.92	3.84	13.07	148030.43
SHOP	80.05	0.86	123.20	63.16	-	591.89	71020.95
SuncorEn	53.58	0.08	55.48	37.09	4.03	8.25	50541.17
ThmReut	230.12	1.04	232.10	163.01	1.17	29.90	76183.81
TntoDom	77.31	-0.10	87.10	73.98	5.11	12.05	99786.98
TrnCan	53.10	0.27	56.12	43.70	7.19	18.02	40410.39
China (HK$)							
AgricBkCh	3.68	-0.06	3.81	2.50	6.44	4.81	14479.83
Bk China	3.69	-0.04	3.75	2.60	6.80	4.69	39498.15
BkofComm	5.99	-0.08	6.10	4.23	6.78	4.79	26845
BOE Tech	0.55	0.04	0.87	0.40	-	8.56	14.01
Ch Cons Cons	4.71	-0.05	4.98	3.16	5.36	3.81	2663.9
Ch Evrbrght	2.52	-0.02	2.61	2.13	8.22	3.84	4089.78
Ch Rail Cons	5.57	-0.10	6.48	4.06	5.39	2.97	1480.36
Ch Rail Gp	4.35	-0.06	5.63	3.06	4.92	3.16	2342.76
ChConstBk	5.56	-0.07	5.68	4.01	7.57	3.94	171105.01
China Vanke	4.94	-0.01	11.70	3.63	14.69	5.24	1395.27
ChinaCitic	4.88	-0.02	4.93	3.39	7.43	3.94	9296.29
ChinaLife	11.64	-0.12	15.46	8.19	4.57	16.13	11087.13
ChinaMBank	37.10	-1.25	40.60	24.20	5.13	6.06	21801.96
ChinaMob	73.70	-0.05	75.00	60.90	6.37	10.79	193503.53
ChinaPsIns	19.52	-0.48	25.65	12.72	5.66	6.38	6934.48
ChMinsheng	2.95	-0.03	3.38	2.43	7.97	3.91	3141.83
ChMrchSecs	14.59	-0.29	15.91	12.62	1.27	15.68	14998.02
China Utd Coms	4.59	-0.05	5.61	3.90	2.67	17.12	19685.79
ChShenEgy	35.55	-0.60	37.15	21.45	8.24	10.88	15369.4
ChShpbldng	5.16	-0.10	5.31	3.81	-	-107.22	15782.63
ChStCnEng	5.52	-	6.54	4.54	4.69	4.38	31590.68
ChUnicHK	6.24	0.02	6.33	4.45	5.60	9.40	24440.25
CNNC Intl	9.07	-0.19	9.74	6.66	1.92	16.64	23721.56
CSR	4.93	-0.08	5.12	3.10	4.44	10.64	2758.4
Daqin	7.08	-0.03	7.86	6.91	6.94	10.97	17225.43
GuosenSec	8.77	-0.25	10.90	7.42	3.15	16.46	11100.59
HaitongSecs	3.93	-0.08	5.70	3.44	5.85	-91.23	1715.22
Hngzh HikVDT	33.21	-0.32	37.75	29.82	2.08	25.25	41895.69
Hunng Pwr	5.32	0.02	5.45	3.22	-	9.88	3200.87
IM Baotou Stl	1.59	-0.01	1.97	1.36	-	143.89	6936.3
In&Cm3kCh	4.47	-0.07	4.58	3.35	7.34	4.28	49661.82
IndstrlBk	17.01	-0.11	17.40	13.95	6.99	5.30	48942.58
Kweichow	1700	-1.98	1935	1555.55	1.52	27.37	205776.59
Midea	0.30	-0.02	0.41	0.26	-	-1.24	11.56
New Ch Life Ins	16.92	-0.58	23.45	12.46	6.94	7.31	2239.7
PetroChina	7.54	-0.08	7.74	4.73	6.32	7.88	20363.6
PingAnIns	40.15	-0.95	58.80	29.55	6.75	8.03	38275.78
PngAnBnk	10.83	-0.08	12.92	8.96	2.66	4.77	29107.93
Pwr Cons Corp	5.23	-0.05	7.23	4.45	2.35	7.80	9468.62
SaicMtr	14.46	-0.14	15.77	12.92	2.33	11.85	23182.31
ShenwanHong	0.08	0.00	0.15	0.05	-	5.77	93.97
ShgPdgBk	7.89	0.01	7.98	6.36	4.15	7.27	32075.47
Sinopec Corp	5.05	-0.07	5.30	3.64	7.77	9.86	15757.96
Sinopec Oil	1.88	-0.02	2.27	1.60	-	58.82	3533.19
Denmark (kr)							
DanskeBk	192.50	-1.35	211.50	139.60	3.67	7.71	24147.84
MollerMrsk	11335	-100.00	14430	8412	17.61	7.32	12307.31
NovoB	917.10	7.10	932.00	504.40	0.78	48.74	452355.76
Finland (€)							
Nokia	3.54	-0.12	3.98	2.70	3.14	29.22	21570.7
SampoA	40.09	0.73	41.96	34.55	4.53	18.73	21831.23
France (€)							
Airbus Gipe	160.00	1.30	172.78	123.28	1.14	33.02	137622.42
AirLiquide	186.88	0.34	197.42	151.36	1.59	31.53	106345.93
AXA	33.37	-0.05	35.19	25.21	5.09	11.59	82244.47
BNP Paribs	71.75	0.23	72.17	52.82	5.49	11.61	88084.67
ChristianDior	743.50	-	839.50	613.50	1.70	21.08	145701.75
Cred Agr	15.64	-0.02	15.73	10.22	6.78	7.66	51378.34
Danone	59.62	0.22	63.80	50.59	3.39	43.42	43869.71
EDF	12.00	-	12.05	7.27	2.41	-2.31	53889.44
Engie SA	15.87	0.08	16.64	13.61	8.91	18.06	41944.81
EssilorLuxotica♦	208.10	2.60	212.40	159.68	1.57	40.58	102534.56
Hermes Intl	2286	-14.00	2436	1641	0.57	55.07	262000.93
LOreal	456.80	-0.10	460.60	372.00	1.33	39.28	265182.88
LVMH	769.00	-2.90	892.70	644.00	1.60	25.77	428408.99
Orange	10.72	0.05	11.72	9.98	6.51	-	30943.64
PernodRic	149.30	0.15	215.20	133.70	3.18	18.41	41434.59
Renault	50.10	0.25	51.84	31.19	0.50	6.21	16084.6
Safran	211.70	3.30	215.70	133.36	0.64	25.98	98197.89
Sanofi	90.56	-1.13	104.32	80.60	3.97	20.86	124494.63
Sant Gbn	62.66	1.40	82.70	43.87	2.44	15.66	45448.87
Schneider	236.60	2.95	236.80	134.38	1.34	33.15	147140.97
SocGen	27.44	0.18	27.73	23.23	6.26	12.52	23916.53
Total	67.47	-0.85	70.11	53.55	4.38	8.26	174833.11
UnibailR	49.68	0.06	73.09	39.68	-	-4.32	7615.7
Vinci	116.60	0.70	120.62	93.49	3.51	14.12	74632.46
Vivendi	10.00	-0.02	10.49	7.99	2.52	23.58	11181.23
Germany (€)							
Allianz	263.30	-2.10	280.00	193.60	4.37	12.31	111973.17
BASF	49.64	0.28	54.93	40.25	6.91	196.68	48099.36
Bayer	29.33	0.11	54.95	24.96	8.26	-9.71	31277.03
BMW	102.90	-0.85	115.35	86.80	8.34	5.77	67250.71
Continental	62.60	0.50	78.40	53.20	2.42	10.73	13592.7
Deut Bank	16.06	0.03	17.01	3.90	1.89	5.74	34769.92
Deut Tlkm	22.12	0.11	23.33	13.50	3.19	26.72	119747.31
DeutsPost	44.73	0.54	45.03	23.68	4.18	13.33	60466.66
E.ON	13.24	0.20	13.35	10.43	3.89	72.86	37966.21
Fresenius Med	42.06	0.91	49.62	30.16	2.69	24.51	13397.93
Fresenius SE	28.72	0.07	31.22	23.93	3.23	45.16	17413.97
HenkelKgaA	73.70	0.15	74.25	53.36	2.51	23.32	20786.83
Linde	357.40	-1.80	437.60	313.00	1.17	34.54	207381.04
Mercedes-Benz	69.00	-0.33	77.45	55.08	7.61	5.08	80141.12
MuenchRkv	446.00	-0.70	458.00	313.80	2.63	13.04	66077.66
SAP	176.10	1.42	184.48	113.52	1.18	56.63	234868.36
Siemens	167.70	2.40	180.80	113.40	2.29	16.09	163020.7
Volkswgn	141.50	-1.20	162.65	105.95	6.21	5.04	45331.4
Hong Kong (HK$)							
AIA	62.90	-1.50	83.40	45.25	2.44	2469.34	90458.68
BOC Hold	25.10	-0.05	25.40	17.86	5.66	8.21	33969.23
Ch OSLnd&Inv	15.12	-0.16	19.60	10.10	5.16	7.76	21182.95
ChngKng	35.20	-0.25	46.65	30.70	6.39	6.74	15818.83
Citic Ltd	8.26	-0.11	10.38	3.53	7.78	3.70	30757.43
Citic Secs	13.12	-0.26	18.02	10.86	4.06	9.67	4400.18
CK Hutchison	41.45	-0.50	52.75	35.35	6.97	5.58	20321.34
CNOOC	19.54	-0.46	20.75	10.90	6.85	6.57	111495.4
HangSeng	107.80	-1.50	120.20	73.05	4.86	12.16	26277.25
HK Exc&Clr	264.40	1.20	335.00	212.20	2.85	30.75	46154.79
MTR	28.55	-0.05	39.45	23.05	4.53	19.28	22720.87
SandsCh	20.45	-0.45	31.45	17.82	-	30.97	21105.09
SHK Props	77.85	-0.15	106.70	63.60	6.28	9.26	28876.73
Tencent	361.80	3.60	384.80	260.20	0.62	29.53	460349.03
India (Rs)							
Bhartiart	1309.9	25.60	1354	783.90	0.30	90.68	95159.88
HDFC Bk	1438.5	-22.45	1757.5	1363.55	1.32	15.10	130985.23
Hind Unilevr	2323.3	-26.30	2769.65	2172.05	1.71	53.14	65375.9
HsngDevFin	2724.3	-23.05	2927.4	2160	1.16	18.17	61324.4
ICICI Bk	1124.35	3.80	1169.55	899.00	0.71	18.99	94640.1
Infosys	1419.95	-4.75	1733	1242.45	2.50	24.14	70599.34
ITC	427.80	-1.90	499.70	393.35	2.97	26.15	63964.6
I&T	3411.3	31.85	3860	2168.5	0.70	37.62	56161.4
OilNatGas	273.45	0.55	292.95	150.05	3.73	8.24	41199.16
Reliance In	2832.55	-7.60	3024.9	2220.3	0.32	27.39	229528.52
SBI NewA	820.30	2.10	830.65	543.20	1.37	11.53	87676.23
SunPhrminds	1527.4	-17.85	1639.85	922.45	0.75	41.35	43889.83
Tata Cons	3880.4	-20.80	4254.75	3156	1.28	31.77	168141.75
Israel (ILS)							
TevaPha	60.30	1.60	60.43	25.37	-	-32.97	18129.26
Italy (€)							
Enel	6.84	0.13	6.86	5.47	5.91	12.31	75518
ENI	15.11	-0.06	15.83	12.45	6.13	14.18	53886.3
Generali	24.60	-0.08	24.98	17.47	4.77	-	41907.2
IntSPaolo	3.73	0.02	3.75	2.13	6.34	8.78	73976.04
Unicred	36.28	-0.14	36.74	17.89	2.75	7.12	66242.9
Japan (¥)							
AstellasPh	1525	4.00	2360.5	1426	4.66	526.26	17767.49
Bridgestne	6904	96.00	7058	5474	3.17	13.24	31722.99
Canon	4396	4.00	4603	3238	3.19	15.33	37748.11
CntJpRwy	3459	-30.00	4027	3235	0.88	8.71	22937.52
Denso	2640	81.50	2993.5	2057.5	1.99	22.37	53569.6
EastJpRwy	2873.5	-51.00	3108.33	2520	1.33	14.02	20986.53
Fanuc	4504	-123.00	5334	3603	2.30	28.18	29086.4
FastRetail	40750	50.00	48040	31140	0.75	37.39	83486.27
Fuji Hvy Ind	3318	36.00	3610	2241	2.50	6.68	16104.59
Hitachi	14375	-130.00	15310	7930	1.18	15.38	85807.42
HondaMtr	1750.5	4.50	1958.5	1254	3.06	8.40	59505.18
JapanTob	4395	46.00	4505	2997	4.83	14.80	56591.02
KDDI	4316	-91.00	5080	4059	3.55	12.22	63985.24
Keyence	70650	-510.00	75040	52080	0.46	43.31	110467.1
MitsbCp	3393	3.00	3775	1790.67	2.23	14.33	91288.65
MitsubEst	1122.31	-17.67	1191.47	972.54	-	-	-
MitsubishiEle	2799.5	17.00	2942.5	1651.5	1.80	20.68	38700.09
MitsuiFud	825.20	-11.68	1147.48	774.38	-	-	-
MitUFJFin	1590.5	-15.00	1645.5	898.50	2.51	8.52	126335.94
Mizuho Fin	3099	17.00	3155	2026	3.26	10.98	50662.38
Murata Mfg	2806.5	9.50	3141	2461	1.95	22.51	38632.99
Nippon TT	156.70	-2.80	192.90	156.70	3.42	10.22	91351.69
Nissan Mt	568.00	-4.40	712.50	503.10	2.89	4.69	14296.35
Nomura	887.50	4.00	1006	485.60	2.46	21.95	18076.06
Nppn Stl	3316	-52.00	3847	2705.5	5.44	5.10	20293.07
Panasonic	1345.5	-1.00	1808	1295	2.61	6.52	21259.99
Seven & I	2611	-13.00	2244.5	1720.67	5.74	7.41	34092.52
SmtEtsuCh	5660	60.00	6926	3957	6.06	20.10	75518.53
Softbank	8359	12.00	9386	4986	0.58	-19.98	79109.54
Sony	12550	985.00	14915	11535	0.68	17.14	104101.87
SumitomoF	9203	44.00	9362	5509	3.09	13.46	78055.72
Takeda Ph	4159	-46.00	4873	3900	4.84	33.83	42371.02
TokioMarine	4526	-26.00	5164	2784	2.45	14.71	62730.59
Toyota	3408	19.00	3891	1857	2.08	9.37	346559.24
Mexico (Mex$)							
AmerMvl	16.40	0.11	20.25	15.66	-	12.64	41116.45
FEMSA UBD	205.02	1.80	245.00	168.00	1.56	32.99	26519.32
WalMrtMex	68.87	1.74	74.11	59.28	1.45	23.47	71975.55
Netherlands (€)							
ASML Hld	851.00	10.30	958.40	534.40	0.71	42.34	369170.32
Heineken	94.86	0.90	105.00	81.54	2.04	22.97	59319.31
ING	16.19	-0.23	16.48	11.43	4.61	7.86	58055.12
Unilever	50.10	0.17	50.38	42.97	2.95	22.58	158589.93
Norway (Kr)							
DNB	201.00	-2.60	224.40	163.75	6.53	7.68	28861.14
Equinor♦■	298.70	-10.35	382.85	256.70	3.95	7.13	83496.07
Telenor	128.00	0.30	131.80	102.05	7.71	-34.55	16673.63
Qatar (QR)							
QatarNtBk	13.92	-	17.15	13.73	4.65	7.11	35312.07
Saudi Arabia (SR)							
AlRajhiBnk	79.80	0.90	91.60	63.10	2.97	20.46	85110.92
NatnlCombnk	35.40	-0.50	44.35	30.90	4.05	11.10	56633.94
SaudiBasic	79.80	-1.00	92.50	75.30	4.70	187.90	63833.19
SaudiTelec	38.05	-0.05	45.95	35.00	4.15	14.48	50727.9
Singapore (S$)							
DBS	35.31	-0.15	36.80	27.55	5.17	9.00	67763.54
JardnMt US$	39.07	-1.39	52.57	34.92	5.47	23.10	11197.78
OCBC♦	14.35	-0.05	14.55	12.00	5.57	8.81	47885.54
SngTel	2.43	-	2.68	2.25	4.17	12.34	29768.29
UOB	29.95	0.06	31.35	26.82	5.41	8.88	37181.84
South Africa (R)							
Firstrand	67.64	1.39	74.77	58.60	5.65	10.05	20702.54
MTN Grp	86.55	1.73	145.91	77.53	3.79	39.03	8897.82
Naspers N	4024.03	24.8317830200		2673.3	-	9.66	39144.49
South Korea (KRW)							
HyundMobis	224500	-2500.00	270000	198300	0.47	5.65	15356.66
KoreaElePwr	19690	310.00	25450	16030	-	-0.87	9232.21
SK Hynix	185300	1500	191400	88500	0.68	-10.54	98527.43
SmsungEl	78300	-100.00	86000	64800	1.95	34.83	341404.52
Spain (€)							
BBVA	10.20	0.30	11.28	6.06	4.65	7.83	64647.02
BcoSantdr	4.81	0.06	4.93	3.01	2.95	7.32	82674.88
CaixaBnk	4.88	-0.08	5.23	3.31	4.77	7.95	39713.36
Iberdrola	12.36	0.16	12.41	9.88	2.58	17.07	86156.74
Inditex	43.80	0.32	47.02	30.44	1.81	25.54	148200.92
Repsol	14.69	-0.14	16.22	12.48	4.81	5.91	20365.17
Telefonica	4.15	0.02	4.31	3.49	7.29	-20.56	25920.77
Sweden (SKr)							
AtlasCpco8	173.95	0.75	176.55	119.10	1.33	29.48	25339.06
Ericsson	60.06	-1.86	65.33	48.53	4.74	-7.17	17277.14
H & M	174.35	-1.70	189.58	135.24	3.86	29.07	23353.84
Investor	281.60	-0.05	284.35	197.88	1.57	5.33	47881.04
Nordea Bk	131.30	-1.65	134.30	106.60	8.12	7.87	42955.93
SEB	152.40	-0.55	157.45	111.90	5.60	8.35	30092.87
SvnskaHn	98.88	-	125.95	85.64	5.87	6.65	17946.35
Swedbank	217.10	-1.60	233.80	165.60	4.74	6.80	27935.39
Telia Co	26.26	0.16	27.72	20.98	6.03	-165.89	9636.46
Volvo	286.90	2.90	321.10	198.60	2.57	11.10	42531.09
Switzerland (SFr)							
ABB	48.20	0.64	48.29	29.13	1.71	26.58	100251.45
CredSuisse	0.82	0.01	5.86	0.66	11.88	-0.31	3611.19
Nestle	95.54	0.90	115.86	89.52	3.29	21.17	276636.79
Novartis	93.30	-0.19	94.52	79.21	3.37	25.35	225805.95
Richemont	136.55	0.15	158.05	102.95	1.73	19.96	81125.97
Roche	227.50	2.90	293.55	212.90	4.45	14.90	176540.34
Swiss Re	103.70	0.30	117.20	83.10	5.54	11.01	36386.66
Swisscom	503.50	1.50	597.00	488.60	4.66	14.29	28824.97
UBS	27.67	0.34	28.62	17.04	1.99	3.19	95795.97
Zurich Fin	453.30	0.80	492.90	401.70	5.29	16.98	73319.4
Taiwan (NT$)							
Chunghwa Telecom	125.50	-	128.00	114.00	3.88	25.50	30166.85
Formosa PetChem	70.20	0.50	90.00	67.60	1.64	29.28	20721.15
HonHaiPrc	170.50	-1.50	175.00	94.00	3.24	16.23	73240.12
MediaTek	1155	-	1275	652.00	9.09	22.90	57238.89
TaiwanSem	839.00	14.00	844.00	500.00	1.39	24.08	674242.6
Thailand (THB)							
PTT	33.75	-0.25	36.50	29.75	4.72	8.11	26385.64
United Arab Emirates (Dhs)							
Emrtestele	24.30	0.70	38.98	11.60	2.92	23.18	57535.64
United Kingdom (p)							
Anglo American	2625	5.50	2813	1630	3.86	145.49	44410.54
AscBrFd	2711	-8.00	2765	1804.5	1.63	20.20	25771.59
AstraZen	12172	-74.00	12488	9461	1.85	40.73	238569.64
Aviva♦	492.80	4.30	501.40	366.00	6.45	13.25	16636.24
Barclays	213.10	-4.10	218.85	128.12	3.61	7.92	40340.46
BP	496.95	-5.35	562.30	441.05	4.40	7.38	105331.25
BrAmTob	2466	1.00	2754.66	2233	9.36	-3.81	69425.22
BT	113.15	0.95	154.25	101.70	6.81	5.99	14243.15
Compass	2252	-69.00	2332	1940.5	1.65	29.91	48489.48
Diageo	2803	-36.00	3599.5	27.11	2.79	19.11	78822.4
GlaxoSmh	1812.5	2.50	1821	1302.6	3.08	15.12	95323.79
Glencore	487.90	-4.60	498.90	365.31	7.17	18.29	75292.79
HSBC	701.70	-4.70	725.20	572.90	5.86	7.85	166992.52
Imperial Brands	1986.5	108.00	1990	1553.5	7.14	7.92	21551.64
Jardine Mathes.	62.50	-	51.44	36.49	3.50	36.95	17913.01
LlydsBkg♦	54.50	-0.04	55.04	39.42	4.62	7.27	43461.29
LSE Group♦	9118	70.00	9696	7784	1.22	66.02	61271.25
Natl Grid	1136.5	17.00	1181	918.00	4.54	15.40	53494.35
Natwest Group	326.40	2.80	328.10	168.00	4.75	6.67	36055.64
Prudential	803.80	11.60	1188.5	684.73	1.90	16.55	27963.13
ReckittB♦	4596	-4.00	6570	4102.64	3.99	14.85	40976.84
RELX♦	3462	18.00	3531.81	2430.74	1.61	36.79	81319.92
RioTinto	5522	-33.00	5910	4509.5	5.75	11.42	87485.82
RollsRoyce	426.50	6.90	440.40	142.46	-	14.86	45404.46
Shell PLC	2869	-32.00	2961	2214	3.40	12.83	231573.79
StandCh♦	774.20	-4.20	784.80	571.00	2.03	9.29	25288.43
Tesco	310.70	-3.20	314.90	217.53	3.51	15.82	27562.15
Unilever	4300	11.00	4378	3680.5	3.49	19.38	136115.11
Vodafone	76.10	2.82	90.76	62.71	10.26	2.31	26066.18
WPP	845.40	-1.20	904.20	7.24	4.66	83.70	11532.99
United States of America ($)							
21stC Fox A	33.14	-0.18	35.41	28.26	1.53	19.53	7559.16
3M	101.45	1.37	101.74	71.35	5.87	-8.10	56139.16
AbbottLb	104.53	0.52	121.64	89.67	1.94	32.32	181343.92
Abbvie	163.25	1.00	182.09	130.90	3.60	60.49	288277.92
Accenture	304.29	-2.66	387.51	274.62	1.58	27.59	204000.96
Actvision Bli.	94.42	-0.05	94.57	70.94	-	36.23	74289.5
Adobe	486.05	10.10	634.59	333.01	-	46.43	217750.4
Advanced Micro	156.99	3.83	227.30	93.12	-	298.54	253745.11
AEP	91.99	1.20	92.57	69.36	3.64	21.87	48487.3
Aflac	86.70	0.40	86.78	64.10	1.92	11.23	49264.89
AirProd	250.57	2.01	307.71	212.24	2.77	24.14	55703.19
Allstate	166.89	-2.19	177.37	100.57	2.12	-140.17	44044.83
Alphabet	171.24	0.90	174.71

FINANCIAL TIMES SHARE SERVICE

Main Market

	Price	+/-Chg	52 Week High	52 Week Low	Yld	P/E	Vol 000s
Aerospace & Defence							
Avon Protection	1268	16.00	1296	582.00	2.89	-28.23	20.5
BAE Sys♦	1363	11.00	1406.5	883.40	2.06	22.57	6430.3
Chemring	389.00	2.50	412.14	253.95	1.57	29.63	638.5
Automobiles & Parts							
FordMtr $♦	12.27	-0.18	15.42	9.63	4.85	11.45	21977.3
Banks							
ANZ A$♦	27.68	-0.33	29.90	22.58	5.20	12.51	5310.0
BcoSant	410.00	3.00	423.00	257.00	2.97	7.27	416.6
BnkGeorgia	4105	-615.00	5510	2646.26	3.63	3.65	502.4
BankIre Grp €♦	9.99	-0.03	10.80	7.74	2.12	7.05	35.7
BkNvaS C$♦	65.83	0.30	70.40	55.20	3.48	10.63	441.5
Barclays♦	213.10	-4.10	218.85	128.12	3.61	7.92	34660.5
CanImp C$♦	67.01	0.12	69.42	47.44	5.28	10.11	486.2
HSBC♦	701.70	-4.70	725.20	572.90	5.86	7.85	15971.0
LlydsBkg♦▪	54.50	-0.04	55.04	39.42	4.62	7.27	92491.2
NWG▪	326.40	2.80	328.10	168.00	4.75	6.67	30683.2
PermTSB €	2.35	-0.04	2.81	1.18	-	53.03	65.9
RylBkC C$♦	142.63	0.29	143.26	107.92	3.84	13.07	464.8
StandCh♦▪	774.20	-4.20	784.80	571.00	2.03	9.29	6116.5
..7.375%Pf	107.50	-	107.00	94.50	5.86	-	55.3
..8.25%Pf	119.00	0.50	119.20	101.36	5.93	-	25.0
TntoDom C$♦	77.31	-0.10	87.10	73.98	5.11	12.05	987.9
Westpc A$♦	26.36	-0.24	28.05	20.03	5.10	13.45	4826.4
Chemicals							
Elementis♦	144.80	-1.60	155.00	96.60	-	39.27	597.2
Johnsn Mtthey	1861	-4.00	1956.8	1428.5	4.14	19.23	312.6
Victrex	1292	-16.00	1632	1152	4.61	18.33	112.1
Construction & Materials							
Boot(H)♦	197.00	1.00	249.00	170.00	3.38	13.49	155.4
GalfrdT	262.00	1.00	275.00	174.20	4.01	18.99	150.7
MorgSdl♦	2455	25.00	2405	1640.14	4.24	9.80	45.9
Tyman♦	382.50	1.50	400.00	231.50	3.58	19.62	1589.8
Electronic & Electrical Equip							
Dialight	177.00	-	240.00	135.00	-	-15.21	2.4
Discoverie PLC	731.00	-9.00	958.00	586.00	1.57	32.43	137.6
Halma	2356	24.00	2520.95	1802	3.86	37.51	358.9
Morgan Ac♦	326.50	3.50	331.00	215.50	3.68	20.03	241.7
OxfordIn	2405	55.00	2870	1634	3.81	23.35	62.9
Renishaw	4015	-5.00	4500	2823.42	1.90	30.03	45.8
Spectris	3302	-	3883.85	2917	2.32	23.69	194.7
TT Elect	153.50	-0.50	189.80	133.60	4.20	-39.35	193.6
XP Power	1130	-24.00	2489.2	682.41	4.78	-24.89	62.2
Financial General							
3i	2966	16.00	2992	1837	1.79	6.39	843.0
abrdn	156.95	0.35	238.00	134.60	9.30	1569.50	4424.3
Bridgepoint Grp Plc♦	234.20	-0.20	300.60	164.80	3.59	26.02	298.8
CtyLonInv	358.00	7.50	457.75	300.00	8.79	12.39	65.8
ClosaBrs	485.20	-0.80	998.50	273.00	13.91	5.13	325.2
CoinShares Int Ltd Skr	61.60	-3.60	70.70	29.45	-	0.61	118.2
Hargr Lans	901.40	24.40	944.80	675.40	4.27	16.07	1265.3
Indvardn SKr	366.20	-	377.20	273.70	1.99	5.00	297.2
ICG	2124	12.00	2176	1224	3.89	27.46	1022.3
Investec	558.50	2.50	567.00	401.00	5.55	7.60	1016.6
Jupiter♦	86.30	0.20	128.30	71.10	4.63	-34.52	717.2
Liontrust	730.00	6.00	833.50	513.00	6.44	9.13	158.7
LSE Gp▪▫	9118	70.00	9696	7784	1.22	66.02	3432.2
RathbnGrp	1776	4.00	2050	1436	4.73	24.40	51.4
Record	65.00	-1.50	98.90	55.20	6.92	12.77	70.4
S & U	2040	-20.00	2570	1750	6.52	7.56	0.5
Schroder	375.00	-0.60	475.40	345.20	5.73	15.50	2996.2
Shires Income	245.50	0.50	270.00	200.00	5.78	8.75	173.9
StJmsPl♦	485.40	-11.40	1185.5	393.60	10.92	-269.67	3538.3
TP ICAP♦	217.50	-5.50	230.50	140.60	2.76	310.71	1841.0
Vanqus♦	58.40	1.80	234.00	43.15	26.20	-24.33	2867.7
Food & Beverages							
AngloEst	708.00	6.00	886.00	650.50	2.76	7.61	12.6
AscBrFd♦	2711	-8.00	2765	1804.5	1.63	20.20	852.3
BarrAG)♦	575.00	3.00	598.00	445.00	2.28	19.12	85.1
Britvic	1018	100.50	1024	770.00	2.89	21.25	2064.2
CarrsGroup	135.50	-1.50	152.02	92.00	3.84	338.75	50.1
Coca-Cola HBC	2780	58.00	2784	2065	2.43	18.54	579.0
Cranswk	4370	50.00	4410	3072	1.82	18.59	126.8
Diageo♦	2803	-36.00	3599.5	27.11	2.79	19.11	2145.7
Grncore	139.00	2.60	139.80	69.35	-	19.31	9132.5
HiltonFd	923.00	-	957.00	614.00	3.22	75.04	55.6
Kerry €	79.55	-0.45	98.95	71.05	1.37	19.23	88.7
PremFds	168.60	3.60	170.80	111.50	0.85	15.19	1462.7
Tate&Lyl	667.50	-4.00	827.00	587.00	4.61	14.29	1096.7
Unilever♦	4300	11.00	4378	3680.5	3.49	19.38	2313.1
..NV	-	-	-	-	-	-	-
Health Care Equip & Services							
GNStre kr	208.00	6.40	213.70	113.10	-	125.50	730.4
Smith & Nephew♦	1020	2.00	1315	887.00	2.87	43.20	2323.5
House, Leisure & Pers Goods							
BarrttDev♦	511.20	15.30	582.60	384.15	6.59	22.72	4908.6
Bellway	2772	66.00	2898	1903	5.05	15.37	248.5
Berkeley	5290	80.00	5320	3634	2.43	12.56	153.2
Burberry Gp	1102	-86.50	2555	1102	5.54	9.22	4062.4
Cairn Homes♦	146.20	1.60	149.02	88.60	3.68	13.39	118.2
GamesWk	10100	70.00	11850	8860	4.41	23.85	32.1
Gleeson	542.00	12.00	550.00	344.50	2.58	18.62	59.8
Headlam♦	258.00	1.00	285.00	150.50	9.62	16.46	669.4
McBride	111.00	-	123.72	24.10	-	10.99	87.3
Philips €	25.25	0.16	29.10	16.48	-	-52.26	1277.7
PZCusns	108.20	-0.20	200.50	81.50	5.91	-13.46	695.2
Redrow	721.50	19.50	725.00	423.62	4.16	11.24	1684.9
Superdry Plc	6.98	-0.14	87.10	4.80	-	-0.04	622.1
Vistry Group	1291	30.00	1383	12.65	4.26	18.06	1618.3
Industrial Engineering							
Bodycote♦	753.00	13.00	756.00	545.00	2.87	16.81	303.8
Goodwin	6480	-140.00	7300	4200	1.72	31.07	28
Hill&Sm	1952	10.00	2015	1283.34	1.79	24.28	55.8
IMI♦	1892	8.00	1908	1429	1.40	20.75	461.3
Melroselnd	614.60	3.20	681.23	445.40	0.98	6144.00	2707.7
Renold	54.80	-1.80	57.80	26.50	-	8.06	3211.1
RHIM	3680	-45.00	3827.43	2034	3.89	12.42	19.1
Rotork♦	337.80	1.00	344.80	277.20	2.03	25.59	902.7
Severfd	70.40	-2.20	76.23	48.10	4.83	10.34	270.8
Weir♦	2110	16.00	2125	1652.5	1.76	23.92	44.8
Industrial General							
Coats Group♦	86.40	0.20	87.50	63.50	2.31	21.47	2651.8
Macfrlne♦	129.00	5.00	147.50	98.38	2.68	13.81	126.5
Smith DS	367.80	-2.20	415.00	260.50	4.89	10.98	20624.9
Smiths	1733	9.00	1776.5	1517.5	2.40	26.06	434.0
SmurfKap	3810	78.00	3845.94	2528	3.21	15.10	191.5
Industrial Transportation							
Braemar	285.50	-2.50	310.63	215.00	3.85	-31.72	35.0
Fisher J	302.00	2.00	427.50	238.73	-	71.90	34.4
intl'ldistser	314.80	43.40	335.00	191.20	-	-2.98	167483
OceanWI	1455	-	1500	816.00	3.76	9.78	9.3
Insurance							
Admiral▪	2674	-22.00	2870	2010	3.06	22.19	450.9
Aviva♦▫	492.80	4.30	501.40	366.00	6.45	13.25	7571.2
Chesnar♦	250.00	-2.00	290.00	242.70	9.31	-7.34	264.1
Direct Line♦	196.60	-	240.10	132.11	-	12.52	1857.9
Eccles plc	131.00	0.50	138.00	115.00	6.58	-	25.9
Hansard	51.25	0.80	55.02	37.20	8.68	10.68	45.4
Hiscox♦	1161	-3.00	1277.85	926.04	2.50	7.35	427.5
Lancashire♦	620.00	-6.00	690.00	525.00	1.89	5.99	270.3
Leg&Gen♦	251.80	6.60	257.90	203.10	7.00	34.59	18004.9
Old Mut	47.85	0.70	58.30	41.55	7.52	7.24	172.3
PhoenixGrp♦	515.00	10.50	587.00	436.40	10.10	-37.32	3789.6
Prudntl♦	803.80	11.60	1188.5	684.73	1.90	16.55	1447.7
LEISURE							
PhotoMe International Plc	107.00	5.00	109.00	55.70	5.58	8.04	655.5
Media							
4imprint♦	6210	10.00	6780	4115.9	2.07	23.09	160.5
Auto Trader Group PLC	755.80	-	768.40	580.20	1.11	29.86	1728.9
DlyMailA	270.00	-2.50	1178	264.50	8.95	10.31	111.0
Informa	843.00	-6.20	862.00	682.40	-	-37.34	1003.4
ITV♦	78.30	-0.90	82.55	55.49	6.39	15.06	12914.5
Pearson	984.40	-2.80	1046.5	793.20	2.22	18.68	1496.5
MEDIA							
Reach PLC♦	80.60	1.80	87.25	58.47	9.11	11.85	1123.3
Media							
RELX PLC♦▫	3462	18.00	3531.81	2430.74	1.61	36.79	2251.8
Rightmove PLC♦	546.20	-1.60	603.00	5.31	1.61	22.39	1819.3
STV Grp♦	255.00	-	260.00	175.00	4.43	27.13	37.7
WPP▫	845.40	-1.20	904.20	7.24	4.65	83.70	1949.1
Mining							
AngloAmer▫	2625	5.50	2813	1630	3.86	145.49	3052.5
AnGoldA R	449.30	2.63	497.05	287.40	1.91	246.40	1504.4
Antofagasta	2289	9.00	2336	15.82	2.15	34.45	842.9
BHP Group	2326	-2.00	2707.5	2157	5.85	20.35	1366.1
Ecora Resources	85.40	0.60	125.40	69.40	7.86	329.73	604.6
Ferrexpo	47.10	-1.10	106.60	42.85	30.43	0.37	1217.0
Fresnillo♦	595.00	19.50	697.60	435.20	2.21	25.38	1024.8
Glencore▫	487.90	-4.60	498.90	365.31	7.17	18.29	24702.0
Harmony R	172.88	0.68	186.42	65.00	0.43	12.13	2443.6
PolymtIntl#	215.00	50.00	362.02	125.00	-	2.47	12.0
Rio Tinto▫	5522	-33.00	5910	4509.5	5.76	11.42	1741.2
Troy Res A$	0.04	0.00	0.20	0.03	-	-0.24	3131.9
Oil & Gas							
BP▫	496.95	-5.35	562.30	441.05	4.40	7.38	28251.5
Capricorn Energy	181.40	-	697.45	109.20	-	-1.67	138.8
ExxonMb $▫	118.07	0.40	123.75	95.77	3.09	13.39	7700.0
Gazprom PJSC ADR $▫	0.58	-	10.97	0.02	-	0.61	3213.3
GeoPark $	9.92	0.12	10.95	8.05	5.26	5.15	232.5
HELLENIQ ENERGY €	8.81	0.14	8.81	6.55	8.59	5.59	420.1
ImpOil C$▫	93.42	-0.76	101.63	60.48	2.13	10.73	241.5
TnCan C$▫	53.10	0.27	56.12	43.70	7.19	18.82	447.7
Wood Group (John) PLC	185.60	-15.00	211.80	117.67	-	-2.09	6183.9
Pharmaceuticals & Biotech							
AstraZeneca▫	12172	-74.00	12488	9461	1.85	40.73	1412.8
GlaxoSmh▫	1812.5	2.50	1821	1302.6	3.08	15.12	4861.3
HikmaPhm	2028	26.00	2222	1711	2.39	30.42	198.7
Oxfd Bio	322.00	2.00	474.50	164.29	-	-5.05	220.2
RichterG $	27.00	-	27.60	23.20	4.17	10.95	0.0
Real Estate							
REITs							
Assura	43.46	1.14	53.00	38.38	7.36	-7.76	15122.1
BritLand	409.40	8.20	421.90	287.30	5.53	-3.56	2957.5
Cap&Rsg♦	52.60	0.90	61.00	48.88	9.87	-10.04	42.4
Civitas SH	79.80	-	86.18	51.67	6.81	13.62	115.0
DrwntLdn♦	2290	86.00	2452	1766	3.29	10.20	157.9
Great Portland	430.50	12.50	510.50	350.40	2.93	-3.30	263.9
LandSecs	684.50	14.00	729.40	551.20	5.70	-8.32	1826.9
LondonMtrc	209.40	6.60	210.00	152.30	4.58	-11.08	3497.8
Palace Cap	243.00	4.00	265.00	200.00	6.17	4.57	6.0
PrimyHth♦	97.05	0.75	109.00	84.20	6.90	48.53	7074.8
SEGRO	836.80	48.00	936.80	675.00	2.87	-45.26	3471.9
Shaftesbury Cap♦	141.00	1.00	145.60	101.50	2.27	3.11	3020.9
TritaxBBOX	164.70	5.10	173.00	121.80	4.39	44.27	10336.8
Wkspace	558.00	15.00	617.00	449.20	4.62	4.81	267.2
Real Estate Inv & Services							
Grainger	272.00	3.00	278.80	215.40	2.27	77.71	1477.5
Harworth Grp♦	138.00	3.00	142.28	95.40	0.99	12.00	27.2
Helical	235.00	-3.00	289.50	181.00	5.00	-1.65	162.3
Lon&Assc	11.00	-	18.00	7.00	-	-3.13	42.0
Mntview	9725	-50.00	11800	9200	5.14	14.24	0.1
Savills♦▪	1170	14.00	1208	745.00	1.74	40.63	209.3
SiriusRE	98.55	1.25	99.65	77.55	4.96	32.64	2328.7
Smart(J)	125.00	-	172.00	108.00	2.58	255.10	3.0
U+I	148.50	-0.50	151.50	58.51	-	-2.12	98.8
Retailers							
Caffyns	500.00	-	628.00	400.00	4.50	10.62	1.1
Dunelm	1014	-9.00	1335.53	959.00	4.14	13.74	269.4
Halfords	149.20	0.20	244.80	136.04	6.70	10.08	618.0
Inchcape♦	803.50	-7.50	892.50	597.50	3.85	12.40	651.8
JDSportsF	126.85	3.70	178.10	103.00	0.63	33.12	7942.1
Kingfisher	269.00	0.50	274.00	198.30	4.61	15.46	3874.2
Marks&Sp	275.80	1.90	293.20	159.15	-	212.15	4466.1
Ocado	363.10	-6.70	1017	334.30	-	-9.45	6603.9
Saga	126.00	2.80	154.80	100.20	-	-1.56	374.5
Sainsbury (J)	277.20	-1.40	311.16	243.80	3.82	23.29	6269.4
Tesco▫	310.70	-3.20	314.90	217.53	3.51	15.82	14204.7
Support Services							
Ashtd6p	6086	124.00	6144	4437	1.31	21.03	608.7
Bunzl	3110	-12.00	3306	2660	2.05	19.94	522.3
Capita	14.04	-0.02	35.93	12.48	-	-1.32	10151.4
DCC	5980	210.00	5980	4145	2.67	19.76	238.6
DeLaRue	95.40	2.80	100.00	29.10	-	-4.30	152.3
Diploma	4122	36.00	4340	2772.88	1.34	45.60	269.4
Essenta PLC	183.80	-1.80	203.20	130.20	1.20	91.90	347.6
Experian	3752	282.00	3796	2366	1.19	40.82	1976.3
Ferguson	17315	25.00	17810	11375	1.35	25.64	94.8
Hays	103.50	1.80	115.60	87.00	2.90	19.87	2341.4
HowdenJny♦	925.00	12.00	935.00	605.00	2.24	19.98	605.0
Intertek	4904	-18.00	5105	3746	2.23	26.74	413.3
Mitie	121.20	0.80	123.40	81.80	2.39	17.57	1661.6
Rentokil	429.00	7.20	663.80	387.80	1.84	28.47	9916.1
Ricardo	502.00	4.00	619.60	394.01	2.38	-502.00	15.4
RbrtWlts♦	366.00	-3.00	490.00	344.00	6.42	19.26	11.2
RS Grp	820.50	0.50	1134.91	7.66	2.55	16.44	1192.3
SIG	29.20	0.70	43.60	25.35	-	-7.68	768.2
Yp	670.00	-	690.00	460.00	5.60	11.16	2.1
Tech - Hardware							
SpirentCM	190.30	-0.30	203.80	79.75	3.22	56.94	2429.3
Tech - Software & Services							
Computcnt	2722	36.00	2982	1994.3	2.49	16.17	228.8
NCC Grp	136.60	1.60	139.60	81.20	3.40	-30.38	619.2
Sage	1197.5	-	1285	807.80	1.56	58.61	2740.3
TriadGp	277.00	-	300.00	105.00	2.17	-72.51	15.1
Telecommunications							
Airtel Africa	120.80	0.90	135.80	90.20	3.70	17.76	2211.0
BT▫	113.15	0.95	154.25	101.70	6.81	5.95	47022.8
TelePlus	1794	-14.00	1844	1356	3.18	46.00	65.1
Vodafone Gp▫	76.10	2.82	90.76	62.71	10.26	2.31	162540.2
Tobacco							
BrAmTob▫	2466	1.00	2754.66	2233	9.36	-3.81	4413.0
Imperial Br▫	1986.5	108.00	1990	1553.5	7.14	7.92	2490.7
Travel & Leisure							
Carnival	1071	12.00	1388	691.40	-	42.34	593.4
Dalata Hotel	357.00	-1.00	436.00	324.00	0.97	10.33	63.9
easyJet	529.40	4.40	591.07	350.00	-	12.40	8758.7
FirstGrp	171.20	-3.10	189.00	109.80	2.22	-114.13	1322.8
Rutter Entertainment	16575	700.00	17980	12020	-	-497.75	819.6
Fuller A	640.00	6.00	720.00	512.00	2.29	36.57	66.5
IntCon Htels Gp	7820	-34.00	8790	5170	1.44	22.59	295.0
Intl Cons Air	182.05	-2.05	187.65	2.14	-	4.15	16592.2
TUI	591.00	-9.50	687.00	375.00	-	4.87	1344.8
Whitbrd	3112	-7.00	3714	2982	-	-25.26	674.6
Utilities							
Drax♦	551.00	13.00	644.60	395.20	3.96	3.95	1971.9
Natl Grid▫	1136.5	17.00	1181	918.00	4.54	15.40	6162.0
Pennon	720.00	-12.50	863.49	532.83	5.93	-111.42	1424.7
Severn Trent	2653	25.00	2955	2243	4.03	63.77	499.8
SSE	1882	28.00	1932.5	1485	5.19	34.93	7258.0
UtdUtils	1112	5.00	1139.5	896.76	4.09	-236.66	1618.3

AIM

	Price	+/-Chg	52 Week High	52 Week Low	Yld	P/E	Vol 000s
Aerospace & Defence							
Cohort	800.00	-8.00	848.00	430.00	1.68	24.55	30.6
Velocity Composites PLC	41.00	1.00	57.00	28.00	-	-5.13	93.7
Banks							
Caribbean Inv	26.50	-	45.40	24.03	-	3.05	138.6
Basic Resource (Ex Mining)							
CropperJ	400.00	-10.00	960.00	212.00	1.50	11.75	4.1
Chemicals							
Directa Plus PLC	19.00	-	74.00	16.00	-	-3.13	24.3
Versarien PLC	0.10	0.00	7.00	0.08	-	-0.02	6835.3
Construction & Materials							
AccsysTch	58.00	-	108.00	49.90	-	-2.55	24.3
Electronic & Electrical Equip							
Checkit	27.00	-	31.00	18.10	-	-2.87	13.9
IPA	64.00	-	104.00	55.60	-	-237.04	1.5
ThorpeFW	379.00	-4.00	460.00	320.00	1.70	20.10	16.1
Zytronic	56.50	0.50	105.00	53.00	3.89	-3.67	5.8
Financial General							
Arbuthnot♦	1025	-2.50	1150	840.00	4.29	4.60	1.1
BP Marsh	476.00	-10.00	518.00	308.10	0.51	13.11	10.7
Burford Capital Ltd	1134	11.00	1388	900.00	0.87	5.28	235.5
Gresham House Plc	1100	-20.00	1120	652.00	1.45	30.51	177.7
MatlocIlWds	788.00	2.00	800.00	481.00	3.40	41.04	270.8
Premier Miton Group	76.00	-	95.00	48.10	12.24	32.34	290.4
STM Group	57.50	-	62.60	23.45	1.04	59.28	30.2
Food & Beverages							
Camellia	4490	10.00	6300	4018.6	3.25	42.76	0.8
Fevertree Drinks	1191	5.00	1489	947.00	1.37	116.73	153.6
Nichols	1025	15.00	1520	882.00	2.72	20.37	14.4
Health Care Equip & Services							
AVO#	1.93	-	25.75	1.75	-	-0.23	2000
Tristel	440.00	-10.00	503.50	315.00	2.39	35.17	486
House, Leisure & Pers Goods							
Churchill	1175	-	1560	947.00	2.68	15.73	95
Frontier Developments PLC	291.50	5.50	649.00	95.00	-	-1.86	144.9
Portmerm♦	250.00	-	515.75	200.17	5.20	7.39	15
Sanderson Design Grp	107.50	-	132.50	95.31	3.26	8.27	20.9
Industrial Engineering							
600 Grp#	2.65	-	13.50	2.00	-	15.50	40.4
MS Intl	995.00	-	1030	442.00	1.51	23.86	4.7
IT							
Keywords Studios	1345	37.00	2362	1101	0.17	38.05	178.9
Learning Technologies Group	77.90	-1.40	105.50	58.62	2.05	22.67	733.7
Media							
Mission Group	24.00	-	52.00	10.00	10.13	-17.56	512.2
Mining							
AMC#	0.09	-	1.99	0.07	-	-0.55	5981.6
CentAsiaM♦	222.00	0.50	231.00	150.20	8.41	1656.72	1345.6
Gemfields	12.25	-0.13	17.00	11.00	18.47	-19.51	267.0
Oil & Gas							
BorSthnPet	2.39	0.21	3.34	1.70	-	-16.04	1974.2
Phoenix Global	6.50	0.25	7.95	3.07	-	-1.63	53.0
UrJackOil	23.00	-1.00	34.00	14.00	1.30	12.17	148.6
Pharmaceuticals & Biotech							
Reneuron#	3.38	-0.08	11.50	3.28	-	-0.38	177.6
Sareum	39.70	-2.05	142.00	10.00	-	-6.40	1596.0
Real Estate							
Lok'nStor	1105	-	1180	621.50	1.63	20.61	225.1
Retailers							
Boohoo Group PLC	36.72	0.94	46.93	27.77	-	-5.41	5207.6
CVS Group PLC	1026	35.00	2226	902.41	0.73	20.73	1308.9
Support Services							
Begbies	104.00	0.50	136.50	103.00	3.65	346.67	392.9
Christie	105.00	-	167.00	66.00	3.57	70.95	2.0
Impellam	675.00	35.00	950.00	580.00	-	25.00	4.6
JhnsnSrv	163.00	-2.00	169.00	99.00	1.53	25.47	1357.4
LonSec	3050	-	3300	2765	2.75	17.18	0.1
NWF	218.00	-	280.00	170.50	3.58	8.29	22.5
Petards	8.00	-0.25	8.48	2.13	-	38.10	76.7
Renew	1054	28.00	1070	672.00	1.64	17.75	746.7
Tech - Software & Services							
EdBlue Prism Group PLC	1274	-	1392	747.50	-	-23.65	1869.0
Eckoh	37.10	-1.90	46.70	32.05	1.99	30.16	684.2
Oxford Metrics	112.50	-	121.64	78.00	2.22	26.04	29.0
Travel & Leisure							
gamingrealms	40.40	-	43.00	27.74	-	25.57	402.1
Jet2	1360	-7.00	1568	960.00

MANAGED FUNDS SERVICE

SUMMARY

FT.COM/FUNDS

Winners - EAA Fund Global Emerging Markets Equity

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
Invesco Emerging Markets ex China Fund (UK)	23.34	14.95	6.35	0.49	18.90
Artemis SmartGARP Global Emerging Markets Equity Fund	24.67	8.42	9.10	0.09	16.33
M&G Global Emerging Markets Fund	18.66	7.85	7.81	0.01	17.83
Lazard Emerging Markets Fund	22.45	7.26	6.57	0.03	16.40
BNY Mellon Emerging Income Fund	9.45	6.70	6.19	-0.04	14.23

Losers - EAA Fund Global Emerging Markets Equity

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
Abaris Emerging Markets Equity	-5.79	-20.00	-	-0.96	32.88
T Rowe Price Funds SICAV -Emerging Markets Equity Fund	0.31	-8.84	-0.96	-0.83	18.24
Pictet-Emerging Markets	11.40	-7.82	1.61	-0.80	18.81
Morgan Stanley Investment Funds -Developing Opportunity Fund	12.98	-7.71	-	-0.69	21.30
UBS Lux Equity Fund -Emerging Markets Sustainable Leaders (USD)	9.86	-7.61	0.95	-0.74	19.38

Morningstar Star Ratings

Fund Name	Base Currency	Morningstar Rating 3 Yr	Morningstar Rating 5 Yr	Morningstar Rating 10 Yr
Japan Fund W-ACC-GBP	Pound Sterling	★★★★★	★★★★★	★★★★★
Extra Income	Pound Sterling	★★★	★★★	★★
Global Bond Inc	Pound Sterling	★★★	★★★	★★★★
Janus Henderson Multi-Manager Income & Growth Fund A Inc	Pound Sterling	★★★	★★	★★
Janus Henderson Fixed Interest Monthly Income Fund Inc	Pound Sterling	★	★	★★★

Global Broad Category Group - Commodities

Morningstar Category	Base Currency	Total Ret 1Yr GBP	Total Ret 3Yr GBP	Total Ret 5Yr GBP
Commodities Energy	Baht	-25.94	27.66	-3.13
Commodities - Grains	US Dollar	10.60	24.41	8.04
Commodities - Energy	US Dollar	-3.82	14.53	-2.26
Commodities - Energy	US Dollar	12.10	10.61	-1.82
Commodities - Industrial & Broad Metals	US Dollar	49.70	8.28	-

Advertising Feature

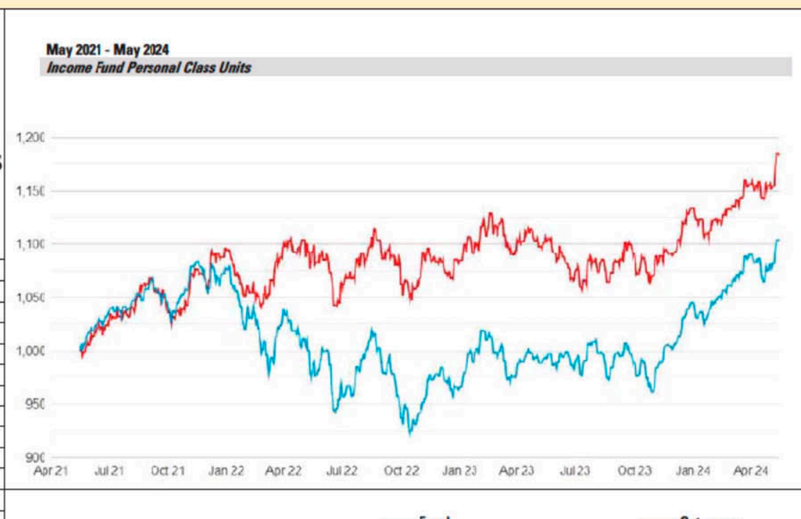
McInroy & Wood Portfolios

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

Firm Name	
McInroy & Wood Portfolios Limited	
Fund Name	
Income Fund Personal Class Units	
Morningstar Category	
GBP Allocation 60-80% Equity	
Max Annual Charge	
-	
3Yr Rating	
★★★★★	
Morningstar Sustainability Rating	
-	

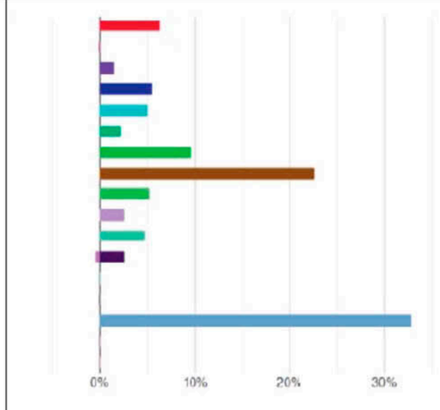
Bid Price	-	**KIID Ongoing Charge**	1.12
Offer Price	-	**Day-End One Year Return**	4.88
+/-	2.70	**Total Ret 3Yr**	4.97

Performance



Day ↘ -0.12% Month ↗ 2.05% Year ↗ 7.35%

Weightings - As of 31/03/2024



Sector	Weighting	Cat Avg.
Basic Materials	6.24%	3.81%
Communication Services	-	4.29%
Consumer Cyclical	1.45%	7.21%
Consumer Defensive	5.56%	5.55%
Energy	5.04%	3.11%
Financial Services	2.20%	11.35%
Healthcare	9.51%	8.24%
Industrials	22.63%	9.39%
Real Estate	5.17%	2.82%
Technology	2.54%	11.96%
Utilities	4.76%	2.31%
Cash & Equivalents	2.04%	5.30%
Corporate	-	10.07%
Derivative	-	0.58%
Government	32.85%	12.97%
Municipal	-	0.01%
Securitized	-	1.02%

Risk Measures - As of 30/04/2024

	1Yr	1Yr Cat Ave	3Yr	3Yr Cat Ave	5Yr	5Yr Cat Ave
Alpha	-3.33	-1.72	1.27	-2.03	0.65	-1.44
Beta	0.62	0.93	0.59	0.90	0.68	0.98
Information Ratio	-1.25	-0.62	0.10	-0.56	-0.12	-0.38
R Squared	64.66%	82.68%	56.22%	79.10%	73.28%	83.32%
Sharpe Ratio	-0.02	-0.08	0.38	0.05	0.47	0.35
Std Dev	5.77	8.15	6.57	8.92	7.67	10.43

Top 10 Holdings - As of 31/03/2024

Holding	Sector	Weighting
Novo Nordisk A/S Class B	Healthcare	3.55%
Schneider Electric SE	Industrials	3.48%
National Grid PLC	Utilities	2.99%
AbbVie Inc	Healthcare	2.97%
Watsco Inc Class A	Industrials	2.77%
Air Liquide SA	Basic Materials	2.73%
TotalEnergies SE	Energy	2.57%
Paychex Inc	Industrials	2.48%
Shell PLC	Energy	2.47%
SGS AG	Industrials	2.43%

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Algebris Investments

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Algebris Core Italy I EUR	€ 158.19	-	1.44	0.00	6.82	2.90
Algebris Core Italy F EUR	€ 148.55	-	1.34	0.00	6.02	2.41
Algebris Financial Credit I EUR	€ 200.19	-	-0.02	0.00	18.09	1.37
Algebris Financial Credit R EUR	€ 170.82	-	-0.01	0.00	17.48	0.73
Algebris Financial Credit Rd EUR	€ 95.32	-	-0.01	6.13	17.65	0.85
Algebris Financial Equity B EUR	€ 231.85	-	1.02	-	45.81	17.86
Algebris Financial Equity R EUR	€ 192.20	-	0.84	-	44.35	16.63
Algebris Financial Income I EUR	€ 224.40	-	0.45	0.00	28.98	7.74
Algebris Financial Income R EUR	€ 201.56	-	0.39	0.00	27.82	6.73
Algebris Financial Income Rd EUR	€ 114.63	-	0.22	4.78	27.82	6.77
Algebris Global Credit Opportunities I EUR	€ 143.67	-	0.09	0.00	15.06	2.93
Algebris Global Credit Opportunities R EUR	€ 139.47	-	0.07	0.00	14.71	2.41
Algebris Global Credit Opportunities Rd EUR	€ 114.95	-	0.06	4.64	14.88	2.53
Algebris IG Financial Credit I EUR	€ 108.13	-	-0.14	0.00	11.07	-0.74
Algebris IG Financial Credit R EUR	€ 105.70	-	-0.13	0.00	10.52	-1.22
Algebris Sust. World B	€ 129.71	-	0.29	0.00	23.53	-
Algebris Sust. World R	€ 127.10	-	0.28	0.00	21.92	-

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American Dynamic	$ 7952.90	-	77.03	0.00	21.62	2.25
American One	$ 8576.44	-	48.04	0.00	22.51	6.54
Bond Global	€ 1592.46	-	-3.85	0.00	4.24	1.97
Eurocroissance	€ 1467.74	-	26.21	-	5.47	2.49
Far East	$ 1041.47	-	-0.41	0.00	2.50	-7.32

CANDRIAM
A NEW YORK LIFE INVESTMENTS COMPANY

Candriam Investors Group (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Abs Ret Eqt Mkt Neutral-C-Cap	€ 220.61	-	0.02	0.00	11.67	3.04
Candriam Eds Euro High Yield Cap	€ 1311.67	-	-1.30	0.00	9.83	1.29
Candriam Bonds Glb Hi Yield -C-Cap	€ 263.14	-	0.00	0.00	8.29	2.58
Candriam Bonds Glbl Infl Sh Dtion-I-Cap	€ 155.32	-	0.09	0.00	1.30	0.37
Candriam Bonds Total Return - C - Cap	€ 136.97	-	-0.01	0.00	2.85	0.10
Candriam Dversified Futures-I-Cap *	€ 1492.01	-	-57.57	0.00	10.65	7.54
Candriam Eqts L Australia CapA$	2089.01	-	6.24	0.00	8.70	7.39
Candriam Eqts L Emerging Mkts Cap	€ 953.49	-	1.70	0.00	14.77	-4.94
Candriam Equities L Biotecth-C-Cap	$ 828.16	-	2.11	0.00	5.73	2.96
Candriam Equities L Europe Innov-R-Cap	€ 277.06	-	0.95	0.00	1.27	0.24
Candriam Index Arbitrage-C - Cap	€ 1482.51	-	-0.02	0.00	5.08	1.65
Candriam Long Short Credit-R - Cap	€ 112.17	-	-0.02	0.00	5.05	2.05
Candriam Risk Arbitrage - C - Cap	€ 2580.20	-	0.62	0.00	5.99	0.36
Candriam Sust Bond Emerg Mkts-I-DIST	$ 781.59	-	1.04	8.66	4.39	-3.88
Candriam Sust Bond Euro Corp-R-Cap	€ 103.22	-	-0.15	0.00	6.15	-1.91
Candriam Sust Bond GlobalHighYield-I-Cap	€ 1158.56	-	0.15	0.00	6.15	0.43
Candriam Sust Eq Circ Econ-R-Cap	$ 145.40	-	0.86	0.00	7.98	-0.53
Candriam Sust Eq Climt Action- I - Cap	$ 1670.05	-	9.03	0.00	4.58	-0.57
Candriam Sust Eq Emerging Mkts C Cap	€ 121.73	-	0.65	0.00	9.34	7.56
Candriam Sust Eq EMU-C-Cap	€ 190.44	-	0.07	0.00	10.86	6.05
Candriam Sust Eq Eurp S&M Caps-I-Cap	€ 2461.91	-	14.37	0.00	1.36	-1.74
Candriam Sust Eq World -C-Cap	€ 35.57	-	0.14	0.00	17.67	8.61
NYLIM GF US HighYieldCorp Bond-R-Cap	$ 151.58	-	0.06	0.00	8.17	2.17

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	$ 31.37	-	0.33	0.00	22.35	-0.90

edentree
investment management

EdenTree Investment Management Ltd (UK)
Sunderland, SR43 4AU, 0800 358 3010
Authorised Inv Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
EdenTree European Equity Cls A Inc	375.00	-	2.10	2.33	16.55	8.64
EdenTree European Equity Cls B Inc	379.30	-	2.20	2.83	17.21	9.24
EdenTree Global Equity Cls A Inc	375.90	-	1.10	-	13.85	4.16
EdenTree Global Equity Cls B Inc	379.50	-	1.00	1.45	14.50	4.72
Edentree Global Impact Bond B	87.19	-	0.23	3.01	4.07	-
Edentree Green Future B Net Inc	113.70	-	0.50	1.06	15.16	-
EdenTree Green Infrastructure Cls B Inc	£ 0.83	-	0.00	6.65	-11.47	-
EdenTree Managed Income Cls A Inc	126.10	-	0.40	4.58	6.94	2.96
EdenTree Managed Income Cls B Inc	135.50	-	0.50	4.70	7.49	3.52
EdenTree Multi-Asset Balanced Cls B Acc	£ 0.99	-	0.00	2.00	8.19	-
EdenTree Multi-Asset Catious Cls B Acc	£ 0.99	-	0.00	2.13	6.70	-
EdenTree Multi-Asset Growth Cls B Acc	£ 1.02	-	0.00	1.99	10.77	-
EdenTree Responsible and Sust S Dtd Bd B	95.23	-	0.08	2.97	5.01	0.09
EdenTree Sterling Bond Cls A Inc	86.78	-	0.23	-	7.02	-2.52
EdenTree Sterling Bond Cls B Inc	98.80	-	0.28	4.44	7.68	-1.89
EdenTree UK Equity Cls A Inc	226.20	-	2.00	1.55	1.30	-3.33
EdenTree UK Equity Cls B Inc	225.80	-	2.10	2.10	1.81	-2.80
EdenTree UK Equity Opps Cls A Inc	303.70	-	0.60	1.54	11.00	-2.02
EdenTree UK Equity Opps Cls B Inc	310.40	-	0.60	2.06	11.63	-1.47

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Smaller Cos Cls One Shares	€ 55.28	-	0.03	0.00	1.47	-2.99
Smaller Cos Cls Two Shares	€ 35.04	-	0.02	0.00	0.98	-3.58
Smaller Cos Cls Three Shares	€ 17.48	-	0.00	0.00	0.92	-3.87
Smaller Cos Cls Four Shares	€ 23.05	-	0.01	0.00	0.96	-3.12

Global Broad Category Group - Commodities

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Global Property Fund W-ACC-GBP	£ 1.95	-	0.00	2.05	6.78	-0.34
Global Special Sits W-ACC-GBP	£ 64.91	-	-0.28	0.57	18.84	7.00
Index Emerging Markets P-ACC-GBP	£ 1.84	-	0.00	2.30	13.19	-0.02
Index Europe ex UK P-ACC-GBP	£ 2.31	-	0.00	2.35	13.61	8.73
Index Japan P-ACC-GBP	£ 2.26	-	0.00	1.80	14.90	6.79
Index Pacific ex Japan P-Acc-GBP	£ 1.98	-	-0.01	3.97	5.16	2.61
Index UK P-ACC-GBP	£ 1.84	-	0.00	3.43	12.46	8.49
Index US P-ACC-GBP	£ 4.40	-	-0.01	1.11	27.35	13.70
Index World P-ACC-GBP	£ 3.35	-	-0.01	1.45	22.88	11.45
MoneyBuilder Balanced Fund W-ACC-GBP	£ 0.65	-	0.00	3.39	6.22	3.06
MoneyBuilder Dividend Fund W-INC-GBP	£ 1.37	-	0.01	4.30	9.47	9.32
Sustainable MoneyBuilder Income Fund W-ACC-GBP	£ 13.03	-	-0.02	-	6.19	-3.59
Multi Asset Allocator Adventurous Fund W-ACC-GBP	£ 2.44	-	-0.01	1.16	15.24	6.14
Multi Asset Allocator Defensive fund W-ACC-GBP	£ 1.38	-	0.00	1.60	4.70	-0.88
Multi Asset Allocator Growth Fund W-ACC-GBP	£ 2.06	-	0.00	1.23	11.55	3.71
Multi Asset Balanced Income Fund W-INC-GBP	£ 0.96	-	0.00	4.74	6.48	-0.85
Multi Asset Income & Growth Fund W-INC-GBP	£ 1.06	-	0.00	-	9.03	1.14
Multi Asset Income Fund W-INC-GBP	£ 0.87	-	0.00	5.84	5.50	-2.32
Multi Asset Allocator Strategic Fund W-ACC-GBP	£ 1.72	-	0.00	1.26	7.99	1.34
Multi Asset Open Advent W-ACC-GBP	£ 1.95	-	0.00	1.74	10.57	4.96
Multi Asset Open Defen W-ACC-GBP	£ 1.40	-	0.00	2.37	3.78	0.07
Multi Asset Open Growth Fund W-ACC-GBP	£ 1.83	-	0.00	1.97	9.45	4.34
Multi Asset Open Strategic Fund W-ACC-GBP	£ 1.62	-	0.00	2.22	6.31	2.04
Open World Fund W-ACC-GBP	£ 2.64	-	-0.01	0.95	15.13	7.81
Strategic Bond Fund W-ACC-GBP	£ 1.25	-	0.00	3.29	4.86	-3.10
UK Opportunities Fund W-ACC-GBP	265.10	-	0.20	1.26	6.68	-3.56
UK Smaller Companies W-ACC-GBP	£ 4.15	-	-0.02	2.15	10.63	6.14
Index Sterling Corporate Bond fund P-ACC-GBP	£ 0.89	-	0.00	4.15	6.01	-3.93
Index UK Gilt Fund P-ACC-GBP	£ 0.74	-	0.00	3.50	0.64	-7.69
Sustainable Asia Equity Fund W-ACC-GBP	£ 1.00	-	0.01	1.00	4.67	-3.03
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 1.03	-	0.00	1.76	10.21	-
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.96	-	0.00	2.18	6.30	-
Sustainable Multi Asset Growth fund W-ACC-GBP	£ 1.08	-	0.00	1.74	12.58	-

GUINNESS GLOBAL INVESTORS

Guinness Global Investors
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Guinness Global Equity Income Y GBP Dist	£ 21.47	-	0.00	1.88	14.57	11.67
Guinness Global Innovators Y GBP Acc	£ 36.90	-	0.15	0.00	37.92	12.54
Guinness Sustainable Global Equity Y GBP Acc	£ 12.71	-	0.10	-	15.15	6.83

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	£ 3.50	-	0.00	0.00	1.61	1.50
Holiday Property Bond Ser 2	£ 3.64	-	0.00	0.00	-	1.18

BLUE WHALE GROWTH FUND

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	$ 13.30	-	0.13	-	40.11	5.72

BM BROOKS MACDONALD

Brooks Macdonald International Fund Managers Limited (JER)
Third Floor, No 1 Grenville Street, St Helier, Jersey, JE2 4UF
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8030 (UK)
Brooks Macdonald International Investment Funds Limited

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Euro High Income	€ 1.2340	-	-0.0001	2.50	4.68	-3.95
High Income	£ 0.6615	-	0.0015	3.77	7.32	-3.26
Sterling Bond	£ 1.2867	-	0.0031	2.06	6.80	-3.16

Brooks Macdonald International Multi Strategy Fund Limited

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Cautious Balanced Strategy	£ 1.3279	-	0.0006	0.00	7.08	-0.01
Cautious Balanced Strategy A	£ 0.9516	-	0.0005	1.69	7.64	-
Balanced Strategy	£ 1.0108	-	0.0000	-	10.22	-
Balanced Strategy A	£ 1.0141	-	0.0001	-	10.79	-
Growth Strategy	£ 2.1925	-	-0.0004	0.00	12.74	3.37
Growth Strategy A	£ 1.0501	-	-0.0002	1.03	13.32	-
High Growth Strategy	£ 3.1068	-	-0.0013	0.00	13.92	3.80
High Growth Strategy A	£ 1.0618	-	-0.0004	0.67	14.50	-
US$ Growth Strategy	$ 2.0183	-	0.0063	0.00	17.91	0.29

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

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CAM-GTF VCC	$ 316579.78	316579.78	-7065.16	-	-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

The Antares European Fund Limited
Other International

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
AEF Ltd Usd	$ 544.16	-	-10.67	0.00	-1.65	-1.17
AEF Ltd Eur	€ 498.20	-	0.00	0.00	-1.61	-1.85

Findlay Park

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	€ 197.34	-	0.69	0.06	28.23	10.90
American Fund USD Class	$ 213.67	-	1.17	0.07	27.79	6.77
American Fund GBP Hedged	£ 103.70	-	0.56	0.06	26.92	5.51
American Fund GBP Unhedged	£ 169.71	-	0.57	0.07	26.59	10.85

Janus Henderson INVESTORS

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 Absolute Return Fund A Acc	162.30	-	0.30	1.66	7.18	2.91
Janus Henderson Asia Pacific Capital Growth Fund A Acc	1232.00	-	0.00	0.19	9.57	-4.68
Janus Henderson Asian Dividend Income Unit Trust Inc	80.40	-	0.22	4.76	11.72	0.96
Janus Henderson Cautious Managed Fund A Acc	367.00	-	1.40	3.59	5.63	1.37
Janus Henderson Cautious Managed Fund A Inc	144.10	-	0.70	3.68	5.64	1.38
Janus Henderson China Opportunities Fund A Acc	1059.00	-	-3.00	0.56	-2.21	-14.56
Janus Henderson Emerging Markets Opportunities fund A Acc	268.70	-	-0.90	0.04	12.15	-3.44
Janus Henderson European Selected Opportunities fund A Acc	2730.00	-	0.00	0.75	19.38	8.92
Janus Henderson Fixed Interest Monthly Income Fund Inc	17.13	-	0.03	4.45	1.37	-4.59
Janus Henderson Global Equity Fund Acc	5238.00	-	8.00	0.00	27.22	7.87
Janus Henderson Global Equity Income Fund A Inc	72.26	-	0.19	3.05	11.02	7.82
Janus Henderson Global Sustainable Equity Fund A Inc	577.80	-	0.40	0.00	22.62	8.19
Janus Henderson Global Technology Leaders Fund A Acc	4366.00	-	13.00	-	47.61	13.87
Janus Henderson Instl UK Index Opportunities A Acc	£ 1.31	-	0.00	2.89	12.14	7.66
Janus Henderson Mid & Large Cap Fund	351.50	-	0.30	0.66	15.53	8.22
Janus Henderson Multi-Asset Absolute Return Fund A Acc	172.10	-	0.10	1.37	4.12	4.21
Janus Henderson Multi-Manager Active Fund A Acc	264.40	-	0.60	1.13	10.64	3.17
Janus Henderson Multi-Manager Distribution fund A Inc	129.00	-	0.10	3.47	6.01	0.90
Janus Henderson Multi-Manager Diversified Fund A Acc	91.89	-	0.11	4.09	4.53	-0.44
Janus Henderson Multi-Manager Global Select Fund Acc	365.30	-	-0.10	0.13	17.99	7.14
Janus Henderson Multi-Manager Income & Growth fund A Acc	202.20	-	0.20	3.49	6.71	1.27
Janus Henderson Multi-Manager Income & Growth Fund A Inc	151.50	-	0.20	3.62	6.62	1.25
Janus Henderson Multi-Manager Managed Fund A Acc	345.70	-	0.90	-	9.36	2.76
Janus Henderson Multi-Manager Managed Fund A Inc	328.30	-	0.80	1.55	9.39	2.76
Janus Henderson Strategic Bond Fund A Inc	97.42	-	0.33	3.43	-4.13	-6.04
Janus Henderson Sterling Bond Unit Trust Acc	214.00	-	0.50	3.14	4.45	-4.72
Janus Henderson Sterling Bond Unit Trust Inc	56.28	-	0.15	3.20	4.38	-4.72
Janus Henderson UK Alpha Fund A Acc	157.60	-	0.70	1.47	11.67	-1.74
Janus Henderson UK Equity Income & Growth fund A Inc	542.60	-	3.30	4.19	11.14	5.41
Janus Henderson US Growth Fund A Acc	2311.00	-	4.00	0.00	34.83	10.95

ARTEMIS
The PROFIT Hunter

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 Corporate Bond I Acc	278.83	-	-10.58	3.29	16.38	10.92
Artemis European Select I Acc	107.24	-	0.35	5.06	8.09	-1.59
Artemis Global Income I Inc	584.58	-	1.46	2.65	27.89	13.03
Artemis Global Select I Acc	160.70	-	0.42	0.09	22.29	0.22
Artemis High Income I Q Inc	207.22	-	1.04	-	24.67	8.42
Artemis Income I Inc	457.78	-	0.82	2.49	21.20	8.03
Artemis Monthly Dist I Inc	134.63	-	0.50	3.20	32.99	11.75
Artemis Positive Future Fund	194.86	-	-0.28	0.84	20.05	7.53
Artemis Short-Dn Strat Bond	117.12	-	0.49	4.45	9.21	2.43
Artemis SmartGARP Eur Eq I Acc	71.86	-	0.17	5.82	10.50	1.94
Artemis SmartGARP GloEmr Eq I Acc	281.79	-	1.26	3.65	15.64	8.53
Artemis SmartGARP Glo Eq I Acc	76.97	-	0.14	4.55	17.76	5.93
Artemis SmartGARP UK Eq I Acc	65.25	-	0.31	0.00	-4.09	-9.93
Artemis Strategic Assets I Acc	101.84	-	0.06	1.60	-0.23	3.57
Artemis Strategic Bond I Q Acc	109.82	-	0.30	4.55	6.81	-0.55
Artemis UK Select Fund Class I Acc	995.36	-	5.10	2.25	22.72	8.53
Artemis UK Smaller Cos I Acc	2327.04	-	49.67	2.35	11.33	3.04
Artemis UK Special Sits I Acc	929.21	-	4.53	2.14	16.17	5.01
Artemis US Extended Alpha I Acc	432.29	-	0.55	0.00	30.85	13.03
Artemis US Select I Acc	395.82	-	0.90	0.00	35.81	11.11
Artemis US Smlr Cos I Acc	376.53	-	3.12	0.00	31.02	3.03

Brown ADVISORY
Thoughtful Investing.

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Global Leaders Fund USD C	$ 26.66	-	0.06	0.00	24.06	6.40
Global Leaders Sustainable Fund USD C	$ 15.94	-	0.04	0.00	22.99	5.80
Global Sustainable Total Return Bond GBP B	£ 9.30	-	0.01	2.71	0.16	-
Global Sustainable Total Return Bond USD B	$ 9.88	-	0.01	0.00	0.71	-
US Equity Growth Fund USD B	$ 61.58	-	0.17	0.00	27.95	2.74
US Flexible Equity Fund USD B	$ 32.54	-	0.17	0.00	34.91	8.84
US Mid-Cap Growth Fund USD C	$ 20.58	-	0.09	0.00	22.72	-0.37
US Small Cap Blend Fund USD B	$ 25.06	-	0.22	0.00	20.37	1.79
US Smaller Companies Fund USD B	$ 38.87	-	0.26	0.00	11.54	-0.97
US Sustainable Growth Fund USD C	$ 32.44	-	0.20	0.00	35.05	9.66
US Sustainable Value Fund USD C Acc	$ 13.28	-	0.07	-	-	-

Dodge & Cox Worldwide Funds

Dodge & Cox Worldwide Funds (IRL)
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.com +44 (0)203 642 3370
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Dodge & Cox Worldwide Funds - Global Bond Fund						
EUR Accumulating Class	€ 17.10	-	0.00	0.00	6.94	4.53
EUR Accumulating Class (H)	€ 11.16	-	0.03	0.00	4.59	-1.31
EUR Distributing Class	€ 11.68	-	-0.01	4.64	6.87	3.55
EUR Distributing Class (H)	€ 7.58	-	0.02	4.53	4.69	-2.31
GBP Distributing Class	£ 12.34	-	0.00	4.67	5.42	4.44
GBP Distributing Class (H)	£ 8.22	-	0.02	5.16	5.97	-1.22
USD Accumulating Class	$ 13.35	-	0.04	0.00	6.63	0.61
Dodge & Cox Worldwide Funds -Global Stock Fund						
USD Accumulating Share Class	$ 36.47	-	0.15	-	24.22	6.92
GBP Accumulating Share Class	£ 47.64	-	0.05	0.00	22.82	11.01
GBP Distributing Share class	£ 31.54	-	0.04	-	22.82	10.65
EUR Accumulating Share Class	€ 50.61	-

MANAGED FUNDS SERVICE

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	1547.93	-	6.01	5.57	11.43	5.95	
Charifund Acc	33208.19	-	129.33	4.97	11.41	5.94	
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.09	-	0.00	-	4.16	-1.18	
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 41.12	-	0.08	3.28	4.15	-1.18	
M&G Charity Multi Asset Fund Inc	£ 0.94	-	0.01	4.25	9.55	5.23	
M&G Charity Multi Asset Fund Acc	£119.29	-	0.54	3.84	9.55	5.23	

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

UK Equity Fd Cl A Series 01	£3080.40	3080.41	-231.75	-	-2.98	13.94	
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	£1747.16	1747.16	-5.31	-	-1.04	5.13	

Marwyn Asset Management Limited (CYM)
Regulated

Marwyn Value Investors	£329.72	-	-6.14	0.00	-	-7.17	

McInroy & Wood Portfolios

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

Balanced Fund Personal Class Units	6301.80	-	2.20	1.40	5.18	5.26	
Income Fund Personal Class Units	3015.50	-	2.70	2.40	7.35	5.75	
Emerging Markets Fund Personal Class Units	2109.80	-	-2.70	1.48	-3.62	-0.58	
Smaller Companies Fund Personal Class Units	6345.40	-	56.40	1.30	3.22	-3.26	

MILLTRUST INTERNATIONAL

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

Milltrust Global Emerging Markets Fund - Class A	$ 93.33	-	0.27	0.00	0.58	-9.69	

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

Milltrust Alaska Brazil Fund SP A	$ 95.78	-	0.24	0.00	9.06	5.49	
Milltrust Laurium Africa Fund SP A	$101.54	-	-0.71	0.00	7.42	-2.67	
Milltrust Marcellus India Fund SP	$141.58	-	-0.19	0.00	12.27	4.85	
Milltrust Singular ASEAN Fund SP founders	$144.73	-	1.00	0.00	10.93	-3.77	
Milltrust SPARX Korea Equity Fund SP A	$134.14	-	-0.07	0.00	25.26	-6.94	
Milltrust Xingtai China Fund SP A	$ 92.94	-	0.41	0.00	-4.91	-16.24	
The Climate Impact Asia Fund SP A	$ 71.66	-	-0.04	0.00	-9.59	-9.05	

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

The Equity Idx Tracker Fd Inc Distribution Units	2124.00	-	3.00	-	13.93	6.69	

MIRABAUD ASSET MANAGEMENT

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

Mir. - Glb Strat. Bd I USD	$124.88	-	0.02	0.00	7.07	0.46	
Mir. - DiscEur D Cap GBP	£193.22	-	1.06	0.00	15.68	-1.52	

OASIS

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

Oasis Crescent Global Equity Fund USD A (Dist)	$ 38.41	-	0.16	0.82	12.69	-0.11	
Oasis Crescent Global Income Fund USD A (Dist)	$ 10.09	-	0.01	3.78	3.91	-0.04	
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.97	-	0.04	1.48	8.49	-0.11	
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 14.63	-	0.05	1.06	9.27	-0.08	
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 8.67	-	0.06	1.77	14.34	-0.34	
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.94	-	0.00	3.36	4.42	0.69	
Oasis Crescent Variable Fund GBP A (Dist)	£ 10.40	-	0.03	0.73	7.53	1.07	

Omnia Fund Ltd
Other International Funds

Estimated NAV	$1187.45	-	-11.89	0.00	17.64	20.07	

PLATINUM CAPITAL MANAGEMENT

Platinum Capital Management Ltd
Other International Funds

Platinum All Star Fund - A	$164.39	-	-	-	12.46	3.31	
Platinum Global Growth UCITS Fund	$ 9.98	-	-0.05	-	23.06	-8.36	
Platinum Essential Resources UCITS and SICAV USD Class E	$ 9.42	-	-0.70	0.00	-19.83	13.34	
Platinum Global Dividend UCITS Fund	$ 49.33	-	-0.26	0.00	6.61	-4.33	

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Monument Growth 30/04/2024	£569.34	574.86	11.36	0.88	3.07	2.60	

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

Prusik Asian Equity Income B Dist	$174.04	-	-0.14	6.01	1.65	1.68	

Purisima Investment Fds (UK) (1200)F (UK)
2nd floor, 23-22 Bedford Row, London, WC1R 4EB
Order Desk and Enquiries: 0345 922 0044
Authorised Inv Funds
Authorised Corporate Director - Waystone Management (UK) Limited

Global Total Fd PCG A	521.26	-	1.12	0.26	33.63	13.26	
Global Total Fd PCG R	514.06	-	1.10	0.07	33.30	12.98	
Global Total Fd PCG INT	503.16	-	1.08	0.00	32.95	12.70	

Purisima Investment Fds (CI) Ltd (JER)
Regulated

PCG B ✠	402.25	-	1.07	0.00	34.11	8.92	
PCG C ✠	390.12	-	1.03	0.00	33.81	8.69	

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

RAM Systematic Emerg Markets Eq	$253.50	253.50	0.74	-	16.03	1.76	
RAM Systematic European Eq	€609.70	609.70	1.73	-	12.45	3.87	
RAM Systematic Funds Global Sustainable Income Eq	$175.67	175.67	0.73	0.00	17.36	4.18	
RAM Systematic Long/Short European Eq	€163.43	163.43	-0.65	-	11.24	4.33	

Royal London (UK)
80 Fenchurch Street, London EC3M 4BY
Authorised Inv Funds

Royal London Sustainable Diversified A Inc	£ 2.64	-	0.00	1.33	13.35	3.75	
Royal London Sustainable World A Inc	411.40	-	0.50	-	18.30	6.83	
Royal London Corporate Bond Mth Income	76.98	-	0.19	-	8.21	-1.93	
Royal London European Growth Trust	237.30	-	0.60	1.61	12.13	8.25	
Royal London Sustainable Leaders A Inc	885.70	-	5.50	1.44	11.03	7.35	
Royal London UK Growth Trust	695.40	-	3.70	2.13	12.51	5.87	
Royal London UK Income Wtd Growth Trust	219.90	-	1.20	4.68	11.45	6.05	
Royal London US Growth Trust	491.90	-	0.40	0.00	31.11	15.59	

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

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

Rubrics Emerging Markets Fixed Income UCITS Fund	$141.60	-	0.23	0.00	1.20	-0.03	
Rubrics Global Credit UCITS Fund	$ 17.54	-	0.01	0.00	3.40	-0.61	
Rubrics Global Fixed Income UCITS Fund	$172.83	-	0.20	0.00	-0.27	-1.41	

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

Managed Growth ♦	405.70	-	2.30	-	16.92	8.36	
UK Growth ♦	462.30	-	2.30	-	12.26	5.70	

STONEHAGE FLEMING GLOBAL BEST IDEAS EQUITY FUND

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

SF Global Best Ideas Eq B USD ACC	$275.03	-	0.38	0.00	12.98	2.16	
SF Global Best Ideas Eq D GBP INC	£331.45	-	-0.23	0.00	11.91	6.06	

SUPERFUND INVEST BETTER

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

Other International Funds							
Superfund Green Gold	$1111.16	-	12.43	-	8.05	-10.24	
Superfund Green Silver	$956.85	-	12.56	-	9.53	-16.05	
Regulated							
Superfund Green US$	$722.77	-	2.99	-	-1.51	-14.21	
Superfund Black Blockchain EUR	€ 17.15	-	0.05	-	72.54	-	
Superfund Gold Silver & Mining EUR	€ 11.24	-	-0.11	-	-	-	

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

TM New Court Fund A 2011 Inc	£ 20.83	-	0.06	0.24	11.47	2.19	
TM New Court Fund - A 2014 Acc	£ 21.07	-	0.06	0.26	11.46	2.22	
TM New Court Equity Growth Fund - Inc	£ 23.17	-	0.06	0.06	13.52	2.44	

TOSCAFUND

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

Aptus Global Financials B Acc	£ 5.85	-	0.01	-	12.86	10.69	
Aptus Global Financials B Inc	£ 3.58	-	-0.01	-	12.86	11.22	

Toscafund Asset Management LLP
www.toscafund.com

Tosca A USD	$426.59	-	1.22	0.00	-9.14	7.51	
Tosca Mid Cap GBP	£117.80	-	-0.64	0.00	-29.93	-21.59	
Tosca Opportunity B USD	$252.81	-	-15.03	0.00	-29.95	-19.96	
Pegasus Fund Ltd A-1 GBP	£ 27.03	-	-0.23	0.00	-32.66	-22.42	

TROY ASSET MANAGEMENT

Troy Asset Mgt (1200) (UK)
2nd floor, 20-22 Bedford Row, London, WC1R 4EB
Order Desk and Enquiries: 0345 608 0950
Authorised Inv Funds
Authorised Corporate Director - Waystone Management (UK) Limited
Trojan Investment Funds

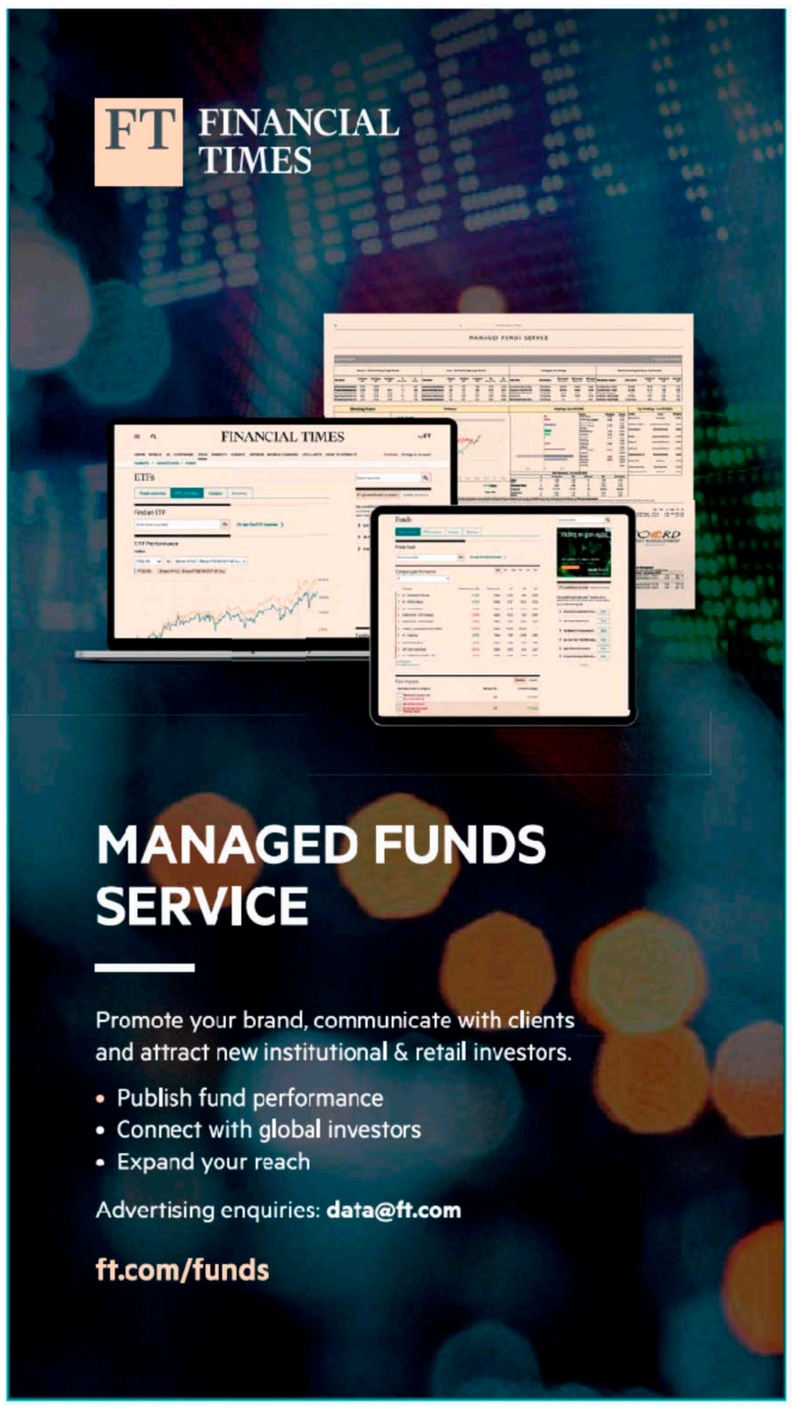
Trojan Ethical Glbal Inc O Acc	109.48	-	-0.24	2.54	6.75	-	
Trojan Ethical Global Inc O Inc	102.64	-	-0.22	2.59	6.75	-	
Trojan Ethical O Acc	136.73	-	0.19	1.23	6.46	4.04	
Trojan Ethical O Inc	134.62	-	0.19	1.44	6.68	4.10	
Trojan Ethical Income O Acc	150.90	-	0.70	2.72	5.64	2.61	
Trojan Ethical Income O Inc	121.11	-	0.56	2.79	5.64	2.61	
Trojan Fund O Acc	406.12	-	0.19	1.01	4.30	3.67	
Trojan Fund O Inc	324.45	-	0.15	1.02	4.30	3.67	
Trojan Global Equity O Acc	596.56	-	1.77	0.21	19.67	9.51	
Trojan Global Equity O Inc	491.10	-	1.46	0.21	19.67	9.51	
Trojan Global Income O Acc	161.75	-	-0.23	3.08	4.89	5.43	
Trojan Global Income O Inc	128.91	-	-0.18	3.14	4.88	5.42	
Trojan Income O Acc	366.68	-	1.33	2.88	4.28	2.21	
Trojan Income O Inc	172.90	-	0.63	2.95	4.28	2.20	

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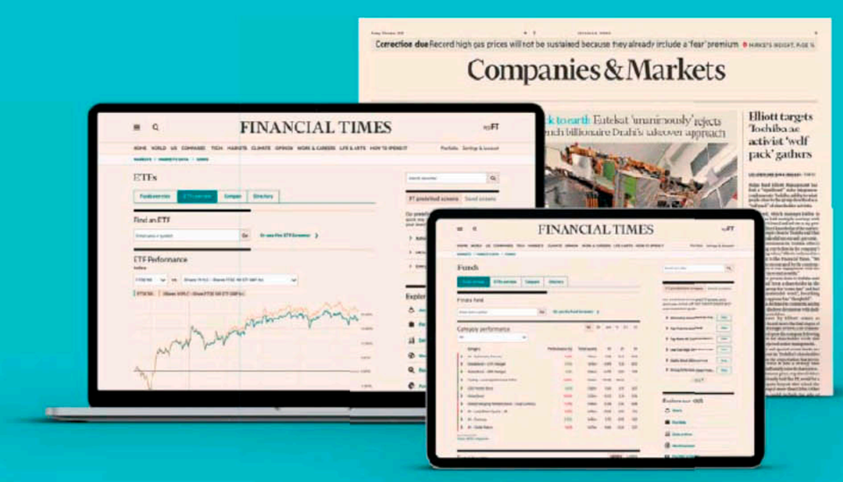
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Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.
Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.
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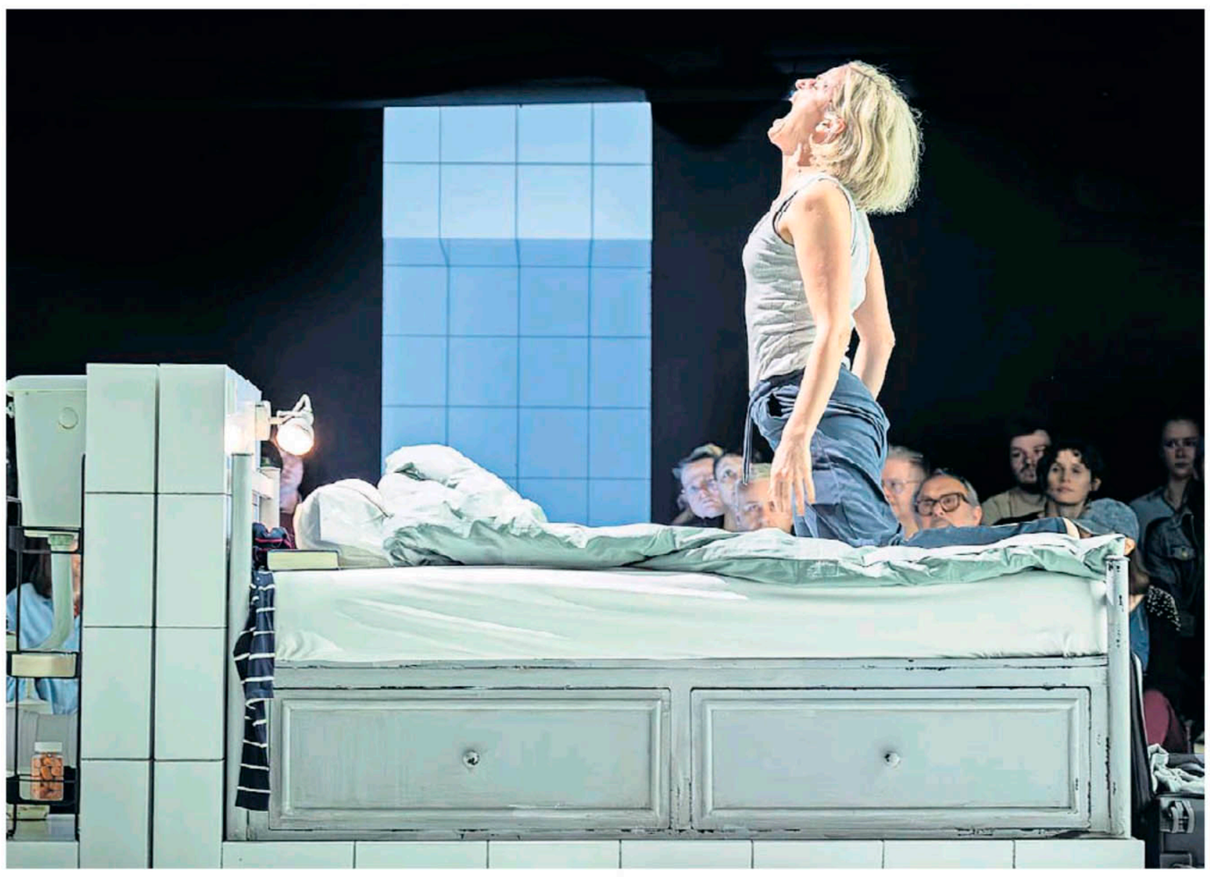
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ARTS

An addict adrift in a chaotic world



People, Places and Things
Trafalgar Theatre, London
★★★★★

Punch
Nottingham Playhouse
★★★★☆

Between Riverside and Crazy
Hampstead Theatre, London
★★★★☆

THEATRE



Sarah Hemming

Three great plays about recovery, hope and redemption: all of them focusing on a damaged central character struggling to move on; all of them driven by a superb central performance.

Duncan Macmillan's **People, Places and Things** made headlines when it first hit the stage nearly a decade ago. A brilliant, honest, painful play about addiction, it won Denise Gough an Olivier award for her outstanding central performance. Now she and the play are back. Incidental details have changed, but in essence the play remains the same and every bit as powerful, and Gough, again, is stunning.

She plays Emma, an actress whose reliance on drugs and alcohol has reached breaking-point. After unravelling onstage, she checks into rehab. She discovers the hard way that without honesty there will be no recovery.

Macmillan spoke extensively to doctors, patients and experts and the play is brutally frank about the uglier sides of addiction and the grim process of withdrawal. Jeremy Herrin's gripping staging plunges us into the shivering horror of hallucination with Gough's Emma facing multiple versions of herself crawling out of the furniture.

But it's also funny, wise and humane. Emma is bitingly witty and intelligent — "I really need you to at least match me intellectually," she barks at a doctor — and the play reflects that. We switchback with her through chaos and defiance to droll observation and sharp interrogation to, ultimately, a level of quiet understanding. Macmillan is wise enough too not to moralise, sensationalise or give us a pat ending: the final twist leaves hope wrestling with uncertainty.

He and Herrin also use the nature of live theatre to crack open the play's questions eloquently. The audience is ranged either side of Bunny Christie's clinical playing space: Emma has nowhere to hide, but neither do we. References to other complex heroines pepper the play — Hedda Gabler, Blanche DuBois, Antigone — and we notice the crossover between acting, role-play in group therapy and playing a part in life. We're never quite sure when we are seeing the "real" Emma, whether she is telling the truth or even whether she is who she says she is.

> 'People, Places and Things' is still every bit as powerful, and Denise Gough is stunning

Rolling through the drama are huge issues, recognisable to all of us, about coping with a chaotic world, about knowing who we are, about honesty. In the end, this is a superb play about addiction but also about the sheer difficulty of living in today's world.

In a rich ensemble, there are lovely performances from Sinéad Cusack as all the mother figures, Danny Kirrane as gentle orderly Foster and Malachi Kirby as fellow no-nonsense patient Mark. And at its heart is Gough: raw, vulnerable, moving, blisteringly funny, brilliantly physical and achingly human.
To August 10, atgtickets.com



Above: Denise Gough plays the addicted Emma in 'People, Places and Things'. Left, from left: Shalisha James-Davis, David Shields and Alec Boaden in 'Punch'
Marc Brenner

The blow that features in the title of James Graham's immensely moving new play **Punch** is an infamous one: a single thump to the head that killed one young man and cracked open the life of the other. That true story, which happened in Nottingham city centre on a hot July night in 2011, made headlines and drew attention to the catastrophic effect that one punch can have.

The facts are grim. Nineteen-year-old Jacob Dunne, who had been out drinking all day, threw a punch at a complete stranger, 28-year-old James Hodgkinson, causing Hodgkinson to hit the ground with fatal force. He died nine days later and Dunne was jailed for manslaughter.

But while the case itself is awful, out of it emerged something hopeful. That paradox lies at the heart of Graham's drama, which dives into the role of restorative justice and the nature of redemption. It's a timely examination of masculinity, violence and the destructive impact on individual lives of economic decline and the decay of social infrastructure. And like so much of Graham's work it's a drama that runs counter to the acrimony that defines so much public discourse and quietly champions compassion and deeper understanding of what drives social unrest.

Dunne, who grew up fighting and dealing drugs, was sent to a young offenders' institution. Then his probation officer suggesting communicating, through a restorative justice programme, with Hodgkinson's parents, Joan and David. What followed was remarkable: Dunne ended up with a degree in criminology and campaigning, with Hodgkinson's mother, against violence.

Graham responds, aptly, with a play of two halves. The first act bristles with nervous energy in Adam Penford's spiky, restless staging as David Shields' excellent Jacob introduces his story. Wired on vodka and cocaine, he struts, postures and bounces. His talk is of gangs, rules, "drama" (fights), of the simmering danger on a hot July night, but there's already a vulnerability beneath his defiance.

The second act is quieter and more reflective, tracing the tough road out of this mess. We see the harrowing impact on James's parents, beautifully played by Julie Hesmondhalgh and Tony Hirst: their extraordinary generosity in agreeing to meet Jacob, but also what it costs them. Shields, meanwhile, brilliantly traces Jacob's journey through the abject misery of coming to terms with what he's done towards becoming the thoughtful, if still bruised, present-day individual. And present by his absence the whole time is James, the beloved young man who lost his life and to whom the production is dedicated

There are moments when statistics are stated too baldly and some characters feel underserved. But the scene in which Jacob, David and Joan finally meet is exceptionally moving. In the end this is a beautiful, eloquent and significant play about social deprivation, justice, the profound grace of forgiveness and, above all, empathy.
To May 25, nottinghamplayhouse.co.uk

Danny Sapani was last on the London stage giving an immense performance as King Lear. It's not such a stretch to his latest character, Black ex-cop Walter Washington, in Stephen Adly Guirgis's **Between Riverside and Crazy**. In fact, you can imagine Lear and Walter hanging out, grumbling about ageing, children and the grasping opportunists who seek to trample their dignity.

As the play opens, it's breakfast time, but Walter is making his way down a bottle of whiskey accompanied by pie. His breakfast companion, a jittery young man called Oswaldo, whose caseworker has advised him that "pie is like poison", urges Walter to try almonds instead — a suggestion that receives very short shrift. This is a man who won't budge, and therein lies the heart of the play (written in 2014 and now getting its UK premiere).

Walter, we soon learn, is steeped not just in whiskey but in grief and rage: grief over the death of his wife some months previously; rage over being shot by a white rookie policeman and forced out of his job eight years before that. His apartment is drifting into dilapidation and populated with a makeshift family of what the local community regard as "unsavoury characters": his son, Junior (Martins Imhangbe), who fences stolen goods from a bedroom; Junior's girlfriend Lulu (Tiffany Gray), who claims to be studying accountancy; Oswaldo (Sebastian Orozco), a recovering addict.

His landlord wants him out, the local church ladies want to save him and, most grievously, the NYPD wants him to drop a lawsuit about the shooting and settle for money. A former colleague (Judith Roddy) and her fiancé (Daniel Lapaine) come round to persuade him to write the incident off as a "bad break". "When's the last time a Black cop shot a fuckin' white cop six times 'accidentally' — and they chalked it up as a 'bad break'?!" blazes Walter in return.

It's a play with a serious centre — about money, racism, love, second chances and, perhaps above all, dignity. But it's also shrewd and funny and, in keeping with its characters, rolls forward unpredictably. Just about everyone is hustling and everyone is flawed, but they are also loveable in their ridiculous, contradictory ways, and Guirgis writes wonderful, snappy dialogue.

Director Michael Longhurst revels in the text's rollercoaster, tragicomic structure and draws rich, believable performances from the cast as a bunch of messy, messed-up people trying to keep their lives on track. Sapani is excellent, switching from warmth to wrath in an instant: infuriating one moment and endearing the next. In his stubborn insistence on his honour he reminds you of another great dramatic character: Willy Loman.
To June 15, hampsteadtheatre.com



Danny Sapani in 'Between Riverside and Crazy'
Johan Persson

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POP

Olivia Rodrigo
O2 Arena, London
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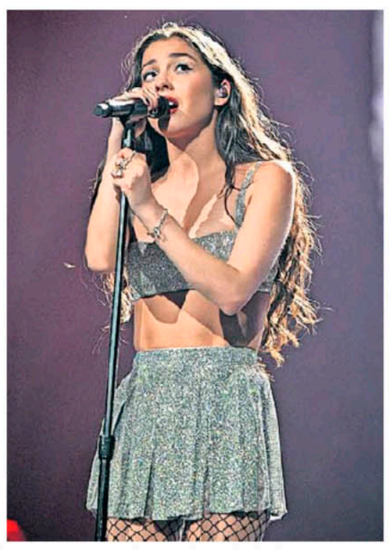
Ludovic Hunter-Tilney

Screaming, glitter, phone screens, thousands of girls: all the signs of a big pop show were in place. But the fervour was dialled up a notch at the O2 Arena. Olivia Rodrigo was in town for the first of four nights at the 20,000-capacity venue. The US singer is the most popular of the new school of stars to have emerged in recent years. She's now on her first arena tour, a significant test in the treacherous rapids and shallows of chart pop.

From the perspective of the regimented pop shows of yesteryear, all precision choreography and lip-syncing, not everything went swimmingly. There was a duff chord as she tinkled the ivories of a grand piano for her breakthrough 2021 hit "Drivers License". It happened when she twisted herself sideways to flash the ivories of her dazzling smile at the audience. And there was a wardrobe malfunction later on when the clasp of her bra-top snapped during a spot of hoofing with her backing dancers. Rodrigo finished the song, aptly titled "Love Is Embarrassing", with one hand holding the garment in place, the other holding the microphone into which she sang — and a look of amusement on her face.

The Californian is a product of the main corporate nursery of US pop talent. But despite her Disney schooling — which began in a television series in 2016 when she was 13 — Rodrigo differs from previous generations of alumni. She rejects the robotic perfection that the likes of Britney Spears were drilled to inhabit, whatever the personal cost. Instead, in songs that she writes or co-writes herself, she projects an engaging version of imperfection. "I want it to be, like, messy" are the introductory words of her debut album, 2021's *Sour*.

Her opening number at the O2 Arena took that prospectus too far. "Bad Idea Right?", from her latest album *Guts*, was a pop-punk dasher about a one-night stand with an ex, played for laughs. A five-strong band and two backing vocalists turned the dash into a blare, while Rodrigo bounced around the stage in a glittery, silvery affair shouting muffled vocals. But the rest of the staging lived up to the energy of the massed ranks of fans, aka "Livies", who sang along to every word of every song.



Olivia Rodrigo at the O2 Arena

The singer's own voice rang out clearly for "Vampire", the first of the evening's slower numbers. She has a dynamic way with ballads, avoiding the pitfalls of emotional or musical gush. They recount betrayals and break-ups in tones of anger and regret, not lachrymosity. "I know we weren't perfect," she sang in "Drivers License". Her flubbed moment of piano-playing made the sentiment seem more real.

There were examples of slick arena spectacle, such as her circuit of the auditorium sitting suspended on a large crescent moon. But the staging also carried a strong sense of spontaneity. Rodrigo's conversational vocals were unfiltered and the instrumentation was live. The songs were punchy and appealing. Audience interaction didn't carry the stamp of parasocial small talk. Even a claimed love of English delicacies such as beans on toast — she is surely the first Californian to profess it — came across as genuine. The arena test was passed with aplomb: this was a big, entertaining pop show with a personal touch.

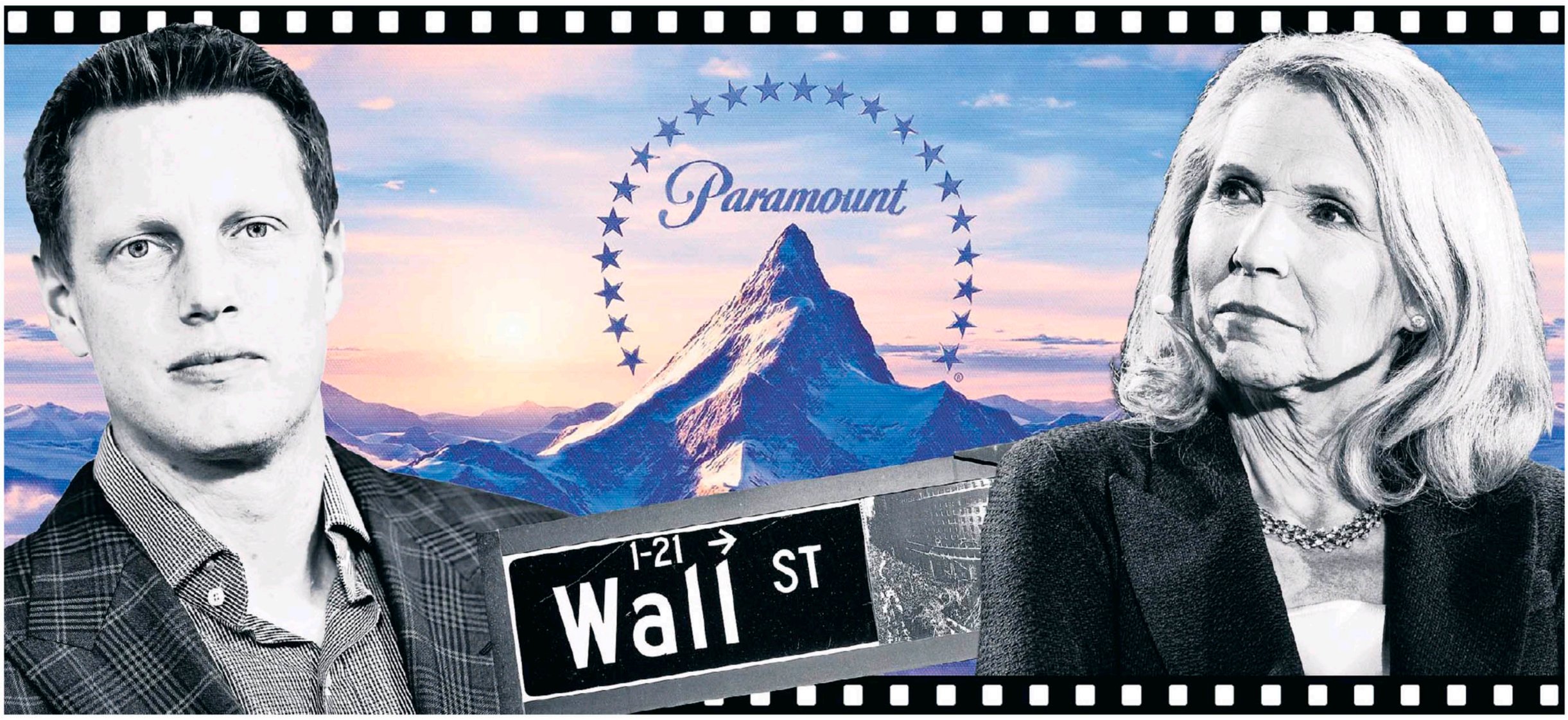
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FT BIG READ. MEDIA

The tussle for the venerable studio has been billed as the money men against the creatives. But the outcome carries an outsized symbolic impact – and may help decide who survives in the streaming era.

By Christopher Grimes, Anna Nicolaou and James Fontanella-Khan

Paramount and the future of Hollywood



Over its 98-year history, the Paramount Pictures studio has survived the arrival of talkies, bankruptcy, the Depression, the rise of TV and several different owners.

The question now is whether the 65-acre site on Melrose Avenue, the last major studio in Los Angeles' Hollywood district, can survive the streaming era.

The Redstone family, which has controlled Paramount since 1994, is considering a sale of the company behind *Sunset Boulevard*, *The Godfather*, *Chinatown* and *Titanic*. The fate of the studio could rest on which of the two bidders – one backed by the movie-loving son of a tech billionaire, the other by a leading private equity firm – comes out on top.

Wall Street analysts have begun calculating how much the lot could fetch if sold. "Maybe the studio lot is worth $1.5bn-plus, given the scarce resource of studio assets or just because the land has value in the heart of LA," analysts at LightShed Partners wrote in December.

There are fears in Hollywood that Apollo, the private equity group bidding $26bn for Paramount's assets alongside Sony, could sell the Melrose property if its offer is accepted. Apollo says it is seeking to buy "the whole company".

David Ellison's entertainment company, Skydance, with backing from private equity groups RedBird Capital and KKR, is the rival bidder for Paramount. Ellison, the son of Oracle co-founder Larry Ellison, is said to hold great affection for the lot and wants to keep it.

The future of the studio property is a relatively minor detail in the larger negotiations over Paramount. But its sale would have an outsized symbolic impact in Hollywood, which has been shaken in recent years by the rise of streaming, a pandemic that shuttered cinemas worldwide, two lengthy labour strikes and thousands of job losses.

The share prices of Paramount and another century-old studio, Warner Bros, have both more than halved over the past five years. Another indicator of the troubled state of Paramount – and the concerns about other Hollywood studios – is the size of the Apollo-Sony bid. It values Paramount's equity at around $10bn, roughly what the late media magnate Sumner Redstone paid for it in 1994. That price would be about $21bn in today's money.

Many bankers and industry executives say the "big five" studios – Paramount, Warner, Disney, Universal and Sony – could shrink to three in the next few years. "Are we in the middle of a scaling back in Hollywood?" asks one LA-based dealmaker. "Absolutely."

Tom Nunan, executive producer of the Oscar-winning film *Crash* and a lecturer at the UCLA School of Theater, Film and Television, says there is a "pall" over Hollywood. "There's a re-examination of what business we're in. What everyone can agree on is that the business seems to be broken."

The source of this malaise is Netflix and the streaming revolution it unleashed, which lured customers away from the cable TV channels that were studios' cash cows for decades. They responded by spending billions of dollars on their own streaming services, but these have yet to compensate for the decline in cable – a situation bankers have likened to a "melting ice cube".

> '[Redstone] was estranged from her dad for a long time, but they reconciled towards the end of his life. She became the steward of his legacy'

The two bidders have different strategies for fixing Paramount but Hollywood appears to be rooting for Ellison, a movie fanatic who has produced blockbusters in partnership with Paramount including *Top Gun: Maverick*. He has also been endorsed by *Titanic* producer James Cameron, who tells the Financial Times: "I love the Ellison idea."

Some investors say they prefer the Apollo offer, which they argue is less complex and better for common shareholders. "I think the combination of Sony and Apollo is perfect," says John Rogers, chair and co-chief executive of Ariel Investments. "Apollo has so much money and expertise in putting together deals and closing transactions."

This tension boils down to what a veteran of Paramount describes as "Wall Street money guys versus Hollywood, where they're fiercely protective of the creative process".

The choice between the two bidders will ultimately be made by Shari Redstone, the daughter of Sumner, who died in 2020. She controls a majority of the voting shares in Paramount and is believed to oppose any transaction that would break up the company her father built. Redstone may also be considering a third option: not to sell to either group.

Paramount's predicament has been a decade in the making.

After the entertainment industry consolidated through a series of mega-mergers – Comcast and Universal in 2011, Disney and Fox in 2019, Warner and Discovery in 2022 – Paramount was left as a smaller player and the subject of feverish takeover speculation among bankers and dealmakers.

Redstone has long resisted such talk. She had spent years fighting off rival executives and her elderly father's girlfriends to finally take hold of her family's media empire in 2019. Selling was not part of the plan. "It was her family's legacy, so she wanted to make a run at it," says a former Paramount executive.

Even during 2022's "great correction" in Netflix shares, which dragged down the value of Paramount and its peers, the company pushed forward with an ambitious leap into streaming.

This all began to change a year ago, when Redstone started to feel the pinch on a personal level. Last May, Bob Bakish, then chief executive of Paramount, cut its quarterly dividend from 25 cents a share to 5 cents. The move rattled investors and sent the stock tumbling.

It also had an impact on Redstone's own finances. National Amusements (NAI), the Redstone holding company and cinema chain founded by her grandfather in 1936, emerged from the pandemic heavily in debt and reliant on cash from Paramount's dividends to help repay its loans. "The dividend cut had an impact on the family business," says one person familiar with the matter.

Redstone was also profoundly affected by the October 7 Hamas attack on Israel and has been spending more of her time on efforts to combat antisemitism, says a person close to her. Another person, involved in one of the bids, says she has "been in this for a long time . . . I think she's ready to move on."

She sought out the help of Byron Trott, a former Goldman Sachs banker known as a discreet adviser to some of wealthy individuals, including Warren Buffett and Michael Dell. His BDT & MSD merchant bank was brought in to manage NAI's debt – and advise on a potential sale of Paramount.

He arranged a loan of about $125mn last year that helped NAI repay part of the $500mn it owed to Wells Fargo and told Redstone that she had two choices regarding Paramount: find a way to restructure, or sell part or all of it. "For Shari, there was a certain emotional component to this," says a seasoned media executive. "She was estranged from her dad for a long time, but they reconciled towards the end of his life. She became the steward of his legacy."

"When she finally achieved that, selling was not something she was comfortable doing," the person adds.

Then last summer Redstone was approached by Ellison, who is almost three decades her junior. It was the beginning of a conversation that has carried on for nearly a year, kick-starting a chaotic bidding war over some of Hollywood's most storied assets.

Like Redstone, Ellison had spent much of his life in the shadow of a hard-charging billionaire father. With funding from Larry, Ellison founded his own Hollywood studio in 2010 when he was 27, naming it Skydance after his love of stunt flying. His sister, Megan, also pushed into Hollywood with her own studio, Annapurna Pictures, which has made films such as *American Hustle*.

Ellison has built a strong reputation among Hollywood's creative class and has co-produced a series of films with Paramount, including recent iterations of *Mission: Impossible* and *Terminator*.

Ellison's interest was "innovative and different" from other approaches she had received, says a person close to Redstone, adding that she saw in him another owner-operator who could provide safe hands for Paramount.

But Redstone's discussions with Ellison drove a wedge between herself and Bakish, previously a loyal ally. He began searching for alternative deals in a bid to save his job, enlisting the help of LionTree banker Aryeh Bourkoff, according to people familiar with the matter.

Bakish's efforts flushed out another bidder: Apollo, first on its own, then with Sony. But his manouevring agitated Paramount's board, and in late April he was pushed out.

He has been replaced by a trio of long-time company executives – a scenario that has left the group in a state of limbo as its thousands of staff wait to find out if a deal will be made, and if so with whom. Some saw Bakish's exit as a sign of dysfunction at Paramount. "It's just extraordinarily odd and unprecedented to let go of the CEO in the middle of a transaction," says Rogers, of Ariel. "It was just totally illogical."



Shari Redstone controls a majority of the voting shares in Paramount and is believed to oppose any transaction that would break it up. Skydance chief David Ellison is bidding for the group, whose hits include the 'Mission: Impossible' franchise, below

FT montage/Reuters/AP/Alamy/Bloomberg; Paramount Pictures/Christian Black

Both of the bids for Paramount face significant hurdles. Skydance, which has made its final pitch to a Paramount board committee evaluating the proposals, has financially savvy backers that include Larry Ellison and RedBird founder and former Goldman Sachs banker Gerry Cardinale.

Ellison plans to restructure the film and television businesses while making its own streaming service, Paramount+, more competitive.

But his challenge is persuading Paramount's outside investors to accept the structure of its proposal. Skydance's two-step offer envisages first acquiring NAI, which holds 77 per cent of Paramount's voting A-shares. That would give Redstone an immediate $2bn cash payday and Skydance voting control of Paramount, albeit with only about a tenth of the economic rights. People briefed on the proposed transaction say Skydance and Paramount would then merge in an all-stock deal that, based on Skydance's $5bn private valuation, implies a premium of about 30 per cent for Paramount's other shareholders. In total, they say Ellison's group would be investing about $10bn into Paramount, including a $3bn capital injection into the business.

> 'It's so very unusual to let go of the CEO in the middle of a transaction. [The Bakish exit] was just totally illogical'

But independent Paramount's shareholders, most of whom own the non-voting B-shares, have rebelled. They say the deal disproportionately favours Redstone over other investors. In an effort to win them over, the Ellison consortium sweetened its bid recently, throwing in an extra $1bn of cash to Paramount's minority shareholders.

By contrast, the Apollo-Sony approach gives all Paramount's shareholders, including Redstone, the same cash premium for their shares. The two companies plan to restructure Paramount by cutting costs, creating new synergies with Sony and potentially spinning off assets. Sony, which chose to sell its shows to streamers instead of compete with them, is unlikely to want to keep the Paramount+ service.

Their proposal comes with more regulatory risk, however. Given its Japanese ownership, Sony Pictures could be barred from owning Paramount's CBS news network while Apollo, which already owns TV broadcasters, could run into ownership caps.

Apollo and Sony say they can structure the deal in a way that avoids upsetting the authorities. "From a regulatory perspective, we feel very comfortable with a deal getting through," says a person involved in the joint bid.

But Washington has been tough on media deals in recent years, having in 2022 blocked Paramount's proposed $2.2bn sale of book publisher Simon & Schuster to rival Penguin Random House. The Biden administration's regulatory stance has worried some bankers and Hollywood executives who believe that consolidation is the only way to bring the industry back to life.

One combination that is frequently discussed is a merger between NBCUniversal, owned by cable giant Comcast, and Warner Bros Discovery. "The best thing for the business is an NBC-Warner tie up," says one banker, expressing a common view in Hollywood.

The alternative, some say, is that big tech companies will ultimately end up controlling the movie and TV business as they have the music business.

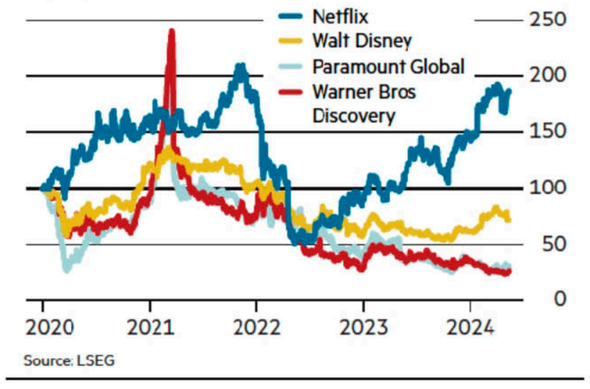
The question now, both on Wall Street and in Hollywood, is whether Redstone is ready to make a deal. Some warn that she needs to act sooner rather than later.

"If there isn't a deal, what happens? I don't think that the prognosis is good," says the seasoned media veteran.

"Some of these [potential acquirers] may just sit around and wait for it to run into more difficulty . . . and revisit it in six months or a year."

Stocks of Paramount and its Hollywood peers have fallen sharply, in contrast to Netflix

Share prices rebased



Source: LSEG

The FT View



FINANCIAL TIMES
'Without fear and without favour'

The limits of yen intervention

Unilateral efforts to prop up the currency are expensive and potentially futile

Japan's intervention in support of its currency has proved to be a little like the labours of Sisyphus. The Japanese Ministry of Finance is suspected by traders to have used $59bn to boost the yen from a historic intraday low of ¥160 to ¥153 to the dollar two weeks ago. But as of yesterday, the Japanese yen was back to trading at around ¥156 per dollar, and it may slip further.

Like Sisyphus's boulder rolling down the hill, the downward slide of the yen was entirely predictable. It highlights the general futility of unilateral currency intervention. The economic fundamentals that had boosted the dollar and dragged the yen down are still at play. Though the Bank of Japan's March decision to end negative rates drew publicity, the rate was only raised to 0.1 per cent, and the Bank has been dovish regarding future rate hikes. With stronger than expected inflation pushing the Federal Reserve to keep US rates at 5.25 per cent for longer, swollen US yields mean the dollar is set to put pressure on the yen and other currencies until US rates come down. That makes one-sided price interventions pointless.

This is not the first time in recent memory that Japan has intervened in foreign exchange markets. The Ministry of Finance intervened three times in late 2022, spending a combined $58.7bn when the currency dipped below ¥150 to the dollar. The effects of those interventions, too, were only momentary. The strengthening of the yen over the following months was driven by a decline in US Treasury yields, not actions by Japan's Ministry of Finance.

Japan's recent preference for a stronger yen is not surprising. Given its economy's growing reliance on energy and food imports, a stronger yen boosts Japan's purchasing power on the international market. It supports household savings, too, which are critical to Japan as its population ages and households become increasingly dependent on their coffers. The urge to support the currency may also stem from lingering fears from the run-up to the 2008 financial crisis. A stretch of yen weakness then hid underlying economic vulnerabilities, causing great pain when the global financial system faltered and the yen rose sharply. Politics are at play too, with prime minister Fumio Kishida and his government wary that economic instability is suppressing consumption and alarming the public.

Yet the focus on the strength of the yen may be misguided: for now, having a weaker currency has benefits. In March's Bank of Japan meeting, the monetary policy committee exalted the return of a "virtuous inflationary cycle", as rising wages appeared set to jumpstart inflation after decades of price malaise. But Japanese inflation has since decelerated. As mentioned in last week's BoJ monetary policy meeting, a weaker yen could quickly spur price growth, allowing the BoJ to achieve its inflation objective.

> Like Sisyphus's boulder rolling down the hill, the downward slide of the exchange rate was entirely predictable

While Japan's dissipation of $59bn shows that unilateral currency intervention is fruitless in the long term, the short-term efficacy of any intervention comes down to its objective. The yen occupies a unique place in the global market, as decades of ultra-loose monetary policy have made it the favoured vehicle for the "carry trade," which in turn suppresses the yen. Given Japan's large foreign reserves, a one-time intervention could be seen as a rational and affordable warning call by the Japanese government to currency traders to restrain their speculation.

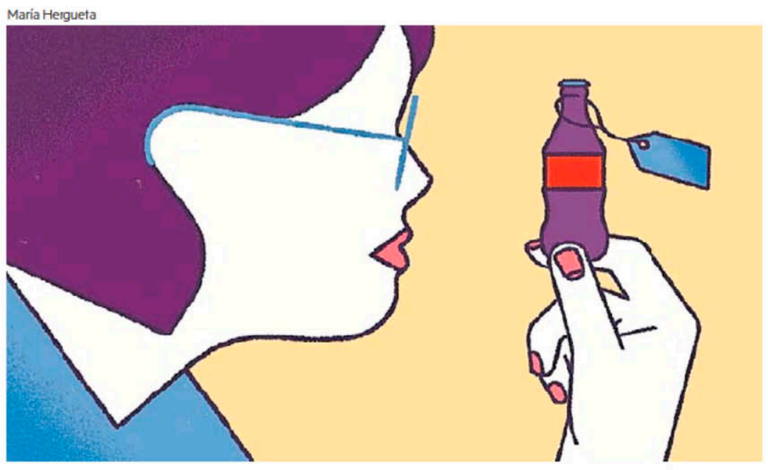
But Japan should rest there. Until the fundamentals underlying the weak yen dissipate, burning more reserves just to send further signs to traders — who may in turn leverage future price interventions to their advantage — is likely to be a Sisyphean exercise.

ft.com/opinion

Opinion Society

When the customer is not always right

María Hergueta





Leo Lewis

One of the world's best known luxury brands recently conducted a survey of its global store network, sending local platoons of secret shoppers to assess the level of customer service. Despite their stellar reputation, the outlets in Japan fared dismally.

"The problem was not the service. It was the shoppers," relates the senior director in charge. "In reality, we knew the service in our Japan stores was by far the best anywhere in the world, but the Japanese customers that we sent found faults that nobody else on earth would see."

Many will see an enviable virtuous circle in this tale — a parable of what happens when a service culture seems genuinely enthusiastic about and responsive to the idea that the customer is always right. High service standards have begotten high expectations, and who would see downside in this?

> Demographics are squeezing Japan's ability to continue to deliver high levels of service

The trouble is that, in Japan as elsewhere in the world, the "customer is always right" mantra is having a bit of a wobble. Perhaps existentially so.

The concept has always come with pretty serious caveats; fuller versions of the (variously attributed) original quote qualify it with clauses like "in matters of taste" that shift the meaning. But in a tetchier, shorter-fused world the caveats are multiplying.

Japan's current experience deserves attention. After many decades at the extreme end of deifying the customer (Japanese companies across all industries routinely refer to clients as *kamisama*, or "god"), there is now an emerging vocabulary for expressing a healthy measure of atheism.

The term "customer harassment" has, over the past few years, entered the Japanese public sphere to describe the sort of entitled verbal abuse, threats, tantrums, aggression and physical violence inflicted by customers on workers in retail, restaurants, transport, hotels and other parts of the customer-facing service economy. One recurrent complaint has been customers demanding that staff kneel on the floor to atone for a given infraction.

However tame these incidents may appear in relative terms — comparing them with often violent equivalents in other countries — the perception of a sharp increase in frequency means the phenomenon is being treated as a scourge. The Japanese government is now planning a landmark revision of labour law to require companies to protect their staff from customer rage.

The real breakthrough, though, lies in legislating the idea that customers can be wrong — a concept that could prove more broadly liberating.

Luxury goods and virtuous circles aside, customer infallibility has not necessarily been the optimal guiding principle for Japan, and is arguably even less so now that demographics are squeezing the ability to deliver the same levels of service as before. Excessive deference to customers came, during the country's long battle with deflation, to border on outright fear that the slightest mis-step risked losing them forever.

So much deference was paid to the customer that companies were reluctant to raise prices even as they themselves bore the cost of maintaining high standards of service. Japan, during its deflationary phase, became one of the great pioneers of product shrinkflation: a phenomenon that, from some angles, made deference to customers look a lot like contempt for their powers of observation.

Perhaps the biggest dent left by Japan's superior standards of service, though, has been the chronic misallocation of resources. The fabulous but labour-intensive service that nobody here wants to see evaporating has come at a steadily rising cost to other industries in terms of hogging precious workers. That has become more evident as the working-age population begins to shrink and other parts of the economy make more urgent or attractive demands. As with any large-scale reordering, the process will be painful.

Worldwide, though, the sternest challenge to the customer is always right mantra arises from its implication of imbalance. Even if the phrase is not used literally, it creates a subservience that seems ever more anachronistic. In a research paper published last month, Melissa Baker and Kawon Kim linked a general rise in customer incivility and workplace mental health issues to the customer is right mindset. "This phrase leads to inequity between employees and customers as employees must simply deal with misbehaving customers who feel they can do anything, even if it is rude, uncivil and causes increased vulnerability," they wrote.

Japan may yet be some way from letting service standards slip very far. It may be very close, though, to deciding that customers can have rights, without being right.

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China's 'management through fear' has old-school echoes

The recent article about the video warnings top employees were given by the head of public relations at the Chinese search giant Baidu exposes a really old-school way of managing, that harks back to the 1950s or 1960s ("'I'm not your mum' video by Baidu PR chief stirs fears over tech work culture", Report, May 10).

At that time, business school faculty regularly taught about "theory X", which assumes that workers are lazy and have no options, versus "theory Y", which assumes that workers are not inherently lazy and will step up when they understand why the work matters.

Research has shown over and over again that the vast majority of the workforce operates under theory Y. Yes, there are a few theory X workers out there, but most people just need to understand how what they do connects to something they care about.

Research also shows that workers are more motivated and productive when they are learning to get better over time.

They see how their work connects to things they value in life (such as helping others, saving lives, reducing suffering etc), and when they believe they are being treated fairly.

Or as psychologists Edward Deci and Richard Ryan argue in their self-determination theory — autonomy (I choose what to do), belonging (being part of something that matters) and competence (my skills are being used and developed). This example violates all three principles in favour of management through fear.

Where people have any real option they walk away from bosses like this, even in high power-distance cultures — those with an unequal distribution of power between parties — like China's.

Randall S Peterson
Professor of Organisational Behaviour; Academic Director, Leadership Institute London Business School, London NW1, UK

Boycotts are integral to all protest movements

In "Griffin hits out at Harvard protesters" (Report, May 13) Ken Griffin, the billionaire hedge fund manager and donor, likens the campus protests to "performative art", apparently unaware that the protesters have specific demands. These include divestment from weapons manufacturers and boycotts of Israeli universities and institutions seen as complicit in supporting the current Netanyahu government.

Such demands have been a part of social movements, including those for the abolition of slavery and against the apartheid regime in South Africa. Boycotts are in fact so integral a part of "western values" that a boycott and act of vandalism (towards chests of tea) helped spark the American Revolution.

As to Griffin's call for America to organise "food drives", hundreds of trucks are lined up outside Gaza, unable to deliver essential food and medicines. Staff of aid agencies, including UNRWA, the UN agency for Palestinian refugees, and World Food Kitchen have been killed during the Israeli action against Hamas. How would more food rotting at the Gaza fence be "practical"? If Griffin wishes for a just resolution of the Palestinian question, he could do far worse than listen to, and support the student protesters at his alma mater.

Subir Grewal
Washington Square Capital Management, New York, NY, US



How Hollywood movies drove Arab boy into exile

Dalia Dawood's nterview piece "Arab stories that speak to a global audience" (Arts, May 14) finds that actress Sarah Agha has created a space for people with an Arab heritage "to learn about their cultures through film".

This resonates with me as an individual who 60 years ago came from Baghdad, Iraq at the age of 17 to study and work in England.

The irony is that it was western culture, as depicted in Hollywood movies, that drove me, an Iraqi schoolboy, to leave my family and travel to the UK on a British Petroleum scholarship.

Sadiq Hussain
Bolton, Greater Manchester, UK

Every pound on private health is vote for the NHS

The article, which online ran with the headline "Does going private hurt the NHS?", implies that people are choosing to pay privately for medical care, rather than pay more taxes to fund the NHS (Report, May 10).

I think this is really not the case. It's been clear for some time that the democratic process is not working in this country.

The government is not providing adequate public services, and we are not given adequate opportunities to voice our frustration.

I would argue that every pound spent on private healthcare and education is, in reality, a vote for better public services.

We can't voice our opinion through the ballot box, so paying privately is the only way to make our voices heard, and to meet essential needs.

Jennifer Deegan
Cambridge, UK

If jobs mirrored interests, men would all be brewers

Olivia Sinfield's careers advice is graduates should choose a sector rather than a discipline (Letters, April 27). When I left an accountancy firm I chose an automotive group. "You have no interest in cars; you don't even drive", said my mother. I agreed that perhaps I should have chosen a brewery.

Steve Harrison
London SE15, UK

OUTLOOK

NORTHERN IRELAND

Mistrust dogs the UK's plan for a history of the Troubles



by Jude Webber

In Belfast in 1970, a battalion of British soldiers won praise from locals for trying to defuse tensions between Protestants and Catholics. Under orders to exercise restraint, they shouted repeated warnings before opening fire.

The image contrasts starkly with the Parachute Regiment's attack on unarmed civil rights marchers on Bloody Sunday two years later and other atrocities committed by security forces during Northern Ireland's three decades-long conflict.

Yet when historian Huw Bennett sought permission to cite documents referencing the battalion's activities in Belfast in his book, *Uncivil War*, about the British army in the early years of the Troubles, he says officials either refused or gave him the runaround.

Bennett, a reader in international relations at Cardiff University, says no soldier would have been incriminated; the suppression of documents simply illustrates the army's "aversion to external scrutiny".

But the UK government is now promising to open its archives to allow five academics "full" and "privileged" access to closed state files, and to let them write freely about what they find in an "independent and authoritative examination of the UK government's policy towards Northern Ireland during the Troubles".

The £3mn project, part of the government's controversial strategy of seeking to draw a line under Northern Ireland's painful past, is being billed as a "public history". But it is fraught. The UK was no innocent bystander in the conflict and its actions then and since have left many sceptical that it will deliver anything they would recognise as truth.

The project was unveiled days before legislation took effect this month to halt inquests into Troubles-era killings, with a new body in charge of investigations. Many victims and rights groups and all political parties in the region see the Legacy Act as a calculated operation to shield former soldiers from scrutiny and prosecution.

Critics question the ethics of academics being allowed to see documents denied to families.

"The idea that five historians could uncover the truth when the government has passed a Legacy Act to actively withhold that truth is to me a total paradox," says Feargal Cochrane, emeritus professor at the University of Kent and an expert on political violence. "I wouldn't touch it [the project] with a barge pole."

The UK has dumped the "official history" tag for such projects because it sounded like propaganda. An international panel of human rights experts found last month that state actors involved in atrocities, collusion and intelligence in the conflict waged by republican paramilitaries seeking to end British rule and loyalists battling for the region to remain part of the UK had enjoyed "widespread, systematic and systemic" immunity.

Ian McBride, a history professor at Oxford who is on the project's nine-member advisory panel (none of whom are currently employed in Northern Ireland), says the criticism does not surprise him as "there are so many people who have good reasons for being unhappy with recent Conservative governments and their attitude to Northern Ireland".

But he adds: "Any government which appoints five researchers, working for five years each, under the direction of an independent advisory panel, can't really hope to control effectively what the outcome is."

Marie Coleman, a history professor at Queen's University in Belfast, fears the government could stall publication of some parts of the project on security grounds. "We do want more access to documents and a proper historical investigation of the Troubles, but this is not the route or the context," she says.

Nor is it clear the project will help trauma-plagued victims, says Ciaran Mulholland, a senior lecturer in psychiatry at Queen's University in Belfast, and an expert in the treatment of trauma.

Because of the obstructions he has faced, Bennett is considering applying to be one of the five researchers in the hope it will yield "unprecedented" access and deliver accountability.

"It is an uncomfortable and it is a controversial history but we can't carry on kind of hoping it will go away and the people [involved] will die and we can eventually talk about it when everyone's dead," he says.

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Opinion

How to crack the economics of EV charging

COMPANIES

Brooke Masters



Electric vehicles have a chicken-and-egg problem. Drivers used to buying petrol are balking at having to rely on a visibly smaller network of public charging locations, less than 65,000 in the US, compared with 145,000 petrol stations. They also resent that even the fastest chargers take much longer than pumping fuel, while the slower "Level 2" equipment that is most commonly available can take hours.

These customers want more, and faster, charging. But those who own public chargers have often been unable to make back their cost of installation and operation. Many do not get enough use to be profitable, others lose customers because long charging times lead to crowds at peak periods.

Under pressure to cut costs, Tesla chief executive Elon Musk fired the company's entire supercharger division last month, and while he has partly relented, network growth is going to slow. Tritium, a smaller company, recently notified regulators it was insolvent. And shares in two US charging networks that went public to great fanfare in early 2021, EVgo and ChargePoint, are since down more than 90 per cent.

Without subsidies, "the unit economics just don't work", explains Quinn Pasloske, of Greenbacker Capital, a sustainable infrastructure investor.

As the number of EVs on the road has risen, the number of public chargers has not kept pace, driving up frustration and scaring away potential EV buyers. But there are still too few users to justify an extensive national network, potentially stifling further adoption.

Breaking this cycle requires a fresh look at the economics of EV charging. Rather than trying to install equipment everywhere, all at once, entrepreneurs need to focus their high-speed offerings where they can have the most impact.

"You really see a big disparity between the best sites and the sites that weren't as attractive from a traffic point of view," says David Giordano, global head of climate infrastructure at BlackRock, which is backing efforts to build a high-speed zero-emissions charging network along critical freight routes.

Less busy sites will require more creative approaches — and subsidies from carmakers and policymakers keen to speed EV adoption. Walmart and Starbucks see the service as a way to drive additional customer traffic, rather than expecting it to be profitable on its own. In the US Midwest, casinos run by Native American tribes routinely offer EV chargers. Revel, also backed by BlackRock, combines a charging business with an electric ride-share service whose cars can help ensure constant demand.

> Networks need to leverage the fact that electric cars do not have to be attended while they juice up

Networks also need to leverage the fact that EVs, unlike petrol cars, do not have to be attended while they juice up. If slow chargers become widely available at locations such as hotels, shopping malls and universities, drivers will gradually get used to charging at places where they are already expecting to stay for several hours.

Some entrepreneurs are trying to extend that principle to city streets, large apartment complexes and municipal parking lots. Munich-based Qwello installs moderate speed chargers in the city centre parking concessions that it runs for 300 municipalities in seven European countries. The parking fees defray much of the capital costs, so relatively low usage is less of a barrier.

"In the land grab for EV charging infrastructure, there will be winners and losers as the market sorts out ideal venue, adoption rate and charging speed," says Emil Henry, founder and CEO of Tiger Infrastructure, which backs Qwello.

In recent weeks, carmakers have warned of slowing EV sales and the Biden administration's plan to levy high duties on Chinese imports will probably make things worse. But sometimes a pause is needed to set the stage for a lasting transition.

Think back to the late 1990s, when the dotcom bubble fuelled all manner of retail internet dreams. Most of them crashed and burnt because their potential customers lacked the high-speed broadband and cellular service needed to make those businesses real. That initial enthusiasm proved shortlived, but sparked greater investment in technology infrastructure. This in turn made possible the giant ecommerce and platform companies that now form the backbone of our economy.

For cars, a slowdown should buy time for battery improvements to boost range and speed up charging. Once drivers can go farther, their need for high-speed roadside equipment will moderate. It may be impossible to fully replicate the current petrol station network. But it looks like we will not have to.

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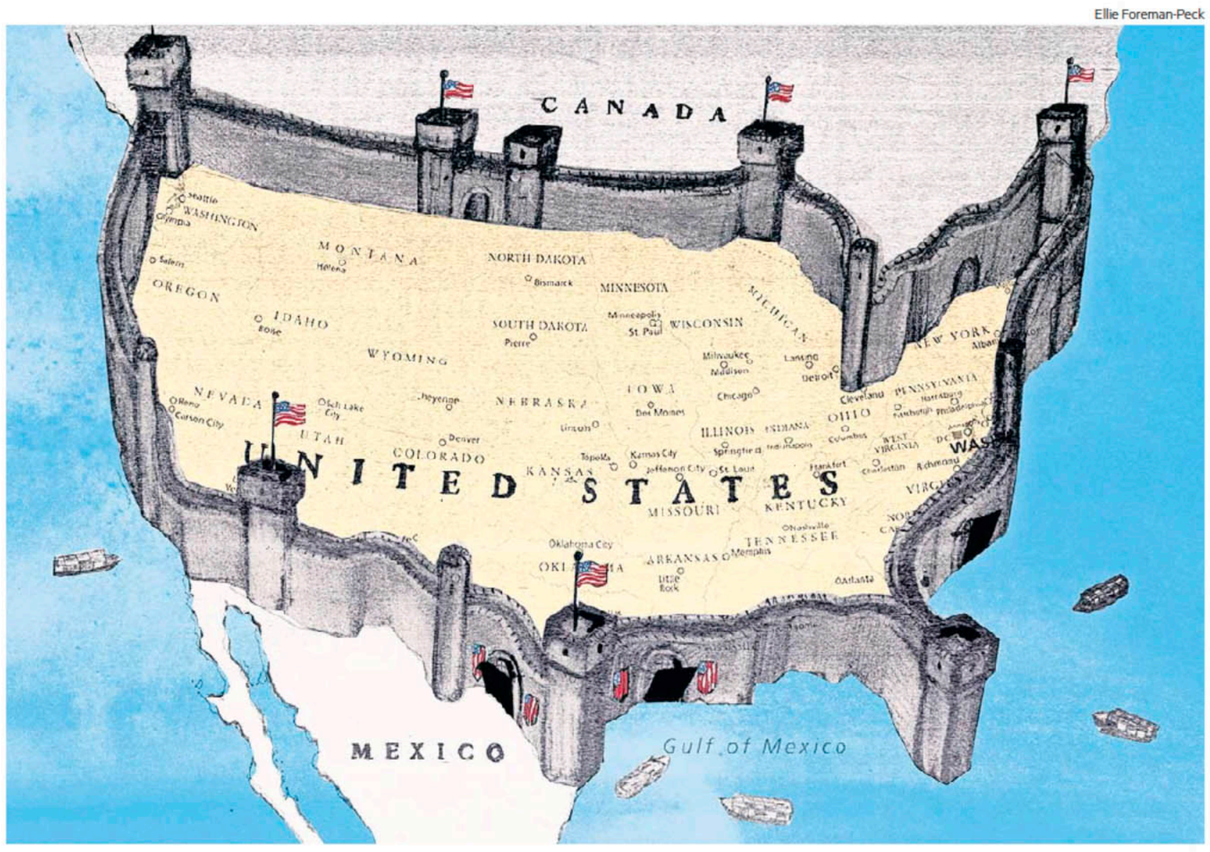
America is pulling up the drawbridge

POLITICS

Edward Luce



Ellie Foreman-Peck



America is in a race with itself to see which party can deglobalise faster. On Tuesday, Joe Biden slapped tariffs on a range of Chinese goods, including 100 per cent on electric vehicles. That's nothing, said Donald Trump, who promised 200 per cent tariffs on Chinese cars, plus 10 per cent on all imports from everywhere. Biden has more to come.

At this rate of bidding, US-China decoupling will be set in bipartisan stone by November. The choice will be between Biden sealing an orderly divorce or Trump doing it in chaotic leaps and bounds.

Of course, there is far more at stake in the US election than what remains of global trade rules. If Biden's trade war helps to defeat Trump in November, hindsight will judge him kindly. The cost of imposing new taxes on the US middle class and delaying America's transition to green energy would have been outweighed by the benefit of saving US democracy.

But it is an open question whether Biden's move will register at the polls. Since Trump will outbid him every time, some voters might prefer to go for the real thing. In 2019, Biden criticised Trump's China trade war for harming US farmers and manufacturers. "It's really easy to be tough when someone else absorbs the pain," Biden said. After a four-year review, the president this week said he would keep all of Trump's China tariffs and raise him on others.

Either way, America's direction of travel is ominous. At one speed or another, Republicans and Democrats alike are now in favour of pulling up the global drawbridge.

Biden's economic and climate change arguments both fail on their own merits. Biden's protectionist wall will eventually create and support "thousands of union jobs", as he said. But this will impose a cost on millions of existing jobs that rely on cheap steel and aluminium inputs for what they produce. That is without counting the cost of China's likely retaliatory measures, which will target US exports.

As Biden knew in 2019 but appears to have forgotten, the costs of tariffs are borne by consumers not by importers. Biden's main targets are Chinese solar panels, batteries and EVs. These are capital intensive goods. Manufacturing employment is declining across the world, including China itself. For the symbolic gain of a handful of muscular jobs, Biden is imposing a broad tax on the middle class and undermining US competitiveness.

Then there is the hit to his climate change policy. The cost of all forms of renewable energy has nosedived in the last decade, chiefly because of China. Some of China's competitive advantage has been bought with subsidies. The rest has come about because of fierce domestic competition and the scale of its domestic market. America is taking the wrong leaf from China's book. The Biden effect will be to raise the US domestic price of EVs, solar panels and other green inputs and delay America's energy transition. This will also price America out of export markets. China will continue to sell its cheap EVs and renewable energy supplies to the rest of the world.

Biden offered no list of steps that China should take to comply with US rules. This is because there are no rules. Successive US administrations have disabled the operations of the World Trade Organization, which would have adjudicated unfair Chinese subsidies. Biden himself is subsidising US green energy with the 2022 Inflation Reduction Act. Indeed, humanity as a whole is benefiting from the green subsidy race. Unfortunately, America is not executing its industrial policy as well as China. Almost two years after the IRA was passed, the US has only installed seven new EV charging stations covering a total of 38 spots for drivers. This would be insufficient to cover a suburb in Luxembourg.

> Biden this week said he would keep all of Trump's China tariffs and raise him on others

The other motive for US protectionism is national security. This explains Biden's so-called "small yard, high fence", which bans the export to China of high-end semiconductors and equipment that can be used for military as well as civilian purposes. It is an open question whether this will slow China's military expansion or accelerate its homegrown shift up the value-added curve. But Biden's theory is sound. It makes no sense to sell military technology to a potential enemy.

Against this, however, are the uncounted national security costs of deglobalisation. The last time the world was confronted with rising populism was in the 1930s. America's initial response was to make it worse. The 1930 Smoot-Hawley Act raised US tariff barriers and triggered beggar-thy-neighbour protectionism elsewhere. This time, again, America's instinct is to disengage: Trump across all fronts, including military alliances; Biden only on the economic front.

The US has grown tired of upholding the rules that it made in the wake of the most devastating war in history. Nuclear weapons will probably ensure there is no repeat of the second world war because it would amount to collective suicide.

Today's most potent threat is global warming. On Tuesday, Biden slowed America's transition to green energy and moved the US a step closer to a zero-sum contest with China. The only persuasive justification is that it could help him at the ballot box.

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The green transition can kick-start a revival in UK manufacturing

Peter Mandelson

Rishi Sunak says his "plan" for the economy is delivering — and if lower inflation was enough he might have a point. But there is a deeper, and more threatening, malaise facing the economy: the reluctance among investors to back British business. Pension funds are looking elsewhere for returns, venture capital is frequently shy and the London Stock Exchange looks weak.

We don't have to accept this. The UK's underlying strengths are well established, from the rule of law to our great research universities and our broad cultural appeal. We need to mobilise these and other advantages, giving a fresh sense of direction to the economy.

Britain is not alone in Europe in finding it hard to compete with the economic allure of the US mixture of dynamic capital markets and generous government subsidies. And the prime minister is right to point to Britain's scientific and technological prowess. But this power is not being harnessed within a wider economic plan.

In particular, Sunak's refusal to acknowledge that government needs to back innovation through regulatory reform — and his reluctance to use government intervention to mitigate investment risk — is hampering Britain's appeal to private capital. This is not simply or primarily about business taxation. It is more about giving investors confidence in the long term and consistent direction of government policy.

One area of uncertainty concerns the government's commitment to net zero targets and renewable energy. Sunak thinks he smells electoral advantage by soft peddling on these policies, but he is discouraging would-be investors in decarbonising power generation, heat and transport. Prevarication prompts businesses and investors to look elsewhere in Europe, Asia and the US, where there are stronger signals to invest in decarbonising assets and technologies.

These countries understand that stability is a necessary but insufficient condition to generate private sector investment — a free and competitive market is the starting point but not the only basis for economic success.

This insight is at the root of a new analysis by the Institute for Public Policy Research centred on the transition to green energy. Some argue that Britain's future exists only as an advanced services economy; the IPPR makes the case for using the energy transition to foster advanced manufacturing as an objective of government policy.

> We cannot capitalise on our strengths properly without nurturing production as well as services

In the UK, we can already identify manufacturing strengths and spot new competitive advantages in the race to meet the world's growing demand for green products — we are the eighth largest green product exporter in the world. Our current industrial capabilities point to expanding manufacturing in wind energy, green transport and heat pumps.

If we align the UK's university and research strengths, an educated and flexible labour market, our entrepreneurialism and a strong regulatory bias in favour of innovation and new design, we can make the most of these opportunities. It is too late to create an industry building solar panels here, but not too late to develop the grid-level storage capacity to transform the economics of solar power. There are similar possibilities offered by the UK's strong science base — and similar demands for sympathetic government policy.

We cannot properly capitalise on our strengths without nurturing manufacturing as well as services. It was not inevitable that the UK should have lost over a third of manufacturing capacity since the 1990s. Despite this, the IPPR study highlights that productivity growth was five times higher in manufacturing than in services between 1997 and 2021 — and that manufacturing is linked to two-thirds of private sector research and development in the UK.

The Conservatives, in rowing back on green ambitions, have chosen politics over economics. But in Labour circles, the need for active government support for advanced manufacturing is recognised. What is less clear is how to provide it — including how to rebalance regional economies, a key Labour objective.

In my experience as a former business secretary, talking in generalities about industrial policy is easier than designing the unique interventions needed for each sector: the conditions for healthcare innovation will not be the same as those for the energy transition or the defence industry. The substance of government action will need to range from financial support to regulation, planning and competition policy.

Deepening the interventions that can foster fresh manufacturing growth will not be easy. Renewal is possible, though, as long as we go with the grain of the new markets created by the green transition, the great challenge of our age.

The writer is a former UK business secretary and former EU trade commissioner

Decaying hospitals highlight failure to invest in NHS

Julian Hartley

Vital parts of the National Health Service are falling to bits. Literally. When I was in charge of a big NHS trust in Leeds, on my desk I kept a lump of Raac, the now notorious reinforced autoclaved aerated concrete, given to me by the chief executive of another hospital where it had fallen from the ceiling.

That chunk of crumbling Raac reminded me every day of the poor state of the fabric of England's NHS, another daily challenge on top of the growing demand and relentless pressures that the UK's health services are under.

Unsafe Raac is a symptom of a far bigger and long-running problem facing the ageing NHS estate. Safety of patients and staff is paramount but this is threatened by an eye-watering £11.6bn backlog of essential repairs, up by more than 13 per cent since 2021-22. Alarmingly, more than half of those on the "to do" list are classed as high or significant risk.

That is why the government's New Hospital Programme (NHP), unveiled in late 2020 pledging £3.7bn for the construction and refurbishment of 40 hospitals by 2030 with a further eight schemes invited to bid for future funding, was welcomed. Since then, the government promised that five hospitals built mostly with Raac would also be rebuilt by 2030 as part of the NHP.

Last year, however, MPs warned they were "extremely concerned" by the plan's "lack of progress"; the government's own spending watchdog said that the NHP had not been good value for money so far.

> England's trust leaders want to know they will be able to build the facilities patients were promised

Almost a year to the day since the government reconfirmed its commitment to the programme, NHS trusts' confidence in its delivery is on increasingly shaky ground. Some trust leaders told us that delays to their NHP schemes were costing them — and the taxpayer — upwards of about £1mn a month due to spiralling costs, with plans constantly being reworked in order to make them more affordable. That means potential benefits for patients have been delayed or scrapped in a bid to balance the books.

Many trusts in the NHP were disappointed to learn last year that their building plans won't become a reality before 2030. Many more were left demoralised after getting no funding at all. Deteriorating mental health facilities and the fact that more than 100 trusts applied to join the scheme show the scale of under-investment in the fabric of the NHS.

For years, the NHS has been forced to use money earmarked for transformative capital projects to pay for essential day-to-day work. Now we are living with the consequences of the national under-investment that made these trade-offs necessary.

The NHP will help some trusts tackle serious safety risks but the big picture is still uncertain. Trust leaders want to know that they will be able to afford to build facilities of the size and quality that patients, staff and communities were promised. They need buildings that reflect the health requirements of their communities now, not from when the plans were first drawn up.

NHS trusts have called long and loud for greater, planned, long-term capital investment from government to transform their estates. Without it the NHS will struggle to improve productivity and ensure safe, high-quality care in modern facilities. Ministers have also been warned too that proposed hospitals in the current plan may be too small for future health and care needs.

Ahead of a UK general election, trust leaders have called on politicians to work with them to build a new infrastructure programme for the NHS. To meet the challenges of the future, an incoming government must commit to equipping the NHS with the resources it needs, not just in hospitals but in mental health, community health and ambulance services too. We need to get a move on. Time and money are being squandered.

The writer is the chief executive of NIIS Providers

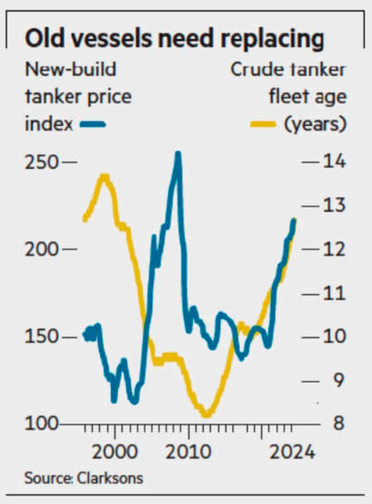
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Olaf Storbeck
Germany still has a long way to go to fix corporate governance
INSIDE BUSINESS

Low oil prices can't bring a halt to surging crude tanker demand





Oil prices are in the doldrums but you wouldn't know by looking at the crude tanker market. Not only are daily spot rates up, there is also a bull market for new-build orders. Shipbuilders are already busy dealing with orders for other types of vessels. Waiting lists are lengthening. This is resulting in a supply squeeze for oil tankers.

New-build values have responded. A price index for new-build tankers, across all sizes, has increased 50 per cent since the fourth quarter of 2020, according to ship brokers Clarksons. The oil tanker fleet is also rapidly ageing. The current average is 13 years old. Assuming no scrapping of ships, this would rise to 15 years in 2026 — the oldest since the mid-1990s at least.

Lead times for new tankers have stretched to three years or more, well above the usual two years. Shipbuilding capacity is scarce. Most yards, whether in Korea or China, already have orders for liquefied natural gas vessels or dual-fuel containerships. New ones for crude carriers must wait.

Some shipowners predicted a potential shortfall a couple of years ago. Norwegian shipping billionaire John Fredriksen is one. In 2023, Fredriksen-controlled Frontline instead bought 24 very large crude carriers from rival Euronav for $2.35bn. New-build orders, at about 7 per cent of total fleet, are below the 10-year average of 11 per cent.

The looming shortage is also reflected in rising tanker spot rates. Rates for very large crude carriers — holding up to 2mn barrels of oil — jumped 37 per cent to $45,500 daily in 2023, estimates Pareto Securities. That should reach $62,500 in two years' time. The share prices of Frontline and fellow crude shipping group DHT have surged 33 per cent and 25 per cent this year.

Seaborne crude volumes, which underpin tanker demand, are yet to improve. At less than 42mn barrels daily throughout April, these are slightly below a year ago and remain down on early 2020 before the full force of the pandemic hit.

Even so, slow tanker speeds — partly due to environmental reasons and fuel costs — have kept more ships on the water and fewer available for loading, points out DHT's chief executive Svein Moxnes Harfjeld.

As a result, tanker owners are making the most money since the late noughties. Those who bought or ordered enough tankers early enough have found their own gushers.

Uber's food delivery purchase should serve up more consolidation

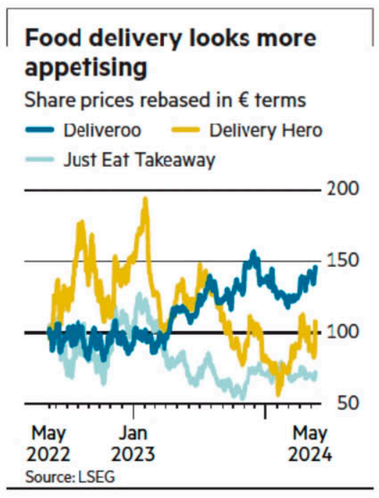
Exacting diners will give a messy meal short shrift. Likewise, investors in food delivery apps ascribe little value to companies presenting a hodgepodge of assets. Making an effort to tidy up can offer a more attractive proposition.

That, at least, is the lesson sfrom Delivery Hero's $950mn sale of its Taiwanese unit to Uber Eats this week. Coupled with Uber's $300mn equity investment in Delivery Hero itself, it was enough to add $1.75bn, or about a quarter, to its market capitalisation.

In part, that reflects the fact that Delivery Hero got a good price. Uber is paying 0.6 times GMV, or the value of the merchandise delivered over the past 12 months. Delivery Hero itself trades on nearer 0.3 times. The $1.25bn of cash will also make the company's €3.9bn of net debt more manageable.

Like weeknight cooks elated to find a forgotten jar of mushrooms in the larder, Delivery Hero's investors may also be rediscovering overlooked ingredients. Valuing its three largest markets — South Korea, Saudi Arabia and the United Arab Emirates — on a multiple of 10 times 2025 adjusted ebitda yields an equity value of €5.6bn, according to Bernstein Research, or about 85 per cent of the group's pre-deal market capitalisation. Its presence in a further 67 countries had clearly been mouldering at the back of the fridge.

Delivery Hero's Taiwanese transaction is not entirely replicable.



One reason Uber is paying up is that it will become a virtual monopolist in Taiwan's food delivery sector. But antitrust clearance is not a given.

Yet the deal should still give investors something to chew over. They should already have been encouraged by an increasingly rational approach in what had been a freewheeling sector, with Deliveroo, Delivery Hero and Just Eat Takeaway all expected to turn cash flow positive this year. Consolidation could be the next leg of this trip, with a number of markets, especially in south-east Asia or Latin America, in which three or more such groups are slugging it out.

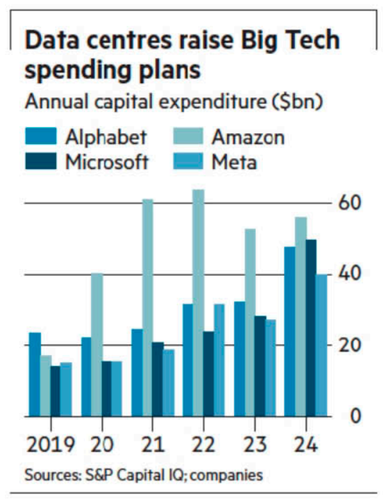
There is also a case to be made for cross-border M&A to create stronger regional brands. Scale helps spread technology, advertising and other fixed costs. And, if all else fails, exiting tiny or underperforming markets should help clean up their equity story.

Data centres have helped turn Big Tech into big spenders

In their rush to fill rural America with vast, windowless data centres, US tech companies are taking a capital-intensive bet on artificial intelligence. If that does not pay off, the rise in investment could drag on profit margins for years.

Excitement around generative AI means post-pandemic cost-cutting programmes have given way to investor-sanctioned spending plans. At the start of the year, Meta announced a new $800mn data centre in Indiana. Alphabet is planning a $3bn project to set up a data centre campus in Indiana and expand capacity in Virginia. Microsoft plans to create a $3.3bn "hub for AI" in Wisconsin. Global projects include Amazon's multibillion-dollar plans in Germany and Singapore. Data centres, like custom chips, are intended to act as a moat around cloud computing and AI services.

The result is an increase in capital expenditure, much of it directed towards plant, property and equipment. Between the end of 2019 and 2023 fiscal years, gross PPE at Meta and Microsoft more than doubled. It almost doubled at Amazon and Alphabet. Apple is one outlier, with PPE up less than a third between 2019 and 2023.



Apple has yet to choose a generative AI strategy and has been punished in markets accordingly. It is possible that spending will rise when it opts to release AI services to customers.

Data centres, which can be the size of multiple football pitches, are expensive to construct and maintain. Power consumption for US data centres will more than double between 2022 and 2030, according to McKinsey. Hardware needs to be replaced and upgraded over time.

Capex forecasts show that spending plans are still accelerating and will show up in rising depreciation expenses. Alphabet has suggested that the annual investment tally this year could be close to $50bn. So has Microsoft. In both cases, this would be about a 50 per cent increase on 2023. Amazon, which cut spending last year, says $14bn in capex for the first quarter could be on the low end for the year. That suggests annual capex could rise at least a tenth, though it has yet to return to pandemic-era highs.

For now, profit margins are holding up. Positive year-on-year earnings growth was supported by cost-cutting elsewhere and aided by companies extending the expected life of their equipment. Last year, for example, Alphabet and Meta increased the estimated lifespan of their servers from four to five and six years respectively. But the boost this provided to net income is not something that can be repeated. Companies need AI services revenues, not cost savings, to fuel the data centre boom.

Raspberry Pi's IPO should prove a tasty mouthful for London

If the proof of the pudding is in the eating then Raspberry Pi is already an appetite pleaser. The British maker of micro computers has proved a hit with customers since its early days as an educational start-up. Today it has a lucrative and fast-growing niche serving the technology needs of manufacturing businesses. Investors will soon get their own chance to taste a slice of Pi. The company is planning a London initial public offering at a mooted valuation of £500mn.

The listing, set to take place in early June, is welcome. The London Stock Exchange faces demands for public technology and growth companies. Yet with just 100 Aim and All-Share technology stocks, the menu is small. Cyber security specialist Darktrace is about to go the way of many UK-listed tech groups after agreeing a takeover by a private equity group.

The company's commercial life began by providing its single-board computers to enthusiasts and hobbyists who needed low-cost bespoke tech solutions. These revenues have since been overtaken by sales to business users that made up 70 per cent of the total last year.

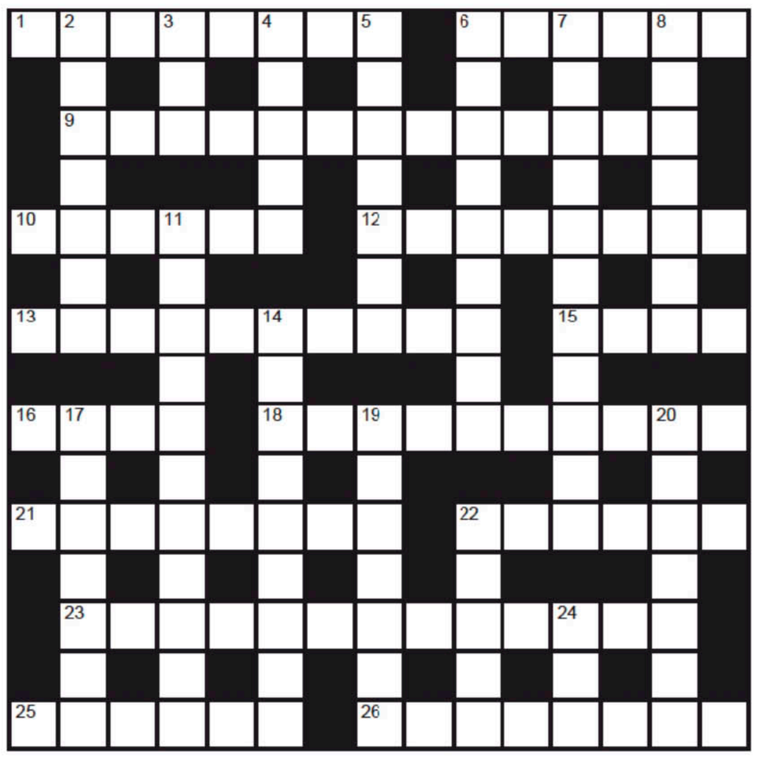
With growth, the model has shifted away from capital-light licensing deals towards fuller control of supply chains and direct distribution. The effect is bigger top and bottom lines. Sales grew 40 per cent last year while ebitda rose more than 60 per cent to generate a 16 per cent margin.

Assuming that rate of sales growth is maintained this year, Raspberry Pi should command a healthy valuation multiple at listing. The mooted £500mn valuation (there is no debt) works out at about an eight times multiple of forward ebitda assuming similar growth this year.

That compares with an average 15 times multiple for members of the FTSE All-Share Technology index. A calculation based on peers' trailing profit margins suggests a multiple close to 13 times would be justified, valuing it at closer to £630mn. A comparison of peer growth rates suggests a higher valuation still. Such ingredients point to a successful float.

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ACROSS

1 Saddle and rope skilfully thrown over mammoth (8)
6 Group of members decided on yearly fee (6)
9 Young lady downs bodily fluid, funny bad taste (7,6)
10 Arabic name African prince tried to keep secret (6)
12 Ask private, one just embarking (8)
13 Crashpad a man developed protects fallers (4,3,3)
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18 Covering chest, sensor bespoke good health (10)
21 Fighter switched crude strategy after four failures, perhaps (8)
22 Simple things like ballpoint pens and spades (6)
23 Baby expert backed scheme to impregnate hereditary peer (13)
25 Parisian's salad French? That's understood (6)
26 Maybe skipper's binding Essex's opener into playing for Kent (4,4)

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2 Wary taking a drug abroad (2,5)
3 Buried treasure well recovered? (3)
4 Oscar puts on gloves, conversely making head warmer (5)
5 See paintbrush not yet in the bag (7)
6 Sorts regularly hiding horse inside mule? (9)
7 Ridge poles set on new American houses (11)
8 Serious organ music causes vibrations in home (7)
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14 Relation arrived wanting mother to provide accommodation (9)
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19 Habitual complainer wants bill voided by diner (7)
20 Briefly view apartment block in Manhattan, the lower part (7)
22 Bishop on bicycle, last to arrive for service (5)
24 Mark permanently a little sunburned without cap (3)

JOTTER PAD

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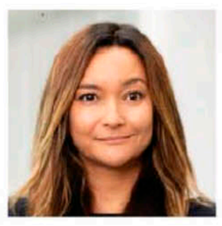
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Europe's Climate Leaders

Thursday 16 May 2024

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Net zero ambitions face reality check

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Jasmin Merdan/Getty Images

EU Businesses and politicians are questioning the bloc's climate policy, says *Alice Hancock*

Elections put spotlight on Green Deal



On February 20, just days before farmers staged a protest in the centre of Brussels to show their resentment of the EU's green policies, 73 industry leaders from more than 20 industrial sectors came together in the Belgian port of Antwerp to sign a declaration.

That document identifies an "urgent need for clarity, predictability, and confidence in Europe and its industrial policy" and outlines 10 policy areas that the European Commission and member states should address. According to the executives, EU industry is being strangled by bureaucracy, high energy prices, global trade tensions and the cost of transitioning to cleaner practices, to meet the bloc's climate goals.

"Putting industry competitiveness at the heart of Europe's decision-making: this is the big elephant in the room," says Ilham Kadri, president of the EU chemical industry body Cefic, which spearheaded the declaration.

Markus Beyrer, director-general of employers' organisation BusinessEurope, says European industry is in "a very, very serious situation" and losing ground against international competitors in China and the US.

Policymakers' response to the farmers' protest — the most recent of a series that has involved manure being spread across the streets of Brussels, statues being toppled, tractors blockading roads, and eggs being hurled at Commission buildings — was rapid.

Environmental standards that farmers must meet in order to receive EU subsidies have been scrapped in some cases, and farms of less than 10 hectares have been exempted from penalties for non-compliance with green rules. These measures were passed by an urgent procedure in the European parliament last month.

By contrast, the response to industry's concerns has been less clear cut.

EU leaders discussed the bloc's economic competitiveness at a summit in April, prompted by the publication of a report on the single market by former Italian premier Enrico Letta. Then, in the summer, another former Italian premier, Mario Draghi, will present a report on competitiveness. In addition, the commission is holding a series of "clean transition dialogues" with industries ranging from hydrogen to steel. But it has run out of time to pass new legislation before EU-wide elections in June.

Speaking about the dialogues at a press conference last month, Maroš Šefčovič, the EU's Green Deal chief, said "there was a lot of food for thought, because now we are moving to the next phase of the Green Deal."

He added that this new policy phase should "take into account the technological possibilities, readiness of our industry, huge investments and, of course, support of the member states, and . . . even more importantly, the backing of our citizens for this very important once-in-a-generation transition".

As a result, the bloc's Green Deal climate law and its impact has become a key battleground ahead of the summer elections and a defining element of European Commission president Ursula von der Leyen's effort to win a second term.

Liberals in the Czech Republic have warned against a "green ideology" sweeping Europe. Meanwhile, the rightwing European Conservatives and Reformists group has said that the Green Deal has neglected citizens and must be "turned on its head".

Several key pieces of von der

> 'How do you get to a net zero Europe in a way that is sustainable for businesses to survive?'

AI start-ups take aim at climate change

Climate tech

Machine learning can bring big benefits, but entrepreneurs also stress its limitations, says *Javier Espinoza*

While growing up in Normandy, northern France, Yanis Souami became enamoured with the ocean. One of his earliest memories was "going to the sea, snorkelling and marvelling at the fish and the wildlife", he says.

And, today, the now 42-year-old entrepreneur runs Sinay, a French start-up that uses artificial intelligence to analyse ocean data — on shipping movements, weather patterns, and air and water pollution — to help the maritime industry streamline its operations and reduce its environmental impact. One of its services enables users to monitor both underwater noise, from sources such as shipping or pile-driving, and the presence of marine life that might be adversely affected by it.

"There is a lot of impact of human business on ocean biodiversity," Souami says. "We can combine biodiversity conservation with business efficiency using the best available information, partly thanks to AI." He points out that preserving the world's oceans — which produce about half of the Earth's oxygen — is a crucial part of the fight against climate change.

Sinay is part of a constellation of European start-ups that are using AI and machine learning to help businesses both cope with climate change, and minimise their contribution to it.

Applications such as emissions monitoring, recycling management, and predictive infrastructure maintenance are attracting significant interest from big companies — and investors. Last week, for example, Danish start-up Electricity Maps, which tracks the carbon intensity of corporate electricity usage and numbers Google and Samsung among its customers, closed a €5mn financing round.

Electricity Maps, Sinay and their peers are benefiting from a broader surge in funding for so-called climate tech. According to data platform Dealroom, European climate-tech start-ups — in subsectors as diverse as electric mobility, nuclear fission and alternative proteins — raised $20.2bn last year, only slightly below the record $20.4bn they achieved in 2022. In total, they accounted for 43 per cent of global venture capital investment in climate tech, up from 29 per cent in 2022.

When it comes to AI, Lynn Kaack, who leads the AI and Climate Technology Policy Group at Berlin's Hertie School, a graduate university of governance, says it pays to specialise. "AI is not a silver bullet against climate change," she says. "Successful start-ups are using machine learning as one element in pretty technical applications, like predicting the evolution of clouds for better operating a power grid with high shares of solar photovoltaic."

One such company is Dutch start-up Overstory, whose technology analyses satellite imagery and other remote sensing data to spot when vegetation is encroaching on power lines. The information enables electric utilities to cut the offending greenery back before it causes power outages or wildfires.

When it was founded, in 2018, Overstory's aim was to use machine learning to detect deforestation. But, after two years, it decided to focus on serving utilities, which already spent heavily on vegetation monitoring. "We give them a network-wide view of risks caused by vegetation," says chief executive Fiona Spruill. "Companies never had this technology. They had to have someone walk the lines and understand the risks."

Satellite imagery, by contrast, allows them to "target the risks quicker and hopefully in a more cost-effective way", Spruill says — adding that those risks are increasing because "utilities are facing more extreme weather events".

Spruill notes, however, that AI is only as good as its training data. The company relies on experts to help label images, with visits to particular sites still sometimes needed.

"We've been powered by AI from the beginning so we're not jumping on the bandwagon," Spruill says. "We have six years under our belts, but identifying the species of a single individual tree from space is hard."

Sinay's Souami makes a similar point. Training AI models to recognise marine life, such as dolphins, turtles and seabirds, he says, requires

Europe's Climate Leaders



The filth and the fury: farmer protests such as this one in Brussels have prompted the EU to soften some green measures
James Arthur Gekiere/Getty

Leyen's landmark climate legislation have already been scrapped or delayed in the run-up to the elections, including a law to cut pesticides and a revision of rules on chemical use. Reporting obligations have also been watered down.

But Green politicians say that it is crucial to maintain consistency and press ahead with implementing the environmental rules.

"For industry, if there is one thing they need, it is long-term predictability," said Bas Eickhout, the Dutch lead candidate for the European Greens, at a recent campaign rally. "There is nothing so bad for industry as a European Commission or parliament that changes every five years . . . in our assessment, you need to be much clearer on the future and . . . the stability of the Green Deal that is helping our industry to know where Europe is going," he argued.

"Do you really think that, if Europe is going to scrap [some of the] reporting obligations, suddenly European industry is saved? It's a joke," he concluded.

Business leaders are quick to emphasise that they are not against the EU's climate goals.

"What we want [the policymakers] to hear, again and again, is that we are all for the Green Deal," says Kadri.

The problem is making it happen. "When the Green Deal came out [it] framed how we can work towards a net zero Europe," says Katja Wodjereck, former executive vice-president of renewable products at the Finnish oil and biofuel company Neste. "This was all a fantastic ambition. But how do you get that? How do you get there in a way that is sustainable for businesses to survive?"

Neste has invested millions into developing sustainable aviation fuels and received €135mn from the EU's Innovation Fund to establish a chemical recycling plant in 2022. However, a lack of regulatory clarity has made scaling up a challenge.

Disruptive events, such as the Covid pandemic and Russia's invasion of Ukraine, have not helped. "We've seen crisis over crisis, that led to macroeconomic volatility," Wodjereck says. "And that makes planning and predictability a lot more difficult than it was before."

Solutions are not easy, though. The Commission has started to take a tougher stance on Chinese companies operating in the bloc that benefit from Beijing's vast state subsidies. But other issues that are hampering investment, such as permitting delays for new facilities and difficulties in accessing EU finance, will not be solved before the EU votes in June.

A survey of 240 companies across 21 European countries by BusinessEurope found that more than 60 per cent had to wait between one and six years for permitting approvals. Around 80 per cent said that this was an obstacle to investing in the EU.

The lobby group is also pushing for sustainability reporting obligations to be further lightened to cut costs.

"Is there a quick fix? That is the big question," says Beyrer, the BusinessEurope chief. "It is quite difficult to find quick fixes to issues like permitting, energy prices and regulatory costs at a European level because, to make significant steps on many of these things, you need revision of primary legislation, which we know is hardly going to happen overnight."

But, he urges, policymakers and industry should not give up: "We must find a way to get there."

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Quiet, please: Sinay can monitor noise pollution at sea

"low-tech" inputs. "You need to have experts in species recognition physically tagging them and then training the machine. That's low-tech."

Sometimes, too, Souami adds, analysing historical information is more valuable to his clients than, say, AI-powered predictions of weather patterns. "We need to focus on where we provide value and then choose the best tool to provide this," he says.

Other AI entrepreneurs are similarly modest about the technology. Alex Marti, chief executive of Mitiga, a Spanish start-up that uses high performance computing to evaluate the risk of natural disasters, warns that AI systems may embed biases found in the data they are trained on. "It's very important to have transparency about how those models are built," he says. "If the information is not there, you cannot use AI to make it up."

Although some worries about AI are overblown — such as "if you let it run wild, then it turns into Terminators" — the real danger is overhyping it, Marti argues. "AI will help you, but it has limitations," he says.

Some researchers, though, believe AI has significant environmental downsides — including heavy energy and water consumption by data centres, and the potential to accelerate the spread of climate disinformation.

Kaack at the Hertie School says that evaluating the technology requires a broad perspective. "It is important to not only look at the impacts of AI applications in the climate space," she says. "Instead, we need to look everywhere where AI is being applied, and ask: in which way is this application reducing or increasing emissions? . . . It is a multipurpose tool, and it can also be applied to hurt the climate."



Space Orbital sensors could help businesses hit climate targets, writes *Peggy Hollinger*

Emissions rules provide boost for satellite data



High and mighty: launched last year, GHGSat's Vanguard satellite monitors carbon dioxide emissions

Just before the US presidential election in 2020, UK satellite data company Terrabotics noticed something strange going on in the oilfields of New Mexico. "There was this flurry of well sites being built, just in case Biden would ban fracking overnight," says Gareth Morgan, the company's founder and chief executive. "It was a noticeable uptick."

Even though another US election is looming, Morgan sees no sign of another frenzy. These days, the company, born out of an incubator at London's Imperial College, finds customers are less focused on drilling activity and more on asking for help to track emissions in their operations and supply chains.

Companies are under pressure to disclose what, when and where they emit. Regulators are demanding information not just on carbon dioxide emissions, but on other greenhouse gases — in particular, methane. It is a new and rapidly growing market that companies such as Terrabotics, France's Kayrros and others want to serve.

Methane accounts for just 16 per cent of global emissions, but is much more damaging than CO_2. The International Energy Agency estimates that one tonne of methane, in its first 100 years, has the same warming impact as 30 tonnes of CO_2.

Last year, both the EU and US proposed new regulations requiring their fossil fuel industries to track and reduce methane pollution.

"If companies had not started taking action before now, clearly these regulations are playing a role as an effective driver to get them to pay attention," says Jean-Francois Gauthier, head of strategy at GHGSat, which has been a pioneer of using satellites to identify methane leaks.

GHGSat has 12 small satellites flying some 500km above the Earth, with infrared sensors that can detect methane emitted from individual sites. Gauthier says that, in 2023, his company helped clients address emissions equivalent to six megatonnes of CO_2. "That is 1.4mn cars off the road a year," he explains.

But other start-ups, like Israel's Momentick, are also developing algorithms to scour data gathered by existing satellites, instead of flying their own constellations. The EU's Copernicus is the world's largest Earth observation (EO) constellation and the data gathered by its Sentinel satellites is free for anyone to use. Using intelligent software to exploit this existing infrastructure keeps costs down, says Momentick's co-founder Daniel Kashmir.

While demand for methane detection from space is growing, many satellite companies and space agencies are hoping to offer the same capability for CO_2 emissions from individual sites.

GHGSat launched its first CO_2-detecting satellite late last year, but site-specific monitoring of CO_2 from space will always be more difficult than methane, Gauthier says. Unlike methane, the background concentration of carbon in the air is relatively high, so it is harder for satellites to detect the changes made by smaller individual leaks, he explains. "For something to distinguish itself from the background concentration, it needs to be pretty high. We are expecting to see large emissions from cement factories, steel or power plants."

The company hopes to expand the range of pollutants it will detect from space, to nitrous or sulphur oxides and others. "It is just a matter of having the business case," Gauthier says.

However, the business case for using space data to cut emissions is still not fully made.

Regulations are not yet in force for everyone, says Lucy Edge, chief operating officer of the UK's Satellite Applications Catapult, a research organisation set up by the UK innovation agency. "The push is not yet there to add to the costs of running your business," she says.

And costs are still a barrier. One industry executive says a single data set — a selection of images looking at a particular site, for example — could cost more than £100,000.

But some suggest that businesses do not yet understand the value of space-based data, which can cover bigger areas more quickly than terrestrial applications. "I have sat in meetings with people . . . who would spend £20mn on a seismic survey . . . and then they would be reluctant to use satellite data because of the perception it might be hugely expensive," says Terrabotics' Morgan. "It would be nice if the price was lower, but it isn't expensive."

Many industries have been using space-based navigation services, such as Europe's Galileo, for years. For example, aviation — one of the most hard-to-abate sectors — relies on satellites to help it hit net zero targets. "Our aircraft positions are now monitored in real time by a network of orbiting satellites, which has given us the opportunity to improve efficiency within our north Atlantic operation," notes British Airways' flight efficiency manager, Spencer Norton.

> Space will only ever be a partial solution. Some technologies struggle to see through cloud cover

Satellites are also being used for advanced weather applications, which helps pilots choose "a more efficient route", he adds.

EasyJet says new satellite-based air traffic navigation services are being trialled in the Netherlands and have shown that an average 91kg of CO_2 per flight could be saved in that region. "More efficient use of airspace is absolutely critical to how we can tackle industry emissions," EasyJet says.

Gradually, other sectors are expected to incorporate space-based intelligence into their decision-making. A report by the World Economic Forum last week found that EO technologies could help to eliminate 2 gigatonnes of CO_2-equivalent a year.

Partnered with navigation services, EO is already helping to cut shipping emissions. Satellite company Spire, for example, tracks more than 250,000 active vessels a day. Joel Spark, co-founder, says one customer reduced its carbon emissions by as much as 40 per cent on some routes by using this data. "It makes no sense for an operator to use more fuel going full steam if they are only going to wait outside a port," he says. "By knowing how global maritime traffic behaves, you can save costs and emissions."

But space will only ever be a partial solution. Some technologies struggle to see through cloud cover, others over water. That is why most companies offering space-based services integrate data with intelligence gathered on the ground or from drones.

The real challenge, now, is to prove that space-based data can be both cost-effective and easily integrated into a company's decision-making, says Edge at the Satellite Applications Catapult — and then it must become just another ordinary tool in a company's emissions strategy.

"One day, using space-based data will be the norm," she says. "The fact that the word 'space' is embedded into this data will become irrelevant to everyone."

Can Europe survive a dose of Dunkelflaute?

Renewables

Cold, still, overcast conditions are a challenge for wind and solar power, writes *Rachel Millard*



Remote working: one of the platforms installed last year for the Baltic Eagle wind farm, 75km off the German coast

Some 75 kilometres off the coast of Germany, the 50 foundations of the Baltic Eagle wind farm are among the latest signs of Europe's push for green energy.

Installed last year, the platforms — which have just received their first turbine — are part of a joint venture between Iberdrola, the Madrid-listed energy giant, and Masdar, the UAE's clean energy company. The 476-megawatt project should be capable of supplying up to 475,000 homes, marking one small step towards Europe's clean energy goals.

Yet, as wind turbines and solar farms are rolled out at pace, policymakers and energy experts are also focusing on another piece of the puzzle: working out how to fill the energy gap during periods of low wind and little sunlight — or *Dunkelflaute*, as they are known in energy circles, using the German term.

Analysis by the International Energy Agency shows that roughly five or six times over the past 30 years, cold spells with little wind have affected large parts of Europe for a week or more, including areas where most onshore and offshore wind projects are located. The analysis covered the EU, UK, Nordic countries, several Balkan countries and Ukraine.

"We recognise that climates are changing, so how often these will occur is a bit hard to know," says Brent Wanner, head of the power sector unit at the IEA, which advises member nations on energy security. "But being ready for these kinds of periods should be part of the planning."

Europe's electricity system is set to change profoundly over the coming decades. Modelling by the think-tank Agora Energiewende suggests that, under national targets, 96 per cent of Europe's electricity will come from renewable sources, mostly wind and solar, by 2050. That compares with around 44 per cent now.

The continent will also become more reliant on electricity as households switch from petrol to electric cars and from gas-fired boilers to electric heat pumps. Electricity could meet up to 70 per cent of Europe's final energy demand by 2050, the modelling shows, compared with just over 20 per cent now.

Managing periods of low wind and sun without resorting to unabated fossil fuels is likely to require, among other things, a step change in electricity storage, so that it can be banked when the wind and sun are strong and deployed when they are not. Wind and solar farms in Europe and the UK are currently frequently asked to switch off if they are producing more than the grid can take.

Pumped storage hydropower — where water is pumped up to a reservoir and then discharged when needed to drive a turbine — is considered by the IEA to be the "most efficient and cost-effective" way available currently of storing energy over long periods of time.

Yet the technology is limited by geography and vulnerable to drought. One option policymakers are looking at is hydrogen as a form of storage: using electrolysis to split hydrogen from water when the wind and sun are strong, storing the hydrogen, and turning it back into electricity when the wind drops by using it to fuel a power station.

> Managing such periods will require a step change in electricity storage

However, this process is highly inefficient, with potentially 70 per cent of the electricity lost along the way. In addition, low carbon hydrogen is likely to be in stronger demand from industries with few other ways to cut their emissions, such as fertiliser manufacture or steelmaking.

"Once the hydrogen is made, it's a very valuable molecule to have made, and can be used to decarbonise the most difficult to decarbonise areas first," explains Caroline Still, project leader at Aurora Energy Research in the UK.

Hydrogen can also be made by splitting it from natural gas, and there is growing interest in deposits of hydrogen underground. But the natural gas process releases carbon dioxide that needs to be captured and stored if it is not to contribute to climate change, while the extent of geological deposits is not yet clear.

These constraints mean hydrogen's role in power generation may end up being limited. Aurora forecasts that, overall, electricity generated by hydrogen will account for about 3 per cent of European power generation in 2050, in a scenario where the region meets its target to cut carbon emissions to net zero.

In a boost to the market, in February, the German government announced plans to subsidise power plant owners to develop up to 10GW of power stations able to run on hydrogen. "We need [. . .] modern and highly flexible climate-friendly power stations," the government said in a statement.

And, at the end of April, the European Commission awarded nearly €720mn to seven projects aiming to produce "green hydrogen" — the type made through renewably powered electrolysis — helping to develop the industry.

There have also been setbacks, though. Earlier this year, Engie, the French state-backed utility, pushed back its target to develop 4GW of hydrogen projects from 2030 to 2035.

It argued that the "development and structuring [of the market] is slower than what was envisaged a year ago".

James Forrest, global industry leader for energy transition and utilities at consultancy Capgemini, notes that enthusiasm for developing low carbon hydrogen has "faded a bit" over the past year — in part due to high costs. "It's too expensive and uncompetitive," he says.

Matthias Buck, Europe director at Agora Energiewende, believes that, given its challenges, hydrogen will face competition from other storage technologies, with several companies working on developing batteries so they can run for longer periods of time, and new ways to store heat.

"There's a very clear interest in developing new long-term storage solutions for power which are cheaper than the hydrogen route," he says. "I am confident that, by the time we reach 2040-2045, we will have new things on the market that we don't yet see."

He argues that the growing number of electricity cables allowing countries to export and import power will also help the system to cope. "It's likely that, if you have a Dunkelflaute over the North Sea, you would have plentiful renewable production in other areas," he says.

But he notes that, while there is "no need to fear Dunkelflaute", provided the continent's power system is set up appropriately, this will not happen by itself.

"The question is: do we have the right things on the policy and administrative level to get there?" he asks. "I would say at European level the homework is mostly done. It's about making it concrete, in the regional context."



A coffee picker at work in Colombia. New sustainability regulations will require EU companies to confirm that workers in their supply chains are fairly treated — Edinson Arroyo/Bloomberg

Climate rules raise cost of business

Regulation The EU's busy legislators are creating a compliance challenge for industry, writes *Andy Bounds*

Europe's Green Deal to tackle climate change has produced plenty of red tape for businesses. Since it was agreed in 2019, with the aim of achieving climate neutrality by 2050, dozens of laws have been introduced.

Companies have new obligations to audit their supply chains for environmental damage and human rights violations, to prove that commodities such as beef and coffee do not come from deforested land, and to ensure more products can be repaired.

Richard Sterneberg, head of global government relations at law firm DLA Piper, says the volume is unprecedented. "There is a lot of regulation coming down the track at the same time. The compliance costs are high and it is easier for the bigger companies to comply."

Some companies have decided simply to ditch suppliers in countries that may not be able to assemble the data needed to comply with the Corporate Sustainability Due Diligence Directive. Passed by the European parliament last month, and due to come into force by 2027, the law requires EU and non-EU companies with significant turnover in the bloc to ensure that their supply chains do not harm workers or the environment.

Other companies may quit the EU, instead. "Legislation is having an impact on investment flows coming into Europe," Sterneberg says. "The EU wants to set the agenda, globally, but other countries are not following suit so there is not a level playing field."

The Green Deal has created a bonanza for his industry, however. Thomas Delille, a partner in the EU public policy practice at law firm Squire Patton Boggs, says his team has been expanding fast.

"Various pieces of EU legislation have placed a new generation of obligations on economic operators, centred on the concept of due diligence," he says. "Very often, companies need to start working on their compliance despite a lack of guidance on how to interpret and implement the law."

Many companies are reluctant to talk about costs. But one multinational, which did not want to be identified, tells the FT that the only cost-effective way to comply with the 2023 Corporate Sustainability Reporting Directive is to digitalise everything — which can be difficult in some developing countries where suppliers still provide paper invoices.

The CSRD, which will apply to reports published from next year, demands information about companies' impact on people and the environment, allowing investors to assess the financial risks and opportunities arising from sustainability issues.

The company estimates it has spent $18mn in the past three years on automating its carbon emissions data, and expects to spend another $50mn-$60mn over the next three to five years to comply fully with the CSRD. On top of this, it anticipates millions of dollars in annual costs for data compliance and auditing.

The company will also have to comply with the Carbon Border Adjustment Mechanism, at a cost of at least $500,000 a year. The CBAM is intended to protect EU heavy industry, which must pay for its carbon emissions under the bloc's emissions trading scheme, from being undercut by producers in countries with more lenient rules. From 2030, it will levy a charge on imports of steel, cement and other products to account for the carbon emitted while making them.

> 'We need a consistent policy, which is not changing all the time'

Importers are responsible for providing the information. The first reports were due this year but only 10 per cent of German companies, for example, complied by the initial January deadline.

In a recent analysis of EU policymaking, Zach Meyers, assistant director of the Centre for European Reform think-tank, says the European Commission, in its attempts to deal with crises such as the Covid-19 pandemic and climate change, "has become a more political body".

This means, he argues, that the EU "has lost one of its strengths: having a technocratic lawmaking body focused on designing laws based on evidence and good practice, and which is less beholden to short-term politics than the European parliament and European Council".

He says the commission has rushed consultation with industry, often uses emergency procedures to avoid impact assessments, and increasingly uses so-called delegated acts, which are not scrutinised by the other institutions or subject to open debate.

NGOs, however, support the changes, although many proposals were watered down by EU governments before they approved them.

Amandine Van Den Berghe, lawyer with environmental organisation ClientEarth, says: "The climate, biodiversity and pollution crises are here now and already causing business disruption. Continuing with business as usual — or, worse, deregulating — is condemning our economy as well as people's health and the environment to a grim future.

"The CSDDD is not reinventing the wheel — it turns voluntary international standards that have existed for over a decade into binding rules. The law was developed in response to requests from the private sector to bring clarity and harmonisation to a fragmented EU legislative landscape, as well as calls from civil society for more responsible business conduct."

She says many companies and investors support it.

Indeed, some businesses say it is not the amount of legislation that is the problem but the constant changes, often at national level.

Among them is Netherlands-based boiler company BDR Thermea, owner of brands such as Baxi and De Dietrich, which began transitioning from making gas boilers to electrically powered heat pumps a decade ago.

However, after protests in Germany, the government there scrapped plans to oblige householders to adopt heat pumps. Meanwhile, other countries ended subsidies or policies that mandated heat pumps in new homes. As gas prices have dropped, so has demand.

BDR Thermea, which operates globally but manufactures mainly in the EU, is now switching staff back from heat pumps to gas boilers to match demand.

"The market for heat pumps is going down," says chief executive Tjarko Bouman.

"We need clarity on the regulations . . . and a consistent and predictable policy, which is not changing all the time," he adds. "It creates uncertainty with consumers."

He welcomes the CSDDD, despite its cost. "We are a key player in the energy transition. And, as such, I believe we should be a frontrunner, in being a sustainable corporation ourselves. It's the right thing to do."

Airlines see greener fuels as fastest route to net zero targets

Aviation Demand is growing, but would-be producers are finding finance hard to come by, writes *Sylvia Pfeifer*

Nanna Baldvinsdóttir has become used to being inundated with unsolicited calls after speaking at industry conferences.

The co-founder and chief executive of Icelandic start-up IðunnH2 has something to offer that is in high demand across the aviation industry: plans for a commercial scale, sustainable aviation fuel (SAF) production facility.

"I get cold calls afterwards," says Baldvinsdóttir. "I am asked: how much? When?"

How to secure adequate supplies of SAF — low-carbon alternatives to conventional fuels — and at what cost have become two of the biggest questions for the aviation sector as it seeks to reduce its carbon footprint.

Climate change poses a commercial threat to aviation, which accounts for 2-3 per cent of global carbon dioxide emissions. The sector's visibility has made it a high-profile target of policymakers and environmental campaigners in recent years.

"The sector needs to deliver," says Tim Alderslade, chief executive of industry group Airlines UK. "There is no question that, if we fail to do so, governments will act to make aviation smaller."

Airlines, aircraft manufacturers and other industry stakeholders have pledged to achieve net zero emissions by 2050 through a mix of new fuel technologies, including the use of SAF and hydrogen, as well as more efficient aircraft and engines.

Airbus, Europe's aerospace and defence champion, has committed to flying a hydrogen-powered aircraft by 2035. The planemaker, along with US rival Boeing, is also exploring new aircraft designs. Meanwhile, government-backed initiatives such as the UK's Aerospace Technology Institute are researching lightweight materials and wing technology. However, breakthrough technologies, such as hydrogen- or electric-powered aircraft, are still years away from being commercially viable.

In the interim, the industry is looking at other levers to cut emissions. Better air traffic management is one. In the UK, for example, industry stakeholders are forecasting a 4.7 per cent reduction in carbon emissions through airspace changes by the middle of the century.

Ian Jopson, sustainability director at Nats, the UK's National Air Traffic Services — and the highest scoring company in this year's Europe's Climate Leaders survey — says improvements have already been made by using technologies that can reduce time-consuming holding patterns for aircraft above airports, and optimise the spacing between arrivals.

"We have these things in our toolkit now," says Jopson, adding that greater benefits will come from large-scale modernisation of the airspace.

But the industry is placing its biggest bet on SAF as a way to reduce emissions in the near to medium term. It can emit as much as 80 per cent less CO_2 over its life cycle than traditional aviation fuel and, crucially, is largely compatible with existing engines.

Last year, Virgin Atlantic became the first commercial airline to operate a transatlantic flight powered



Trailblazer: an SAF-powered Virgin Atlantic aircraft flew from London to New York late last year
Avpics/Alamy

'The sector needs to deliver. If we fail to do so, governments will act to make aviation smaller'

A beginner's guide to greenwashers' tricks

OPINION

Andreas Hoepner

Nobody wants to be caught out as a liar, and no company wants to be caught out as a greenwasher. Trust matters, and a company that is found to be lying about how green it is risks losing the goodwill of its customers and its investors.

Yet greenwashing is rampant, to the point where regulators in jurisdictions including the EU, Australia and the US are cracking down. So why do companies persist? Because, it seems, they think they can get away with it and are using increasingly sophisticated means to do so.

Consider what needs to happen for a greenwashing allegation to stick. Three conditions need to be fulfilled: first, a company must make a green claim; second, someone must pay enough attention to discover that it is not entirely true or even outright false; and third, the blame for the greenwashing needs to be directed towards the company instead of a third party.

The most straightforward way for a company to avoid such unwelcome accusations would be simply not to make any green claims. But that would have big downsides: marketing teams would lose a key narrative for societal engagement; human resources teams would find it harder to recruit; and sustainability teams could find their role in business development curtailed.

An alternative strategy would be to invest lots of money and time in research and development to create products whose greenness stands up to scientific review. But, apart from being resource-intensive and slow to market, this would require companies either to produce all parts and raw materials themselves or find exclusively like-minded suppliers.

Given the business realities of the 21st century, the upshot is that, while many companies like to make green claims, they also feel pressured to cut green corners. To avoid accusations of greenwashing, therefore, they are resorting to increasingly sophisticated means that focus on the second and third conditions outlined above, with the aim of diverting attention and avoiding blame.

Building on previous work by Lucia Alessi at the European Commission's Joint Research Centre, John Willis at sustainability researcher Planet Tracker, and their respective co-authors, I classify greenwashing according to five different mechanisms, each of which has classic and sophisticated applications. These are set out in the table on the facing page.

The oldest and simplest trick is **disclosing misleading information**. In the classic version, companies themselves make green claims that stretch the truth or are simply false — a petrol station, for example, may bill its fuel as "carbon-neutral" when a look at the full supply chain would reveal a big carbon footprint.

While companies like to make green claims, they also feel pressured to cut green corners

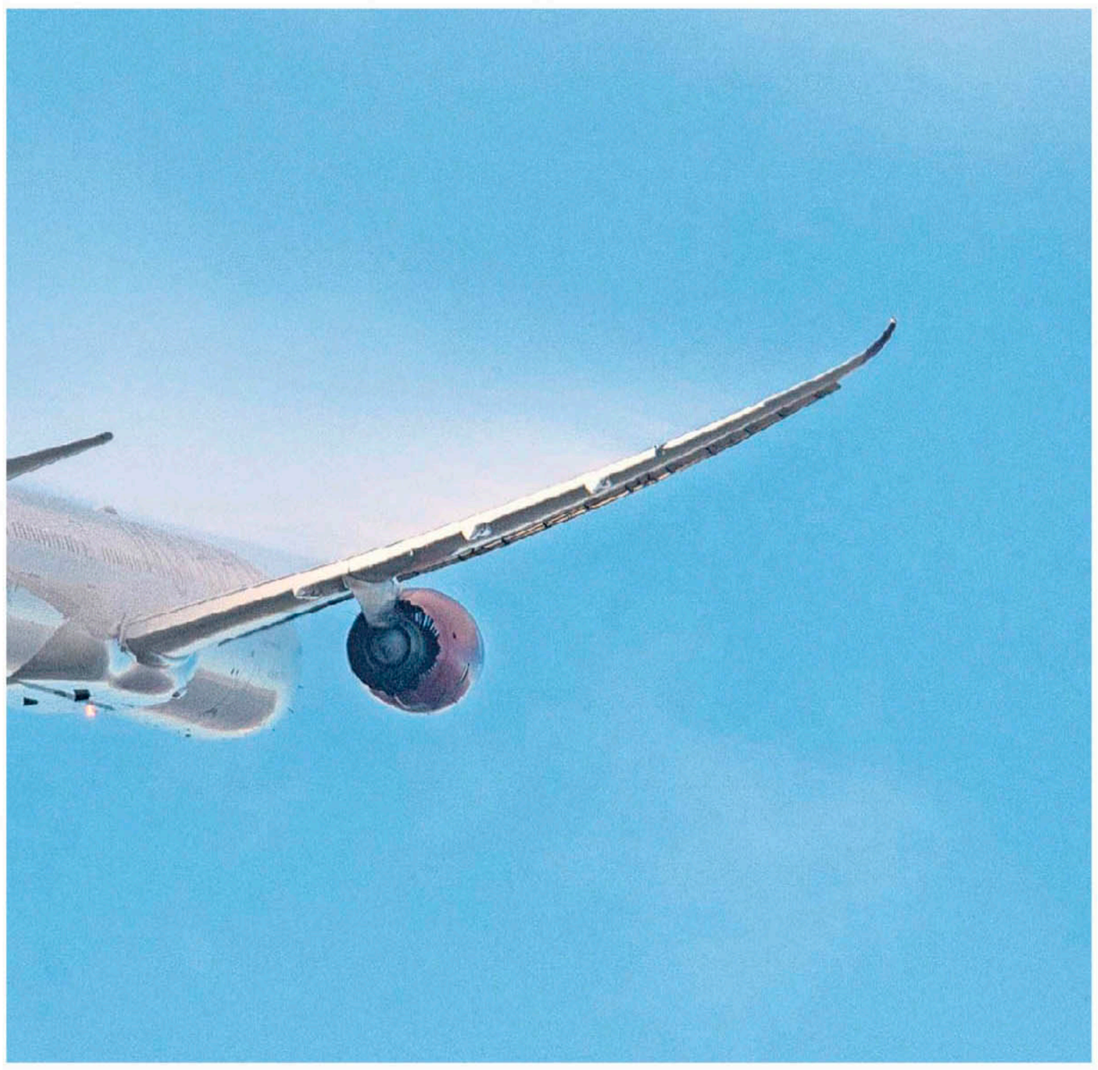
In more sophisticated variants, companies lobby, fund or even co-found apparently independent third parties that make the desired claims via an index or ranking. Fledgling NGOs that build good reputations but face volatile funding streams are particularly at risk of being co-opted into such "greenlabelling" schemes.

Attention deflection strategies involve not lying, per se, but diverting blame or attention in a way that flatters the company's green image. The simplest version is "greenshifting": a polluter tries to shift the blame away from its products and on to its customers — by arguing, for example, that consumer demand is the reason it sells pet food in unrecyclable single-use sachets. This, however, has the drawback of denigrating the company's source of income.

A more sophisticated ploy is to deflect attention from a company's misdeeds by "greenlighting" — that is, by spotlighting a dazzlingly green product or project, no matter how small a contribution it might make to the bottom line. When passing through European airports these days, one gets the impression that more than 95 per cent of some oil companies' marketing budgets are devoted to greenlighting their best projects, even though their capex investment budgets are barely 5 per cent green.

Attention reduction comes in absolute and peer-overshadowed forms. In both, the aim is to present information in a way that reduces the likelihood that it

Europe's Climate Leaders



exclusively by SAF. And Airbus and Boeing have pledged that their planes will be able to fly on 100 per cent SAF by 2030.

Looking further ahead, a review of 14 net zero transition road maps by industry group the International Air Transport Association found that they all assume SAF will be responsible for the greatest amount of CO_2 reductions by 2050 — contributing to between 24 and 70 per cent of the reductions needed.

However, this wide range of possible contributions under the different road maps underlines the uncertainty over securing enough supply at an affordable price. SAF currently makes up less than 0.1 per cent of global jet fuel volumes and is at least three times more expensive.

Today, the majority of SAF is made from waste such as cooking oil and plants, but other sources include biomass that absorbed CO_2 when it was alive. In the longer term, the industry is also pinning its hopes on scaling up nascent technology to create synthetic SAF by combining CO_2 sourced from the air with so-called "green" hydrogen, which is derived from water using renewable energy.

Thanks to its base in a country with access to ample supplies of renewable energy, IðunnH2 is promising to have a commercial-scale synthetic fuel facility in operation by 2028. The company will produce its "e-kerosene" by combining green hydrogen with CO_2 from the atmosphere or from an industrial source. Icelandair, the country's national carrier, has agreed to take up to 45,000 tonnes of fuel from 2028.

So, IðunnH2, which launched in 2020, is already in talks with potential investors to help fund the next phase of development, which will decide the technical requirements and the overall cost of the project. However, despite the demand, funding SAF plants is proving a "bit of a challenge", Baldvinsdóttir says.

Airlines are typically not willing to sign up for offtake agreements for the fuel that are longer than 10 years. This makes it difficult to convince investors to back a project, as their time horizons are typically longer.

Nikhil Sachdeva, global lead for sustainable aviation at consultants Roland Berger, says developing a business case for investors to come in is one of the hurdles for the nascent market.

"An SAF facility will last up to 20-25 years, but airlines are not willing to sign up for longer than 10-12 year offtake agreements," he explains. "What happens to the SAF producer when that agreement runs out and the technology has improved? It's the curse of the earlier mover."

Another challenge, says Sachdeva, is that the regulatory landscape is "quite clunky".

In Europe, governments are introducing mandates to make airlines progressively to switch to using more SAF, while in countries such as the US tax breaks are spurring production.

In the EU, all aircraft fuel at EU airports will have to be blended with SAFs, starting at a minimum level of 2 per cent in 2025 and being increased every five years to reach 70 per cent by 2050. The UK government published its own SAF mandate earlier this year.

"The demand is clearest in Europe, with massive fines, but production makes most sense at scale in the US or other regions with cheaper energy," points out Sachdeva.

In the UK, for example, investors and fuel companies have complained that they cannot start building SAF plants until the government is clearer on what kind of support it will give. So far, the government has announced a consultation on a "revenue certainty scheme" to guarantee a pre-agreed price for SAF.

Luis Gallego, chief executive of International Airlines Group, recently welcomed the UK SAF mandate, but warned that "mandates alone are not enough".

"Now is the time to support critical industries in the transition towards net zero," Gallego wrote in an article for the FT. "Providing incentives for SAF to scale will in turn attract private sector investment, create jobs — and deliver long-term economic growth."

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Name of the ruse: a taxonomy of greenwashing

Mechanism	Classic application	Sophisticated application
Misleading information	Misleading claims made by firms themselves	Greenlabelling by third parties, which certify firms' performance
Attention deflection	Greenshifting of blame on to demanding consumers	Greenlighting of good-news case studies
Attention reduction (absolute)	Limited disclosure of worthy ambitions	Fuller disclosure, but with greenhushing of details
Attention reduction (peer-overshadowed)	Decent disclosure but substandard vis à vis peers	Greencrowding: substandard disclosure en masse
Attention timing	Delayed disclosure	Greenrinsing: headline-grabbing targets get gradually diluted

Source: own extension of Alessi et al (2024) and Willis et al (2023)

will face critical scrutiny.

With **absolute attention reduction**, a company simply gives less information for observers to latch on to. In its classic form, disclosure is limited to a few grand-sounding ambitions without any supporting data. The advanced alternative is to give plenty of disclosure items, but again with minimal details.

An example of this "greenhushing" would be a company that switches its sustainability reporting from a pdf format to an interactive website — and in the process drops all footnotes, supposedly for reasons to do with web design and smartphone readability.

Peer-overshadowed attention reduction may use both of the ruses just described, but it also relies on the old stratagem of hiding in a crowd — of counting on the fact that one is unlikely to be singled out, like a school of fish menaced by predators.

In its simple form, this means substandard reporting, in the expectation that any media or NGO attention will probably be focused elsewhere. A company may give copious details, for example, about carbon offsets that look impressive to a non-expert eye but fall short of best practice among industry peers. Here, the risk is that, if found out, the company will be revealed as worse than its competitors.

The more sophisticated variant, then, is to ensure that one's peers are doing the same — perhaps by converging on the "lowest common denominator" standards established by an industry association that, like its members, wants to seem green. The more dubious those standards are, the more pernicious such "greencrowding" is. With respect to offsetting through "avoided emissions", for instance, companies know that campaigners lack the resources to challenge more than a small number of them — and, even if they are, they can say that they are in line with industry norms.

The last, and perhaps most problematic, type of greenwashing is **attention timing** — that is, carefully managing when green disclosures are made. In its classic form, this simply means delaying disclosure until well past fiscal year end, which is annoying but manageable (most sustainability disclosure has been voluntary to date and lacks a statutory deadline).

The advanced approach, however, makes clever use of people's limited attention span: by contrast with the strategies discussed so far, it consists in disclosing impressive, high-quality information — which is then deliberately given a short shelf life.

For example, a company may invite the media to report on a new, rigorous water target that wins it public praise. But, once the world's attention has moved on, the company silently and incrementally scales back the target on its website. Many stakeholders may not regularly check the corporate website, and so may carry an inflated impression of the company for years to come. This deliberate dilution of attention-grabbing ambitions — or greenrinsing — is a particularly problematic form of greenwashing, because tackling it requires constant scrutiny of companies' commitments.

How to combat these tricks? Apart from continuous accountability monitoring of corporate disclosures, it is paramount for regulators to establish a small set of mandatory anti-greenwashing disclosures. To avoid overburdening companies, these could be limited to about a dozen indicators such as Scope 1, 2 and 3 CO_2-equivalent emissions, emissions to water, commercial operation on protected nature reserves, and so on.

These disclosures must be unconditional, because any clause such as "subject to materiality testing" leads straight back to co-opting third parties, along the lines set out in the discussion of misleading information above. It is all too easy for companies to encourage nominally objective but financially dependent evaluators to legitimise their commercial interests — including declaring some Scope 3 emissions, say, to be non-material.

Greenwashing thrives on wriggle-room. The task of regulators is to ensure that companies don't have any.

Andreas Hoepner co-leads the GreenWatch team at UCD. He also heads the Data Science Hub of the EU Platform on Sustainable Finance

More companies make the cut

This year's Europe's Climate Leaders list is the longest yet – and suggests that businesses are trying harder to reduce their carbon emissions

Background and methodology

A hotter planet, scientists say, means harsher weather: storms, floods, droughts, fires. For Europe's businesses and politicians, it also means tougher conditions, as climate rules imposed under the EU's Green Deal start to bite, prompting protests.

Yet the fourth edition of Europe's Climate Leaders — compiled by the FT in partnership with data provider Statista — shows that growing numbers of European companies are making headway in cutting greenhouse gas (GHG) emissions.

Our list focuses primarily on businesses that have achieved the greatest reduction in their Scope 1 and 2 GHG emissions intensity between 2017 and 2022. Scope 1 and 2 emissions — "core emissions" in the table — come respectively from a company's own operations and from the energy it uses, while intensity is defined as tonnes of emissions of CO_2-equivalent per €1mn of revenue.

Other factors are considered, too, such as companies' transparency on Scope 3 emissions, which arise elsewhere in their value chains; their collaboration with sustainability assessors, such as CDP and the Science Based Targets initiative (SBTi); and, for the first time this year, whether their absolute emissions increased (represented by negative figures in the "total reduction" column). These factors are assigned a score, which is combined with the reduction in emissions intensity figure to yield an overall total for each company.

This year, the highest-scoring company is National Air Traffic Services, the UK air traffic control provider, with 88.8 points, followed by Swedish telco Tele2 — last year's top scorer — and Spanish fashion group Inditex. The sector with the most companies is financial services, with 10 per cent, and the country with the most is the UK, with 23 per cent.

A steady increase in emissions data means that, this year, Climate Leaders comprises 600 companies — twice as many as when it began in 2021. And, from the initial longlist of 2,000 candidate companies, the number meeting the key threshold of reducing their core emissions intensity by more than 3 per cent a year rose this year by 35 per cent.

The methodology has limitations, however. It prioritises Scope 1 and 2 emissions because reporting is mandatory, so data is both readily available and comparable. Companies' Scope 3 emissions are typically far greater, but reporting remains voluntary and there is no standard metric — hence the focus on transparency. Scope 3 emissions are particularly high in the "fast fashion" sector, with companies including Inditex facing criticism over business models that also generate a lot of waste.

Sometimes, companies' carbon accounting may be inconsistent or lack key details. To mitigate this risk, the figures reported for 2017 and 2022 by the biggest emissions cutters have been scrutinised by GreenWatch, a sustainability research team based at University College Dublin. Its findings have been added as footnotes.

The editors also reserved the right to exclude companies if their broader environmental record — on non-GHG pollution, say — was sufficiently disputed to undermine any claim to be a "climate leader". Banks increasing their financing of fossil fuels fell into this category.

For more details, visit ft.com/climate-leaders-europe-2024

Europe's Climate Leaders 2024

Company	Country	Score	Reduction of core emissions intensity (Scope 1 and 2) YoY 2017-22 (%) [1]	Core emissions intensity (GHGs in tonnes per €mn revenue) [2]	Core emissions in tonnes (CO_2 equivalent) [2]	Total reduction of core emissions (%) [3]	Scope 3 emissions reported? [4]	CDP score [5]	Participation in Science Based Targets initiative (SBTi) [6]
Aerospace & defence									
Nats [e]	UK	88.8	65.9	0.1	116	99.5	Y	A	Targets set, 1.5°C
Aena	Spain	75.1	30.4	10.7	44,578	82.8	Y	A-	Committed
Saab	Sweden	73.7	12.3	5.8	21,866	31.1	Y	A	Targets set, 1.5°C
BAE Systems	UK	71.9	22.8	15.7	377,463	66.2	Y	B	Committed
ITP Aero	Spain	70.1	13.8	9.1	9,524	36.7	Y	NA	Targets set, 1.5°C
International Airlines Group	UK	68.5	8.4	917.7	21,167,000	26.7	Y	A-	Committed
Thales	France	67.9	9.7	8.4	148,000	33.2	Y	A	Targets set, 1.5°C
Babcock International Group	UK	64.6	8.7	34.6	173,281	39.4	Y	NA	Committed
Leonardo	Italy	64.3	7.5	18.8	277,031	15.1	Y	A-	Committed
MTU Aero Engines	Germany	62.2	14.1	8.9	47,600	36.0	Y	B	-
Automobiles & components									
Pirelli	Italy	73.7	12.2	82.9	548,132	35.4	Y	A	Targets set, 1.5°C
Plastic Omnium	France	73.3	11.0	41.8	357,000	29.4	Y	A	Targets set, 1.5°C
BMW	Germany	73.1	13.8	5.5	785,357	30.9	Y	A-	Targets set, well below 2°C
ZF Group	Germany	73.0	10.0	26.6	1,167,000	29.1	Y	A-	Targets set, 1.5°C
Porsche	Germany	72.1	33.6	0.3	13,159	79.3	Y	NA	Committed
Michelin	France	72.1	10.2	80.8	2,310,000	24.0	Y	A-	Targets set, well below 2°C
Groupe Renault	France	71.9	9.8	13.1	606,272	52.8	Y	A-	Targets set, well below 2°C
Nokian Tyres	Finland	71.9	9.6	45.2	80,270	31.7	Y	A-	Targets set, well below 2°C
Valeo	France	71.0	6.8	35.3	708,000	23.9	Y	A-	Targets set, 1.5°C
Mercedes-Benz	Germany	70.3	24.5	4.4	663,000	77.6	Y	B	Targets set, well below 2°C
TI Fluid Systems	UK	69.4	17.9	79.4	259,567	65.1	Y	B	Targets set, 1.5°C
Volkswagen Group	Germany	69.0	10.1	23.5	6,570,000	28.6	Y	A-	Targets set, 1.5°C
Scania	Sweden	68.8	12.6	6.4	97,400	29.5	Y	NA	Targets set, 1.5°C
Business & professional services									
Capgemini [c]	France	81.2	40.6	0.9	18,884	87.0	Y	A	Targets set, 1.5°C
Accenture [c]	Ireland	81.1	43.5	0.5	26,160	90.2	Y	A	Targets set, 1.5°C
Deloitte UK [c]	UK	77.2	27.3	0.3	2,103	61.3	Y	A-	Targets set, 1.5°C
SThree	UK	76.8	29.5	0.4	675	74.3	Y	B	Targets set, 1.5°C
Sopra Steria	France	76.6	22.1	0.7	3,705	61.9	Y	A	Targets set, 1.5°C
Serco Group	UK	76.0	36.5	7.6	38,762	84.2	Y	B	Committed
Mitie Group	UK	75.3	21.0	5.0	22,439	40.2	Y	A	Targets set, 1.5°C
Big Yellow Group	UK	74.9	16.2	11.1	2,357	33.1	Y	A-	Targets set, 1.5°C
Arcadis	Netherlands	74.1	23.5	2.7	10,870	67.2	Y	B	Targets set, 1.5°C
Speedy Hire	UK	73.8	12.7	26.1	12,994	40.2	Y	A-	Targets set, 1.5°C
Ernst & Young	UK	73.4	21.4	0.9	3,934	53.4	Y	B	Targets set, 1.5°C
PricewaterhouseCoopers (PwC)	UK	73.3	14.2	1.2	61,160	39.3	Y	A-	Targets set, 1.5°C
Afry	Sweden	72.6	22.0	1.9	4,050	46.4	Y	B	Targets set, 1.5°C
Consumer products & services									
Jaguar Land Rover	UK	67.4	4.7	5.9	151,643	30.6	Y	B	Targets set, well below 2°C
Brembo	Italy	67.3	17.7	79.6	288,848	44.4	Y	A-	-
CIE Automotive	Spain	67.2	10.7	105.0	425,316	22.6	Y	B	Committed
Gestamp	Spain	66.2	10.7	46.2	495,696	25.7	Y	B	Targets set, well below 2°C
Aptiv	UK	65.9	6.3	22.2	362,497	1.8	Y	A-	Targets set, 1.5°C
Kongsberg Automotive	Norway	65.4	8.1	27.4	24,817	43.7	Y	B-	Targets set, 1.5°C
Volvo Group	Sweden	65.2	10.5	7.6	324,000	18.8	Y	NA	Targets set, 1.5°C
Ferrari	Italy	64.9	9.7	16.4	83,739	10.3	Y	A-	Committed
Bosch	Germany	64.7	5.7	30.8	2,716,122	15.8	Y	A-	Targets set, 1.5°C
Audi	Germany	61.2	24.1	3.1	189,078	74.0	N	NA	-
Deutz	Germany	60.7	22.3	9.8	19,194	62.5	N	NA	-

Europe's Climate Leaders

Company	Country	Score	Reduction of core emissions intensity (Scope 1 and 2) YoY 2017-22 (%) [1]	Core emissions intensity (GHGs in tonnes per €mn revenue) [2]	Core emissions in tonnes (CO_2 equivalent) [2]	Total reduction of core emissions (%) [3]	Scope 3 emissions reported? [4]	CDP score [5]	Participation in Science Based Targets initiative (SBTi) [6]
Business & professional services continued									
Sodexo	France	71.9	6.2	5.0	101,384	29.0	Y	A	Targets set, 1.5°C
Experian	Ireland	71.9	26.2	1.6	10,100	68.3	Y	A-	Targets set, 1.5°C
Capita	UK	70.9	9.5	9.8	33,186	56.8	Y	A	Targets set, 1.5°C
KPMG International	UK	70.6	15.5	3.4	117,000	43.4	Y	B	Targets set, 1.5°C
SGS	Switzerland	70.6	5.3	17.4	116,504	20.2	Y	A-	Targets set, 1.5°C
DNV	Norway	69.1	20.5	4.4	10,400	59.1	Y	NA	Committed
Applus	Spain	69.0	6.8	27.1	55,589	9.0	Y	A	Targets set, 1.5°C
Sple	France	68.0	6.7	17.6	142,614	6.2	Y	B	Targets set, 1.5°C
Randstad	Netherlands	67.3	7.7	2.2	61,500	20.5	Y	B	Committed
Teleperformance	France	67.3	14.3	17.4	141,866	9.6	Y	B	Targets set, well below 2°C
L&T	Finland	66.9	9.7	37.5	31,658	28.4	Y	A-	Targets set, well below 2°C
Sonae	Portugal	66.7	15.8	23.2	171,598	40.9	Y	A	-
Garrigues	Spain	65.8	32.7	0.7	318	82.8	Y	NA	-
Intertek Group	UK	65.6	5.2	44.7	160,887	11.8	Y	B	Targets set, 1.5°C
Ipsos	France	65.1	7.0	5.6	13,485	5.8	Y	B	Committed
ISS	Denmark	64.5	8.2	7.5	76,665	32.3	Y	B-	Targets set, 1.5°C
Quadient	France	63.3	14.4	8.6	9,299	55.4	Y	B	-
Hays	UK	62.9	6.3	1.2	10,334	4.6	Y	B	Targets set, 1.5°C
TÜV Rheinland	Germany	61.0	16.7	20.2	45,850	53.7	Y	NA	-
Chemicals & materials									
Radici Group	Italy	76.2	54.0	9.3	14,850	97.2	Y	NA	Committed
Croda International	UK	73.6	15.3	51.4	121,093	33.7	Y	A-	Targets set, 1.5°C
Lanxess	Germany	73.5	25.0	167.5	1,354,500	73.3	Y	A-	Targets set, 1.5°C
Metsä Board	Finland	73.4	11.4	154.5	383,098	26.9	Y	A	Targets set, 1.5°C
Tesa	Germany	73.2	10.6	30.5	50,860	24.1	Y	A	Targets set, 1.5°C
UPM-Kymmene	Finland	72.9	9.7	381.4	4,470,000	29.8	Y	A	Targets set, 1.5°C
Aurubis	Germany	72.1	13.6	71.2	1,318,728	19.3	Y	A-	Targets set, 1.5°C
DSM	Netherlands	71.9	6.4	125.1	1,050,000	30.0	Y	A-	Targets set, 1.5°C
Lenzing	Austria	71.7	9.0	495.0	1,270,000	29.1	Y	A	Targets set, 2°C
Outokumpu	Finland	71.6	15.4	148.7	1,411,606	35.3	Y	B	Targets set, 1.5°C
Essentra	UK	71.5	11.6	42.5	16,190	82.3	Y	A-	Committed
Johnson Matthey	UK	70.3	10.9	21.6	363,686	18.3	Y	A-	Targets set, well below 2°C
Wacker Chemie	Germany	69.9	12.8	320.1	2,628,000	16.1	Y	A	Targets set, 1.5°C
Evonik Industries	Germany	69.3	14.2	319.3	5,904,000	40.3	Y	A-	Targets set, well below 2°C
Elementis	UK	68.0	19.9	97.6	67,067	69.0	Y	B	Committed
Borregaard	Norway	67.5	5.1	327.1	214,279	-14.8	Y	A	Targets set, 1.5°C
Akzo Nobel	Netherlands	66.9	9.8	19.1	207,600	32.5	Y	NA	Targets set, 1.5°C
Sekab BioFuels & Chemicals	Sweden	66.9	9.6	43.0	4,214	10.0	Y	NA	Targets set, 1.5°C
Linde	Ireland	66.8	5.9	1,246.5	38,794,000	23.0	Y	A-	Targets set, well below 2°C
Neste	Finland	66.1	17.1	95.9	2,466,000	23.9	Y	A-	-
Holmen	Sweden	65.3	4.3	40.6	87,000	-19.0	Y	A-	Targets set, well below 2°C
Victrex	UK	65.0	3.4	93.3	35,905	1.3	Y	B	Committed
Fedrigoni	Italy	65.0	19.9	151.4	323,039	39.8	N	B-	Targets set, well below 2°C
Ferrexpo	Switzerland	65.0	26.5	484.2	563,938	77.7	Y	NA	-
Covestro	Germany	64.7	9.0	273.8	4,920,000	20.9	Y	A-	-
Amag Austria Metall	Austria	64.6	15.4	57.2	98,800	27.9	Y	B	Committed
Lyondellbasell Industries	Netherlands	64.4	8.0	469.6	22,100,000	3.5	Y	A-	Committed
Synthomer	UK	64.4	7.8	121.2	353,545	-16.1	Y	A-	Targets set, 1.5°C
The Navigator Company	Portugal	63.2	4.0	367.5	905,812	-23.0	Y	A-	Targets set, 1.5°C
Kemira	Finland	62.9	9.8	228.6	816,000	14.3	Y	B	Committed
Umicore	Belgium	61.8	12.7	26.9	684,993	-8.1	N	A-	Targets set, 1.5°C
Antofagasta	UK	61.7	19.0	237.9	1,300,602	57.0	N	B	-
Alro	Romania	61.5	24.9	594.8	426,781	68.8	N	NA	-
Bodycote	UK	61.1	7.0	304.4	255,400	24.9	N	B	Targets set, well below 2°C
IMCD	Netherlands	61.0	16.6	2.6	11,862	2.9	Y	B	-
Beckers	Germany	60.9	13.2	23.8	15,795	35.1	Y	NA	-
Odfjell	Norway	60.9	9.7	1,054.9	1,288,618	6.7	Y	B-	-
Constellium	France	60.8	9.5	137.7	1,118,000	5.7	Y	B	-

Company	Country	Score	Reduction of core emissions intensity (Scope 1 and 2) YoY 2017-22 (%) [1]	Core emissions intensity (GHGs in tonnes per €mn revenue) [2]	Core emissions in tonnes (CO_2 equivalent) [2]	Total reduction of core emissions (%) [3]	Scope 3 emissions reported? [4]	CDP score [5]	Participation in Science Based Targets initiative (SBTi) [6]
Construction & building materials									
Morgan Sindall Group	UK	75.5	18.5	2.8	11,597	53.4	Y	A	Targets set, 1.5°C
Sacyr	Spain	75.5	18.2	63.8	373,542	30.6	Y	A	Targets set, 1.5°C
Acciona [a]	Spain	74.9	16.2	14.9	167,172	36.3	Y	A-	Targets set, 1.5°C
Crest Nicholson	UK	73.7	12.3	3.2	3,304	54.6	Y	A-	Targets set, 1.5°C
John Sisk & Son	Ireland	73.6	15.3	6.1	9,767	25.3	Y	A-	Targets set, 1.5°C
Inwido	Sweden	73.4	24.5	5.5	4,701	63.3	Y	B	Targets set, 1.5°C
Royal BAM Group	Netherlands	72.7	9.0	13.0	86,077	36.9	Y	A	Targets set, 1.5°C
Skanska	Sweden	72.7	12.2	12.6	182,000	47.5	Y	A	Targets set, 1.5°C
Willmott Dixon	UK	72.3	24.2	1.1	1,447	77.4	Y	NA	Targets set, 1.5°C
Taylor Wimpey	UK	72.1	7.1	3.7	18,306	22.7	Y	A-	Targets set, 1.5°C
Barratt Developments	UK	72.1	6.9	4.1	24,909	23.7	Y	A-	Targets set, 1.5°C
Murphy Group	UK	71.4	21.3	11.0	18,505	36.7	Y	B	Committed
Bouygues	France	71.2	10.7	42.9	1,900,000	23.7	Y	B	Targets set, 1.5°C
Saint-Gobain	France	70.9	9.7	191.4	9,800,000	24.6	Y	A-	Targets set, 1.5°C
Holcim Group	Switzerland	70.8	9.3	2,818.2	83,000,000	33.6	Y	A-	Targets set, 1.5°C
Tarkett	France	70.8	15.9	43.7	146,921	48.4	Y	A-	Targets set, 1.5°C
Galliford Try	UK	70.5	8.4	7.5	11,821	69.4	Y	B	Targets set, 1.5°C
Titan Cement Group	Belgium	70.5	11.6	4,795.2	10,943,589	18.1	Y	A	Targets set, 1.5°C
Kingspan Group	Ireland	70.4	14.6	46.2	385,156	-3.1	Y	A	Targets set, 1.5°C
Persimmon	UK	70.0	6.8	5.8	25,017	25.4	Y	A-	Targets set, 1.5°C
Heidelberg Materials	Germany	69.9	6.5	3,356.8	70,811,132	12.6	Y	A	Targets set, 1.5°C
Vinci	France	69.8	9.5	34.8	2,147,392	6.7	Y	A-	Targets set, well below 2°C
Cementir	Italy	69.8	9.4	4,338.1	7,711,190	7.4	Y	A-	Targets set, well below 2°C
Severfield	UK	69.8	12.6	17.1	9,497	8.6	Y	A	Committed
Franke	Switzerland	69.3	17.8	11.3	28,985	54.0	Y	NA	Committed
Webuild	Italy	69.3	14.3	49.5	378,949	33.2	Y	A-	Targets set, 1.5°C
Wates	UK	69.2	17.4	2.8	5,623	55.1	Y	NA	Targets set, 1.5°C
Costain	UK	68.9	13.1	4.7	7,560	59.3	Y	B	Committed
Assa Abloy	Sweden	68.4	14.7	22.2	240,406	28.2	N	B	Targets set, 1.5°C
Marshalls	UK	68.2	13.9	52.8	42,896	20.8	N	B	Targets set, 1.5°C
Hochtief	Germany	68.1	33.6	14.9	389,586	85.1	Y	B	-
Aperam	Luxembourg	67.8	12.7	125.7	1,024,817	7.7	Y	A-	Committed
ArcelorMittal	Luxembourg	67.6	12.0	1,599.1	119,100,000	38.6	Y	A-	Committed
Grupo ACS	Spain	67.5	28.3	15.2	510,797	81.8	Y	B	-
Elecnor	Spain	66.7	5.6	21.5	77,731	-16.7	Y	A-	Targets set, well below 2°C
Rockwool	Denmark	66.2	10.5	422.3	1,650,000	5.7	Y	A-	Targets set, well below 2°C
Hill & Smith	UK	66.2	7.2	70.6	58,305	13.7	Y	B	Targets set, 1.5°C
Colas Group	France	64.9	9.6	103.0	1,600,000	20.0	Y	NA	Targets set, well below 2°C
Voestalpine	Austria	64.8	9.2	723.7	13,190,000	12.9	Y	A-	Targets set, well below 2°C
Feralpi Group	Italy	64.4	14.6	399.3	957,649	9.2	Y	NA	Committed
Diab	Sweden	63.9	13.1	129.7	19,186	43.0	Y	NA	Targets set, 1.5°C
Tyman	UK	63.9	6.2	47.7	38,492	0.7	Y	B	Targets set, 1.5°C
AFV Beltrame Group	Italy	63.6	18.6	218.1	482,703	26.2	Y	NA	-
Ferguson	UK	62.8	12.8	9.5	252,809	25.4	Y	B	-
Grafton Group	Ireland	62.1	7.0	19.2	49,974	41.0	Y	B	-
AF Gruppen	Norway	61.1	16.9	11.4	33,776	9.8	Y	B	-
Aker Solutions	Norway	61.0	3.5	4.9	19,199	-54.5	Y	B	Committed
Energy & utilities									
Acciona Energia	Spain	81.0	39.9	2.3	10,072	80.4	Y	A-	Targets set, 1.5°C
EDF [c]	France	77.0	26.7	168.9	24,226,140	53.1	Y	A-	Targets set, well below 2°C
Ørsted [a]	Denmark	76.9	23.0	141.4	2,511,000	39.8	Y	A	Targets set, 1.5°C
Vattenfall	Sweden	76.6	25.3	447.8	9,600,000	58.8	Y	A	Targets set, 1.5°C
RWE	Germany	76.4	24.6	2,408.4	92,400,000	32.4	Y	A-	Targets set, well below 2°C
Iberdrola	Spain	76.2	24.0	243.7	13,148,422	56.4	Y	A	Targets set, 1.5°C
Energias de Portugal	Portugal	76.2	20.7	476.9	9,848,000	58.9	Y	A	Targets set, 1.5°C
Enel	Italy	75.5	21.6	420.8	59,130,000	44.2	Y	A-	Targets set, 1.5°C
ERG	Italy	74.6	61.9	8.7	6,200	99.5	Y	NA	-
Vestas Wind Systems	Denmark	73.6	12.0	6.9	100,000	23.1	Y	A-	Targets set, 1.5°C
Eon	Germany	73.2	20.7	75.3	8,710,000	2.6	Y	A	Targets set, 1.5°C

Europe's Climate Leaders

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Energy & utilities continued									
Gruppo Hera	Italy	73.2	30.6	46.6	936,590	42.2	Y	A-	Targets set, well below 2°C
Red Eléctrica	Spain	72.9	9.6	371.1	747,756	37.3	Y	A	Targets set, 1.5°C
Eneco	Netherlands	72.2	23.9	105.1	1,381,318	-1.4	Y	A-	Targets set, 1.5°C
Italgas	Italy	71.7	32.2	66.6	154,030	70.6	Y	A	-
Redes Energéticas Nacionais (REN)	Portugal	71.3	11.1	201.1	165,494	38.9	Y	A-	Committed
Verbund	Austria	70.6	32.0	83.4	863,000	48.3	Y	A-	-
Veolia	France	70.2	10.6	783.5	33,600,000	1.2	Y	A-	Targets set, well below 2°C
Algües de Barcelona	Spain	68.5	18.4	23.3	9,306	65.7	Y	NA	Committed
Endesa	Spain	68.4	24.8	425.0	13,981,298	60.6	Y	A-	-
Enexis Groep	Netherlands	68.3	37.7	37.6	64,096	88.6	Y	NA	-
ESB	Ireland	67.9	19.7	1,009.4	7,667,523	21.6	Y	A-	-
BayWa	Germany	67.9	16.4	4.3	116,435	31.1	Y	A-	Committed
Naturgy Energy Group	Spain	67.3	14.3	434.0	14,741,483	32.5	Y	A-	Committed
Pennon Group	UK	66.8	6.1	890.3	800,943	58.3	Y	B	Committed
National Grid	UK	66.8	5.9	296.4	7,245,612	-5.0	Y	A	Targets set, 1.5°C
Landis+Gyr	Switzerland	66.2	14.1	6.5	10,196	54.8	N	NA	Targets set, 1.5°C
EnBW	Germany	66.1	17.0	321.2	17,990,200	-0.5	Y	A-	Targets set, 1.5°C
Fortum	Finland	64.4	14.7	1,934.5	17,031,300	12.2	Y	A-	-
FCC Medio Ambiente	Spain	63.8	39.4	360.5	558,686	-46.4	Y	NA	-
Alperia	Italy	63.7	19.2	18.9	68,810	-14.1	Y	NA	Committed
Iren	Italy	63.2	13.9	451.8	3,552,770	-0.7	Y	A-	Targets set, well below 2°C
Aimag	Italy	62.0	20.0	71.9	40,244	20.6	Y	NA	-
Snam	Italy	61.9	6.4	434.2	1,518,000	0.7	Y	A	-
Slovenské elektrárne	Slovakia	61.8	25.9	246.3	1,308,068	45.7	N	NA	-
Landsvirkjun	Iceland	60.9	6.2	74.2	42,130	8.7	Y	A	-
Financial services									
London Stock Exchange Group [e]	UK	81.2	37.2	0.7	5,617	58.7	Y	A-	Targets set, 1.5°C
UBS [c]	Switzerland	80.7	38.9	0.4	12,443	90.1	Y	A-	Targets set, 1.5°C
Intermediate Capital Group	UK	78.0	29.9	0.2	121	82.0	Y	A-	Targets set, 1.5°C
NatWest Group [a]	UK	77.3	27.8	1.3	18,625	80.4	Y	A	Targets set, 1.5°C
Storebrand	Norway	76.5	25.0	0.0	34	56.4	Y	A	Targets set, 1.5°C
Schroders	UK	76.4	24.5	0.5	1,506	71.8	Y	A	Targets set, 1.5°C
Nykredit	Denmark	75.2	43.8	0.2	490	93.3	Y	NA	Committed
Abn Amro Bank	Netherlands	75.1	27.0	0.7	5,630	82.5	Y	B	Targets set, 1.5°C
Sparebanken Vest	Norway	74.5	28.5	0.0	12	70.5	Y	A-	Committed
Bankinter	Spain	73.3	34.3	0.7	1,538	86.9	Y	B	-
Nationwide Building Society	UK	72.9	36.5	0.4	2,361	84.6	Y	B	-
Rathbone Brothers	UK	72.9	16.3	1.5	782	33.7	Y	B	Targets set, 1.5°C
Man Group	UK	72.8	32.8	1.0	1,643	77.7	Y	B	-
BBVA	Spain	72.8	29.4	1.9	52,966	81.4	Y	B	Committed
Caixa Geral de Depósitos	Portugal	72.7	22.2	7.7	12,357	59.0	Y	A-	Committed
Abanca	Spain	72.2	40.7	1.2	888	88.5	Y	NA	-
Ibercaja banco	Spain	72.2	40.7	1.2	1,281	93.4	Y	NA	-
AIB Group	Ireland	71.6	8.6	1.1	3,230	38.0	Y	A-	Targets set, 1.5°C
Bank of Ireland	Ireland	71.1	27.2	1.0	3,694	83.9	Y	B	Targets set, 1.5°C
Worldline	France	71.0	16.6	2.1	9,109	-10.5	Y	A-	Targets set, 1.5°C
Piraeus Financial Holdings	Greece	70.9	26.5	0.8	2,083	74.3	Y	B	Targets set, 1.5°C
Crédit Agricole	France	70.1	13.6	2.2	53,436	38.4	Y	A-	Committed
Close Brothers Group	UK	70.0	20.0	2.5	2,679	59.7	Y	B	-
3i Group	UK	69.9	29.5	0.0	182	38.2	Y	B	Committed
Erste Group Bank	Austria	69.3	17.7	6.6	39,393	48.5	Y	B	-
Arion Bank	Iceland	69.0	20.1	0.2	81	53.0	Y	NA	Committed
KBC Group	Belgium	69.0	19.9	3.0	25,078	63.8	Y	A	Committed
Millennium bcp	Portugal	68.9	29.6	4.3	12,388	77.4	Y	B	Committed
Kutxabank	Spain	68.8	42.8	0.5	581	94.2	Y	NA	-
Aktia Bank	Finland	68.6	18.7	1.7	425	57.1	Y	B-	-
Moneta	Czech Rep	68.5	28.4	5.3	2,642	77.9	Y	B	-
De La Rue	UK	68.3	7.6	29.4	11,591	52.3	Y	A-	Targets set, 1.5°C
BCC	Spain	68.2	10.6	0.6	633	37.3	Y	A	-
Jupiter	UK	68.0	13.4	0.1	72	53.0	Y	A-	-
Société Générale	France	68.0	16.7	3.6	100,520	53.0	Y	B	-
Investor	Sweden	67.8	15.9	0.0	69	36.7	Y	B	-
DNB	Norway	67.8	22.5	0.1	305	63.2	Y	A-	-
UniCredit	Italy	67.6	15.5	4.0	66,100	52.3	Y	B	-
Bank Millennium	Poland	67.6	28.5	12.1	9,935	70.3	Y	B	-
Banca Generali	Italy	67.5	21.8	0.0	551	61.4	Y	A-	-
Abrdn	UK	67.4	31.5	1.6	2,848	84.4	Y	B	-
OP Financial Group	Finland	65.4	21.5	2.1	7,156	65.9	Y	B	-
Eurobank	Greece	65.3	24.4	4.9	15,505	58.7	Y	B	-
Investitionsbank Schleswig-Holstein	Germany	64.8	25.9	1.0	191	67.5	Y	NA	-
BLKB	Switzerland	64.7	12.3	0.8	316	43.0	Y	NA	-
Rothschild & Co	France	64.5	18.3	0.5	1,602	43.2	Y	B	-
Banco BPM	Italy	64.3	7.5	3.5	15,366	25.1	Y	B	-
Banca Popolare di Sondrio	Italy	64.2	10.7	3.5	3,779	37.0	Y	A-	-
Aareal Bank	Germany	64.1	16.9	3.0	3,036	50.3	Y	B	-
Banca Monte dei Paschi di Siena	Italy	63.9	13.0	1.8	5,525	61.8	Y	NA	-
Vanquis Banking Group	UK	63.5	8.5	1.9	1,037	74.2	Y	NA	-
Sydbank	Denmark	63.3	24.4	1.3	959	69.3	Y	NA	-
Latour	Sweden	63.3	24.2	10.8	21,878	43.1	N	B	-
Bawag Group	Austria	62.8	22.6	2.0	2,586	67.2	Y	NA	-
Gruppo Mediobanca	Italy	62.7	9.1	0.9	2,928	14.4	Y	B	-
Valiant	Switzerland	62.3	11.1	0.0	1,354	35.8	Y	B	-
TP Icap	UK	62.2	10.7	4.0	9,616	31.8	Y	B-	-
Deka-Gruppe	Germany	62.0	20.0	1.5	3,342	51.3	Y	NA	-
DKB	Germany	61.9	19.8	0.3	415	54.0	Y	NA	-
Wüstenrot & Württembergische	Germany	61.7	25.8	0.7	3,332	73.8	N	NA	-
Cassa Depositi e Prestiti	Italy	61.6	18.5	0.8	1,325	62.5	Y	NA	-
Bayerische Landesbank	Germany	61.0	16.6	0.6	1,703	50.1	Y	NA	-
Food, beverages & tobacco									
AG Barr [b]	UK	77.0	23.3	12.7	4,540	68.1	Y	A	Targets set, 1.5°C
Spendrups Bryggeri	Sweden	76.5	48.4	1.8	737	95.1	Y	NA	Targets set, 1.5°C
Novozymes	Denmark	76.0	20.0	68.3	161,000	60.5	Y	A	Targets set, 1.5°C
BAT	UK	75.6	18.6	13.5	421,000	51.3	Y	A-	Targets set, 1.5°C
Corbion	Netherlands	74.0	13.4	97.4	142,000	20.2	Y	A-	Targets set, 1.5°C
Coca-Cola HBC	Switzerland	73.3	11.0	48.2	443,416	21.2	Y	A	Targets set, 1.5°C
Carlsberg	Denmark	73.2	10.8	34.2	323,000	53.7	Y	A-	Targets set, 1.5°C
Nestlé	Switzerland	72.8	9.3	42.0	4,000,000	35.5	Y	A-	Targets set, 1.5°C
Danone	France	72.1	10.5	34.1	942,000	35.5	Y	A	Targets set, 1.5°C
Heineken	Netherlands	71.6	12.1	42.3	1,467,049	15.7	Y	A	Targets set, 1.5°C
Tate & Lyle	UK	71.3	21.1	264.8	523,283	80.2	Y	A-	Targets set, well below 2°C
Bakkavor Group	UK	71.1	20.2	26.9	65,048	61.8	Y	B	Committed
Anheuser-Busch InBev	Belgium	70.5	5.1	90.4	4,873,094	21.2	Y	A	Targets set, 1.5°C
Rémy Cointreau	France	70.4	8.0	5.3	8,260	9.6	Y	A-	Targets set, 1.5°C
Symrise	Germany	69.9	9.8	63.7	294,391	8.1	Y	A	Targets set, 1.5°C
C&C Group	Ireland	69.7	22.4	11.0	22,577	28.6	Y	B	Targets set, well below 2°C
Pernod Ricard	France	69.4	8.1	21.7	263,223	11.7	Y	A-	Targets set, well below 2°C
Kerry Group	Ireland	69.3	17.7	55.4	486,146	48.2	Y	B	Targets set, 1.5°C
Imperial Brands	UK	68.2	10.7	4.8	175,766	39.0	Y	A	Targets set, 1.5°C
Origin Enterprises	Ireland	68.0	9.9	8.8	20,650	8.8	Y	B	Targets set, 1.5°C
HKScan	Finland	67.8	22.7	19.3	35,348	71.9	Y	NA	Targets set, 1.5°C
Agrana	Austria	67.4	11.5	194.9	708,978	22.8	Y	B	Targets set, 1.5°C
Orkla	Norway	67.2	3.9	32.3	177,954	-20.9	Y	A-	Targets set, 1.5°C
Britvic	UK	67.0	10.1	19.9	36,408	33.6	Y	B	Targets set, 1.5°C
Ferrero	Luxembourg	66.5	8.3	37.8	529,499	13.6	Y	NA	Targets set, 1.5°C
Givaudan	Switzerland	66.5	4.9	26.7	191,457	-9.7	Y	A	Targets set, 1.5°C
Barry Callebaut	Switzerland	66.3	7.8	31.4	256,157	20.6	Y	A	Targets set, 1.5°C
Chr Hansen	Denmark	65.4	4.7	34.6	42,128	9.8	Y	B	Targets set, 1.5°C
Arla Foods	Denmark	64.5	11.7	48.2	665,000	28.5	Y	NA	Targets set, 1.5°C
Bel	France	64.3	7.8	35.6	128,000	28.5	N	NA	Targets set, 1.5°C

Europe's Climate Leaders

Company	Country	Score	Reduction of core emissions intensity (Scope 1 and 2) YoY 2017-22 (%) [1]	Core emissions intensity (GHGs in tonnes per €mn revenue) [2]	Core emissions in tonnes (CO_2 equivalent) [2]	Total reduction of core emissions (%) [3]	Scope 3 emissions reported? [4]	CDP score [5]	Participation in Science Based Targets initiative (SBTi) [6]
Food, beverages & tobacco continued									
Mowi Group	Norway	64.3	7.7	40.2	197,149	9.2	Y	A-	Targets set, well below 2°C
SalMar	Norway	64.1	6.9	10.3	19,833	-30.7	Y	A-	Targets set, 1.5°C
Greggs	UK	63.9	13.0	51.3	87,528	21.5	N	B	Targets set, 1.5°C
Swedish Match	Sweden	62.5	11.8	15.6	31,234	-1.7	Y	B	Targets set, well below 2°C
Gruppo La Doria	Italy	62.3	7.5	65.2	66,391	-3.0	Y	NA	Committed
Paulig Group	Finland	62.2	7.5	21.5	23,805	19.4	Y	NA	Targets set, 1.5°C
Nomad Foods	UK	61.8	6.1	45.8	134,690	-10.0	Y	NA	Targets set, 1.5°C
Campari Group	Italy	61.1	10.2	27.5	89,803	-8.4	Y	A-	-
Healthcare & medical technology									
Coloplast	Denmark	74.0	19.9	6.7	20,300	52.0	Y	B	Targets set, 1.5°C
Novo Nordisk	Denmark	73.9	19.6	3.9	92,000	46.7	Y	B	Targets set, 1.5°C
Covivio	France	70.6	15.4	5.2	5,063	57.9	Y	A	Targets set, 1.5°C
Amplifon	Italy	67.5	18.3	6.1	12,920	39.2	Y	B	Committed
Getinge	Sweden	66.4	14.5	10.2	25,859	42.6	N	NA	Targets set, 1.5°C
Ambu	Denmark	65.1	3.7	41.2	24,570	-56.1	Y	B	Targets set, 1.5°C
Wellspect	Sweden	63.0	3.2	12.2	3,067	15.2	Y	NA	Committed
Spire Healthcare Group	UK	62.7	12.2	19.1	25,773	33.0	Y	B	-
Smith & Nephew	UK	61.7	12.2	10.0	48,847	42.9	Y	B	-
Insurance									
Aviva	UK	75.3	21.0	0.5	9,089	81.5	Y	A-	Targets set, 1.5°C
Nürnberger Versicherung	Germany	72.5	51.8	0.0	118	97.4	Y	NA	-
ASR	Netherlands	71.6	32.0	0.1	783	67.2	Y	B	-
Zurich Insurance Group	Switzerland	70.5	11.7	0.5	21,227	64.9	Y	A-	Committed
Mapfre	Spain	70.2	17.3	0.4	11,770	59.1	Y	A-	-
Allianz	Germany	68.2	27.2	0.7	61,443	75.2	Y	NA	-
Axa	France	68.1	13.8	0.6	62,650	50.5	Y	B	Committed
Tryg	Denmark	67.1	30.4	0.4	1,653	69.0	Y	B	-
Barmenia	Germany	66.6	35.2	0.9	251	82.4	Y	NA	-
Prudential	UK	66.0	10.2	0.9	18,583	77.0	Y	B	-
Munich Re	Germany	65.7	12.4	0.9	61,974	29.3	Y	B	-
Uniqa Insurance Group	Austria	65.5	5.1	1.3	7,839	0.7	Y	B	Targets set, 1.5°C
NN Group	Netherlands	64.5	8.4	0.4	7,000	37.3	Y	B	-
Unipol Gruppo	Italy	63.7	5.8	2.6	39,140	22.2	Y	B	-
Gothaer	Germany	63.1	10.5	2.5	6,152	34.9	Y	NA	-
Internet, cloud & software									
Computacenter [a]	UK	80.6	35.2	0.6	4,416	80.5	Y	A-	Targets set, 1.5°C
Tietoevry [a]	Finland	80.0	33.5	1.0	3,017	75.3	Y	A-	Targets set, 1.5°C
Dassault Systèmes	France	75.8	29.3	1.4	7,800	69.1	Y	B	Targets set, 1.5°C
SAP	Germany	74.3	20.9	3.5	109,060	59.2	Y	B	Targets set, 1.5°C
Sage	UK	73.9	26.3	1.5	3,229	75.4	N	A-	Targets set, 1.5°C
Atea	Norway	73.4	14.7	1.9	5,842	54.9	Y	A	Targets set, well below 2°C
Auto Trader Group	UK	73.0	19.8	0.6	366	49.9	Y	B	Targets set, 1.5°C
Softcat	UK	71.4	11.2	0.4	493	28.4	Y	B	Targets set, 1.5°C
Amadeus	Spain	70.8	19.4	2.9	13,152	67.2	Y	B	Committed
Edenred	France	67.4	11.2	4.2	8,498	16.4	Y	B	Committed
Machines & industrial equipment									
Alfa Laval [a]	Sweden	78.5	28.3	5.0	23,129	72.1	Y	A-	Targets set, 1.5°C
GEA Group	Germany	74.9	16.3	6.4	33,018	54.0	Y	A	Targets set, 1.5°C
Trane Technologies	Ireland	74.4	14.8	19.7	293,347	49.3	Y	A	Targets set, 1.5°C
Metso	Finland	73.5	28.3	9.2	48,944	62.8	Y	A-	Targets set, 1.5°C
SKF	Sweden	72.8	16.1	36.0	312,166	48.3	Y	A	Targets set, 1.5°C
Stora Enso	Finland	72.7	12.3	167.8	1,960,000	39.5	Y	A-	Targets set, 1.5°C
Renishaw	UK	72.5	21.7	10.3	7,800	63.3	Y	B	Committed
Dürr	Germany	72.2	13.9	6.4	27,762	44.9	Y	B	Targets set, 1.5°C
Krones	Germany	72.1	10.4	6.5	13,434	59.6	Y	A-	Targets set, 1.5°C
Epiroc	Sweden	72.1	13.7	5.8	25,735	24.3	Y	A-	Targets set, 1.5°C

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DMG Mori	Germany	71.9	6.2	11.9	28,117	26.8	Y	A-	Targets set, 1.5°C
Georg Fischer	Switzerland	71.8	19.2	58.5	236,000	66.9	Y	A	Targets set, 1.5°C
Konecranes	Finland	71.0	16.7	12.8	43,000	57.1	Y	A-	Targets set, 1.5°C
Mondi	UK	70.5	8.5	442.6	3,940,000	19.4	Y	A-	Targets set, 1.5°C
FLSmidth	Denmark	70.2	14.1	12.4	36,508	43.2	Y	B	Targets set, 1.5°C
Vallourec	France	70.1	27.2	190.7	931,297	73.3	Y	B	Targets set, well below 2°C
Schaeffler Gruppe	Germany	69.7	15.6	30.9	488,000	51.6	Y	A	Targets set, 1.5°C
Maire	Italy	69.3	37.6	4.9	17,084	90.7	Y	B	-
Senior	UK	69.2	4.0	46.9	44,878	32.3	Y	A	Targets set, 1.5°C
IMI	UK	69.0	10.0	17.5	40,480	30.8	Y	B	Committed
Jungheinrich	Germany	68.5	8.3	12.4	59,000	10.0	Y	B	Targets set, 1.5°C
Wilo	Germany	67.6	12.0	5.8	10,991	30.2	Y	NA	Committed
Thyssenkrupp	Germany	67.3	4.5	546.9	22,500,000	3.8	Y	A	Targets set, well below 2°C
Kion Group	Germany	67.2	10.6	16.5	183,286	16.5	Y	A-	Committed
Rotork	UK	67.0	10.0	10.0	7,254	41.1	Y	B	Targets set, 1.5°C
Smiths Group	UK	66.9	3.0	17.9	51,784	33.0	Y	B	Committed
Gränges	Sweden	66.8	9.3	182.0	398,700	-31.8	Y	A-	Targets set, 1.5°C
CNH Industrial	Netherlands	66.5	8.2	10.5	231,543	45.1	Y	A-	Committed
Morgan Advanced Materials	UK	66.2	10.5	168.2	211,104	36.4	Y	B	Targets set, well below 2°C
Spirax-Sarco Engineering	UK	66.0	6.7	20.1	36,607	-14.2	Y	A-	Targets set, 1.5°C
Nilfisk	Denmark	66.0	6.5	19.0	20,316	29.5	Y	A-	Targets set, well below 2°C
Kone	Finland	65.7	9.0	11.6	126,800	9.9	Y	A	Targets set, 1.5°C
Vesuvius	UK	65.5	11.5	147.8	341,396	34.1	Y	A-	-
Huhtamäki	Finland	63.8	9.5	152.3	682,000	8.9	Y	B	Targets set, well below 2°C
Volex	UK	62.9	9.7	29.7	20,000	-34.7	Y	B	Committed
Fincantieri	Italy	62.8	9.2	31.4	230,665	7.8	Y	A-	-
Atlas Copco	Sweden	62.7	9.0	8.5	108,000	-2.9	Y	B	Targets set, 1.5°C
Prosafe	Norway	62.0	20.1	131.4	24,388	77.1	Y	NA	-
IMA	Italy	60.8	9.4	10.5	20,811	15.9	Y	B	-
Media & advertising									
JCDecaux	France	76.0	30.0	7.9	24,400	83.1	Y	A	Committed
WPP	UK	75.2	24.2	1.5	25,201	77.1	Y	B	Targets set, 1.5°C
Mediaset Infinity	Italy	74.8	42.7	1.3	3,719	95.1	N	NA	Targets set, 1.5°C
Bloomsbury	UK	73.8	32.8	0.3	96	77.5	Y	B	Targets set, 1.5°C
Alma Media	Finland	73.8	19.3	1.4	445	71.2	Y	B	Targets set, 1.5°C
Atresmedia	Spain	73.0	10.1	3.2	3,001	46.8	Y	A-	Targets set, 1.5°C
Publicis Groupe	France	72.3	17.8	3.1	38,366	51.3	Y	B	Targets set, 1.5°C
Informa	UK	72.3	14.3	2.5	6,410	40.6	Y	B	Targets set, 1.5°C
Liberty Global	UK	72.1	30.3	3.8	25,628	89.5	Y	B	Targets set, 1.5°C
Pearson	UK	71.7	12.4	7.8	33,656	56.1	Y	B	Targets set, 1.5°C
Sky	UK	70.9	16.2	2.0	32,337	55.7	Y	NA	Targets set, 1.5°C
ITV	UK	69.8	19.4	1.3	5,612	59.5	Y	B	Targets set, 1.5°C
Relx	UK	69.0	16.6	1.5	14,163	52.9	Y	B	-
Reach	UK	68.5	31.7	5.2	3,549	85.7	Y	B	-
Schibsted	Norway	67.8	19.5	0.4	628	69.5	Y	A-	-
Bertelsmann	Germany	67.5	15.0	12.9	261,800	47.6	Y	B	Targets set, 1.5°C
BBC	UK	67.1	10.4	7.7	49,582	34.5	N	B	Targets set, 1.5°C
Cewe	Germany	66.9	16.2	7.0	5,198	48.9	Y	B	Targets set, 1.5°C
Technicolor	France	66.5	15.0	21.5	59,552	71.1	Y	NA	-
RTL Group	Luxembourg	66.0	23.4	1.6	11,800	70.2	Y	B	-
Groupe TF1	France	65.6	8.8	0.8	2,068	25.6	Y	B	Targets set, 1.5°C
Syzygy Group	Germany	63.9	22.9	2.3	162	68.3	Y	NA	-
ProSiebenSat.1	Germany	63.4	14.7	0.7	2,991	53.9	Y	B	-
APG SGA	Switzerland	63.0	6.8	3.3	1,026	27.3	Y	A-	-
Personal & household goods									
Lego Group [c]	Denmark	81.2	37.2	2.7	23,154	81.9	Y	A-	Targets set, 1.5°C
L'Oréal [c]	France	78.9	29.6	0.7	25,100	74.6	Y	A	Targets set, 1.5°C
Electrolux [c]	Sweden	77.7	25.8	6.9	83,000	74.9	Y	A	Targets set, 1.5°C
Reckitt	UK	75.1	17.1	8.0	130,723	50.6	Y	A-	Targets set, 1.5°C

Europe's Climate Leaders

Company	Country	Score	Reduction of core emissions intensity (Scope 1 and 2) YoY 2017-22 (%) [1]	Core emissions intensity (GHGs in tonnes per €mn revenue) [2]	Core emissions in tonnes (CO_2 equivalent) [2]	Total reduction of core emissions (%) [3]	Scope 3 emissions reported? [4]	CDP score [5]	Participation in Science Based Targets initiative (SBTi) [6]
Personal & household goods continued									
Beiersdorf	Germany	74.9	16.3	4.6	40,811	48.7	Y	A	Targets set, 1.5°C
Husqvarna	Sweden	74.9	22.9	8.7	42,264	62.6	Y	B	Targets set, 1.5°C
Henkel	Germany	72.9	13.1	17.8	398,000	44.6	Y	A-	Targets set, 1.5°C
Estée Lauder	France	72.6	22.0	2.1	30,800	66.5	Y	A	Targets set, 1.5°C
Fiskars	Finland	72.4	11.3	40.2	50,244	42.2	Y	A-	Targets set, 1.5°C
Ontex Group	Belgium	69.7	12.2	15.4	25,776	62.6	Y	A-	Targets set, 1.5°C
Oriflame Cosmetics	Sweden	69.3	20.8	4.9	4,532	78.9	Y	B	Targets set, 1.5°C
Essity	Sweden	69.0	10.2	207.1	2,894,000	16.4	Y	A-	Targets set, well below 2°C
Surteco Group	Germany	68.3	27.6	33.0	24,661	78.4	N	NA	Committed
Sofidel	Italy	66.2	4.0	315.3	904,964	-25.1	Y	A-	Targets set, well below 2°C
Nobia	Sweden	66.1	17.0	6.7	8,927	53.7	Y	NA	Targets set, 1.5°C
Bic	France	65.5	11.7	18.0	40,245	41.3	Y	A-	-
Miele	Germany	63.8	12.8	7.9	42,839	33.1	Y	NA	Targets set, 1.5°C
Artsana Group	Italy	63.3	17.7	14.0	10,231	58.6	Y	NA	-
Safilo Group	Italy	62.4	14.7	15.2	16,337	53.6	Y	NA	Committed
Groupe SEB	France	62.3	4.3	25.7	204,363	1.3	Y	A-	Targets set, well below 2°C
Pharmaceuticals									
AstraZeneca [a]	UK	76.6	22.1	6.4	263,608	43.5	Y	A-	Targets set, 1.5°C
Novartis	Switzerland	74.7	19.1	8.7	369,800	51.3	Y	A	Targets set, well below 2°C
GSK	UK	73.9	13.1	21.6	714,000	51.8	Y	A-	Targets set, 1.5°C
Sanofi	France	73.8	12.8	12.5	536,804	38.3	Y	A-	Targets set, 1.5°C
Almirall	Spain	70.9	9.8	13.9	11,991	19.2	Y	A-	Targets set, 1.5°C
Icon	Ireland	68.9	26.3	2.2	15,784	29.9	Y	B	Committed
UCB	Belgium	67.4	4.8	5.5	30,447	4.8	Y	A-	Targets set, well below 2°C
Roche	Switzerland	66.5	11.6	5.4	364,480	35.5	Y	NA	Committed
Grifols	Spain	64.4	7.9	33.0	200,310	7.1	Y	A-	Committed
Property									
Alstria [b]	Germany	78.7	45.5	0.1	26	95.5	Y	A-	Targets set, well below 2°C
Derwent London [c]	UK	77.9	29.7	7.2	2,035	78.9	Y	A-	Targets set, 1.5°C
Rightmove	UK	76.1	37.1	0.3	101	86.5	Y	NA	Targets set, 1.5°C
Icade	France	75.5	18.4	3.8	6,880	59.4	Y	A	Targets set, 1.5°C
Klépierre	France	74.6	28.7	11.8	14,184	83.3	Y	A	Targets set, 1.5°C
Citycon	Finland	74.1	33.7	16.9	5,107	88.6	Y	B	Targets set, 1.5°C
Colonial	Spain	74.0	26.8	12.9	4,663	73.1	Y	A	Targets set, 1.5°C
Berkeley Group	UK	73.1	10.2	1.8	5,223	47.5	Y	A	Targets set, 1.5°C
Wihlborgs Fastigheter	Sweden	72.7	12.4	10.1	3,005	26.7	Y	A-	Targets set, 1.5°C
Unibail-Rodamco-Westfield	France	72.2	10.7	20.7	46,244	30.5	Y	A	Targets set, 1.5°C
Workspace	UK	72.0	10.0	49.0	9,625	20.2	Y	A-	Targets set, 1.5°C
Merlin Properties	Spain	71.6	8.6	39.2	17,210	39.5	Y	A-	Targets set, 1.5°C
Landsec	UK	71.2	7.3	10.8	9,635	34.7	Y	A-	Targets set, 1.5°C
Atrium Ljungberg	Sweden	70.7	18.9	11.2	3,129	57.1	Y	B	Committed
Grosvenor Property UK	UK	70.5	15.0	29.5	4,810	37.2	Y	NA	Targets set, 1.5°C
Segro	UK	69.2	17.5	5.3	3,991	23.4	Y	A-	Targets set, 1.5°C
Unite Students	UK	69.1	27.0	44.3	12,957	54.8	Y	NA	Targets set, 1.5°C
Cofinimmo	Belgium	69.1	20.3	15.1	4,863	51.9	Y	B	Targets set, 1.5°C
Capital & Counties Properties	UK	68.8	12.8	7.1	593	57.4	Y	A-	Targets set, 1.5°C
Mercialys	France	68.5	18.4	17.0	2,078	67.9	Y	A	Targets set, well below 2°C
Gecina	France	67.0	10.0	17.5	10,940	34.0	Y	A	Targets set, 1.5°C
Savills	UK	66.1	10.2	2.8	7,153	16.1	Y	B	Committed
Specialfastigheter Sverige	Sweden	66.0	16.8	12.7	2,499	52.4	Y	NA	Targets set, 1.5°C
Vasakronan	Sweden	65.6	12.1	7.0	5,134	33.9	Y	NA	Targets set, 1.5°C
Pandox	Sweden	64.7	5.6	17.2	8,708	0.8	Y	A-	Targets set, 1.5°C
Norwegian Property	Norway	64.1	10.4	21.3	2,061	25.1	Y	A-	-
Wereldhave	Netherlands	64.1	6.9	15.0	2,443	50.1	Y	B	Targets set, well below 2°C
Vonovia	Germany	63.9	16.5	145.3	909,438	11.9	Y	A-	-
IGD SIIQ	Italy	63.4	11.3	175.9	19,197	38.0	Y	B-	-
Altarelt	France	62.3	20.9	0.5	1,470	51.0	Y	NA	-
JM	Sweden	61.6	8.6	2.6	3,808	38.6	Y	B	-

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Retail & ecommerce									
Rema 1000 [a]	Norway	80.9	36.3	2.4	10,633	90.2	Y	A	Targets set, 1.5°C
Currys	UK	76.0	26.6	1.9	20,851	80.7	Y	B	Targets set, 1.5°C
S Group	Finland	75.5	31.6	5.5	46,200	82.1	Y	A-	Targets set, 1.5°C
Zalando	Germany	75.0	36.8	0.6	6,100	76.7	Y	B	Targets set, 1.5°C
Kingfisher	UK	74.1	13.8	9.1	134,410	46.6	Y	A-	Targets set, 1.5°C
Tokmanni Group	Finland	74.1	23.7	3.5	4,111	62.1	Y	B	Targets set, 1.5°C
Pets at Home	UK	73.3	17.5	7.4	11,709	40.3	Y	B	Targets set, 1.5°C
Clas Ohlson	Sweden	73.0	23.3	1.2	973	70.8	Y	B	Committed
Stockmann	Finland	72.9	22.9	12.7	12,429	74.7	Y	B-	Committed
ICA	Sweden	72.4	31.2	1.3	16,275	80.9	Y	NA	Targets set, well below 2°C
Kesko	Finland	71.7	12.5	6.4	75,505	42.2	Y	B	Targets set, 1.5°C
Europris	Norway	71.6	15.2	13.7	11,606	26.6	Y	A-	Committed
Carrefour	France	71.4	11.3	18.2	1,483,001	44.8	Y	A-	Targets set, well below 2°C
Maisons du Monde	France	71.1	23.7	3.5	4,509	68.1	Y	A	Targets set, 1.5°C
Next	UK	70.9	22.9	8.6	48,803	64.6	Y	B	Targets set, 1.5°C
Rexel	France	70.3	7.5	5.3	99,165	4.9	Y	A-	Targets set, 1.5°C
WHSmith	UK	69.7	5.8	12.8	20,234	15.9	Y	A	Targets set, 1.5°C
Travis Perkins	UK	69.6	18.7	9.1	51,561	72.4	Y	B	Targets set, 1.5°C
El corte ingles	Spain	68.9	19.8	9.0	127,215	70.0	Y	B	-
Ceconomy	Germany	68.1	23.8	3.2	69,800	74.2	Y	B	Committed
Rewe	Germany	67.7	19.1	12.0	929,357	45.8	Y	NA	Committed
Marks and Spencer	UK	67.3	4.3	27.0	363,000	10.4	Y	B	Targets set, 1.5°C
Apoteket	Sweden	67.1	6.9	1.4	2,660	25.2	Y	NA	Targets set, 1.5°C
Bunzl	UK	67.1	6.9	8.9	120,742	1.9	Y	B	Targets set, well below 2°C
DFS Furniture	UK	66.9	16.2	12.5	15,401	48.4	Y	B	Committed
Frasers Group	UK	66.6	15.4	13.3	82,029	29.6	Y	NA	Committed
Migros Gruppe	Switzerland	65.7	12.5	5.1	155,600	44.8	N	NA	Targets set, 1.5°C
Co-op Group	UK	65.2	10.6	14.0	181,000	26.8	N	NA	Targets set, 1.5°C
Jerónimo Martins	Portugal	65.0	9.9	44.1	1,119,135	7.6	Y	A	Committed
N Brown Group	UK	65.0	9.8	5.2	3,982	56.2	Y	B	Committed
Technology & electronics									
Logitech International [a]	Switzerland	84.3	47.7	0.3	1,267	93.1	Y	A-	Targets set, 1.5°C
ASM [a]	Netherlands	78.9	29.6	4.2	10,215	43.5	Y	A-	Targets set, 1.5°C
ABB [a]	Switzerland	78.6	28.5	8.2	224,000	78.2	Y	A	Targets set, 1.5°C
Arm	UK	78.3	64.5	0.0	109	99.2	Y	B	-
RS Group (formerly Electrocomponents)	UK	78.3	27.7	1.5	5,157	65.4	Y	A-	Targets set, 1.5°C
Indra Sistemas [a]	Spain	77.6	28.5	0.8	2,892	76.1	Y	A-	Targets set, 1.5°C
Schneider Electric	France	75.7	18.8	6.7	229,177	51.4	Y	A	Targets set, 1.5°C
STMicroelectronics	Switzerland	75.0	20.0	57.3	862,000	36.7	Y	A-	Targets set, 1.5°C
Siemens	Germany	74.8	16.0	8.1	582,000	63.7	Y	A	Targets set, 1.5°C
Nexans	France	74.2	14.0	26.8	224,274	38.2	Y	A	Targets set, 1.5°C
Barco	Belgium	74.2	20.5	3.1	3,237	69.0	Y	B	Targets set, 1.5°C
Spectris	UK	73.7	12.2	15.2	22,700	54.7	Y	A-	Targets set, 1.5°C
Johnson Controls	Ireland	73.7	12.2	26.4	623,439	42.2	Y	A	Targets set, 1.5°C
Philips	Netherlands	73.2	23.9	1.4	25,000	74.5	Y	A	Committed
Irce	Italy	73.0	63.3	76.7	35,250	99.1	N	NA	-
Signify	Netherlands	71.9	9.8	20.6	155,000	35.7	Y	A	Targets set, 1.5°C
Legrand	France	71.3	11.0	18.0	149,994	15.8	Y	A-	Targets set, 1.5°C
ASML	Netherlands	69.7	19.1	1.8	38,100	18.2	Y	A-	Targets set, 1.5°C
Valmet	Finland	69.1	13.7	17.0	86,200	20.4	Y	A	Targets set, 1.5°C
Prysmian	Italy	69.0	9.8	41.4	665,104	-21.1	Y	A-	Targets set, 1.5°C
Mettler-Toledo	Switzerland	68.0	6.6	17.6	64,322	-2.1	Y	A-	Targets set, 1.5°C
Zumtobel Group	Austria	67.9	12.9	8.7	10,536	49.4	Y	NA	Committed
LPKF Laser & Electronics	Germany	66.9	36.3	1.7	207	87.3	Y	NA	-
Solar	Denmark	65.9	13.1	3.2	5,920	37.7	Y	B	Targets set, 1.5°C
Siltronic	Germany	65.0	10.0	141.0	254,523	9.4	Y	B	-
At&S	Austria	64.4	11.4	322.1	577,000	1.3	Y	B	Targets set, 1.5°C
Seagate Technology	Ireland	64.4	4.6	89.3	615,331	47.9	Y	B	Targets set, well below 2°C
Tomra Systems	Norway	63.4	4.8	25.6	29,700	-28.6	Y	B-	Committed

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Technology & electronics continued									
PSI Software	Germany	62.7	15.8	2.2	539	43.6	Y	B-	-
Halma	UK	62.6	15.3	6.7	14,091	25.1	Y	B	-
Nolato	Sweden	62.6	8.7	51.4	49,537	-1.9	Y	B	Committed
Dormakaba Holding	Switzerland	62.0	3.3	22.5	64,621	15.3	Y	B	Targets set, 1.5°C
Addtech	Sweden	61.9	6.4	3.8	6,333	-67.7	Y	B	Committed
Wärtsilä	Finland	61.6	12.2	12.1	70,938	37.8	Y	B-	-
Medion	Germany	60.9	16.2	0.4	360	56.9	Y	NA	-
Infineon Technologies	Germany	60.8	12.7	62.4	886,671	-2.0	Y	B	Committed
Telecommunications									
Tele2 [a]	Sweden	87.9	59.8	0.8	2,074	98.6	Y	A	Targets set, 1.5°C
Telia Company [c]	Sweden	84.2	50.6	1.1	9,000	96.7	Y	A-	Targets set, 1.5°C
Deutsche Telekom [a]	Germany	83.9	46.2	2.0	233,063	93.1	Y	A	Targets set, 1.5°C
Cellnex Telecom [a]	Spain	79.9	33.1	14.7	51,541	40.4	Y	A	Targets set, 1.5°C
NOS	Portugal	76.6	25.2	10.5	15,899	77.2	Y	A-	Targets set, 1.5°C
Telefónica	Spain	74.8	19.5	8.8	353,346	73.9	Y	A	Targets set, 1.5°C
Vodafone	UK	74.2	17.5	21.2	970,000	62.4	Y	A	Targets set, 1.5°C
Nokia	Finland	73.9	16.4	10.4	259,300	56.1	Y	A-	Targets set, 1.5°C
Elisa	Finland	73.6	12.1	1.4	3,005	37.5	Y	A	Targets set, 1.5°C
BT	UK	73.4	11.3	7.7	180,285	52.2	Y	A	Targets set, 1.5°C
Magyar Telekom	Hungary	73.3	11.1	9.1	13,459	30.0	Y	A-	Targets set, 1.5°C
Telekom Austria	Austria	73.3	11.0	27.8	139,289	36.2	Y	A	Targets set, 1.5°C
Proximus	Belgium	72.4	7.9	5.4	31,500	32.3	Y	A	Targets set, 1.5°C
OTE Group	Greece	70.4	34.7	6.7	23,210	89.2	Y	B	-
Swisscom	Switzerland	69.2	4.0	5.2	58,744	22.2	Y	A	Committed
Ericsson	Sweden	69.0	9.9	7.4	180,038	21.4	Y	A-	Targets set, 1.5°C
Telenor	Norway	68.9	3.0	90.8	855,000	24.3	Y	B	Targets set, 1.5°C
Millicom International Cellular	Luxembourg	68.1	7.2	32.6	171,184	1.4	Y	B	Targets set, 1.5°C
Fastweb	Italy	67.7	19.2	0.8	2,090	57.2	Y	NA	Targets set, 1.5°C
Orange	France	67.0	3.5	27.3	1,188,327	10.8	Y	A-	Targets set, 1.5°C
Tele Columbus	Germany	66.6	28.7	4.5	1,988	83.4	Y	NA	-
Telenet Group	Belgium	66.2	7.4	3.7	9,973	28.0	Y	B	Committed
Gruppo TIM	Italy	65.5	4.9	32.0	512,177	38.8	Y	A	Targets set, 1.5°C
Spirent Communications	UK	63.7	12.4	7.5	4,271	31.1	Y	B	-
Slovak Telekom	Slovakia	61.6	18.8	8.2	6,671	61.7	Y	NA	-
Textiles, apparel & luxury goods									
Inditex [a]	Spain	86.6	55.3	0.3	11,232	97.7	Y	A	Targets set, 1.5°C
Puma [c]	Germany	81.4	41.2	0.8	6,849	85.6	Y	A	Targets set, 1.5°C
Burberry Group [a]	UK	80.2	40.8	0.5	1,667	91.7	Y	A-	Targets set, 1.5°C
Kering [a]	France	78.0	30.1	1.4	29,258	78.0	Y	A	Targets set, 1.5°C
Prada	Italy	75.7	18.9	8.8	36,920	51.9	Y	A-	Targets set, 1.5°C
Hermès	France	75.6	18.8	2.7	31,300	26.0	Y	A	Targets set, 1.5°C
Richemont	Switzerland	75.3	31.0	1.0	19,400	71.8	Y	A-	Targets set, 1.5°C
Puig	Spain	74.4	14.7	0.7	1,796	39.0	Y	A	Targets set, 1.5°C
Superdry	UK	72.0	6.6	6.8	4,752	49.4	Y	A-	Targets set, 1.5°C
JD Sports Fashion	UK	71.5	18.4	4.6	52,948	-15.6	Y	A-	Targets set, 1.5°C
Hugo Boss	Germany	71.2	10.8	8.2	29,878	24.6	Y	B	Targets set, 1.5°C
Coats Group	UK	70.2	7.5	166.3	245,745	20.9	Y	B	Targets set, 1.5°C
Brunello Cucinelli	Italy	69.6	11.9	5.0	4,594	3.2	Y	A-	Targets set, 1.5°C
LVMH	France	68.6	8.6	4.2	329,417	-18.4	Y	A	Targets set, 1.5°C
Fenix Outdoor	Sweden	68.6	18.5	3.2	2,431	49.5	Y	B	-
Geox	Italy	68.5	35.0	0.8	617	86.4	Y	NA	-
H&M Group	Sweden	67.9	3.1	3.0	60,702	4.7	Y	A-	Targets set, 1.5°C
Esprit	Germany	64.3	11.0	4.9	4,129	74.4	Y	NA	-
Transport, logistics & packaging									
Tetra Pak	Sweden	74.8	16.1	9.4	117,731	54.7	Y	A-	Targets set, 1.5°C
Greiner	Austria	73.0	23.3	39.3	91,585	60.8	Y	A-	Targets set, 1.5°C
Retal	Cyprus	72.3	7.8	97.5	64,465	28.2	Y	A-	Targets set, 1.5°C
Logista	Spain	72.0	30.0	4.1	47,010	79.8	Y	A-	Targets set, 2°C
Ecolean	Sweden	72.0	36.6	3.1	294	88.3	Y	NA	Targets set, 1.5°C
FirstGroup	UK	71.9	16.4	153.1	821,289	69.7	Y	B	Targets set, 1.5°C
Knorr Bremse	Germany	71.7	22.3	7.0	50,000	67.1	Y	A-	Targets set, 1.5°C
Ferrovial	Spain	71.6	21.9	54.9	414,386	57.4	Y	A	Targets set, 2°C
AP Møller-Mærsk	Denmark	71.5	18.3	453.7	34,506,000	4.1	Y	A	Committed
Deutsche Bahn	Germany	71.0	13.4	103.4	5,820,000	35.6	Y	A-	Targets set, 2°C
Constantia Flexibles	Austria	70.4	11.2	103.3	201,870	27.3	Y	A	Targets set, 2°C
Mundys (formerly Atlantia)	Italy	69.9	6.3	24.6	182,508	15.8	Y	A-	Targets set, 1.5°C
Posti Group	Finland	69.6	15.2	25.7	42,499	56.1	Y	NA	Targets set, 1.5°C
SIG	UK	68.9	9.8	14.5	44,983	43.1	Y	B	Targets set, 1.5°C
Córas Iompair Éireann	Ireland	68.9	9.7	191.8	286,216	27.5	Y	B	Committed
Posten Norge	Norway	68.6	11.9	23.8	53,063	49.6	Y	NA	Targets set, 1.5°C
CMA CGM	France	68.4	21.2	375.7	26,108,978	-7.4	Y	A-	-
Go-Ahead	UK	68.2	7.4	163.8	607,684	35.8	Y	B	Targets set, 1.5°C
Ferrovie dello Stato Italiano	Italy	68.2	10.6	147.2	2,010,666	15.9	Y	A-	Committed
An Post	Ireland	67.9	6.2	27.9	24,820	23.1	Y	B	Targets set, 1.5°C
Getlink	France	67.8	16.0	40.2	64,586	34.9	Y	B	Targets set, 1.5°C
PostNL	Netherlands	67.7	5.6	8.3	26,000	13.3	Y	A-	Targets set, 1.5°C
Poste Italiane	Italy	67.2	7.4	13.1	155,563	23.6	Y	A-	-
Heathrow Airport	UK	67.1	7.0	9.1	29,806	29.7	Y	NA	Targets set, 1.5°C
La Poste Groupe	France	67.0	3.2	13.6	482,268	-24.7	Y	A-	Targets set, 1.5°C
Verallia	France	66.6	8.6	822.6	2,757,000	10.8	Y	A-	Targets set, 1.5°C
CTT	Portugal	66.5	4.9	17.7	16,088	1.5	Y	A-	Targets set, well below 2°C
DOF Group	Norway	66.2	17.4	325.2	286,552	46.6	Y	A-	-
Abertis	Spain	65.4	8.1	15.9	80,898	37.2	Y	B	Targets set, 1.5°C
PostNord	Sweden	64.8	12.8	16.2	59,436	44.4	Y	NA	Targets set, 1.5°C
Smurfit Kappa Group	Ireland	64.8	9.3	237.9	3,049,000	8.1	Y	A-	Targets set, well below 2°C
ASTM	Italy	64.2	10.8	20.1	95,960	-54.9	Y	A-	Targets set, 1.5°C
Luis Simões	Portugal	63.2	10.6	100.6	27,080	35.7	Y	NA	Committed
IDS	UK	62.9	3.1	37.3	507,200	-1.3	Y	NA	Targets set, 1.5°C
Renfe	Spain	62.2	27.4	66.5	141,590	82.4	N	NA	-
BLG Logistics	Germany	62.1	6.8	52.8	59,039	27.8	Y	NA	Targets set, well below 2°C
Zignago Vetro	Italy	61.8	12.6	709.4	332,595	-29.7	Y	A-	-
Alstom	France	61.6	5.3	10.8	179,000	-58.4	Y	B	Targets set, 1.5°C
SBB	Switzerland	61.5	5.0	7.3	78,900	12.3	Y	NA	Targets set, 1.5°C
Amcor	Switzerland	60.9	6.3	131.6	1,804,329	-13.7	Y	NA	Committed
Grupo Correos	Spain	60.8	9.4	18.6	36,423	35.5	Y	B	-
Travel, leisure & entertainment									
Entain	UK	76.2	47.3	2.9	14,266	77.9	N	B	Committed
Whitbread	UK	73.2	17.3	24.1	71,412	49.6	Y	B	Targets set, 1.5°C
Playtech	UK	73.1	26.9	1.8	2,868	58.7	Y	B	Committed
La Française des Jeux	France	69.0	26.7	0.6	1,573	70.4	Y	B	Targets set, well below 2°C
Accor	France	67.5	5.0	691.5	2,921,000	-17.5	Y	A	Targets set, 1.5°C
Wetherspoon	UK	65.5	11.6	54.6	107,295	43.4	N	NA	Targets set, 1.5°C
Modern Times Group (MTG)	Sweden	63.0	20.0	0.8	404	89.7	Y	NA	-

Footnotes

[1] Compound annual reduction rate (CARR) based on the sum of Scope 1 and 2 emissions and adjusted by revenue growth between 2017-2022.
[2] Calculated for 2022
[3] Absolute change in GHG emissions between 2017 and 2022. Positive values reflect a reduction in emissions, negative values an increase. All the companies on the list have, however, cut their emissions intensity.
[4] Scope 3 refers to indirect emissions, which can be reported for some or all of 15 categories and thus vary enormously. This is why absolute figures are left out here.
[5] CDP is a non-profit organisation that assesses how well companies and other bodies report on and reduce their environmental impact.
[6] SBTI is a partnership between CDP, the UN Global Compact, the World Resources Institute and WWF and helps companies set targets for reducing greenhouse gas emissions.

GreenWatch assessment

[a] This company's core emissions intensity performance might have been different if the Scope 1 and 2 emissions detailed in its annual report were fully consistent with the figures it submitted to CDP, and if it had provided more comprehensive disclosures on the use of renewable energy products to offset Scope 2 emissions.
[b] This company's core emissions intensity performance might have been different if the Scope 1 and 2 emissions detailed in its annual report were fully consistent with the figures it submitted to CDP.
[c] This company's core emissions intensity performance might have been different if the Scope 2 emissions detailed in its annual report were fully consistent with the figures it submitted to CDP, and if it had provided more comprehensive disclosures on the use of renewable energy products to offset Scope 2 emissions.
[d] This company's core emissions intensity performance might have been different if the Scope 2 emissions detailed in its annual report were fully consistent with the figures it submitted to CDP.*
[e] This company's core emissions intensity performance might have been different if additional information about the use of renewable energy products to offset Scope 2 emissions had been disclosed.
[f] Having reviewed this entry, GreenWatch does not have a material comment on this company's core emissions intensity performance.

To make comparison easier, we have used the same GreenWatch footnote system as last year; this year no companies fall into categories [d] and [f]

We are grateful to the Rainforest Action Network for providing analytical support to inform the Europe's Climate Leaders list