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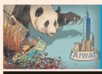

Taiwan can still avoid the fate of Ukraine
GIDEON RACHMAN, PAGE 15

Why is it so hard to build houses in England?
BIG READ, PAGE 13

Chilling effect
AI jobs cull on Davos agenda

Denis Balibouse/Reuters

A police officer surveys the grounds at the World Economic Forum in Davos, Switzerland, yesterday.

As the annual meeting of business and world leaders began, a poll of top directors conducted by PwC found that a quarter of global chief executives expect generative artificial intelligence to lead to job cuts of at least 5 per cent this year.

Industries led by media, entertainment, banking and insurance were most likely to predict job losses, while engineering and construction groups were least likely to be affected.

The findings, based on interviews with 4,702 company chiefs in 105 countries, point to the impact AI models are expected to have on economies — a topic that will feature prominently at Davos.

Davos snow and climate change & AI warning from CEOs page 2
FT View page 14
Sandrine Dixson-Declève page 15

Germany's gloom deepens after worst performance by big economy last year

● Output decreases 0.3% ● Rising rates and energy costs take toll ● Eurozone contraction likely

MARTIN ARNOLD — FRANKFURT

German output shrank 0.3 per cent last year as high inflation, rising interest rates and elevated energy costs made Europe's largest economy one of the world's weakest performers, according to estimates released yesterday.

The decline of the German economy exacerbates a gloomy start to the year for the country, which has been hit by nationwide train strikes over working hours and disruptive protests by farmers against cuts to fuel subsidies.

"Overall economic development faltered in Germany in 2023 in an environment that continues to be marked by multiple crises," said Ruth Brand, president of the federal statistical office.

The office said gross domestic product was still above pre-pandemic levels, after last year's contraction followed two years of growth and left it up 0.7 per cent from 2019.

Coupled with separate data published yesterday showing eurozone industrial production had fallen for the third consecutive month in November, economists said the German figures pointed to a likely contraction in the wider single currency bloc in the fourth quarter.

Melanie Debono, an economist at consultants Pantheon Macroeconomics, said the risks to her forecast for a 0.1 per cent contraction of the eurozone economy in the final quarter of last year were "squarely to the downside".

> 'Prices remained high at all stages and put a damper on economic growth'
> Ruth Brand, federal statistics office

Germany was the worst-performing big economy in the world last year, according to the IMF, which recently forecast that advanced economies would on average grow 1.5 per cent in 2023 while developing economies would expand 4 per cent.

The IMF forecast that the US economy grew 2.1 per cent last year, while the eurozone expanded 0.7 per cent and the UK 0.5 per cent. That underlines how Germany's big export-focused manufacturing sector has been hit by the loss of cheap Russian energy and a slowdown in demand from China.

Growth is expected to pick up to 0.6 per cent this year, according to the OECD, which would still make Germany one of the weakest large economies. Several analysts have cut their forecasts since the government slashed spending plans to tackle a €60bn hole in its budget left by a constitutional court ruling against off-balance sheet funds.

"The recessionary conditions which have been dragging on since the end of 2022 look set to continue this year," said Andrew Kenningham, an economist at consultants Capital Economics, predicting zero growth for Germany in 2024.

A fall in German and Italian factory output added to a 0.3 per cent monthly decline in eurozone industrial production in November, according to EU data, taking the annual fall to 6.8 per cent.

German GDP declined 0.3 per cent in the final three months of last year from the previous quarter, when output stagnated, the statistical office said. But it added that because "the data basis of this estimate is less complete . . . there is a higher degree of uncertainty".

Retail sales, exports and industrial production all fell last year. Households were hit by the biggest surge in the cost of living for a generation, while the sprawling manufacturing sector suffered from high energy and financing costs and weak global demand. Inflation fell from above 11 per cent in late 2022 to as low as 2.3 per cent last November.

"Despite recent declines, prices remained high at all stages in the economic process and put a damper on economic growth," said Brand.

Briefing

▸ **Shell under fire from Amundi on climate goals**
Europe's largest asset manager has been joined by 26 investors demanding Shell improve its climate targets at its annual meeting, the biggest shareholder push on green policy yet faced by the oil and gas group.— PAGE 5

▸ **Houthis strike cargo ship**
Iran-backed Houthis have struck a US-owned cargo ship, the first direct assault on a commercial vessel since American and British forces launched strikes against the Yemeni rebels last week.— PAGE 3

▸ **Kyiv downs spy plane**
Ukraine has said it has shot down a Russian A-50 spy plane and badly damaged a second Il-20 aircraft over the Sea of Azov region, dealing a significant blow to Moscow's air power.— PAGE 2

▸ **Taipei loses Pacific ally**
Pacific island nation Nauru has switched recognition from Taipei to Beijing, a sign of rising Chinese pressure after Taiwan elected Lai Ching-te as its new president.
— PAGE 4; GIDEON RACHMAN, PAGE 15

▸ **Biden wins $97mn boost**
The US president's campaign has raised more than $97mn in the fourth quarter, firing optimism among Democrats that he will have the resources to turn around his poll numbers.— PAGE 4

▸ **Atos falls on cash fears**
Shares in the indebted French IT group have fallen as much as 16 per cent as it said it expected its free cash flow target for the year to come in about €100mn below the previous target.— PAGE 6

▸ **Plagiarism battle builds**
Hedge fund boss Bill Ackman has threatened legal action against Germany's Axel Springer and its US-based Business Insider news site in the fight over plagiarism claims against his wife.— PAGE 6

▸ **Athens plans airport IPO**
The Greek government plans to sell part of its stake in Athens airport through an initial public offering, as the country enjoys a tourism boom and privatisations look set to gather pace.— PAGE 8

Mid-air blowout throws Boeing chief off course

The likelihood that a manufacturing error led to the blowout of a section of 737 Max 9 fuselage on an Alaska Airlines flight has spelt fresh crisis for Boeing's reputation. Dave Calhoun took over as chief executive in 2020 vowing to improve quality after two crashes had killed 346 passengers and crew. Now, as safety regulators probe the latest incident, Calhoun's credibility and that of his team are on the line.

Factories opened ▸ PAGE 5
Quality pledges ▸ PAGE 7

Maldives orders Indian troops out by March as islands draw closer to China

JOHN REED — NEW DELHI

The Maldives has given India until mid-March to withdraw its troops from the archipelago nation as its new pro-China president draws closer to Beijing.

The notice follows a five-day visit by Mohamed Muizzu to China on his first foreign trip since taking office. Muizzu won last year's election after campaigning on an "India Out" platform.

Indian and Maldivian officials held talks in the capital Male on Sunday in which "both sides expressed willingness to intensify co-operation and agreed to fast-track the withdrawal of Indian military personnel", the Maldives ministry of foreign affairs said.

Ahmed Nazim, policy director at Muizzu's office, said the president wanted Indian troops to leave by March 15. India has about 75 troops in the Maldives and operates two helicopters, used in part for medical evacuations, in addition to operating radar equipment and naval patrols on its territory.

Muizzu's call for withdrawal comes against a backdrop of tensions between New Delhi and Beijing over their disputed border and respective influence in India's backyard. Online commentary has become heated, with Prime Minister Narendra Modi posting pictures of himself strolling on beaches in India's Lakshadweep islands, off Kerala.

In a post on X, the Indian leader described Lakshadweep as "mesmerising" and declared: "For those who wish to embrace the adventurer in them, Lakshadweep has to be on your list."

The post angered some in the Maldives, who saw Modi's intervention as an attempt to divert visitors to Lakshadweep. India was the Maldives' largest source of visitors in 2023.

Three Maldivian deputy ministers posted demeaning comments on Modi, including calling him a "clown". The three officials were suspended.

Online supporters of the Indian leader called for a boycott of Maldivian tourism. EaseMyTrip, an online booking platform, declared it was suspending all bookings to the Maldives under the slogan "Nation First, Business Later".

Muizzu said at the weekend that no country had "the licence to bully us", without mentioning India.

Sushant Singh, a senior fellow at the Centre for Policy Research, a think-tank, said the furore had not changed the strategic calculations in Male. "China has been drawn in and could end up as wielding even greater influence in India's strategic backyard," Singh said.

Asia Outlook page 14

World Markets

STOCK MARKETS

	Jan 15	Prev	%chg
S&P 500	4783.83	4780.24	0.08
Nasdaq Composite	14972.76	14970.19	0.02
Dow Jones Ind	37592.98	37711.02	-0.31
FTSEurofirst 300	1873.69	1882.74	-0.48
Euro Stoxx 50	4456.20	4480.02	-0.53
FTSE 100	7594.91	7624.93	-0.39
FTSE All-Share	4152.21	4165.62	-0.32
CAC 40	7412.39	7465.14	-0.71
Xetra Dax	16635.92	16704.56	-0.41
Nikkei	35901.79	35577.11	0.91
Hang Seng	16216.33	16244.58	-0.17
MSCI World $	3168.31	3157.32	0.35
MSCI EM $	996.30	994.75	0.16
MSCI ACWI $	724.77	722.40	0.33
FT Wilshire 2500	6193.82	6191.42	0.04
FT Wilshire 5000	48240.10	48222.40	0.04

CURRENCIES

Pair	Jan 15	Prev	Pair	Jan 15	Prev
$/€	1.095	1.097	€/$	0.913	0.912
$/£	1.273	1.276	£/$	0.785	0.784
£/€	0.860	0.859	€/£	1.163	1.164
¥/$	145.785	144.725	¥/€	159.642	158.698
¥/£	185.614	184.690	£ index	82.292	82.104
SFr/€	0.936	0.933	SFr/£	1.089	1.086

CRYPTO

	Jan 15	Prev	%chg
Bitcoin ($)	42425.36	42187.16	0.56
Ethereum	2519.76	2471.06	1.97

COMMODITIES

	Jan 15	Prev	%chg
Oil WTI $	72.40	72.68	-0.39
Oil Brent $	78.06	78.29	-0.29
Gold $	2055.65	2029.15	1.31

GOVERNMENT BONDS

Yield (%)	Jan 15	Prev	Chg
US 2 yr	4.13	4.17	-0.04
US 10 yr	3.94	3.95	-0.01
US 30 yr	4.18	4.19	-0.02
UK 2 yr	4.15	4.17	-0.02
UK 10 yr	4.00	3.98	0.01
UK 30 yr	4.44	4.42	0.02
JPN 2 yr	0.00	0.00	0.00
JPN 10 yr	0.55	0.59	-0.03
JPN 30 yr	1.57	1.57	0.00
GER 2 yr	2.58	2.52	0.06
GER 10 yr	2.23	2.18	0.05
GER 30 yr	2.43	2.39	0.04

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Tech revolution

Bosses warn AI will lead to job cuts this year

Media and banks among sectors expected to be hit hardest, survey reveals

SAM FLEMING — DAVOS

A quarter of global chief executives expect the deployment of generative artificial intelligence to lead to headcount reductions of at least 5 per cent this year, says a survey unveiled as world and business leaders gather in Davos, Switzerland.

Industries led by media and entertainment, banking, insurance and logistics were most likely to predict job losses because of cutting-edge AI tools, according to the poll of top directors conducted by PwC ahead of this week's World Economic Forum. Engineering and construction were least likely to expect cuts in headcount from automation, alongside technology companies.

Some 46 per cent of those surveyed said they expected generative AI — systems that can spew out humanlike text, images and code in seconds — to boost profitability in the next 12 months. But 47 per cent said the technology would deliver little or no change.

The findings, based on interviews with 4,702 chiefs across 105 countries, point to the far-reaching impacts powerful AI models are expected to have on economies and societies, a topic that will feature prominently at the annual meetings in Switzerland.

Executives at the forefront of AI, including Sam Altman, the recently reinstalled chief of OpenAI, and Satya Nadella of Microsoft are among those slated to attend the discussions in the Swiss resort. While many economists say they expect AI to lead to productivity gains as it becomes more pervasive, it will also lead to workforce upheaval.

The PwC survey showed that a rising share of executives see strengthening economic growth in 2024 but at the same time are exercised by the need to respond to developments, including generative AI and climate change.

"As business leaders are becoming less concerned about macroeconomic challenges, they are becoming more focused on the disruptive forces within their industries," said Bob Moritz, global chair of PwC.

A growing number of executives are planning to deploy generative AI in the coming months, the survey showed, after 32 per cent reported they had adopted it across their company in the past year. Some 58 per cent said they expected it to improve the quality of their products or services in the next 12 months, while 69 per cent said their employees would need to learn new skills because of generative AI.

Last year Goldman Sachs predicted that the latest breakthroughs in AI could lead to the automation of a quarter of the work done in the US and eurozone, while sparking a productivity boom that will eventually lift annual gross domestic product around the world by 7 per cent over a decade.

When it comes to risks from AI, the PwC survey showed executives were most worried about cyber security and the spread of disinformation.

In the shorter term, the study pointed to receding anxiety about the broader economic outlook, with less than a quarter of directors reporting their firm was "highly/extremely" exposed to the threat of inflation, a steep drop from last year's 40 per cent reading.

Separately, the chair of the world's banking watchdog warned that global leaders needed a co-ordinated response to the challenges posed by AI.

Pablo Hernández de Cos, who chairs the Basel Committee on Banking Supervision, said AI "could change the course of history, not necessarily for the good". He urged leaders to use financial regulation as a blueprint for tackling issues such as AI and climate change.

Europe. Climate change

Davos opens in heavy snow but trend is downhill

Rising average temperatures in the Alps lead to concerns over summer water supplies

ATTRACTA MOONEY AND STEVEN BERNARD

Better ski conditions greet attendees at the World Economic Forum at Davos this week thanks to recent heavy snowfalls at the high-altitude resort, where climate change ranks after security, growth and artificial intelligence among the four main themes being discussed.

While the town had about 80cm of snow at the bottom ski lift on Friday compared with 55cm on average for January, Davos-based climate scientist Christoph Marty, at the WSL Institute of Snow and Avalanche Research, said at ski towns just a few kilometres away it was a different story.

"We have above-average snow in Davos but if you go 12km lower down, you have below average [snow coverage]. It shows how vulnerable the snowpack is to temperature [rise]," he said.

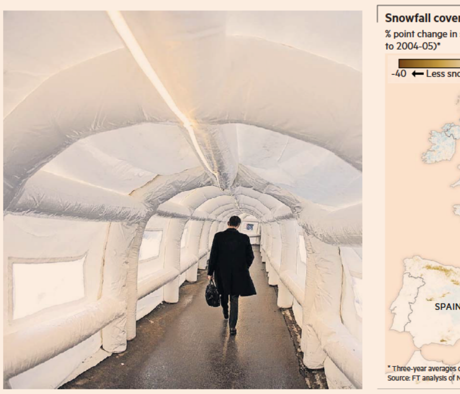
Switzerland, like other alpine areas around the world, is dealing with rising temperatures linked to climate change. Average temperatures in the Alps have risen by almost 2C from pre-industrial levels, the Research Center for Alpine Ecosystems estimates.

This is higher than the long-term global average of at least 1.1C, with the rise amplified in mountain regions as warmth leads to shrinkage in areas covered with ice and snow that reflect the sun's rays. The dark rock and later vegetation absorbs the sun's heat and contributes to even more melting.

Following a wet start to winter, snow conditions in Europe at higher elevations have been more favourable in the past week after an Arctic blast brought fresh snow. However, at lower altitudes in Italy, France and Switzerland, it remains patchy and precipitation is falling as rain.

Half an hour's drive from Davos at the village of Küblis — altitude 815 metres versus Davos at 1560m — Marty said the snow depth this season was 8cm compared with the long-term average of 16cm.

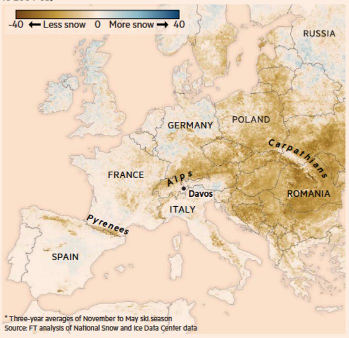
Overall snow cover in Switzerland has fallen almost 8 percentage points when comparing three-year averages straddling the 2002-2003 to 2004-2005 seasons with the 2020-2021 to 2022-2023 seasons, according to Financial Times analysis of National Snow and Ice Data Center data. The data shows snow cover has fallen significantly across much of central and eastern Europe in particular. In the Alpine region, the average decline in snow cover was about 4.3 percentage points.



Tunnel vision: a Davos attendee walks down a footpath covered by an inflatable yesterday
Stefan Wermuth/Bloomberg

Snowfall cover across Europe has declined over the past 20 years

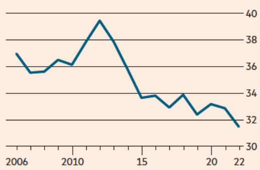
% point change in snow cover (2020-21 to 2022-23 compared with 2002-03 to 2004-05)*



* Three-year averages of November to May ski season
Source: FT analysis of National Snow and Ice Data Center data

Snow cover has declined in recent years

% of snow cover across Europe, five-year rolling average*



Source: FT calculations of NSIDC data * Nov to May

According to a study published in Nature last year, the number of snow days in the Alps has fallen more in the past 20 years than in the previous 600.

Marco Carrer, a professor at the University of Padova in Italy and an author of the research, said the study used growth rings on juniper bushes to reveal the extent of persistent snow cover over centuries.

The intervals of the rings show the duration of the current snowpack cover in the Alps is 36 days shorter than the long-term mean. The research found that for about 500 years, snow cover was "more or less stable", he said.

However, since the 1900s, this had changed dramatically, particularly over the past two decades. The decline in persistent snow days was entirely related to climate change, he said.

Even on days with heavy snowfall, the lack of permanence was a problem.

"As the temperature is warming the snow is melting faster. There is an absolute connection with climate change," Carrer said.

'As the temperature is warming the snow is melting faster. There is an absolute connection with climate change'

For the many who relied on alpine snow melt for water supplies during the summer, the fall-off in snow coverage was particularly worrying, leaving those areas at risk of droughts and water shortages, he said.

The most recent study in Nature this month found that human-induced global warming had caused declines in northern hemisphere snowpack in spring over the 1981—2020 period, including in areas where snow was crucial for water supplies.

A snowpack in spring is important for ensuring a supply of drinking and irrigation water but this can be affected by early melts.

The naturally occurring El Niño weather phenomenon, which began last year and contributes to warming of the Pacific Ocean, can also affect European snowfall, potentially leading to a colder, snowier winter.

Marty, who has been studying Davos's snow for two decades, said despite the higher altitude, the alpine town had experienced some "snow-poor winters" in recent years, including a Christmas where the town and valley were "not white".

See The FT View and Opinion

Ukraine war

Kyiv shoots down spy plane in blow to Russia's air power

CHRISTOPHER MILLER — KYIV
ANASTASIA STOGNEI — RIGA

Ukraine says it has shot down a Russian spy plane and badly damaged a second over the Sea of Azov region, dealing a blow to Moscow's air power.

Kyrylo Budanov, Ukraine's chief of military intelligence, said Ukrainian forces managed to destroy the Russian A-50 and damage the Il-22. "The A-50 was shot down and it exploded," he said yesterday. "The Il-22 was badly damaged but, unfortunately for us, it managed to make an emergency landing in Anapa [a Russian town on the Black Sea coast]."

Earlier yesterday Ukraine's commander-in-chief of the armed forces, Valeriy Zaluzhny, wrote on Telegram that "soldiers of the Air Force of the Armed Forces of Ukraine destroyed the enemy A-50 long-range radar detection aircraft and the Il-22 airborne command post of the enemy".

He shared a clip from a radar screen that appeared to show the planes disappearing over the sea and thanked the air force for "the excellently planned and conducted operation in Azov region" late on Sunday.

The strikes on the two command and control aircraft represent a boost to Ukraine's counteroffensive nearly two years since Russia launched its invasion. The sophisticated surveillance planes are key to Russia's co-ordination of ground operations.

"There are just eight A-50s in good condition," Budanov said, adding that the aircraft's destruction would probably affect Russia's ability to operate and communicate in the conflict zone "around the clock".

Mykola Oleshchuk, Ukraine's air force commander, confirmed the attacks, writing on Telegram: "This is for Dnipro! Burn in hell, you bastards!" referring to recent Russian air strikes on the south-eastern city.

Ukrainian defence sources said the A-50, an airborne early warning and control jet, was shot down shortly after take-off near Kyrylivka, a coastal town on the northern Azov coast in the occupied region of Zaporizhzhia, at 9.10pm local time. Around the same time, the Il-22 airborne command post was struck and damaged.

The Sea of Azov, which is situated north of the annexed peninsula of Crimea and the Black Sea, lies between Ukraine and Russia but is completely controlled by the latter since the war began.

Ukraine's military did not say what was used to strike the planes and it has few domestically produced air defence systems capable of the attack. But since it received US-made Patriot air defence systems last year, Ukraine has waged a more effective campaign against Russian aircraft.

There was no immediate response from Russia's defence ministry. The Kremlin had "no information" about it, Russian President Vladimir Putin's spokesperson Dmitry Peskov said.

The Soviet-designed and produced A-50 is a four-engine, jet-propelled plane that can carry a crew of 15. The four-engine propeller-powered Ilyushin Il-22 carries 10 crew and helps to co-ordinate ground operations.

Additional reporting by Max Seddon

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Production surge

Petrochemical glut makes new plastic cheaper than recycled

MADELEINE SPEED AND LUKANYO MNYANDA — LONDON

A steep increase in petrochemical production in China and the US has led to a global oversupply of industrial chemicals used in plastics, sending the price of new material so low that its recycled alternative has become uneconomical.

China was responsible for 60 per cent of petrochemical capacity increases in 2023, according to new figures from S&P Global. Production has also surged in the US on the back of the shale gas boom, leading to a level of oversupply of materials such as polyethylene not seen since the 1980s.

The glut of virgin plastic presents a challenge to companies trying to reduce their reliance on single-use plastics in the face of stricter regulation and government pledges to reduce plastic waste pollution.

"Petrochemical overcapacity and the resulting lower prices for virgin material make life harder for producers of recycled plastics," said Ciarán Healy, at the International Energy Agency.

Ethylene capacity rose nearly 42mn tonnes last year compared with 2019, while global demand grew only about 14mn tonnes. Ethylene is produced from hydrocarbons derived from oil and natural gas and is a feedstock for the most widely used plastic, polyethylene.

The oversupply has left the sector operating well below full capacity, with global utilisation rates dropping from about 90 per cent in 2019 to below 82 per cent last year as prices tumbled.

In the US, spot prices for virgin high-density polyethylene, a common plastic used in products such as shampoo bottles, toys and plastic bags, dropped from $1,674 a tonne in 2021 to $943 in 2023, according to S&P.

The petrochemical glut has piled pressure on recycled plastic manufacturers, which are struggling to compete with far cheaper virgin materials. According to S&P, the price of recycled HDPE prices has fallen dramatically from highs of $2,954 a tonne but, at $1,631 a tonne, remains considerably more costly than its virgin counterpart.

Before 2019, recycled plastic used to be cheaper than virgin products. But demand for the material rocketed as consumer goods companies set targets to cut their reliance on virgin plastics in an attempt to reduce their carbon footprints and plastic waste.

Walt Hart, lead chemicals researcher at S&P, said ethylene use rates, the amount converted to new materials such as plastic, had fallen to their lowest level in four decades because of "a gross overbuild" of production capacity and slower economic growth during and after the coronavirus pandemic.

Hart said "permanent closures of uncompetitive assets and cancellation of some unneeded projects are necessary" to raise ethylene prices.

The excess capacity has also piled pressure on European and Asian producers facing higher production costs than competitors in North America and the Middle East, which benefit from their access to low-cost ethane feedstock, according to the IEA.

Challenge: companies are trying to reduce reliance on single-use plastics

The decline in Europe's petrochemical industry has been exacerbated by surging prices after Russian export cuts pushed up input costs. In 2022 Europe manufactured 14 per cent of global plastics, falling from a 20 per cent share in 2012, according to trade group Plastics Europe. China's share of 32 per cent has grown from 23 per cent in the period.

China's new capacity has also piled pressure on its former suppliers, as the country used to be a major importer of polymers and synthetic fibres. The IEA said shipments of petrochemical products to China from the Middle East and other parts of Asia had fallen 30 per cent in the first nine months of 2023.

But leading oil producers including, Saudi Arabia, are betting petrochemical demand will continue to rise even if demand for petrol-driven vehicles falters, and it is investing in Chinese petrochemical capacity to secure export sources of its crude.

US and UK air strikes seek to draw sting from Houthis' Red Sea attacks

Battle-hardened Islamists unlikely to be cowed by allies but experts say group has vulnerabilities

JOHN PAUL RATHBONE — LONDON

The US and UK had for weeks warned of retribution against the Houthi rebels menacing a vital maritime trade route. Last Thursday, under cover of darkness, their response arrived.

The US Navy fired dozens of Tomahawk cruise missiles towards Yemen from its destroyers and submarines around the Red Sea, while British jets launched laser-guided Paveway bombs at what the UK said were carefully selected targets. In the early hours of Saturday, the US launched a second bombing raid.

The strikes came after more than two dozen attacks by the Iran-backed group against commercial and military vessels in the Red Sea — a global trade corridor now shunned by much of the world's commercial shipping fleet — in response to Israel's war against Hamas in Gaza.

The main questions now are whether the action will stop the Houthis from continuing to attack shipping, and what might be the coalition's response if the initiative fails. Many doubt whether the battle-hardened Islamists, who have weathered two decades of brutal fighting and almost 10 years of bombing by a Saudi-led coalition, will be cowed by the US and UK action. A missile fired at a US military vessel in the Red Sea on Sunday was shot down, the US said.

"In many ways there was no alternative to launching the strike: the Houthis couldn't be allowed to continue until a major ship was hit. Inaction would have been worse," said Peter Ricketts, former UK national security adviser.

"The calculation seems to have been to launch a big enough strike to change the Houthis' behaviour, if not overnight, at least so that they slow down."

There is a regional precedent for a big air strike altering behaviour. In 2018 the US, UK and France launched more than 100 aircraft and ship-based missiles against Syrian government sites in reprisal for chemical attacks against civilians in the country's civil war. The strikes did not end the fighting but analysts said they helped to damp it and reduce the frequency of chemical use.

The move against the Houthis was "similarly measured and calculated: careful around minimising risk of escalation but balanced with a lot of power to show intent", said Sam Cranny-Evans, an associate fellow at the Royal United Services Institute in London.

Coalition forces in total fired 150 precision-guided munitions at more than 60 Houthi military installations and missile launch sites in the rebel-held north of the country. Civilian casualties, given the size of the missile strikes, were reportedly low. US military officials said they were still completing battle damage assessments.

The Houthi response has been defiant. The group's military spokesman, General Yahya Saree, said in a recorded address on Friday the strikes, which he said had killed five people, would "not go unanswered or unpunished".

In Saada, their stronghold in northwest Yemen, hundreds of people gathered for a rally on Friday to denounce the US and Israel, while thousands more gathered in a separate rally in the capital, Sana'a. The militant group, which comes from Yemen's rugged, mountainous northern Saada province, can muster about 35,000 uniformed troops, according to analysts.

Defiant: Houthi fighters stage a protest against last week's US and UK attacks AP

Its capabilities were shown in a September military parade that featured a wide array of Iran-supplied ballistic and anti-ship missiles. Like Hamas, another member of the Iran-backed Axis of Resistance, it hides military assets and fighters in civilian areas.

Bilal Y Saab, an associate fellow at the Chatham House think-tank in London, questioned to what extent the coalition strikes would alter the rebel group's behaviour. "The Houthis have survived a Saudi-led Arab coalition bombing campaign for years. Limited attacks by the US and possibly its western allies, no matter how painful or surgical, will not crush [the] organisation," he said. "It's incredibly hard to politically defeat or militarily destroy a deeply rooted, capable and resilient non-state actor such as the Houthis. It enjoys popular support, both domestically and regionally."

The Houthis fought a near nine-year war against a Saudi-led coalition that intervened in Yemen's civil conflict after the Houthis ousted the Yemeni government. During that time, abetted by Iran, they have expanded their operations, graduating in just two years from launching unguided Katyusha rockets against targets 20 miles away in 2014 to launching medium-range ballistic missiles at Riyadh 600 miles away by 2016.

Even so, analysts stress that the Houthis are not invulnerable. They lack advanced intelligence and surveillance tools to provide targeting information for long-range, anti-ship systems, for which they largely rely on Iran.

They are sensitive about certain targets, such as their leaders, drone and missile storage sites, and irreplaceable helicopters and fixed-wing aircraft, according to Michael Knights of the Washington Institute for Near East Policy, in a recent report.

If the Houthis continue to attack Red Sea shipping and military vessels in the region, analysts say the hope among coalition partners is that continued surgical strikes combined with diplomatic efforts, especially with Iran, will help restore freedom of navigation.

On the diplomatic front, "the question is whether [Iran] has enough clout with the Houthis to stop them from launching more attacks against commercial shipping", Saab said. "That remains an open question but Washington will never know until it tests that proposition."

> 'The calculation seems to have been to launch a big enough strike to change the Houthis' behaviour, if not overnight, at least so that they slow down'

As for future military action, the US has large numbers of Tomahawk land-attack missiles aboard its ships and submarines in the region, as well an aircraft carrier laden with jet fighters. French frigate Languedoc, which has already shot down Houthi drones, carries land-attack missiles.

Yet the main UK warship in the Red Sea, HMS Diamond, has no land-attack missiles. Any land strikes by British jets would therefore have to be carried out by Typhoon fighter jets flying thousands of miles from the RAF air base in Cyprus. This, analysts say, would be of little use against the majority of Houthi rocket launchers that are highly mobile and could "shoot and scoot" into hiding long before British attack jets arrive.

Another factor potentially working in the Houthis' favour is the cost to the coalition naval forces of sustaining their presence in the region. "Both the US Navy and the UK Royal Navy will be hard-pressed to maintain their current commitment indefinitely and their ships are spread quite thin as it is," said Nick Childs, senior fellow at the International Institute for Strategic Studies.

"How long such a mission can be sustained will depend on how many other governments and navies are ready to take a meaningful share of the burden."

Additional reporting by Felicia Schwartz

Middle East

Rebels hit US-owned cargo ship as more vessels look to divert

ROBERT WRIGHT, ANDREW ENGLAND AND SHOTARO TANI — LONDON

Iran-backed Houthis struck a US-owned cargo ship yesterday, the first direct assault on a commercial vessel since American and British forces launched multiple strikes against the Yemeni rebels last week.

The missile attack on the Gibraltar Eagle in the Gulf of Aden will increase concerns about the safety of ships sailing through Middle East waterways even as the US seeks to deter the Houthi rebels through military action.

The Houthis have already severely disrupted maritime trade through the Red Sea after carrying out about 30 attacks on commercial vessels since November. The US and UK retaliated on Friday by launching a barrage of missiles and bombs targeting the Houthis' drone, missile, radar and air surveillance capabilities in Yemen.

American forces launched a second raid on Saturday. But the Houthis vowed to respond aggressively and to continue targeting ships, which the group says is in response to Israel's offensive against Hamas, the Palestinian militant movement, in Gaza.

The US military said the Houthis fired an anti-ship ballistic missile at Gibraltar Eagle, which is owned by Connecticut-based Eagle Bulk Shipping, at 4pm local time. The ship, which is carrying steel products, reported no serious damage.

But the attack marked the first time a ship has been hit by a missile in the Gulf of Aden rather than the Red Sea, the far narrower waterway. Two hours earlier, US forces detected another anti-ship missile fired towards shipping lanes in the Red Sea, where the Houthis have concentrated their attacks.

Eagle Bulk Shipping, which is listed on the US Nasdaq exchange, said the vessel had been hit by an "unidentified projectile" while approximately 100 miles offshore in the Gulf of Aden, which separates Yemen and Somalia.

"As a result of the impact the vessel suffered limited damage to a cargo hold but is stable and is heading out of the area," the company said.

The frequency of the attacks on shipping has caused many commercial vessels to avoid the Red Sea, which accounts for about 15 per cent of global seaborne trade, and instead take a far longer route around Africa.

The disruption to maritime trade has raised concerns that it will filter through to energy prices and inflation.

However, dry bulk carriers like the Gibraltar Eagle have mostly continued to transit through the Red Sea. Tankers carrying liquefied natural gas have also diverted less than other vessel types.

But there are signs that vessels transporting LNG are starting to avoid the Red Sea and Suez Canal. LNG carrier arrivals at the mouth of the Red Sea were down by around 47 per cent in early January. And yesterday three vessels carrying LNG for Qatar's state-owned QatarEnergy, due to enter the Red Sea, stopped and circled off Oman.

Flex LNG, operator of the Flex Volunteer, an LNG carrier due to sail through the affected area, said yesterday the vessel's charterers had ordered it to divert via the Cape of Good Hope.

October 7 tribute

Israeli footballer held in Turkey repatriated

ADAM SAMSON — ANKARA
JAMES SHOTTER — JERUSALEM

An Israeli footballer who was detained in Turkey after paying tribute to the victims of the October 7 attack during a match has been repatriated in a dispute that inflamed tensions between the two countries.

Sagiv Jehezkel, a forward for the Antalyaspor team, was taken into custody and suspended by his Turkish club after the incident on Sunday, when he pointed to his wrist strapping on which a Star of David as well as "100 days" and "7.10" had been written after he scored in a Turkish Süper Lig match.

The display was widely seen as a reference to the hostages still being held by Hamas in Gaza 100 days after the militant group's assault on the Jewish state.

Turkish prosecutors opened an investigation into Jehezkel for "the crime of publicly inciting public hatred and hostility due to his ugly action supporting the massacre committed by Israel in Gaza", Turkish justice minister Yılmaz Tunç wrote on social media platform X.

The detention drew an angry reaction from Israel, with defence minister Yoav Gallant accusing Turkey of acting as the "executive arm" of Hamas, and foreign minister Israel Katz claiming it had become a "dark dictatorship", and calling on international sporting organisations to punish Ankara.

Israel's foreign ministry also said that Jehezkel, 28, had been released from detention and would return to Israel yesterday. Turkish state media later said he had returned to his country by private plane.

> 'I am not a pro-war person. The point I wanted to draw attention to was the end of the war'

Jehezkel, who joined Antalyaspor last year, has protested his innocence. "I did not do anything to provoke or provoke anyone. I am not a pro-war person," he said, according to a statement carried by local media. He added: "The point I wanted to draw attention to was the end of the war."

His club had accused their player of acting "against the national values of our country", with the state Anadolu news agency reporting that Jehezkel had been excluded from the team and that the club was working to end his contract. The incident will exacerbate strains between Turkey and Israel, which had sought to mend relations before October 7.

Turkish President Recep Tayyip Erdoğan has repeatedly claimed that Israel has committed "genocide" in Gaza, and compared Israeli Prime Minister Benjamin Netanyahu to Adolf Hitler. Ankara has also accused Israel of spying on its territory.

Netanyahu, meanwhile, has criticised Turkey's support of Hamas and its treatment of Kurdish minorities, saying Erdoğan was the "last person who can preach morality to us".

Jehezkel is not the first footballer to face censure over actions related to the war in Gaza. Youcef Atal, an Algerian who plays for Nice in France, was this month handed an eight-month suspended sentence by a French court for inciting religious hatred in a social media post about the conflict.

Football is widely followed in Turkey and actions on the pitch carry broader political, social and cultural resonance.

Additional reporting by Funja Güler in Ankara

Israel

Police describe car rammings as 'terror attack'

JAMES SHOTTER — JERUSALEM

One person was killed and at least 13 injured in suspected car-rammings in the city of Ra'anana in central Israel yesterday, which police described as a "terror attack".

A police spokesman said a Palestinian man from the city of Hebron in the occupied West Bank was "believed to have stolen multiple vehicles and used them to run over a number of civilians".

Both he, and a second man whom police described as a relative of the first, have been arrested, and the case will be investigated by local police in co-operation with the Shin Bet internal security agency.

"It is currently believed to be a multi-stage event in which the suspects switched between three vehicles," the police said in a statement.

Israel's Magen David Adom paramedic service said its staff treated 18 casualties, one of whom was in a critical condition, and two who were in a "serious condition with head and limb injuries".

It said at least one person had suffered stabbing injuries. Israeli media subsequently reported that a woman in her 70s had died from her wounds, citing the Meir Hospital at nearby Kfar Saba. The hospital did not respond to requests for comment.

The attack took place amid heightened tensions over Israel's three-month-long war against Hamas in Gaza. Hamas said the suspected rammings were a "natural response to the occupation's massacres and its continued aggression against our Palestinian people" but stopped short of claiming responsibility.

Aftermath: Israeli police inspect a damaged car in Ra'anana yesterday

The war, which began when the Palestinian militant group stormed into Israel from the coastal enclave last year, is already the bloodiest round of fighting in the Israeli-Palestinian conflict since the war that accompanied the Jewish state's founding in 1948.

Hamas militants killed around 1,200 people and took a further 240 hostage during the October 7 attack, according to Israeli officials.

Israel's retaliatory assault on Gaza has killed more than 24,000 people, according to Palestinian officials, as well as displacing 1.9mn of the territory's 2.3mn inhabitants and rendering huge swaths of the territory uninhabitable.

The heads of three UN agencies said yesterday that a "fundamental step-change" in the flow of humanitarian aid was "urgently needed", warning that there was a growing risk of famine in Gaza.

"Without the ability to produce or import food, the entire population of Gaza relies on aid to survive," the agencies said, warning that the quantities of aid being delivered "fall far short of what is needed to prevent a deadly combination of hunger, malnutrition, and disease".

INTERNATIONAL

Relations switch

Pacific nation drops Taipei ties for Beijing

Island state Nauru shifts diplomatic alliance as Chinese pressure mounts

KATHRIN HILLE — TAIPEI
JOE LEAHY — BEIJING

Taiwan has lost one of its few diplomatic allies after Nauru switched recognition to Beijing, a sign of increasing Chinese pressure on the country after it elected Lai Ching-te as its new president.

The Pacific island nation's move came two days after Lai from the ruling Democratic Progressive party, denounced by Beijing as a dangerous separatist, won the presidential election.

China's foreign ministry said Beijing "appreciates and welcomes" Nauru's switch of diplomatic recognition.

Taipei called the shift a malicious attack by China, which claims Taiwan as part of its territory and has sought to isolate it internationally. Taiwan's foreign ministry said Nauru, which began talks with China on formal ties last year, tried to extract "huge" financial aid from Taipei by comparing its aid with far larger promises from Beijing.

China "particularly chose to put this into motion at the key moment when we completed our democratic elections", said Tien Chung-kwang, Taiwan's deputy foreign minister. "Their motive is to deal a blow to the Taiwanese people's confidence in the democracy and freedom we should be proud of. That nakedly displays the true nature of communist totalitarianism."

Nauru's change of ties reduced the number of countries that recognise Taiwan as a sovereign state to just 12.

The announcement also came as an unofficial US delegation held talks with Lai and other political leaders in Taipei. The delegation included former national security adviser Stephen Hadley, former deputy secretary of state James Steinberg and Laura Rosenberger, chair of the American Institute in Taiwan, Washington's quasi-embassy in Taipei.

"I hope the US will continue to support Taiwan, deepen Taiwan-US mutually beneficial co-operation in various areas and safeguard regional peace and prosperity together with its democratic partners," Lai said on meeting the mission. Washington sent similar groups after the elections in 2000 and 2016.

Poaching Taiwan's diplomatic allies is a tactic China has used extensively against outgoing president Tsai Ing-wen and former president Chen Shui-bian, both from the DPP, which Beijing detests because the party refuses to define Taiwan as part of China.

Last year Honduras cut ties with Taiwan in favour of China, following other countries including Nicaragua, El Salvador and Panama. Taipei retained the allegiance of Paraguay, where relations with the island had become an election issue.

Shi Yinhong, an international relations professor at Renmin University in Beijing, said the timing of the Nauru measure suggested it was intended to punish Taipei for Lai's victory.

"It could be China's first major retaliation against the newly elected Lai Ching-te administration," Shi said.

He added that after the president's inauguration on May 20, China would probably continue or even step up its campaign against the DPP.

Additional reporting by Wenjie Ding in Beijing

Gideon Rachman see Opinion

East Asia. Parliamentary election

Taiwan's third party handed role as kingmaker

TPP leader finished third in presidential poll but group's eight seats can be decisive

KATHRIN HILLE — TAIPEI

Ko Wen-je was upbeat on Saturday night after finishing third in Taiwan's presidential election. The Taiwan People's party founder told supporters that for the first time, a third party had stood as tall as the two dominant political forces in Taiwanese politics.

"This is a new political landscape," Ko said. "This voice will be a key power directing the country."

While Lai Ching-te of the ruling Democratic Progressive party was elected president, he won just 40 per cent of the vote in a three-way contest.

The DPP's share of 113 parliamentary seats fell to 51, while the Kuomintang, the largest opposition party, won 52, making the TPP's caucus of eight enough to swing a majority and thrusting the once-marginal party into the heart of political decision-making as Taiwan contends with an increasingly assertive China.

Beijing claims Taiwan as part of its territory and has threatened to attack if Taipei resists unification indefinitely.

"Their impact is huge," said Tsai Chia-hung, a research fellow at the Election Study Center of National Chengchi University in Taipei. "They have become a viable third party."

Founded less than five years ago, the TPP has achieved a rapid rise — as has its founder. A prominent trauma and organ transplant surgeon at National Taiwan University Hospital, Ko entered politics in 2014 when he ran for mayor of Taipei on the coat-tails of the Sunflower student protest movement.

He has proven a flexible politician. Ko initially aligned with the DPP, the home-grown party that defines Taiwan as an independent nation and seeks to limit its dependence on China. But he has since shifted to positions more associated with the Kuomintang, which says Taiwan belongs to a greater Chinese nation but disagrees with Beijing over which state should rule that nation.

As Taipei mayor, Ko started calling Taiwan and China "members of one family", and while he mostly side-stepped China policy issues during the presidential campaign, he advocated restarting negotiations on a cross-Strait services trade agreement, which he opposed alongside the Sunflower movement a decade ago.

In the driving seat: Taiwan People's party leader Ko Wen-je, wearing glasses, waves to supporters in Taipei ahead of Saturday's elections
Annice Lyn/Getty Images

Despite such flip-flopping, Ko, 64, has built a loyal youth following thanks to his quirky rhetoric and a sophisticated social media operation.

"The DPP and KMT only ever talk about China but they are not solving our real problems like high housing costs," said Amanda Chao, a 30-year-old interior designer who voted for Ko. "I also like his style — he talks like a normal person, not in ideological terms."

Ko has ridiculed traditional politicians for being unimaginative, saying politics should be "fun".

Observers said the TPP founder still struck many voters as too risky for the presidency. In November, attempts to agree a joint ticket with the KMT broke down in an acrimonious live television broadcast, causing his poll numbers to tank.

Several voters told the Financial Times that Ko had allowed the KMT to take advantage of him and the episode raised serious doubts over his ability to tackle an increasingly aggressive China and protect national security.

Now, his acumen will be put to the test to maximise the TPP's kingmaker position in parliament. Despite backing a coalition with the KMT during the campaign, Ko, who won 26.5 per cent of the presidential vote, now says he intends to co-operate with different forces on issues and will not align with any party.

"If there is a big winner in this election, it's the TPP," said Nathan Batto, a political scientist at the Academia Sinica research institution. "How Ko will use that position is the big question."

For the DPP, policy priorities include addressing low incomes in the service sector, a struggling renewable energy transition that has raised fears of shortages as nuclear power is phased out, and boosting Taiwan's technology industry in global supply chains.

Even more important in a global context is maintaining defence spending. When the DPP last led a minority government 10 years ago, arms procurement from the US was blocked by the opposition-controlled parliament.

Although Ko has advocated raising defence expenditure to 3 per cent of gross domestic product from the current 2.5 per cent, DPP politicians are concerned the issue could fall victim to partisan battles. Observers said that the diverse backgrounds and interests within Ko's party that led to infighting and chaotic decision-making during the campaign could weaken the party's hand. And a KMT official said the TPP was at risk of internal discord as the party decided "who is running the show".

'The DPP and KMT only ever talk about China but they are not solving our real problems like high housing costs'

People close to Ko disagreed. "It is true different people around our chair are vying for his attention," said one of his advisers. "But he is very good at making the right decisions. He respects power and he believes in hard facts and numbers."

The first test will come when the new legislature elects its Speaker, who can shape the agenda and influence foreign policy. The outcome will be crucial to preventing gridlock over the next four years and point to Ko's political future.

The TPP offered a first indication of its approach yesterday, demanding that any DPP or KMT Speaker candidates commit to reforms that would require the president to report to parliament and strengthen lawmakers' powers in confirming government appointments and access to state documents.

Asia

North Korea claims success in high-tech hypersonic missile test

CHRISTIAN DAVIES — SEOUL

North Korea has said it successfully fired a solid-fuel "hypersonic" missile for the first time, demonstrating Pyongyang's increasingly sophisticated missile capabilities as the regime deepens defence co-operation with Russia.

The intermediate-range ballistic missile (IRBM) was launched from a site near Pyongyang on Sunday and flew eastward on a lofted trajectory for less than 12 minutes before splashing down in waters between North Korea and Japan, according to the South Korean and Japanese militaries.

If successful, the launch would be the first time Pyongyang combined two recent milestones in its weapons development programme — solid-fuel missiles and missiles with a "manoeuvring re-entry vehicle".

North Korea claims to have successfully tested solid-fuel and manoeuvrable missiles in separate launches in the past.

Solid-fuel missiles can be fuelled in secret before they are deployed, giving adversaries less time to conduct a preventive strike. The trajectories of manoeuvrable missiles, sometimes known as hypersonic missiles, can be changed mid-flight with fins or winglets, making them more accurate and harder for defence systems to intercept.

Experts said North Korean IRBMs were probably capable of striking US assets in Asia, including military installations in Guam and the western Pacific.

According to North Korea's state Korean Central News Agency, the "intermediate-range hypersonic manoeuvrable controlled warhead" test focused on its "gliding and manoeuvring characteristics" and the "reliability of newly developed multi-stage high-thrust solid-fuel engines".

Ankit Panda, a nuclear weapons expert at the Carnegie Endowment for International Peace, said an image published by the KCNA yesterday suggested the IRBM featured a re-entry vehicle capable of conducting "terminal-stage manoeuvres".

He added that battlefield debris in Ukraine suggested Russia had used a North Korean KN-23 short-range ballistic missile in an attack on the city of Kharkiv this month. Such a weapon can "conduct manoeuvres at hypersonic speeds throughout its flight", foiling air defence systems.

Last week, the US imposed sanctions on a Russian citizen and three companies allegedly involved in the transfer and testing of North Korean ballistic missiles. The White House has accused Russia of deploying North Korean short-range ballistic missiles in attacks on Ukrainian cities between December 30 and January 6.

Russia has dismissed the accusations, with the country's UN ambassador Vassily Nebenzia accusing the US of "spreading information that is wrong, without going through the trouble of checking it beforehand" during a meeting of the UN Security Council last week.

North Korean foreign minister Choe Son Hui arrived in Moscow on Sunday, amid speculation the countries were preparing for Russian President Vladimir Putin to pay a reciprocal visit to Pyongyang, after Kim Jong Un travelled to Russia's far east in September.

Cryptocurrencies

Tether favoured by money launderers, says UN

SCOTT CHIPOLINA — LONDON

Tether, one of the world's largest cryptocurrency platforms, is among the leading payment methods for money launderers and fraudsters operating in south-east Asia, the UN has warned.

A report published yesterday by the UN's office on drugs and crime says Tether's crypto token, also known as tether, is at the heart of an exploding industry of scams. The deceptions include those that engineer false romantic connections to gain a victim's trust before luring them to transfer large sums — a strategy commonly referred to as "pig butchering".

"In recent years, law enforcement and financial intelligence authorities have reported the rapidly growing use of sophisticated, high-speed money laundering . . . teams specialising in underground tether," the report said.

The evolution of cryptocurrency, alongside other rapid technological developments, has also galvanised the decades-old practice among south-east Asia's organised crime gangs of using black market casinos to launder illicit funds.

"Online gambling platforms, especially those operating illegally, have emerged as among the most popular vehicles for cryptocurrency-based money launderers, particularly for those using Tether," the report says.

Jeremy Douglas of the UN's office on drugs and crime said: "Organised crime has effectively created a parallel banking system using new technologies, and the proliferation of loosely or entirely unregulated online casinos together with crypto has supercharged the region's criminal ecosystem."

'Organised crime has effectively created a parallel banking system using new technologies'

Tether's digital token is a stablecoin, a cryptocurrency that typically tracks a hard currency to stabilise the price. Tether is pegged to the US dollar and allows traders to move in and out of crypto trades, unlike tokens such as bitcoin that are not pegged to hard currencies. It is the largest of its kind, with roughly $95bn in circulation.

The UN report notes that in recent years authorities have dismantled several money laundering networks responsible for moving illicit Tether funds, including an operation that recovered $737mn in cash and crypto by Singaporean authorities last August.

In November, following a joint investigation with US authorities and crypto exchange OKX, Tether froze $225mn of its tokens connected to a "pig butchering" and human trafficking syndicate in south-east Asia, the report says.

Erin West, a cyber crime expert, said pig butchers gravitated to Tether's digital coin because the crypto promised speedy, irreversible transactions.

"You're creating a situation where victims are blinded by love, coupled with the opportunity to get rich quickly . . . Prior to cryptocurrency, there weren't many opportunities to do that," she said.

Tether did not respond to a request for comment.

Presidential election

Biden campaign lifted by $97mn funding haul

ALEX ROGERS — WASHINGTON

Joe Biden's political operation announced it raised more than $97mn in the fourth quarter, a sizeable haul that has boosted optimism among Democrats that the president will have the resources to turn around his flagging poll numbers this election year.

The Biden campaign said it had built a $117mn war chest, adding that this was more money than any Democratic candidate in history had accumulated at this point in the election cycle.

It also claimed that it would have more on hand than the Republican presidential candidates in the fourth quarter.

"While most of the Republicans have not yet announced their fundraising numbers, we fully expect to lap them — several times," said Biden campaign spokesperson TJ Ducklo.

As an incumbent with no serious primary challengers, Biden benefits from a variety of money-raising organisations besides his campaign, including the Democratic National Committee and other joint fundraising committees.

Former president Donald Trump's operation had raised even more at this point in the 2020 election cycle.

At the end of the third quarter in 2023, Trump's campaign had $38mn on hand before spending more than $6mn on ads between October and December, according to AdImpact. Trump has not yet disclosed his fourth-quarter fundraising figures.

Former UN ambassador Nikki Haley, who has emerged as Trump's main rival, said she had $14.5mn on hand going into 2024. Florida governor Ron DeSantis has struggled to raise money and has relied on super Pacs, which can raise unlimited sums from contributors, for much of his ad spending and door-knocking operation. Vivek Ramaswamy, the biotech entrepreneur, has largely self-funded his campaign.

Resources boost: Joe Biden hopes to turn around flagging poll numbers

Presidential campaigns are required to disclose their 2023 fundraising figures by the end of the month.

The Biden campaign said its most successful fundraising idea had been the "Cup of Joe" contest that raised more than $3mn by offering a chance to meet Biden and vice-president Kamala Harris.

It also said people were increasingly paying attention to the 2024 race and donating, adding that it raised three times as much money during the Republican debate in December as it did during October's.

"This historic haul — proudly powered by strong and growing grassroots enthusiasm — sends a clear message: the Team Biden-Harris coalition knows the stakes of this election and is ready to win this November," said Biden campaign manager Julie Chávez Rodríguez.

X factor Buoyant user numbers mean the former Twitter could yet win back advertisers wary of owner Musk's behaviour ● SEE LEX

Companies & Markets

Europe's largest investor pushes Shell for better climate policy

- Oil group urged to exceed Paris goals
- Amundi joined by 26 asset managers

ATTRACTA MOONEY AND TOM WILSON
LONDON

Europe's largest asset manager, Amundi, has been joined by 26 investors demanding that Shell improve its climate targets at its annual meeting, in the biggest shareholder push on climate policy the oil and gas group has faced.

The resolution, co-ordinated by the activist group Follow This, urged Shell to align its "medium-term" greenhouse gas emissions target with the Paris agreement to limit global warming. Global emissions must fall by almost half by 2030 for those targets to be met.

Shell has claimed that its targets are already Paris-aligned but the activist group wanted the company to do better. This would include accounting for all the emissions of its products sold to its customers, known as scope 3.

> 'We are more aware than ever that climate change will create winners and losers'

"We urge Shell to set a credible scope 3 absolute emissions target," said Diandra Soobiah, head of responsible investment at UK pension fund Nest.

"This would demonstrate leadership, show Shell is serious about transitioning its business, and play a role in generating real world change." The activists have organised similar motions at Shell meetings since 2016 but support for the upcoming resolution has drawn the most investment managers, Follow This founder Mark van Baal said.

Together the investors oversee more than €3.8tn and own about 5 per cent of Shell. They include UK pension fund London CIV, and international managers Rathbones, Candriam and Edmond de Rothschild, Swedish pension fund AP4, and the Ethos Foundation, representing Swiss investors.

Last year two shareholders co-filed the resolution at Shell and drew the backing of about 20 per cent of the total investors who voted.

"With 2023 being the warmest year on record, and COP28 signalling 'the beginning of the end of the fossil fuel era' we are more aware than ever that climate change will create winners and losers," said Matt Crossman, stewardship director at Rathbones, referring to the UN climate summit agreement last month to shift away from fossil fuels.

Traditional investment groups have historically avoided filing shareholder resolutions, preferring to rely on behind the scenes talks. But some have become frustrated by a lack of action.

Shell chief executive Wael Sawan outlined plans, after he took over the role last year, to keep investing in fossil fuels.

He argues that to meet global energy demand and maintain shareholder returns, Shell must continue to invest in oil production and expand its gas business, even as it also invests in forms of energy with lower emissions such as biofuels, hydrogen and renewable sources.

Shell aims to cut absolute emissions from its own operations — also known as scope 1 and scope 2 — by 50 per cent by 2030. It has also committed to reduce the "net carbon intensity" of the products it sells by 20 per cent by 2030 but not their absolute emissions.

Carbon intensity is a contentious measure that represents emissions as a proportion of all the energy it sells. Using this accounting treatment allows Shell to offset the carbon produced by its oil and gas business against its lower-carbon products.

Shell said the shareholder resolution was "unrealistic and simplistic" and "broadly unchanged" from the resolution filed by Follow This last year.

Timor Sea Australian court throws out Tiwi islanders' cultural challenge to Santos pipeline

Islanders argued the Barossa gas development would pose a threat to the area's cultural heritage — Rebecca Parker

NIC FILDES — SYDNEY

An Australian court has dismissed an attempt by members of the indigenous population of the remote Tiwi Islands to block a gas pipeline being built by Santos, ruling that it would not endanger the cultural heritage of the Timor Sea region.

The challenge to the Barossa development, costing an estimated $2.7bn, had delayed one of Australia's biggest new offshore gas projects.

Tiwi islanders successfully challenged the planning permission granted to Santos in 2022, and a new challenge to Barossa launched last year has left the project in suspension.

A judge ruled yesterday the pipeline could go ahead, sending shares in Santos, which is in talks with rival Woodside over a merger, up more than 2 per cent. The project is intended to transport natural gas from the Timor Sea to a terminal in Darwin in Australia's north, before being shipped to Asia for use.

South Korea's SK E&S holds a 37.5 per cent stake in the project and Japan's Jera, a venture between the Tokyo Electric Power and Chubu Electric Power utilities, 12.5 per cent.

The case was brought last year by Simon Munkara, an indigenous man who was joined by other claimants and argued the pipeline would damage "sea country" around the islands, 80km north of Darwin.

Opponents alleged the developers had not done enough to address the risk to sites of cultural significance to the indigenous community, such as the territories of Ampiji, a rainbow serpent and caretaker of the sea, and Jirakupai, the "Crocodile Man", who could be angered by the disruption.

Justice Natalie Charlesworth ruled that those "intangible" claims were not shared by all Tiwi islanders and were thus "insufficient". There was a "negligible chance" of damage to tangible cultural heritage such as archaeological items on the seabed, she said.

Santos said it would continue pipe laying in line with its environmental plan. A ruling against the Australian oil and gas major could have delayed production, due to start in the first half of 2025, by at least a year.

Gordon Ramsay, analyst at RBC Capital Markets said: "This decision represents a crucial step forward, lifting one of the major legal hurdles that had been impeding its development."

The Environmental Defenders Office, which represented Munkara, did not immediately respond to the ruling.

Canberra has launched a review of offshore development project consultations to clarify requirements around environmental and traditional landowner obligations, and guard against a loss of confidence from investors.

Boeing opens factories to airlines and boosts checks

SYLVIA PFEIFER — LONDON

Boeing will allow airline customers of its 737 Max aircraft into its factories to review its procedures while also conducting additional quality inspections itself as seeks to contain the fallout from a damaging fuselage breach on an Alaska Airlines plane 10 days ago.

The US plane maker will also bring in an external third party to review its quality management systems, as well as deploying a team to Spirit AeroSystems, the supplier that made and installed the door plug that blew out on the Alaska aircraft in mid-air on a flight from Portland, Oregon, on January 5.

The team will inspect Spirit's installation of the door plugs and approve them before the completed fuselage sections are shipped to the plane maker's factory at Renton, Washington.

Boeing teams are also inspecting more than 50 other points in Kansas-based Spirit's manufacturing processes, according to a memo sent to employees by Stan Deal, the head of the plane maker's commercial aircraft business.

Deal, a Boeing veteran who joined the company in 1986, has been head of its commercial aircraft business since October 2019.

He took over as Boeing was dealing with the fallout from two deadly crashes of its Max 8 aircraft in 2018 and 2019 that left 346 passengers and crew dead.

Although the model in focus this time is the Max 9, the longer version of the Max 8, the incident has once again raised questions about manufacturing processes and quality control at Boeing.

The US Federal Aviation Administration, which has grounded some of the plane maker's 737 Max 9 aircraft pending inspection, has opened a formal investigation into the Alaska Airlines incident.

The regulator said on Friday that it wanted to analyse data from inspections of an initial group of 40 of the roughly 170 grounded jets before it decided whether to lift the flying ban.

While Boeing had taken "important steps" in recent years to strengthen its quality management systems, the Alaska accident had made it apparent that "we are not where we need to be", said Deal in the memo.

"To that end we are taking immediate actions to bolster quality assurance and controls across our factories."

Boeing's quality pledges see Companies

Wall St banks are trying not to upset China in IPO prospectuses

INSIDE BUSINESS
ASIA
Kaye Wiggins

In the past year, a quiet but important change has taken place in the way Wall Street's biggest banks take Chinese groups public. When they warn investors about risks, they are being more careful not to upset Beijing.

The change centres on what might seem an unlikely setting for a political tussle: prospectus documents for overseas initial public offerings. In these documents, issuers typically detail potential risk factors for investors at length — often in stark terms to fend off lawsuits if things go awry.

When the pharma group Wuxi Biologics listed in Hong Kong in 2017, a deal that Bank of America and Morgan Stanley worked on, its prospectus used language that could be deemed critical of China. It warned it might be "impossible" to comply strictly with some Chinese regulators' demands because they "may not be consistently applied by other government authorities".

It said China's legal system "is based in part on government policies and administrative rules that may have a retroactive effect", meaning "we may not be aware of our violations of these policies and rules until some time after the violation" — language also used by other Chinese companies in prospectuses such as Xpeng, Li Auto, Asymchem and Tianqi Lithium in 2021 and 2022.

But by the time Wuxi XDC — a unit spun off from Wuxi — listed in Hong Kong in November, that type of language was no longer in favour.

The parallel section of the Wuxi XDC prospectus, which names Morgan Stanley, Goldman Sachs and JPMorgan as sponsors, instead told investors that China's laws and regulations were "continually evolving" and "we cannot foresee how [they] will be interpreted and enforced".

The shift in tone may seem nuanced but it is not accidental. Beijing introduced new rules last year, banning banks from including in the filings "any comments in a manner that misrepresents or disparages laws and policies, [the] business environment and judicial situation of the state". Soon after the new rules took effect, Hong Kong's stock exchange also repealed a requirement for Chinese companies listing in the territory to include a China-specific "risk factors" section — though companies still have to disclose "material or specific risks".

> Some have replaced the boilerplate phrase 'risks related to doing business in China' with vaguer language

In Hong Kong listings, "the risk factors will generally go in the direction of what [China's regulator] regards as being acceptable — which is going to be slimmed down considerably," a senior banker said. In practice, changes are sometimes subtle. Some have replaced the boilerplate phrase "risks related to doing business in China" with vaguer language on risks such as "in the country where we operate" or "in the principal place of our business".

Delivery group J&T Global Express, which was advised by Morgan Stanley, Bank of America, CICC and UBS in its IPO, avoids naming China in a section that says "many of the legal systems in our markets are based in part on government policies and internal rules, some of which are not published on a timely basis or at all and may have retroactive effect". The company operates around south-east Asia as well as China.

Contrast that with the more direct language used for a US listing by Amer Sports, which is owned by a consortium led by China's Anta. Many of the same banks — Goldman Sachs, Bank of America, JPMorgan, Morgan Stanley, Citi and UBS — are involved.

It has not been through the Chinese regulatory approval process because it is not classed as a Chinese company, according to three people with knowledge of the matter, though Amer would not confirm this.

China "has recently published new policies that significantly affected certain industries", said its prospectus this month. It added that it "cannot rule out the possibility that it will in the future release additional regulations or policies" affecting it.

Such divergence carries reputation risks for global banks. The SEC last year called for "more specific and prominent disclosure" of risks related to China's government. Finding language that satisfies both Chinese and US regulators will not be easy.

Many bankers acknowledge that the language of offering documents has been toned down. They say they are simply acting in line with local rules.

Others, however, complain that this raises further questions about Hong Kong. A frustrated financier put it this way: If US firms in the city can no longer put prospectus filings together without asking what will be deemed to disparage China, can Hong Kong still be classed as an international financial centre?

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Media

Ackman escalates Axel Springer feud

Legal threat made after group defends plagiarism reports on billionaire's wife

DANIEL THOMAS

Bill Ackman has threatened legal action against German media group Axel Springer and its US-based Business Insider financial news site in an escalation of a bitter fight over plagiarism claims against the hedge fund boss's wife, Neri Oxman.

An internal review by Axel Springer found Business Insider's reporting of plagiarism allegations against academic Oxman accurate and "well documented". In response, Ackman vowed to take legal action against the title and its owner, threatening to bring his social media campaign to the courts to decide the veracity of the reports.

The founder of Pershing Square Capital Management said on social media platform X that Business Insider and Axel Springer had "tripled down on their false claims and defamation" after the review, but that this meant that "they have amplified their exposure, and for that I am grateful".

He added: "We will respond in a formal complaint, which will take a few weeks to prepare . . . I would not rely on the self-adjudicated claims of Business Insider and/or Axel Springer to get an understanding of the truth."

He later added: "By complaint I mean lawsuit."

The Financial Times has seen a memorandum sent on Sunday to Business Insider reporters by chief executive Barbara Peng that said the internal review

> 'I would not rely on Business Insider and/or Axel Springer to get an understanding of the truth'

by Axel Springer had found there "was no unfair bias or personal, political, and/or religious motivation in the pursuit of the stories".

Axel Springer instigated the review after Ackman attacked reports by Business Insider claiming that Oxman's doctoral thesis had been "marred by plagiarism".

Ackman has criticised the methods of the reporting by Business Insider as well as appealed to its owners, linking the stories to his own battle to unseat Claudine Gay, the president of Harvard University, in part over allegations of plagiarism. Gay resigned this month.

Oxman is a former professor of media arts and sciences at the Massachusetts Institute of Technology's Media Lab research unit

Ackman has lobbied a Business Insider board member as well as Axel Springer chief executive Mathias Döpfner and KKR, the German group's biggest shareholder.

Yesterday, the billionaire hedge fund boss said "Business Insider is toast".

Peng explained in her note that the group had reviewed its reporting but that it had found "there was no unfair bias" and the "process we went through to report, edit, and review the stories was sound".

Axel Springer declined to comment.

Technology. Social media

Italian influencer's charity cake takes the biscuit

Marketing pioneer accused of confecting fundraising drive to benefit children's hospital

SILVIA SCIORILLI BORRELLI — MILAN

A pioneer in social media influencing, Chiara Ferragni has built a global brand and a multimillion-dollar business on her marketing savvy and eye for image.

But this week a Milan court announced the Italian entrepreneur was under investigation for "aggravated fraud" related to sales of a Christmas cake misleadingly linked to fundraising for a children's hospital.

The competition watchdog had already fined her companies €1mn in December for "unfair commercial practice", ruling that buyers of a Ferragni-branded cake sold for twice the regular price in 2022 had been misled into believing the proceeds would go to the Regina Margherita hospital in Turin.

Balocco, the cake company, had made a €50,000 donation to the hospital, the regulator found, but this was before the branded cake was sold and there was no link to it. Balocco was also fined.

A separate branded Easter egg sales campaign linked to another charity, and from which Ferragni earned €1.3mn over two years, is also being examined by Italian prosecutors.

Over the past decade, influencers such as Ferragni have changed marketing, with brands turning to them to reach a bigger and younger audience.

Rupert Younger, director of Oxford university's Centre for Corporate Reputation said the Christmas cake incident highlighted the potential pitfalls of brand partnerships with social media stars. "Reputational risk is everything," he added.

Ferragni has described the episode as a communication error and promised to keep commercial and charity campaigns separate. In a statement this week, she said she had "acted in good faith" and had made herself available to prosecutors to "clarify every detail".

Nonetheless Safilo, the world's second-largest eyewear company, has terminated its licensing agreement with her brand citing "violation of contractual commitments" and Coca-Cola has cancelled an advertising campaign featuring Ferragni that was due to be broadcast this year. Monnalisa, a Milan-listed luxury children's clothes maker that produces a Ferragni-branded line, said it was "weighing its options".

"Ferragni is meant to be wholesome and good and aspirational for brands to be associated with . . . it's easy to see why brands would be distancing

Eye for image: Chiara Ferragni says she 'acted in good faith' in the cake affair. Below, the Regina Margherita hospital in Turin
FT montage/Dreamstime/Stefano Guidi/Getty Images

themselves," Younger said. She is also on the board of Tod's, a Milan-listed luxury leatherwear group. Diego Della Valle, chief executive, told a press conference this week: "When we have answers we'll see what to do." Other brands with which she has advertising contracts, including Louis Vuitton, Nespresso and Pantene, have not made any public comment, but people close to three of the four companies said the incidents were embarrassing and the investigation complicated matters further.

Since the regulator's fine in December, Ferragni has posted a single video to her Instagram account apologising for the "communication mistake". She has also lost hundreds of thousands of her near 30mn followers and she and her

family have been inundated with insults and accusations.

Matteo Salvini, deputy prime minister and leader of the far-right League, conceded that "the rage against her is disconcerting". She has hired a group of legal and communication experts to try to salvage her contracts and her reputation but consumer and luxury brands have been watching events.

"[Brands] will eventually have to face the question of ethics and trustability when it comes to associating their names with influencers who built their careers on pictures they post to social media where their influencing power is dependent on [public] perception." said a veteran brand adviser in Milan.

"They have nothing left to offer if that online persona shatters."

Ferragni earned €14mn of revenues in 2022 from sponsorships and digital campaigns, while her separate "Chiara Ferragni Brand" fashion line posted revenues of €14.2mn in 2022, up 115 per cent on the previous year.

In email exchanges quoted in the regulator's decision in December, Ferragni's team demanded that the press release announcing the Balocco partnership linked sales of the branded cake with donations to the Regina Margherita hospital.

After the release was widely picked up by Italian media, Balocco, which paid Ferragni €1mn for the collaboration, told the influencer's team to stop associating sales and donations in social media posts because it could amount to "false advertising", the decision showed.

> 'When it comes to an influencer, they are the brand, the company and the CEO'

Balocco and Ferragni both declined to comment.

Younger said that when corporate crises called into question the integrity of an organisation, the only way out was to "remove the person at the helm".

"But when it comes to an influencer, they are the brand, the company and the CEO."

A 2021 study by LTK, an online marketing platform, found that 92 per cent of adults aged 18-25 made purchasing decisions based on influencers, while a 2023 Morning Consult survey reported that 63 per cent of Gen Z consumers preferred influencers in advertisements to celebrities.

"Authenticity", the surveys found, was a key factor through which influencers have succeeded in changing how brands connect with consumers.

"When you take authenticity away there's no good reason left for brands to shower you with gold," said the Milan brand adviser.

"The question is how many of these mega-influencers are actually authentic?"

Technology

Atos shares tumble on concerns about free cash flow

ADRIENNE KLASA — PARIS

Shares in Atos fell as much as 16 per cent yesterday as the indebted French IT group said it expected to miss its free cash flow target for the year.

Atos said free cash flow would come in about €100mn below the previous target but reaffirmed it would meet its other financial benchmarks amid growing concerns about liquidity.

It also said that Paul Saleh, chief financial officer, had been promoted to chief executive, replacing Yves Bernaert after three months in the job as Atos struggles to restructure and cut its debt.

On Sunday Le Figaro reported Atos had asked a commercial court to appoint an agent to oversee negotiations with creditors. The company said yesterday it had not filed a request but could use such a mechanism in the future.

Atos shares have lost more than 94 per cent of their value in the past three years as the business has struggled with a rapid churn of executives and difficulty defining and executing a strategy to improve performance and cut debt. Standard & Poor's downgraded the company's credit rating in November citing growing liquidity risks.

Atos had previously forecast negative free cash flow of €1bn. Shares fell to

> French politicians were concerned about the militarily sensitive nature of some Atos programmes

slightly more than €4 in early trading.

Jean Pierre Mustier, the recently appointed chair and former UniCredit chief, is working to salvage a deal to split the business while negotiating to secure financing from its creditors ahead of €2.25bn in debt coming due in 2025.

Under the current plan, Atos is supposed to sell its lossmaking legacy business known as Tech Foundations to Daniel Křetínský, the Czech billionaire. However, shareholders felt Křetínský was getting overly favourable terms, and some French politicians were concerned about the militarily sensitive nature of some of Atos's programmes.

But talks to renegotiate terms with Křetínský had dragged on and "were not guaranteed to end in an agreement", Atos has acknowledged. It would consider additional asset sales to meet its obligations, as well as a back-up measure should the Křetínský deal fall apart.

Earlier this month, Airbus announced it had entered due diligence for an offer of up to €1.8bn for Atos's prized BDS big data and cyber security unit. The negotiations to sell BDS mark a change in strategic direction under Mustier, as Bertrand Meunier, his predecessor, had resisted selling the group off in parts.

The talks are not yet exclusive and could become competitive, said people familiar with the process. Atos said it had received two expressions of interest for BDS, one of which concerned only part of the division, without disclosing the name of the other party.

Thales, which has Dassault Aviation, the fighter jet-maker, as a big shareholder, has been interested in BDS in the past as part of its effort to expand its cyber security business.

The defence electronics group did not confirm or deny its interest in BDS but said it was focused on strengthening its core areas of "aerospace, defence and security and digital identity".

Cum-ex case

German prosecutors seek five-year jail term for ex-Freshfields partner accused of tax fraud

OLAF STORBECK — FRANKFURT

Freshfields Bruckhaus Deringer's former global head of tax should face more than five years in jail for his alleged role in a multiyear dividend tax fraud, public prosecutors argued in court yesterday.

Ulf Johannemann, who until 2019 was the "magic circle" law firm's most senior tax lawyer, has been on trial in Frankfurt since September over legal advice he gave to Maple Bank, a defunct German subsidiary of Canada's Maple Financial.

From 2006-09, Maple reclaimed more than €388mn in dividend taxes it never paid. Johannemann had issued legal opinions stating that the practice, which exploited a design flaw in the German tax code, was legal.

"Without the defendant's legal opinions, Maple Bank's cum-ex transactions would not have taken place," prosecutor Stephan Wiens argued in court, adding that Freshfields at the time was the "leading legal adviser" for banks on the so-called cum-ex transactions. Maple Bank was one of 25 clients that were advised by Freshfields on the tax scam, the prosecutor said, putting the firm in a "unique position".

Freshfields paid €10mn to settle criminal allegations against it three years ago and is not a defendant in the trial. It also paid €50mn to Maple Bank's administrator to settle a civil lawsuit.

Prosecutor Hun Chai argued in court that Johannemann "was not just a small cog in a large machine". Rather, he "and his tax department" were "one of the main driving forces" of the cum-ex tax fraud, the prosecution argued, and Johannemann had been fully aware that the bank's practice was illegal but at the time thought that it was hard to uncover.

Prosecutors called for a jail term of five years and six months for Johannemann, just above half of the maximum sentence of 10 years but towards the upper end of previous convictions linked to the cum-ex scandal. The verdict and sentence will be delivered at the same time. Johannemann, who earned close to €2mn per year at Freshfields, was taken into police custody in 2019 after he transferred €2mn in cash and shares as well as 9kg of gold to his wife in a move that prosecutors saw as potentially laying the groundwork for an escape. He was released from police custody on a €4mn bail and ordered to wear an electronic ankle tag.

The presiding judge in the Frankfurt court case has indicated that Ulf Johannemann is 'highly likely' to face a guilty verdict — Imago/Alamy Live News

Last month, the 52-year-old acknowledged in court that he had "totally failed" as a lawyer and had "glossed over the fact that my legal advice was used for illegal means".

He disputed that he was fully aware of the fact that the bank had never paid taxes it reclaimed based on his legal advice, arguing that his client had misinformed him about the detailed nature of the trades. He said that he had considered it possible that Maple Bank did not share "the full truth" of its cum-ex transactions with him, adding that "I did not want to know it".

In their final pleading ahead of sentencing by the court, public prosecutors yesterday criticised Johannemann's statement, arguing that it came at a very late stage of the trial and was partially at odds with evidence uncovered in the trial.

Referring to internal emails, the prosecutor argued that there were "no secrets between Maple Bank and the defendant" about the details of the transactions, adding that the lawyer tried to obfuscate the crimes when tax authorities started to become suspicious. "Mr Johannemann has a tactical relationship with the truth," prosecutor Hun Chai said in court.

Johannemann's lawyers will give their view on the allegations next week. The court is expected to give its verdict by the end of January. The presiding judge has already indicated that a guilty verdict was "highly likely".

Freshfields said in a statement that it continued "to work with the authorities within the boundaries of our professional obligations in an effort to learn from and draw a line under these matters".

COMPANIES & MARKETS

Blowout flies in face of Boeing's quality pledges

Jet maker's reputation takes a battering just when executives were starting to think the 737 Max saga was behind them

SYLVIA PFEIFER — LONDON
CLAIRE BUSHEY— CHICAGO

In October last year Boeing's chief executive said the US plane maker was focusing on improving the quality of its aircraft. Boeing, Dave Calhoun told analysts, had in recent years "added rigour" to its "quality processes".

"We've worked hard to instil a culture of speaking up and transparently bringing forward any issue, no matter the size, so that we can get things right for a bright future. As a result, we're finding items that we need to resolve," he said.

Those comments will now haunt Calhoun as he confronts the latest blow to Boeing's reputation: the likelihood that a manufacturing error or lack of quality control led to a dangerous blowout of a section of the fuselage of an Alaska Airlines flight just over a week ago.

Calhoun, who has promised the company will be completely transparent in helping investigators, will know too well that his own credibility and that of his executive team are also on the line.

The US Federal Aviation Administration, which had grounded some of the plane maker's 737 Max 9 aircraft pending inspection, has opened a formal investigation into the incident.

The regulator on Friday said it would reassess the current system where some aircraft inspections were delegated to Boeing employees, as well as conducting an audit of the Max 9 production line. Later, the FAA said that the 737 Max 9 would stay grounded until Boeing provided additional data.

"They may have changed the way they're doing things but it ain't working," said Captain Dennis Tajer, spokesperson for the pilots union for American Airlines. "It doesn't matter what system you put in place. We're measuring it on the outcome."

> 'They may have changed the way they're doing things but it ain't working'
> Dennis Tajer, pilots' spokesman

When Calhoun took the helm in January 2020 after two crashes of the 737 Max 8 aircraft that killed 346 passengers and crew, Boeing was still reeling from the greatest crisis in its history. The former GE executive had been a Boeing board member since 2009. He promised to rebuild trust with regulators, airlines and the flying public, and to bring in greater transparency. Boeing's engineering and safety processes would be strengthened.

There has been progress. The company created a board-level aerospace safety committee and centralised its safety reporting functions.

Top engineers among business units who previously reported to executives leading those divisions began reporting to the company's chief engineer, who reported directly to the chief executive. Boeing created a product and services safety group, also reporting to the chief engineer.

Last year Boeing appointed Howard McKenzie as chief engineer to succeed Greg Hyslop, who retired, taking the role of adviser to the chief executive.

In January 2021 it named Mike Delaney, a vice-president overseeing the digital transformation of Boeing's production lines, to the newly created role of chief safety officer.

"Mike and his team are the only people in our company that can give the go-ahead to move aeroplanes back into the air," Calhoun said at an employee meeting at its 737 factory in Renton, Washington, last Tuesday.

Yet production mis-steps have continued, and while not all manufacturing errors affect safety, they suggest a disconnect between top-level initiatives and the reality on the shop floor. Boeing discovered in April last year that Spirit AeroSystems, one of its main suppliers, had improperly installed two fittings on the vertical stabiliser on the 737, forcing the jet maker to delay deliveries. Four months later a new problem arose: incorrectly drilled holes in the rear pressure bulkhead of some fuselages.

An Alaska Airlines Boeing 737 Max 9 aircraft awaits inspection at Seattle. The US watchdog has opened a formal investigation after a blowout of a section of fuselage during a flight this month — Lindsey Wasson/AP Photo

Timeline

Three decades of change, success and tragedy

Boeing has encountered engineering and manufacturing problems in recent years ranging from small production errors to the catastrophic crashes of the 737 Max 8. Some company observers say that the root of its difficulties can be traced back three decades

- **1997** Boeing merges with McDonnell Douglas. Critics say McDonnell Douglas's culture — focused on financial performance — came to dominate over the ensuing years at the expense of Boeing's engineering-driven culture
- **2001** Boeing shifts its headquarters from Seattle, the site of its oldest commercial aircraft factories, to Chicago
- **2005** Boeing divests Spirit, shifting fixed costs of its manufacturing facilities
- **Oct 2018** Lion Air flight JT610, operated on a Max 8, crashes off the coast of Indonesia
- **Mar 2019** Ethiopian Airlines flight 302, operated on a Max 8, crashes after take-off. US regulators ground the Max
- **Dec 2019** Chief executive Dennis Muilenburg is fired. Dave Calhoun, former GE executive, takes over the following month
- **2020** Boeing says that it will cut 10 per cent of its workforce as Covid hits
- **2021** Boeing pays $2.5bn to resolve criminal charges connected to the Max crashes
- **2022** Boeing moves its headquarters to Arlington, Virginia. This places the leadership close to government officials and lawmakers in the US capital
- **Jan 2024** A door plug blows out of Alaska Airlines 1282, a Max 9 plane. The US Federal Aviation Authority orders an audit of the Max 9 production line. The FAA says the aircraft will stay grounded until Boeing provides further data

The two cases last year and the Alaska incident all have Spirit in common — the Wichita, Kansas-based company builds the Max fuselages, including the door plug that fell off the plane.

But there have been other manufacturing woes in recent years. Deliveries of the 787 Dreamliner were stopped for 20 months because of multiple glitches, including the installation of poorly fitted shims — thin pieces of material used to improve fit between joints in the fuselage — and aircraft that did not meet engineering specifications for skin flatness. The company has even struggled with its prestige project, the jet that carries the US president, Air Force One.

Boeing has made "improvements since the original Max problems in 2018", said John Cox, a retired pilot and chief executive of consultancy Safety Operating Systems. "Have they made sufficient improvements? The Alaska incident would suggest not," he said.

The blowout and subsequent discovery by Alaska and United Airlines of loose bolts on about 15 grounded Max 9 aircraft raise a number of questions about the assembly process at Boeing's Renton facility, said Cox.

"Is it unclear, is it overly complex, is it done between two shifts where one thinks it's been done by the other one? Or is the safety inspection not adequate to correct what has now been identified to be a recurring problem?"

David Soucie, a former safety inspector at the FAA, criticised Boeing for a design error, a more serious lapse. He noted that in a photo published in The Air Current, a trade publication, the door plug bolts were not secured with safety wire, which he said was necessary for any use where a loose bolt could lead to unsafe conditions. Safety wire threaded through a hole on the bolt counteracts the everyday vibrations that cause bolts to loosen.

Boeing has improved its safety protocols since the Max crashes, Soucie said. He noted that when he visited one of the factories in Washington in December 2019, assembly workers never rotated away from their stations. This gave workers a siloed view of the product, making it harder for them to identify mistakes made by others. Since then, Boeing has started using rotations.

The company has added an ombudsman for employees authorised to work on behalf of the FAA — a move required by a lawsuit settlement — and added real-time data and analytics software into its safety management system.

"Boeing has a very strong risk management programme now," Soucie said. "It was fairly strong many years ago, and then it got weak, and now it's getting strong again."

Company insiders said the discovery last year of instances of the wrongly drilled holes and loose rudder bolts was evidence the system was working. "The expectation is that you will find stuff and by finding stuff the system is working because you are working to address them," said one.

Several industry experts said well documented labour shortages in aerospace may have contributed to the quality lapses. Boeing in particular, they said, suffered from a shortage of skilled workers stemming from the halt of Max production after the 2019 grounding, followed by the onset of Covid-19.

Robert Spingarn, an analyst at Melius Research, said manufacturing errors had risen throughout the industry because Covid changed the composition of the workforce, with older staff retiring or being laid off.

"We have a much less experienced workforce at all these companies and throughout the supply chain, and that has been on the factory floor more than elsewhere," he said.

Boeing laid off thousands during Covid, including those engaged in final assembly, said Scott Hamilton of Leeham News, an aviation consultancy. When Boeing was looking to rehire people, many failed to return, increasing the share of inexperienced workers.

"It takes a period of time for people to understand the learning curve to become efficient and proficient in building aeroplanes," said Hamilton. "You can probably point to a lot of this quality control issue to the new hires and learning curves. Spirit had the same problems."

Several long-term Boeing watchers believe the company is still suffering from the consequences of the much criticised "Partnering for Success" initiative. Jim McNerney, chief executive from 2005-15, launched the programme in an effort to squeeze costs out of suppliers.

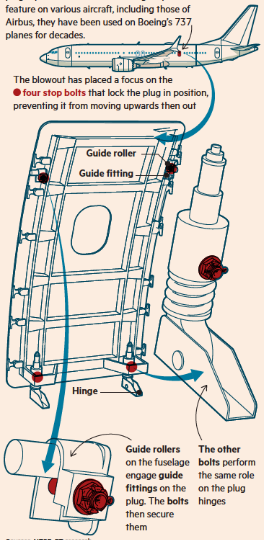
Boeing pointed to recent moves to improve oversight and safety processes. It said it had expanded its workforce since the pandemic, adding about 15,000 staff to reach 156,000 by the end of 2022, driven by significant hiring in engineering and manufacturing.

The Alaska incident has refocused attention on the FAA's role in overseeing Boeing, which was scrutinised during the Max 8 crisis.

> 'We have a much less experienced workforce at all these companies and through the supply chain'

What is a mid-cabin door plug?

On the Max 9 involved in the Jan 5 incident, a mid-cabin door plug replaced an unneeded emergency exit door. A common feature on various aircraft, including those of Airbus, they have been used on Boeing's 737 planes for decades.



Sources: NTSB; FT research

Washington Senator Maria Cantwell sent a letter to the head of the FAA on Thursday saying "recent accidents and incidents — including the expelled door plug on Alaska Airlines flight 1282 — call into question Boeing's quality control. In short, it appears that FAA's oversight processes have not been effective in ensuring that Boeing produces aeroplanes that are in condition for safe operation."

Some long-term Boeing watchers worry that the company's engineering-driven culture has still not fully recovered from a merger completed in 1997 with McDonnell Douglas, the aerospace company, and the relocation of the company's headquarters four years later from Seattle to Chicago. For some, the move away from the company's long-time home marked a shift in priorities from engineering to financial performance.

Before the merger, Boeing was "very much a product-focused company based in Seattle with a lot of control over everything they did", said Nick Cunningham, analyst at Agency Partners in London.

Boeing launched its first big share buyback in 1998. It bought back $41bn worth of shares between 2013 and 2019, including more than $9bn a year in 2017 and 2018, contributing to its high debt levels.

Yet others dismiss suggestions that Boeing's culture is at fault. "Clearly something has gone wrong with this incident. I do not think the culture around individual people feeling responsible for what they are doing has changed," said one former industry executive.

Given the long lead times in the aerospace industry, the results of real corporate change will take time to manifest themselves.

"You can only judge by results," Cunningham said. "It takes a long time for things that go wrong to play out, and if you fix those things it takes a long time."

Boeing stock falls after mid-air blowout

Intraday share price ($)

Source: Refinitiv

Corporate reform

Tokyo bourse says most top-listed businesses have failed to disclose capital efficiency plans

DAVID KEOHANE AND KANA INAGAKI
TOKYO

Three-fifths of Japan's prime-listed companies have failed to disclose plans to improve capital efficiency that were requested by the Tokyo stock exchange as part of a radical scheme aimed at shaming them into reform.

The Japan Exchange Group, which controls the Tokyo stock market, yesterday publicly identified 660 of the 1,656 companies listed on its Prime section as having complied with its request to outline plans to raise their valuations.

The list of companies that complied, which included big names such as Sony and Panasonic, is intended to publicly shame those that fail to do so.

Yesterday's list did not include some blue-chip companies, such as Toyota and SoftBank, but analysts said the main targets of the exercise were the myriad smaller businesses that are struggling to generate returns on their capital and to engage adequately with shareholders.

JPX's list is designed to put pressure on the roughly half of companies on its Prime section that have a price-to-book ratio of less than 1 — meaning the market values them below the stated worth of their net assets. Only 5 per cent of S&P 500 companies have price-to-book ratios below that critical level, according to JPX.

The release of the list of companies that disclosed business plans came as the Nikkei 225 index briefly rose 1.2 per cent yesterday to cross the 36,000 mark for the first time since 1990, propelled by investor hopes for more serious regard for shareholder returns.

The Nikkei 225 has soared 39 per cent in the past 12 months and nearly 8 per cent so far this year, with a long-absent return of inflation and geopolitical tensions also pushing more capital to Japan.

Among companies on the Prime section, JPX said 9 per cent of those that had not provided capital efficiency plans were considering doing so. Such plans could include launching share buybacks, increasing dividends, selling non-core assets and appointing independent board directors.

> 'If you are trading below book and you don't have a plan to get above, then that's the sin bin for you'

The exchange said only 11.5 per cent of companies on its Standard section — which has lower listing requirements than Prime — had disclosed plans.

"The point is that if you are trading below book and you don't have a plan to get above, then that's the sin bin for you, so people will first be looking for that," said CLSA strategist Nicholas Smith.

"The idea of a board without even a map is pretty frightening. If you are trading below book value and you don't have a plan to cover your cost of capital, then you have been misrepresenting yourself as a board member," he added.

Both Toyota and SoftBank, the latter of which has a price-to-book just below 1, said their omission from the list was purely technical as they had not included a specific phrase requested by JPX to disclose "action to implement management that is conscious of cost of capital and stock price".

Toyota said the approach it was taking to enhance corporate value had "substantially the same content" as the actions required by the stock exchange. SoftBank said it had disclosed its plans on its website, although it did not use the phrasing suggested by JPX.

The exchange plans to update its new name-and-shame list monthly.

Asset management. Risk appetite

Investors pump record sums into bond and 'quality' stock ETFs

Walk on buy: equity ETFs focused on New York stocks experienced their highest inflows on record in the fourth quarter
Michael Nagle/Bloomberg

Inflation-linked debt funds and commodity products fare less well amid waning price pressure

STEVE JOHNSON

Exchange traded fund investors pumped record sums into fixed income and "quality" stocks last year as risk appetite jumped in the final months of 2023.

However, inflation-linked bond funds and broad commodity ETFs experienced record outflows as sliding global inflation tempered investors' desire to hedge against its corrosive effect on asset prices.

Overall, the global ETF industry recorded net inflows of $965bn last year, according to data from BlackRock, up from $867bn in 2022. This was the second-highest figure on record, behind 2021's $1.3tn.

"It's interesting to see it compare to 2021, even though we had so many rate hikes," said Karim Chedid, head of investment strategy for BlackRock's iShares arm in the Emea region — referring to the fact that tighter monetary policy tends to weigh on equity and bond prices.

Unlike 2021 and 2022, when equity funds dominated, ETF flows were more balanced last year. Stock funds sucked in a net $640bn, below the $1tn of 2021, but fixed income ETFs vacuumed up a record $332bn, surpassing the previous zenith of $282bn in 2021.

Fixed income's record year was capped by a sharp pick-up in risk appetite in the final quarter. Flows into sovereign bond ETFs, which had dominated earlier in the year, fell to $31.9bn in Q4, their lowest figure since Q1 2022.

However, riskier corporate bond flows spiked to $29.1bn in the quarter. The volte face was particularly notable in high-yield bonds, which saw year-to-date net outflows of $8bn as of October 27 but then took in $17.1bn in the remainder of 2023.

Chedid said investors were "locking in higher yields" before they started to slide in line with inflation and interest rate expectations.

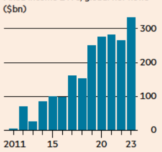
Todd Rosenbluth, head of research at VettaFi, a consultancy, saw the scope for more buying to come.

"We are still in the early stages of fixed income [ETF] adoption globally," he said. "Investors embraced fixed income ETFs in a rising rate environment and returns are likely to be better in 2024 if, as expected, the US Federal Reserve begins and continues to cut interest rates."

The "everything rally" in the fourth quarter also bolstered equity ETFs. Those focused on US equities enjoyed their highest inflows on record in the fourth quarter, $197bn, helped by December's record monthly tally of $97.2bn.

Higher-risk emerging market equity ETFs saw their third-best month ever, taking in $22.3bn, the BlackRock data show.

Fond of bonds
Fixed income ETFs, global net flows ($bn)



Source: BlackRock

Sector-wise, 2023 was all about technology ETFs, which garnered $52.2bn, a light year away from the second most popular sector, financials, with $3.8bn.

In terms of investment "factors", quality — stocks with a high return on equity, stable earnings growth and low leverage — ruled the roost with a record $36bn of net buying.

As a result, the iShares MSCI USA Quality Factor ETF (QUAL) was in the top 10 of US-listed ETFs by flows last year with $11.1bn, Rosenbluth said, as quality stocks "did well in an uncertain economic environment". QUAL returned 30.9 per cent last year, beating the S&P 500 by 4.6 percentage points.

Funds targeting cheaper "value" stocks amassed just $5.3bn, the lowest reading for four years, while minimum volatility ETFs bled $16.4bn.

ETFs investing on the basis of environmental, social and governance concerns also drifted out of favour.

Even in their European heartland, they only accounted for 29 per cent of ETF inflows last year compared with 61 per cent in 2022, according to Invesco.

Also in the doghouse were inflation-linked bond ETFs, which haemorrhaged a record $20.7bn, as waning inflation eroded their appeal.

The iShares TIPS Bond ETF (TIP) alone shipped $4.5bn, Rosenbluth said, as investors "were less apt to protect against an inflationary environment in 2023".

Slowing inflation may also have been a factor in the continued travails of commodity exchange traded products, which lost $15.4bn, their third straight year of outflows.

Gold funds accounted for the bulk of this, shipping $13.5bn, the second-worst tally ever, while broad commodity vehicles shed $3bn, an all-time high. "Given gold's positive performance, this trend of under-allocating could be considered a missed opportunity by ETF investors," said Matthew Bartolini, head of SPDR Americas research at State Street Global Advisors.

Chedid compared gold to value stocks in that both tended to draw money during inflationary periods but was nevertheless surprised by the unpopularity of gold ETPs, given the price rose 13 per cent last year. "The correlation between the two has broken down," he said.

Chedid saw reasons to believe the bullish environment could continue into 2024.

"The risk rally has further legs to go if you consider there is a lot of cash on the sidelines that can be deployed," he said, with safety-first money market funds attracting nearly $2tn last year, pushing their assets to $8tn, while in Europe average cash allocations in wealth portfolios have risen from 3 per cent in 2021 to 8 per cent.

'The risk rally has further legs to go if you consider there is a lot of cash on the sidelines'

Rosenbluth was also upbeat but expected a stock rotation. "I do think we are going to see great demand and strong performance for value investing. [These stocks] tend to do better in a falling interest rate environment. Financials, consumer staples and energy are favoured in value strategies," he said.

However, Chedid warned that BlackRock's house view is that the six interest cuts priced in for the US this year are "excessive", adding: "We are not in the camp that inflation will come down nicely. Labour supply is tight in the US."

Bartolini also had concerns. "US equity markets, the engine behind the surge in global stock returns, enter 2024 with stretched valuations," he said. "And geopolitical risks are likely to intensify, given 76 countries will hold elections in 2024."

Equities

Greece plans to list Athens airport stake on back of tourism boom

PHILIP GEORGIADIS — LONDON
ELENI VARVITSIOTI — ATHENS

The Greek government has announced plans to sell part of its stake in Athens airport through an initial public offering as the country enjoys a boom in tourism and the privatisation of state assets is set to gather pace this year.

Athens International Airport yesterday outlined plans for a listing on the Athens Stock Exchange in February with the state planning to sell a 30 per cent stake in the country's largest airport, raising about €800mn, according to a person familiar the matter.

Greece has enjoyed a strong rebound in tourism since the end of pandemic border restrictions and passenger numbers at the airport hit a record 28mn in 2023, up 24 per cent on the year before.

Greece's credit rating was lifted to investment grade status in September, the first time in 13 years and since the debt crisis that erupted more than a decade ago that resulted in three international bailouts, underlining the country's economic recovery.

The airport sale is expected to boost the Athens stock market and signal the country's return to normality after its decade-long debt crisis.

The listing "represents a great opportunity for international and domestic investors to participate in the success story of Greek tourism", said Dimitris Politis, chief executive of The Hellenic Republic Asset Development Fund (Taiped), the government body charged with privatising state assets.

The IPO 'represents a great opportunity for investors to participate in the success of Greek tourism'

Taiped holds a 30 per cent stake in the airport, with German airport investor AviAlliance owning just over 40 per cent and the Greek Copelouzos family has 5 per cent.

The Greek government would retain a stake in the airport even after the IPO through the Hellenic Corporation of Assets and Participations, a separate government body that owns 25 per cent and holds a significant amount of other Greek public assets.

The sale would enable foreign institutional investors to gain sizeable exposure to Greek assets, as well as boosting the Athens stock market, according to Greek officials.

"The involvement of a broader group of investors, exposure and ability to tap into capital markets, [. . .] will further strengthen Athens International Airport," said Yiannis Paraschis, Athens airport chief executive.

Under the terms of the proposed listing, AviAlliance and the Copelouzos family would have the right to increase their stakes in the airport by 10 per cent and 1 per cent, respectively, with AviAlliance potentially becoming the majority shareholder, according to people familiar with the deal.

Commodities

China electric-car group BYD explores tie-up with Brazil lithium miner Sigma

MICHAEL POOLER — SÃO PAULO
EDWARD WHITE — SHANGHAI

BYD, the Chinese electric-car maker, has held talks about a potential takeover of a lithium producer in Brazil in the global rush to secure raw materials for the EV revolution.

Alexandre Baldy, BYD's chair in Brazil, said discussions had taken place with $2.9bn-valued Sigma Lithium over a possible supply agreement, joint venture or acquisition.

Sigma began shipping the metal, a key element for batteries, from its hard rock mine and processing plant in the state of Minas Gerais last year.

BYD is backed by Warren Buffett's Berkshire Hathaway and recently overtook Tesla as the world's largest EV manufacturer. It is building its first electric car factory outside Asia in Brazil as part of a R$3bn ($620mn) investment.

As BYD hunts for lithium assets in the country with the goal of assembling an integrated supply chain, Baldy said there was an "active" dialogue with Sigma, which is listed in Toronto and on Nasdaq.

"Different strands are being discussed about supply, a joint venture, an acquisition," he added.

He said BYD had met Ana Cabral Gardner, Sigma chief executive, in São Paulo last month but declined to give details, citing a confidentiality agreement. Sigma declined to comment.

BYD's plans in Brazil come as Chinese EV and renewable energy companies aim to expand rapidly overseas.

The Shenzhen-based manufacturer is also planning to build an EV factory in Hungary and has been in talks for a plant in Mexico. But China's ambitions have sparked concerns over Beijing's dreams of dominance over resources critical to clean tech industries.

BYD has recently become the world's largest electric-vehicle maker

President Joe Biden's administration has moved to reduce Chinese manufacturing on American soil and Europe is investigating China's EV industry over alleged unfair competition.

Prime Minister Justin Trudeau's government ordered three Chinese groups in 2022 to divest from early-stage lithium mining groups listed in Toronto, some of which had assets outside Canada.

BYD's success in China in selling high-tech EVs at a low cost stems, in part, from its control of much of its supply chain, including mines, batteries and computer chips.

During its inaugural year of production, Sigma posted a C$25.5mn ($19mn) net loss in the first nine months of 2023 — almost halved from the same period a year before — on revenue of C$129.9mn

Its shares have fallen about a third over the past six months.

BYD and CATL did not respond to requests for comment.

Additional reporting by Patricia Nilsson, Beatriz Langella and Harry Dempsey

Equities

Jain's GQG bets $2.8bn on Middle East's ability to 'open up' and move beyond oil

JENNIFER HUGHES AND
BROOKE MASTERS — NEW YORK

Fund manager GQG has amassed a $2.8bn holding in companies in the Middle East and expects to raise this further — while it has cut its position in China to about half that level.

The Florida-based asset manager founded by Rajiv Jain, previously a star fund manager at Vontobel Asset Management, has built up the bet over the past 18 months, spurred on by the "business-friendly" approaches of governments in the region and their plans to diversify away from a reliance on oil.

"There are massive privatisation hopes which by definition will open up the economy," said Jain, whose firm manages $105bn in assets and is well known for a large contrarian bet it took last year on Indian conglomerate Adani.

"There's a real intention to open up and transition away from oil," he added.

Jain's investments in the region include a $1bn stake in IHC, the $246bn UAE-listed conglomerate, which he described as a good means of gaining exposure to the strong growth in the region. Last year, the Financial Times reported that the company's highly concentrated ownership made it hard to buy the shares. Jain said the free float provided plenty of liquidity.

GQG's new interest in the Middle East means its funds now have more money invested there than in China, the world's largest emerging market.

That marks a significant change of position from five years ago when the world's second-largest economy accounted for 40 per cent of the firm's emerging markets portfolio.

'[Crackdowns are] making everyone nervous on China. They say they won't do this but then they do'

China's outsized weighting in emerging markets indices has made life difficult for international investors in the past year as its economy has slowed and trade tensions, particularly with the US, have remained high.

It accounts for 27 per cent of MSCI's flagship emerging markets index compared with India's 17 per cent and just under 8 per cent for the Middle East and Turkey combined.

Just 5 per cent of GQG's emerging markets investments are now in Chinese companies. These bets are concentrated in state-owned groups including coal miner China Shenhua Energy and oil company PetroChina rather than previously popular technology plays.

Jain said that China's crackdowns on industries that are often dominated by private sector companies made investing there tough. Last month, Beijing's sudden plans to curb excessive consumption of video games wiped 12 per cent, or roughly $41bn, from tech group Tencent's market value in a day.

"That's making everyone nervous on China," said Jain. "They say they won't do this but then they do."

Global tech stocks, notably the chip sector, are also among Australia-listed GQG's big bets as demand grows for greater computing power, especially for artificial intelligence. "AI is going to be five to eight times as memory-intensive so we're bullish on chips," Jain said, adding that he was confident that current supply and demand dynamics would last for at least the next three years.

The day in the markets

What you need to know

- European stocks and bonds slip amid hawkish comments by policymakers
- Polish equities surrender more of 2023's strong rally
- Trading light as Wall Street closed for Martin Luther King Day

Eurozone bonds sell off after hawkish comments from ECB policymakers

Two-year German bond yield (%)

Source: Bloomberg

Stocks fell and bond yields rose yesterday in Europe after policymakers at the European Central Bank warned investors against a series of interest rate cuts for the continent this year.

The region-wide Stoxx Europe 600 closed 0.5 per cent lower — as did Frankfurt's Xetra Dax — and Paris's CAC 40 slipped 0.7 per cent after Robert Holzmann, governor of the Austrian central bank, said: "We should not bank on the rate cut at all for 2024."

His comments were echoed by Joachim Nagel, his counterpart at the German Bundesbank, who said: "It's too early to talk about cuts — inflation is too high."

Yields on 10-year German Bunds, the benchmark for the eurozone, rose 5 basis points to 2.20 per cent while those on rate-sensitive two-year debt were up 7bp to 2.59 per cent as investors sold the debt.

Investors have been expecting more than 1.5 percentage points of cuts from the ECB this year as inflation recedes and investors worry about economic growth.

Pooja Kumra, European rates strategist at TD Securities, said traders should not read too much into the commentary. "We have all the hawks out on display: Nagel, Holzmann — they're not the members that have been supporting rate cuts."

European bonds had rallied sharply on Friday after data showed US wholesale inflation fell unexpectedly in December.

"There was a lot of overreaction in markets last week," Kumra said. "Today, it's basically some profit-taking plus the fact that we are only hearing from the ECB's hawks."

In Poland, the WIG 20 index sank 1.3 per cent, bringing its total declines since the beginning of 2024 to 4.3 per cent.

Grzegorz Drozdz, market analyst at Polish brokerage Conotoxia, said the downturn appeared "to be more of a market correction than a sell-off" following a particularly strong rally at the end of 2023.

Trading volumes on global markets were light as Wall Street was closed for Martin Luther King Day.

Chinese stocks swung lower after the People's Bank of China announced that it would keep an important lending rate unchanged — but later pared losses.

China's CSI 300 index of Shanghai and Shenzhen equities settled 0.1 per cent lower while Hong Kong's Hang Seng index slipped 0.2 per cent.

Tokyo's Topix rose 1.2 per cent as investors grew confident that the Bank of Japan would not imminently raise interest rates while the yen slid 0.6 per cent to ¥145.71 per dollar. **Stephanie Stacey**

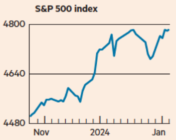
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	4783.83 (c)	1873.61	35901.79	7594.91	2886.29	130803.55
% change on day	-	-0.48	0.91	-0.39	0.15	-0.14
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	102.605	1.095	145.785	1.273	7.173	4.879
% change on day	0.196	-0.182	0.732	-0.235	0.142	0.605
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	3.942 (c)	2.232	0.553	3.995	2.583	10.259
Basis point change on day	-	5.000	-3.310	1.300	-0.600	0.900
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	477.70	78.06	72.40	2055.65	23.06	3634.60
% change on day	-0.11	-0.29	-0.39	1.31	0.11	-0.26

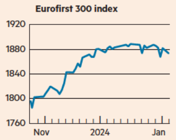
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

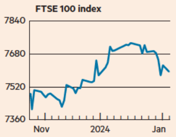
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Juniper Platforms	27.23	Raiffeisen Bank Internat	2.21	Flutter Entertainment	2.81
	NVIDIA Corp	10.47	Orange	2.19	Admiral	1.67
	Eli Lilly & Co	10.29	Jeronimo Martins	1.53	Tesco	1.25
	Merck & Co Inc	8.81	Telefonica	1.48	Beazley	1.09
	All state Corp	7.89	Accor	1.20	Aviva	1.05
Downs	Boeing Co	-16.48	Casino Guichard	-7.96	Burberry	-5.72
	Norwegien Cruise	-16.41	L'oreal	-4.68	Ocado	-5.09
	VF Corp	-13.77	Fresenius	-3.41	Lloyds Banking	-2.57
	Lumen Technologies	-13.11	Solvay	-3.33	B&m Eur Value Retail S.a.	-2.50
	Albemarle Corp	-12.75	Thyssenkrupp	-3.17	Hsbc Holdings	-2.25

YTD change to last close. Based on the constituents of the FTSE Eurofirst 300 Eurozone. All data provided by Morningstar unless otherwise noted.

The unintended consequences of Basel endgame

Huw van Steenis

Markets Insight

Financial history is littered with the unintended consequences of regulatory changes. Capital controls in the 1960s drove international borrowers to move from the US to create the eurobond market. The deregulation of savings and loan banks in 1980 contributed to the industry crisis later that decade. And on and on.

Sometimes these are unforeseeable as complex systems adapt and interact in unexpected ways. But sometimes they are foreseeable, not least because financial reforms are often rushed after a crisis — as Yale Professor Roberta Romano argued in a 2021 Wallenberg lecture.

So what to make of the US Federal Reserve's proposal for new bank regulation. Dubbed the "Basel endgame", it calls for a 20-25 per cent increase in capital requirements for the largest banks, according to JPMorgan's Jamie Dimon.

The comment period on the proposals ends today. Investors were right to fret. Aside from worries that such a sharp rise in capital could slow economic growth by reducing lending, three possible unintended consequences stand out.

First, a new threat to the US energy transition lurks in bank regulation. The proposals contain a rule that could inadvertently throw cold water on billions of dollars of solar and wind investments.

Banks have been significant providers of finance to green infrastructure projects through so-called tax equity schemes. These allow them to offset their own tax liabilities by providing finance to the project.

The banks account for more 80 per cent of the roughly $20bn annual tax equity market — which may need to grow to more than $50bn to meet the goals of the Inflation Reduction Act, according to the American Council on Renewable Energy (Acore).

The proposed rule would increase by fourfold the capital required for a crucial source of funding for solar or wind farms, rendering them prohibitively expensive for many banks. Already, some banks are pausing, according to policy advisory group Capstone. And passage of the proposal could ultimately shrink annual tax equity investments by 80-90 per cent, according to Acore.

The private credit market could pick up some, or perhaps all, of the slack over time. But the unravelling of this source of finance could hinder the financing of many projects that the IRA envisioned.

> Many of the issues that led to Silicon Valley Bank's failure are left unaddressed in the plans

Second, the Fed may need to step in as the lender of last resort more frequently. The biggest in proposed bank capital requirements is for "market risk" — such as trading bonds.

How much capital a bank has to keep as a buffer depends on the amount of assets it has adjusted for risk — the more risk, the higher the buffer.

The rules propose that, for capital for trading, the risk weighting increase by a whopping 70 per cent. There is already concern about the withdrawal of banks in market making and this is likely to make it worse. The Fed had to intervene to support the Treasury market in 2019 and 2020 and it may need a permanent support facility if these proposals were to be introduced unamended.

Third, the proposal could incentivise more corporate lending to shift to private markets. It is likely to penalise those within the regulated sector relative to those providers just outside, incentivising financial flows towards the unregulated — what Professor Charles Goodhart calls the "boundary problem".

Finding the right balance and identifying risks is difficult. But the initial Fed proposal suggests that the boundary may shift significantly, a boon to private credit players and perhaps global banks.

For example, one proposal suggests loans for small and midsized companies should have a risk weighting of 100 per cent. But if the company is deemed investment-grade with a bond listed on an exchange, a more favourable risk weighting of 65 per cent is proposed.

Today, very few small and midsized groups issue bonds. This would penalise their cost of funding and encourage them to seek finance outside the banking system. That is why European regulators have not gone down this road. The Bank Policy Institute suggested that the actual loss experience warrants a risk weighting of 38 per cent.

Meanwhile, many of the issues that led to Silicon Valley Bank's failure — poor supervision, interest rate risk and depositor concentration — are left unaddressed in these proposals.

Absent the Basel endgame, the investment case for US banks has greatly improved with the Fed pivot to a more dovish stance on interest rates. But investors should watch the unintended consequences of the rule changes closely to help gauge how far regulators may recalibrate and alter credit flows.

Huw van Steenis is vice-chair at Oliver Wyman and is writing in a personal capacity

Responsible education

European business schools dominate in FT-InTent annual sustainability awards

ANDREW JACK — NEW YORK

European business schools have surpassed US ones in the FT's annual responsible business education awards, which credit them for more innovative teaching on issues of sustainability and research with positive impacts on society.

Five winners were selected by a panel of judges drawn from business, academia and non-profit organisations for the best overall business school award. Singled out were the University of Oxford's Saïd Business School, Aalto University School of Business from Finland, Iéseg from France, VU Amsterdam School of Business and Economics and Colorado State University College of Business.

Awards for innovative teaching went to Cambridge university's Judge Business School, IE Business School in Spain, Kedge Business School in France, Vlerick Business School in Belgium and Loyola Marymount University in the US.

The awards for academic research with impact went to teams of researchers led by authors at the University of Pennsylvania, the University of Cambridge: Judge, Bocconi University, ETH Zurich and the University of Virginia.

Universities and researchers decided whether to submit for consideration for the award, which is run in partnership with InTent, a sustainability foundation. Assessments were based on the judges' evaluation of information provided rather than a comprehensive analysis of practices.

> The results come at a time when ESG is increasingly under political attack from conservatives in the US

However, the results come at a time when environmental, social and governance (ESG) is increasingly under political attack in the US. Conservative Republicans characterise ESG as part of "woke" leftwing indoctrination that has taken over America's institutions.

Despite the criticism, a large number of leading US business schools now offer core as well as optional electives in ESG as part of MBAs and other programmes. This has been in response to pressure from investors, activists and regulators seeking to account for climate risk.

At the COP28 climate summit, US and international business schools including Columbia, Harvard, New York University, Berkeley, Darden, Duke, Yale, Wharton, MIT and Michigan Ross launched a series of free online teaching resources around sustainability.

One of the FT's award winners was *Gas, Guns, and Governments: Financial Costs of Anti-ESG Policies*, written by Daniel Garrett from the Wharton Business School at the University of Pennsylvania and Ivan Ivanov from the Federal Reserve Bank of Chicago.

They calculated that Texas legislation in 2021, prohibiting municipalities from contracting with banks with certain ESG policies, led to the exit of five of the largest municipal bond underwriters from the state and cost more than $300mn.

MARKET DATA

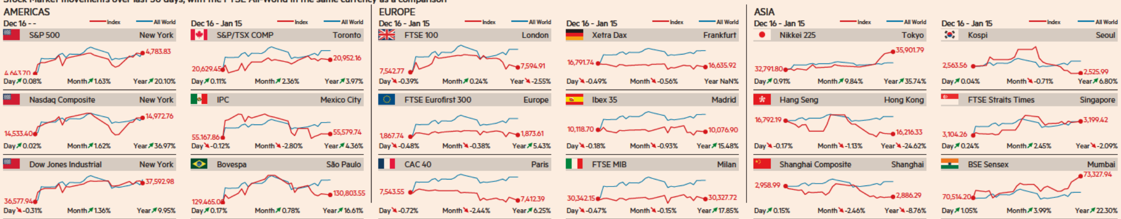
WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
0.08%	0.02%	-0.31%	-0.39%	-0.48%	0.91%	-0.17%	-0.12%	-0.182%	-0.235%	0.732%	0.116%	-1.33%	1.31%

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



Country	Index	Latest	Previous
Argentina	Merval	1034111.06	1003122.72
Australia	All Ordinaries	7730.10	7730.50
	S&P/ASX 200	7498.30	7498.30
	S&P/ASX 200 Res	6673.40	6683.70
Austria	ATX	3410.35	3398.61
Belgium	BEL 20	3687.32	3684.03
	BEL Mid	10718.76	10749.37
Brazil	Ibovespa	131236.27	130957.87
Canada	S&P/TSX 60	1267.10	1265.70
	S&P/TSX Comp	21014.08	20990.22
	S&P/TSX Div Met & Min	1588.74	1601.50
Chile	S&P/CLX IGPA Gen	30349.36	30295.94
China	FTSE A200	8852.28	8862.41
	FTSE B35	9000.71	8988.96
	Shanghai A	3026.18	3021.69
	Shanghai B	227.22	225.17
	Shanghai Comp	2886.29	2881.98
	Shenzhen A	1823.90	1830.01
	Shenzhen B	1041.79	1045.24
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1457.29	1457.47
Denmark	OMXC Copenhagen 20	2355.23	2362.85
Egypt	EGX 30	26250.73	25974.84
Estonia	OMX Tallinn	1821.00	1824.16
Finland	OMX Helsinki General	10180.52	10212.54
France	CAC 40	7412.39	7465.14
	SBF 120	5631.31	5669.74
Germany	M-DAX	25867.89	26296.91
	TecDAX	3254.45	3275.50
	XETRA Dax	16622.22	16704.56
Greece	Athens Gen	1350.46	1352.65
	FTSE/ASE 20	3248.84	3285.46
Hong Kong	Hang Seng	16216.33	16244.58
	HS China Enterprise	5446.52	5481.94
	HSCC Red Chip	3259.40	3261.45
Hungary	Bux	61374.10	61454.62
India	BSE Sensex	73327.94	72568.45
	Nifty 500	19885.55	19745.60
Indonesia	Jakarta Comp	7224.00	7241.14
Ireland	ISEQ Overall	8492.40	8417.55
Israel	Tel Aviv 125	1877.69	1884.59

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	32430.49	32579.92
	FTSE Italia Mid Cap	44273.18	44378.03
	FTSE MIB	30327.72	30470.55
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	35901.79	35577.11
	S&P Topix 150	2214.03	2187.13
	Topix	2524.60	2494.23
Jordan	Amman SE	2408.69	2397.75
Kenya	NSE 20	1514.07	1506.21
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1353.87	1354.43
Lithuania	OMX Vilnius	953.73	957.59
Luxembourg	LuxX	1481.36	1484.27
Malaysia	FTSE Bursa KLCI	1501.11	1487.34
Mexico	IPC	55539.60	55607.07
Morocco	MASI	12452.98	12501.67
Netherlands	AEX	779.49	781.86
	AEX All Share	1057.83	1060.70
New Zealand	NZX 50	11772.90	11858.31
Nigeria	SE All Share	84640.89	83042.96
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	64269.38	64637.64

Country	Index	Latest	Previous
Philippines	Manila Comp	6680.45	6643.18
Poland	Wig	75020.85	76106.23
Portugal	PSI 20	6503.10	6537.66
	PSI General	4648.02	4670.55
Romania	BET Index	15803.32	15776.45
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	12122.11	12060.03
Singapore	FTSE Straits Times	3199.42	3191.72
Slovakia	SAX	315.64	315.64
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	73675.74	74240.76
	FTSE/JSE Res 20	52722.86	53182.32
	FTSE/JSE Top 40	67253.56	67844.51
South Korea	Kospi	2525.99	2525.05
	Kospi 200	339.24	338.22
Spain	IBEX 35	10076.90	10094.80
Sri Lanka	CSE All Share	10610.53	10619.60
Sweden	OMX Stockholm 30	2340.47	2355.96
	OMX Stockholm AS	876.90	886.52
Switzerland	SMI Index	11207.51	11226.40

Country	Index	Latest	Previous
Taiwan	Weighted Pr	16915.54	16942.30
Thailand	Bangkok SET	1407.02	1413.53
Turkey	BIST 100	8044.02	8044.02
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2699.80	2708.20
	FTSE 100	7594.91	7624.93
	FTSE 4Good UK	6870.86	6895.32
	FTSE All Share	4149.13	4165.62
	FTSE techMARK 100	6478.81	6496.80
USA	DJ Composite	12145.55	12173.62
	DJ Industrial	37592.98	37711.02
	DJ Transport	15470.53	15534.90
	DJ Utilities	885.49	879.70
	Nasdaq 100	16832.92	16820.90
	Nasdaq Cmp	14972.76	14970.19
	NYSE Comp	16799.54	16781.12
	S&P 500	4783.83	4780.24
	Wilshire 5000	42053.18	41446.59
Venezuela	IBC	55899.57	55762.90
Vietnam	VNI	1154.12	1154.70

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	554.80	555.14
	Euro Stoxx 50 (Eur)	4456.33	4480.02
	Euronext 100 ID	1384.34	1390.45
	FTSE 4Good Global ($)	12188.20	12206.62
	FTSE All World ($)	477.69	478.24
	FTSE E300	1873.61	1882.74
	FTSE Eurotop 100	3723.86	3742.13
	FTSE Global 100 ($)	3262.31	3266.12
	FTSE Gold Min ($)	1785.52	1739.99
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	3326.86	3313.49
	FTSE World ($)	876.36	877.52
	FTSEurofirst 100 (Eur)	5011.11	5036.58
	FTSEurofirst 80 (Eur)	6044.89	6072.11
	MSCI ACWI Fr ($)	724.77	722.40
	MSCI All World ($)	3168.31	3157.32
	MSCI Europe (Eur)	1907.33	1893.72
	MSCI Pacific ($)	2969.49	2936.22
	S&P Euro (Eur)	1967.52	1976.31
	S&P Europe 350 (Eur)	1926.05	1935.18
	S&P Global 1200 ($)	3473.20	3476.02
	Stoxx 50 (Eur)	4075.05	4095.45

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

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	269.3	218.89	-8.33
Nvidia	193.1	547.10	-1.12
Microsoft	84.1	388.47	3.84
Apple	75.3	185.92	0.33
Meta Platforms	72.3	374.49	4.82
Advanced Micro Devices	70.8	146.56	-1.46
Amazon.com	62.6	154.62	-0.56
Unitedhealth	33.0	521.51	-18.17
Jpmorgan Chase & Co	32.9	169.05	-1.25
Broadcom	29.8	1107.68	7.70

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Cognizant Technology Solutions	77.97	3.09	4.13
Bank Of New York Mellon	54.85	2.12	4.02
Northrop Grumman	481.08	13.74	2.94
Valero Energy	131.50	3.50	2.73
Healthpeak Properties	20.84	0.55	2.71
Downs			
United Airlines Holdings	39.78	-4.73	-10.63
American Airlines	13.21	-1.38	-9.46
Delta Air Lines	38.47	-3.79	-8.97
Whirlpool	114.16	-6.20	-5.15
Vf	16.21	-0.75	-4.42

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Hsbc Holdings	133.5	596.40	-13.70
Dechra Pharmaceuticals	121.3	3866.00	2.00
Diageo	117.5	2805.00	-0.50
Gsk	116.5	1580.00	7.00
Persimmon	94.9	1450.50	21.50
Shell	71.0	2460.00	-1.00
Lloyds Banking	60.5	43.83	-1.16
Astrazeneca	59.3	10852.00	-10.00
Bp	56.8	453.00	-1.15
Ocado	51.1	619.00	-33.20

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Bakkavor	91.80	6.80	8.00
Wood (john)	165.50	8.60	5.48
Pphe Hotel	1200.00	45.00	3.90
Apax Global Alpha	158.00	5.00	3.27
Lancashire Holdings	614.00	17.50	2.93
Downs			
Diversified Energy	1000.00	-105.00	-9.50
Burberry	1212.00	-73.50	-5.72
Ocado	619.00	-33.20	-5.09
Pets At Home	297.00	-10.80	-3.51
Close Brothers	637.50	-21.00	-3.19

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Novartis N	183.3	98.00	0.35
Iberdrola	168.9	11.66	-0.02
Unicredit	138.3	25.67	0.01
Nestle N	133.9	104.14	-0.25
Roche Gs	124.8	268.12	-1.55
Enel	104.0	6.80	0.01
Lvmh	86.2	668.20	-1.70
Intesa Sanpaolo	84.2	2.72	0.00
Stellantis	79.0	20.13	-0.33
Volvo, Ab Ser. B	72.0	21.93	-0.20

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Orange	11.00	0.24	2.19
Capgemini	194.50	2.25	1.17
Danone	61.50	0.62	1.02
Credit Agricole	13.24	0.12	0.93
Muench.rueckvers.vna O.n.	384.90	3.40	0.89
Downs			
L'oreal	424.55	-20.85	-4.68
Essilorluxottica	176.94	-7.76	-4.20
Bayer Ag Na O.n.	33.53	-0.72	-2.09
Stellantis	20.13	-0.33	-1.59
Schneider Electric	175.68	-2.74	-1.54

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Lasertec	2842.1	35180.00	300.00
Kawasaki Kisen Kaisha,	2218.8	7121.00	624.00
Tokyo Electron	813.8	26245.00	-5.00
Mitsubishi Ufj Fin	778.2	1293.50	26.00
Fast Retailing Co.,	755.5	39470.00	530.00
Tokyo Electric Power	691.5	827.80	34.20
Toyota Motor	687.1	2861.00	24.00
Shin-etsu Chemical Co.,	596.1	5945.00	204.00
Sony	535.4	14520.00	-55.00
Mitsui O.s.k.lines,	524.5	5067.00	223.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Kawasaki Kisen Kaisha,	7121.00	624.00	9.60
Daiwa Securities	1069.50	60.00	5.94
Nomura Holdings,	724.20	34.20	4.96
Isetan Mitsukoshi Holdings	1738.00	80.50	4.86
Mitsui O.s.k.lines,	5067.00	223.00	4.60
Downs			
Cyberagent	892.30	-22.50	-2.46
Shiseido ,	4128.00	-93.00	-2.20
Hino Motors,	498.60	-9.10	-1.79
Trend Micro	8296.00	-134.00	-1.59
Nexon Co.,	2696.50	-39.50	-1.44

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Jan 15 price(p)	%Chg week	%Chg ytd
Winners			
Hikma Pharmaceuticals	1933.00	3.8	8.2
Pershing Square Holdings Ltd	3604.00	3.4	1.0
Intertek	4325.00	3.0	2.3
Bae Systems	1178.00	2.9	5.6
Coca-cola Hbc Ag	2384.00	2.7	3.0
Reckitt Benckiser	5650.00	2.4	3.6
F&c Investment Trust	953.00	2.4	-0.4
Whitbread	3673.00	2.3	1.6
London Stock Exchange	9210.00	2.2	0.8
Imperial Brands	1901.00	2.1	4.6
Relx	3202.00	2.0	4.4
Gsk	1580.00	2.0	6.8
Losers			
Ocado	619.00	-15.7	-16.3
Burberry	1212.00	-12.9	-13.4
Marks And Spencer	260.00	-10.5	-5.8
Lloyds Banking	43.83	-7.9	-8.8
Beazley	511.50	-7.3	-2.8
Sainsbury (j)	287.80	-7.3	-3.7
Kingfisher	214.90	-7.0	-9.9
Standard Chartered	605.00	-6.9	-8.2
Hsbc Holdings	596.40	-6.8	-5.4
Barclays	144.98	-6.4	-6.6
Jd Sports Fashion	113.30	-5.1	-29.5
Wpp	732.60	-5.0	-1.8

FTSE 250	Jan 15 price(p)	%Chg week	%Chg ytd
Winners			
Trustpilot	165.20	19.6	19.0
Bakkavor	91.80	8.8	9.5
Jpmorgan Japanese Investment Trust	509.00	7.0	4.4
Wood (john)	165.50	6.6	-1.9
Darktrace	350.00	5.6	2.0
Future	783.00	5.1	0.5
Savills	1005.00	4.9	3.4
Ashmore	222.60	4.8	-1.1
Allianz Technology Trust	304.00	4.6	2.4
Baillie Gifford Japan Trust	724.00	4.6	2.7
Londonmetric Property	193.40	4.5	1.8
Hunting	292.50	4.3	-1.5
Losers			
Close Brothers	637.50	-19.4	-18.9
Diversified Energy	1000.00	-12.3	-16.6
Jupiter Fund Management	78.40	-11.4	-13.3
Puretech Health	187.20	-10.6	-1.5
Wizz Air Holdings	2046.00	-8.6	-7.7
Ferrexpo	71.50	-8.6	-18.5
Watches Of Switzerland	604.00	-8.3	-10.7
Elementis	121.40	-7.5	-5.2
Derwent London	2154.00	-7.2	-7.9
Wh Smith	1234.00	-7.1	-5.9
Tritax Eurobox	56.50	-7.1	-4.9
Hays	100.30	-6.9	-8.2

FTSE SmallCap	Jan 15 price(p)	%Chg week	%Chg ytd
Winners			
Costain	72.40	15.3	12.4
Mears	353.00	13.0	13.7
Alfa Fin Software Holdings	166.50	11.0	17.7
Hostelworld	146.00	9.8	10.6
Avon Protection	932.00	6.6	11.6
Cab Payments Holdings	96.70	6.4	17.9
Record	72.00	5.9	0.0
Seraphim Space Investment Trust	44.80	5.7	25.1
Foresight Sustainable Forestry	66.00	5.6	4.6
Norcros	191.50	5.5	5.2
Porvair	660.00	5.4	6.5
Secure Trust Bank	702.00	5.4	1.2
Losers			
Synthomer	137.40	-21.2	-24.8
Gulf Marine Services	12.40	-14.5	-18.4
Petrofac	24.48	-14.0	-27.1
Mj Gleeson	464.00	-13.8	-3.7
Ceres Power Holdings	158.60	-13.6	-13.1
Smiths News	47.10	-12.8	-9.1
Digital 9 Infrastructure	27.80	-12.2	-12.4
Gore Street Energy Storage Fund	77.60	-10.7	-11.4
Capita	20.00	-10.2	-8.2
Metro Bank Holdings	36.25	-9.4	-9.4
Xaar	100.00	-9.1	-12.7
Liontrust Asset Management	574.50	-8.1	-5.0

Industry Sectors	Jan 15 price(p)	%Chg week	%Chg ytd
Winners			
General Financial	14489.56	1.8	-0.9
General Retailers	3841.84	1.5	2.1
Beverages	22194.31	1.4	-1.3
Pharmaceuticals & Biotech.	21121.00	1.0	4.1
Aerospace & Defense	8890.63	0.8	3.5
Equity Investment Instruments	11291.20	0.5	-2.1
Software & Computer Services	2363.93	0.4	-2.2
Media	11276.80	0.4	1.2
Real Estate & Investment Servic	2273.62	0.1	-1.7
Tobacco	26996.46	-0.2	3.1
Gas Water & Multiutilities index	6216.77	-0.2	1.4
Support Services	10250.94	-0.5	-3.0
Losers			
Personal Goods	18622.96	-11.4	-14.1
Banks	3449.91	-6.6	-6.3
Automobiles & Parts	1446.25	-4.6	-9.0
Nonlife Insurance	3281.15	-4.1	-2.2
Mobile Telecommunications	1847.09	-3.7	-3.1
Electricity	10747.40	-3.5	-2.5
Chemicals	8817.58	-3.5	-8.0
Industrial Transportation	3630.35	-3.1	-8.9
Industrial Metals	6384.58	-3.0	-6.4
Mining	8625.69	-2.8	-12.9
Food Producers	7135.67	-2.2	-2.6
Travel & Leisure	7236.83	-1.9	-3.8

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

CURRENCIES

Jan 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	817.7000	1.6535	895.4228	0.5859	1041.0991	-0.2947
Australia	Australian Dollar	1.5009	0.0063	1.6436	0.0068	1.9110	0.0062
Bahrain	Bahrainin Dinar	0.3771	0.0000	0.4129	-0.0005	0.4801	-0.0010
Bolivia	Bolivian Boliviano	6.9100	-	7.5668	-0.0104	8.7978	-0.0203
Brazil	Brazilian Real	4.8788	0.0293	5.3426	0.0249	6.2118	0.0231
Canada	Canadian Dollar	1.3436	0.0050	1.4713	0.0034	1.7107	0.0024
Chile	Chilean Peso	913.8500	6.1500	1000.7118	5.3721	1163.5176	5.1607
China	Chinese Yuan	7.1726	0.0102	7.8544	0.0004	9.1322	-0.0081
Colombia	Colombian Peso	3911.5550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Costa Rica	Costa Rican Colon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Czech Republic	Czech Koruna	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Denmark	Danish Krone	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Egypt	Egyptian Pound	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hong Kong	Hong Kong Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hungary	Hungarian Forint	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
India	Indian Rupee	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Jan 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	15555.0000	5.0000	17033.5117	-17.8624	19804.7254	-39.3399
Israel	Israeli Shekel	3.7524	0.0202	4.1091	0.0165	4.7776	0.0147
Japan	Japanese Yen	145.7850	1.0600	159.6419	0.9435	185.6141	0.9240
..One Month		145.7842	1.0585	159.6413	0.9423	185.6131	0.9222
..Three Month		145.7830	1.0559	159.6403	0.9402	185.6115	0.9189
..One Year		145.7778	1.0457	159.6363	0.9324	185.6131	0.9140
Kenya	Kenyan Shilling	160.0000	0.5000	175.2081	0.3081	203.7127	0.1675
Kuwait	Kuwaiti Dinar	0.3074	0.0002	0.3366	-0.0002	0.3913	-0.0006
Malaysia	Malaysian Ringgit	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mexico	Mexican Peso	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Zealand	New Zealand Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nigeria	Nigerian Naira	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Norway	Norwegian Krone	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pakistan	Pakistani Rupee	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Peru	Peruvian Nuevo Sol	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Philippines	Philippine Peso	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Jan 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	3.9879	0.0168	4.3669	0.0124	5.0773	0.0097
Romania	Romanian Leu	4.5421	0.0068	4.9738	0.0007	5.7830	-0.0046
Russia	Russian Ruble	87.8663	-0.5087	96.2180	-0.6898	111.8717	-0.9076
Saudi Arabia	Saudi Riyal	3.7503	-0.0002	4.1068	-0.0058	4.7749	-0.0113
Singapore	Singapore Dollar	1.3334	0.0024	1.4601	0.0006	1.6977	-0.0009
South Africa	South African Rand	18.6963	0.1213	20.4733	0.1049	23.8041	0.0997
South Korea	South Korean Won	1320.2000	6.5500	1445.6857	5.2008	1680.8841	4.4762
Sweden	Swedish Krona	10.3110	0.0529	11.2910	0.0425	13.1279	0.0372
Switzerland	Swiss Franc	0.8550	0.0041	0.9363	0.0032	1.0887	0.0027
Taiwan	New Taiwan Dollar	31.2560	0.1300	34.2269	0.0956	39.7953	0.0740
Thailand	Thai Baht	34.9500	-0.1075	38.2720	-0.1703	44.4985	-0.2400
Tunisia	Tunisian Dinar	3.0961	0.0050	3.3903	0.0008	3.9419	-0.0028
Turkey	Turkish Lira	30.0993	0.0214	32.9602	-0.0218	38.3225	-0.0613
United Arab Emirates	UAE Dirham	3.6727	-0.0001	4.0218	-0.0056	4.6762	-0.0109
United Kingdom	Pound Sterling	0.7854	0.0018	0.8601	0.0008	-	-
..One Month		0.7854	0.0018	0.8600	0.0008	-	-

Jan 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		0.7855	0.0018	0.8598	0.0008	-	-
..One Year		0.7854	0.0018	0.8588	0.0008	-	-
United States	United States Dollar	-	-	1.0951	-0.0015	1.2732	-0.0029
..One Month		-	-	1.0949	-0.1811	1.2732	-0.0029
..Three Month		-	-	1.0947	-0.1811	1.2733	-0.0029
..One Year		-	-	1.0934	-0.1811	1.2732	-0.0029
Vietnam	Vietnamese Dong	24480.0000	-25.0000	26806.8486	-64.1812	31168.0864	-103.9017
European Union	Euro	0.9132	0.0012	-	-	1.1627	-0.0011
..One Month		0.9131	0.0012	-	-	1.1626	-0.0011
..Three Month		0.9128	0.0013	-	-	1.1624	-0.0011
..One Year		0.9116	0.0013	-	-	1.1614	-0.0011

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

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FT 30 INDEX

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FTSE GLOBAL EQUITY INDEX SERIES

[illegible]

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Pharmace & Biotech	4.06	Mobile Telecomms	-1.68	Telecommunications	-3.12
Health Care	3.81	FTSE SmallCap Index	-1.77	Life Insurance	-3.75
Aerospace & Defense	3.53	FTSE 100 Index	-1.79	Financials	-3.79
[illegible]					

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	2321	-3.00	Intertek Group PLC	4325	-29.00
[illegible]					

UK STOCK MARKET TRADING DATA

[illegible]

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UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	Closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

[illegible]

UK RECENT EQUITY ISSUES

[illegible]

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$)							
ANZ Bank	25.95	0.05	26.08	22.39	6.04	11.30	51997.36
BHP Group	47.18	-0.53	50.84	41.66	8.49	12.32	159328.89
CmwBkAu	113.66	0.03	114.00	93.05	3.70	19.28	126814.49
CSL	289.17	-1.23	314.21	228.65	1.19	42.47	93072.39
NatAusBk	30.95	0.04	32.15	25.10	5.05	13.18	64335.84
Telstra	3.99	0.08	4.46	3.75	4.01	23.88	30715.48
Wesfarmers	57.54	0.08	57.79	46.64	3.27	26.43	43479.8
Westpac Bank	23.29	0.10	24.10	20.03	5.81	11.81	54333.52
Woolworths	36.21	-0.01	40.35	34.13	2.74	27.35	29470.6
Belgium (€)							
AnBshInBv	59.57	0.08	62.01	49.17	1.28	21.43	113321.11
KBC Grp	58.78	0.34	72.46	48.78	6.79	7.67	26860.75
Brazil (R$)							
Ambev	13.58	-0.01	15.78	12.28	5.71	14.03	43849.85
Bradesco	14.27	-0.03	15.77	11.15	6.53	11.99	15590.45
Cielo	4.70	-0.03	5.82	3.24	6.47	7.24	2617.22
ItauHldFin	28.31	-	29.01	19.53	5.35	8.71	28770.98
Petrobras	39.92	0.28	41.86	25.21	37.70	-	60896.09
Vale	71.28	-0.41	96.30	61.00	5.76	6.67	66314.9
Canada (C$)							
Bausch Hlth	11.33	-0.11	13.81	7.56	-	-3.05	3044.07
BCE	55.38	0.56	65.66	49.57	7.16	21.89	37601.79
BkMontrl	127.11	0.68	137.64	102.67	4.55	12.41	68621.06
BkNvaS♦	62.86	-0.05	74.41	55.20	6.75	10.71	56800.25
Brookfield	58.88	11.29	63.88	41.28	0.82	-2143.34	69948.82
CanadPcR♦	103.97	0.16	112.96	94.45	0.76	22.44	72129.78
CanImp♦	61.68	-0.02	64.43	47.44	5.66	11.77	42743.05
CanNatRs	88.45	1.02	93.44	67.13	4.16	13.19	70636.73
CanNatRy	168.85	-0.37	168.99	143.13	1.83	21.29	80910.42
Enbridge	49.22	-0.13	56.29	42.75	7.42	31.65	77866.44
GtWesLif	42.87	-0.24	44.24	34.06	4.79	17.55	29750.81
ImpOil	78.57	0.61	85.11	60.19	2.48	8.52	31334.25
Manulife	28.50	-0.11	29.45	23.69	4.96	4.18	38309.1
Nutrien	67.80	-0.89	113.27	67.67	4.28	10.99	24955.8
RylBkC	132.13	-0.07	140.18	107.92	4.10	12.39	138515
SHOP	108.54	-0.59	108.99	53.16	-	-51.05	97532
Suncor En	43.95	-	48.26	37.09	4.70	9.33	42300.64
ThmReut	196.79	1.86	198.44	157.54	1.33	33.36	66416.27
TntoDom♦	81.40	0.91	94.05	75.89	4.79	14.31	107953.76
TrnCan♦	53.11	0.20	58.56	43.70	7.01	58.03	41009.95
China (HK$)							
AgricBkCh	2.96	0.01	3.28	2.50	8.30	3.73	11632.19
Bk China	2.93	-	3.45	2.60	8.89	3.59	31323.23
BkofComm	4.73	-0.01	5.65	4.23	8.91	3.68	21171.67
BOE Tech	0.55	-0.02	0.87	0.47	-	8.46	13.99
Ch Coms Cons	3.44	0.02	5.52	3.33	7.43	2.75	1943.16
Ch Evrbrght	2.28	0.01	2.78	2.15	9.10	3.11	3695.6
Ch Rail Cons	4.44	-0.01	7.46	4.33	7.01	2.18	1178.55
Ch Rail Gp	3.39	0.03	6.30	3.22	6.54	2.45	1823.44
ChConstBk	4.53	-0.02	5.70	4.01	9.63	3.10	139232.88
China Vanke	6.43	0.01	17.26	6.25	11.71	3.52	1813.82
ChinaCitic	3.74	-0.01	4.74	3.39	9.95	2.96	7115.61
ChinaLife	9.09	-0.01	15.84	9.00	5.85	8.18	8647.32
ChinaMBank	26.40	0.20	53.00	24.20	7.40	4.26	15494.52
ChinaMob	65.75	0.65	70.20	55.80	7.23	9.51	172202.15
ChinaPcIns	14.34	-0.08	26.50	13.98	7.99	7.17	5087.87
ChMinsheng	2.63	-	3.52	2.48	9.27	3.36	2797.53
ChMrchSecs	12.91	-0.04	15.91	12.79	1.47	14.32	13358.94
Chna Utd Coms	4.05	0.05	6.45	3.97	2.76	15.75	17484.76
ChShenEgy	28.55	0.15	28.80	21.45	10.53	8.66	12327.51
ChShpbldng	4.13	-0.01	5.32	3.57	0.07	-64.24	12715.85
ChStConEng	4.79	0.04	7.35	4.64	5.40	3.80	27594.58
ChUncHK	5.00	0.16	6.58	4.45	7.08	7.44	19558.63
CNNC Intl	7.96	-0.01	8.10	5.93	2.19	14.61	20956.29
CSR	3.45	0.08	5.26	3.10	6.58	7.53	1927.9
Daqin	7.38	0.02	8.21	6.61	6.66	11.44	15815.93
GuosenSec	8.21	-0.02	10.90	8.13	3.37	15.41	10460.59
HaitongSecs	3.98	-0.03	6.01	3.94	5.99	9.90	1734.82
Hngzh HikVDT	30.50	0.07	48.84	30.15	2.27	23.19	38731.7
Hunng Pwr	4.56	0.12	5.28	3.22	-	-105.74	2740.14
IM Baotou Stl	1.43	-	2.14	1.37	-	129.41	6279.58
In&CmBkCh	3.70	0.01	4.73	3.35	9.20	3.41	41055.32
IndstrlBk	14.73	0.04	18.20	13.95	7.98	3.95	42663.12
Kweichow	1640	-3.06	1935	1616.25	1.56	30.24	287227.05
Midea	0.35	0.01	0.44	0.26	-	-1.25	13.47
New Ch Life Ins	14.18	-	25.00	14.00	8.59	4.90	1874.64
PetroChina	5.28	-0.01	6.05	4.02	8.92	5.83	14241.97
PingAnIns	32.70	-	64.15	32.20	8.60	6.74	31134.3
PngAnBnk	9.21	0.02	15.74	8.99	3.17	3.81	24917.69
Pwr Cons Corp	4.76	0.01	8.15	4.64	2.58	7.10	8674.79
SaicMtr	13.32	-	15.65	13.08	2.59	10.06	21697
ShenwanHong	0.07	0.00	0.15	0.06	-	4.61	75.97
ShgPdgBk	6.51	0.01	8.22	6.47	5.03	6.00	26640.62
Sinopec Corp	3.95	0.02	5.47	3.78	10.06	7.62	12310.04
Sinopec Oil	1.83	0.02	2.39	1.79	-	61.66	3462.09
Denmark (kr)							
DanskeBk	189.55	-1.45	192.20	131.45	3.73	8.31	23993.35
MollerMrsk	13135	90.00	17265	9800	15.20	1.96	14391
NovoB	725.60	-	742.20	463.15	0.85	48.77	365937.56
[illegible]							
Tata Cons	3903.8	21.00	3965	3070.25	1.31	30.72	170400.56
Israel (ILS)							
TevaPha	42.20	-0.81	42.99	26.37	-	-5.60	12673.7
Italy (€)							
Enel	6.81	0.02	6.82	5.14	5.93	12.27	75782.53
ENI	15.00	-0.05	15.83	11.69	6.05	9.53	55437.56
Generali	19.80	0.10	20.06	16.67	5.91	-	33808.34
IntSPaolo	2.72	0.00	2.81	2.08	6.07	7.01	54516.02
Unicred	25.60	-0.06	26.15	14.82	3.89	5.22	50029.98
Japan (¥)							
AstellasPh	1757.5	3.50	2360.5	1600.5	3.77	91.54	21816.25
Bridgestne	6067	2.00	6245	4747	3.19	11.54	29701.32
Canon	3825	59.00	3912	2790.5	3.46	14.12	34994.31
CntJpRwy	3758	25.00	3926	2984	0.76	11.43	26551.02
[illegible]							
Ericsson	64.05	-0.12	64.90	48.53	4.17	-9.06	19147.35
H & M	169.16	0.22	189.58	119.92	3.64	46.20	23547.11
Investor	230.55	-1.70	235.45	187.66	1.85	6.01	40738
Nordea Bk	126.78	-0.22	134.94	103.86	7.19	7.90	43382.56
SEB	142.75	-0.70	144.70	105.20	4.68	8.21	29292.64
SvnskaHn	110.40	-0.25	112.90	83.92	4.76	9.14	20822.85
Swedbank	206.90	-0.70	219.90	161.60	4.67	7.11	22714.88
Telia Co	27.61	0.21	28.92	20.98	7.35	-7.15	10529.17
Volvo	248.25	-1.65	264.85	188.96	2.79	11.49	38244.46
Switzerland (SFr)							
ABB	36.42	-0.20	37.87	29.13	2.25	19.26	80162.02
CredSuisse	0.82	0.01	5.86	0.66	11.88	-0.31	3611.19
Nestle	97.22	-0.52	116.84	96.12	2.90	28.06	303581.54
Novartis	92.00	0.57	92.00	69.89	3.40	26.72	245047.61
Richemont	109.85	-0.40	161.10	102.95	2.04	16.88	69064.26
Roche	250.85	-1.65	296.75	230.90	3.62	19.13	206114.09
Swiss Re	98.42	0.62	104.20	83.10	5.57	19.71	36545.33
Swisscom	514.00	2.60	619.40	501.20	4.10	16.69	31139.93
UBS	25.30	-0.01	26.55	14.38	2.27	2.56	87590.82
Zurich Fin	439.00	2.10	457.90	393.00	5.21	16.00	75142.01
Taiwan (NT$)							
Chunghwa Telecom	120.50	0.50	128.00	111.50	3.94	25.12	29906.98
Formosa PetChem	78.20	-0.80	90.00	78.00	1.42	70.06	23833.19
HonHaiPrc	100.00	-0.50	116.50	94.00	5.35	10.76	44353.11
MediaTek♦	922.00	-4.00	1055	638.00	8.33	20.83	47186.96
TaiwanSem	586.00	2.00	594.00	489.00	1.94	17.25	486184.84
Thailand (THB)							
PTT Explor	33.50	-0.75	36.50	29.50	4.48	9.78	27377.92
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.93	24.15	57535.64
United Kingdom (p)							
Anglo American	1824.8	-21.40	3640	1630	8.58	13.57	31076.52
AscBrFd	2283	18.00	2485	1804.5	1.91	23.96	22069.28
AstraZen	10852	-10.00	12828.45	9778	2.17	35.04	214183.04
Aviva	432.50	4.50	467.30	366.00	7.17	-21.84	15085.29
Barclays	144.98	-0.56	198.86	128.12	5.31	4.29	27973.64
BP	453.00	-1.15	570.57	4.75	4.79	3.98	98879.12
BrAmTob	2350	2.00	3242.5	2233	7.09	6.07	66914
BT	116.30	-0.60	161.40	109.40	6.62	6.15	14729.73
Compass	2190	12.00	2250	1852.5	1.44	30.29	47658.24
Diageo	2805	-0.50	3779.5	2719	2.77	17.06	79857.19
GlaxoSmh	1580	7.00	1725.61	16.64	3.51	10.67	82781.5
Glencore	445.00	-3.15	583.25	410.95	6.25	7.44	69126.31
HSBC	596.40	-13.70	665.60	512.30	5.46	6.32	145789.52
Imperial Brands	1901	11.00	2084	1553.5	7.43	10.80	21331.33
Jardine Mathes	62.50	-	53.91	40.80	3.52	36.71	18066.11
LlydsBkg	43.83	-1.16	54.33	39.42	5.75	4.66	35470.36
LSE Group	9210	26.00	9438	7140	1.16	76.37	61286.74
Natl Grid	1070.5	7.00	1229.21	918.00	4.82	14.51	50698.24
Natwest Group	212.20	-0.20	310.00	168.00	7.30	4.36	23743.93
Prudential	815.80	-7.40	1357.5	807.70	1.81	8.22	28583.53
ReckittB	5650	12.00	6570	5306	3.24	18.26	51348.99
RELX	3202	-26.00	3240	2347	1.71	35.11	76885.65
RioTinto	5440	-46.00	6354	4509.5	7.05	13.12	86669.4
RollsRoyce	300.00	-5.00	313.10	103.20	-	15.21	32148.5
Shell PLC	2460	-1.00	2801	2149.45	3.43	7.61	203836.04
StandCh	605.00	-8.60	799.40	578.80	2.71	11.43	20528.64
Tesco	300.60	3.70	307.23	217.53	3.63	15.31	27013.12
Unilever	3817	-28.50	4868.64	3716.5	3.90	13.64	121447.77
Vodafone♦	67.16	-0.32	103.24	64.65	11.62	2.04	23154.49
WPP	732.60	3.80	1082	656.00	5.38	15.01	10025.54
United States of America ($)							
21stC Fox A	31.14	0.24	37.26	28.67	1.71	14.53	7698.63
3M	108.12	-0.80	123.90	85.35	5.79	-7.77	59716.52
AbbottLb	113.92	0.42	115.83	89.67	1.73	38.73	197771.79
Abbvie♦	162.40	0.17	166.20	130.96	3.77	42.56	292320
Accenture	356.33	8.36	355.38	242.80	1.27	32.85	226268.04
Activision Bli.	94.42	-0.05	94.57	70.94	-	36.23	74289.5
Adobe	596.54	-0.95	633.89	318.60	-	53.27	271604.66
Advanced Micro	146.56	-1.46	151.05	71.54	-	-3650.54	234496
AEP	81.49	1.09	96.05	69.38	4.03	21.14	42853.61
Aflac	82.74	0.05	84.64	60.20	2.10	10.84	48351.59
AirProd♦	264.13	-0.46	320.90	251.63	2.72	24.53	58691.73
Allstate	151.03	0.66	151.36	100.57	2.44	-18.08	39522.6
Alphabet	142.65	0.57	142.68	88.58	-	26.14	844202.7
Altria	41.34	-0.26	51.57	39.07	9.61	8.07	73115.85
Amazon	154.62	-0.56	155.63	88.12	-	77.43	1597847.81
AmerAir	13.21	-1.38	19.08	10.86	-	5.29	8633.27
AmerExpr	182.04	-2.99	189.51	140.91	1.63	16.32	132668.93
AmerIntGrp	67.50	0.21	69.37	45.66	2.11	11.21	47387.72
AmerTower	209.43	1.78	228.97	154.58	2.34	133.54	97636.27
Amgen	306.51	3.41	311.05	211.71	2.84	20.85	164037.42
Amphenol Corp	96.50	0.08	99.93	72.00	0.91	29.77	57736.94
Analog Devices	188.36	-0.60	202.77	154.99	1.86	27.34	93475.85
Aon Cp	300.24	1.63	347.37	280.89	0.82	21.80	60112.96
Apple	185.92	0.33	199.62	137.90	0.50	31.08	2874675.7
Applied Materi.	151.25	-0.70	165.01	107.97	0.72	20.12	125698.9
Aptiv	80.88	-2.72	124.88	71.01	-	24.42	22877.89
ArcherDan	69.56	0.09	87.30	69.31	2.63	9.25	37102
AT&T	16.48	0.25	22.84	13.43	7.04	-10.44	117832.33
Autodesk	242.44	1.79	245.88	188.38	-	60.65	51861.63
AutomData	235.95	0.61	256.84	201.46	2.22	26.80	97047.36
AutoZone	2569.1	22.45	2750	2277.88	-	19.74	44424.63
Avago Tech	1107.68	7.70	1151.82	569.78	1.60	34.37	518549.95
BakerHu	31.52	0.35	37.58	26.12	2.21	77.43	31716.49
Bank of NY	54.85	2.12	53.18	39.65	2.92	12.29	42183.67
BankAm	32.80	-0.35	37.00	24.96	2.87	8.79	259570.41
Baxter	40.00	-0.04	50.21	31.01	3.03	83.17	20292.94
BectonDick	236.27	1.26	287.32	228.62	1.61	44.31	68613.99
BerkshHat	551800	105.00	566569.97	442363.5	-	10.02	315478.41
Biogen	248.12	0.91	319.76	220.86	-	23.59	35952.12
BlackRock	799.60	6.99	819.00	596.18	2.60	32.82	118950.47
Boeing	217.70	-4.96	267.54	176.25	-	-28.92	131703.45
Booking Holdings	3502.4	-49.88	3580.62	2329.8	-	23.70	122198.29
Bristol-Myers	50.31	0.09	75.18	48.25	4.74	12.21	102368.66
Broadcom	1107.68	7.70	1151.82	569.78	1.60	34.37	518549.95
Cadence Design	268.50	1.71	279.33	177.20	-	73.16	73048.65
CapOne	127.70	-0.64	134.26	83.93	1.97	9.15	48634.13
CardinalHlth	105.79	0.06	108.85	68.53	1.97	165.87	26073.86
Carnival	16.96	-0.57	19.74	8.37	-	-13.05	18985.79
Caterpillar	290.41	-1.65	299.20	204.04	1.76	15.75	147843.3
Centene Corp	78.81	-0.66	78.08	60.83	-	16.71	42100.38
CharlesSch	65.23	-0.03	81.96	45.00	1.45	18.89	115566.79
Charter Comms	364.90	-2.72	458.30	315.02	-	11.40	53976.11
Chevron Corp	147.27	1.99	184.23	140.72	4.22	10.46	278008.75
Chipotle Mexic.	2271.9	-4.67	2348.42	1470.05	-	51.55	62351.52
Chubb	227.55	-0.16	231.37	183.40	1.48	16.15	92838.1
Cigna	305.01	-2.38	319.92	240.50	1.55	13.91	89252.02
Cintas Corp	593.00	4.75	607.79	425.00	0.82	44.27	60113.26
Cisco♦	50.34	-0.10	58.19	45.56	3.24	14.46	204555.37
Citigroup	52.62	0.54	54.67	38.17	4.09	7.99	100708.47
CME Grp	197.54	1.14	223.80	171.93	4.42	24.06	71112.39
Coca-Cola	60.39	0.58	64.99	51.55	3.15	23.38	261090.97
Cognizant	77.97	3.09	76.85	56.45	1.53	18.19	39095.14
ColgtPlm	80.91	0.35	82.09	67.62	2.34	45.03	66619.05
Comcast♦	42.99	-0.28	47.46	34.63	2.77	11.45	172632.16
ConocPhil	111.70	0.70	127.35	91.53	4.25	11.64	132633.47
Constellation	258.30	0.88	273.65	210.15	1.32	30.14	47216.31
Corning	30.60	-0.14	37.10	25.26	3.61	41.20	26107.15
Corteva	46.11	0.08	65.21	43.22	1.31	29.26	32495.05
Corteva	46.11	0.08	65.21	43.22	1.31	29.26	32495.05
Costco	683.24	9.66	681.91	465.33	0.56	49.15	303173
CrownCstl	112.71	-0.01	150.19	84.72	5.49	28.57	48881.07
CSX	34.86	0.29	35.09	27.60	1.29	17.64	68887.93
CVS	76.56	-2.37	90.62	64.41	3.23	11.21	98524.8
Danaher	225.24	-2.72	247.62	182.09	0.46	26.34	166435.94
Deere	386.51	-3.71	450.00	345.55	1.24	11.55	108321.53
Delta	38.47	-3.79	49.81	30.60	0.27	6.94	24754.04
Devon Energy	42.77	-0.82	66.96	42.59	10.58	5.82	27402.74
Digital Realty♦	137.08	3.08	139.35	86.33	3.72	45.37	41514.96
DiscFinServ	109.53	-1.70	122.50	79.04	2.48	7.76	27388.85
Disney	90.35	0.90	118.18	78.73	-	66.99	165369.04
Dollar General	134.64	0.78	238.40	101.09	1.68	13.91	29553.11
DominRes	47.33	0.22	63.68	39.18	5.66	17.46	39605.59
DukeEner	98.46	1.31	103.22	83.06	4.10	21.00	75884.28
DuPont	75.53	-0.23	78.74	62.80	1.83	37.07	32481.11
Eaton	242.11	-1.31	241.97	154.95	1.46	31.00	96674.52
eBay	41.21	-0.66	50.75	37.17	2.29	17.32	21387.99
Ecolab	198.92	0.90	201.62	143.91	1.06	48.22	56720.01
Edwards Lifesc.	74.03	-1.11	94.87	60.57	-	32.63	44899.2
Elevance	475.12	-7.19	508.78	412.00	1.26	17.68	111653.2
Eli Lilly	642.92	7.20	634.43	302.14	0.66	89.21	610328.61
Emerson	94.87	0.07	100.62	76.94	2.20	16.98	54085.39
EOG Res	116.05	1.07	137.95	98.52	2.91	8.23	67674.51
Equinix	815.02	13.98	824.86	661.66	1.71	83.91	76516.87
EquityResTP	62.16	0.37	69.45	52.57	4.39	34.23	23603.7
Exelon	36.07	-0.14	43.71	34.05	3.88	16.79	35905.43
ExxonMb	99.95	1.28	120.70	97.48	3.63	7.97	396093.64
Fedex	248.57	-2.28	285.53	183.59	1.91	15.07	62115.79
Fidelity NIS	61.79	-0.51	77.28	46.91	3.22	-1.57	36609.56
Fiserv	-	-	-	-	-	-	-
FordMtr	11.46	-0.25	15.42	9.63	5.26	11.08	45061.89
Franklin	28.40	-0.40	32.88	21.88	4.42	15.79	14072.97
GenDyn	254.81	4.87	261.39	202.35	2.03	20.84	69536.85
GenElectric	129.79	-0.04	129.20	77.47	0.19	13.99	141261.62
GenMills♦	63.39	0.33	90.89	60.33	3.51	15.35	35998.55
GenMotors	35.26	-0.60	43.63	26.30	1.02	4.91	48287.91
GileadSci	86.38	0.99	87.82	72.87	3.61	17.69	107633.1
GoldmSchs	377.75	-2.00	389.47	289.36	2.66	16.01	123188.98
Halliburton	34.48	0.29	43.85	27.84	1.63	12.68	30861.38
HCA Hold	282.19	-0.34	304.86	215.96	0.83	13.89	75531.2
Hew-Pack	29.81	-0.19	33.90	25.22	3.49	11.00	29538.8
Hilton Worldwi.	182.16	0.01	183.51	129.86	0.34	35.20	46713.17
HiltonWwde	182.16	0.01	183.51	129.86	0.34	35.20	46713.17
HomeDep	355.71	-0.82	354.92	274.26	2.42	21.68	354024.59
Honywell	201.10	-0.57	210.87	174.88	2.03	24.79	132575.3
HumanaInc♦	438.71	-16.28	541.21	423.29	0.77	16.28	54009.9
IBM	165.80	3.64	166.34	120.55	4.00	70.29	151395.06
IDEXX Laborato.	535.29	-23.42	568.30	372.50	-	56.55	44456.75
IllinoisTool	253.63	-0.34	265.00	217.06	2.20	23.55	76313.69
Illumina	138.04	-2.97	238.55	89.00	-	-5.17	21920.75
Intcntl Exch	126.96	0.19	129.16	94.16	1.35	28.17	70970.64
Intel	47.12	-0.52	51.28	24.73	2.17	-115.56	198657.92
Intuit♦	611.80	3.09	631.07	384.05	0.56	63.72	171242.82
John&John	162.39	1.24	175.97	144.95	2.99	29.14	390917.98
JohnsonCn	56.34	-1.45	70.43	47.90	2.55	18.83	38349.16
JPMrgnCh	169.05	-1.25	173.38	123.11	2.38	10.83	488724.96
Kimb-Clark	124.17	0.35	147.87	116.32	3.96	22.84	41962.01
KinderM	17.97	0.13	18.90	15.89	6.52	15.77	39943.25
KLA Corp	560.61	-1.53	597.43	355.88	0.97	23.98	76205.02
Kraft Heinz	37.68	0.10	41.47	30.68	4.26	14.66	46215.98
Kroger	46.03	0.18	50.36	42.10	2.24	20.72	33115.06
LasVegasSd	49.61	-0.14	65.58	43.77	0.42	54.54	37661.55
LibertyGbl	18.98	0.35	21.89	15.01	-	-1.70	3252.78
Lilly (E)	642.92	7.20	634.43	302.14	0.66	89.21	610328.61
Linde	408.92	2.96	434.21	318.88	1.28	32.35	198281.42
Lockheed	463.18	10.05	508.10	393.77	2.71	16.22	114914.36
Lowes	218.91	-1.25	237.21	181.65	2.07	15.96	125897.9
Lyondell	94.43	-0.28	102.05	81.24	5.40	12.92	30629.48
Marathon Ptl	157.46	2.07	159.99	104.32	1.99	5.68	59787.13
Marsh&M	195.94	3.08	202.81	151.66	1.39	27.00	96612.61
MasterCard	429.10	2.38	428.36	340.21	0.54	35.78	399250.95
McDonald's	293.47	-0.68	299.35	236.77	2.03	26.95	212866.13
McKesson	485.32	-3.52	485.22	331.75	0.48	18.35	64577.89
Medtronic	87.42	0.33	92.02	68.84	3.30	26.99	116238.38
Merck	118.63	0.20	119.94	96.36	2.44	96.87	300611.16
Meta	374.49	4.82	361.90	138.66	-	31.61	831220.64
Metlife	68.83	-0.47	73.28	48.95	3.10	-164.58	50947.29
Microsoft	388.47	3.84	384.30	239.65	0.73	36.00	2887210.95
Mnstr Bvrg	59.05	0.42	60.47	47.13	-	38.29	61438.06
MondelezInt	73.12	0.34	78.59	60.75	2.26	20.94	99508.69
Monsanto	10.07	0.02	11.13	9.56	-	51.84	251.75
MorganStly	89.70	-0.81	100.99	69.42	3.70	15.32	147225.65
Netflix	492.16	-0.07	500.89	285.33	-	46.98	215408.59
NextEraE	61.04	0.32	84.20	47.15	3.13	15.40	125236.24
Nike	105.06	-0.84	130.22	88.66	1.30	32.20	128594.79
NorfolkS	229.53	2.93	259.67	183.09	2.41	24.05	51814.65
Northrop	481.08	13.74	496.89	414.56	1.56	15.13	72543.31
NXP	209.11	-2.38	238.27	155.31	1.94	18.55	53900.88
Occid Pet	58.06	0.93	67.93	55.12	1.21	12.10	51114.33
Oracle	106.60	1.83	127.54	82.04	1.36	31.41	293035.09
Pepsico	167.27	1.14	196.88	155.83	3.02	26.66	229973.49
Perrigo	33.00	0.05	40.28	26.81	3.42	394.55	4471.71
Pfizer	28.70	0.30	45.32	25.76	5.94	15.00	162052.06
Phillips66	132.87	2.59	137.42	89.74	3.24	7.68	58456.9
PhilMorris	95.27	0.12	105.62	87.23	5.61	17.69	147897.72
PNCFin	148.92	-2.07	166.57	109.40	4.25	9.89	59320.96
PPG Inds	145.55	-0.84	152.89	120.33	1.80	23.32	34320.69
ProctGmbl	150.60	0.09	158.38	135.83	2.57	23.38	354947.06
Prudntl	103.23	-0.13	107.31	75.37	5.01	27.89	37266.03
PublStor	295.03	4.68	316.48	233.18	3.90	25.86	51876.94
Qualcomm	140.20	1.17	146.89	101.47	2.31	20.57	156042.6
Raytheon	86.33	1.01	108.84	68.56	2.76	38.05	124134.02
Regen Pharm	933.20	17.23	923.60	684.81	-	25.46	99972.63
S&P Global	437.00	2.81	443.72	321.15	0.85	54.35	138441.6
Salesforce	271.93	0.55	268.36	153.23	-	98.32	263228.24
Schlmbrg	49.95	1.15	62.78	42.73	1.94	16.59	71099.86
Sempra Energy	75.41	0.57	81.36	63.75	3.27	16.70	23728.03
Shrwin-Will	302.51	5.09	314.14	205.43	0.83	30.98	77432.3
SimonProp	146.62	2.24	146.91	100.17	5.24	20.81	47833.22
SouthCpr	83.14	0.10	88.40	64.66	4.40	21.38	64276.4
Starbucks	91.98	-0.96	115.48	89.21	2.41	24.57	104553.67
StateSt	76.51	0.25	94.74	62.78	3.53	10.64	23609.72
Stryker	312.90	3.91	306.93	248.96	1.00	44.40	118869.04
Sychrony Fin	36.73	-1.24	39.34	26.59	2.68	6.47	15199.03
T-MobileUS	162.54	0.37	164.50	124.92	-	24.14	187973.46
Target	140.91	-1.11	177.68	102.93	3.24	17.07	65052.76
TE Connect	131.93	-0.17	146.60	115.00	1.82	21.00	41001.11
Tesla Mtrs	218.89	-8.33	299.29	134.27	-	67.53	695834.1
TexasInstr	164.87	-0.73	188.12	139.48	2.97	19.72	149735.61
TheTrvelers	195.56	0.69	194.11	157.33	2.06	20.20	44665.8
ThrmoFshr♦	544.32	-1.68	609.85	415.60	0.26	34.12	210310.18
TJX Cos	95.03	-0.22	94.29	72.92	1.39	25.53	108303.49
Truist Financial Corp	36.74	-0.60	53.34	25.56	5.92	8.83	48998.97
Twitter	53.70	0.35	60.16	31.30	-	-402.23	41093.72
UnionPac	237.71	1.33	246.99	183.69	2.29	21.82	144907.42
UPS	158.31	-0.94	197.80	133.68	3.98	13.68	114498.75
USBancorp	42.15	-0.67	49.93	27.27	4.76	12.03	65628.07
UtdHlthcre	521.51	-18.17	554.70	445.68	1.31	23.26	482357.79
ValeroEngy	131.50	3.50	160.16	104.18	3.21	4.29	44769.56
Verizon	38.56	0.66	44.73	30.14	6.79	7.68	162110.16
VertexPharm	433.40	3.32	422.00	283.60	-	31.12	111679.89
VF Cp	16.21	-0.75	31.98	12.85	9.97	53.83	6303.8
Visa Inc	264.17	0.14	263.62	208.76	0.71	30.51	418055.41
Walgreen	23.27	-0.76	37.53	19.68	8.31	-6.47	20067.48
WalMartSto	161.32	0.21	169.94	136.09	1.48	25.52	434311.14
Walt Disney	90.35	0.90	118.18	78.73	-	66.99	165369.04
Waste Manage.	181.40	2.18	181.48	148.31	1.59	30.71	73063.46
WellsFargo	47.40	-1.64	50.77	35.25	2.76	9.90	172139.72
Williams Cos	34.92	0.14	37.45	27.80	5.02	15.60	42480.13
Workday	283.24	4.27	279.83	171.08	-	1122.20	59197.16
Yum!Brnds	129.13	0.13	143.25	115.53	1.93	23.48	36196.2
Zoetis	198.94	2.23	201.92	145.20	0.71	41.72	91336.08
Zoom	70.46	1.96	85.13	58.87	-	88.15	18163.64
Venezuela (VEF)							
Bco de Vnzla	7.48	-0.01	9.20	2.68	100.40	-	757.91
Bco Provncl	17.44	-0.06	79400	6.80	-	3.10	193.81

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

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
FastRetail	39470.00	38940.00	530.00	1.36	4440.00	14.4	11.31
Keyence	67370.00	66970.00	400.00	0.60	6840.00	12.0	11.58
Hitachi	11385.00	11000.00	385.00	3.50	755.00	11.1	14.85
Sony	14520.00	14575.00	-55.00	-0.38	1405.00	10.3	12.04
SHOP	108.59	109.13	-0.54	-0.49	9.55	9.0	5.02
KDDI	4993.00	4904.00	89.00	1.81	310.00	8.7	11.20
Salesforce	271.93	271.38	0.55	0.20	20.26	8.3	6.04
Nomura	724.20	690.00	34.20	4.96	20.80	8.2	18.53
Fanuc	4416.00	4399.00	17.00	0.39	309.00	8.0	10.48
OilNatGas	233.50	223.40	10.10	4.52	6.95	7.9	19.16
Infosys	1652.10	1612.75	39.35	2.44	80.20	7.8	10.03
Cognizant	77.97	74.88	3.09	4.13	2.04	7.0	8.22
Nippon TT	186.00	180.40	5.60	3.10	6.50	7.0	9.22
RelianceIn	2788.25	2741.45	46.80	1.71	133.75	6.9	13.15
TokioMarine	3794.00	3716.00	78.00	2.10	161.00	6.7	5.48
LibertyGbl	18.98	18.63	0.35	1.88	0.82	6.6	19.67
Workday	283.24	278.97	4.27	1.53	13.17	6.6	2.35
Amazon	154.62	155.18	-0.56	-0.36	9.94	6.5	4.84
Meta	374.49	369.67	4.82	1.30	17.72	6.4	12.05
Cadence Design	268.50	266.79	1.71	0.64	14.08	6.2	-2.09

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Boeing	217.70	222.66	-4.96	-2.23	-26.34	-12.6	-12.44
ChinaPcIns	14.34	14.42	-0.08	-0.55	-1.34	-9.0	-4.02
Nutrien	68.35	68.69	-0.34	-0.49	-6.37	-8.9	-7.06
LlydsBkg	43.83	44.98	-1.16	-2.57	-2.59	-7.9	-6.67
Tesla Mtrs	218.89	227.22	-8.33	-3.67	-10.27	-7.8	-7.65
Fresenius SE	26.93	27.88	-0.95	-3.41	-1.11	-7.1	-5.71
Walgreen	23.27	24.03	-0.76	-3.16	-0.98	-7.0	1.48
StandCh	605.00	613.60	-8.60	-1.40	-36.40	-6.9	-5.88
Devon Energy	42.77	43.59	-0.82	-1.88	-2.35	-6.9	-1.32
HSBC	596.40	610.10	-13.70	-2.25	-29.90	-6.8	0.21
BOC Hold	19.04	19.22	-0.18	-0.94	-1.13	-6.4	-6.89
Barclays	144.98	145.54	-0.56	-0.38	-9.28	-6.4	-1.04
MollerMrsk	13115.00	13045.00	70.00	0.54	-930.00	-6.2	19.66
Bradesco	14.22	14.30	-0.08	-0.56	-0.85	-6.1	-8.32
TntoDom	80.80	80.49	0.31	0.39	-5.59	-6.1	-3.32
CVS	76.56	78.93	-2.37	-3.00	-2.49	-6.0	4.04
Hngzh HikVDT	30.50	30.43	0.07	0.23	-2.00	-6.0	-8.46
Ch OSLnd&Inv	12.36	12.60	-0.24	-1.90	-0.54	-5.9	-5.50
BakerHu	31.52	31.17	0.35	1.12	-2.25	-5.7	-2.41
AT&T	16.48	16.23	0.25	1.54	-1.24	-5.7	0.43

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Jan 15	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
[illegible]										

BONDS: GLOBAL INVESTMENT GRADE

Jan 15	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	06/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
[illegible]										

INTEREST RATES: OFFICIAL

Jan 15	Rate	Current	Since	Last
US	Fed Funds	5.25-5.50	26-07-2023	5.00-5.25
US	Prime	8.50	26-01-2023	8.25
US	Discount	5.50	01-08-2023	5.25
Euro	Repo	4.0	14-09-2023	3.438
UK	Repo	5.25	03-08-2023	5.00
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

[illegible]

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	212.17	-0.04	-1.47	-1.47	1.56	1.55
Corporates(£)	349.34	0.22	-1.46	-1.46	1.76	4.62
Corporates(€)	222.92	0.31	-0.61	-0.61	1.04	5.50
Eurozone Sov(€)	220.52	0.38	-0.83	-0.83	1.01	2.92
Gilts(£)	272.95	0.30	-2.29	-2.29	1.36	-1.52
Overall(£)	286.47	0.27	-2.03	-2.03	1.43	0.01
[illegible]						

VOLATILITY INDICES

[illegible]

BONDS: BENCHMARK GOVERNMENT

[illegible]

GILTS: UK CASH MARKET

[illegible]

COMMODITIES

[illegible]

BONDS: INDEX-LINKED

[illegible]

BONDS: TEN YEAR GOVT SPREADS

[illegible]

GILTS: UK FTSE ACTUARIES INDICES

[illegible]

Data provided by Morningstar | www.morningstar.com.uk

ARTS

Nina Stemme, kneeling, and Sara Jakubiak in 'Elektra'
Bill Knight

Elektra that crackles with energy

OPERA

Elektra
Royal Opera House, London
★★★★☆

Richard Fairman

It was 10 years ago, when they were working together on *Tristan und Isolde* at the Royal Opera House, that conductor Antonio Pappano, director Christof Loy and soprano Nina Stemme hatched the idea of joining forces for a new production of Strauss's *Elektra*.

At last the time has come. Unveiled on Friday, the result feels monumental, as this overwhelming operatic version of Greek tragedy demands, but would have turned out still better if somebody had pushed the project along with a bit more urgency.

It has arrived just in time to be Pappano's last production before he steps down as the Royal Opera's music director in the summer. Much has been made of the fact that his first was Strauss's *Ariadne auf Naxos*, also directed by Loy, but Pappano has grown hugely in stature since then.

His *Elektra* lays down the gauntlet in the opening bars, announcing the Agamemnon motif as if in block capitals, and goes on as if to storm the heights of Mount Olympus, though skilfully, without drowning the singers. The air crackles with boldly coloured detail in Strauss's frenetic orchestration, and Pappano can be relied on to get first-rate playing from the Royal Opera orchestra.

Up in the rafters, the legendary Carlos Kleiber may be looking down, reminiscing on the unforgettable performances he conducted here nearly half a century ago, so different, elfin-light and glinting with kaleidoscopic sounds. This does not trump it, but Pappano is undeniably going out in high style.

All the best of the musical performance comes out of the pit. Ten years is a long time in the career of a dramatic soprano, and Stemme, who would have been in her prime a decade ago, now sounds on this evidence as if she is on the cusp of becoming a mezzo-soprano. From the start, top notes were only arriving thanks to an almighty push of willpower and later they stopped coming altogether. It is a good thing Stemme has authority on stage, together with a voice that, lower down, retains its grandeur, sinking foundations of mythic, deep tone. Summoning her resources, she powered through to the end and was rewarded with a big cheer.

In the future, she could make a formidable Clytemnestra as a mezzo. Karita Mattila, a notable Strauss soprano in her day, has herself moved down to Clytemnestra, but with a voice that no longer carries well, blunting her portrayal of the haunted queen as a still glamorous monster, overripe to the point of decay. The best singing came from the Chrysothemis of Sara Jakubiak, though more lyrical juice in the voice would be welcome. Lukasz Goliński was the sturdily sung, not very charismatic Orestes, and Charles Workman an effective Aegisthus.

Any director of *Elektra* has to make the choice where to place the action. Does this opera of 1909 based on Sophocles belong in the world of ancient Greek myth or early 20th-century Vienna, where burgeoning Freudian psychology was in the air? Loy has it both ways, setting it in a forbidding, grey stone Viennese palace in the Greek revival style. Elektra lives with the maids and servants in the filthy courtyard, while the high-and-mighty, led by Clytemnestra, party, rape and butcher at the windows of the palace above. Everything slots convincingly into place.

The production is handsome in aspect, not controversial in what it has to say, and will serve as a good basis for revivals in the future. Some of those will hopefully field stronger casts, but for conductor and orchestra this one will prove hard to beat.

To January 30, roh.org.uk

Old-school Giselle brought back to life

DANCE

Giselle
London Coliseum
★★★☆☆

Louise Levene

Poor Giselle. Doomed from the moment she opens her cottage door to the handsome swine in the neighbouring hovel. By the time she discovers that he is an aristocrat in disguise, her weak heart is fatally broken . . . but she rises from the grave to save him from the vengeful wilis, the ghosts of girls who died before their wedding day, who have every intention of dancing him to death.

English National Ballet is currently staging a revival of its 1971 *Giselle*. Meticulously researched by Mary Skeaping (a former dancer with Anna Pavlova, who died in 1984), this unashamedly old-school production of the 1841 original has plenty of limelit charm, fuelled by Adolphe Adam's score. Unfortunately last week's opening performances lacked the technical and dramatic power needed to bring the tragedy to life.

David Walker's act one costumes, with their earth-toned palette of ochre and burnt sienna, strike the right rustic note. The act two woodland scenery is picture-book spooky but one does miss the ghostly glamour of pure white skirts. ENB's longline romantic tutus — white with a hint of mildew — look depressingly like old net curtains.

Act one's vine harvest is bathed in autumn sunshine but the second act is performed in 30-watt gloom. OK, it's gone midnight, but that is precisely what sidelights are for. The terror-stricken gamekeepers — one of several 1841 touches that Skeaping reintroduced — are well-nigh invisible.

Thursday's opening was led by Kyiv-trained Katja Khaniukova partnered by Aitor Arrieta, making his debut as Albrecht. The couple were also obliged to dance on Friday, thanks to the indisposition of the scheduled cast. Khaniukova was a touchingly fragile heroine but last weekend that fragility extended to her footwork: the all-important hops on pointe in Giselle's act one solo were scarcely attempted.

Arrieta has a big, clean jump and partnered strongly but his playing gave no sense of the heedless passion and bitter remorse that drive the story. Sadly, Skeaping's disdain for Albrecht's 32 *entrechats six* (a 20th-century embellishment) led her to cut them from her version, a great pity as this exhausting bravura feat makes perfect dramatic sense for a man being danced to destruction.

Albrecht's nemesis, the pitiless Myrtha, Queen of the wilis, is unquestionably a principal role but British ballet companies tend not to see it that way. Thursday's Myrtha was underpowered, with a sludgy pas de bourrée and energy-saving jumps. Emily Suzuki, making her debut on Friday, was much more like it, with nerveless attack and weapons-grade jetés.

Hilarion, Giselle's unwanted suitor, was played with homespun sincerity by Fabian Reimair (Thursday) and Henry Dowden (Friday). Dowden's beautifully judged debut — heartfelt, gauche, almost loutish — gave a welcome emotional charge to a strangely uninvolving evening.

ENB's corps de ballet were not at their best on opening night (one of the many old ballet "faces" in the audience muttered that it "looked like a dress rehearsal . . . by a school") but by Friday they had begun to find their feet. The wilis drifted seamlessly in and out of the crystalline floor patterns: feet in place; softly wafting port de bras; hell-bent on revenge.

To January 21, ballet.org.uk

Katja Khaniukova and Aitor Arrieta in 'Giselle' — Laurent Liotardo

Breathless and propulsive rock opera

MUSIC THEATRE

Prototype Festival
Various venues, New York

George Grella

Before the January 12 world premiere of Mary Kouyoumdjian's *Adoration* for the Prototype Festival, founding directors Kristin Marting and Beth Morrison spoke about how Prototype explores the "boundaries of what opera and music theatre could be". It's an important exploration, as most modern operas follow 19th-century conventions despite revolutions in dramatic thinking over the past 100 years via film, experimental theatre and music, even comic books.

Adoration was one of three world premieres seen in the opening week, along with Heather Christian's *Terce* and Huang Ruo's *Angel Island*. The most modest in scope, *Terce* showed new thinking and was a great success, while the more ambitious productions were deep disappointments.

Terce (performed at The Space at Irondale, Brooklyn) rewrites the idea of the morning breviary as "A Pentecost of the divine feminine". Christian's text adapts Hildegard of Bingen (a 12th-century saint) and Julian of Norwich (an English mystic of the 14th century), among other ancient writings, but the words, spirit and music are defiantly her own and the style is rock opera. Composed for a chorus with soloists and rock band, and mixing professionals and amateurs, this was a brilliant use of the vernacular to open up the eternal.

Staged in the round, the performance exploded with energy. With mixed skills and equal commitment, there was an invigorating grain to the music, and the thrill of witnessing the social aspect of music-making. It was so propulsive that at times Christian, who did much of the solo singing, and the ensemble could barely catch their breath. Big in spirit and full of warmth and wit (stage changes as domestic chores), *Terce* was a joy. ★★★★★

In *Angel Island* (at Harvey Theater at BAM Strong, Brooklyn), the sole character is history. It is scored for chorus and string quartet, the only solo performances coming from two dancers. It follows what Ruo calls two "tracks": the racist reaction against Chinese immigration to California, and poems carved into the walls of the immigration detention centre on Angel Island in San Francisco Bay. While the second was at times lovely, it had no dramatic focus and was dominated by the first, which was a series of voiceover narrations accompanied by Angela Baughman's ambient electronics.

This was a lecture with musical interludes, without a dramatic connection between narration (which should have been a programme note) and music. The direction and choreography from Matthew Ozawa and Rena Butler felt purposeless; the only meaningful element was Bill Morrison's film, which poignantly reframed found footage, showing real humans lost to time. ★★☆☆☆

Adoration (at the Sheen Center for Thought and Culture, New York) is an adaptation of Atom Egoyan's 2008 film of the same name, with a leaden libretto from Royce Vavrek. With the same scoring as Ruo, plus individual characters, the operatic opportunity to show people fighting through loss and anger towards understanding was squandered by Kouyoumdjian's composing.

The music was monotonous, dour, with torpid rhythms and inelegant phrases. It showed a hair's width of emotional transformation. All possible drama was lost inside an inert lump of dark, sour sound and feeling. ★☆☆☆☆

Festival runs to January 21
prototypefestival.org

Invigorating: Heather Christian's 'Terce' — Maria Baranova

FT BIG READ. HOUSING

Britain's two main political parties are entering an election year promising to fix a dysfunctional planning system. Yet both need the votes of those who oppose more building to win power. *By Clara Murray*

England's 'Nimby' conundrum

A derelict former gasworks near the centre of fast-growing Coventry, home to carmaker Jaguar Land Rover, seemed an ideal spot for redevelopment. A local planning inspector certainly thought so when he recently approved plans to build 700 homes on the site.

But the decision last October came only after several years of negotiations, two refusals and a community outcry. Along the way, the developer, Complex Development Projects (CDP), and the council tweaked everything from the block's height to its brick patterns — leaving its planning consultant "totally bewildered" by the objections.

Some researchers and commentators were less surprised. They blame so-called Nimbyism — "not in my back yard" — for halting or stalling hundreds of home-building schemes at a time when the UK has a shortfall of 4.3mn new homes, according to one measure.

That has contributed to record rent rises, soaring house prices and 1.2mn people on local authority housing lists. In addition to the large and obvious human costs, it is also adding to the country's stagnating economy, many across the political spectrum agree.

"It's incredibly hard to get economic growth unless there are spare homes for the workers that growing, high-wage firms want to hire," says John Myers, founder of Yimby Alliance, which campaigns for more home-building (Yimby is shorthand for "yes in my backyard").

Lord Simon Wolfson, the chief executive of Next and a Conservative peer, told a panel in December that the system puts too much power "in the hands of people who already own" and "slows down, prevents and increases the cost of building new homes".

Ahead of an election likely in 2024, both Labour and the Conservatives are promising reform of planning. Labour leader Sir Keir Starmer — a self-professed "Yimby" — made sweeping changes to how England builds homes a central theme of his party conference speech in October 2023. (Planning is devolved to the Welsh, Scottish and Northern Irish governments.)

Starmer, whose party has a significant poll lead, says he will "bulldoze" through planning red tape to not only meet but exceed the target — set by Conservatives in 2019 of building 300,000 new homes in England per year. The Conservative housing secretary, Michael Gove, outlined plans in December that would strip local authorities of planning powers if they failed to deliver updated development plans. But he stopped short of making government targets for housebuilding mandatory — prompting critics to assert that many authorities will water down plans and approve fewer homes than are needed.

Approvals are already declining following a succession of interest rate rises, with the number of homes granted planning permission in the year to September 2023 approaching a decline of a quarter from the same period in 2021, when interest rates were much lower. With two-thirds of voters agreeing that housing has worsened under the Conservatives, Labour has a motivation for campaigning on the issue.

The experiences of other countries show that well-crafted planning reforms can make a genuine difference. Changes in France at the turn of the millennium have been credited with boosting its supply of affordable housing, while a relaxation of development rules in Japan meant that in some years following the financial crisis, Tokyo alone started building more homes than the whole of England. Both countries, and others, have added far more homes per capita than the UK.

But the question in the UK is whether politicians of either party can come up with something bold enough to accelerate home-building to a level not seen since the 1970s without antagonising those whose votes they need to put them — or keep them — in office.

Housing was also a pressing issue 70 years ago after thousands of homes were destroyed during the second world war.

But a largely unregulated building boom before the war had sowed the seeds of a backlash against sprawling suburbia. The result was the Town and Country Planning Act, passed in 1947, which created the greenbelt around London and still shapes planning today. Rather than spreading uncontrolled along roads and railways, development was to be carefully planned in new towns such as Slough, Harlow, Basildon and Hemel Hempstead.

Criticism is rising about a planning system that makes it too difficult, slow and expensive to build homes and other vital infrastructure in the areas of strong economic growth where they are most needed

FT montage/Dreamstime

Initially it worked; between 1951 and 1955, 1.5mn homes were built. But opposition to more building soon hardened. Green belts were introduced outside the capital and development in England restricted to areas detailed in the "local plans" drawn up by planning authorities, a system that endures today.

Unable to meaningfully increase the supply of greenfield sites, politicians resorted to demand subsidies such as tax relief on mortgage interest or increasing housing density in cities. Neither strategy has delivered enough homes to keep pace with demand.

Planners say they have done as best they can within the confines of the system they inherited. Across England as a whole, they point out, almost three-quarters of all residential applications and four-fifths of developments of 10 or more homes were approved last year, with little change over the past decade.

"Planners can't build houses," says Michael Kiely, chair of the Planning Officers Society, a professional body. "We've done our job — a significant amount of applications are granted."

But the supply of land for development remains insufficient and there are few incentives for existing communities to support more development. And areas with higher house prices — indicative both of high housing demand and generally wealthier residents — tend to approve a lower percentage of applications to build houses.

The reality may be even worse than the headline figures suggest. Developers increasingly seek out community feedback while drawing up their initial plans for a site and many proposed schemes are shelved as a result, before formal planning applications are even made.

"I'm aware of clients of mine that currently wouldn't even look at certain districts because the politics of that area make it too difficult to deliver a project," says Stuart Baillie, head of planning at property consultancy Knight Frank.

The uncertainty is enabled by the piecemeal system of local plans, under which rules and expectations vary widely between even neighbouring areas, some argue. Anthony Breach, from the think-tank Centre for Cities, describes local plans as "letters to Santa", amounting to little more than idealistic wish lists. "It's almost impossible for a development to fulfil every single criteria," he adds. "Even if you follow the rules, you can still be denied planning permission."

> 'Local democracy is really important . . . the system provides checks and balances on how land is used'

Larger developments can require as many as 79 supporting documents, from air-quality assessments to crime impact reviews, a recent survey found. Almost half of planning authorities do not have an up-to-date local plan at all.

Others argue that heaping blame on Nimbys and planning officials lets private-sector developers off the hook for a business model that prioritises profit over volume and results in expensive, low-quality homes.

"Reasons for refusals don't tend to include residents' objections," says Elizabeth Bundred Woodward, planning and policy lead at CPRE, a charity that campaigns to protect the countryside.

"Local democracy is really important and public decisions should be transparent," she adds. "The planning system is there to provide checks and balances on how land is used."

She believes much of the slow pace of housebuilding is because developers do not want to reduce prices and profits by flooding the market with new homes.

Starmer has pledged to clamp down on so-called land banking, where builders sit on land they have acquired for development in the hope that its value rises. Over the past decade, 1.1mn plots with planning permission have not been built upon, claims the Local Government Association. The Competition and Markets Authority is already investigating the practice and is due to report its findings in February 2024.

But Steve Turner, director of communications at the Home Builders' Federation, which represents private developers, argues land banking is a logical response to an unpredictable process.

"Because [planning] has become so bureaucratic and delayed, you've got to have more land so that at any given point you can start building," he says.

The uncertainty has "particularly blighted" smaller housebuilders, who cannot afford to hold on to a constant supply of land, adds Turner. Their share of housing completions has fallen steeply since the global financial crisis, Turner adds.

> 'These aren't crazy ideas. They are simply things that most other developed countries have'

Fixing all this is proving particularly tricky for the Conservatives, who must square the concerns of their homeowning supporters with the fear that their vote share among young people will vanish entirely if they don't ramp up housing supply.

In 2015, the government expanded permitted development rights to make it easier to convert vacant commercial premises into residential use. But liberalising PDR has added just over 80,000 net new homes since 2015 — or 6 per cent of the total supply — and many of those have been very poor quality.

More recently, Prime Minister Rishi Sunak has declared his planning policy to be "brownfield, brownfield, brownfield". In theory this will make redevelopment more palatable by keeping it away from leafier areas. CPRE says 1.2mn homes could be built on such land, almost half of which already has planning permission.

But even if all those homes were built, they would meet less than a third of England's housing needs over the next 15 years, a 2022 report by planning and development consultancy Lichfields said. Much of the land is either contaminated, lacks local infrastructure or is not in places people want to live.

Labour also wants to make use of brownfield sites and has said it will allow building on waste sites within greenbelt land. Alan Mace, a lecturer in planning at the London School of Economics, says this would be "an interesting way to reframe [green belts] as less sacrosanct and release more land", adding that the public tends to think of the protected space as being all green — which it is not.

"The land is close to existing cities, so it's where you'd want to build," he says.

Starmer has also proposed the creation of several new towns on land bought under compulsory purchase orders. But this would require revising a 1961 law that obliges the buyer to pay a price that reflects the value of land with planning permission secured, rather than its market value without such consent, and Mace says building new towns would still be "very expensive" even if the land could be bought much cheaper. "You've got to run new roads, sewerage and electricity to somewhere in the middle of nowhere," he adds.

Before Starmer can implement his more centralist approach to planning, he needs to win an election. Private renters, at the sharp end of the housing shortage, are significantly more likely than other groups to say housing policies will influence their vote, according to a poll for housing charity Shelter. But on average just a fifth of households in Labour's target constituencies are privately rented. Two-thirds are owner-occupied, meaning that Labour could face the same challenges that the Conservatives do when it comes to boosting housing supply.

"The local politics of how to grind through from setting out the big splash to how it's actually played out in policy is really tricky," says Edward Clarke, lead researcher at Lichfields' think-tank, who adds that MPs don't want to be seen supporting new housing that locals feel is being imposed upon them.

Giving regional mayors more sway over planning, another Labour idea, might help bridge that gap. But there are many ways in which policymakers could be even bolder.

Vienna has kept housing costs low by making subsidised homes available for rent. But the Lib Dems are the only significant party in England with a national target for building social homes.

Unlike many European countries, the UK lacks rules-based zoning, a system that preapproves different construction types within areas along with the infrastructure needed to support them. Developments that tick all the boxes are automatically given the go-ahead.

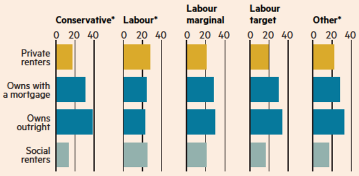
"These aren't crazy ideas," says Breach. "They are simply things that most other developed countries have."

Zoning has proven successful in other countries. Auckland in New Zealand forced councils to allow denser home-building in 2021. Since then, home permissions have shot up fivefold and rents have stabilised.

"The stuff Labour's proposed is broadly good, but it's all short term," adds Breach. "It might buy us time, but in the longer term we need to be thinking about bigger changes that would make Britain a more normal country for housing affordability."

The seats Labour needs to win have more owner-occupiers and fewer renters than its traditional strongholds

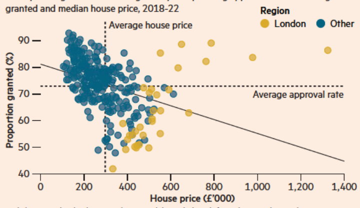
Average proportion of households by tenure and constituency, England, 2021 (%)



Labour targets are seats where the party came second at the last election by less than 20% of votes; Labour marginals are those with a majority below 20%
* Excludes Labour marginals and targets
Sources: ONS; House of Commons Library; DLUHC

Areas with more expensive homes approve fewer new developments

Local planning authorities in England by % of planning applications for dwellings granted and median house price, 2018-22



Excludes National Parks planning authorities and those which made fewer than 100 planning decisions

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

Is Davos still worthwhile?

Fear of missing out makes Alpine resort the ultimate networking opportunity

"Davos Man" and "Davos Woman" do not strut quite so confidently these days. The conference-attending tribe were identified by the political scientist Samuel Huntington in 2004 as a global elite who "have little need for national loyalty, view national boundaries as obstacles that thankfully are vanishing, and see national governments as residues from the past". How times have changed.

As some 300 public figures and 1,600 business leaders gather for the World Economic Forum's 54th annual alpine rendezvous this week, its globalist raison d'être is in retreat. National fealty is in vogue. Borders are no longer considered obstacles but protection — at least by some.

The big state is no longer an anachronism. So what is the point of Davos now?

Some will contend that the breakdown of the "Davos consensus" makes it even more important to bring together global political and business leaders. The threats to world stability are multiplying, with wars raging in Gaza and Ukraine and Donald Trump seeking a return to the White House.

Yet Davos can often become an echo chamber. There is a risk that some delegates end up leaving the event with their beliefs reinforced. The forum can at times feel like a rant among like-minded individuals who are struggling to come to terms with a changing reality.

Davos's strength has never really been in its ability to proffer solutions to the world's problems anyway. For every panel and speech that imparts insight, there is likely to be another with platitudes and experts talking vaguely about "megatrends" — as is true of many global conferences. Indeed, the forum's lofty ambitions often distract from the true purpose of the event: its unmatched power as a giant networking opportunity.

When Klaus Schwab founded the event in 1971, it was called the European Management Forum. The inaugural confab, with 450 participants from 31 countries, was aimed at sharing best management practices among business leaders. The turbulent decade that followed led the forum to take up economic, political and social matters too, and politicians were added to the invite lists.

The official conference has now evolved into a somewhat unwieldy affair, discussing an ever-growing array of topics and attracting an ever growing number of people. This year's programme has over 200 sessions, with a foggy theme of "rebuilding trust". It has also become even more costly, with corporate attendance running well into five figures for tickets, flights and accommodation — and that does not include the prerequisite annual membership fees which reportedly start at over £50,000.

> Despite the expense and sometimes rambling nature of the stage discussions, business leaders, politicians and those who want to mingle with them continue to show up

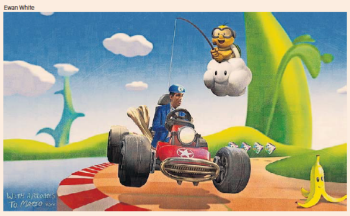
And yet, despite the expense and sometimes rambling nature of the stage discussions, business leaders, politicians and those who want to mingle with them (including journalists) continue to show up. Fringe events, drinks and dinners allow organisations to capture the attention of many of those with the world's deepest pockets. Off-the-record conversations in corridors and hotels are often more valuable than the rigid speaking briefs followed on stage.

Various organisations and countries have tried to organise alternatives to Davos but never quite achieved the scale or ambition. On a global scale, the curious appeal of a snowy week of networking and partying, of garnering social kudos and hoping for a life-changing chance meeting, remains undimmed. Davos's achievement is the perpetual motion effect: ongoing attendance is guaranteed in part by the simple fear of missing out.

Opinion Technology

The UK must learn to love the economy it really has

Ewan White



Stephen Bush

At the close of the 2016 Olympics in Brazil, Japan's then prime minister appeared, unexpectedly, dressed as Super Mario. I don't know if Shinzo Abe was a gamer, and it is ultimately irrelevant: what it reflected was that he recognised the cultural and economic power of a character who is one of Japan's most successful exports.

As it happens, one of Mario's fans can also be found at the heart of the British government: Rishi Sunak used to play Mario Kart on his Super Nintendo and has described it as one of the best games ever. Although the prime minister now has precious little time to game, he is seemingly still interested — he has just finished reading *Tomorrow and Tomorrow and Tomorrow*, an excellent beach read about the complicated relationship between two game designers.

> A lack of pride in its games industry reflects a political class that seems to dislike all the country does well

Sunak is not the only politician in the UK who games — but curiously, there is not a single member of the country's unelected second chamber whose primary source of income comes from its video gaming or esports industry. It is a striking oversight given that the UK has more professional game developer studios in it than anywhere else in Europe. The industry is worth about £7bn a year and enjoyed by more than half the population.

Part of that curious absence is a surprise knock-on effect of Brexit. When he was prime minister, David Cameron, together with then chancellor George Osborne and Ed Vaizey, a long-serving culture minister and close ally of the two, recognised the economic contribution of the UK's gaming industry. They introduced what was at the time a pioneering tax break (other countries have since sped ahead in terms of generous incentives).

But between Cameron's exit and Sunak's arrival in Downing Street, government interest in the industry as a way to make money rather than simply spend time with was fairly minimal. If Cameron had remained in office until 2020, as he had planned, at least one of the people elevated to the House of Lords might have been a member of the video games industry.

The absence of gaming peers seems trivial but reflects several important flaws common to the broader political class in the UK. A tendency to confuse contempt for the new with sophistication means that Sunak's interest in video games is often cited as an example of his "nerdy" habits, or portrayed as a niche interest or curious preoccupation. Sunak is an unapologetic nerd, but this is also a pastime that more than half the British population enjoys taking part in, and one which, in any case, is part of a wider hobby that is almost as old as numbers (backgammon is at least 5,000 years old).

The UK's lack of pride or interest in its video games industry is part and parcel of a tendency that Sunak often complains about: that the country is not just bad at maths, but proud of it. But it also reflects a problem that his own party is part of: a political class that for one reason or another seems to dislike almost everything the country does well.

Video games are too nerdy. Bankers take too many risks. Universities let in too many immigrants. Lawyers are too litigious. Musicians and actors are too liberal. In any case, far too many of these organisations are full of Remainers who will privately complain that Brexit has made their lives harder. What really connects these sectors is they are all areas where the UK excels and can and should continue to do so if the country makes the right choices.

The disdain is not always uniform. As far as financial services go, Sunak has appointed ministers who don't struggle to champion the City. But on the Labour side, the government's Edinburgh reforms, a relatively small-scale set of changes to British banking, were reflexively opposed. Sunak has also hammered universities in order to spin his failure to keep his promises on immigration. The Labour party is less instinctively hostile to universities, but both parties seem to prefer imagining a UK of smoke stacks and heavy industry, a UK that has largely now long passed, rather than championing the things it does well in the present day.

The coming election will be one in which both parties talk up the importance of growth but often accompanied by heavy caveats. It needs to be growth from the right people, from industries that aren't too uncool, too liberal, too Remain-y, or too concentrated in the wrong places. But what the UK really needs is growth, full stop. Part of how it might get there is a political class which learns to like the things the country does well, rather than the things it feels it "ought" to do well, or wishing that the things it did well were older, more macho or involved more heavy machinery.

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Britain requires a plan for long-term growth

To build on Andy Haldane's excellent observation that the most powerful thing a powerful person can do is give away power, I will add Harry Truman: it is amazing what you can accomplish when you do not care who gets the credit (Opinion, January 12).

In addition to the changes Haldane proposes to the machinery of government, the UK badly needs an economic development agency similar to those in Singapore, France and Ireland. Like the Bank of England or the Office for National Statistics, this agency should transcend changes in government and drive a common, national ambition for long-term UK growth. Critically, it should effectively harness the private sector to catalyse areas of strategic national interest, such as life sciences, professional services, technology and entertainment.

The UK is missing a statutory body that can help government of any complexion, together with industry, to plan and execute for long-term growth. What is critically important is that we develop the habits of clear dialogue and collaboration, habits which need a well-conceived institutional scaffold.

There are many versions we should examine and adapt to suit the UK. We just need to start, and we will move fastest if we are more concerned with getting going than getting credit.

CS Venkatakrishnan
Group Chief Executive, Barclays
London E14, UK

Middle East conflict can be managed but not resolved

Sadly, the Atlantic Council's finding that a significant number of "experts" in its poll believed a Palestinian state, with peaceful relations with Israel, would exist within the next decade (Report, January 13) looks like a triumph of hope over experience.

The report does not say who these experts are. However, given the council is a US think-tank, based in Washington DC — albeit with global connections — they presumably include a large number of people who see the situation in "rational" terms that take too little account of the highly-charged emotional atmosphere in Palestine (geographically including Israel).

Even before October 7, few in Palestine wanted a two-state solution. The subsequent vicious war means there is nil likelihood of such a solution in the foreseeable future. Normalised relations between Saudi Arabia and Israel are rather more likely and thus offer a measure of hope going forward.

But even then the region may still be plagued by the satellite groups — Hizbollah, the Houthis and maybe still Hamas — supported by Iran, that will continue to spread destruction.

Overall, the situation seems no more soluble than the Falklands/Malvinas dispute between the UK and Argentina and so can only be managed as best as possible rather than resolved.

John Webster
Aldershot, Surrey, UK

"YOU WOULDN'T HAVE SPOKEN TO ME LIKE THAT BEFORE I ABDICATED"

Don't be surprised if Iowan voters reject woke agenda

Regarding Gideon Rachman's column "Why I still believe in America" (Opinion, January 9), Donald Trump's crusade of retribution and revenge is ultimately supported by American citizens who fear the left.

If Trump manages to be re-elected, it will be largely in reaction to the cultural inroads made by the "woke" or progressive agenda under President Joe Biden. And, from all appearances, the progressives are fine with this. They realise that if you only achieve 20 per cent of your goal, it still advances the ball that much closer towards the goalpost.

Progressives play the long game. Eventually, the electorate becomes disgusted with conservative shenanigans and swings the election pendulum back to the left. So, little by little, progressives win; it just may take longer than they wish. However, do not be surprised when the Iowan voters in this week's Republican caucus react negatively to having "enlightened" ideals crammed down their throat.

Ted Gaffney
Waterford, CT, US

Let's revamp economic policy across Whitehall

Andy Haldane (Opinion, January 12) is right to call for reform of the UK Treasury. Institutional change — across both Treasury and the Bank of England — is long overdue and would be a necessary change for improving the UK's long-term growth. I have argued for this for some time.

Treasury reluctance in 2012, and more recently in the pandemic, to embrace locking-in borrowing at very low long-term rates to finance infrastructure is just one of many recent examples of its inability to prioritise growth.

These issues are not new. In the 1930s, John Maynard Keynes criticised the "Treasury view" that opposed public investment. In 1964, Harold Wilson argued that the Treasury was too powerful, creating the Department of Economic Affairs. However, under Gordon Brown and Tony Blair, the Treasury's remit expanded, creating a ministry even more powerful.

While there is a vital need to ensure the nation's budget arithmetic adds up, a new approach is required given the UK's disappointing growth record, the need to reduce inequality, and achieve net zero.

The BoE, meanwhile, where change is equally necessary, lacks diversity of thought, has a class issue, and its court and policy committees should have greater regional representation.

There is a strong argument in favour of a revamp across Whitehall with respect to economic policy.

Gerard Lyons
Crockham Hill, Kent, UK

Correction

● The US withdrew from Afghanistan in 2021, not 2020 as wrongly stated in an article on January 15.

OUTLOOK

ASIA

Modi, the Maldives and the battle of the beaches

by John Reed

The Indian prime minister recently published some pictures of himself lounging beachside that prompted a surge of online support, a diplomatic incident and the suspension of three government officials in the country's tiny neighbour, the Maldives.

Narendra Modi's X account, which has more than 94mn followers, posted a thread in which he described a visit to India's tropical Lakshadweep islands, in the Laccadive Sea off the Kerala coast.

The posts showed Modi interacting with residents, bathing in snorkel gear and gazing out to sea wrapped in a shawl, despite January temperatures that reach highs of about 30C.

"For those who wish to embrace the adventure in them, Lakshadweep has to be on your list," Modi declared in the thread, published on January 4.

Indians and Maldivians took the posts as an effort by India's powerful leader to throw shade at his tourism-reliant neighbour and promote Lakshadweep as an alternative.

The fallout from the battle of the beaches speaks volumes about regional geopolitical tensions and a rising India that does not hesitate to wield its clout against smaller countries that cross it.

The Maldives last year rattled New Delhi when it elected President Mohamed Muizzu, who ran on an "India Out" platform. About 75 Indian military personnel are stationed on the island and operate two helicopters, mostly used for medical evacuations. Muizzu has given them a deadline of March 15 to leave. The new president is leaning pro-China, and signed 20 agreements on a visit to Beijing last week, his first state visit.

India's outbound tourism is expanding along with its economy, and it was the largest source of visitors to the Maldives last year. So what Modi says — or in the case of Lakshadweep, hints at — matters.

In the Maldives, officials saw the posts as an attempt to divert tourists from its own beaches. A trio of deputy ministers posted derogatory remarks mocking Modi's attempts to promote Lakshadweep and demeaning Modi, including for his support of Israel.

The comments created a furore in India, which summoned the Maldivian envoy for a dressing down. The three officials have deleted their posts and been suspended.

Modi's legions of online supporters rallied, using hashtags such as #BoycottMaldives and #ExploreIndianIslands. Indian business, often keen to curry official favour, chimed in: the Indian Chamber of Commerce's Aviation and Tourism Committee asked trade groups to stop promoting the Maldives in light of "anti-India feelings" voiced by Maldivian officials. Booking agent EaseMyTrip said it was suspending bookings to the destination and published ads to that effect, with the slogan "Nation First, Business Later".

The escalating spat has alarmed some Maldivians. "If the intention of the Indian government . . . was to irritate the Maldives or give a signal that 'we too have islands and can destroy your tourism', that's not how states conduct relations," says Mohamed Munavvar, a former attorney-general of the Maldives.

Munavvar, a former opposition party head, also criticised Muizzu's response as "very immature", adding that "India is a big country and our closest neighbour, to whom we have to turn in emergencies, and they have the right to develop their islands".

Muizzu's stance is bold, but it is not entirely new. Neighbouring Nepal's former prime minister KP Sharma Oli used an "anti-India narrative to mobilise support at home" when he was in office, says Constantino Xavier, a fellow at the Centre for Social and Economic Progress in New Delhi.

"What changed this time is the extent to which India's hard diplomatic response was politically visible at home, through social media," Xavier says. "It reflects" how Modi's party has "been adept at using foreign policy to mobilise domestic political and electoral support".

In recent months the Modi government has shown itself unflinching in putting other nations in their place, as in the case of the recent diplomatic showdown with Canada.

Muizzu for now is pushing back. "We may be small, but that doesn't give you the licence to bully us," he said on Saturday.

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Opinion

Poland's 'iron broom' shows that democrats can bite back

Maciej Kisilowski

Since taking power last month after his victory in Poland's October elections, Prime Minister Donald Tusk has opted for a radical reckoning with the former populist regime. Early signs indicate that his bold approach holds substantial promise.

In May 2023, Tusk — then the opposition leader — promised to "clean up" Poland, ravaged by eight years of populist rule, "with an iron broom". Many commentators saw this as mere posturing. But Tusk's initial weeks in power have shown that he meant what he said.

Days after President Andrzej Duda, a staunch ally of the former ruling Law and Justice party (PiS), swore in Tusk's government, Poland's politicised public television station, notorious for its xenophobic, homophobic and racist messages, abruptly went dark. Tusk's culture ministry summarily dismissed the station's board and stopped broadcasts to prevent the outgoing leadership from inflaming tensions by airing live the takeover of the group's headquarters.

Last week, Poland was stunned by the arrest of two prominent rightwing politicians, including the former interior minister. Both were duly sentenced for abuse of power but believed they could hide from justice in Duda's presidential palace in Warsaw. The police, controlled by the Tusk government, proved them wrong. After Duda left his residency for a meeting, both officials were arrested.

Another struggle involves the prosecution service. A law passed a few months before the October election attempted to tie the hands of Adam Bodnar, Tusk's justice minister and a former ombudsman. The law transferred Bodnar's prosecutorial powers to a nominal "deputy", a rightwing operative who cannot be sacked without Duda's approval. But Bodnar declared the deputy's appointment void. He also sent nearly 150 prosecutors from lucrative Warsaw posts back to their provincial offices and announced Poland's accession to the European Public Prosecutor's Office.

These decisive, if heavy-handed, actions come at a time when democrats globally are searching for strategies to deal with populists. In the US, for example, there is intense debate about whether the protracted legal cases against Donald Trump are boosting his campaign to return to the White House.

> The populist electorate seems disengaged and demobilised since the new administration took over

Perhaps Tusk's approach offers hope. To be sure, the new government has attracted criticism with a vocal minority of experts questioning the procedural legality of some of the recent moves.

But the results are notable. The tone of public TV broadcasts has changed completely, while the former chief executive gave up the fight and resigned. Duda condemned the arrests at his residency but at the same time appealed for calm. He also initiated a procedure to pardon the arrested politicians.

Somewhat counter-intuitively, this move is a victory for the rule of law. Duda's pardon de facto nullifies his illegal attempt to absolve both officials in 2015. A path might be opening up for Poland to access the EU's post-pandemic recovery funds, frozen because of the country's rule-of-law issues.

Yet perhaps the most important sign of the strength of Tusk's strategy has been the tepid response of PiS voters. Protests around the public TV headquarters gathered at most hundreds of people. A Warsaw march on January 11, widely promoted by the opposition, had tens of thousands of attendees but did not turn into the equivalent of the January 6 attack on the US Capitol in 2021.

While many things can go wrong with the "iron broom" approach, three things explain the success so far. First, the populist electorate seems disengaged and demobilised since the new government took over. As this may not last for long, it is wise for Tusk's government to confront its opponents early in its tenure.

Second, populist operatives are rarely heroic. Consider the desperate attempts of Jair Bolsonaro, Brazil's former president, to avoid arrest by hiding in the US after his 2022 election defeat. Duda was affected by the pleas of the wives of the two sentenced officials, who seemed terrified that their husbands would serve long jail terms. He realised the only way to save his allies was to pardon them under lawful procedures.

Finally, today's rightwing populists — from Trump and Hungary's Viktor Orbán to Jarosław Kaczyński, the PiS leader — are intrinsically Darwinian in their worldview. They have built their political personas on the belief that might is right and that they can win by ruthlessly exploiting democracy's inherent drift and indecisiveness. Tusk is proving that democracy can bite back. That will certainly not endear him to the rightwing electorate, but it can engender a measure of grudging respect and, ultimately, compliance.

The author is associate professor of law and strategy at the Central European University in Vienna

Taiwan can still avoid Ukraine's fate

GLOBAL AFFAIRS
Gideon Rachman

Xi Jinping thinks that history is moving his way. Visiting Vladimir Putin in Moscow last March, China's leader told the Russian president: "Right now, we're seeing a change unseen in 100 years and we're driving this change together."

That exchange was heard around the world. Xi's words were seen as a clear endorsement of Russia's invasion of Ukraine — and a suggestion that China, too, will soon play its part in "driving this change". The implications for Taiwan were chilling, given China's longstanding threats to invade the island.

Those invasion threats are, inevitably, back on the global agenda in the wake of this weekend's Taiwanese presidential election. In the run-up to Saturday's vote, the Chinese Communist party warned Taiwan's voters to make the "right choice" between peace and war. But Taiwan made the "wrong" choice, as Beijing sees it — electing Lai Ching-te of the Democratic Progressive party, who Beijing sees as a dangerous separatist.

There are some clear similarities between Taiwan's perilous position and that of Ukraine before 2022.

The first is that both Putin and Xi regard Ukraine and Taiwan, respectively, as territory that rightfully belongs to their nation. Putin's rhetorical acceptance of an independent Ukraine was insincere. And the drive to "reunify" Taiwan with the mainland is longstanding Chinese policy.

The second link is that both Putin and Xi argue Ukraine and Taiwan lack any real autonomy, and are being used as tools of a hegemonic and aggressive America. So reclaiming Ukraine/Taiwan for the motherland would serve a double purpose. It would fulfil the historic destiny of Russia/China. And successful invasions would strike a massive blow against US global power in two key theatres: Europe and Asia. Hence the changes "unseen in 100 years".

The chance to be a world-historical figure is surely alluring for a strongman leader. And Putin and Xi fit that strongman mould. The Russian and Chinese leaders have both changed their country's constitutions to extend their periods in power, probably for life. Both men have also encouraged a cult of personality and instilled fear in those around them.

Putin enjoys intimidating his closest acolytes on camera and has imprisoned, killed or driven into exile his most dangerous opponents. Xi has conducted repeated purges of China's top leadership. The longer they are in power, the more the two leaders are liable to dwell on their own place in history.

That preoccupation with history has led both leaders to focus on the second world war. Putin has fetishised Russian

victory in the "great patriotic war" against the Nazis. Xi, like Putin, claims a key role for China and the Communist party in defeating fascism.

Even as they insist that history is moving in their direction, both Putin and Xi betray some anxiety that events may actually be moving against them. The Russian leader's decision to launch a full-scale invasion of Ukraine in 2022 was probably driven, in part, by a fear that Ukraine was slipping irrevocably out of Russia's grasp. If he did not act quickly, he risked going down as the tsar who "lost Ukraine".

There is a clear danger that Xi will come to the same conclusion about Taiwan. After eight years of a DPP presidency under Tsai Ing-wen, China hoped the recent election would see the pendulum swing back to the more pro-Beijing Kuomintang. Lai's victory suggests that, on the contrary, the DPP is now Taiwan's natural party of government.

> Catastrophic costs incurred by Russia for its ill-fated invasion will surely give Xi pause

That has grim long-term implications for China's aspirations. The growing number of Taiwanese who identify primarily as Taiwanese, not Chinese, is also a concerning trend for Beijing. Once again, there are obvious parallels with Ukraine, where an increasing stress on Ukrainian culture offended and alarmed Russian nationalists.

But does that mean Xi will eventually decide that he has to follow Putin's example and use force to achieve his personal and national ambitions?

The catastrophic costs that Russia has paid for its ill-fated invasion will surely give Xi pause. Chinese officials sometimes argue that their own forces are larger and more formidable than those of Russia. But Putin had a battle-hardened military at his disposal — which he had used successfully in Syria, Georgia and Chechnya. China has not gone to war since 1979 — and the top leadership of its military has been repeatedly purged for alleged corruption.

There is also a crucial difference in the position of America. The US government supported Ukraine's independence, but Joe Biden made it clear that the US would not go to war to defend the country. With Taiwan, the positions are reversed. America does not recognise Taiwanese independence and reiterated that position after this weekend's election. But Biden has said repeatedly that the US would fight to defend Taiwan.

And then there is geography. Russia was able to invade Ukraine across a land border and still got bogged down. China would have to attempt an amphibious invasion, which is much harder.

Nonetheless, the US believes that Xi has told his forces to be ready to invade Taiwan by 2027. The task of Taiwan and America is to make sure — when that date rolls around — Xi decides that it is still too risky to invade. The Chinese leader may never see the "changes unseen for a century" that he dreams of.

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A huge amount is at stake in the ICJ's genocide judgment

David Simon

At the end of December, South Africa petitioned the International Court of Justice to declare that Israel is committing "violations of the genocide convention", and to seek an injunction forcing Israel to cease its Gaza campaign if it is found to involve such violations. As the case gets under way, it is worth considering what is and is not at stake, for those involved in the conflict, the credibility of the ICJ and global governance itself.

At the individual level, little matters for the moment. The ICJ hears disputes between state parties, not charges against individuals. The International Criminal Court has had an open investigation into potential crimes committed by all parties in Israel and the Palestinian territories since at least 2021. Since Hamas is not a "state party", it has no standing either as complainant or defendant at the ICJ. Only the ICC could provide a path to accountability for the bloodshed of October 7.

In terms of the conflict in Gaza, the stakes are higher. Because South Africa alleges violations of the genocide convention — allegations Israel calls "profoundly distorted" — the court would ultimately have to conclude that Israel has committed one or more of the genocidal acts listed in the convention and that it did so with "the intent to destroy, in whole or in part, a national, ethnical, racial, or religious group, as such".

The latter qualification constitutes a high bar and last week's arguments show it is likely to occupy much of the case should it get to the level of a full hearing. A great deal will depend on whether the actions of the Israel Defense Forces were impelled by "an intent to destroy" Palestinian nationals in Gaza, regardless of the human and physical toll of the campaign itself. South Africa argues that videos of soldiers dancing as they sang in celebration of "killing the descendants of Amalek", along with statements by a wide range of Israeli officials (and private individuals), did indeed represent such an expression.

The court will also consider the appropriateness of South Africa's request for "provisional measures", including that Israel stop military operations in Gaza. The petition also says that Israel, meaning the government as a whole, has an obligation as a party to the convention to prevent all genocide crimes, including incitement, over which it has influence. This would mean the Israeli government is liable not only for the IDF's actions, but also for the policy of limiting humanitarian relief and any genocide-inciting speech uttered by its members.

> Should it call for measures that are not implemented, all the court's decisions would be devalued

While the court might very well find grounds for granting those provisional measures, the direct impact would probably be limited given that the ICJ lacks any sort of enforcement power. The same court issued an order for the removal of the Israeli barrier in the occupied West Bank. Almost 20 years later, the barrier still stands.

The stakes are highest at the level of international norms and practice. First, the potential identification of an ongoing situation as genocidal would force all signatories of the convention to confront their obligations to cease complicity with an operation. To choose not to would be tantamount to holding that genocide is only "an odious scourge" (to quote the convention) when countries who are not your friends do it.

The credibility of the ICJ itself could also be at stake. Should it call for measures that are not then implemented, all of its decisions would be devalued. If the ICJ finds Israel's defence persuasive and rejects the petition, the court could face accusations of big-power favouritism, no matter how well reasoned its explanation. If it finds South Africa's petition convincing enough to grant the requested measures, and they then remain unimplemented, the convention will have shrunk to a toothless statement of aspirations, rather than an enduring commitment.

That would be a tragedy for global governance. The idea of international human rights is that there should be a universal baseline protecting individuals from arbitrary harm no matter where they live. International human rights law, in both its civil and criminal expression, is the best hope to enforce those protections. The alternative is violent conflict, rarely effective even in cases deemed to be just or necessary.

The 21st century ought to be about strengthening institutions — such as the ICJ and the genocide convention — that hold a promise of supporting human rights protections in lieu of conflict. Rejecting them would be a step back towards an era of "might makes right" — both within and between nations. That is a sorry state of affairs that bodes ill for the prospect of dealing with all global problems, from public health risks to climate change to violence.

The writer is director of the genocide studies programme at Yale University

Growing income inequality is driving public mistrust

Sandrine Dixson-Declève

This year's World Economic Forum at Davos is focused on the theme of "rebuilding trust". The topic could not be more timely, with public trust in governments still low in many countries. Yet if those gathered in Switzerland are serious about tackling declining trust, they must also raise tough questions about rising inequality.

We are living in a time of phenomenal extremes. Between 2019 and 2020, global inequality grew more rapidly than at any time since the second world war. When it comes to income inequality, the most compelling example is the exorbitant pay divide between chief executives and workers. In 2022, CEOs in the US were paid 344 times as much as a typical worker, compared with 21 times back in 1965.

Equally concerning is the so-called wealth gap, with the fortunes of billionaires having grown by 109 per cent over the past decade. According to Oxfam, during the pandemic, a new billionaire was created every 30 hours. But this wealth hasn't trickled down to the 1.7bn workers living in countries where inflation is rapidly outpacing their wages.

Such divides are the sign of something fundamentally wrong with the system. The concentration of immense wealth in the hands of a few can bring disproportionate influence over governments, entrenching even deeper divides. The results? As Earth4All's Social Tension Index concludes, with worsening inequality, social tensions will continue to rise in this century, fuelling populist nationalism and the erosion of democracy and public trust around the world.

> While billionaires have massively increased their wealth, governments have become poorer

Yet economic inequality is a political choice. While billionaires have massively increased their wealth, governments have become significantly poorer, with the share of wealth held by public actors now close to zero or negative in rich countries. To address the issue, governments will have to raise funds, while also redistributing income and wealth. Here are three critical tax-based measures that they can take.

First and foremost, governments must increase tax progressivity. Countries with such schemes have lower income inequality, because their governments have sufficient revenues for social spending. But in high-income countries, the top marginal tax rates on corporate income have declined in recent years. And only a few governments in low and middle-income countries use progressive taxation to reduce inequality. Indeed, some are being forced by IMF-driven austerity policies to cut public spending. Progressive taxation must therefore be prioritised.

The second step is wealth taxation. A wealth tax starting at just 2 per cent annually for multimillionaires and rising to 5 per cent annually for billionaires could generate $2.52tn a year. Taxing the super-rich may also be key in addressing the climate crisis — the richest 10 per cent account for about half of global carbon emissions.

Third, governments must enact windfall taxation on the extreme profits that have been generated by corporations in recent years. Oil companies including BP, ExxonMobil, Chevron, Shell and TotalEnergies posted combined record profits of $200bn in 2022. As things stand, most of this money flowed back directly to executives and investors. Instead the revenue claimed back from fossil fuel industry windfall profits should be redistributed to those who are struggling with rising food and energy prices, or with the effects of the climate crisis. And of course it must be redirected to the just energy transition.

A few years ago, UN secretary-general António Guterres gave a speech in which he asked: "Will we succumb to chaos, division and inequality? Or will we right the wrongs of the past and move forward together for the good of all?" We are at a point where leaders must decide. A new global conversation on economic inequality is long overdue but essential if leaders are serious about restoring public trust.

The writer is co-president of the Club of Rome and executive chair of Earth4All

Lex.

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Baidu: share fall shows US hold over China AI

China's answer to ChatGPT, Ernie Bot, can answer all kinds of difficult user questions. To investors, it is the answer to the slowing growth its maker Baidu has faced. But a plunge in the Chinese search giant's shares yesterday reflects how fragile the local tech sector is.

Shares of Baidu fell 12 per cent, the most in more than a year, after a report linked its Ernie artificial intelligence platform to key Chinese military research. The report said an institute affiliated with a unit of the People's Liberation Army that oversees cyberwarfare had tested its AI system on Ernie. Baidu denied any affiliation or partnership with the institute and said it had no knowledge of the research project.

The outsized sell-off reflects two concerns. The first is how important Baidu's chatbot has become to its future earnings. The second is just how much of that earnings outlook is subject to US influence. Baidu has been recognised as China's top AI developer recently thanks to the launch of Ernie Bot. The chatbot gives Baidu a Chinese first-mover advantage ahead of much bigger tech rivals such as Tencent.

After its launch to the public in August Ernie Bot had attracted more than 100mn users as of the end of 2023. Baidu's sales for the quarter of its launch have already beaten estimates. A boost to advertising revenue from the chatbot is expected in results for the final quarter of last year.

It is a rare chance for the company to make a comeback after years of fierce competition for ad dollars. The popularity of China's short-video platforms have battered sales at Baidu's core business, online marketing. Search growth had started slowing more than a decade ago.

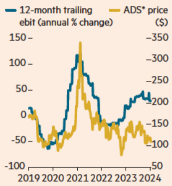
Strong demand for Ernie Bot and related services should also boost Baidu's other units including cloud services and smart cars. But all that relies heavily on funding and access to advanced technology. The US has already banned investment in some areas of China's high-tech sectors including AI. A bigger blow comes from being cut off from access to chips.

Tighter export controls on advanced chips used for AI development and the equipment used to manufacture them are proving tough to bypass. Yesterday's report rekindled concerns about an escalation of US sanctions.

Baidu shares are down a quarter in the past year and trade at just 10 times forward earnings, less than half that of global peers including Google.

China's AI hopefuls may struggle to perform while geopolitical uncertainty is high.

Baidu shares track growth



Source: LSEG *American Depositary Share

Deutsche Bank: unlikely to acquire other lenders

Deutsche Bank has long hoped to become a global banking powerhouse. Its parochial valuation defeats it.

The German lender is one of the world's cheapest banks, trading at five times forward earnings and under 40 per cent of its tangible book value. This makes market chatter about it buying another bank, such as Commerzbank or ABN Amro, a dubious prospect.

While the ECB oversees eurozone banks, local regulation such as national deposit schemes complicates deals. Then there is politics: a German bank takeover of ABN feels unlikely, given the Dutch government's shareholding.

Investor mistrust about the fair value of European bank assets, and their resulting valuations, is the other problem. Stoxx 600 banks trade under 7 times forward earnings. Even US laggards such as Citi get a higher rating at 9 times and 0.6 times tangible book.

Deutsche's shares aren't valued highly enough to create value if it wants to pay for a regional rival with stock rather than cash. Spending its hard-earned common equity tier one capital buffer of 13.9 per cent, meanwhile, would rankle with shareholders if it impinged on payouts.

Yes, Commerzbank and ABN also trade well below their tangible book value; the former has a gap of some €16bn. Buying cheaply enough, and revaluing the equity, can bring accounting benefits. When the equity is so submerged under the market price this is known as "negative goodwill".

UBS used this to good effect when buying Credit Suisse last year to absorb the losses required to mark assets and liabilities to their market price. The Credit Suisse adjustment of about €14bn is probably too high for Commerzbank, thinks Mediobanca's Adam Terelak, despite their similar sized balance sheets. But a deal could involve offsets in the same ballpark, eating up much of the negative goodwill benefit. The German state still owns 15 per cent of Commerzbank and might not wish to sell too cheaply.

Ultimately, Deutsche does not have the valuation required for these all-share deals, even after a rebound in the stock. What's needed is a return on tangible equity in the teens, not its "adjusted" 9 per cent as of September.

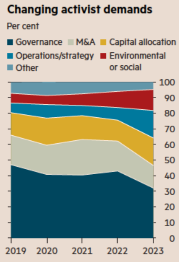
Investor hopes for a round of cost-cutting consolidation among beleaguered European banks have been repeatedly dashed.

There is no reason to think that Deutsche is going to change that now.

Investor activism: rich pickings in UK blue-chips

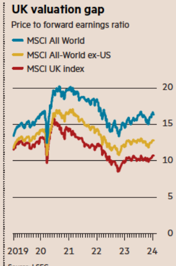
Governance remained the biggest issue for activist investors last year. But challenges against operations and strategies grew the most. Campaigns in the inexpensive UK equity market have yielded the greatest outperformance. A larger share of those gains came from improvements in underlying earnings.

Changing activist demands



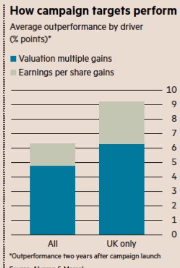
Source: Alvarez & Marsal

UK valuation gap



Source: LSEG

How campaign targets perform



*Outperformance two years after campaign launch

Source: Alvarez & Marsal

The UK's persistently undervalued stock market is irresistible to global activist shareholders. Campaigns rose across Europe last year, according to data from consultants at Alvarez & Marsal. The UK was the most popular location for the seventh year running.

This is a dubious distinction, given concerns about UK equity market malaise. But the agitators appear to have had some success. Two years after an activist shareholder drive, the data says, UK company share prices beat the wider market by 9.2 per cent. US and Europe campaigns generated lower outperformance of 6 per cent on average.

The UK's appeal to activist investors makes sense. Not only does it have more listed companies than other European markets but share registers are more open. Larger free floats help in two ways. There are fewer large, influential owners, including families or founders, who wield influence over the company.

But the market may also simply be ripe for their intervention. A&M's analysis suggests that activist drives focused only on dealmaking, governance or environmental and social factors reap lower rewards than those that home in on operational performance. Bumpitrage efforts, where shorter-term activism can boost takeover offers, yielded positive results at deals for tobacco group Swedish Match and UK software group Aveva.

The UK market trades at roughly a one-third valuation discount to global stocks. There is much debate about whether sector composition, growth outlook, income-focused investors or waning domestic pension money is the root cause. The repercussions, however, are clear given the rise in private equity-backed takeovers and a growing roster of companies, such as Tui, CRH and Ferguson, opting to move their listing overseas.

The A&M findings add weight to the optimists' case: that UK stocks trade at lower multiples because they offer lower returns and that, once adjusted for this, the discounts often disappear. Activists who campaign to improve UK operating out-turns yield better outperformance than in other markets: 15 per cent in the two years after vs 9 per cent on average.

Those bemoaning the UK market, both executives and reformers overhauling governance and listing rules to ape global rivals, should also look closer to home to explain underperforming shares.

Musk's X: user resilience may be its saving grace

Elon Musk's impulsive $44bn purchase of X, formerly known as Twitter, has resulted in an advertiser exodus, negative cash flow, heavy debt burden and, in one investor's case, a 71.5 per cent devaluation.

Plans to monetise users at scale and expand into ecommerce and finance have stalled. Rivals cheer its downfall. But user resilience could yet convince advertisers to return.

Parsing the numbers is not simple. Before Musk bought the social media site it reported close to 238mn monetisable active daily users and just over 368mn monthly ones. This metric, invented by Twitter, tracked accounts that logged in and could be shown adverts. The company was criticised for its failure to produce regular annual profit but user growth was more consistent — up more than a quarter over the previous two years.

Musk declared that under his stewardship Twitter use would explode, reaching a billion people by 2024. This will not be the case. But nor have users abandoned it.

Popular users such as Elton John stopped using the platform in protest at changes that Musk has made to moderation. But according to information Musk has volunteered, for what it is worth, it appears that overall user numbers are rising. By November 2022, one month after his acquisition of the company was complete, he said daily users had topped 259mn.

Since then, Musk has opted to focus on monthly users. This summer he posted a chart claiming the platform had more than 540mn monthly users — up almost 50 per cent since late 2022 according to estimates from emarketer.

Documents seen by the Financial Times show the company claims more than 92mn users in the US. If US users still account for about 18 per cent of the total, as they did before Musk owned Twitter, the 540mn monthly global figure is realistic.

How active these accounts are is unclear. Third-party sites such as Sensor Tower, Apptopia and Similarweb all suggest that the network's popularity has dipped this year. Similarweb estimates that by September 2023, visits via desktop and mobile were down 14 per cent year on year. Changing the company name from Twitter to X has caused confusion.

However, those data sites also show a dip in traffic to other social media sites. One way to judge X's popularity is to compare it with rivals. In the US, it remains the most visited social media site after Instagram and Facebook.

Advertisers may be wary of Musk's erratic behaviour and changes to content moderation. But they could be won round — if the audience for their adverts remains.

Lex on the web
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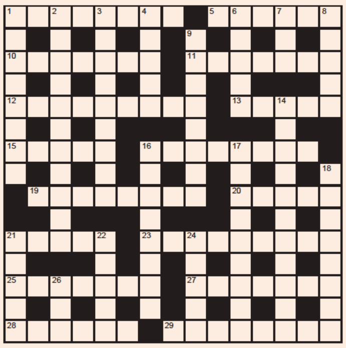
CROSSWORD No 17,630 by SLORMGORM



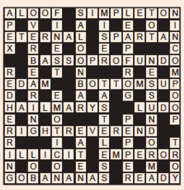
ACROSS

1 Material AP submit close to deadline (8)
5 Spooner's computer-aided design plan's rash (6)
10 Begging's initially ignored at the front (7)
11 One who wanted more food around lunchtime ... ham? (7)
12 Elegy lass arranged classically (9)
13 Tenor dipped into band's drug supply (5)
15 Firm bed can make you suffer (3,2)
16 One can find slugs in these bedrooms (8)
19 On which one might find Derby and Kilmarnock? (8)
20 You could say locum has love for speed (5)
21 Philosophical type objects to icing cakes (5)
23 Burns released them thus honed with edits (3,6)
25 Assign a use for radios (7)
27 Drink in Guam or Osorno (7)
28 Big star in Cheers (6)
29 One punching sick Spartan fighter (8)

DOWN

1 Don't start affair or partnership (8)
2 I only appear out for a music producer (6,5)
3 Those that could stab heels (9)
4 Duds flipping game models modelled (5)
6 See you fuss over independent son (5)
7 Energy sources for commercial heavy industry (3)
8 Fish bar? (5)
9 Yen to visit country ... Palestine? (4,4)
14 Bitter icon I am sour about (11)
16 Catholic quick to have sex in moderation (8)
17 Reach lowest point pulling a moony obviously! (6,3)
18 Toilets not working in stalls (4,4)
21 Found time to be sat on by heavenly body (5)
22 The sound of cheers in prison (5)
24 Satellite the French sent up on Ariane (not III, V or VI) (5)
26 Tailed fruit or vegetable (3)

Solution 17,629



JOTTER PAD

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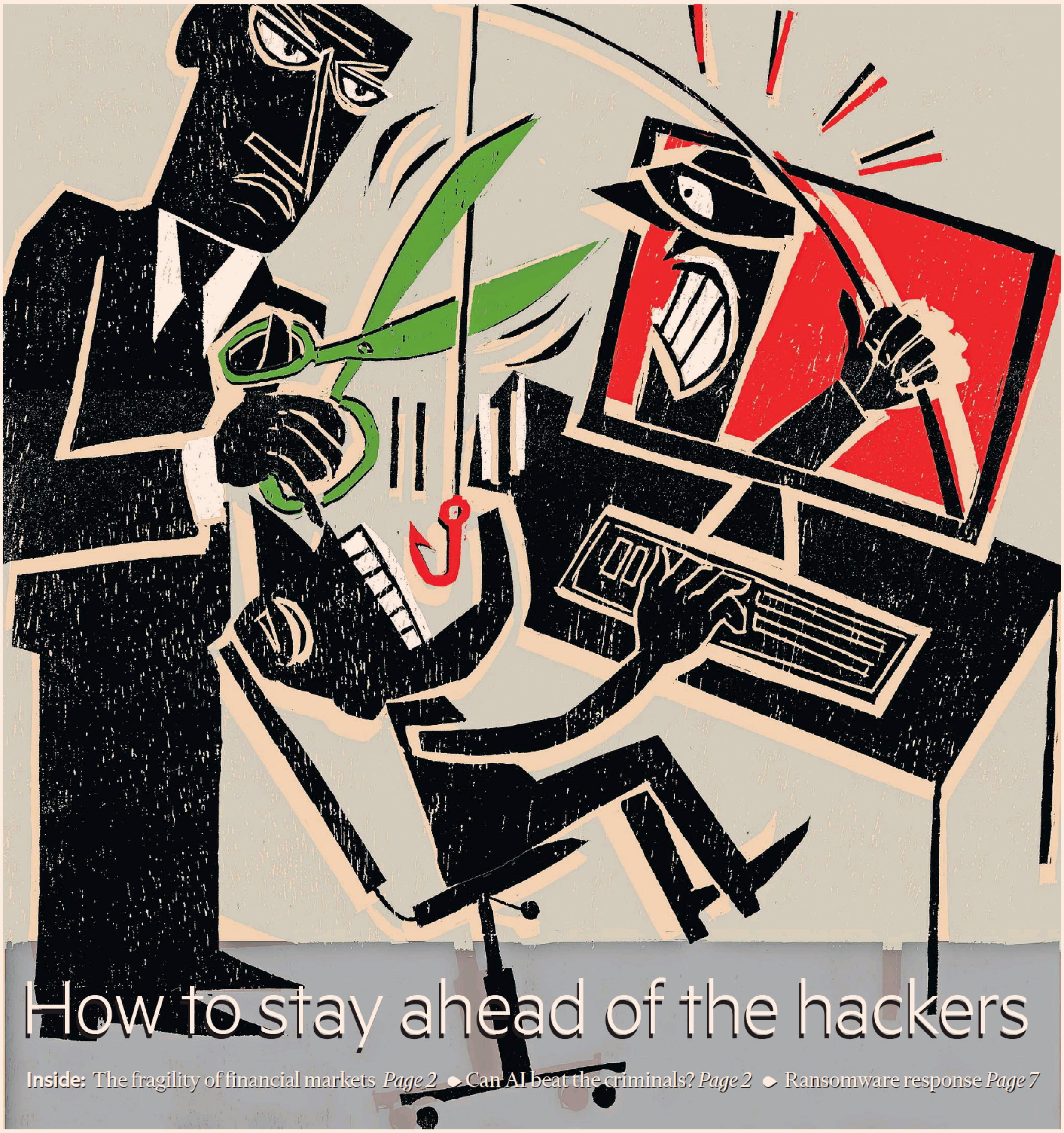
FT SPECIAL REPORT

Navigating Cyber Risk

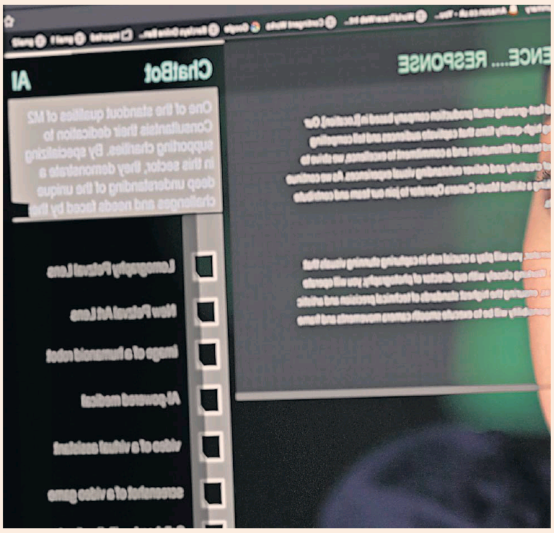
Tuesday January 16 2024 www.ft.com/reports



How to stay ahead of the hackers

Security Experts promote generative artificial intelligence solutions, writes *Hannah Murphy*

Is AI the best defence against cyber attacks?



Artificial intelligence technology has been a buzzword in cyber security for a decade now — cited as way to flag vulnerabilities and recognise threats by carrying out pattern recognition on large amounts of data. Anti-virus products, for example, have long used AI to scan for malicious code, or malware, and send alerts in real time.

But the advent of generative AI, which enables computers to generate complex content — such as text, audio and video — from simple human inputs, offers further opportunities to cyber defenders. Its advocates promise it will boost efficiency in cyber security, help defenders launch a real-time response to threats, and even help them outpace their adversaries altogether.

"Security teams have been using AI to detect vulnerabilities and generate threat alerts for years, but generative AI takes this to another level," says Sam King, chief executive of security group Veracode.

"Now, we can use the technology not only to detect problems, but also to solve and, ultimately, prevent them in the first place."

Generative AI technology was first thrust into the spotlight by the launch of OpenAI's ChatGPT, a consumer chatbot that responds to users' questions and prompts. Unlike the techology that came before it, generative AI "has adaptive learning speed, contextual understanding and multimodal data processing, and sheds the more rigid, rule-based coat of traditional AI, supercharging its security capabilities," explains Andy Thompson, offensive research evangelist at CyberArk Labs.

So, after a year of hype around generative AI, are these promises being delivered upon?

Already, generative AI is being used to create specific models, chatbots, or AI assistants that can help human analysts detect and respond to hacks — similar to ChatGPT, but for cyber security. Microsoft has launched one such effort, which it calls Security

Inside

Cyber attacks reveal fragility of financial plumbing

Markets

Banks and traders lack crisis plan, says *Hannah Murphy*

When the New York arm of China's largest bank was hit by a ransomware attack in November, disrupting the $25tn US Treasury bond market, it proposed sending a runner across Manhattan to US bank BNY Mellon armed with a USB stick of data to help settle trades.

For an industry that has long been known as one of the most resilient, well-resourced and highly regulated in terms of cyber security, the hacking of ICBC revealed the alarming fragility of interconnected financial systems — and the lack of sophisticated contingency planning for a crisis.

And it was not the only big cyber attack to hit the sector in 2023. Dublin-based technology group Ion Markets was also targeted by ransomware earlier that year, which knocked out parts of the financial plumbing that underlies the vast derivatives trading industry — forcing customers, at one point, to revert to old-fashioned paper ledgers.

According to a recent Bank of England survey of UK market participants, the risk of such attacks is now deemed the number one systemic risk to the financial system.

"The financial sector is grappling with an escalating onslaught from cybercriminals," says Tris Morgan, managing director of security at telecoms group BT. His company's data reveals, on average, "more than 46mn signals of potential cyber attacks every day, worldwide" — with banking emerging as the most vulnerable industry.

Hackers target financial groups not just in an attempt to steal funds directly, but also to extract troves of highly sensitive personal information to then employ for further attacks, or to threaten to leak, as an extortion tactic.

According to Steve Stone, Head of Rubrik Zero Labs at security group Rubrik, financial services organisations already hold 20 per cent more data than those in other sectors. "More data means a larger surface area to target and more potential blind spots for [chief information security officers]," he says. "It is typically at the fringes where visibility is at its lowest and where gaps in security lie."

Indeed, experts note a shift by increasingly bold cyber criminals from selling card data on underground market-

Payment on demand: ICBC, China's largest bank, was hit by a ransomware attack in November
Dzmitry Kliapitski/Alamy

Navigating Cyber Risk

Chat show: Generative AI bots are already helping human analysts to detect hacking
Laurence Dutton/Getty Images

Copilot, while Google has a model called SEC Pub.

"By training the model on all of our threat data, all of our security best practices, all our knowledge of how to build secure software and secure configurations, we already have customers using it to increase their ability to analyse attacks and malware to create automated defences," says Phil Venables, chief information security officer of Google Cloud.

And there are many more specific use cases, experts say. For example, the technology can be used for attack simulation, or to ensure that a company's code is kept secure. Veracode's King says: "You can now take a GenAI model and train it to automatically recommend fixes for insecure code, generate training materials for your security teams, and identify mitigation measures in the event of an identified threat, moving beyond just finding vulnerabilities."

Generative AI can also be used for "generating [and] synthesising data" with which to train machine learning models, says Gang Wang, associate professor of computer science at the University of Illinois Grainger College of Engineering. "This is particularly helpful for security tasks where data is sparse or lacks diversity," he notes.

The potential for developing AI cyber security systems is now driving dealmaking in the cyber sector — such as the $28bn acquisition of US security software maker Splunk by Cisco in September. "This acquisition reflects a wider trend and illustrates the industry's growing adoption of AI for enhanced cyber defences," says King. He points out that these tie-ups allow the acquirer to swiftly expand their AI capabilities while also giving them access to more data, to train their AI models effectively.

Nevertheless, Wang cautions that AI-driven cyber security cannot "fully replace existing traditional methods". To be successful, "different approaches complement each other to provide a more complete view of cyber threats and offer protections from different perspectives", he says.

For example, AI tools may have high false positive rates — meaning they are not accurate enough to be relied upon alone. While they may be able to identify and halt known attacks swiftly, they can struggle with novel threats, such as so-called "zero day" attacks that are different from those launched in the past.

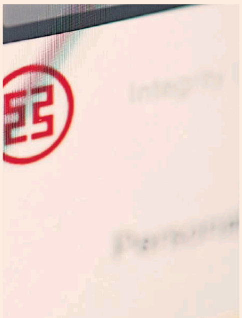
As AI hype continues to sweep the tech sector, cyber professionals must deploy it with care, experts warn, maintaining standards around privacy and data protection, for example. According to Netskope Threat Labs data, sensitive data is shared in a generative AI query every hour of the working day in large organisations, which could provide hackers with fodder to target attacks.

Steve Stone, head of Rubrik Zero Labs at data security group Rubrik, also notes the emergence of hacker-friendly generative AI chatbots such as "FraudGPT" and "WormGPT", which are designed to enable "even those with minimal technical" skills to launch sophisticated cyber attacks.

Some hackers are wielding AI tools to write and deploy social engineering scams at scale, and in a more targeted manner — for example, by replicating a person's writing style. According to Max Heinemeyer, chief product officer at Darktrace, a cyber security AI company, there was a 135 per cent rise in "novel social engineering attacks" from January to February 2023, in the wake of the introduction of ChatGPT.

"2024 will show how more advanced actors like APTs [advanced persistent threats], nation-state attackers, and advanced ransomware gangs have started to adopt AI," he says. "The effect will be even faster, more scalable, more personalised and contextualised attacks, with a reduced dwell time."

Despite this, many cyber experts remain optimistic that the technology will be a boon for cyber professionals overall. "Ultimately, it is the defenders who have the upper hand, given that we own the technology and thus can direct its development with specific use cases in mind," says Venables. "In essence, we have the home-field advantage and intend to fully utilise it."



'More data means a larger surface area to target and more potential blind spots'

places to deploying ransomware — which is becoming easier in an era of generative artificial intelligence and off-the-shelf tool kits. In 2023, the number of ransomware attacks in the finance industry surged by 64 per cent, and was nearly double the 2021 level, according to Sophos, a cyber security company.

Luke McNamara, deputy chief analyst at Mandiant Intelligence, Google Cloud's cyber security business, adds that "entities within the financial sector" can also be a target for "espionage actors", such as nation states, because they play a role in "politically sensitive functions, such as sanctions enforcement and compliance, or financing of high-profile or controversial projects".

The stakes are high. According to Philippe Thomas, chief executive of tech due diligence and audit tech group Vaultinum, hacks could lead to financial loss, disruption to a country's financial infrastructure, and even threats to political stability "as confidence in financial markets is essential for global economic health".

In October, Lloyd's of London warned that a significant cyber attack on a global payments system could cost the world economy $3.5tn.

Beyond bank runs and instability, in a market where customer trust and confidence is vital, "a cyber breach can trigger immediate financial and reputational damage for fintech vendors themselves but also for the banks and brokers that rely on their software to trade clients' money on public exchanges," adds Thomas.

So where are the vulnerabilities? In a 2023 KPMG survey of 142 banking CEOs, only 54 per cent said they were "well-prepared" for a cyber attack, with those feeling underprepared blaming the increasing sophistication of attackers, talent shortages and a lack of investment in cyber defence. However, some expressed a hope that nascent generative AI technology could help bolster their cyber response.

This general lack of preparedness extends to monetary plumbing. A 2023 IMF survey of 51 countries found that 56 per cent of the central banks or supervisory authorities do not have a national cyber strategy for the financial sector, and 64 per cent do not mandate testing and exercising cyber security measures.

There is a consensus that financial services organisations need to invest in cyber risk management and consider their operational resilience to set them in the best stead for battling threats."

Experts also say that industry-wide collaboration and increased regulatory harmonisation will be vital for survival. "Today, there is a lot of emphasis on intelligence gathering and sharing, to keep pace with the new tactics and techniques being utilised by threat actors," says Jim Simpson, director of threat intelligence at cyber company Searchlight Cyber. He points to the intelligence sharing initiatives being led by cyber-focused non-profit FS-ISAC.

But the responsibility for cyber security cannot stop there. Others emphasise the importance of addressing weaknesses all along the supply chain.

"Rapid technological adoption, like cloud services and mobile banking, coupled with increased reliance on external vendors, introduces new vulnerabilities and amplifies systemic risks due to the concentration in essential technology and service sectors," cautions Thomas.

"This calls for higher scrutiny from clients of these third-party software providers."

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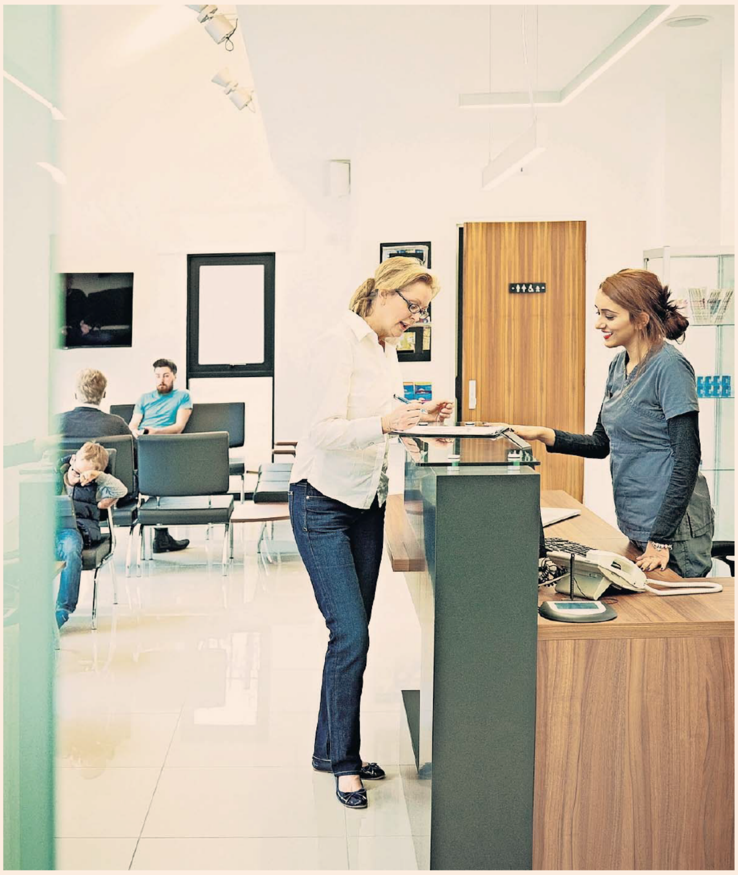
Healthcare systems under attack

The vast amount of information held by hospitals makes them a prime target for hackers, writes *Nick Huber*



Highly personal: the sensitivity of patient data makes it attractive to malicious hackers — Getty Images

An increase in cyber attacks on the healthcare sector is jeopardising patient safety, and prompting some governments to publish new cyber security standards.

Publicly disclosed global cyber security breaches between January and September last year showed that the healthcare sector suffered more attacks (241) than any other sector, ahead of government (147), and information technology including software, hardware and IT services (91), according to research by Omdia, a technology research provider.

The most common type of cyber breach in healthcare was hacking, followed by supply chain attacks, "phishing" (where cyber criminals pose as legitimate organisations to trick people into disclosing passwords and payment details), and "ransomware", in which hackers use malicious software — "malware" — to encrypt data until the victim pays a ransom to unlock it.

"The healthcare sector is such a tempting target [for cyber security criminals] because . . . you can put lives at risk," says James Lewis, a cyber security expert at the Center for Strategic and International Studies, a US think-tank.

The UK's National Health Service has been hit by significant ransomware attacks. In 2017, the "WannaCry" attack is estimated to have cost the NHS £92mn and caused the cancellation of 19,000 patient appointments. Another hacking, in 2022, took down the non-emergency 111 service, and disrupted management systems for mental health services and emergency prescriptions.

Cyber attacks on hospitals in Germany and the US have also disabled their systems — forcing them to reschedule some procedures and temporarily divert patients to other facilities until the systems were brought back online.

And, in another case, in Finland, the confidential records of thousands of psychotherapy patients were hacked and leaked online — with others blackmailed to keep the data private, according to reports in the national media.

"Almost every hospital CEO I speak to . . . now [says] that cyber risk is their number one or number two enterprise risk issue," says John Riggi, national adviser for cyber security and risk at the American Hospital Association (AHA), which represents hospitals and healthcare networks. "It's one of the main issues that keep them up at night."

Technology is making cyber crime easier to commit. Tools and services are available on the dark web, so cyber criminals do not necessarily require sophisticated technical skills.

Even as healthcare organisations become better at protecting themselves from one type of attack, such as ransomware — by restoring locked data from backups, for example — cyber criminals switch tactics.

Industry specialists report that some criminals now steal, rather than encrypt, highly sensitive medical data and threaten to publish it on the dark web, unless the healthcare provider or patient pays a ransom using a cryptocurrency.

"Ransomware operators have become smarter," says Elia Zaitsev, chief technology officer at cyber security supplier CrowdStrike. "In many ways, the extortion model is actually simpler for them from a technical perspective."

Old healthcare IT systems also make the process easier for criminals.

In many NHS organisations, legacy systems can account for between 30 and 50 per cent of all IT services, says Josh Chandler, chief digital information officer at Bedfordshire Hospitals NHS Foundation Trust in eastern England.

Some of these old systems may have been designed more than 20 years ago and may not have been upgraded for more than 10 years, he adds. "[The IT systems] haven't stayed up to date with technological advancements [while security] threats have increased around them."

Annual audits of an organisation's cyber security and a "zero trust" approach (assume any user or device may be a risk until proven otherwise) can mitigate threats to old and new healthcare IT systems, experts say.

So can widely used antivirus software, which protects computers and laptops from malware, ransomware and other information security threats, as well as "intrusion detection" software, which spots potential suspicious activity in hospital computer networks — for example, attempts to steal clinicians' passwords or approve fake invoices.

In addition, a new type of cyber security software — "extended detection and response" or "XDR" — can give organisations an overview of multiple security threats. It gathers data from IT applications, networks, hardware and email traffic, and sometimes uses artificial intelligence to monitor threats in real time.

> '[The IT systems] haven't stayed up to date with technological advancements'

There is also specialist security software to protect hospital hardware: medical devices, including heart monitors, life support machines, and infusion pumps. It will play an even more vital role as the number of internet-connected medical devices rises from 503mn in 2021 to 760mn by 2026, based on forecasts from research company IDC.

"If you think about a hospital bed . . . it's basically a computer acting as a bed," says Katell Thielemann, a cyber security expert at research company Gartner. "For a long . . . time patient safety was sort of built in to the medical device manufacturing lifecycle, but [cyber] security was almost an afterthought."

Although medical devices are not thought to be commonly hacked, the US Government Accountability Office, a spending watchdog, warned last year that security vulnerabilities within devices were a risk to hospital networks and patients.

Politicians appear to be taking notice. Last year, the US and UK governments announced strategies for strengthening cyber security in healthcare.

The UK's plan — which applies to England, but stresses the need to "work collaboratively" with the devolved administrations in Scotland, Wales and Northern Ireland — includes identifying parts of the healthcare system where a cyber attack would cause the most harm to patients, and "embedding security" into emerging technology.

The strategy of the US Department of Health and Human Services includes minimum standards for hospital cyber security — with bigger fines for non-compliance — and government funding to help the sector improve security.

The AHA says it is keen to work with the US government to raise standards but adds that software suppliers must take action, too. "We need our technology providers to provide us with better secured technologies," says Riggi.

That — combined with adopting international standards for healthcare cyber security, and putting more cyber criminals in prison — may help the sector mitigate numerous threats, experts say. But it will probably remain a prime target for cyber criminals, they warn.

"The threats will evolve as attackers deploy new tactics, and the [defences] will evolve as cyber security tools mature," says Gartner's Thielemann. "It's . . . a cat-and-mouse game."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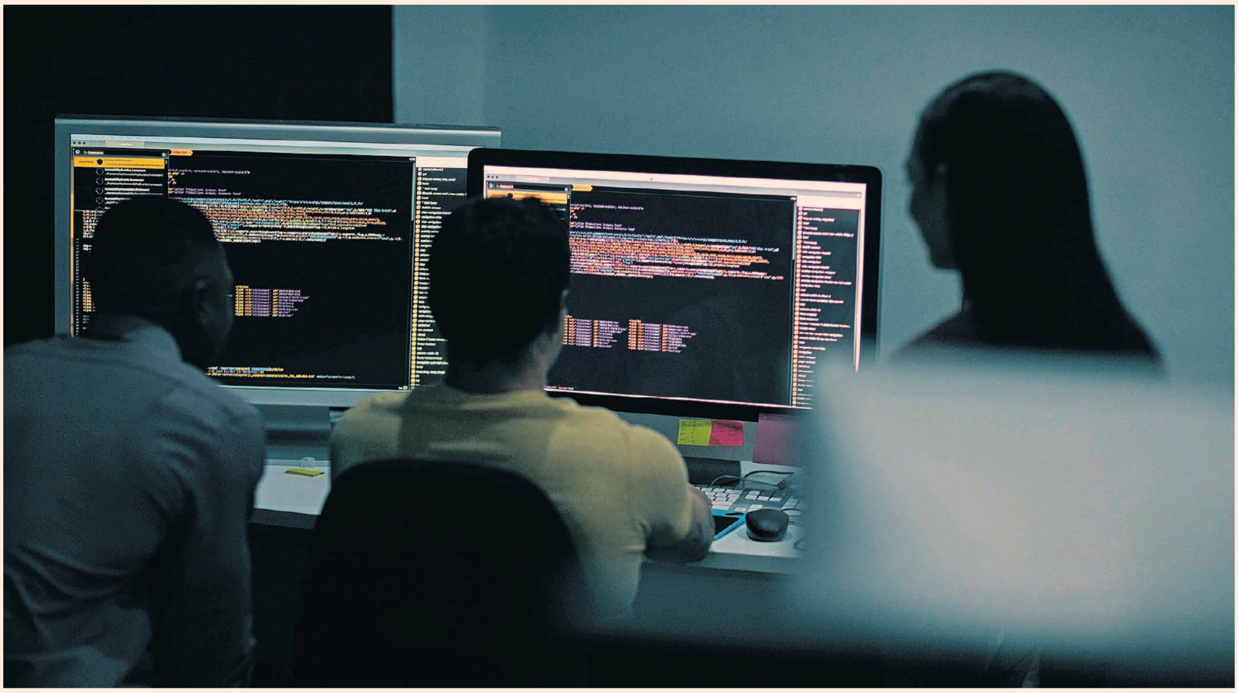

On top of financial gain, some cyber criminals seek recognition to further a political or ideological agenda — Getty Images

How to negotiate with hackers

Victims of ransomware have been turning to professionals for help, says *Hannah Murphy*

After UK-based Euler Finance, a crypto lending platform, fell victim to a $197mn cyber theft, lawyers helped it to retrieve all the funds in three weeks.

They succeeded because the criminals made a strategic error in paying 100 ETH, or Ether, into an account reputed to be linked to North Korean hackers. Lawyers used this as a pressure point to warn the perpetrators that they could face reprisals from state actors or organised crime. It was enough to persuade the hackers to return the money.

While recovering funds in this way is extremely rare, victims of ransomware are increasingly turning to negotiators — be they in-house response teams, insurers, security firms, or lawyers — to reduce the cost of their ransom, or even avoid paying one altogether.

But what is the art of ransomware negotiation?

"Negotiators should ask open-ended questions to attempt problem-solving," says Amanda Weirup, assistant professor of management at Babson College, and an expert in negotiation and conflict management. "For example, 'What would it take to resolve this situation?' The strongest negotiators tailor their approach based on the other parties' interests and priorities," she says, noting that, on top of financial gain, some cyber criminals seek recognition to further a political or ideological agenda.

Ransomware hacks — in which cyber criminals encrypt data systems and demand a payment to release them — have proliferated since the coronavirus pandemic, as remote working lessened cyber defences.

But data from US tech group IBM shows that organisations that paid a ransom achieved only a small difference in the cost of the attack — $5.06mn compared with $5.17mn — although this does not include the cost of the ransom itself. "Given the high cost of most ransomware demands, organisations that paid the ransom likely ended up spending more overall than those that didn't," the report said.

Some — particularly those who object to the idea of negotiating with criminals — argue that paying off hackers only encourages them and continues a cycle of cyber crime. They note that, by paying hackers, victims risk breaching sanctions and other national regulations, and could inadvertently fund a national adversary, corrupt regime, organised crime gang, human trafficker, or terrorist.

Payment does not guarantee hackers will unlock systems, either, or that they will not return to demand more money. Indeed, as the business of ransomware has proven more lucrative, cyber criminals from Russia, Iran and North Korea have evolved their strategies to squeeze as much money from a victim as possible, experts say.

> 'In reality, negotiations with cyber criminals are often necessary to maximise outcomes'
>
> Amanda Weirup, Babson College

David Higgins, senior director for the field technology office for information security group CyberArk, says his data shows that organisations hit by ransomware in 2023 typically paid up at least twice, meaning they were likely victims of so-called double extortion campaigns. These are attacks where hackers not only block access to a victim's systems by encrypting data, but also steal data, threatening to release sensitive information only if a ransom is paid.

"Companies should have a contingency plan in place if their payment does not illicit the results they had been promised," advises Matthew Roach, Head of i-4 cyber security leaders community at KPMG UK.

Some authorities are outlawing the payment of ransoms — for example, the US states of North Carolina and Florida have explicitly banned state and local government agencies from paying hackers.

But businesses may have little choice if they wish to stay afloat. "In reality, negotiations with cyber criminals are often necessary to maximise outcomes," says Weirup. "Paying the ransom can be the quickest way to recover data and resume operations, especially if the ransom is less than the costs."

The negotiating team should both "determine the underlying motives of the hackers" and "formulate a cost-benefit analysis by determining their alternatives", she says. For example, victims should check whether they have data backups, or other ways to get critical services up and running.

Negotiators should engage with hackers sooner rather than later to prevent escalations, experts say. "They expect to be ignored and will respond by escalating their threats, calling executives, making threats via social media, and increasing hostilities until they feel they are being listened to," says Roach.

But, while hackers might use time pressure to compel victims to pay up, so too can businesses slow down the process — giving them time to recover their data or operations behind the scenes. "Companies may choose to negotiate in an attempt to instil delays rather than merely reduce the ransom amount or avoid the payment altogether," says Roach.

Ultimately, it is the victim and the negotiators who need to define how they will measure success, Weirup says — be that data recovery, minimising financial loss and disruption, or reducing reputational harm.

"It's crucial to establish . . . a point beyond which they are not prepared to continue negotiations," she says.

Navigating Cyber Risk

Ransomware is being used to target critical infrastructure in the energy, water, and mining sectors, writes *Nicholas Fearn*

Criminals step up attacks on industry

Under pressure: in the past two years, cyber attacks on sectors such as oil and gas have increased — Simon Dawson/Bloomberg

Geopolitical risk has focused governments' attention on the security of their resources and energy supplies — but, now, another risk to these essential commodities is on the rise: hacking and ransom demands.

In the past two years, cybercriminals have increased their attacks on industrial targets in the oil and gas, water, and mining sectors — typically, with the aim of disrupting critical infrastructure, stealing data, and demanding huge payments for its return.

High-profile examples include a 2021 ransomware attack that shut down America's Colonial Pipeline, which provides fuel to a large part of the US east coast, and, later that same year, a leak of data from oil group Saudi Aramco, which was followed by a $50mn ransom demand.

Last year, in the US, White House national security officials also acknowledged cyber attacks by Iranian hackers on state water authorities — and described them as a call to action for utilities to tighten their cyber security.

At the same time, international mining groups, including Australian iron ore miner Fortescue Metals, have found themselves being targeted by cybercriminals with greater frequency — the industry's Mining and Metals Information Sharing and Analysis Centre now registers an average of two to three cyber security incidents each month, a doubling of the rate reported in the previous year.

In the case of Saudi Aramco, the data ransom demand was not the first it has suffered. In 2012, the oil producer was the victim of a ransomware attack that infected 35,000 computers and impeded daily operations. Saudi Aramco has since signed a memorandum of understanding with operational technology firm Dragos to help secure its critical infrastructure and assets.

According to Graham Thomson, chief information security officer at national law firm Irwin Mitchell: "The Aramco cyber incidents demonstrate that we are in an era where cyber security is no longer a luxury, but a necessity for all businesses. Aramco's cyber-destruction attack, and more recent data leak, underscore the magnitude of the threat faced by industries across the globe."

Cyber attacks targeting physical processes in the industrial sector can inflict more than financial harm. Jake Moore, global cyber security adviser at cyber security software provider ESET, cites "machinery damage, production stoppages, or even risks to human safety", as well.

He says that integrating information technology and operational technology systems — whereby the IT systems manage virtual assets such as data and software, and the OT systems control physical environments such as water pipelines — can increase cyber risks. This increased vulnerability has become a "significant challenge" for industrial businesses.

But Moore believes companies can decrease the risks by isolating their critical systems through network segmentation, so that large computer networks are divided into smaller ones, with security protocols updated as often as possible.

As well as IT and OT vulnerabilities, Moore warns industrial organisations to be vigilant about insider threats, which may include "both intentional and unintentional actions by employees or contractors with access" to critical systems. Companies can spot these by promoting a transparent culture in which "everyone knows how their colleagues operate", he advises.

But, equally, employees can inadvertently add to the threat and make systems vulnerable to cyber attacks by "accidentally introducing malware, or failing to follow security protocols". Both risks can be reduced by providing cyber security awareness training, Moore says.

Ransomware attacks — where hackers steal sensitive data and threaten to post it online unless the victim pays a ransom — are now the most prevalent threat to large industrial businesses from commercial hackers.

Evgeny Goncharov, head of industrial control systems within the cyber response team at security group Kaspersky, observes that every sixth ransomware attack succeeds in disrupting product lines or deliveries.

"Ransomware attacks on large organisations, unique product suppliers and logistics companies can have severe economic and social consequences," he says. "And the potential evolution of cyber threats into infrastructure attacks — similar to the Colonial Pipeline incident in 2021 — is likely to further amplify these repercussions."

'We are in an era where cyber security is no longer a luxury, but a necessity for all businesses'

One way for employers to mitigate ransomware attacks is by educating staff in how to spot phishing emails containing suspicious links and attachments, which are used to spread the ransomware.

However, the attack surface — the number of possible unauthorised entry points — is being increased by the interconnected nature of energy and industrial companies, and the range of technologies they use. With everything from video surveillance to communications systems now part of their day-to-day operations, they "face cyber risks on many fronts", warns Damian Lewis, who works on the insights & market development team at communications company Viasat.

Companies can try to mitigate these risks by deploying digital protective measures, such as firewalls, cyber probes and event management systems, which will enable them to "collect and monitor data as it moves across platforms".

Investing in a security operations centre (SOC) — a team of internal or external cyber security experts — is also a way to detect and mitigate potential threats around the clock. Lewis says the approach taken by Viasat's SOC involves "analysing active feeds, establishing rules, identifying exceptions, enhancing responses and monitoring possible vulnerabilities".

But it is not easy: the OT systems used by industrial businesses are "often outdated" with "specialised vulnerabilities" that are harder to spot or fix, points out Lewis Duke, a threat intelligence expert at IT security company Trend Micro. This makes them an "an attractive target to nation-state actors, cyber criminals and hacktivists", he warns.

To stay one step ahead of threat actors, he recommends that businesses adopt a threat intelligence system and collaborate with cyber security companies, just as Saudi Aramco has done with Dragos.

And the threats will keep coming. Nick Smith, business development manager at security intelligence company Genetec, expects serious industrial cyber attacks such as the Colonial Pipeline case to "increase over time", unless companies take the right precautions.

He says there still needs to be an "urgent change in mindset and strategy" across the industrial landscape. Businesses must tackle both "physical and cyber vulnerabilities" as part of a "single unified plan", he advises.

A security-focused company culture and clear protocols for staff can help combat attacks, writes *Nicholas Fearn*

Workplace war-games: simulating common cyber security threats can be a good way to increase employee awareness and responsiveness — Getty images

How to improve cyber resilience

Cyber attacks are increasing both in number and complexity, yet many businesses are still failing to provide adequate cyber security training for their employees.

Although British companies experienced 2.39mn cyber attacks over the past year, only 18 per cent of them provided cyber security training to their staff, according to the UK government's 2023 Cyber Security Breaches Survey.

Such a lack of security training often means staff are unequipped to deal with existing — and emerging — cyber threats. A study by the UK's Chartered Management Institute found that just one in 10 managers understood security basics, such as setting strong passwords and spotting malicious emails.

This knowledge gap persists despite humans playing a role in 74 per cent of cyber security breaches — according to the Verizon 2023 Data Breach Investigations Report — for example, by clicking on malicious hyperlinks or opening documents in phishing emails.

Businesses must therefore view cyber security hygiene as a "top priority" and develop a "cyber-conscious company culture", says Tris Morgan, managing director of security at UK telecoms group BT.

He says companies should provide their staff with regular online safety training and empower them to make better decisions regarding cyber security risks.

As part of the process, they should promote transparency, so that staff "openly discuss safety concerns and report these", while not "apportioning blame to employees if they fall foul, and celebrating when they do spot a cyberthreat". He says companies can complement their cyber security training programmes with additional protections such as password discipline, secure corporate WiFi, antivirus and anti-malware software, and virtual private networks.

"Well over half of businesses (61 per cent) in the UK find it challenging to keep up with cyber security measures," Morgan adds. "However, by establishing a cyber-focused company culture and a solid foundation of security protocols for staff, businesses can boost cyber resilience for the year ahead."

An effective cyber security hygiene strategy includes "leadership commitment", where executives practise good security habits and "encourage employees to do the same", according to Bharat Mistry, technical director at IT security company Trend Micro.

It is a good idea to "consider restricting access to data and systems, based on roles and responsibilities — to minimise the impact if one account is compromised", as well as performing "regular access reviews" in an attempt to "ensure privileges remain appropriate", he advises.

Mistry adds that simulating common cyber security threats, such as phishing emails, through an interactive training programme can be a good way to increase employee awareness and responsiveness.

But threats are not always obvious. While it may be easier for staff to spot phishing emails if they contain spelling mistakes or improper formatting, they will probably struggle to identify targeted attacks, according to James Watts, managing director at Databarracks, a business continuity specialist.

"Attackers will research your customers, your suppliers and your staff, and include this detail to make the emails more convincing," he explains. "They may purchase domains to send emails that look like they are from your organisation."

Watts says "generic cyber security training" is not enough to counter these risks, and urges employers to "be clear about what kinds of communications employees can expect from the organisation" and "what should stick out as suspicious".

He also recommends that companies nominate and signpost a specific person or group who can cross-check and verify suspicious digital activity.

"Employees don't tend to circumvent cyber security policies through laziness or incompetence, they are often just trying to find the fastest way to do their work," he says. "Make it easy to have potential phishing emails checked and validated."

Neil Thacker, Emea chief information security officer at cloud security company Netskope, warns against developing a yearly cyber security training programme, because it is unlikely to change employee behaviour or mitigate cyber attacks.

"At a human level, annual training can often be seen as a tedious chore and an obstacle between the employee and their daily workload," he says. "At a corporate level, these training programmes achieve little more than the ticking of compliance boxes."

Instead, businesses should offer real-time coaching that will "instantly flag a high-risk behaviour" and "propose alternative actions for the employee". This will help staff "make safer decisions" and ensure businesses can "prevent cyber incidents the moment the threat occurs".

As new technologies emerge, the cyber security threat landscape will also evolve.

Catherine Mulligan, a visiting lecturer at Imperial College Business School, uses the example of generative artificial intelligence potentially exposing trade secrets.

These new threats require employees "to be adaptable in how they think about security", and to consider the "cyber resilience implications of their actions in all parts of their everyday activities".

She says companies must ensure that everyone within the organisation develops "the right mindset" for responding to "entirely new and unknown threats" — rather than just "known threats" — while ensuring that cyber resilience is "embedded in every part of a person's job".

"Quite simply, even the best-trained cyber security team will be unable to keep pace with emerging threats — it will require cross-organisational collaboration and trust," she concludes.

Human Error: The *Unseen* Cyber Threat

PS: Neither do your employees

Contrary to popular belief, the majority of cyber attacks are not due to sophisticated hacking techniques. Instead, they often arise from simple human errors or overlooked security practices, making everyday actions the real frontline of cyber defence.

A User-Centric Approach To Cyber Security

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