FINANCIAL TIMES

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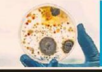

Can microbes spur an agricultural revolution?
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It's not too late to apply AI guardrails
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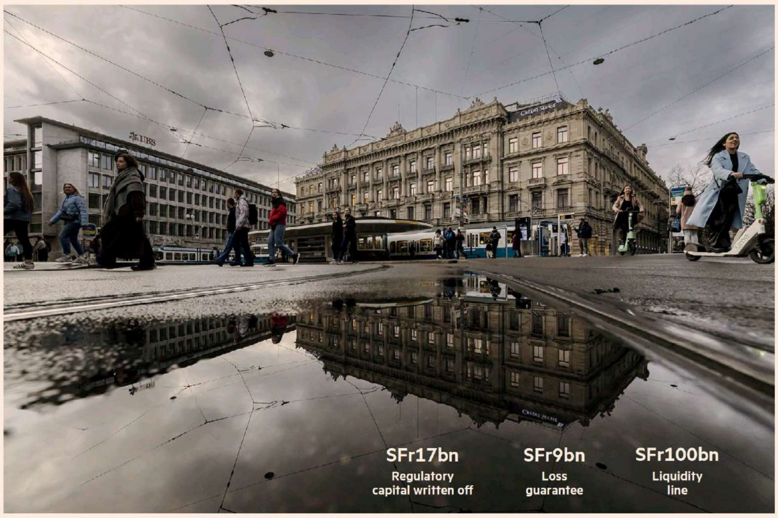
UBS agrees to acquire Credit Suisse for SFr3bn after frantic weekend talks

• Letting bank fail was 'not an option' • Central bank offers liquidity line • Shareholders wiped out

ARASH MASSOUDI, STEPHEN MORRIS, LAURA NOONAN AND OWEN WALKER
JAMES FONTANELLA-KHAN — LONDON



UBS has agreed to buy Credit Suisse for $3.25bn after a frantic weekend of negotiations brokered by Swiss regulators in a bid to safeguard the country's banking system and prevent a crisis spreading to global financial markets.

The all-share deal between Switzerland's two biggest banks was priced well below Credit Suisse's closing price on Friday of SFr1.86, all but wiping out its shareholders.

UBS will pay SFr0.75 a share in its own stock, according to two sources. Credit Suisse's board rejected an earlier offer of about $1bn according to people familiar with the situation. The Swiss National Bank has agreed to offer a SFr100bn liquidity line backed by a default guarantee to UBS. Speaking at a press conference in Bern yesterday evening, Swiss president Alain Berset said: "On Friday the liquidity outflows and market volatility showed it was no longer possible to restore market confidence, and a swift and stabilising solution was absolutely necessary."

The Swiss government "is confident that in this difficult situation the takeover is the best solution to restoring the confidence that has been lacking in financial markets recently and best managing the risk to our country and its citizens", he added.

The Swiss Federal Department of Finance said letting the bank fail was not an option because of the "unforeseeable consequences for the Swiss economy and the global financial system".

The Swiss government is preparing emergency measures to fast-track the takeover and plans to introduce legislation that will bypass the normal six-week consultation period required for UBS shareholders, according to people familiar with the matter. Swiss authorities have already secured approval from regulators in the US and Europe.

There was limited contact between the two lenders and the terms were heavily influenced by the SNB and regulator Finma, people with knowledge of the situation said. Both sides have been locked in discussions with regulators since Wednesday, when Credit Suisse asked the SNB for an emergency SFr50bn ($54bn) credit line. Deposit outflows from Credit Suisse topped SFr10bn a day late last week. When this backstop failed to arrest a fall in its share price and stop panicked clients from withdrawing their money, the central bank stepped in to force a merger.

Some people criticised the SNB's plans to prevent a UBS shareholder vote.

Vincent Kaufmann, chief executive of Ethos Foundation, which represents Swiss pension funds that own between 3 per cent and 5 per cent of Credit Suisse and UBS, told the Financial Times that the move to bypass a shareholder vote on the deal was poor corporate governance.

"I can't believe our members and UBS shareholders will be happy about this," he said. "I have never seen such measures taken; it shows how bad the situation is."

The deal comes just months after the Saudi National Bank and the Qatar Investment Authority injected close to SFr3bn into Credit Suisse as part of a SFr4bn capital raise. They are the bank's two largest shareholders and jointly own 17 per cent of the stock.

In a bid to ease any further strain on European banks, the European Central Bank is working on a scheme to lend money to any eurozone banks that need it in exchange for assets pledged as collateral, according to a person familiar with the matter.

The scheme, which is being prepared in consultation with other major central banks, is likely to be similar to the ECB's previous longer term refinancing operations and would only be launched if needed to address market turbulence. The ECB declined to comment.

Additional reporting by Sam Jones and Martin Arnold

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Datawatch

China accelerates
Exports of passenger cars, mn (12-month rolling sum)

Source: Gavekal

China has emerged from the pandemic as a leading exporter of cars. At the end of 2019, it exported about 600,000 cars per year. Now it exports 2.6mn, second only to Japan. The surge has been driven by China's strength in making EV batteries.

Brazil start-ups step up plans to rescue rainforest
Fight to revive Amazon ▸ PAGE 4

Mars chief hits out at politicisation of ESG and says Fox attack boosted sales

ANDREW EDGECLIFFE-JOHNSON
NEW YORK

Companies that back off from their social and environmental commitments in the face of "nonsense" political attacks risk alienating a generation of talent, Mars' new chief has warned.

In his first interview since becoming CEO last September, Poul Weihrauch told the Financial Times that sales at the family-owned petcare, chocolate and chewing gum group "could well double in a decade" to $90bn. However, he added, its more important target was "responsible" growth.

Mars staff "won't stay with us if we don't care about ESG or purpose or whatever we call it. So from my chair, I think it's a nonsense conversation," Weihrauch said. "We don't believe that purpose and profit are enemies."

Companies' environmental and social goals had become politicised, he said, but "quality companies are deeply invested in this and if I walk out of this office and I take a 25-year-old associate that has joined us from university they will want us to do this".

The company, which recruits 25,000 people a year, has broken with a tradition of privacy in recent years to emphasise its efforts to cut greenhouse gas emissions and clean up its supply chains but it had largely stayed out of the business world's culture clashes.

That changed last year when Tucker Carlson, the Fox News anchor with a large following among Republicans, began attacking as "woke" the cartoon characters with which Mars advertised its M&M's candies.

Weihrauch suggested that the attention had boosted the brand, noting that a Super Bowl advertising campaign that played on the controversy had generated 25bn online impressions. "There's lots of sales and it's difficult to keep up with the orders," he said.

Mars intends to more than double its spending on a sustainability agenda spanning greenhouse gases, packaging and its supply chain from $1.1bn over the past three years to $2.7bn over the next three, he said.

Last March, Mars said it would scale back its business in Russia to focus on its "essential role in feeding the Russian people and pets".

Weihrauch defended the decision to keep some operations, saying it wanted to protect its 6,000 people in Russia but had stopped "hundreds of millions" of dollars of exports and donated $12mn in profits so far from the country to humanitarian causes.

World Markets

STOCK MARKETS

	Mar 17	Prev	%chg
S&P 500	3910.82	3960.28	-1.25
Nasdaq Composite	11598.43	11717.28	-1.01
Dow Jones Ind	31808.61	32246.55	-1.36
FTSEurofirst 300	1724.34	1744.66	-1.16
Euro Stoxx 50	4063.31	4116.98	-1.30
FTSE 100	7335.40	7410.03	-1.01
FTSE All-Share	4007.66	4051.38	-1.08
CAC 40	6925.40	7025.72	-1.43
Xetra Dax	14768.20	14967.10	-1.33
Nikkei	27333.79	27010.61	1.20
Hang Seng	19518.59	19203.91	1.64
MSCI World $	2677.99	2638.46	1.50
MSCI EM $	941.35	946.87	-0.58
MSCI ACWI $	619.86	612.09	1.27
FT Wilshire 2500	5136.95	5049.67	1.73
FT Wilshire 5000	40085.63	39407.34	1.72

CURRENCIES

	Mar 17	Mar 10		Mar 17	Mar 10
$/€	1.065	1.069	€/$	0.939	0.936
$/£	1.214	1.210	£/$	0.824	0.826
£/€	0.877	0.883	€/£	1.140	1.132
¥/$	132.030	134.335	¥/€	140.553	143.571
¥/£	160.277	162.558	£ index	78.470	76.949
SFr/€	0.989	0.983	SFr/£	1.127	1.113

CRYPTO

	Mar 17	Prev	%chg
Bitcoin ($)	26485.99	25057.00	5.70
Ethereum	1719.71	1677.20	2.53

COMMODITIES

	Mar 17	Mar 10	%Week
Oil WTI $	66.95	76.30	-12.25
Oil Brent $	73.12	82.32	-11.18
Gold $	1922.75	1831.40	4.99

GOVERNMENT BONDS

Yield (%)	Mar 17	Mar 10	Chg
US 2 yr	3.95	4.19	-0.24
US 10 yr	3.41	3.56	-0.15
US 30 yr	3.61	3.71	-0.10
UK 2 yr	3.21	3.41	-0.21
UK 10 yr	3.42	3.56	-0.14
UK 30 yr	3.72	3.82	-0.11
JPN 2 yr	-0.08	-0.07	-0.01
JPN 10 yr	0.27	0.29	-0.02
JPN 30 yr	1.28	1.27	0.01
GER 2 yr	2.37	2.59	-0.22
GER 10 yr	2.10	2.29	-0.18
GER 30 yr	2.15	2.30	-0.15

Prices are latest for edition
Data provided by Morningstar

Australia	A$7.00(inc GST)
China	RMB30
Hong Kong	HK$33
India	Rup220
Indonesia	Rp45,000
Japan	¥650(inc JCT)
Korea	W4,500
Malaysia	RM11.50
Pakistan	Rupee350
Philippines	Peso140
Singapore	S$5.80(inc GST)
Taiwan	NT$140
Thailand	Bht140
Vietnam	US$4.50

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Reform outcry

France pension protests lead to mass arrests

More than 500 detained as Macron government faces no-confidence vote

ADRIENNE KLASA AND LEILA ABBOUD
PARIS

Hundreds of people were arrested across France over the weekend as protests against president Emmanuel Macron's move to bypass parliament and raise the country's retirement age intensified.

On Saturday, 70,000 protesters took to the streets in a show of anger against the reforms, according to the interior ministry, and there were 169 arrests, taking the total of arrests over three days of demonstrations to 540.

In Paris, water cannons were wheeled on to central Place de la Concorde and protesters banned from the square while some Metro stations nearby were shut. Protesters near Place d'Italie, in the south-east of the city, clashed with riot police who fired tear gas as some demonstrators erected barricades of burning rubbish and abandoned rental bicycles.

"It's war in the 13th arrondissement tonight, because otherwise we will all be working until we're 88," said Paul, a construction contractor in his mid-50s who declined to give his last name.

Macron on Thursday used a special constitutional power to ram through an unpopular plan to raise the retirement age by two years to 64 without a parliamentary vote. As a result of the move, his government faces a no-confidence vote in the French assembly today.

If the motion fails, which is seen as likely because of divisions among the opposition parties, then the pensions reform will become law. If it goes through, Macron's government will fall and the law will not be passed.

'It's war in the 13th arrondissement because otherwise we will all be working until we're 88'

The offices of the leader of the centre-right Les Républicains party in Nice were vandalised in the early hours yesterday, in an apparent attempt to put pressure on his rightwing party to vote against the government.

If the government survives the confidence vote, opponents of the pensions plan have vowed to fight on, with unions in key sectors such as petrol refineries and transport calling for more strikes.

Strikes at the country's petrol refineries were being stepped up at the weekend, after unions announced stoppages at one of the biggest Total refineries in Normandy. Unions had been blocking petrol deliveries from leaving the refineries, while allowing them to operate.

Officials fear the unrest could rise, like the *gilets jaunes* movement in 2018 against an unpopular fuel tax proposal by the previous Macron government.

But Macron's allies have said they will not back down, despite the growing dissent. "I understand the worries and anxieties of our fellow citizens, but it is not through denying economic realities that we will cure them," finance minister Bruno Le Maire told Le Parisien newspaper. He defended the legitimacy of using the constitutional power, which he called "a democratic tool", and promised that the government would not abandon the reform.

"To finance our [pensions] system, which is among the most generous in the world, we must progressively ask those who can to work more," he said.

Macron's approval ratings have fallen 4 points in the past month to 28 per cent, according to an IFOP-Journal du Dimanche poll, their lowest level since the *gilets jaunes* crisis.

See The FT View

Beijing ties

Former leader of Taiwan to pay historic visit to China as polls loom

KATHRIN HILLE — TAIPEI

Taiwan's former president Ma Ying-jeou will visit China this month in what will be the first ever trip to the Communist country by a sitting or retired Taiwanese president.

The 10-day visit, starting next Monday, will highlight the stark differences between Taiwan's two main political parties over its relations with China, as they gear up to campaign for January's presidential and parliamentary elections.

Ma's China visit will take place at roughly the same time as Taiwan's president Tsai Ing-wen is scheduled to travel to the US, the only guarantor of Taiwan's security.

Tsai's Democratic Progressive party sees Taiwan as an independent country, while Ma's opposition Kuomintang (KMT), which was founded in China, sees Taiwan as part of a Chinese nation, albeit not the People's Republic of China.

China, which claims Taiwan as part of its territory and threatens to attack if Taipei refuses to submit to its control indefinitely, has been menacing the country with air and naval manoeuvres in its vicinity on an almost daily basis since the 2019 landslide re-election of Tsai, with whom Beijing refuses to engage. China's ruling Communist party is seeking dialogue with the KMT.

'There will be a push for big dialogue this year, but after the election there will be a big change'

Beijing had been expected to make a big push for dialogue with the KMT this year ahead of next January's election, at the same time as showing Tsai the cold shoulder, said Chao Chun-shan, a cross-Straits expert who has advised Taiwan's last four presidents including Tsai and Ma on China policy.

"There will be a push for big dialogue this year, but after the election there will be a big change," said Chao, who met China's top Taiwan policy officials on a trip to Beijing with KMT vice-chair Andrew Hsia last month. "If the DPP wins, they will pressure Taiwan to move towards unification with military threats. If the KMT wins, they will push Taiwan to move towards unification through negotiation," he said.

Ma oversaw a detente with Beijing during his two consecutive presidential terms from 2008 to 2016, mainly because he agreed to the formula that Taiwan was a part of China, although the two sides' concept of that China differed. He cut defence spending and took a low-key approach to foreign relations and sovereignty.

His government concluded a bilateral trade deal with China and negotiated a second agreement for trade in services. But trade deals under Ma's presidency triggered mass protests.

He met Chinese leader Xi Jinping in Singapore in November 2015, the first encounter between a Taiwanese and Chinese president and between KMT and Chinese Communist party leaders since the end of the civil war the two parties fought in China until 1949.

Ukraine. Religion

Kyiv wades into battle among Orthodox churches

Zelenskyy endorses clear-out of holy cave site in struggle against Russian influence

BEN HALL — KYIV

The crosses on top of the Refectory Church in Kyiv's Pechersk Lavra holy site have turned from gold to black.

Or so said Metropolitan Onufriy, the head of the Ukrainian Orthodox Church, after its priests and monks, deemed by Kyiv to be stooges of Moscow, were ordered by the government to vacate the cave monastery site in Ukraine's capital by the end of the month. "Orthodox people are very sad and desperate," said Lyudmila, a follower of Onufriy's church. "They are trying to kill our faith."

With its churches, monasteries and catacombs housing the relics of saints, the 1,000-year-old Lavra is one of the most sacred places in the Eastern Orthodox religion. It has also become a new battleground in Ukraine's struggle to shake off Russian influence and control.

The UOC, the largest religious community in Ukraine, was until recently subordinate to the patriarchate in Moscow and a bastion of Russian influence.

But it has been in turmoil since Vladimir Putin ordered a full-scale invasion of Ukraine last year, triggering a backlash among parishioners and some of its priests against Russian ecclesiastical control and the church's Moscow patriarch Kirill, a staunch supporter of the war.

In May last year, Onufriy declared independence from the Moscow patriarchy. But the move failed to convince its smaller rival, the Orthodox Church of Ukraine, led by Metropolitan Epiphanius, which broke away from Russian control in 2018. Neither has it convinced the Ukrainian government. They both say the UOC is still under Russian ecclesiastical and political control.

Oleksiy Danilov, Ukraine's national security chief, said the monks and priests in the Lavra had even been infiltrated by spies from the FSB, Russia's federal security service.

Archbishop Yevstratiy, a spokesman for the pro-Kyiv OCU, said Ukraine's security services had demonstrated that its larger rival was still subordinate to the Moscow patriarchate that was "not a real religious institution but part of the Kremlin". He added: "The Lavra is like the sacred heart of Ukraine. Moscow understands that, as long as it holds this heart in its hand, Russian influence will return, that it will conquer Ukraine and reimpose sacred unity."

Kyiv's Lavra monastery is owned by the government, which has ordered priests and monks from the Ukrainian Orthodox Church, viewed as stooges of Moscow, to leave Sergey Dolzhenko/EPA-EFE/Shutterstock

Metropolitan Kliment, a spokesman for the UOC church, responded: "We don't have any connections. There is no subordination. We are not co-ordinating [with Moscow]."

Ukrainian authorities have for months been tightening the screws on Onufriy's church. In November, counter-intelligence agents raided the Lavra and other sites as part of an investigation into pro-Russian influence operations. On March 10, the culture ministry, which officially owns the Lavra site, said Onufriy's church had violated the terms of its lease and would not have it renewed after it expired on March 29.

President Volodymyr Zelenskyy, who had previously distanced himself from the tussle between Ukraine's churches, has endorsed the clear-out of the Lavra as a "movement to strengthen our spiritual independence". Zelenskyy, born to Jewish parents, is not religious.

But the end of the lease sets the scene for a stand-off between Ukrainian law enforcement and Onufriy's monks and priests, who have vowed to stay and fight the eviction in the courts.

Kremlin spokesman Dmitry Peskov said on Friday that the end of the Lavra lease for UOC clergy and monks "confirms the correctness of the special operation in Ukraine" — the Russian government's term for the war.

Kyiv has promised not to evict the UOC priests and monks by force.

"Ukraine is a democratic, tolerant European country," said culture minister Oleksandr Tkachenko. "No one is raising the question of evicting monks. We are talking about the return of property owned by the state."

Epiphanius, the self-governing Ukrainian church's leader, said on Saturday that all UOC priests and monks who "reject the lawless power of Moscow" would be allowed to serve in the Lavra.

UOC spokesman Kliment said Zelenskyy and his ministers were using the Lavra dispute to distract attention from corruption and the heavy human toll of the war, adding: "Now there are large numbers of people we bury every day. Instead of this drama, they offer us a soap opera that runs until March 29."

'Moscow understands that, as long as it holds this heart in its hand, Russian influence will return'

Sergei Chapnin, senior fellow in Orthodox Christian studies at Fordham University in the US, said: "Of course there are those who did support Russia and the Russian military but not the whole church." He said the Lavra dispute could have been defused had Onufriy removed some of the senior clerics who had flaunted their pro-Moscow sympathies and connections.

But now the Ukrainian government had waded into a "battle between churches" that it could not win because it would have to explain to the church's many faithful and to Kyiv's allies why it made this move. It would also have to pick up the cost of running the Lavra.

"We are praying," said Lyudmila, the follower of Onufriy's church. "We don't know what more we can do to prove that we are Ukrainians. We are not citizens of Russia."

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Shell production

Explosives shortage threatens EU drive to arm Ukraine

HENRY FOY — BRUSSELS
BARNEY JOPSON — MADRID
GUY CHAZAN — BERLIN

Europe's push to make arms for Ukraine has been hobbled by a shortage of explosives, which industry insiders fear will delay efforts to boost shell production by as much as three years.

Scarce supplies of gunpowder, plastic explosives and TNT have left industry unable to meet expected EU orders for Ukraine rapidly, regardless of how much money is thrown at the problem, according to officials and producers.

Europe is trying to meet Kyiv's war-fighting needs by pumping cash into the defence sector, particularly to encourage expansion of 155mm artillery production. There is dire need for shells, both to restock national armouries and maintain supplies to Ukrainian forces.

Producers, industry executives and EU officials warn increased demand may only push up prices that have already jumped a fifth over the past year. "It's very difficult to increase production of artillery ammunition, especially the heavy, large-calibre ammunition, in a short time," said Jiří Hynek, chair of the Defence and Security Industry Association of the Czech Republic. "A new artillery factory is very easy, but how to produce more artillery projectiles without raw materials?"

The comments come ahead of a meeting of EU foreign and defence ministers in Brussels today to discuss two €1bn proposals to speed up immediate 155mm shipments to Ukraine and incentivise countries to form joint artillery purchase contracts.

Defence industry officials say Europe has a limited supply of explosives such as gunpowder, TNT and nitrocellulose that are necessary to produce shells.

"It's not possible to increase, in a short time, nitrocellulose [production] . . . In Europe there are no important producers of the raw materials we need," said Hynek, referring to a main ingredient of gunpowder. "If I want to increase production of gunpowder I need probably three years."

Explosia, a Czech state-owned manufacturer that is one of Europe's largest suppliers of explosives to ammunition factories, told the FT that its production of propellants used in 155mm artillery is "running at full capacity" and would not be increased until 2026. "Investments are under way to further increase our production capacity, but this is a three-year project, not a few months' job," said Martin Vencl, the company's spokesperson.

Romania's government said it was in talks with US and South Korean companies to build a gunpowder factory. The nation's last such plant was shut down in 2004.

Fábrica de Municiones de Granada (FMG), one of Spain's two 155mm artillery producers, has been operating at full capacity since last October, producing shells for a trading company that sells them on to Ukraine. But Antonio Caro, FMG's director-general, said it had taken four to five months to scale up because of the difficulty of obtaining basic materials and components.

Limited supply: Ukrainian forces are in dire need of artillery shells

"Our main problem is primary materials," Caro said. "Supplies for ammunition are very strained around the world because all the factories, like us, are at 100 per cent.

"There aren't too many factories [producing materials such as TNT and nitrocellulose] in Europe and they're at 100 per cent too, so we have to start looking in India, in Korea, in other countries further away," he said.

Gianclaudio Torlizzi, an adviser to Italy's defence ministry, agreed, saying: "We need to find new sources of supply . . . from countries we had not traditionally approached," he said.

The cost of basic materials had "doubled and in some cases tripled", Caro said. For now FMG, which is owned by Slovak group MSM, has no plans to increase capacity further. "Hopefully the war will be over soon," Caro said.

Additional reporting by Raphael Minder and Amy Kazmin

Survey

Fed forecast to raise rates despite bank woes

Leading economists think more action needed to stamp out high inflation

COLBY SMITH — WASHINGTON
SAM LEARNER — NEW YORK

The Federal Reserve will keep raising its benchmark policy rate, holding it above 5.5 per cent for the rest of the year, despite turmoil across the US banking sector, according to a majority of leading academic economists polled by the Financial Times.

The latest survey, conducted in partnership with the Initiative on Global Markets at the University of Chicago's Booth School of Business, suggests the US central bank still has work to do to stamp out stubbornly high inflation, even as it contends with a crisis among midsize lenders following the implosion of Silicon Valley Bank.

Of the 43 economists surveyed between March 15 and 17 — just days after US regulators announced emergency measures to stem contagion and fortify the financial system — 49 per cent forecast the federal funds rate to peak between 5.5 per cent and 6 per cent this year. That is up from 18 per cent in the previous survey in December and compares with the rate's current level of between 4.50 per cent and 4.75 per cent.

Another 16 per cent estimated it would top out at 6 per cent or higher, while roughly a third thought the Fed would stop short of these levels and cap its so-called "terminal rate" below 5.5 per cent. Moreover, nearly 70 per cent of the respondents said they did not expect the Fed to deliver cuts before 2024.

The policy path projected by most of the economists is markedly more aggressive than current expectations reflected in fed funds futures markets, underscoring the uncertainty clouding not only the Fed's rate decision on Wednesday but also the trajectory over the coming months.

Traders have recently scaled back how much more the Fed will squeeze the economy given concerns about financial stability. They now wager the central bank will only lift its policy rate by another quarter of a percentage point before wrapping up its tightening campaign. That would translate to a terminal rate just below 5 per cent. They also increased bets that the central bank would rapidly reverse course and implement cuts this year.

"The Fed is really caught between a rock and a hard place," said Christiane Baumeister, a professor at the University of Notre Dame. "They have to continue fighting inflation but now they have to do that against the background of elevated stress in the banking sector."

Roughly half of the respondents said the events associated with SVB had led them to slash their forecasts for the fed funds rate by the end of 2023 by 0.25 percentage points. About 40 per cent were evenly divided between the rout causing no change or possibly more tightening versus a half-points' worth of easier policy from the central bank.

Most of the economists surveyed expect the Fed's preferred gauge — the core personal consumption expenditures price index — to remain at 3.8 per cent by year-end, roughly a percentage point lower than its January level but still well above the central bank's 2 per cent target. In December, the median core PCE estimate for the end of 2023 stood at 3.5 per cent.

Nearly 40 per cent of the respondents said it was "somewhat" or "very" likely that core PCE would still exceed 3 per cent by the end of 2024. That is roughly double December's share.

See Companies

US Republicans

Trump says his arrest is likely and calls on supporters to protest

STEFANIA PALMA — WASHINGTON

Donald Trump has said that he expects to be arrested tomorrow and called on supporters to protest, as Manhattan prosecutors continue to investigate allegations that the ex-president paid hush money to buy a porn star's silence.

Trump, who is campaigning as a Republican candidate for the 2024 presidential election, on Saturday wrote on his Truth Social platform he "will be arrested on Tuesday of next week", citing unspecified leaks.

He claimed that "no crime" could be proved and that any action against him would be "based on an old & fully debunked . . . fairytale".

He added: "PROTEST, TAKE OUR NATION BACK!"

The Manhattan district attorney's office, which is reportedly handling the case, declined to comment.

Stormy Daniels, whose real name is Stephanie Clifford, has alleged she had an affair with Trump. The pornographic film actress sued the ex-president in 2018 to bypass a non-disclosure agreement that was set up shortly before the 2016 election.

Clifford was paid $130,000 via an entity established by Michael Cohen, Trump's former personal lawyer. Cohen was sentenced in 2018 to three years in jail after pleading guilty to charges including campaign finance violations linked to the payment.

The actress had previously signed a statement saying she did not have an affair with the former president, which Cohen presented to the media. Clifford later claimed she had been threatened to make her remain silent about the matter. Trump's representatives have denied he had an affair with Clifford.

The former president is facing a string of legal challenges, including a probe on potential mishandling of government documents, led by a special counsel, as well as an investigation into his efforts to subvert the 2020 election results in Georgia. Trump denies wrongdoing.

In December, the Trump Organization was convicted of tax fraud in a criminal case pursued by Manhattan prosecutors. In September, New York state attorney-general Letitia James sued Trump and three of his adult children for what she described as an "outstanding" fraud.

A congressional committee probing the attack on the US Capitol on January 6, 2021, said Trump should be prosecuted for aiding the failed effort to overturn the 2020 election results. He should also be criminally charged for obstructing an official government proceeding, conspiring to defraud the US, and knowingly making false statements to authorities, the committee said.

In February last year, the two prosecutors leading the Manhattan district attorney's criminal investigation resigned in a move that led some to speculate at the time that the district attorney's office had taken a step back.

Speaker of the House Kevin McCarthy, came to Trump's defence on Saturday, accusing prosecutors of being politically motivated. McCarthy tweeted that he would direct Republican committee chairs in Congress to "immediately investigate if federal funds are being used to subvert our democracy by interfering in elections with politically motivated prosecutions".

Additional reporting by Joe Miller and Lauren Fedor

Latin America. Climate change

Start-ups join Brazil's fight to revive Amazon

Groups are planting millions of trees and generating revenue selling carbon credits

BRYAN HARRIS — BELÉM
CAMILLA HODGSON — LONDON

Renato Crouzeilles, director of science at Mombak, examines standing forest in the Amazonian state of Pará reforestation site in Brazil — Ricardo Lisboa/FT

Standing in front of a vast stretch of Amazonian grassland, the forest visible only on the horizon, Renato Crouzeilles and his team attract curious looks from a trickle of passers-by, unaccustomed to seeing strangers in such a remote corner of Brazil.

As director of science at Mombak, a two-year-old reforestation start-up, Crouzeilles is planting 3mn trees across almost 3,000 hectares in the country's Pará state, in one of the largest such projects aimed at restoring forest in the Amazon biome. "The biggest challenge in the region is to change the culture. It is not a forest culture, they don't think about reforestation. What they did in the past was to deforest and then put cows here," he said.

The Amazonian rainforest absorbs vast amounts of carbon and is a crucial buffer against climate change. But the region has been ravaged by deforestation linked to illegal cattle ranching, gold mining and timber exports.

Last year, forested land equivalent in size to 3,000 football pitches was razed every day, according to non-profit environmental group Imazon, with the then-government led by rightwing populist Jair Bolsonaro accused of turning a blind eye. But with the election in October of President Luiz Inácio Lula da Silva, environmental protection is again centre stage.

While government efforts have so far focused on bolstering enforcement to prevent the destruction, private companies are working on reforestation. They purchase or lease land, plant trees and generate revenue by selling carbon credits, which buyers use to compensate for pollution produced by their activities.

At about 400mn hectares, Brazil's section of the Amazon rainforest represents the world's largest opportunity for reforestation. More than 54mn square hectares of the biome — an area 1.3 times the size of California — is pastureland, which is suitable for planting trees.

According to scientists at Project Drawdown, a US-based non-profit organisation that advises on greenhouse gas reduction, reforestation of tropical and temperate forests could remove up to 113 gigatonnes of carbon from the atmosphere between now and 2050. This is more than twice the potential of silvopasture — the integration of trees with livestock — which is considered the next most effective method, according to Project Drawdown. Global carbon emissions reached almost 38 gigatonnes in 2021, according to international database EDGAR.

But reforestation initiatives in Brazil have been beset by difficulties, notably the complexity of land rights and ownership claims, said Pedro Brancalion from the University of São Paulo.

Verra, a US-based carbon credits standards body, said it had received allegations of aggressive behaviour by reforestation project developers related to land ownership, but added it had so far found no evidence of wrongdoing.

"Land is the number one issue, specifically finding land that has full legal titles," said Peter Fernández, chief executive and co-founder of Mombak. "There is more than enough land to be used. However, finding it and evaluating that it is [legally compliant] takes a lot of effort," he said. Mombak did not buy smallholder land or land near indigenous areas to avoid disputes, he added.

Fernández said the company planned to expand its project to 50,000 hectares with the goal of removing 1mn tonnes of carbon from the atmosphere each year by 2030: "We need to create a reforestation industry that is at the scale of the pulp and paper industry. This is not artisanal. This is not an NGO job."

One bottleneck is a shortage of tree seeds. A broader concern is the credibility of the carbon credits market, which underpins the reforestation business model. Mombak initially received venture capital funding before securing a $100mn investment from Bain Capital and aims to generate revenue by selling the credits.

But the market has long attracted controversy, with critics saying projects do not always deliver the promised environmental benefits. They say that some credits cost less than $5 each, which does little to give incentives to companies to reduce pollution, and that it can be difficult to distinguish between high and low quality credits in what is an unregulated and often opaque market.

'We need to create a reforestation industry that is at the scale of the pulp and paper industry'

Reform efforts are under way. The Integrity Council for the Voluntary Carbon Market, an international task force initially spearheaded by former Bank of England governor Mark Carney, is this year expected to announce a set of rules for what a "good" market looks like.

Another concern is ensuring that reforested areas are permanent and carbon is not re-released into the atmosphere. Richard Kelly, co-head of Foresight Sustainable Forestry Company, which is developing carbon credit projects in the UK, said keeping the forests healthy and protecting them from fire was a challenge.

Meanwhile, clad in shin guards to protect from snakes and wide-brimmed hats to stave off the sun, Crouzeilles and his team traverse the Pará site in pick-up trucks. Despite lack of awareness about reforestation in an impoverished area focused on cattle-rearing, Crouzeilles said his team had been warmly welcomed by locals. "It is a process to change minds and cultures," he said. "But fortunately we are being very well received."

Additional reporting by Carolina Ingizza

See FT Big Read

South Asia

Modi grapples with rising unemployment despite India's impressive economic growth

JOHN REED — BANGALORE

Kiran VB, 29, a resident of India's tech capital Bangalore, had hoped to work in a factory after finishing high school. But he struggled to find a job and started working as a driver, saving up over a decade to buy his own cab.

"The market is very tough; everybody is sitting at home," he said, describing relatives with engineering or business degrees who also failed to find good jobs. "Even people who graduate from colleges aren't getting jobs and are selling stuff or doing deliveries."

His story points to an entrenched problem for India and a growing challenge for Prime Minister Narendra Modi's government as it seeks re-election in just over a year's time: the country's high-growth economy is failing to create enough jobs, especially for younger Indians, leaving many without work or toiling in labour that does not match their skills.

The IMF forecasts India's economy will expand 6.1 per cent this year — one of the fastest rates of any big economy — and 6.8 per cent in 2024.

But jobless numbers continue to rise. Unemployment in February was 7.45 per cent, up from 7.14 per cent the previous month, according to data from the Centre for Monitoring Indian Economy.

"The growth that we are getting is being driven mainly by corporate growth, and corporate India does not employ that many people per unit of output," said Pronab Sen, an economist and former chief adviser to India's Planning Commission. "On the one hand, you see young people not getting jobs; on the other, you have companies complaining they can't get skilled people."

Government jobs, coveted as a ticket to life-long employment, were few in number relative to India's population of nearly 1.4bn, Sen said. Skills availability is another issue: many companies prefer to hire older applicants who have developed skills that are in demand.

"A lot of the growth in India is driven by finance, insurance, real estate, business process outsourcing, telecoms and IT," said Amit Basole, professor of economics at Azim Premji University in Bangalore. "These are the high-growth sectors, but they are not job creators."

Figuring out how to achieve greater job growth, particularly for young people, will be essential if India is to capitalise on a demographic and geopolitical dividend. The country has a young population that is set to surpass China's this year as the world's largest. More companies are looking to redirect supply chains and sales away from reliance on Chinese suppliers and consumers.

India's government and states such as Karnataka, of which Bangalore is the capital, are pledging billions of dollars of incentives to attract investors in manufacturing industries such as electronics and advanced battery production as part of the Modi government's "Make in India" drive.

The state also recently loosened labour laws to emulate working practices in China following lobbying by companies including Apple and its manufacturing partner Foxconn, which plans to produce iPhones in Karnataka.

But manufacturing output is growing more slowly than other sectors, making it unlikely to emerge soon as a leading generator of jobs. The sector employs only about 35mn, while IT accounts for a scant 2mn out of India's formal workforce of about 410mn, according to the CMIE's latest household survey from January to February 2023.

Narendra Modi: attempting to boost manufacturing industries

According to a senior official in Karnataka, highly skilled applicants with university degrees are applying to work as police constables.

The Modi government has shown signs of being attuned to the issue. In October, the prime minister presided over a *rozgar mela*, or an employment drive, where he handed over appointment letters for 75,000 young people, meant to showcase his government's commitment to creating jobs and "skilling India's youth for a brighter future".

But some opposition figures derided the gesture, with the Congress party president Mallikarjun Kharge saying the appointments were "just too little". Another politician called the fair "a cruel joke on unemployed youths".

Rahul Gandhi, the scion of the family behind the Congress party, has signalled that he intends to make unemployment a point of attack for the upcoming election, in which Modi is on track to win a third term. "The real problem is the unemployment problem, and that's generating a lot of anger and a lot of fear," Gandhi said at Chatham House in London last month. "I don't believe that a country like India can employ all its people with services," he added.

Ashoka Mody, an economist at Princeton University, invoked the word "timepass", an Indian slang term meaning to pass time unproductively, to explain another phenomenon plaguing the jobs market: underemployment of people in work not befitting their skills.

"There are hundreds of millions of young Indians who are doing timepass," said Mody, author of *India is Broken*, a new book critiquing the economic policies of successive governments since independence. "Many of them are doing so after multiple degrees."

Additional reporting by Andy Lin in Hong Kong and Jyotsna Singh in New Delhi

Blindsided by events Can managers dodge disasters by being being a little more attentive to doubters? WORK & CAREERS

Companies & Markets

BlackRock warned SVB over weak risk controls

- Bank was 'substantially below' peers
- Lack of real-time portfolio updates

ANTOINE GARA AND BROOKE MASTERS
NEW YORK

BlackRock's consulting arm warned Silicon Valley Bank, the California-based lender whose failure helped spark a banking crisis, that its risk controls were "substantially below" its peers in early 2022, several people with direct knowledge of the assessment said.

SVB hired BlackRock's Financial Markets Advisory group in October 2020 to analyse the potential impact of various risks on its securities portfolio. It later expanded the mandate to examine the risk systems, processes and people in its treasury department, which managed the investments.

> The report found that SVB lagged behind similar banks on 11 of 11 factors considered

The January 2022 risk control report gave the bank a "gentleman's C", finding that SVB lagged behind similar banks on 11 of 11 factors considered and was "substantially below" them on 10 out of 11, the people said. The consultants found that SVB was unable to generate real-time or even weekly updates about what was happening to its securities portfolio, the people said. SVB listened to the criticism but rebuffed offers from BlackRock to do follow up work, they added.

SVB was taken over by the Federal Deposit Insurance Corporation on March 10 after it announced a $1.8bn loss on sales of securities, sparking a share price collapse and a deposit run.

The FMA group analysed how SVB's securities portfolios and other possible investments would respond to various factors, including rising interest rates and broader macroeconomic conditions, and how that would affect the bank's capital and liquidity. The scenarios were selected by the bank, two people familiar with the work said.

While BlackRock did not make financial recommendations to SVB in that review, its work was presented to the bank's senior leadership, who "confirmed the direction management was on" in building its securities portfolio, said one former SVB executive. The executive added that it "was an opportunity to highlight risks" that the bank's management missed.

At the time chief financial officer Daniel Beck and other top executives were looking for ways to increase the bank's quarterly earnings by bolstering the yield of securities it held on its balance sheet, said people briefed on the matter.

The review looked at scenarios, including interest rate rises of 100 to 200 basis points. But no models considered what would happen to SVB's balance sheet if there was a sharper rate rise, such as the Federal Reserve's swift increases to a 4.5 per cent base rate over the past year. At the time, interest rates were rock bottom and had not been above 3 per cent since 2008. That consultation concluded in June 2021.

BlackRock declined to comment. The FDIC and California banking regulators declined to comment. A spokesperson for SVB group did not respond to a request for comment.

While the BlackRock review was going on, technology companies and venture capital firms were depositing a flood of cash into SVB.

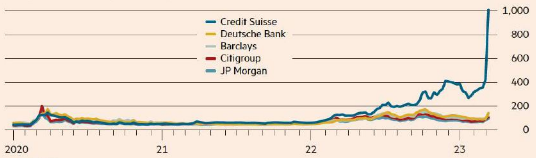
The bank used BlackRock's scenario analysis to validate its investment policy at a time when management was focused closely on the bank's quarterly net interest income.

Pressure mounts Cost of insuring Credit Suisse debt against default hits record high amid fears

Francesca Volpi/Bloomberg

Credit Suisse's CDS prices have soared far above other banks'

Five-year US dollar CDS prices (basis points)



Source: Refinitiv

HARRIET CLARFELT — NEW YORK

The cost of buying insurance to protect against Credit Suisse defaulting on its debt soared to a record high last week, in a sign of growing jitters about the lender's financial position after the failure of two US banks sent shockwaves through global markets.

As Credit Suisse's stock and bond prices have whipsawed in recent days, the price of credit default swaps tied to the bank, derivatives that act like insurance and pay out if a company reneges on its borrowings, have skyrocketed.

The bank's five-year US dollar CDS have now exceeded 1,000 basis points, up from less than 400bp as recently as early March, with similar moves for euro-based contracts.

That escalation follows setbacks that have weighed on Credit Suisse's equity and debt, culminating in the group turning to the Swiss National Bank on Wednesday to borrow SFr50bn ($54bn) and announcing a SFr3bn debt buyback.

"With [Credit Suisse], it has just been one headline after another for the better part of the last five years," said John McClain, portfolio manager at Brandywine Global Investment Management.

The recent moves in Credit Suisse's CDS also follow the failure of US lenders Silicon Valley Bank and Signature.

Rating agency Moody slashed its outlook for the whole US banking system from "stable" to "negative" last Tuesday because of the "rapid deterioration in the operating environment".

Other big banks have also seen their CDS prices climb but the moves are dwarfed by those in Credit Suisse contracts.

Five-year dollar CDS for US lender JPMorgan added 15bp in the week to Thursday, reaching 94bp, according to Bloomberg data. The same measure of CDS for Citi rose about 20bp to 113bp. Five-year euro CDS for Deutsche Bank, one of Credit Suisse's European peers that has faced its own stresses in recent years, climbed more emphatically in price, rising more than 70bp to over 160bp.

"The recent failure of two US banks has made investors much more cautious on the sector, bringing 'problem' banks under even more scrutiny," Joost Beaumont, head of bank research at ABN Amro, wrote last week, referring to the Credit Suisse "situation as a special case" and not a sign of "broader weakness in the banking sector".

Single company name CDS are often thinly traded, helping to exaggerate market moves. Broadly, "when a company is under stress, their CDS comes under significant strain, amplified by the fact that it's a very, very shallow market", said a bank credit analyst at a big US asset manager.

See Lex
See Opinion

White House urged to raise cap on deposit guarantees

JAMES POLITI — WASHINGTON
JOSHUA FRANKLIN — NEW YORK

The Biden administration is under mounting pressure to call for an expansion of the federal guarantee on bank deposits, to shore up confidence in the financial system and prevent further distress among US regional banks.

The Federal Deposit Insurance Corporation, which is funded by banks, guarantees deposits up to $250,000. But a growing chorus of influential bipartisan lawmakers and banking industry lobbyists have been pushing in recent days for that limit to be increased or suspended.

"I think that lifting the . . . cap is a good move," Elizabeth Warren, the Democratic senator from Massachusetts, told CBS yesterday. "Is it $2mn? Is it $5mn? Is it $10mn? Small businesses need to be able to count on getting their money to make payroll, to pay the utility bills. Non-profits need to be able to do that," she added.

The Biden administration is being forced to consider additional measures to protect the banks after the actions it took last week — including guaranteeing all deposits at Silicon Valley Bank and Signature Bank, and the Wall Street-led deposit infusion into First Republic Bank — failed to reassure investors on Friday.

White House officials have not ruled out the possibility of calling for a broadening of the FDIC insured deposit limit, which would require congressional approval, nor have they taken a position on it. The White House and Treasury declined to comment yesterday.

Any move to expand the FDIC deposit guarantee would have to be carefully weighed against concerns that it might encourage risky behaviour by banks, as well as the cost to banks and consumers, since it would probably be accompanied by higher fees. Rather than a short-term fix, it may be part of longer-term reforms debated following last week's turmoil.

Patrick McHenry, the Republican chair of the House Financial Services Committee, told CBS: "All options should be on the table, and that's how I'm approaching it. But if we do this, we have to understand their trade-offs. It is not a pure play of allowing a larger set of insurance coverage. It costs the financial system significantly, and especially community banks. We need to look very carefully at this."

Additional reporting by Colby Smith

Financials. Banks

Short seller told regulator of Signature concerns

> Cohodes raised red flags over NY lender's lack of controls, including a loan to FTX fund

STEPHEN GANDEL AND
JOSHUA FRANKLIN — NEW YORK

In mid-January, Federal Deposit Insurance Corporation officials were told that Signature Bank, a $100bn New York City-based lender, was in trouble.

A letter from a short seller, who stood to make money if Signature's share price fell, raised a number of red flags, but its central theme was that the bank lacked basic controls. One example: Signature in April 2020 made a $370,000 pandemic assistance loan to Alameda Research, the hedge fund arm of the bankrupt, and allegedly fraudulent, crypto exchange FTX.

"SBNY has played a central role as a facilitator, even if unwitting, for countless illegal crypto transactions," Marc Cohodes wrote in the letter, which has been seen by the Financial Times.

Cohodes, a veteran short seller who also raised early questions about both FTX and Silvergate, the crypto lender that shut its doors last week, called on the FDIC to investigate.

The FDIC would not say whether it did. Cohodes said he received an acknowledgment from FDIC staff but no follow up. Last week New York's Department of Financial Services (DFS) closed Signature, appointing the FDIC as its receiver.

The FDIC has hired Piper Sandler to sell both Signature and Silicon Valley Bank, which failed two days earlier. A veteran banker with knowledge of the Signature sales process described it as behind schedule. The FDIC and its bankers opened a virtual data room to allow potential buyers to carry out due diligence on Signature on Wednesday.

"We are actively marketing Signature Bank, and Silicon Valley Bank," the FDIC said. "We haven't set a deadline for bids, but we hope to have them resolved within a week."

Signature's odd mix of businesses may make it difficult to find a buyer. A go-to institution for New York's tight-knit real estate community, it specialised in lending to developers of apartment buildings and large landlords. Those loans made up about a quarter of its overall lending, compared with less than 10 per cent for similarly sized banks.

But the bank, which was founded in 2001 by Scott Shay and Joseph DePaolo, protégés of the legendary banker and billionaire Edmond Safra, also had a reputation for promoting entrepreneurial bankers, a willingness to get into new businesses, and a blind spot for risk.

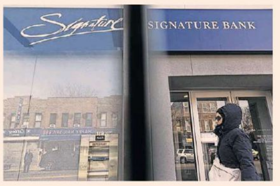
In 2011, Signature added a then 29-year-old Ivanka Trump to its board of directors, despite doing substantial business with both her father Donald Trump, the former president, and her husband, Jared Kushner. Shay later told the New York Times that was a move he "almost regretted".

In 2017, Letitia James, then New York City's Public Advocate, released a list of banks that had lent to most of the city's worst landlords. Signature ranked number one. In 2018, Signature wrote off $129mn in loans tied to taxi medallions, years after Uber and other ride-hailing services had cut into the value of New York City's taxi licences.

Then came crypto. In 2019 Signature launched Signet, a payment processing system tailored to the bank's growing stock of crypto clients. Signet helped to nearly triple the bank's deposits, which peaked at around $110bn in early 2022.

Signature is facing class-action lawsuit that accuses the bank of aiding and abetting FTX.

"I couldn't be happier that Signature has failed and been shut down," said Cohodes, who believes that the bank facilitated the financing of several crypto companies that were involved in fraud. "The legal liabilities here are existential."



The FDIC said it had no plans to force would-be bidders of Signature to close the bank's crypto operations
Angus Mordant/Bloomberg

Barney Frank, the former Congressman who was a member of Signature's board, told the FT that he thought the bank did not need to be closed, and was punished for its foray into crypto.

DFS's superintendent Adrienne Harris denies that the bank was closed because of its exposure to crypto markets, but because depositors were fleeing. In addition, she said, DFS's examiners were uncomfortable with what the bank was telling them last weekend. "Signature failed to provide reliable information," Harris said.

The FDIC said it had no plans to force would-be bidders of Signature to close the bank's crypto operations.

"We are marketing Signature, and Silicon Valley Bank, on a whole bank basis," the FDIC said. "It is up to the potential bidders to decide what they want to do with the assets after the transaction is complete."

Signature declined to comment.

Any purchaser will also have to consider whether Signature will be able to win back the confidence of its once-loyal clients. Ken Fisher, a real estate lawyer at Cozen O'Conner, moved his money to Signature when it opened in 2001. Many of his clients followed.

Fisher along with many of his clients started pulling his money from the bank more than a week ago. He said Signature's crypto business was one of the main reasons he and others in the real estate business became nervous about having their money at the bank.

"Most of my clients are moving their money elsewhere because they are being cautious," said Fisher. "I don't like uncertainty."

Casino boss bets big to save supermarket group

Naouri is pursuing a deal with former franchisee Zouari as he races to salvage his indebted French retailing empire

LEILA ABBOUD AND ADRIENNE KLASA
PARIS

The deal Jean-Charles Naouri signed last week to try to save his indebted French supermarket group Casino has roots stretching back almost 30 years to a fateful meeting with a business school graduate.

The man some used to call the "godfather of French retail" had summoned 25-year-old franchisee Moez-Alexandre Zouari, wanting to know how the young entrepreneur's audacious plan to open 100 stores in apparently saturated city-centre markets could possibly be a good idea. "I told him I had tested it with my wife, and we figured you need a store every 300 metres or so because city residents can't carry heavy groceries much farther," Zouari recalled.

Naouri, a trained mathematician, "quickly calculated in his head and saw the opportunity", and soon invested to help Zouari expand.

Having worked together in different forms ever since, the 74-year-old Naouri is now making another big bet on an idea hatched up by Zouari as the executive tries to save what remains of his once sprawling empire ahead of looming debt repayments next year.

The complex deal would merge Casino's French food retailers with Teract, a company Zouari founded with two prominent French businessmen via a Spac deal last year. It offers a financial lifeline that also allows Naouri to save face, since it is not an outright sale.

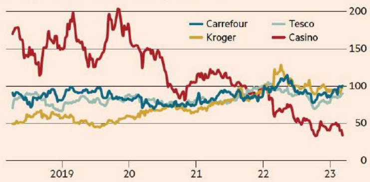
The pair's longstanding relationship may have made Zouari the only person who could convince Naouri to relinquish his grip on Casino, said people close to the deal. "Until now the other deals Naouri had to choose from were all going to hand him a loss," Zouari told the Financial Times, referring to approaches by rivals Carrefour and Auchan. "People don't understand that he is not just a financier, he is very attached to the company he built."

Naouri, described as prickly and independent by people who know him, has come to trust Zouari. "He has the ability to focus on the details and also has a vision for the future of retail," Naouri told the FT. "I have a lot of respect for him as a professional . . . and have come to consider him a friend."

The deal would merge Casino's retailers with Teract — Marlene Awaad/Bloomberg

Casino's stock underperforms peers ...

Share prices rebased in local currency, Jan 2022=100



... while its leverage climbs

Net debt as a multiple of ebitda (x)

Source: FactSet

Naouri is part of a generation of French businessmen, including Vincent Bolloré and Bernard Arnault, who have used complex financial engineering to build business empires via debt-fuelled acquisitions. But the retail sector has been hit hard over the past decade by ecommerce and price wars, and his business has not generated enough cash to support its layers of debt.

Casino, whose market value has shrivelled to less than €1bn from a peak of €11bn in 2014, has been racing to sell off assets to make debt repayments, including a recent chunk of shares in its listed Brazilian business Assai. If the deal is finalised, Casino will spin out and combine its French retail operation with Teract, a listed company owned by Zouari, tech billionaire Xavier Niel, banker Matthieu Pigasse and France's biggest farmers' co-operative InVivo.

The two sides announced exclusive talks last week but disclosed neither a valuation nor how much of Casino's debt would be transferred. Teract will inject at least €500mn into the venture.

People familiar with the deal said the combined retail businesses would be placed in one entity, with Naouri as chief executive and Casino owning 60 per cent to Teract's 40 per cent.

A second entity will act as a central purchasing platform to supply the retail stores with locally grown fruit and vegetables, wine and baked goods via InVivo's 300,000 farmers. Zouari will lead it, with Teract and its backers owning 60 per cent to Casino's 40 per cent. The idea is to create a vertically integrated retailer to appeal to consumers who are willing to pay a premium for sustainable, locally sourced food.

Investors reacted with scepticism. One hedge fund manager who has been short on Casino said the "half-baked deal announcement" was an attempt to distract from the group's cash burn.

Analysts at Barclays said they "struggle to see the benefits of a potential combination with Teract and remain downbeat regarding Casino's performances in France". But there are potential benefits for Naouri, who controls Casino through a series of holding companies that have been in a court-protected debt restructuring process since 2019.

Naouri is betting the deal will help to rejuvenate Casino and stem market share losses, which could help him convince the judges overseeing the holding companies' restructuring proceedings to give him more time to pay creditors.

Casino faces €1.2bn in debt maturities in 2024 and €1.8bn in 2025. Another €1.9bn is due at holding company Rallye in 2025. Surprisingly, negotiations on how much of Casino's debt would be placed on the new retail group proved straightforward because Naouri promised to cap it at two times earnings before interest, tax, depreciation and amortisation, Zouari said. "We thought it would be the toughest part of the talks but in the end it was not."

Analysts at Bryan Garnier & Co expect €2.2bn of Casino's secured debt with banks to move to the new venture, and warn that Casino shareholders and unsecured creditors risk losing out. Meanwhile, Teract will be well placed to scoop up assets cheaply should Naouri prove unable to service his debts.

On a more personal level, the transaction could provide Naouri with an answer to the thorny question of his successor. The Casino boss has come to regard Zouari as "a spiritual son", said one person who has worked with both.

The deal also cements Zouari's rise to the upper echelons of France's business world after he and his wife, Soraya, spent decades building their company in the shadow of Casino. Their fortune was estimated at €1bn last year by business magazine Challenges, putting him 113th in France, while Naouri has slipped out of the rankings.

When the Franco-Tunisian entrepreneur hit his pledge of opening 100 Franprix stores after 10 years, Naouri invited him to lunch in the palatial dining room of the exclusive Hotel Bristol. "I wasn't used to such grandeur," Zouari said.

He went on to became Casino's biggest and most profitable franchisee, with a peak of about 500 stores jointly owned with Naouri via two companies. Naouri initially bankrolled the expansion in exchange for a minority stake.

In 2019 Zaouri started selling some of his shares to Naouri, using the proceeds to diversify his family's business through acquisitions. The following year he bought a controlling stake in frozen food chain Picard and teamed up with Niel and Pigasse to create the Spac that would become Teract.

When they went to see Naouri as they hunted for its first target, he made it clear he did not want to sell off his company in pieces. Yet when the trio unveiled a deal last year to merge with the retail arm of InVivo, Naouri sent Zouari a congratulatory text.

"He is a man of few words so messages like this are rare," said Zaouri. "I thought he was sending me a subtle message that he was interested in our project."

It was a hunch that proved correct — about six months later they began negotiating their next joint venture.

Additional reporting by Robert Smith

Technology

Microsoft prepares mobile games store

Xbox chief says app could launch next year if $75bn Activision deal is approved

TIM BRADSHAW — LONDON

Microsoft is preparing to launch an app store for games on iPhones and Android smartphones as soon as next year if its $75bn acquisition of Activision Blizzard is cleared by regulators, according to the head of its Xbox business.

Rules requiring Apple and Google to open up their mobile platforms to app stores owned and operated by other companies are expected to come into force from March 2024 under the EU's Digital Markets Act. "We want to be in a position to offer Xbox and content from both us and our third-party partners across any screen where somebody would want to play," said Phil Spencer, chief executive of Microsoft Gaming, in an interview ahead of this week's annual Game Developers Conference in San Francisco, which starts today.

"Today, we can't do that on mobile devices but we want to build towards a world that we think will be coming where those devices are opened up."

Microsoft is fighting with regulators in the US, Europe and UK, which have all raised concerns about the potential impact on competition from the owner of the Xbox console buying the developer of *Call of Duty*, one of the world's most popular games franchises. PlayStation maker Sony has been a vocal opponent of the deal.

Under the act, the EU is expected to designate Apple and Google as "gatekeepers", requiring them to change the rules that govern how apps are distributed on iPhones and Android devices. However, the Big Tech companies could appeal against the designation, delaying enforcement beyond next March's deadline.

While acknowledging it was hard to predict exactly when Microsoft will be able to launch its own store, Spencer said it would be "pretty trivial" for Microsoft to adapt its Xbox and Game Pass apps to sell games and subscriptions on mobile devices. Microsoft's current lack of mobile games was an "obvious hole in our capability" that it needed Activision Blizzard to fill, he added.

Hit titles such as *Call of Duty Mobile*, *Diablo Immortal* and *Candy Crush Saga* would be "critically important" in attracting players away from Apple and Google's marketplaces to an Xbox mobile store, he said. Microsoft and Apple have tussled for years over how the software giant's cloud-based gaming service, which is part of Xbox Game Pass, operates on iPhones.

Microsoft has argued that Apple's App Store rules restrict its ability to offer cloud gaming through a single app that runs natively on the iPhone, forcing users to access the service via a web browser, with lower performance.

Apple has denied it blocks cloud gaming apps, but App Store rules require providers to list each game on the App Store individually. Similar to restrictions on Amazon's Kindle ereader app, Apple does not allow individual games to be purchased from a storefront within native apps.

The UK's Competition and Markets Authority announced in November that it was investigating Apple's stance on cloud games, following its mobile ecosystems market study.

Additional reporting by Javier Espinoza

Market questions. Week ahead

Banking dramas raise doubts over Fed tightening policy

Soothing: Treasury secretary Janet Yellen last week reassured the Senate Finance Committee that the US banking system remained sound after the collapse of Silicon Valley Bank and Signature Bank Chip Somodevilla/Getty Images

How will bank failures affect Federal Reserve policy?

Before the collapse of Silicon Valley Bank over a week ago, investors were betting that the US Federal Reserve would raise interest rates by 0.5 percentage points at its March meeting, forced to reaccelerate the pace of tightening after recent strong jobs and inflation data.

But the outlook for the Fed is no longer so clear. The drama in some parts of the US banking system has suggested to investors that the central bank is done, or nearly done, with its monetary tightening. Although the banking issues have little to do with inflation, a shift towards more aggressive policy could lead to panic in markets and more problems with banks, which in turn would require further Fed intervention.

Pricing in the futures market currently suggests that most investors are expecting the Fed to lift rates by 0.25 percentage points when it meets tomorrow and Wednesday. Those expectations have been shifting rapidly, however, and earlier this week, the chances of any rise at all were near zero.

The meeting comes after inflation data showed that consumer prices continued to cool in February, though the improvement was smaller than economists had expected. The CPI index rose 6 per cent in February, year on year, with core inflation — which strips out the volatile food and energy sectors — up 5.5 per cent. *Kate Duguid*

Which way will the BoE 'knife-edge' decision go?

Economists say the next monetary policy decision by the Bank of England, on Thursday, is a "nail-biter". Governor Andrew Bailey has already opened the door to a pause in raising policy rates, but inflation remains stubbornly high.

Markets have priced in an almost equal probability of a 0.25 percentage point increase and no change. The BoE has raised its policy rate at every meeting since November 2021, when the benchmark rate was at a historical low of 0.1 per cent, to the current rate of 4 per cent.

The economy is feeling the impact of rising borrowing costs and the cost of living crisis, contracting in the third quarter and stagnating in the last three months of 2022. Turbulence in the banking sector with the collapse of Silicon Valley Bank last week has added to investor concerns over the impact of rising borrowing costs on the banking sector and activity. But inflation is still in double figures and the labour market remains tight, fuelling economists' fears of more persistent price pressures.

Elizabeth Martins, an economist at HSBC, said the move was "a nail-biter, but on balance, we think the BoE will press on and hike to 4.25 per cent".

She added that UK inflation data for February, which will be released on Wednesday, the day before the policy meeting, could still change the outcome of the vote. Weak price pressure would tilt the decision to a no change.

"Whether the Bank hikes or not next week, we think it is approaching the end of its tightening journey, for now at least," Martins added. *Valentina Romei*

Will the eurozone remain resilient?

The eurozone economy is expected to show further resilience in the face of the cost of living crisis, with a leading business survey forecast to show activity continuing to expand in March.

Economists polled by Reuters expect the flash eurozone composite purchasing managers' index (PMIs), a closely watched barometer of private sector activity, to come in at 52 in March.

This would be unchanged from February and above 50, which indicates a majority of businesses reporting an expansion compared with the previous month. The PMIs, to be released on Friday, are expected to show that eurozone growth was driven by services, with that sector index expected to come in at 52.6, largely unchanged from the previous month. Manufacturing, which has been severely affected by high energy prices, is forecast to still be in contraction but marginally better than in the previous month.

Ryan Djajasaputra, an economist at Investec, said that in February the eurozone PMI showed improving confidence, rising demand in the services sector, and a continued easing of supply chain pressures. He expected that "this trend continued in March".

'Industrial production should pick up as supply conditions improve further [and] confidence continues to recover'

That would be in line with expectations of improving activity forecast by the European Central Bank.

"The economy looks set to recover over the coming quarters," ECB president Christine Lagarde said at a press conference on Thursday after announcing a 0.5 percentage point increase in the deposit interest rates.

"Industrial production should pick up as supply conditions improve further, confidence continues to recover, and firms work off large order backlogs," she said. "Rising wages and falling energy prices will partly offset the loss of purchasing power that many households are experiencing as a result of high inflation." *Valentina Romei*

Megan Greene See Opinion

Financial services

China investor Anatole to open 'outpost' in Singapore

MERCEDES RUEHL — SINGAPORE
KAYE WIGGINS — HONG KONG

Hong Kong-based asset manager Anatole is preparing to shift a key part of its business to Singapore, after telling investors it had significantly cut its exposure to China.

The firm, which made its name through outsized bets on China's growth, is opening an office in the city-state and may move key functions and decision-making there, said three people familiar with the discussions.

Many Asia-based hedge fund managers were left nursing large losses following a years-long regulatory assault by Chinese president Xi Jinping on multiple sectors from technology to property.

Proximity to the mainland through a Hong Kong base has become less crucial for managers such as Anatole as they diversify into fast-growing south-east Asia, home to 655mn people and featuring Singapore as a regional financial hub. Anatole may keep a smaller presence in Hong Kong, in part to try to avoid falling out of favour in China where it still has its largest exposure, said one of the people.

"The nervous system is likely going to be in Singapore," said another person briefed on the negotiations, though they added that the decision had not been finalised and the situation could change. The company registered in Singapore in February, according to the city's accounting authority records.

'We will maintain the resources we see fit to fully utilise the potential of the investment opportunity'

Gary Lee, Anatole's chief operating officer, confirmed the group was opening a Singapore office. He said the office would be an "outpost", adding that he remained "bullish on the China recovery".

Lee declined to say how staff would be split between the two locations, whether he and founding partner George Yang would move to Singapore or whether there would be lay-offs in Hong Kong.

"We will maintain the resources we see fit to fully utilise the potential of the investment opportunity," Lee told the Financial Times.

Since its inception in 2016, Anatole had focused on long-term investments in Chinese companies and its fund manages about $2bn, according to Bloomberg. However, last year Yang, Anatole's chief investment officer, said it was considering fresh "hunting grounds".

Anatole had told investors then that its flagship hedge fund had incurred large losses after misjudging the world's second-largest economy.

Chinese stocks plunged in 2022 as China's economy ground to a halt during the coronavirus pandemic and after the central government launched a regulatory crackdown on the internet, property and education sectors.

Singapore is rivalling Hong Kong as a financial centre in Asia and has benefited from the latter suffering closed borders during the height of the pandemic. Geopolitical tensions have also increased Singapore's attraction as a neutral financial outpost and haven for global capital — including from China.

Retail. Financial services

Femsa aims to make transactions convenient for Mexico's unbanked

Corner store network an advantage in country with low levels of financial inclusion

CHRISTINE MURRAY — MEXICO CITY

Latin America's largest convenience store operator Femsa is using its vast network of outlets as the springboard for an ambitious push into financial services in Mexico as well as considering expansion in the US.

Femsa, which operates more than 20,000 stores under the Oxxo brand, has been encouraged by the initial success of its new debit card, which has attracted almost 4mn customers since its launch in 2021. The $29bn group says it wants to "democratise" financial services for the country's 125mn inhabitants.

"Of all the countries in Latin America, the one that is still most cash-oriented is Mexico," chief corporate officer Francisco Camacho Beltrán told the Financial Times in an interview. "That opens a lot of possibilities for our digital business in the fintech space."

But this is a tall order in Mexico, which has lagged behind regional peers despite numerous private and public sector-led initiatives to promote financial inclusion. Less than half the adult population has a bank account, according to banking regulator CNBV.

The country's large informal workforce and a lack of trust in banks have been cited as reasons for the slow rate of progress but it has still been called a "puzzle" by the Center for Global Development, a US think-tank.

At Oxxo, one of the country's largest retailers, 79 per cent of transactions were still made in cash, the company said. "The democratisation of financial services is part of our objective," said Camacho Beltrán.

Oxxo stores are ubiquitous in many Mexican towns, with customers buying drinks and snacks along with paying their bills, credit cards or other correspondent banking services. The majority of sign-ups to Spin, the group's digital debit card, were made in stores. That figure compares with 31mn debit cards issued by retailer Coppel's BanCoppel.

Camacho Beltrán said the group could start providing loans or insurance in the future if it gained more customers.

Monterrey-based Femsa, which traces its origins to an 1890s brewery in the city, began selling its stake in Heineken this month as part of a broader strategic review. The company's share price has risen about 8 per cent since the news after underperforming the index in the past two years. The sale of Heineken shares has already provided about $3bn in extra cash, part of which will go to pay down debt.

Camacho Beltrán said he could not yet say where the rest would be invested but the group was looking at expanding in the US. The company still had to analyse its options, he said, but would look at buying an existing regional chain as well as examining how its Oxxo format might adapt to the US, where more than 70 per cent of convenience stores were tied to petrol stations.

Femsa's stake in Heineken meant it was not allowed to sell alcohol directly to consumers under US state laws. Now Femsa, based near the Texas border, is looking at expanding as a convenience store in the US.

Camacho Beltrán said Femsa had already shown that it could do business in the US through its Envoy Solutions business, a distributor of packaging and other disposable products that had bought up several smaller performers. It also operates in Brazil, Colombia and Argentina.

In Mexico, Oxxo stores are designed for people to pick up snacks and drinks quickly with a limited offering of hot goods, while in Colombia and Brazil stores have bread baked in-store, espresso-style coffee and seating.

Femsa operates Oxxo stores and is the world's largest Coca-Cola bottler

Camacho Beltrán said that in Mexico the network of well-known stores, combined with the lower regulatory requirements of a fintech licence that made opening accounts easier, put it in a unique position.

There are more Oxxos in Mexico than branches of all commercial banks combined, according to central bank data. "We think there's an important element in the way we want to do it, which is leveraging the physical presence of Oxxo stores," Camacho Beltrán said.

The company also wants to sell financial services to small traditional stores, key clients of its subsidiary Coca-Cola Femsa, the world's largest bottler of Coca-Cola. It could offer terminal payments through its subsidiary NetPay, along with the Spin app to take payments. Femsa was also running pilot schemes for a new platform for small stores to manage purchases from suppliers, Camacho Beltrán said.

Mexico's highly concentrated and profitable banking sector is changing with Citigroup's sale of one of the country's oldest banks, Banamex. The entry of regional start-ups such as Brazil's Nubank, Argentina's Ualá and Colombia's Rappi has also increased competition for some services.

The smaller transaction size from Spin customers might not interest a traditional bank, Camacho Beltrán said. "That ecosystem of consumers, the ecosystem of needs is different and on a different scale because of the magnitude of the transaction than those a bank would look for," he explained.

He added that applying for a licence to become a full bank was not necessarily part of the plan, but that they would explore it if the kind of growth or services they wanted to offer required it.

"If we have to do it ourselves or we have to do it through a partner, they are things we can always explore," he said.

In Mexico, where the company aims to open 800 to 1,000 new Oxxo stores this year, Femsa has been trialling new formats to segment the market further, including a cashier-less store in the Tec de Monterrey university.

MARKET DATA

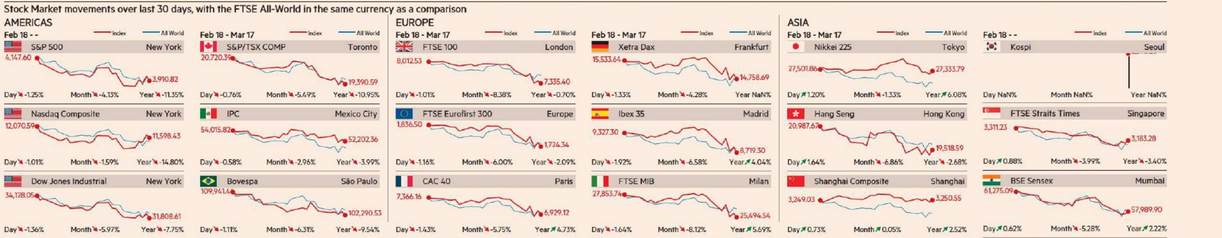
WORLD MARKETS AT A GLANCE

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 $
-1.25%	-1.01%	-1.36%	-1.01%	-1.16%	1.20%	1.64%	-0.51%	0.282%	0.248%	-0.722%	No change	-0.50%	-0.03%

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	218899.94	223388.24
Australia	All Ordinaries	7188.20	7152.70
	S&P/ASX 200	6994.80	6965.50
	S&P/ASX 200 Res	5747.40	5702.80
Austria	ATX	3124.59	3147.44
Belgium	BEL 20	3602.80	3652.55
	BEL Mid	9730.30	9810.68
Brazil	IBovespa	102290.53	103434.66
Canada	S&P/TSX 60	1165.27	1174.46
	S&P/TSX Comp	19390.59	19539.01
	S&P/TSX Div Met & Min	1444.27	1425.19
Chile	S&P/CLX IGPA Gen	26936.77	26843.79
China	FTSE A200	10375.41	10350.49
	FTSE B35	9000.71	8988.96
	Shanghai A	3407.34	3382.53
	Shanghai B	290.76	289.77
	Shanghai Comp	3250.55	3226.89
	Shenzhen A	2155.25	2144.05
	Shenzhen B	1172.30	1168.22
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1317.55	1318.54
Denmark	OMXC Copenahgen 20	1872.88	1879.94
Egypt	EGX 30	14704.18	14724.44
Estonia	OMX Tallinn	1871.57	1865.54
Finland	OMX Helsinki General	10413.70	10561.41
France	CAC 40	6925.40	7025.72
	SBF 120	5300.49	5375.60
Germany	M-DAX	26446.93	27043.77
	TecDAX	3226.19	3244.53
	XETRA Dax	14768.20	14967.10
Greece	Athens Gen	1020.00	1031.91
	FTSE/ASE 20	2477.76	2505.87
Hong Kong	Hang Seng	19518.59	19203.91
	HS China Enterprise	6615.71	6482.47
	HSCC Red Chip	4040.71	3942.13
Hungary	Bux	40771.24	40852.89
India	BSE Sensex	57989.90	57634.84
	Nifty 500	14420.85	14330.35
Indonesia	Jakarta Comp	6678.24	6565.73
Ireland	ISEQ Overall	8007.95	8167.62
Israel	Tel Aviv 125	1709.40	1711.41
Italy	FTSE Italia All-Share	27615.54	28066.39
	FTSE Italia Mid Cap	41559.58	42347.14
	FTSE MIB	25494.54	25918.76
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27333.79	27010.61
	S&P Topix 150	1677.29	1658.45
	Topix	1959.42	1937.10
Jordan	Amman SE	2645.29	2648.13
Kenya	NSE 20	1560.06	1590.60
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1188.35	1185.22
Lithuania	OMX Vilnius	1002.86	1002.07
Luxembourg	LuxX	1497.67	1520.91
Malaysia	FTSE Bursa KLCI	1411.73	1391.60
Mexico	IPC	52202.36	52505.70
Morocco	MASI	10513.90	10497.55
Netherlands	AEX	722.43	727.06
	AEX All Share	986.63	992.74
New Zealand	NZX 50	11725.62	11699.02
Nigeria	SE All Share	54915.61	55490.20
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	41329.95	41694.09
Philippines	Manila Comp	6469.72	6404.91
Poland	Wig	56185.56	56905.06
Portugal	PSI 20	5724.12	5865.99
	PSI General	4348.33	4428.78
Romania	BET Index	12227.12	12190.82
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	9976.65	9976.65
Singapore	FTSE Straits Times	3183.28	3155.54
Slovakia	SAX	310.24	309.65
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	72527.92	72905.50
	FTSE/JSE Res 20	62889.40	61522.87
	FTSE/JSE Top 40	67001.16	67445.99
South Korea	Kospi	2395.69	2377.91
	Kospi 200	312.07	308.39
Spain	IBEX 35	8719.30	8890.20
Sri Lanka	CSE All Share	9670.42	9596.55
Sweden	OMX Stockholm 30	2088.02	2125.23
	OMX Stockholm AS	797.07	811.87
Switzerland	SMI Index	10613.55	10719.10
Taiwan	Weighted Pr	15452.96	15221.12
Thailand	Bangkok SET	1563.67	1554.65
Turkey	BIST 100	5136.44	5136.44
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2596.00	2557.50
	FTSE 100	7335.40	7410.03
	FTSE 4Good UK	6650.60	6732.90
	FTSE All Share	4007.66	4051.38
	FTSE techMARK 100	6428.96	6507.41
USA	DJ Composite	10707.82	10848.41
	DJ Industrial	31808.61	32246.55
	DJ Transport	13787.32	13964.48
	DJ Utilities	921.89	932.09
	Nasdaq 100	12484.73	12581.39
	Nasdaq Cmp	11598.43	11717.28
	NYSE Comp	14584.93	14830.98
	S&P 500	3910.78	3960.28
	Wilshire 5000	38685.29	39252.12
Venezuela	IBC	29364.89	29762.34
Vietnam	VNI	1045.14	1047.40
Cross-Border	DJ Global Titans ($)	434.37	436.62
	Euro Stoxx 50 (Eur)	4063.31	4116.98
	Euronext 100 ID	1289.39	1302.93
	FTSE 4Good Global ($)	9816.82	9845.05
	FTSE All World ($)	407.00	409.08
	FTSE E300	1724.34	1744.66
	FTSE Eurotop 100	3405.00	3439.78
	FTSE Global 100 ($)	2593.42	2603.94
	FTSE Gold Min ($)	1744.45	1750.12
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2747.96	2697.20
	FTSE World ($)	739.42	744.04
	FTSEurofirst 100 (Eur)	4634.93	4686.70
	FTSEurofirst 80 (Eur)	5527.44	5599.46
	MSCI ACWI Fr ($)	619.86	612.09
	MSCI All World ($)	2677.99	2638.46
	MSCI Europe (Eur)	1790.94	1765.64
	MSCI Pacific ($)	2621.11	2652.35
	S&P Euro (Eur)	1808.07	1834.53
	S&P Europe 350 (Eur)	1765.87	1788.66
	S&P Global 1200 ($)	2934.00	2957.89
	Stoxx 50 (Eur)	3738.12	3773.19

(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	121.2	178.71	-5.42
Nvidia	102.2	258.55	3.14
Microsoft	92.3	277.50	1.30
Apple	65.6	155.06	-0.79
Advanced Micro Devices	46.2	97.05	0.45
Amazon.com	34.6	97.90	-2.14
Meta Platforms	33.3	199.62	-5.31
Alphabet	28.3	101.12	0.80
Alphabet	27.3	101.95	0.88
First Republic Bank	18.4	25.62	-8.65

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Fedex	220.88	16.83	8.25
Newmont	48.18	2.40	5.24
Nvidia	258.55	3.14	1.23
Public Storage	297.53	2.67	0.91
Akamai	73.18	0.65	0.90
Downs			
First Republic Bank	25.62	-8.65	-25.24
Signature Bank	70.00	-20.76	-22.87
Enphase Energy	182.51	-18.59	-9.24
Solaredge	261.70	-23.87	-8.36
Key	11.28	-1.01	-8.18

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

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shell	742.7	2214.00	5.00
Bp	550.5	479.95	-2.50
Astrazeneca	448.0	10814.00	16.00
Glencore	403.7	432.65	9.45
Rio Tinto	402.9	5250.00	-31.00
Hsbc Holdings	385.8	542.10	-16.00
Unilever	359.3	4047.50	-39.50
Diageo	319.1	3475.00	-59.50
Gsk	260.1	1400.80	13.80
Anglo American	248.4	2504.00	25.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Bodycote	615.50	34.00	5.85
W.a.g Payment Solutions	87.00	4.00	4.82
Diploma	2720.00	84.00	3.19
Marshalls	310.80	9.00	2.98
Herald Investment Trust	1786.00	50.00	2.88
Downs			
Bridgepoint	193.70	-21.70	-10.07
Currys	59.25	-5.70	-8.78
888 Holdings	58.85	-5.15	-8.05
Ti Fluid Systems	93.60	-7.60	-7.51
Asos	737.50	-59.50	-7.47

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Roche Gs	1903.8	264.74	0.46
Novartis N	1766.2	77.11	-0.76
Nestle N	1489.3	110.59	-0.40
Ubs N	640.4	17.31	-0.20
Abb Ltd N	615.2	30.01	-0.42
Unicredit	596.6	15.90	-0.59
Intesa Sanpaolo	595.2	2.19	-0.05
Santander	560.2	3.14	-0.15
Richemont N	483.6	134.92	-3.14
Zurich Insurance N	440.4	406.09	-7.08

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Sartorius Ag Vzo O.n.	393.60	12.90	3.39
Ericsson, Telefonab. L M Ser. A	5.64	0.13	2.27
Asml Holding	595.50	8.50	1.45
A.p. M__ller - M__rsk B A/s	2153.82	28.21	1.33
Bayer Ag Na O.n.	56.28	0.51	0.91
Downs			
Cs N	1.88	-0.16	-8.01
Vonovia Se Na O.n.	18.31	-1.24	-6.34
Siemens Energy Ag Na O.n.	18.14	-1.01	-5.27
Santander	3.14	-0.15	-4.65
Ing Groep N.v.	10.56	-0.44	-3.98

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Mitsubishi Ufj Fin,.	1113.8	840.90	3.30
Sumitomo Mitsui Fin,.	881.5	5258.00	1.00
Tokyo Electron	726.9	48560.00	1380.00
Nippon Steel & Sumitomo Metal	715.7	3001.00	-1.00
Toyota Motor	653.7	1786.00	-4.00
Softbank .	557.2	4891.00	-6.00
Nippon Yusen Kabushiki Kaisha	547.0	3314.00	-4.00
Sony	516.9	11630.00	395.00
Mizuho Fin,.	449.0	1868.50	36.00
Mitsui O.s.k.lines,	416.6	3530.00	-20.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Tobu Railway Co.,	3175.00	135.00	4.44
Tse Growth Market Core Index	956.76	38.04	4.14
Hoya	14300.00	560.00	4.08
M3,.	3443.00	127.00	3.83
Daiichi Sankyo ,	4579.00	159.00	3.60
Downs			
Taisei	4070.00	-360.00	-8.13
Nippon Sheet Glass ,	608.00	-15.00	-2.41
Kajima	1571.00	-33.00	-2.06
Kuraray Co.,	1158.00	-21.00	-1.78
Mazda Motor	1143.00	-20.00	-1.72

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Mar 17 price(p)	%Chg week	%Chg ytd
Winners			
Endeavour Mining	1760.00	6.7	0.5
Rentokil Initial	546.80	5.4	7.3
Convatec	228.40	5.4	-1.8
Auto Trader	587.00	2.0	13.8
Compass	1941.00	1.9	1.2
Admiral	1914.50	1.8	-
Severn Trent	2813.00	1.7	6.3
Bunzl	2975.00	1.5	8.1
London Stock Exchange	7470.00	1.5	4.7
United Utilities	1044.00	1.2	5.3
Astrazeneca	10814.00	1.1	-3.6
Reckitt Benckiser	5810.00	1.0	1.0
Losers			
Prudential	1008.00	-17.9	-
M&g	177.80	-17.1	-5.4
Standard Chartered	634.00	-14.3	1.9
Shell	2214.00	-13.0	-4.8
Bp	479.95	-12.6	4.8
Ashtead	4866.00	-12.0	3.1
Barclays	139.56	-11.3	-
Anglo American	2504.00	-11.0	-
Airtel Africa	107.60	-10.7	-3.8
Beazley	519.50	-10.7	-
Aviva	402.20	-10.6	-9.2
Int Consolidated Airlines S.a.	133.26	-10.1	7.5

FTSE 250	Mar 17 price(p)	%Chg week	%Chg ytd
Winners			
W.a.g Payment Solutions	87.00	9.3	9.6
Baltic Classifieds	155.00	5.7	10.1
Bakkavor	108.60	4.4	11.3
4imprint	4670.00	4.2	9.2
Barr (a.g.)	546.00	4.0	2.4
Ibstock	175.60	4.0	13.0
The Renewables Infrastructure	125.80	3.6	-3.1
Primary Health Properties	104.60	3.6	-5.6
Polar Capital Technology Trust	1960.00	2.8	13.7
Assura	49.38	2.4	-9.5
Volution	415.00	2.3	15.5
Vietnam Enterprise Investments	570.00	2.3	-2.2
Losers			
Currys	59.25	-21.3	11.1
Man	224.50	-20.5	5.0
Ti Fluid Systems	93.60	-19.6	-
Close Brothers	896.00	-16.8	-
Harbour Energy	247.70	-16.1	-
Tullow Oil	28.94	-15.8	-
Iwg	155.30	-15.7	-6.4
Ig Holdings	673.50	-15.5	-
Virgin Money Uk	139.70	-15.1	-
Carnival	634.80	-14.7	9.5
Hunting	228.00	-14.4	-
National Express	119.30	-14.1	-8.1

FTSE SmallCap	Mar 17 price(p)	%Chg week	%Chg ytd
Winners			
Costain	52.10	15.8	32.3
Hyve	111.00	8.8	50.8
Sabre Insurance	104.40	7.4	-2.6
City Of London Investment	450.00	5.9	7.1
Ediston Property Investment	65.80	5.8	10.8
Hostelworld	144.80	5.7	25.7
Funding Circle Holdings	53.80	5.3	-2.2
Empiric Student Property	88.50	4.7	5.1
Bloomsbury Publishing	449.50	4.4	0.1
Manchester & London Investment Trust	354.00	4.1	6.6
Ten Entertainment	280.00	3.7	10.2
Treatt	562.00	3.5	-10.1
Losers			
The Gym	100.20	-23.3	-8.1
Saga	124.20	-20.1	-1.3
De La Rue	52.80	-17.1	-
Petrofac	60.65	-15.7	-
Esken	4.65	-13.1	-8.8
Capital	92.00	-12.8	-5.2
On The Beach	138.60	-12.3	-
Fisher (james) & Sons	317.00	-12.2	-18.8
Wanton	192.40	-12.1	-
Renewi	596.00	-10.1	-0.3
Reach	73.40	-9.9	-
Kenmare Resources	439.50	-9.7	0.2

Industry Sectors	Mar 17 price(p)	%Chg week	%Chg ytd
Winners			
Mining	10282.15	3.2	-7.6
General Retailers	3405.03	2.0	1.3
Pharmaceuticals & Biotech.	20291.64	0.3	-3.8
General Financial	12013.28	0.2	3.8
Real Estate & Investment Servic	2193.86	-0.3	3.6
Beverages	26719.52	-0.5	-3.8
Gas Water & Multiutilities Index	5908.83	-0.6	4.6
Health Care Equip.& Services	10680.95	-1.1	-2.0
Food & Drug Retailers	4074.78	-1.1	-1.3
Media	9786.93	-1.5	7.8
Equity Investment Instruments	10894.52	-2.0	-3.2
Support Services	9838.33	-2.2	-0.9
Losers			
Life Insurance	6367.12	-13.9	-9.4
Oil & Gas Producers	7876.74	-12.6	-2.8
Industrial Transportation	3543.35	-11.6	1.9
Automobiles & Parts	1661.59	-11.4	10.2
Banks	3313.43	-9.3	0.8
Industrial Metals	6509.15	-8.6	-
Personal Goods	31912.70	-7.7	3.2
Mobile Telecommunications	2338.26	-7.5	9.7
Construction & Materials	7984.48	-6.2	16.2
Travel & Leisure	6900.04	-5.7	11.1
Nonlife Insurance	2798.45	-5.1	-
Tobacco	32114.38	-5.1	-9.8

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

CURRENCIES

DOLLAR EURO POUND

[illegible]

FTSE ACTUARIES SHARE INDICES

[illegible]

FT 30 INDEX

[illegible]

FT WILSHIRE 5000 INDEX SERIES

[illegible]

FTSE GLOBAL EQUITY INDEX SERIES

[illegible]

FTSE SECTORS: LEADERS & LAGGARDS

[illegible]

FTSE 100 SUMMARY

[illegible]

UK STOCK MARKET TRADING DATA

[illegible]

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

MORNINGSTAR

UK RIGHTS OFFERS

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

[illegible]

BakerHu	26.68	-2.39	39.78	20.42	2.49	68.90	26979.29
Bank of NY	42.55	-4.77	53.63	36.22	2.74	11.47	34022.21
BankAm	27.81	-2.46	44.63	27.62	2.51	8.69	222586.77
Baxter	37.49	-0.53	80.72	37.46	2.59	16.53	18920.16
BectonDick	235.05	5.34	277.29	215.90	1.28	45.37	66731.08
BerkshHat	445679.24	-14782.76	544389.26	393012.25	-	8.36	263322.89
Biogen	262.08	5.52	311.88	187.16	-	28.12	37866.08
BlackRock	626.05	-8.98	788.65	503.12	2.37	18.28	94055.48
Boeing	200.68	-2.39	221.33	113.02	-	-31.32	120242.85
JPMrgnCh	125.81	-7.84	144.34	101.28	2.71	9.14	370303.55
Kimb-Clark	125.99	3.65	144.53	108.74	3.35	26.38	42515.8
KinderM	16.31	-0.46	20.20	15.78	6.11	39.31	36664.93
KLA Corp	384.95	17.44	428.56	250.20	0.91	22.11	53307.79
Kraft Heinz	37.56	-0.38	44.87	32.73	3.82	51.11	46011.13
Kroger	46.57	-0.53	62.78	41.82	1.52	23.72	33335.82
LasVegasSd	53.91	-2.30	60.99	28.88	-	-39.83	41201.98
LibertyGbl	18.75	0.24	26.47	15.22	-	0.89	3222.86
Lilly (E)	328.61	13.59	384.44	276.45	0.93	59.91	312276.81

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

[illegible]

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

[illegible]

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Mar 17	Red date	Coupon	Ratings 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
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

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

BONDS: GLOBAL INVESTMENT GRADE

Mar 17	Red date	Coupon	Ratings 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	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

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

INTEREST RATES: OFFICIAL

[illegible]

INTEREST RATES: MARKET

[illegible]

BOND INDICES

[illegible]

VOLATILITY INDICES

	Mar 17	Day Chng	Prev	52 wk high	52 wk low
VIX	25.43	2.44	22.99	36.64	17.97
VXD	22.14	2.74	19.40	37.57	3.27
VXN	28.79	2.17	26.62	44.02	5.85
VDAX	27.62	2.68	24.94	93.30	-

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

BONDS: BENCHMARK GOVERNMENT

[illegible]

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

GILTS: UK CASH MARKET

Mar 17	Price £	Red Yield	Change in Yield Day	Week	Month	Year	52 Week High	Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.98	3.77	-1.31	-5.28	-2.58	209.02	99.56	97.34	34.36
Tr 0.125pc '24	97.13	3.52	-3.30	-9.97	-8.09	162.69	98.11	94.34	35.55
Tr 2pc '25	96.96	3.30	-3.51	-10.33	-4.35	155.81	102.74	93.15	39.93
Tr 0.125pc '26	91.69	3.18	-3.64	-10.67	-5.92	150.39	96.04	86.33	35.32
Tr 1.25pc '27	92.28	3.17	-3.65	-10.45	-7.85	140.15	100.11	85.65	40.99
Tr 0.5pc '29	85.37	3.26	-2.98	-9.19	-5.51	129.58	96.69	78.21	24.54
Tr 1pc '32	82.99	3.22	-2.72	-9.55	-8.78	105.10	126.10	78.92	35.96
Tr 4.25pc '36	108.87	3.40	-2.58	-9.09	-10.76	94.29	131.88	94.91	31.68
Tr 4.5pc '42	111.36	3.68	-1.87	-6.84	-7.54	103.31	147.79	93.79	28.35
Tr 3.75pc '52	100.69	3.71	-1.33	-6.31	-6.31	108.43	149.35	82.51	25.11
Tr 4pc '60	108.06	3.60	-1.10	-6.49	-5.76	113.02	169.63	87.32	25.13

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

GILTS: UK FTSE ACTUARIES INDICES

[illegible]

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

POWERED BY MORNINGSTAR

COMMODITIES

[illegible]

BONDS: INDEX-LINKED

[illegible]

BONDS: TEN YEAR GOVT SPREADS

[illegible]

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

MANAGED FUNDS SERVICE

SUMMARY FT.COM/FUNDS

Winners - US Fund Foreign Large Growth

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
[illegible]	-10.93	15.32	8.47	0.42	32.24
[illegible]	-1.70	15.17	4.39	0.51	21.78
[illegible] International Fund	-3.39	14.84	5.08	0.44	21.70
[illegible] International Equity Fund	-2.92	13.91	6.06	0.48	20.40
Manning & Napier Overseas Series	-7.61	13.36	2.75	0.41	21.56

Losers - US Fund Foreign Large Growth

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
[illegible] International Select Equity Fund	-8.92	2.85	-2.09	-0.10	21.91
[illegible] International Growth Fund	-8.40	4.09	0.22	-0.04	21.01
[illegible]	-13.13	4.39	0.02	0.06	28.02
Touchstone International Growth Fund	-12.32	5.77	-1.90	0.03	21.60
Wasatch International Select Fund	-7.06	0.45	-	0.11	24.50

Morningstar Star Ratings

Fund Name	Base Currency	Morningstar Rating 3 Yr	Morningstar Rating 5 Yr	Morningstar Rating 10 Yr
[illegible]	US Dollar	★★★★★	★★★★★	★★★★★
Index Pacific ex Japan P-Acc	Pound Sterling	★★★★	★★★	-
UK Opportunities Fund W-ACC-GBP	Pound Sterling	★★★	★★★	★★★
RAM Systematic European Eq	Euro	★★★	★★★	★★★★
[illegible]	US Dollar	★★	★★	★★

Global Broad Category Group - Convertibles

Morningstar Category	Base Currency	Total Ret 1Yr GBP	Total Ret 3Yr GBP	Total Ret 5Yr GBP
World Convertible Bond	Yen	1.63	8.71	2.96
Convertible Bond - Global	US Dollar	-8.09	4.95	1.31
Convertible Bond - Global, USD Hedged	US Dollar	-7.80	4.08	0.80
Japan Convertible Bond	Yen	1.30	3.37	6.08
Convertible Bond - Global, GBP Hedged	Pound Sterling	-8.79	3.36	-0.09

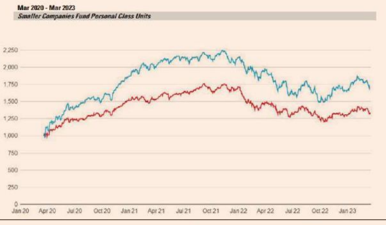
Advertising Feature

McInroy & Wood Portfolios

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

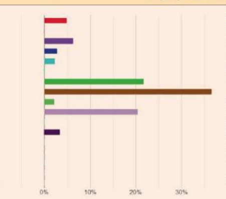
Firm Name	McInroy & Wood Portfolios Limited
Fund Name	Smaller Companies Fund Personal Class Units
Morningstar Category	Global Small/Mid-Cap Equity
Max Annual Charge	
3Yr Rating	★★
Morningstar Sustainability Rating	
Bid Price	-
Offer Price	
+/-	62.60
KIID Ongoing Charge	1.12
Total Ret 3Yr	5.97

Performance



Day ↗1.05% Month ↘-4.81% Year ↘-8.41%

Weightings - As of 31/01/2023



Sector	Weighting	Cat Avg
Basic Materials	4.85%	5.96%
Communication Services	-	3.93%
Consumer Cyclical	6.24%	13.54%
Consumer Defensive	2.81%	5.46%
Energy	2.25%	4.31%
Financial Services	-	10.06%
Healthcare	21.62%	10.30%
Industrials	36.51%	19.29%
Real Estate	2.11%	3.99%
Technology	20.42%	14.90%
Utilities	-	1.99%
Cash & Equivalents	3.17%	5.23%
Corporate	-	0.18%
Derivative	-	0.71%
Government	-	0.05%
Municipal	-	-
Securitized	-	0.00%

Top 10 Holdings - As of 31/01/2023

Holding	Sector	Weighting
US Physical Therapy Inc	Healthcare	3.70%
Belimo Holding AG	Industrials	3.58%
[illegible] Corp	Industrials	3.55%
Basler AG	Technology	3.14%
Watsco Inc Class A	Industrials	3.05%
Technology One Ltd	Technology	3.01%
AptarGroup Inc	Healthcare	2.91%
Spirax-Sarco Engineering PLC	Industrials	2.86%
Energy Recovery Inc	Industrials	2.84%
[illegible] PLC	Consumer Defensive	2.81%

Risk Measures - As of 28/02/2023

	1Yr	1Yr Cat Ave	3Yr	3Yr Cat Ave	5Yr	5Yr Cat Ave
Alpha	-6.35	-2.12	-4.06	-1.23	-2.06	-1.47
Beta	0.99	1.00	0.95	1.02	0.97	1.02
Information Ratio	-0.60	-0.20	-0.54	-0.14	-0.31	-0.23
R Squared	83.74%	88.98%	85.15%	88.03%	85.97%	88.94%
Sharpe Ratio	-0.55	-0.24	0.24	0.37	0.14	0.24
Std Dev	25.59	23.89	23.66	23.86	21.13	21.18

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Bridge Fund	£2.1598	-	0.0022	2.13	-3.93	10.34
Global Equity Fund	£3.2556	-	0.0062	1.42	-2.09	14.38
Global Fixed Interest Fund	£0.7308	-	-0.0014	6.14	-8.48	-1.44
Income Fund	£0.6271	-	0.0034	-	-3.99	10.96
Sterling Fixed Interest Fund	£0.6891	-	-0.0002	4.00	-11.45	-3.42
UK Equity Fund	£1.6786	-	0.0020	3.76	-2.21	12.76

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Algebris Core Italy I EUR	€143.56	-	-5.72	0.00	-1.00	21.45
Algebris Core Italy R EUR	€141.51	-	2.56	0.00	1.45	23.38
Algebris Financial Credit I EUR	€169.11	-	-3.64	-	-6.46	2.13
Algebris Financial Credit R EUR	€145.21	-	-3.13	-	-7.11	1.53
Algebris Financial Credit Rd EUR	€82.57	-	-1.88	-	-7.10	1.58
Algebris Financial Equity B EUR	€158.45	-	-7.53	0.00	6.81	23.22
Algebris Financial Equity R EUR	€131.21	-	-6.32	0.00	5.75	22.04
Algebris Financial Income I EUR	€175.16	-	-5.21	-	-1.21	13.07
Algebris Financial Income R EUR	€159.00	-	-4.73	-	-2.09	12.06
Algebris Financial Income Rd EUR	€96.32	-	-2.97	-	-2.09	12.05
Algebris Global Credit Opportunities I EUR	€125.13	-	-2.06	-	1.17	4.60
Algebris Global Credit Opportunities R EUR	€121.96	-	-2.01	-	0.59	4.25
Algebris Global Credit Opportunities Rd EUR	€106.38	-	-1.76	-	0.59	4.37
Algebris IG Financial Credit I EUR	€95.88	-	-0.39	-	-7.68	0.26
Algebris IG Financial Credit R EUR	€94.27	-	-0.38	-	-8.14	-0.24
Algebris Sust. World B	€104.70	-	1.70	-	-	-
Algebris Sust. World R	€101.78	-	-2.38	-	-	-

The Antares European Fund Limited
Other International

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
AEF Ltd Usd	$571.13	-	10.28	0.00	2.81	-3.37
AEF Ltd Eur	€524.33	-	9.19	0.00	1.50	-4.11

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Artemis SmartGARP UK Eq I Acc	2296.92	-	-4.01	-	8.15	26.63
Artemis Corporate Bond I Acc	99.22	-	0.05	-	-7.58	1.51
Artemis SmartGARP Eur Eq I Acc	438.17	-	0.85	-	13.05	22.44
Artemis European Opps I Acc	126.01	-	0.61	-	3.20	13.45
Artemis SmartGARP Glo Emr Eq I Acc	164.49	-	1.63	-	4.96	13.74
Artemis SmartGARP Glo Eq I Acc	372.68	-	2.23	-	-2.17	17.61
Artemis Global Income I Inc	103.92	-	0.09	-	-1.35	19.26
Artemis Global Select I Acc	160.17	-	1.12	-	-5.88	13.43
Artemis High Income I Q Inc	68.57	-	-0.12	-	-3.53	5.08
Artemis Income I Inc	246.33	-	-0.55	-	0.98	17.94
Artemis Monthly Dist I Inc	68.46	-	0.00	-	-3.26	8.86
Artemis Positive Future Fund	67.31	-	0.34	-	-12.89	-
Artemis Strategic Assets I Acc	97.55	-	-0.11	-	20.06	14.79
Artemis Strategic Bond I Q Acc	102.30	-	-0.32	-	-4.73	0.47
Artemis Target Return Bond I Acc	106.18	-	-0.13	-	-1.05	2.60
Artemis UK Select Fund Class I Acc	744.38	-	-1.83	-	-0.84	23.81
Artemis UK Smaller Cos I Acc	2013.57	-	-5.93	-	-1.26	16.87
Artemis UK Special Sits I Acc	749.28	-	1.47	-	-0.29	19.42
Artemis US Abs Return I Hdg Acc	112.59	-	0.06	0.00	-0.35	-0.88
Artemis US Extended Alpha I Acc	318.41	-	3.88	-	-3.54	15.93
Artemis US Select I Acc	280.84	-	3.78	-	-7.36	12.73
Artemis US Smlr Cos I Acc	296.68	-	2.31	0.00	-10.89	16.23

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Emerging Markets Equity Fund	$115.73	-	1.33	-	-7.25	12.78
Emerging Markets Equity ESG Fund	$133.71	-	1.35	-	-6.83	-
Emerging Markets Active Equity Fund	$117.41	-	1.02	-	-14.06	4.99
Emerging Markets Frontier Equity Fund	$168.22	-	-0.81	-	-14.65	11.59
Emerging Markets Blended Debt Fund	$52.90	-	0.00	-	-9.23	-4.17
Emerging Markets Blended Debt ESG Fund	$84.59	-	0.22	-	-8.27	-2.80
Emerging Markets Debt Fund	$57.28	-	-0.03	-	-12.22	-4.42
Emerging Markets Corporate Debt Fund	$60.27	-	-0.16	-	-5.37	-2.93
Emerging Markets Local Currency Bond Fund	$60.90	-	0.20	-	-0.29	0.23

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American Dynamic	$6489.10	-	-355.42	0.00	-9.02	11.84
American One	$6643.44	-	-239.40	-	-4.10	13.91
Bond Global	€1530.67	-	16.14	-	-2.83	0.18
Eurocroissance	€1319.46	-	-43.06	-	-0.58	9.32
Far East	$994.51	-	-45.25	-	-6.57	4.55

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Blue Whale Growth USD T	$8.91	-	0.11	-	-11.13	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Brooks Macdonald International Investment Funds Limited						
Euro High Income	€1.2061	-	-0.0022	2.50	-10.98	-4.30
High Income	£0.6560	-	-0.0002	3.77	-10.90	-3.54
Sterling Bond	£1.2641	-	-0.0001	2.06	-10.14	-2.98
Brooks Macdonald International Multi Strategy Fund Limited						
Cautious Balanced Strategy	£1.2416	-	-0.0007	0.00	-4.43	2.19
Cautious Balanced Strategy A	£0.8890	-	-0.0005	1.10	-3.96	-
Balanced Strategy	£0.9112	-	0.0016	0.09	-1.08	-
Balanced Strategy A	£0.9133	-	0.0016	0.56	-0.60	-
Growth Strategy	£1.9173	-	0.0079	0.00	-1.81	7.00
Growth Strategy A	£0.9175	-	0.0038	0.48	-1.32	-
High Growth Strategy	£2.6721	-	0.0182	0.00	-1.82	8.81
High Growth Strategy A	£0.9124	-	0.0062	0.12	-1.33	-
US$ Growth Strategy	$1.6461	-	0.0134	0.00	-10.06	4.58

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
US Small Cap Blend Fund USD B	$21.03	-	0.34	0.00	-7.28	20.40
US Flexible Equity Fund USD B	$22.85	-	0.41	0.00	-9.50	18.62
Global Leaders Fund USD C	$20.22	-	0.44	-	-7.12	15.92
US Sustainable Growth Fund USD C	$23.67	-	0.58	0.00	-8.22	20.05
Global Leaders Sustainable Fund USD C	$12.23	-	0.27	-	-8.18	15.88
US Equity Growth Fund USD B	$46.45	-	1.04	-	-12.19	11.59
US Smaller Companies Fund USD B	$34.50	-	0.60	0.00	-6.25	19.26
US Mid-Cap Growth Fund USD C	$16.41	-	0.24	0.00	-10.52	12.98
Global Sustainable Total Return Bond GBP B	£9.47	-	-0.02	0.91	-3.08	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Absolute Return Cls M Inc	£135.28	135.89	-0.01	-	-1.77	6.06
Capital Gearing Portfolio GBP P	£37263.44	37468.90	25.63	-	-2.26	5.84
Capital Gearing Portfolio GBP V	£181.23	182.23	0.12	-	-2.26	5.84
Dollar Fund Cls D Inc	£171.42	171.93	3.72	1.23	-1.99	2.08
Dollar Hedged GBP Inc	£95.27	95.56	1.18	1.22	-11.03	0.36
Real Return Cls A Inc	£204.97	205.58	3.60	1.71	-1.81	1.67

Candriam Investors Group (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Eqts L Australia Cap	A$1845.53	-	12.06	0.00	0.78	17.65

Candriam Investors Group
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Eqts L Emerging Mkts Cap	€832.66	-	10.77	-	-19.10	7.01
Candriam Bonds Credit Opportunities	€195.28	-	-0.16	0.00	-1.21	0.57
Candriam Bds Euro High Yield Cap	€1170.44	-	-0.15	-	-3.19	3.08
Candriam Bds Euro Sh.Term Cap	€1993.21	-	-4.42	-	-2.62	-1.06

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CAM-GTF VCC	$283339.90	283339.90	-1589.63	-	-6.36	3.78
CAM GTi VCC	$780.49	-	-32.39	-	12.31	4.69
RAIC VCC	$1.64	1.64	0.03	2.06	5.74	-1.66

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Consistent UT Inc	60.45	60.45	0.27	1.03	-7.82	20.57
Consistent UT Acc	164.20	164.20	0.70	1.03	-7.80	20.56
Practical Investment Inc	235.70	235.70	0.70	3.88	1.00	17.84
Practical Investment Acc	1501.00	1501.00	5.00	3.88	1.01	17.13

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CP Multi-Strategy Fund	$310.58	-	-1.31	-	10.12	11.84

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CPS Master Private Fund	$420.76	-	0.00	-	9.04	11.02
CP Global Alpha Fund	$346.83	-	-0.60	-	9.53	11.11

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
DWS Invest Top Dividend	£146.52	146.52	-0.04	-	2.19	11.83
DWS Invest Top Euroland	£154.84	154.84	2.40	-	3.75	16.63
DWS Invest Multi Opportunities	£115.01	115.01	0.10	-	0.89	8.73
DWS Invest Global Bonds	£92.27	92.27	-0.18	-	-7.12	-2.68

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Dodge & Cox Worldwide Funds plc - Global Bond Fund						
EUR Accumulating Class	€15.97	-	0.19	-	3.23	4.49
EUR Accumulating Class (H)	€10.43	-	-0.04	-	-2.89	1.04
EUR Distributing Class	€11.55	-	0.13	-	1.22	3.48
EUR Distributing Class (H)	€7.49	-	-0.02	-	-4.92	-0.02
GBP Distributing Class	£12.44	-	0.08	-	7.80	3.60
GBP Distributing Class (H)	£8.05	-	-0.02	-	-3.76	0.80
USD Accumulating Class	$12.19	-	-0.04	-	-0.25	2.80
Dodge & Cox Worldwide Funds plc-Global Stock Fund						
USD Accumulating Share Class	$27.71	-	-0.76	-	-4.18	17.46
GBP Accumulating Share Class	£37.79	-	-0.67	-	3.62	18.38
GBP Distributing Share class	£25.44	-	-0.44	-	3.31	18.10
EUR Accumulating Share Class	€39.33	-	-0.48	-	-0.83	19.37
GBP Distributing Class (H)	£12.80	-	-0.35	0.78	-6.50	15.18
Dodge & Cox Worldwide Funds plc-U.S. Stock Fund						
USD Accumulating Share Class	$36.01	-	-0.45	-	-9.04	18.26
GBP Accumulating Share Class	£46.45	-	-0.12	-	-1.61	19.19
GBP Distributing Share Class	£27.83	-	-0.08	-	-2.14	18.90
EUR Accumulating Share Class	€44.14	-	0.12	-	-5.84	20.19
GBP Distributing Class (H)	£14.25	-	-0.18	0.36	-11.16	16.02

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Vietnam Equity (UCITS) Fund A USD	$24.86	-	-0.36	-	-35.81	13.84

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Amity Balanced For Charities A Inc	98.69	-	-0.34	-	-5.09	10.98
Amity Global Equity Inc for Charities A Inc	153.20	-	0.60	-	-0.71	15.66
EdenTree European Equity Cls A Inc	316.90	-	-0.30	-	7.00	21.29
EdenTree European Equity Cls B Inc	320.20	-	-0.30	-	7.62	22.02
EdenTree Global Equity Cls A Inc	323.70	-	2.50	-	-2.15	13.78
EdenTree Global Equity Cls B Inc	326.50	-	2.50	-	-1.65	14.43
EdenTree Responsible and Sust S Dtd Bd B	93.92	-	0.06	1.26	-1.71	-0.46
EdenTree Sterling Bond Cls A Inc	86.07	-	0.06	4.01	-8.08	-0.83
EdenTree Sterling Bond Cls B Inc	97.30	-	0.07	4.01	-7.55	-0.23
EdenTree UK Equity Cls A Inc	214.10	-	0.90	1.52	-7.90	7.45
EdenTree UK Equity Cls B Inc	213.50	-	0.90	2.08	-7.40	8.11
EdenTree UK Equity Opps Cls A Inc	269.40	-	0.80	1.13	-9.69	10.94
EdenTree UK Equity Opps Cls B Inc	275.10	-	0.90	1.68	-9.19	11.61
Edentree Global Impact Bond B	86.13	-	-0.07	2.43	-7.35	-
Edentree Green Future B Net Inc	101.20	-	0.20	0.46	1.10	-
EdenTree Managed Income Cls A Inc	119.30	-	-0.50	-	-4.15	11.23
EdenTree Managed Income Cls B Inc	127.50	-	-0.50	-	-3.66	11.80

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Smaller Cos Cls One Shares	€52.83	-	-0.64	0.00	-	4.79
Smaller Cos Cls Two Shares	€33.68	-	-0.41	0.00	-	3.17
Smaller Cos Cls Three Shares	€16.81	-	-0.20	0.00	-	3.07
Smaller Cos Cls Four Shares	€22.15	-	-0.27	0.00	-	3.74

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Emerging Mkts NAV	£7.21	-	-0.16	1.95	-8.10	0.11

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Allocator World Fund W-ACC-GBP	£2.61	-	0.02	-	-1.47	16.11
American Fund W-ACC-GBP	£53.23	-	0.71	-	-2.74	10.47
American Special Sits W-ACC-GBP	£21.57	-	0.17	-	-2.00	20.56
Asia Fund W-ACC-GBP	£15.13	-	0.16	-	-6.14	5.71
Asia Pacific Ops W-Acc	£2.88	-	0.04	0.48	-0.31	14.92
Asian Dividend Fund W-ACC-GBP	£2.30	-	0.01	2.87	0.66	12.46
Cash Fund W-ACC-GBP	£1.04	-	0.00	-	2.05	0.66
China Consumer Fund W-ACC-GBP	£2.67	-	0.01	-	-1.55	-1.09
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£1.53	-	0.01	4.74	-12.92	-0.13
Emerging Asia Fund W-ACC-GBP	£1.86	-	0.02	-	-1.80	9.85
Enhanced Income Fund W-INC-GBP	£0.83	-	0.00	-	5.89	14.82
European Fund W-ACC-GBP	£23.86	-	0.14	-	9.96	18.31
Extra Income Fund W-ACC-GBP	£1.27	-	0.01	3.86	-8.78	0.21
Global Dividend Fund W-ACC-GBP	£2.97	-	0.01	-	5.06	13.89
Global Enhanced Income W-ACC-GBP	£2.29	-	0.00	-	4.43	12.87
Global High Yield Fund W-ACC-GBP	£13.77	-	0.01	-	-5.10	1.39
Global Property Fund W-ACC-GBP	£1.83	-	-0.02	-	-16.92	3.90
Global Special Sits W-ACC-GBP	£53.34	-	0.47	-	-3.42	17.12
Index Emerging Markets P-ACC-GBP	£1.64	-	0.01	-	-4.79	8.00
Index Europe ex UK P-ACC-GBP	£1.91	-	0.01	-	6.40	18.16
Index Japan P-ACC-GBP	£1.89	-	0.01	-	1.44	10.17
Index Pacific ex Japan P-Acc-GBP	£1.90	-	0.02	3.52	1.36	13.06
Index Sterling Corporate Bond Fund P-ACC-GBP	£0.84	-	0.01	-	-9.81	-
Index UK Gilt Fund P-ACC-GBP	£0.76	-	0.00	0.61	-14.89	-
Index UK P-ACC-GBP	£1.55	-	0.00	-	2.77	17.05
Index US P-ACC-GBP	£3.41	-	0.04	-	-0.08	19.90
Index World P-ACC-GBP	£2.66	-	0.02	-	0.39	18.47
Japan Fund W-ACC-GBP	£5.70	-	0.06	-	5.76	17.75
Japan Smaller Companies Fund W-ACC-GBP	£3.62	-	0.05	0.60	-2.29	8.87
MoneyBuilder Balanced Fund W-ACC-GBP	£0.60	-	0.00	-	-2.10	6.75
MoneyBuilder Dividend Fund W-INC-GBP	£1.24	-	-0.01	-	5.19	15.29
Multi Asset Allocator Adventurous Fund W-ACC-GBP	£2.09	-	0.01	-	-2.56	12.08
Multi Asset Allocator Defensive Fund W-ACC-GBP	£1.31	-	0.00	-	-6.25	0.46
Multi Asset Allocator Growth Fund W-ACC-GBP	£1.82	-	0.00	-	-3.85	8.01
Multi Asset Allocator Strategic Fund W-ACC-GBP	£1.57	-	0.00	-	-5.13	4.14
Multi Asset Balanced Income Fund W-INC-GBP	£0.95	-	-0.01	-	-4.30	2.98
Multi Asset Income & Growth Fund W-INC-GBP	£1.01	-	0.00	-	-3.31	5.18
Multi Asset Income Fund W-INC-GBP	£0.88	-	0.00	-	-6.97	1.04
Multi Asset Open Advent W-ACC-GBP	£1.74	-	0.01	1.53	0.52	13.05
Multi Asset Open Defen W-ACC-GBP	£1.34	-	0.00	2.07	-3.11	4.27
Multi Asset Open Growth Fund W-ACC-GBP	£1.65	-	0.01	-	0.24	12.15
Multi Asset Open Strategic Fund W-ACC-GBP	£1.51	-	0.01	1.92	-1.63	8.11
Open World Fund W-ACC-GBP	£2.26	-	0.01	0.83	1.53	17.42
Select 50 Balanced Fund PI-ACC-GBP	£1.13	-	0.00	1.38	-3.33	6.17
Short Dated Corporate Bond Fund W-ACC-GBP	£10.62	-	0.01	-	-2.35	0.34
Special Situations Fund W-ACC-GBP	£41.53	-	-0.03	-	2.64	19.97
Strategic Bond Fund W-ACC-GBP	£1.19	-	0.00	-	-7.76	-1.34
Sustainable European Equity Fund W-ACC-GBP	£5.53	-	0.04	-	5.31	14.43
Sustainable Global Equity Fund W-ACC-GBP	£32.82	-	0.32	-	0.40	15.79
Sustainable MoneyBuilder Income Fund W-ACC-GBP	£12.30	-	0.02	-	-10.61	-2.64
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£0.92	-	0.00	-	-5.15	-
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£0.89	-	-0.01	-	-7.69	-
Sustainable Multi Asset Growth Fund W-ACC-GBP	£0.94	-	0.00	-	-4.62	-
Sustainable Water & Waste W-ACC-GBP	£1.14	-	0.01	-	-5.50	10.82
UK Opportunities Fund W-ACC-GBP	240.30	-	-0.60	1.26	-15.48	13.67
UK Select Fund W-ACC-GBP	£3.54	-	0.01	-	-1.56	14.51
UK Smaller Companies W-ACC-GBP	£3.58	-	0.01	-	0.68	26.28

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American EUR Unhedged Class	€151.20	-	1.33	-	-4.30	-
American Fund USD Class	$160.58	-	2.70	-	-7.55	13.72
American Fund GBP Hedged	£78.59	-	1.31	0.00	-9.66	12.00
American Fund GBP Unhedged	£132.57	-	1.36	-	-0.03	14.23

Foord Asset Management
Website: www.foord.com - Email: info@foord.com

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
FCA Recognised - Luxembourg UCITS						
Foord International Fund | R	$49.24	-	-0.19	-	-0.77	8.90
Foord Global Equity Fund (Lux) | R	$16.28	-	0.09	-	-5.76	-
Regulated						
Foord Global Equity Fund (Sing) | B	$19.46	-	0.09	-	-5.60	14.37
Foord International Trust (Gsy)	$48.00	-	-0.18	-	-0.74	8.92

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Fundsmith Equity T Acc	602.71	-	-0.75	-	4.55	15.04
Fundsmith Equity T Inc	549.30	-	-0.68	-	4.55	15.04

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
LAPIS GBL TOP 50 DIV.YLD-Na-D	£120.85	-	0.07	-	3.36	15.76
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£102.86	-	1.03	-	0.26	9.43

Guinness Global Investors

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Guinness Global Equity Income Y GBP Dist	£18.27	-	-0.12	-	5.37	15.80
Guinness Global Innovators Y GBP Acc	£26.13	-	0.00	-	-0.25	15.47
Guinness Sustainable Global Equity Y GBP Acc	£11.14	-	-0.12	-	2.18	-

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

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Property	£6.35	6.82	-0.01	3.48	-12.57	-1.71

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Janus Henderson Asia Pacific Capital Growth Fund A Acc	1137.00	-	9.00	0.05	-4.93	3.52
Janus Henderson Asian Dividend Income Unit Trust Inc	78.67	-	0.50	5.87	-5.66	6.01
Janus Henderson Cautious Managed Fund A Acc	284.10	-	0.10	-	-1.59	8.31
Janus Henderson Cautious Managed Fund A Inc	140.10	-	0.00	-	-1.59	8.58
Janus Henderson China Opportunities Fund A Acc	1175.00	-	5.00	-	-11.92	-4.40
Janus Henderson Emerging Markets Opportunities Fund A Acc	191.90	-	1.20	0.73	-9.27	5.83
Janus Henderson European Growth Fund A Acc	291.30	-	1.10	-	6.70	18.42
Janus Henderson European Selected Opportunities Fund A Acc	2199.00	-	8.00	-	5.92	17.14
Janus Henderson Fixed Interest Monthly Income Fund Inc	17.47	-	-0.05	-	-11.77	-1.12
Janus Henderson Global Equity Fund Acc	4184.00	-	37.00	0.00	-5.60	12.14
Janus Henderson Global Equity Income Fund A Inc	64.74	-	0.25	-	5.81	15.12
Janus Henderson Global Sustainable Equity Fund A Inc	474.10	-	5.90	-	-1.37	16.94
Janus Henderson Global Technology Leaders Fund A Acc	2937.00	-	56.00	0.00	-3.48	16.61
Janus Henderson Instl UK Index Opportunities A Acc	£1.11	-	0.00	-	2.28	16.53
Janus Henderson Multi-Asset Absolute Return Fund A Acc	161.90	-	-0.80	-	1.19	7.23
Janus Henderson Multi-Manager Active Fund A Acc	250.80	-	-0.10	-	-3.39	9.05
Janus Henderson Multi-Manager Distribution Fund A Inc	124.00	-	-0.10	-	-3.56	5.54
Janus Henderson Multi-Manager Diversified Fund A Acc	86.82	-	-0.09	2.63	-4.50	2.37
Janus Henderson Multi-Manager Global Select Fund Acc	304.20	-	0.90	0.00	-1.36	15.98
Janus Henderson Multi-Manager Income & Growth Fund A Acc	186.10	-	-0.20	-	-2.97	5.65
Janus Henderson Multi-Manager Income & Growth Fund A Inc	144.80	-	-0.10	-	-2.91	5.67
Janus Henderson Multi-Manager Managed Fund A Acc	308.50	-	0.00	-	-2.53	8.68
Janus Henderson Multi-Manager Managed Fund A Inc	297.80	-	-0.10	-	-2.57	8.68
Janus Henderson Sterling Bond Unit Trust Acc	206.50	-	0.30	1.62	-10.26	-3.43
Janus Henderson Sterling Bond Unit Trust Inc	56.40	-	0.07	1.64	-10.26	-3.43
Janus Henderson Strategic Bond Fund A Inc	104.40	-	-0.60	-	-10.68	-1.80
Janus Henderson Absolute Return Fund A Acc	167.20	-	0.00	0.00	1.77	2.21
Janus Henderson UK Alpha Fund A Acc	134.60	-	0.00	-	-12.08	10.65
Janus Henderson UK Equity Income & Growth Fund A Inc	505.70	-	-2.30	4.53	1.30	15.82
Janus Henderson US Growth Fund A Acc	1707.00	-	25.00	-	-3.67	14.84

MANAGED FUNDS SERVICE

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
HC Kleinwort Hambros Growth A Acc	235.65	-	1.08	1.36	-0.46	8.20
HC Kleinwort Hambros Growth A Inc	213.81	-	0.98	1.38	-0.46	8.20
HC Kleinwort Hambros Equity Income A Inc	94.28	-	0.05	3.06	1.16	8.58
HC Kleinwort Hambros Equity Income A Acc	188.63	-	0.11	4.50	1.15	8.58
HC Kleinwort Hambros Multi Asset Balanced A Acc	169.08	-	0.49	0.81	-2.47	4.03
HC Kleinwort Hambros Multi Asset Balanced A Inc	159.82	-	0.46	0.81	-2.47	4.03
HC Kleinwort Hambros Fixed Income A Acc	123.89	-	-0.03	3.44	-10.06	-2.73
HC Kleinwort Hambros Fixed Income A Inc	93.86	-	-0.02	3.44	-10.06	-2.73

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Developing Markets Acc	115.67	-	2.07	-	-6.76	5.57
Developing Markets Inc	113.26	-	2.03	-	-6.77	5.56
Emerging Markets Acc	357.04	-	4.16	-	2.14	10.36
Emg Mkts Inc	268.99	-	3.13	-	2.14	10.36
European Alpha Acc	1042.18	-	3.27	-	5.04	16.22
European Alpha Inc	892.38	-	2.80	-	5.04	16.22
European Smaller Cos Acc	659.72	-	3.37	-	-12.11	14.49
Global Equity Income Acc	220.23	-	1.32	-	-0.49	16.09
Global Equity Income Inc	110.52	-	0.66	-	-0.50	16.08
Managed Bal Inc	181.90	-	0.43	-	-4.74	9.75
UK Income Acc	1578.27	-	-3.87	-	1.42	16.43
UK Income Inc	569.97	-	-1.40	-	1.42	16.43
UK Omega Acc	282.69	-	-0.72	-	4.91	18.81
UK Omega Inc	233.42	-	-0.60	-	4.91	18.80
UK Smaller Cos Inc	2001.70	-	8.44	-	-24.24	1.74

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Lothbury Property Trust GBP	£1641.62	1666.71	-15.88	3.40	-19.25	-5.17

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Charifund Inc	1446.41	-	-3.66	5.75	0.74	15.53
Charifund Acc	28734.55	-	-72.74	4.84	0.73	15.52
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.10	-	0.00	2.45	-4.08	-1.38
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 39.67	-	0.03	-	-4.08	-1.34
M&G Charity Multi Asset Fund Inc	£ 0.88	-	0.00	3.85	3.05	14.93
M&G Charity Multi Asset Fund Acc	£ 106.24	-	-0.14	3.52	3.06	14.94

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
UK Equity Fd Cl A Series 01	£ 3295.42	3340.72	354.53	-	-3.45	3.53
Diversified Absolute Rtn Fd USD Cl AF2	$ 1668.02	-	45.93	-	-1.51	1.32
Diversified Absolute Return Stlg Cell AF2	£ 1563.81	-	47.21	-	-2.46	0.36
Global Equity Fund A Lead Series	£ 1828.20	1834.38	100.55	-	1.67	5.08

Marwyn Asset Management Limited (CYM)
Regulated

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Balanced Fund Personal Class Units	5991.50	-	15.60	1.40	2.53	11.49
Income Fund Personal Class Units	2969.90	-	-9.80	2.40	1.56	9.92
Emerging Markets Fund Personal Class Units	2280.30	-	6.80	1.48	4.46	10.63
Smaller Companies Fund Personal Class Units	6027.90	-	62.60	1.30	-8.41	10.99

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
British Innovation Fund	£ 121.92	-	2.89	0.00	-	-
MAI - Buy & Lease (Australia)	A$ 103.45	-	0.50	0.00	-16.53	1.41
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00	-7.20	-2.67
Milltrust Global Emerging Markets Fund - Class A	$ 89.61	-	-1.27	0.00	-8.44	3.22

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Milltrust Alaska Brazil SP A	$ 75.64	-	1.06	0.00	-3.97	16.71
Milltrust Laurium Africa SP A	$ 93.05	-	-0.34	0.00	-16.76	14.56
Milltrust Marcellus India Fund	$ 113.25	-	0.47	0.00	-17.28	-
Milltrust Singular ASEAN SP Founders	$ 126.14	-	-0.41	-	-15.07	18.84
Milltrust SPARX Korea Equity SP A	$ 105.49	-	1.13	0.00	-20.31	3.44
Milltrust Xingtai China SP A	$ 101.94	-	0.50	-	-	2.10
The Climate Impact Asia Fund SP (Class A)	$ 77.49	-	-0.25	0.00	-7.01	-
The Climate Impact Asia Fund (Class B)	$ 76.76	-	-0.26	0.00	-7.47	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
The Equity Idx Tracker Fd Inc	1840.00	-	7.00	-	-1.35	14.20

Distribution Units

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Mir. - Glb Strat. Bd I USD	$ 115.05	-	-0.03	-	-3.77	1.13
Mir. - DiscEur D Cap GBP	£ 164.08	-	1.01	-	-12.65	14.13
Mir. - UKEq HA Cap I GBP	£ 131.03	-	1.42	-	-8.92	12.77

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Oasis Crescent Global Equity Fund USD A (Dist)	$ 33.61	-	0.37	0.24	-10.83	10.22
Oasis Crescent Global Income Fund USD A (Dist)	$ 10.05	-	0.00	-	-2.81	0.79
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 11.99	-	0.06	1.00	-9.33	4.66
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.31	-	0.07	0.30	-9.00	6.03
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.57	-	-0.04	-	-23.31	6.73
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.93	-	0.00	-	-1.82	0.01
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.67	-	0.03	0.37	-5.65	6.69

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Estimated NAV	$ 952.34	-	9.75	0.00	35.44	13.79

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Orbis OEIC Global Cautious Standard	£ 11.87	-	-0.04	0.00	2.54	9.09
Orbis OEIC Global Balanced Standard	£ 19.27	-	-0.05	0.37	6.12	17.83
Orbis OEIC Global Equity Standard	£ 21.30	-	0.03	2.47	4.28	17.33
Orbis OEIC UK Equity Standard	£ 11.65	-	0.04	2.94	11.34	28.06

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Platinum All Star Fund - A	$ 146.44	-	-	-	-5.70	2.58
Platinum Global Growth UCITS Fund	$ 7.75	-	-0.14	-	-23.57	-7.34
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 9.55	-	-0.61	0.00	-12.63	15.55
Platinum Global Dividend UCITS Fund	$ 44.47	-	-0.84	-	-14.53	-3.49

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Automation & Artificial Intelligence Cl I USD Acc	$ 14.82	14.82	-0.20	-	-10.18	12.17
Asian Stars I USD Acc $	$ 13.86	-	0.06	-	-3.68	7.27
Biotechnology I USD	$ 37.34	37.34	-0.38	0.00	7.27	17.86
China Stars I USD Acc $	$ 11.24	11.24	0.00	-	10.09	1.85
Emerging Market Stars I USD Acc	$ 10.89	-	-0.02	-	-5.22	5.33
European Ex UK Inc EUR Acc	€ 14.24	14.24	-0.29	-	8.62	17.09
Financial Opps I USD	$ 13.17	-	-0.35	2.06	-8.73	10.84
Global Convertible I USD	$ 13.51	13.51	0.01	0.00	-8.10	2.11
Global Insurance I GBP	£ 9.65	-	-0.23	0.00	13.89	14.03
Global Technology I USD	$ 66.68	-	-0.12	-	-10.68	9.81
Healthcare Blue Chip Fund I USD Acc	$ 17.82	17.82	-0.18	-	-3.73	12.64
Healthcare Dis I Acc USD $	$ 12.08	-	-0.10	-	-5.11	13.01
Healthcare Opps I USD	$ 63.81	-	-0.13	-	4.16	14.84
Income Opportunities B2 I GBP Acc	£ 2.91	2.91	-0.05	-	4.86	13.22
Japan Value I JPY	¥ 144.85	144.85	-1.96	-	16.23	19.72
North American I USD	$ 31.25	31.25	-0.62	-	-9.45	12.89
Smart Energy I USD Acc $	$ 9.06	9.06	-0.28	0.00	7.22	-
Smart Mobility I USD Acc $	$ 8.59	8.59	-0.22	-	4.76	-
UK Val Opp I GBP Acc	£ 12.07	12.07	0.05	-	-9.66	12.98

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Monument Growth 14/03/2023	£ 537.41	542.59	-23.48	-	3.02	5.97

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Prusik Asian Equity Income B Dist	$ 172.47	-	-2.14	4.97	2.49	11.07
Prusik Asia Emerging Opportunities Fund A Acc	$ 172.47	-	-0.78	-	-11.28	13.45
Prusik Asia Fund U Dist.	£ 204.82	-	-2.01	0.00	-9.56	11.19
Prusik Asia Sustainable Growth Fund A Acc	$ 84.89	-	-0.17	0.00	-10.55	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Global Total Fd PCG A	383.30	-	5.25	0.18	-0.81	19.75
Global Total Fd PCG B	378.26	-	5.17	0.00	-1.05	19.46
Global Total Fd PCG INT	371.02	-	5.07	0.00	-1.30	19.16

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
PCG B ✠	283.63	-	3.43	0.00	-8.83	14.82
PCG C ✠	275.77	-	3.33	0.00	-9.02	14.58

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
RAM Systematic Emerg Markets Eq	$ 212.05	212.05	0.64	-	-5.39	15.88
RAM Systematic European Eq	€ 521.01	521.01	6.65	-	-7.13	18.25
RAM Systematic Funds Global Sustainable Income Eq	$ 144.73	144.73	1.29	-	-8.49	17.17
RAM Systematic Global Eq Sustainable Alpha	$ 111.57	111.57	0.33	-	-2.35	-0.71
RAM Systematic Long/Short European Eq	€ 151.54	151.54	-0.56	-	-3.27	3.67
RAM Systematic US Sustainable Eq	$ 339.50	339.50	2.93	-	-13.38	12.17
RAM Tactical Global Bond Total Return	€ 138.63	138.63	-0.53	-	-4.98	-1.55
RAM Tactical II Asia Bond Total Return	$ 145.72	145.72	0.06	-	-2.43	-0.78

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Royal London Sustainable Diversified A Inc	£ 2.32	-	0.01	0.87	-4.83	7.35
Royal London Sustainable World A Inc	342.80	-	3.10	-	-3.27	12.00
Royal London Corporate Bond Mth Income	75.61	-	0.04	-	-8.43	-2.18
Royal London European Growth Trust	205.40	-	1.00	-	6.23	17.70
Royal London Sustainable Leaders A Inc	757.70	-	1.60	-	-1.40	13.33
Royal London UK Growth Trust	598.20	-	1.30	-	-3.72	14.74
Royal London UK Income With Growth Trust	205.20	-	-0.70	-	-0.11	12.41
Royal London US Growth Trust	368.30	-	4.70	-	1.52	19.81

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
LF Ruffer Diversified Rtrn C Acc	104.44	-	-0.37	0.86	-1.38	-
LF Ruffer Diversified Rtrn C Inc	102.53	-	-0.37	0.97	-1.37	-
LF Ruffer European C Acc	781.08	-	-26.96	0.80	-2.53	11.91
LF Ruffer European C Inc	140.12	-	-4.83	-	-2.51	11.91
LF Ruffer Equity & General C Acc	579.14	-	-15.32	0.75	5.62	9.91
LF Ruffer Equity & General C Inc	523.23	-	-13.84	0.76	5.62	9.91
LF Ruffer Gold C Acc	233.10	-	7.34	0.00	-21.42	10.10
LF Ruffer Gold C Inc	144.71	-	4.44	0.00	-21.42	10.10
LF Ruffer Japanese C Inc	160.98	-	-6.06	-	6.66	11.58
LF Ruffer Japanese C Acc	346.81	-	-13.06	0.24	6.65	11.58
LF Ruffer Total Return C Acc	570.08	-	2.79	2.42	-0.28	8.83
LF Ruffer Total Return C Inc	355.53	-	1.74	2.46	-0.28	8.83

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 134.27	-	-1.42	-	-0.92	-0.28
Rubrics Global Credit UCITS Fund	$ 16.84	-	0.00	-	-2.75	0.18
Rubrics Global Fixed Income UCITS Fund	$ 172.13	-	0.25	-	-2.21	-1.32

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Managed Growth ♦	339.10	-	2.00	-	-0.76	17.58
UK Growth ♦	396.40	-	1.70	-	-0.73	22.77

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Khaleej Equity Fund	$ 544.95	-	1.07	0.00	-10.34	13.04
SICO Kingdom Equity Fund	$ 31.42	-	-0.29	0.00	-13.44	13.15
SICO Gulf Equity Fund	$ 153.51	-	-1.41	0.00	-7.42	11.52

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Slater Growth A Acc	625.44	625.44	-2.20	0.00	-18.56	13.48
Slater Income A Inc	136.13	136.13	-0.35	5.22	-2.98	16.83
Slater Recovery A Acc	328.11	328.11	-0.39	0.00	-13.08	16.31
Slater Artorius	281.89	281.89	-17.67	-	-15.31	9.75

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
SI Asia Pacific A Acc	1598.17	-	-1.77	-	5.92	13.46
SI Asia Pacific A Inc	£ 2.83	-	0.00	-	5.68	13.00
SI Asia Pacific Leaders A Acc	866.03	-	3.11	0.00	-2.17	11.95
SI Asia Pacific Leaders A Inc	£ 2.94	-	0.01	0.00	-2.20	11.88
SI Asia Sustainability A Acc	733.57	-	-1.11	0.00	4.72	13.85
SI Global Emerging Mkts A Acc	798.93	-	-0.29	-	5.02	10.79
SI Global Emerging Mkts Leaders A Acc	551.91	-	2.06	-	0.47	9.99
SI Global Emerging Mkts Sus A Acc	366.30	-	-0.12	-	1.13	7.94
SI Indian Sub-Cont A Acc	740.27	-	-3.65	-	5.96	20.78
SI Latin America A Acc	£ 2.18	-	-0.01	2.87	-4.66	-8.93
SI Worldwide Equity A Acc	£ 2.36	-	0.05	-	21.94	8.37
SI Worldwide Equity A Inc	£ 2.39	-	0.05	-	23.40	8.80
SI Worldwide Leaders A Acc	586.50	-	7.11	-	2.23	13.71
SI Worldwide Sus A Acc	£ 2.60	-	0.03	-	-2.24	10.69
SI Worldwide Sus A Inc	£ 2.52	-	0.03	-	-2.23	10.78

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
SF Global Best Ideas Eq B USD ACC	$ 222.48	-	-1.47	-	-7.63	9.23
SF Global Best Ideas Eq D GBP INC	£ 280.55	-	0.83	-	0.33	10.34

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Superfund Green Gold	$ 1076.51	-	-17.94	-	-35.00	-3.65
Superfund Green Silver	$ 860.48	-	-18.21	-	-42.67	5.43

Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Superfund Green US$	$ 799.87	-	-9.78	-	-33.67	-9.00

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
TM New Court Fund A 2011 Inc	£ 18.41	-	0.03	0.00	-3.66	7.45
TM New Court Fund - A 2014 Acc	£ 18.57	-	0.03	-	-3.68	7.45
TM New Court Equity Growth Fund - Inc	£ 19.97	-	0.03	0.00	-5.04	9.10

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Aptus Global Financials B Acc	£ 4.92	-	0.05	3.22	9.53	24.35
Aptus Global Financials B Inc	£ 3.13	-	0.02	3.31	9.48	25.88

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Tosca A USD	$ 468.17	-	18.89	0.00	7.50	10.91
Tosca Mid Cap GBP	£ 168.13	-	-3.56	0.00	-27.30	-14.39
Tosca Opportunity B USD	$ 292.81	-	-15.03	0.00	-29.95	-19.06
Pegasus Fund Ltd A-1 GBP	£ 40.14	-	-0.92	0.00	-27.06	-14.58

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Trojan Ethical O Acc	127.10	-	-0.32	0.07	-1.43	7.74
Trojan Ethical Global Inc O Acc	99.08	-	0.18	-	-0.85	-
Trojan Ethical Global Inc O Inc	95.10	-	0.18	-	-0.82	-
Trojan Ethical O Inc	126.74	-	-0.32	0.08	-1.42	7.74
Trojan Ethical Income O Acc	134.29	-	0.33	-	-3.33	6.69
Trojan Ethical Income O Inc	118.82	-	0.27	-	-3.34	6.68
Trojan Fund O Acc	395.31	-	-1.46	0.25	-1.19	7.81
Trojan Fund O Inc	311.09	-	-1.18	0.25	-1.19	7.81
Trojan Global Equity O Acc	472.25	-	4.07	0.00	0.69	12.89
Trojan Global Equity O Inc	389.65	-	3.36	0.00	0.69	12.89
Trojan Global Income O Acc	158.40	-	-0.20	-	-0.16	10.23
Trojan Global Income O Inc	124.85	-	-0.17	-	-0.16	10.23
Trojan Income O Acc	334.02	-	0.21	2.94	-3.90	7.50
Trojan Income O Inc	162.36	-	0.09	3.01	-3.90	7.49

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Memnon European Fund - Class R2 GBP	£ 293.33	-	3.46	0.00	15.12	22.13

Guide to Data

The fund prices quoted on these pages are supplied by the operator of the relevant fund. Details of funds published on these pages, including prices, are for the purpose of information only and should only be used as a guide. The Financial Times Limited makes no representation as to their accuracy or completeness and they should not be relied upon when making an investment decision.
The sale of interests in the funds listed on these pages may, in certain jurisdictions, be restricted by law and the funds will not necessarily be available to persons in all jurisdictions in which the publication circulates. Persons in any doubt should take appropriate professional advice. Data collated by **Morningstar**. For other queries contact **reader.enquiries@ft.com +44 (0)207 873 4211.**
The fund prices published in this edition along with additional information are also available on the Financial Times website, **www.ft.com/funds**. The funds published on these pages are grouped together by fund management company.
Prices are in pence unless otherwise indicated. The change, if shown, is the change on the previously quoted figure (not all funds update prices daily). Those designated $ with no prefix refer to US dollars. Yield percentage figures (in Tuesday to Saturday papers) allow for buying expenses. Prices of certain older insurance linked plans might be subject to capital gains tax on sales.
Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)
OEIC: Open-Ended Investment Company. Similar to a unit trust but using a company rather than a trust structure.
Different share classes are issued to reflect a different currency, charging structure or type of holder.
Selling price: Also called bid price. The price at which units in a unit trust are sold by investors.
Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.
Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.
Treatment of manager's periodic capital charge: The letter C denotes that the trust deducts all or part of the manager's/operator's periodic charge from capital, contact the manager/operator for full details of the effect of this course of action.
Exit Charges: The letter E denotes that an exit charge may be made when you sell units, contact the manager/operator for full details.
Time: Some funds give information about the timing of price quotes. The time shown alongside the fund manager's/operator's name is the valuation point for their unit trusts/OEICs, unless another time is indicated by the symbol alongside the individual unit trust/OEIC name.
The symbols are as follows: ✠ 0001 to 1100 hours; ♦ 1101 to 1400 hours; ▲ 1401 to 1700 hours; # 1701 to midnight. Daily dealing prices are set on the basis of the valuation point, a short period of time may elapse before prices become available. Historic pricing: The letter H denotes that the managers/operators will normally deal on the price set at the most recent valuation. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis. The managers/operators must deal at a forward price on request, and may move to forward pricing at any time. Forward pricing: The letter F denotes that that managers/operators deal at the price to be set at the next valuation.
Investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers/operators. Scheme particulars, prospectus, key features and reports: The most recent particulars and documents may be obtained free of charge from fund managers/operators. * Indicates funds which do not price on Fridays.
Charges for this advertising service are based on the number of lines published and the classification of the fund. Please contact **data@ft.com or call +44 (0)20 7873 3132** for further information.

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Defence mechanisms
Japan's expansion of the military will be an uphill task
LEO LEWIS, OPINION

The envy at work that dare not speak its name

Pilita Clark
Business Life

Kenneth Andersson

In the space of just one week not that long ago, I made some perplexing discoveries about three people I know through work.

One was an FT journalist who was playing himself in a BBC drama. Another, also an FT journalist, was a character in a play being staged at a popular London theatre.

A third was an academic working on a project I was involved in who had not one, not two or three degrees but four, and was literally a rocket scientist. I would guess the three had an average age of 35, an age I saw many years ago.

At the end of this concentrated burst of exposure to their youthful achievements, I felt an unpleasant pang.

It was, I am embarrassed to say, envy. Or rather, a type of envy. The sort that comes with the realisation that it is pointless to be envious.

None of the three had something I desperately wanted. What rankled was the knowledge that, even if I had been consumed by bitter longing for their accomplishments, I was running out of time to be able to do anything about it.

Much has been written about envy at work: how it poisons teamwork; worsens in times of economic crisis and, crucially, has high organisational costs. In one study, researchers in the US found managers were willing to spend 42 per cent more on a business strategy if they were told it came from outsiders rather than people in their own company.

This makes no sense financially. Why waste money and time on external advice when you can get the same thing faster for free from colleagues?

It makes perfect sense on a human level. Acknowledging someone at work has a good idea could make them more valuable than, well, you.

Yet what if the enemy is not a work rival but the simple passage of time? Need we care about the mid-life envy of those who are closer to the end of their careers than the start?

To even ask that question can sicken younger people struggling with university debt, wildly unaffordable housing and other woes that many of their lavishly superannuated older colleagues skirted. The young are right to be angry, not least because they are also destined to be lumbered with rising retirement ages and other ploys to manage the toughest global demographic trend: ageing populations.

> **“At the end of this concentrated burst of exposure to youthful achievements, I felt an unpleasant pang”**

But that same trend is also why older workers need attention. Across the world, people are living longer, having fewer children and consequently raising the share of the elderly in the population. In 1950, there were about seven times more children under the age of 15 than people 65 and older. But by 2050 those groups will be roughly the same size.

These shifts are setting the scene for a massive set of economic, social and health problems in coming decades. This is the world facing today's younger workers, so it makes sense to have policies to address it, such as keeping older people at their desks. The UK government last week announced £1bn a year of generous pension measures aimed at doing just this.

But such moves won't be enough for workers in a place that makes them feel expensive, technologically illiterate, undervalued, unambitious and subject to age discrimination.

These troubles afflict a lot of organisations, but not all. Here are a few examples of what some employers are doing to improve things:

Make job hours flexible. This helps all age groups but it's especially welcome for those juggling work with the caring responsibilities that, in the UK, are shouldered by 42 per cent of workers in their fifties and sixties.

Make sure training programmes and career development chats are open to everyone.

Check that internal job adverts avoid words such as "energetic" or "graduates".

Add age-inclusivity to diversity statements.

Have a programme for staff to "unretire" and come back to, say, fill in on one-off projects or mentor younger staff.

Let people work shorter hours for less money, especially as they near retirement age.

None of this happens automatically. It requires a lot of skilled management. But ultimately, it is possible to make work more appealing to older people without inflaming the younger workers who will, all too soon, be sitting in their seats.

pilita.clark@ft.com

Lex.

{ UBS/Credit Suisse: shotgun wedding }

Credit Suisse may soon be a historic footnote. Its capital buffers meant nothing to depositors. They went on fleeing even after the Swiss National Bank put up SFr50bn in extra liquidity.

UBS is set to take the time bomb for the Swiss team. Pray the countdown will stop, stalling this bank run and any others incipient across Europe.

This all-share takeover would be worth SFr0.75 a share (1 UBS share for 22.48 Credit Suisse shares), roughly $3bn in total. Credit Suisse shares closed at SFr1.86 on Friday after weeks of steep declines. The earlier liquidity backstop was doubled to SFr100bn.

Assuming the deal comes off, no one can complain about banks privatising gains and socialising losses. The Swiss authorities have been intent on railroading this through. Most Credit Suisse equity would be wiped out, but senior creditors would feel comforted.

The rock-bottom price would give UBS some protection from unforeseen liabilities. This deal, transacted to a conventional timetable in normal conditions, would look like a good one for UBS. Global wealth management is a scale game. On paper, UBS has about $4tn in client investment assets, and Credit Suisse about $900bn. The latter figure will inevitably be lower in reality.

The enlarged UBS would still be "Europe's champion asset gatherer," according to one M&A banker.

The nominal takeover price is way below Credit Suisse's year-end 2022 tangible book value of SFr41.8bn.

That would create so-called negative goodwill ("badwill"), according to Autonomous analysts. Despite its name, this is a positive phenomenon. In time, some or all of that sum could be written up by the combined bank, assuming that markets return to normal.

UBS needs a cushion because some of Credit Suisse's SFr35.3bn of common tier one capital buffer is questionable. On paper, the two banks have plenty of common tier one capital: over 14 per cent of risk weighted assets.

At last month's full-year results, Credit Suisse targeted a 13 per cent CET1 ratio by 2025. On current data, that suggests that UBS needs a minimum of SFr33bn of CET1 capital to cover Credit Suisse. UBS may need to supplant some of the capital Credit Suisse has.

Restructuring expenses would eat into profits from the combined bank. Credit Suisse's underlying expense base is about SFr7bn. Integrating Credit Suisse's 50,000-plus full-time employees will be painful for both sides. Already, 9,000 Credit Suisse jobs could still go. That number could double, causing domestic political headaches.

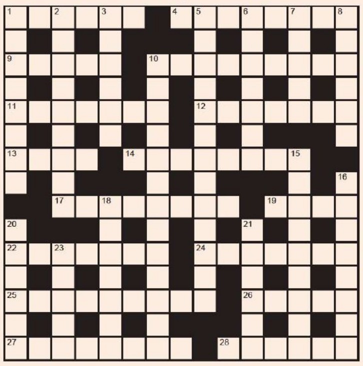
The new UBS would have to prepare for a storm of potential litigation. It is unclear whether the Swiss government is indemnifying the cost of this.

This looks like a messy, ugly, yet necessary transaction that nobody wants. Whether it would halt European bank runs is unknowable.

Reassurance is a dangerous game in a financial panic. It can as easily confirm the fears of investors as it can allay them. Broader action from central banks may still be required.

CROSSWORD

No 17,362 Set by BUCCANEER



ACROSS

1 Once more, what for Manuel will make soup (6)
4 Kills time — a long time — where actors may be (8)
9 Mature whiskey put away for party (5)
10 Heads for interesting night with wife-swapper's ball (9)
11 Prompt about storing information, one trying to improve issue (7)
12 Effective like policemen? (2,5)
13 Future option for a Danish prince (2,2)
14 Runner more pleased with himself crossing line (8)
17 Gets behind friend, returning cordial gesture (8)
19 Answer by judge: accuser's case is not closed (4)
22 Right Charlie, caught by a clout, getting a shiner (3-4)
24 Rig matches in pools (7)
25 It may be smart, say, to put oil on fish eggs at first (5,4)
26 One might be on Harley Street abandoning rapid walker (5)
27 Set off from school, getting into Escort (8)
28 Order given to soldiers daily, for example to retreat (6)

DOWN

1 Travelling, get Tube — a pain? (8)
2 Cadge old coin for animated figure (9)
3 Raising ratings for films receiving stick (6)
5 If slacking, the new school members may be caught by this (7-6)
6 Intoxicating quantity of wild fun in silk pants (7)
7 Forecast in summer time extremely unclear (5)
8 Scholar not beginning a profitable activity (6)
10 Extra portion of bread is mentioned after cool wine (6,7)
15 Dealing with carpenter, fixing depth for counter (9)
16 Save page at the front of book (8)
18 Parisian air is able to inspire husband and child (7)
20 Prison's opening further kind of cell (6)
21 Pompous manner likely to be found in King Edward? (6)
23 Rook or queen, say, capturing that man (5)

JOTTER PAD

Solution 17,360

You can now solve our crosswords in the new FT crossword app at ft.com/crosswordapp

Legal Notices

THIS NOTICE CONTAINS IMPORTANT INFORMATION THAT IS OF INTEREST TO THE LEGAL AND BENEFICIAL OWNERS OF THE SUBJECT SECURITIES. IF BENEFICIAL OWNERS ARE IN ANY DOUBT AS TO THE ACTION THEY SHOULD TAKE, THEY SHOULD SEEK THEIR OWN FINANCIAL AND LEGAL ADVICE, INCLUDING AS TO ANY TAX CONSEQUENCES, IMMEDIATELY FROM THEIR STOCKBROKER, SOLICITOR, ACCOUNTANT OR OTHER INDEPENDENT FINANCIAL OR LEGAL ADVISER. IF APPLICABLE, ALL DEPOSITORIES, CUSTODIANS AND OTHER INTERMEDIARIES RECEIVING THIS NOTICE ARE REQUESTED TO EXPEDITE THE RE-TRANSMITTAL TO BENEFICIAL OWNERS OF THE SECURITIES IN A TIMELY MANNER.

If you have recently sold or otherwise transferred your entire holding(s) of Bonds (as defined below), you should immediately forward this document to the purchaser or transferee or the stockbroker, bank or other agent through whom the sale or transfer was effected for transmission to the purchaser or transferee.

NOTICE TO THE HOLDERS

Bell Group N.V. (in liquidation)(in bankruptcy)
(the "Issuer")

A$75,000,000 11 per cent. Guaranteed Convertible Subordinated Bonds due 1995
(CH0005575151) (the "1995 Bonds")
A$175,000,000 10 per cent. Guaranteed Convertible Subordinated Bonds due 1997
(XS0000001247) (the "First 1997 Bonds")
GBP75,000,000 5 per cent. Guaranteed Convertible Subordinated Bonds due 1997
(GB0040901711) (the "Second 1997 Bonds")

(together, the "Bonds" and, the holders of the Bonds, the "Bondholders")

Unconditionally guaranteed on a subordinated basis by The Bell Group Ltd (in liquidation)
("TBGL")

This notice is given by Madison Pacific Trust Limited as trustee for the Bondholders (the "**Trustee**"). Reference is made to (i) the Trust Deeds dated 20 December 1985, 7 May 1987 and 14 July 1987 constituting the Bonds (as amended from time to time, the "**Trust Deeds**") and (ii) the Trustee's previous notices to the Bondholders (the "**Trustee's Notices**").

All terms and expressions used but not otherwise defined in this notice shall have the meanings given to them in the Trust Deeds or the Trustee's Notices.

NOTICE IS HEREBY GIVEN that:

1. on 10 February 2023, the Trustee issued an application (the "**Application**") in the Financial List of the High Court in London (the "**Court**"), for directions (a) in relation to the meaning of the definition of "Relevant Date" as defined in Condition 8 of the Bonds; (b) that the Trustee would be acting properly and in accordance with its duties under the Trust Deeds to the Bondholders of the relevant series of Bonds as a whole by (i) proposing the amendments referred to in the Trustee's Notice of 23 November 2022 to the relevant Bondholders for consideration; and (ii) if they are approved by an Extraordinary Resolution of the relevant Bondholders, implementing and acting on such amendments; and (c) that each class of Bondholders may lawfully, and are thereby authorized, to exercise their voting powers to vote on any such resolutions as may be proposed to such Bondholder (the "Proceedings", with claim number FL-2023-000005);
2. following issuance of the Trustee's Notice of 23 November 2022, each of:
   (a) SquareTwo Capital Ltd ("SquareTwo"), being a Bondholder in respect of each class of Bonds, and
   (b) Mr. Basil Vasilou ("**Mr. Vasilou**"), being a Bondholder in respect of each class of Bonds,

   have been in touch with the Trustee to discuss joining the Proceedings and making representations to the Court in relation to the Application on behalf of Bondholders whose bonds are held in the ICSDs, or who hold their Bonds in physical form and whose identity has been verified by the Trustee (the "**Identified Bondholders**");
3. following discussions, it was agreed that:
   (a) SquareTwo should be appointed as a representative party to present arguments to the Court in favour of the Directions and amendments described in the Application on behalf of Identified Bondholders;
   (b) Mr. Vasilou will be named as a party to the Application, and will present such further arguments to the Court in favour of the directions and amendments described in the Application on behalf of Identified Bondholders as it considers necessary, provided it will not make any submissions in relation to matters already addressed in the submissions of SquareTwo; and
   (c) each party's reasonable legal costs in making such representations on behalf of Identified Bondholders will be payable equally out of available trust funds in respect of each class of Bonds up to an agreed cap (which cap the Trustee considers to be reasonable and appropriate in the circumstances, and which will be further approved by the Court).

   As described in the Trustee's Notice of 23 November 2022, the purpose of naming such Bondholders as parties in the Proceedings to present arguments in favour of the directions sought is to ensure that the interests of all Bondholders are presented before the Court, in circumstances where the Trustee will present such arguments as may be reasonably available to the Unidentified Bondholders who (being unidentified) will necessarily not be able to take part in the Proceedings themselves; and
4. as such, on 1 March 2023 the Trustee further filed an application to convene a directions hearing (the "**Directions Hearing**") so that the Court may consider and, if thought fit, make orders as to the appointment of SquareTwo as a representative party on behalf of the Identified Bondholders, as well as consequential orders as to the payment of the legal costs of SquareTwo and Mr. Vasilou in the Proceedings out of available trust funds and in relation to the management of the Proceedings.

The Trustee will further update Bondholders as appropriate once a date for the substantive hearing on the Application has been set.

The above communication is made without prejudice to any and all of the Trustee's rights under the Trust Deeds, all of which are expressly reserved.

The Trustee provides the information above for the information of Bondholders, but makes no representation as to the accuracy or completeness thereof and cannot accept any liability for any loss caused by any inaccuracy therein. The Trustee expresses no opinion as to the action (if any) that Bondholders should take in relation to the matters set out above. The Trustee makes no recommendations and gives no legal or investment advice herein or as to the Bonds generally. Bondholders should take and rely on their own independent legal, financial or other professional advice, and may not rely on advice or information provided to the Trustee, statements as to the legal position included in notices issued by the Trustee relating to the Bonds or otherwise or the views of the Trustee expressed herein or otherwise

ISIN numbers appearing herein have been included solely for the convenience of the Bondholders. The Trustee assumes no responsibility for the selection or use of such number and makes no representation as to the correctness of the numbers listed above.

16 March 2023

By the Trustee:

Madison Pacific Trust Limited 17th Floor, Far East Finance Centre, 16 Harcourt Road, Admiralty, Hong Kong

Email: agent@madisonpac.com

Affairs and takeovers but absolutely no secret agendas

Rutherford Hall
Critical Comms

Messages from the archive of Rutherford Hall, critical communications strategist

WhatsApp to Stephen: I'm going to send out the office changes memo we discussed. I've taken more of the teams that bother to work from the office. With luck, this is structured so as not to attract attention to your affair with the head of our data team.

From: *Rutherford@Monkwellstrategy.com*
To: *all@Monkwellstrategy.com*

Hi all, as part of our new year review, Stephen and I have been examining management structures at Monkwell and have concluded it is time to simplify some of our reporting lines. Before I send out the changes, let me stress there is no secret agenda here or any implied criticism of one group or another. This is simply about managing the growing and successful business you've all played a part in building!

Until now, all teams have reported into both of us, with issues handled on an ad hoc basis. But as our business expands we need to rationalise our time and bring clarity on reporting lines, so we've divided up the main teams. Media, retail, transport and healthcare will report to Stephen, while tech, financial services, data, natural resources and government relations will report to me. We'll be in touch with those of you who aren't part of a larger team or have single-area competence with details of your new reporting lines. This shouldn't directly affect your work, your KPIs (which we will still agree together) or pay and promotion. Do get in touch with any questions. Rutherford

Member DCMS Panel on Business and the Metaverse

Find me on Strava, KoM Sydenham Hill, PR London to Brighton 3h 47m

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WhatsApp to Jules: The memo says what this is about. I've no more to say.

WhatsApp to Alex: No, it's nothing to do with whether you work from home a lot. I covered the "secret agenda" part when I said there wasn't one. Jeez, you people.

WhatsApp to PhilJ: Why does it matter how we divvied up the teams? You all report to a founding partner.

WhatsApp to all@monkwell: Enough. When I said get in touch with questions, I meant serious ones. This freedom of information window is shut.

WhatsApp to Jennifer: No, the reporting lines are not negotiable. What's the problem?

WhatsApp to Stephen: Why do they all think you are a softer touch on pay and WFH?

WhatsApp to Stephen: Hmm. It's curious people have formed that view. Are you still set on moving in with Priya? Please think carefully about this.

WhatsApp to Stephen: Sigh. Obviously I hope you'll be happy. I know Sue throwing you out looks like it made the decision easier but tempers cool.

From: *Rutherford@monkwellstratgy.com*
To: *Martink@volponebank.com*

Thanks Martin, that's great news. Really appreciate it. I don't know how this will play out but it's good to know the funding is there. PS: Can you send the docs to my private Gmail. Discretion is key here. Best, Rutherford

Member DCMS Panel on Business and the Metaverse

Find me on Strava, KoM Sydenham Hill, PR London to Brighton 3h 47m

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WhatsApp to Stephen: OK mate. If you are speeding towards a divorce, I need to talk to you about something.

> **No, it's nothing to do with whether you work from home a lot. Jeez, you people**

WhatsApp to Stephen: No. I'm talking about, say, 6 or 7 per cent, just enough to make me majority shareholder. That way I can protect us whatever happens. There's no secret agenda. Just think about Sue getting 22.5 per cent of our shares. She might put us in play, she might interfere in our decisions or even try to sack Priya. If I've got 51/52 per cent, I can protect you both.

WhatsApp to Stephen: Yes, but are we sure her lawyers might not try to trump my pre-emption rights, or force a price I can't match? This way we are safe. It doesn't have to be 6 or 7, it could be 5.5 per cent. Bottom line, you can sell the shares to me or give them to her. But we need to act before legal action starts. You can always buy them back later.

WhatsApp to PhilK: Thanks Phil, glad you believe me. The reorganisation really should be taken at face value.

WhatsApp to PhilK: OK, looks like the email did the trick. We got away with it.

WhatsApp to PhilK: Sorry Phil, that was meant to be to my wife about a thing at our son's school. Please ignore.

WhatsApp to Stephen: Er . . . oops.

Messages recovered by Robert Shrimsley

Leadership

Dom McKenzie

Why managers fail to plan for the worst-case scenario

SVB failure and BBC crisis show how businesses that fail to properly review risk could go the same way, writes *Michael Skapinker*

Silicon Valley Bank collapses after its investments in long-dated bonds made it vulnerable to interest rate rises. The BBC is thrown into chaos after suspending its top football pundit and colleagues abandon their posts in solidarity. JPMorgan Chase suffers reputational damage and lawsuits after keeping sex offender Jeffrey Epstein on as a client for five years after he pleaded guilty to soliciting prostitution, including from a minor.

In all these cases, we can ask, as Queen Elizabeth II did on a visit to the London School of Economics during the global financial crisis in 2008: "Why did no one see it coming?"

Did anyone in the BBC's leadership ask whether, if they suspended Gary Lineker from presenting its top Saturday night football programme *Match of the Day*, other pundits might walk out in support? Did SVB run through the risks attached to its investment policies if interest rates rose faster than expected? And why did JPMorgan accede to senior banker Jes Staley's desire to keep Epstein on? These are dramatic examples of what can go wrong, but any organisation that fails to keep its possible risks under regular review could go the same way.

All too often senior managers fail to consider the worst-case scenario. Why don't they listen to doubters?

Amy Edmondson, a professor at Harvard Business School, says sometimes it is because there are no doubters. Leadership groups become so locked into a "shared myth" that they ignore any suggestions they might be wrong. "We've got the well-known confirmation bias where we are predisposed to pick up signals, data, evidence that reinforce our current belief. And we will be filtering out disconfirming evidence," she says.

It is like taking the wrong route in a car. "You're on the highway driving somewhere and you're heading in the wrong direction, but you don't know it until you're just hit over the head by disconfirming data that you can't miss: you suddenly cross a state line that you didn't expect to cross."

This groupthink and confirmation bias is prevalent in the wider society, where people leap on any evidence to support their view on, for example, climate change, Edmondson says. "Oh my gosh, this is the coldest winter ever. What do you mean global warming?"

In many cases, there are doubters, but they are either reluctant to raise their voices or, when they do, colleagues hesitate to join them.

At JPMorgan, there were questions about Epstein. An internal email in 2010 asked: "Are you still comfortable with this client who is now a registered sex offender?"

James Detert, a professor at the University of Virginia's Darden School of Business, says evolution has hard-wired us not to deviate from our group.

"If you think about our time on earth as a species, for most of it we lived in very small clans, bands, tribes, and our daily struggle was for survival, both around food security and physical safety. In that environment, if you were ostracised, you were going to die. There was no solo living in those days."

> 'Before we close down any [talks] where there's a decision, we need to say, without fail: "What are we missing?"'

We carry this fear of being cast out into our workplaces, compounded by the experience of whistleblowers, who sometimes suffer retribution from their employers and are shunned by colleagues. Dissenters present their colleagues with an uncomfortable choice: either to view themselves as cowards for not speaking up too, or to regard the rebel as "some kind of crackpot". The second is often easier.

Isn't the Lineker saga a counter-example? His colleagues supported him, forcing the BBC to quickly see how badly it had miscalculated. Detert says this was an unusual case. Celebrated footballers-turned-commentators are brands themselves, Lineker in particular. The BBC realised how much it needed him, and how easily he could have secured a contract with a rival. Usually, he says, rebels find themselves isolated.

So what can leaders do to encourage doubters to speak up, to ensure they consider all the possible downsides of their strategies, and escape eventual humiliation or disaster?

Detert is not a fan of appointing a "devil's advocate" who is tasked with giving a contrary view. It is often clear that they are simply going through the motions. He prefers what he calls "joint evaluation". As well as the preferred policy — investing in long-dated bonds, for example — senior managers should draw up a distinctively different policy and compare the two. This is more likely to show up the flaws in the preferred strategy.

Simon Walker, whose roles have included head of communications at British Airways and spokesman for Queen Elizabeth, and Sue Williams, Scotland Yard's former chief kidnap and hostage negotiator, told me at an event organised by the Financial Times' business networking organisation, that leaders should involve every function from communications to legal to HR when examining possible future crises. Detert agrees this can be valuable, provided the presence of often under-regarded departments such as HR is taken seriously.

Did anyone in the BBC's leadership ask whether, if they suspended Gary Lineker, others might support him?

Leaders' behaviour is a signal of whether they want staff to speak up. Edmondson says: "Leaders of organisations have to go out of their way to invite the dissenting view, the missed risk. Before we close down any conversation where there's a decision, we need to say, without fail: 'What are we missing?' We say: 'OK, let's just say we're wrong about this and it goes badly awry, what would have explained it?'" She recommends calling on people by name, asking what their thoughts are.

Detert adds that office design can signal to staff that their thoughts are welcome: the leader sitting in open plan, or having bright stripes on the floor indicating the way to their office, or sitting at square tables without place names rather than at rectangular ones where their seat position makes it obvious they are in charge.

How relevant are these workplace layouts when, post-lockdown, employees no longer come into the office every day? "That's the $10mn question," Detert says. On the one hand, remote working might be making it harder for leaders to read the signs that people are uneasy with a strategy. On the other, it could be that people find it easier to speak out from their own homes. They may also feel that other aspects of their lives, such as family, are now more important than work, which could encourage them to talk.

Others think SVB's relaxed remote-working culture, which meant senior executives were scattered across the US, contributed to its failure.

Nicholas Bloom, a Stanford professor who has studied remote working, told the Financial Times: "It's hard to have a challenging call over Zoom." Hedging interest rate risk was more likely to come up over lunch or in small meetings.

Leaders also need to persistently praise people who speak up. The penalties for doing so are often more obvious than the rewards. Those who keep their heads down are seldom blamed. As Warren Buffett said: "As a group, lemmings may have a rotten image, but no individual lemming has ever received bad press."

Michael Skapinker is an FT contributing editor and author of 'Inside the Leaders' Club: How top companies deal with pressing business issues'

Employment

Social media content moderators lead drive for more rights

Content moderators for platforms such as Facebook and Instagram have among the grisliest tasks in social media, policing illegal, violent and harmful content, often through long shifts and for low pay, writes *Cristina Criddle*.

These workers are now leading the charge for better working conditions, putting pressure on platforms that have failed to recognise formal union representation.

A group of workers in Germany last week drafted a list of working standards for the profession, including giving staff the right to collectively bargain and join unions or works councils.

"We are confident this is just the beginning," said Hikmat El-Hammouri of the German union Verdi. "For too long, the big social media companies have acted like they don't have to answer to the labour movement in Germany. They're about to get a big wake-up call."

Against a backdrop of brutal job losses across the technology sector, staff are reluctant to demand better rights.

"People are afraid of retaliation and worried, given recent lay-offs, that they cannot organise as it may impact their employment," one TikTok employee said.

But worsening conditions and higher living costs are spurring workers to stand up to their employers.

"It is an illustration that the rosy futuristic world of employment that tech firms tried to project has been stripped bare," said Bruce Daisley, Twitter's former European vice-president turned consultant on workplace culture. However, he warned increasing job cuts mean there is little leverage for workers to organise.

Employment contracts at TikTok include a clause prohibiting employees from discussing each others' pay, according to staff, which they understand to be a measure to prevent fair and equal pay. TikTok said it fully supported employee rights and complied with "collective employment regulation, including in relation to trade unions".

The average salary of a content moderator in the UK is about £25,000 a year, according to jobs website Glassdoor. Content moderators hired by third-party contractors report being paid close to minimum wage, and often handed the most disturbing footage. Social networks including Meta, TikTok and YouTube hire external contractors to conduct this work.

"We are being treated like machines, not human beings," said one moderator who reviews Meta content via a third-party company. He said he suffered from health issues after repeated exposure to terrorist and suicide content on the platforms. "Firstly, it was a lot of bad dreams, and then I got a lot of disturbing physical symptoms."

Among the demands listed by the German moderators' collective is a request for independent and qualified mental health support for moderators. Workers are sometimes asked to sign waivers, explicitly acknowledging the health risks of their role.

Meta said the third-party companies it uses are required to pay above the industry standard, and that it audits them twice a year. These companies must provide 24/7 on-site support with trained practitioners and access to private healthcare, the company added.

One former TikTok moderator criticised the support: "They have yoga videos and stretches you can do, [and] random people you can go to who are not properly qualified, and it is not even confidential."

TikTok said it provided psychological support to all content moderators, including independent and qualified mental health support.

How staff are monitored internally has been another issue, with moderators for TikTok and Meta telling the FT their work is tracked closely, including how many seconds it takes to review each piece of content. "The process gave me a headache as I had to review roughly 1,000 videos a day," said the former TikTok moderator.

Another former TikTok moderator said even when content was innocuous, it was repetitive and led to viral songs being stuck in their head, affecting their sleep.

Meta and TikTok staff have been launching formal worker representation in offices in Europe through works councils, legally enforceable bodies that exist for larger companies to represent staff on matters including wages, hours and working conditions.

Franziska, chair of the German TikTok works council set up in late 2022, said it had negotiated working remotely up to three times a week and a €50 additional monthly payment for staff working from home.

She is positive about the measures TikTok has introduced for content moderators but believes they should have better pay.

Leadership. Rafaela Pimenta, football agent

‘It would be important to me that women footballers are perceived as footballers’

After her business partner Mino Raiola died, the ex-lawyer had to fight off rivals trying to poach her clients, writes *Simon Kuper*

Rafaela Pimenta: For years she would not let anybody say she was a football agent because ‘people have so much prejudice against agents that it influenced our self-esteem’ — Charlie Bibby/FT

Brazilian football agent Rafaela Pimenta was on her way to the funeral of her business partner Mino Raiola when she received a phone call from West Ham United. The London club wanted to negotiate the contract of goalkeeper Alphonse Areola.

Meanwhile, other agents were trying to poach her players. And so, at a moment of supreme emotion, football's only female super-agent emerged from behind the scenes to manage what many in football had considered to be Raiola's one-man show.

Pimenta and Raiola had worked together for more than 20 years. The Dutch-Italian fronted their agency in Monaco, One Sports Business Strategy, which manages players including Erling Haaland, Paul Pogba and Zlatan Ibrahimovic. Raiola, one of football's most fearsome and best-paid dealmakers, died last April, aged 54.

Pimenta is an expensively dressed figure, at home among football's super-rich, but that is an acquired identity. When she met Raiola in about 2000, he was expanding operations in Brazil, where she was teaching international law at a public university.

“They paid me, like, €6 an hour,” she says in English, one of her several languages, during a recent visit to London. “With €6 an hour, you wouldn't pay the parking.”

Ditching her PhD, she followed Raiola to Monaco, where she says they became equal partners. Their office was “as big as this table, probably”, so they took turns making phone calls. They kept their agency relatively small, handling only about 30 players, so they could offer each one a “boutique service”.

Besides negotiating contracts and transfers, they might monitor their players' diets, plan their holidays and stop them investing in dubious schemes suggested by friends. Some other agencies have many more clients, but

> ‘[Female players] are not body dolls, cute things for Gillette commercials’

Pimenta says: “If we would have 100 players, it's 100 mothers, 100 fathers, 100 girlfriends.”

She thinks Raiola was the “quicker decision maker” and she stronger on detail — traits she suspects are gendered. Travelling around Europe together negotiating with clubs, she would be introduced as the “lawyer”.

Raiola thought that sounded “chic”, and she laughs that she has a lawyer's ability to be “a pain in the arse”, but she also admits: “For years, I would not let anybody say I was a football agent. People have so much prejudice against agents that it influenced our self-esteem.”

Pimenta also encountered sexist prejudice. “If Margaret Thatcher would be an agent, they would question her. She could run a country but not be a football agent. Because in football many men believe they are the only ones that know,” she says.

The only woman she dealt with regularly was Chelsea's former director, Marina Granovskaia.

“In the beginning, [prejudice] was much stronger towards me, first because we were small. When you're small, people are more abusive,” Pimenta says.

But as she got to know people at clubs, they “understood that I come to do my job, and they would have some respect. But it's still a very male-dominated industry, where some people honestly believe, ‘She cannot know how to do a transfer. She's a woman.’”

She recounts one negotiation with a club executive who was trying to renege on paying her player agreed bonuses. The executive said: “I exchanged a lot with you by email. So you really exist . . . I thought you were just a hooker from Brazil.”

She says she still does business with that man. “I don't think it's humiliating to be a woman. So I don't care. If that's how you try to make me feel bad, that's very stupid. And I've seen women in the industry help me because I was a woman.” While Raiola was dying, she says, they never discussed the business transition. “There was something bigger in his head: his own life, and the review of his own life. ‘How did I live my life? What do I still want to tell my kids?’ And above all, ‘How can I manage my health, so that this day is not worse than yesterday?’”

Did she consider closing the agency? “No. Because — and I know that sounds delusional — in the back of my mind there is, ‘Maybe Mino doesn't die.’ I refused to ask myself, ‘What am I going to do when Mino passes?’ Until Mino passed.”

When he did die, football's biggest agents, such as Jorge Mendes, offered Pimenta their support, but others were “very patronising”.

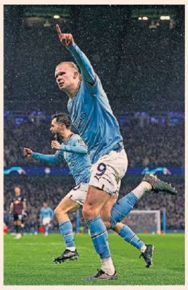
Some called her, saying, “I'll take care of the players for you”. Certain rivals phoned her players directly: “Your agent's just died, work with me!” Some of the predators were her own agency's collaborators — typically, minor agents who managed the everyday handling of players in particular cities. These people, she realised, hoped “to become the local Mino”.

But her players stayed loyal. If she had doubted whether to go on post-Raiola, “The answer was given by them, when they rely on you to continue.”

Alone, Pimenta wrapped up last summer's most important transfer, Haaland's move from Borussia Dortmund to Manchester City. “Mino never knew that Erling actually went to City,” she sighs.

But like so many transfers, it was a move they had been plotting for years. “We cannot be sitting and waiting, ‘Maybe they will call me because Haaland is fantastic’. You cannot expect a club to just wake up and say, ‘What a beautiful day, I'm going to spend 100 million’.

“You need to plan this and walk through the process with the club, so the club is confident that when it puts this budget together — and maybe that will take one, two or three seasons — you need to be on board, to make sure this happens.”



Alone, Pimenta last year wrapped up Haaland's move to Manchester City

Pimenta spends the football season touring clubs, planning transfers: “Who's going to retire? Who's getting older? Who's injured? Who's doing bad? It's like a chess game and you try to anticipate the move.”

The agency represents one female footballer, the Italian Barbara Bonansea, but Pimenta is due to meet a potential second recruit.

“It would be important to me that women footballers are perceived as footballers,” she says. “They are not body dolls, cute things for Gillette commercials.”

She believes in awarding jobs on merit but wants to promote more female staff. “At the stage where we are, there's a need to give [equality] a push.”

For now she works with three full-

> ‘Some people honestly believe, “She cannot know how to do a transfer. She's a woman”’

time employees, all women, three self-employed men, plus part-time consultants in various cities. Footballers' needs have grown too complex for the old-style “one-man-show agent”, she says.

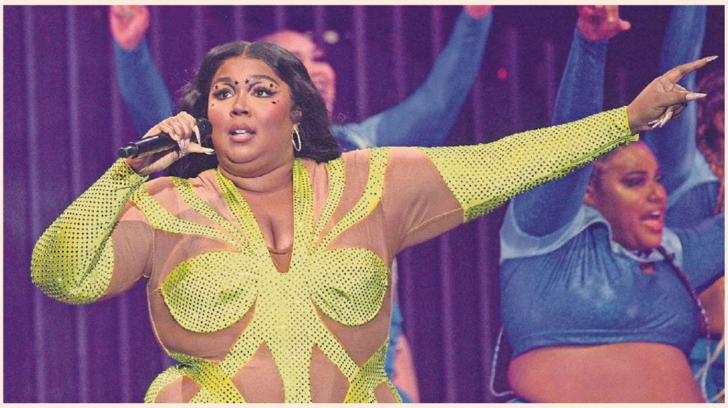
One service the agency now offers footballers is “image branding” to enhance their work with sponsors.

But she tells players: “This is not your second job. Because you don't have a second job. You have one job, and that's to play football. You're not an influencer. You're not supposed to be looking at your Instagram the whole day to see, ‘What is my follower growth? What should I post today?’ Because this takes time and energy.”

She defends the high salaries of male players. “You're in an industry where there's a lot of money, you're entitled to that. What upsets me is where there's this disconnection with reality: ‘I make a lot of money, I can do whatever I want, I can say whatever I want, I'll take the Ferrari and go to Monaco.’ Then you're an arsehole.”

While she recruits the agency's next generation of footballers, she tries to ask herself why she does her job.

Her answer? “Because that's who I am. It takes your full soul to be an agent. You cannot split it, say, ‘I'm an agent, sometimes’. You can change the lives of people, when you do it right. I think it's priceless when you meet somebody that is sleeping on the floor in favelas in Brazil and, after a few years, he has a capacity to provide for the next three generations of his family.”



Real woman behind the clichés

POP

Lizzo
O2 Arena, London
★★★★☆

Ludovic Hunter-Tilney

Positive-thinking exhortations were scattered throughout Lizzo's set. "Be kind to yourself." "My body is beautiful." "I am my inspiration." Each was affirmed with a roar of applause from a packed O2 Arena, at the second of the singer's two shows at the London venue.

The inspiring phrases were clichés. But the same can't be said of the performer responsible for them. Lizzo, aka Melissa Jefferson, is a trained flautist who studied classical music at the University of Houston, her former home city, before taking up rap with her 2013 debut album *Lizzobangers*. A switch to singing, and more specifically old-fashioned soulful belting, set her on the track to stardom – although she initially resisted the stylistic change on the grounds of cliché. "That's how we were tokenised," she explained in 2019. "The big black girls were always the belters, and I've always been afraid of being put into that box."

Conquering her reluctance to unleash the full power of her voice has paid off. Lizzo is now one of the marquee names of US pop, garlanded with Grammys, billions of streams and (mark of the true A-lister) a fanbase with its own name, the "Lizzbians". For the last night of her tour of Europe, they turned the O2 Arena into a veritable isle of Lizzbos, launching into protracted passages of applause after songs. Despite herself, the singer grew tearful as the ovations mounted up. Beneath the feelgood sloganeering lay actual feelings.

She was joined by an all-women ensemble, including a four-piece band and three backing singers. A troupe of 10 dancers performed choreography. They were called the Big Grrrls, all proportioned, like Lizzo, in defiance of pop's fetishising of slender female shapes. That's one of the sources of meaning in her expressions of positivity. Race is another. The message to love yourself becomes less of a cliché when uttered by a person whose skin pigmentation and body are burdened by histories of other people's hatred.

But there's a challenge here. If Lizzo is held to be representative of certain values, such as bigness and blackness, then she's at risk of becoming a type. This can be heard in her music, which at times leans too much on pastiche. Her opening song "The Sign" pointed to one of her primary inspirations, rap free-thinkers OutKast. "So I figured out I gotta be my own type," she rapped on the next song, "Soulmate", as though trying to find a less derivative register.

The tracks were mostly drawn from her breakthrough album, 2019's *Cuz I Love You*, and last year's *Special*. The styles ranged from hip-hop through to disco, classic soul, dance-pop and rock, performed punchily by the band. "Black people made rock and roll, yeah!" Lizzo cried during "Rumors" as guitarist Jordan Waters played one of many solos. The singer's voice was highly versatile, moving seamlessly between rapping and magnificent gospel-style swoops. There was no sign of the high-tech vocal embellishments often used at arena shows.

Her flute made several brief appearances, a signature prop. But what really gave the gig its own character was the upbeat energy and skilfulness of Lizzo's singing, alongside the quality of the accompanying musicians. Here was the fuel that lifted the positive-thinking mantras beyond the routine.

lizzomusic.com

Upbeat energy: Lizzo on stage at the O2 Arena
Gus Stewart/Redferns

ARTS ONLINE

The Life of a Song
Rick James's 1981 hit 'Super Freak' was widely loved and heavily sampled. Áine Kim Kennedy tells its story

ft.com/arts

Captivated by a saxophone maestro

JAZZ

Chris Potter
Ronnie Scott's, London
★★★★★

Mike Hobart

Chris Potter's consummate musicianship and steely improviser's prowess have been finessed by three decades at the top end of jazz. The saxophonist's tenor sax tone has warmed in recent years, and, as this quartet gig showed, his speedy lines and tonal control have gained extra emotional depth.

Potter began this intense first-house set at an achingly slow tempo with only piano support. High notes vibrated gently and key tones were joined by off-the-cuff scales; a single slip would break the spell. "Infant Eyes", by Wayne Shorter, who died earlier this month, demands a level of focus that most musicians would only attempt towards the end of a set. Here it was achieved from the off.

Audience captivated, the band joined in. Brushes scampered lightly over the drummer's snare, piano gently rippled and Potter investigated the harmonic riches of Shorter's lyrical tune. Soon, a rampage of scales was followed by breathy low notes; call-and-response patterns exploded into tumbling pentatonics.

But it was Potter, trenchant and unaccompanied, who brought the homage to fever pitch, and cued the next theme, a cover of Mississippi Fred McDowell's "You Gotta Move", the lead track of *Got the Keys to the Kingdom*, Potter's recent CD.

The drummer's light-touch bustle, supple hi-hat and ability to fuse four trains of thought into coherence delivered a highlight solo playing out "You've Gotta Move" – Potter had just raised the crowd with a steadily intensifying mix of bluesy ruminations, melodic motifs, whoops, slurs and moans.

As the set evolved with barely a pause, Potter drew on songs from disparate sources. He probed the dense harmonies of Stevie Wonder's "Send One Your Love (Music)", from the 1979 album *Journey Through "The Secret Life of Plants"*, and ended the set with Salif Keita's "Mandela".

As on Potter's latest release, simple themes gained harmonic weight and double bassist Scott Colley was firm and woody-toned. But now, Venezuelan pianist Edward Simon added hints of Latin with a light touch and drummer Nasheet Waits delivered elliptical rhythms with a strong inner pulse.

The Amazonian folk tune "Nozani Na" came next, also from Potter's recent CD, but now introduced by somnolent strums of Colley's double bass. Simon delivered shaded chromatics with two-handed Latin-tinged flair, Potter trilled and leapt across the saxophone's range and the piece evolved as a shape-shifting dialogue laced with syncopated thrust. Then solo Potter roared through the harmonic thickets of Wonder's "Send One Your Love" at speed – the band joined, the pace changed to a mid-tempo walk, and finally, the tune's origins were clear.

The long finale opened with Simon's downbeat, contemplative original "There's Hope" hovering above ballad tempo, shaded major chords delivering a trace of optimism. Potter sustained the mood in his unaccompanied ruminations, rippled rhythmically, then cued the band's broken-beat, African-inflected groove. Waits whacked, rolled and rumbled, bass delivered counterpoint lines and Potter soared once more.

ronniescotts.co.uk

Ruminations: Chris Potter — Paul Bergen/Redferns

'We can see flames going up into the air'

PODCASTS
Fiona Sturges

At the start of the new podcast *900 Degrees*, host Mobeen Azhar issues a stark warning that "this story goes to some hellish places". Listeners accustomed to such preambles will no doubt shrug and plough on, but the warning is warranted. Listening to the first episode, which describes in painstaking detail the fire that broke out on May 11 1985 at Bradford City's Valley Parade football ground, killing 56 people and injuring hundreds more, I had to pause a few times and take a breath.

Azhar, whose last podcast, *Hometown: A Killing*, investigated the heroin trade in Huddersfield, talks to those who were there, among them football fans, reporters and police who, five minutes before the end of the first half, recall seeing small wisps of smoke coming up through the main stand. Some mistook it for smoke bombs, which weren't unusual at matches, but then they started to see flames.

The present-day testimony is interspersed with archive audio of Tony Delahunty, a commentator from Bradford's Pennine Radio, reporting from the match. His panic and fear are palpable as, shortly before going off air, he shouts: "People are spilling on to the pitch and we can see the flames going up into the air there . . . Take your time, don't rush, don't push. Watch out for the kiddies."

All the eyewitnesses share their shock at the speed at which the fire took hold. One notes how astonishing it was "to see something you've sat in every other week disappear in four minutes". The 900 degrees of the podcast's title refers to the estimated temperature of the stand in the midst of the blaze.

The series goes on to document the inquiry that followed, which lasted just five days and concluded that the fire was started by a discarded cigarette. Beneath the stands, which were old and due to be demolished a few days after the fire, litter had piled up, despite warnings that it was a fire hazard. Azhar meets Martin Fletcher, who was 12 in 1985, and was at the match with his younger brother, father, uncle and grandfather. All died in the fire, save for Fletcher who can't remember how he escaped but who was almost certainly saved by his baseball cap, which stopped him from being burnt by the falling bitumen and bits of masonry.

Fletcher remains convinced the fire wasn't an accident, and it's these claims, related to Bradford City's late chair Stafford Heginbotham (the Bradford fire was one of several blazes at businesses owned by him), that form the centrepiece of this series. If I have one complaint it is that Azhar takes too long getting to this. He sows the seeds of doubt early on, hinting at foul play, but chooses not to elaborate until the fourth and latest episode. Nonetheless, *900 Degrees* tells a remarkable story of a shattering and seemingly avoidable tragedy.

whatsthestorysounds.com

'900 Degrees' tells the story of the 1985 fire at Valley Parade, Bradford, which killed 56 people
Corbis via Getty

New technology is enhancing soil's ability to store carbon, mitigating the environmental effects of industrialised farming. But moving away from conventional methods may prove risky for some growers. *By Emiko Terazono and Alice Hancock*

Microbes: a climate solution?

There are few problems larger than the climate crisis. But one potential solution is so small it cannot be seen with the naked eye: microbes. Tegan Nock, a 32-year-old former rancher who grew up on a farm deep in the Australian outback, is betting microbial technology in soil and crops can mitigate the effects that decades of industrialised farming have had on the planet's ecosystems.

Nock, who co-founded farming start-up Loam Bio in 2019, has developed microbial fungi that when applied to soil might not only improve its health but enhance its ability to store carbon.

If successful, the benefits would be twofold: it would help farmers facing increasingly unpredictable weather patterns from droughts, floods and extreme temperatures, but also mitigate the environmental impact of a food system that contributes up to a third of the world's greenhouse gas emissions.

Like most growers in Australia who turned to more nature-led approaches in the 1980s and 1990s, Nock and her family have been working to increase crop production using well-established conservation or regenerative agricultural methods including no-tillage, crop rotation and growing crops out of season to strengthen the soil.

Finding a way to boost the levels of carbon stored in the soil of her family's 3,000-hectare farm in New South Wales, south-east Australia, was the logical next step. "When this work came along, it was something that once it bites, it's so hard to step away from," says Nock, now Loam's chief product officer. "I wanted to . . . make sure [the information and technology] was available to all farmers."

Loam's fungal treatment helps the soil store more than double the amount of carbon compared to that of conventional regenerative agriculture, while healthier soils retain more water and other nutrients, thereby increasing production. The start-up then helps farmers sell on their carbon credits to companies looking to offset their emissions. "It's a win-win," Nock says.

The company has so far raised just over $100mn with investors including the Australian government's Clean Energy Finance Corporation and Hong Kong billionaire Li Ka-shing's Horizon Ventures. After launching in Australia, it is now conducting trials in the US.

Environmentally friendly "biological" fertilisers and pesticides have been used since the start of crop cultivation. But it was synthetic fertilisers and pesticides that fuelled modern agriculture, powering intensive, large-scale production of food, helping reduce global hunger and support rising populations. However, the negative impacts of such products on the environment, human health and biodiversity have become more acute over the past few decades.

Beneficial microorganisms on farms offer an alternative. But just like the links between gut microbial fungi and human health, only recently has there been a deeper understanding of the potential of microbes in soil thanks to cheaper, more effective technology.

Frederic Beudot, global biologicals lead at Corteva, the US agricultural group, says microbial products are on the cusp of a "golden age". There is "a greater awareness of beneficial organisms overall", he says. "We are understanding better the huge role [microbes] play in the health of the crop."

Motivated by a need to hit climate targets, countries including those within the EU, which have been slow to adopt regenerative practices, are now accelerating a shift into more sustainable farming. New agricultural policies and tighter regulation on synthetic inputs are expected to drive demand for more natural means of increasing production as well as protecting crops from pests and disease. In that context, say supporters, microbial technology represents a huge opportunity.

Billions of dollars' worth of existing products are likely to be banned in Europe, says Corteva's Beudot, adding: "That is driving innovation."

But many growers remain unconvinced by the case for microbials; their effects vary widely depending on climate and soil types, they can be expensive to implement, and properly transforming soil quality can take many years. The revolution Nock dreams of may not be immediate.

Tegan Nock, above, co-founder of farming start-up Loam Bio, has developed microbial fungi that enhance soil's ability to store carbon. Right: a sample from a soil core collected in one of Loam Bio's small-plot field trials
FT montage/Pip Farquharson/Monique Lovick

Embracing microbials

Advocates argue that there are two good reasons to embrace microbial technology. The first is that turning fossil fuels into traditional nitrogen fertiliser, one of the three key elements needed for plant growth, not only produces greenhouse gases including methane and CO_2, but also results in biodiversity loss through the mining of its other two ingredients: phosphates and potash.

According to research, about two-thirds of nitrogen and half of phosphate fertilisers applied to crops drain away, in many cases washed into waterways and oceans, suffocating aquatic life and creating dead zones, where oxygen is so low that organisms cannot survive.

But the main incentive of microbial fertilisers for growers is an economic one. Fertiliser costs soared when Russia's invasion of Ukraine pushed up the price of natural gas, a key feedstock for nitrogen fertiliser, to a record high. Though prices have fallen, the time lag effect means farmers are still paying more for conventional nutrients.

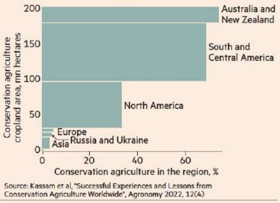
The microbial version is not only more affordable, it's also longer-lasting. When nitrogen-producing microbes adhere to plant roots, there is minimal runoff, meaning farmers need to apply less conventional fertiliser. Once applied, the microbes continue to work with the plant and, unlike conventional nutrients, do not need additional applications as the crop season progresses.

In Berkeley, California, a start-up called Pivot Bio is enjoying strong demand for its microbial fertiliser. After a pilot it ran in 2018, US corn acreage where the product was used tripled last year from 2021 to over 3mn acres, about 4 per cent of total corn acreage.

Lisa Peterson, a farmer in northern Iowa, started using Pivot's product in 2019 and was so impressed she became one of its sales representatives: "I know when I'm paying for that pound of nitrogen, I'm getting that pound of nitrogen into my crop. I'm not losing it in the soil profile." At current prices, she adds, the product is also 40 per cent more cheaper than conventional fertiliser.

Pivot co-founder Karsten Temme is bullish about the company's prospects. "We've had extremely robust growth ever since we launched our first product five years ago," he says.

In order to keep up with demand, the start-up doubled output capacity by expanding a facility in St Louis, Missouri, this year and added a distribution centre in Omaha, Nebraska. With increased manufacturing capacity, Pivot hopes to cover about 10 per cent of total US corn acres with its microbial nutrient this year and has started to explore expansion into international markets including Brazil and Kenya.



Europe and Asia lag behind in conservation agriculture

Source: Kassam et al, "Successful Experiences and Lessons from Conservation Agriculture Worldwide", Agronomy 2022, 12(4)

Growers are also experimenting with microbial fungicides. In Arkansas, Will Tipton, who farms about 2,000 acres, has been using a product made by Boston-based start-up Indigo Agriculture. The microbes establishes a wall between the plant's roots and any pathogens. "It's a different approach to seed treatment," says Tipton. "It's about adding beneficial microbes to take the place of the negative microbes."

Indigo's suite of microbial products include nutrients and those which protect crops against drought and heat.

Microbial products "really contribute to [the farmers'] whole soil journey," says Ron Hovsepian, Indigo's chief executive. "They all know they have to take better care of the soil, so that means they've got to be more selective as to what inputs they're going to use."

Tipton is also a participant in Indigo's soil carbon programme, which last December paid out $30 per carbon credit totalling $3.7mn to almost 450 US farmers for implementing regenerative farming practices that help the soil capture more carbon. Like Loam, Indigo sells the credits to corporate buyers.

"We've parked all the ploughs and really haven't looked back. You get paid for doing less and it's real money for doing the right thing," says Tipton.

Indigo's soil carbon programme and microbial products are separately run, but Hovsepian says both fall under the umbrella of regenerative agriculture. The use of microbials to enhance the soil's ability to store carbon is the natural progression from regenerative agriculture, which aims to restore natural ecosystems that have been depleted by traditional farming methods — and, ultimately, to produce food in a more sustainable way.

For every 1 per cent increase in the soil's carbon, an acre of land can hold an extra 25,000 gallons of water, helping productivity and plant health, notes Hovsepian, adding: "Connecting those pieces, that's where we really focused."

Regenerative agriculture has been slow to spread in Europe and Asia, but in other parts of the world take up is high. In Australia and New Zealand, the majority of growers have adopted sustainable farming practices, covering three-quarters of the cultivated land.

Grant Sims, a sixth-generation farmer running a 8,500-acre family farm in central Victoria, Australia, has been on a pilot scheme for Loam's microbial product since 2021. His father and uncle adopted no-tillage of the farmland in the early 1980s, and since 2008, Sims started to reduce the farm's usage of synthetic fertilisers and pesticides, using biologically made liquid fertiliser to strengthen the plants instead.

He calls efforts to capture more carbon in the soil a "no-brainer". Revenue from selling carbon credits is important, he says, but the production and environmental benefits could be "massive".

"In Australia, we're a land of extremes where one minute we're in drought and the next minute we're in flood because we've lost a lot of carbon out of the soil that has reduced the soil's ability to buffer those extremes," he says.

A reluctant revolution

Although the momentum behind the use of microbials on the farm is building, moving away from conventional farming methods remains a risky choice for many growers. If harvests fail, a year of lost crops means a year with no revenues or resources to recover the costs.

Scepticism about microbial products remains strong among mainstream growers especially as, unlike synthetic fertilisers, their effectiveness tends to vary depending on factors such as soil type, climate and weather conditions.

"There have been a lot of promises made around biologicals and the fact that they can replace obviously incredibly active and effective synthetic chemicals," says Alastair Cooper of agricultural venture capital Cibus. "The reality is when you're farming, you're in different climates, you're in different soil types, [with] different pHs. You'll have different temperatures, weather conditions, growing different crops."

For governments, promoting a transition to regenerative agriculture comes with food security risks if something goes wrong. A recent radical shift of farming methods in Sri Lanka and an economic crisis that ensued, for example, highlighted the dangers of sudden moves.

The European Commission is pushing for greater regulation of the agricultural sector to lower its environmental impact and wants to promote the use of microbial products in a "soil health" law to be proposed in June.

Clara Aguilera, a socialist lawmaker on the European parliament's agriculture committee, says it would "allow the EU to have better control on [fertiliser] costs — to the benefit of farmers".

But tensions with farmers, due to the bloc's stringent regulation, are increasing and a previous attempt to regulate the treatment of soils was rejected by EU member states in 2007, in part due to the cost of implementing it.

Celia Nyssens, senior policy officer for agriculture and food systems at the European Environmental Bureau, says a key concern among some policymakers was whether such schemes would be subsidised "well enough so that farmers pick them up".

'We've parked all the ploughs and really haven't looked back. You get paid for doing less and it's real money for doing the right thing'

'I know when I'm paying for that pound of nitrogen, I'm getting that pound of nitrogen into my crop. I'm not losing it in the soil profile'

Copa Cogeca, which represents EU farmers, says it fully supports the protection and management of nature. "However, the current proposals coming from the commission do not provide coherent and concrete financial backing to support the transition and to maintain this transition," it adds.

Nyssens worries that some farmers mistakenly might view microbials as a short-term fix. "If you do [apply them] while simply maintaining business as usual for the rest and continuing to till heavily and continue intensive land management then it's not really going to solve the problem."

Transforming soil quality can take years, depending on factors including existing quality, methods and products used. Reduced tillage, for example, leads to increased weeds and more herbicide use, which may carry the same environmental and health risks as pesticides, say organic farmers and regenerative farming sceptics.

For farmers in developing countries, the challenge is even greater. In sub-Saharan Africa, for example, poor market access and affordability often preclude the use of herbicides, while manual weeding increases the demand for human labour, says Katrien Descheemaeker, a professor at Wageningen University in the Netherlands.

Beudot, at Corteva, acknowledges that one of the biggest hurdles over the past 30 years has been the variable effect of microbial and biological products. "Ultimately to drive adoption, we need to be able to explain to the farmer and help them . . . pick the right product, at the right time," he says.

He does not see the transition to regenerative agriculture as an all-or-nothing situation, but something that could be used interchangeably.

"In a perfect year, a farmer may be able to cut back significantly on the use of synthetic products," says Beudot. "And then the following year it's going to be raining every other day and diseases are going to get absolutely out of control and they're going to need to rely more heavily on a fungicide."

Back in Australia, Nock sees growing use of microbial products as progress towards a deeper understanding of soil and plant biology supporting a greater shift towards sustainable agriculture.

She likens the microbial movement to the postwar green revolution, which started in the 1960s, where technological advances in seed development and chemical fertilisers led to big advancements in farming.

"It feels like it's a bit of a wave," adds Nock. "I like to call it the 'unseen revolution' . . . we're [moving towards] really understanding the whole system."

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

Macron's pension reform muddle

No matter the merits of his plan, France's president erred in using special powers

Emmanuel Macron rolled the dice on reforming France's creaking pension system. His gamble hangs in the balance. Set against a backdrop of protest, where two-thirds of the population are against the president's plan, his minority government has resorted to sidestepping a parliamentary vote that Macron calculated he would lose. Changes are necessary to plug a pension deficit in a country with an ageing population. But the way Macron has tried to ram through reform leaves the president and France with a democratic deficit.

In triggering a special constitutional power, Macron has bet that his government's chances of surviving a no-confidence vote that will now follow are greater than were the odds of garnering parliamentary support for his reforms in the normal fashion. The credibility of his second term as president depends on his calculations working out. He must hope that they are more accurate than his assessment that he could count on the conservative Les Républicains to help him.

The probability is that the vote of no confidence scheduled for today will fail, and his reforms will therefore pass. But it should not have come to this. Overhauling France's generous pension system was always going to be fiendishly difficult. Strikes were an inevitability. Macron is also no stranger to the use of the power, known as Article 49.3 that can bypass parliamentary votes: his government has used it 10 times before. But the degree of unease across the country over the plans, already watered down but which detractors allege are unfair to blue-collar workers, shows that Macron underestimated the scale of his opposition. Millions have felt the need to protest since January. Industrial action has left 10,000 tonnes of rubbish to pile up on Paris streets and has cut production at nuclear reactors.

Macron failed to convince both voters and parliamentarians of the necessity of his vision; something that has been vital since he lost his parliamentary majority last year. His high-handed method of forcing that vision on the country — no matter its merits — now risks turning unease into unrest, potentially on the scale of the 2018 *gilets jaunes* protests that blighted his first term.

Macron is correct that France needs to overhaul its pay-as-you-go pension system and that more people need to work to help fund public services. France's pensioners are expected to increase from 16mn to 21mn by 2050. Meanwhile, its accumulated public debt stands at over 113 per cent of gross domestic product. The president's reforms will raise the minimum retirement age from 62 to 64, bringing it more in line with its EU neighbours, and will require 43 years of work to qualify for a full pension.

> Unease over the proposals, already watered down but which detractors allege are unfair to blue-collar workers, shows that the scale of opposition was underestimated

Yet Macron's method of pushing a sound policy through makes little political sense. Having won the necessary votes in the Senate last week, he should have let the bill go to a vote in the National Assembly. A failed vote would have signalled that he needed to reassess and redesign his overhaul.

In the short term, the future of his prime minister, Élisabeth Borne, is uncertain. But there are wider questions for the longer term. Les Républicains have long supported and campaigned for pension reform. If Macron could not count on them for a majority, even after substantial compromises, what hope can there be for other ambitions for the remainder of his presidency until 2027? Not much. And this imperils his wider legacy, which has otherwise made France more competitive. Macron pledged a more consensual, less top-down style of French politics. By trying to force through his reforms, he is ultimately weakened.

Opinion Asia

Japan's defence fair raises questions over expansion

Maria Hergueta

Leo Lewis

With $315bn up for grabs and spending priorities still vague, last week's Defence and Security Equipment International show offered a perfectly timed beauty parade of belligerence as Japan begins its largest military expansion since the second world war.

For three days, the halls of Makuhari Messe convention centre heaved with a fantasy menu of 21st-century military procurement: drone-killers, next-generation smart ammunition, battlefield exoskeletons and, perhaps most critically, a new formulation of made-in-Japan combat ration beef stew.

The juxtaposition of wares underscored the extraordinary challenge that Japan has set itself under prime minister Fumio Kishida: of modernising a military before society has normalised it.

> The show had the feel of a feeding frenzy begun before the chum has hit the water

Even with the momentum of a more menacing China and Russia's shock invasion of Ukraine, this is a big undertaking. Getting the basics of this new vision of the Self-Defence Force (SDF) right, admits one anti-ship missile salesman, could prove far more complex than selecting the right anti-ship missile. With the new military budget settled before Japan has properly fixed the idea of "combat readiness" in the public mind, the defence fair had the feel of a feeding frenzy begun before the chum has hit the water.

The problem with getting the basics right, though, is that the political and practical operations of Japan's military remain highly unusual. Japanese military vehicles traversing the country must pay highway tolls like anyone else. This is just one of many humbling reminders that the defenders of the realm are not deemed very special.

The electorate — and, crucially, potential recruits to the SDF — are conditioned to think in this way. Japan's still unamended, war-renouncing 1947 constitution pledges that the country will reject "land, sea and air forces, as well as other war potential". The SDF and its current ranks of 230,000 personnel have existed since special legislation in 1954. But even the late Shinzo Abe, who came closer than any postwar leader to changing the constitution, was unable to give it the enshrined legitimacy that would end any debate forever.

But does that debate matter much if the SDF not only patently exists, but has now been entrusted with a bigger role and had its budget doubled?

It probably does. A key reason for Japan's newly enlarged defence budget is its ambition of creating a more centralised, competitive and effective military industrial complex. The absence of constitutional legitimacy has allowed Japan's corporate machine to be persistently lacklustre about supplying military personnel.

A second critical element is that, in terms of better equipping the SDF to defend the country in real conflict, the hardest political work is only just beginning. Decades of absolute dependence on the US military have postponed the need for a network of ammunition warehouses built on requisitioned land. A mass of legislation is required — but top government advisers fear this will be anathema to large parts of the electorate. For this too, constitutional endorsement would be helpful.

But the biggest reason by far is the SDF's chronic recruitment crisis: a problem that has gnawed at government calculations on defence posture for some time, but will get progressively worse as demographics continue to shrink the nation's 18- to 26-year-old cohort. In an epically tight job market, young Japanese have a long list of more attractive options — plus, for many, their parents would rather they work almost anywhere else.

Applicants for positions across the SDF — which includes military academies, technical schools and various healthcare roles — fell by about 26 per cent between 2012 and 2021. This figure is unlikely to rise if the forces switch their primary purpose from disaster relief to fighting. About 45 per cent of Japanese municipalities, ostensibly acting to preserve privacy, chose not to provide the names and addresses of eligible residents to the defence ministry, which was in turn unable to send those people any recruitment pamphlets.

A new wave of recruitment campaigning by the SDF has focused on the promise of square meals, camaraderie and national service. The beef stew exhibited at the defence show, was, according to a small sample of Canadian, British, US and even French military officers in attendance, better than anything their own countries had ever fed them. Politeness to their host and the next big military spender, perhaps — but also a small, savoury step in the right direction.

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Only a free market utopian could criticise the SVB rescue

Ken Griffin, the legendary hedge fund manager, says that in a truly capitalist society Silicon Valley Bank depositors would not have received government protection (Report, March 13).

His argument smacks of the "liquidationism" of the Austrian school economists, who after the 1929 Wall Street Crash argued that without government interference markets would autocorrect, allaying the irrational exuberance of the roaring twenties. The US treasury secretary at the time Andrew Mellon explained the theory: "Liquidate labour, liquidate stocks, liquidate the farmers, liquidate real estate. Purge the rottenness out of the system . . . enterprising people will pick up the wrecks from less competent people."

Following this woolly logic, central bankers eschewed either expansionary monetary policy or their role as lenders of last resort. Over 100 US banks were allowed to fail, and depositors were left out in the cold. Griffin would have been overjoyed.

It wasn't sensible economic policy. Between 1929 and 1932, stock prices plummeted, falling by 85 per cent from their previous peak. Wall Street quickly infected Main Street: investment shrivelled, the economy shrank and unemployment rose. The dispossessed sought shelter in shanty towns which cropped up across America.

The newly inaugurated Roosevelt administration changed tack, driving Congress to pass an unprecedented amount of legislation, including the establishment of the Federal Deposit Insurance Corporation which insured regular depositors against bank failures, helping to avoid future bank runs.

Since the civil war, America had faced seven banking crises and innumerable bank failures. After 1933, this phenomenon has become rare. Repealing deposit insurance could set a dangerous precedent. In 2009, during the subprime mortgage crisis, the decisiveness with which the government acted helped to avert another depression. The lesson was learnt.

Faced with the SVB collapse, policymakers turned on a sixpence, preparing a copper-bottomed solution that secures client deposits and provides a fillip to the financial system without bailing out SVB. Only in the narrow confines of free market utopianism could anyone criticise such a sensible and anodyne policy.

Alex Lecanda-Moreno
Chief Investment Officer
Goleta Alternative Fund, Luxembourg

Technology is a scapegoat for society's teen traumas

There is little evidence to back up your recent headline that "Smartphones are hurting children's mental health" (Opinion, March 10).

Most academic experts — us included — have long accepted that teens' relationship with technology is far more complicated.

Smartphones are used for many different activities. While some will cause harm to certain teenagers, some will be beneficial. Indeed, multiple academic reviews, as well as reports commissioned by England's chief medical officer and the Royal College of Paediatrics and Child Health reaffirm this stance.

The UK does not have strict screen-time recommendations largely because the impact of devices depends on their use and user. Yet this nuance has been ignored in favour of blaming technologies: generational scapegoats for societal concerns about the young.

In the 1940s, research and media were worried about children's addiction to the radio. Their focus then moved on to TV, video games and now social media.

Simplistic narratives distract from complex networks of socio-economic, international, political and lifestyle factors (including, yes, technology use) that lead to poor mental health outcomes. To design regulations and recommendations fit for purpose we need to take this complexity into account.

While panics about modern technologies continue, we cannot have the necessary pragmatic discussions about how to keep kids safe online.

Dr Amy Orben
Psychologist, University of Cambridge
Tom Metherell,
PhD Student, University College London

An irony the Slovenian Marxist would enjoy

Slavoj Žižek, the Slovenian Marxist philosopher, pointed out a contradiction in capitalism as a system that generates wealth and inherently destroys it with economic and financial crises.

Martin Wolf's "Banks are designed to fail — and they do" (Opinion, March 15) describes how slowly but steadily the banking system became part of the state.

In other words, regulators have transformed a private banking system into one straight out of the dreams of a communist thinker — but only for losses. Ironic times we live in.

I greatly enjoy the FT and make it mandatory reading for my students.

Lucas E Wall
Adjunct Professor of Finance
The Busch School of Business,
Washington, DC, US

Capitalism critic: Slavoj Žižek, the philosopher and cultural theorist

Wuhan and the case for zoonotic spillover research

Professor Anton van der Merwe ("Scientists dismissed lab leak theory due to conflict of interest", Letters, March 10) was wrong to imply that genetically modifying an animal virus to infect human cells (or "humanised" mice) is de facto a "gain-of-function" experiment.

The Sars-related research conducted at the Wuhan Institute of Virology (WIV), using funding from the US National Institutes of Health prior to the pandemic, only dealt with bat coronaviruses. These experiments had never been shown to infect people, let alone cause morbidity and/or mortality in humans, and therefore by definition was not gain-of-function research. Second, he states that these "were being performed in Wuhan on Sars-Cov-2 like viruses". This is incorrect. Experiments at WIV involved bat coronaviruses related to the original Sars-Cov, not Sars-Cov-2, and there is no evidence that any lab in the world had a virus genetically close enough to Sars-Cov-2 that it could be manipulated to become that virus.

The professor also suggests it is unlikely that identifying potentially dangerous organisms in the wild will help prevent pandemics.

A "one health" strategy for pandemic prevention, preparedness and response begins with smart surveillance to identify potential pathways of transmission and to take actions to control the risks of zoonotic spillover.

Surely those risks justify undertaking the kind of research that was supported by the US in China before the pandemic, especially when we know this mechanism was behind Sars, Mers and, most likely, Covid-19.

Peter Daszak
President, EcoHealth Alliance
New York, NY, US

DeSantis has neophyte's grasp of geopolitics

It is not surprising to see the Florida governor Ron DeSantis stumble out of the gate as he begins testing the waters of presidential politics on the national stage ("DeSantis fuels Republican rift on Ukraine", Report, March 15).

Despite a résumé listing three terms as a congressman and his tenure as governor of the third most populous state, DeSantis' grasp of geopolitics is that of a neophyte. With a steep learning curve on the road to the White House, DeSantis would be wise to take a page out of the playbook of another young Republican governor who had aspirations of higher office, George W Bush.

On the heels of failed peace talks in the Middle East and changes in leadership in Syria and Jordan, the Texas governor put together a foreign policy team of wise men including, among others, George P Shultz, secretary of state under President Ronald Reagan, who was masterful at managing America's relationship with Russia and China.

Jim Paladino
Tampa, FL, US

Blowing the froth off Hunt's beer duty claims

Articles on the UK Budget refer to a claim by the chancellor that the freeze on beer duty is some sort of Brexit benefit, impossible under EU rules ("Pubs toast duty freeze on draught beer but shake-up sours rivals", Report, 16 March).

But the minimum EU duty on a pint of 4 per cent alcoholic strength beer is 4 euro cents. There are no EU maxima.

It is hard to believe this extremely low floor affected budget calculations. According to the Tax Foundation think-tank, in 2020 duty on a 330ml bottle at 5 per cent abv (alcohol by volume) varied among EU states from 0.03 to 0.6 euros, with the UK at 0.35.

Further, it seems most unlikely that maintaining the same rate of duty is somehow banned by the EU. We've had this kind of nonsense for seven years now. When will the media, including the FT, begin to expose these untruths?

Kenny Ball
Woluwe-Saint-Lambert, Belgium

Retrospective taxation is invidious, but this is as bad

Given that the pensions lifetime allowance is now going to be abandoned in 2024 (Report, March 16), it will be tough on those taxpayers hit with the current tax regime during the rest of 2023.

Retrospective taxation is invidious, but this taxation twist will feel as bad.

Bridget de Margary
London SW4, UK

Quantum leap will render current encryption useless

Jeremy Hunt, the chancellor, bolstered the UK technology strategy with his £2.5bn "Plan for Quantum"(Report, March 14), but the writing was on the wall. The extraordinary processing power of quantum computers will have a catastrophic impact on digital systems unless we begin a cryptographic transition now.

Quantum computing will render current cryptographic algorithms unfit for purpose, breaking open all encrypted digital information. In fact, there's a good argument to be made that we're already too late, due to what we call a "harvest and decrypt" attack.

Typically, when a bad actor gains access to encrypted files containing valuable secrets, they can simply be stored until quantum computers are ready to break them open. Relatively shortlived secrets like credit card numbers are not at risk because by the time such files are cracked, they will already be out of date. But we have a vast number of secrets in areas such as technology, industrial processes, military operations and individual medical histories that will remain sensitive five, 10 or even more years from now. That quantum computers will one day render these encrypted files vulnerable is not a question of if, but only when.

Information technology leaders need to start paying attention today to the upcoming threat of quantum computing and preparing their organisations to upgrade to new "post-quantum" cryptography in order to head off (or at least mitigate) the damage.

Tim Callan
Chief Experience Officer, Sectigo
Salford, UK

This column — and more like it — is AI clarion call

Camilla Cavendish's column "Humanity is sleepwalking into a neurotech disaster" (Opinion, March 4) is a clarion call to all citizens in democratic countries who still believe that we must participate in shaping our futures. For the past several years I have been asking all door-knocking candidates for political office for their views on artificial intelligence. Depressingly, I have yet to get a reasonably sophisticated answer. Hopefully, this column — and more like it — will help.

One quibble: Cavendish writes that "technology may be neutral". It is not. As the great historian of technology Melvin Kranzberg put it "technology is neither good nor bad; nor is it neutral" — meaning it will always change things. All the more reason to pay attention.

Dan Dunsky
Toronto, ON, Canada

Opinion

Global banking is now inside Schrödinger's box

MARKETS
Megan Greene

The famous quantum mechanics thought experiment posits that if a cat is sealed in a box with a deadly substance, you can't know whether it is still alive until you open said box. In the meantime, it is simultaneously alive and dead. And so it is with banking today: we can't know if the past week was a series of idiosyncratic, containable issues or the start of a 2008-style banking crisis. At the moment it is both.

Investors and depositors must not only believe that banks have good capital ratios, ample access to liquidity and behave responsibly, but also that the supervisory and regulatory architecture put in place after 2008 to save the system works. In the short term, there can be gradations of confidence in all of this. But when we finally look in the box, investors must either trust all of these things or none. It is a binary outcome: the cat can't be a little bit dead.

Reason points to the recent banking instability being a series of containable issues, mostly based on supervisory and management issues. Silicon Valley Bank, Silvergate Bank and Signature Bank were unusually exposed to interest rate risk through both their clientele (itself a phenomenon of a low-rate environment) and their assets (long-term bonds that had to be sold at a huge loss to redeem deposits). First Republic, with a wealthy depositor base that might largely be uninsured, has also been caught up in concerns about liquidity. Credit Suisse, in trouble many times before for a litany of reasons, is now dealing with both confidence and liquidity concerns.

The good news is a lot has changed since 2008. Banks are far better capitalised and regulated than before the global financial crisis. And as awful as that period was, we learnt many lessons from it, among them the importance of swift, decisive action to stem contagion.

Central banks immediately dusted off the playbook for addressing a liquidity crisis and stepped in as lenders of last resort. The US Federal Reserve, Treasury and FDIC guaranteed all deposits for SVB and Signature Bank, and the Fed created a new lending programme, the Bank Term Funding Program, for banks with underwater securities on the books to access at par. The Swiss National Bank extended a credit line of up to SFr50bn ($54bn) to Credit Suisse.

> If even a few small lenders have to write down assets, solvency questions will become contagious

The bad news is that so far trust in the banking sector has not been restored. A week after the US programmes were announced, First Republic remains under pressure — even after receiving $30bn in deposits from larger banks. Its shares fell 33 per cent on Friday. All of the banks in the KRE banking ETF were down; the index closed off by 6 per cent. Fed data showed it loaned $11.9bn through its new facility in the week up until last Thursday and a record high of $152.9bn through its usually stigmatised discount window. Clearly, liquidity is a concern across the US system. The credit line was not enough to save Credit Suisse: the Swiss authorities organised a sale of the bank to rival UBS yesterday.

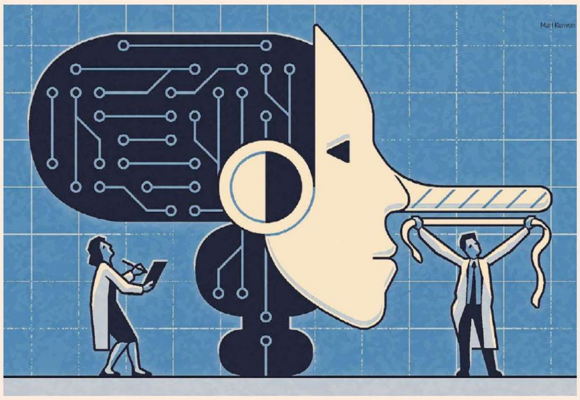
Central banks and regulators must do more to restore confidence. Fundamental trust in the banking system is wobbling. And I worry more toxic things might still be added to Schrödinger's box. Commercial real estate loans account for about 28 per cent of small banks' loans in the US (relative to 8 per cent for the largest banks). Some of these are underwater given high interest rates and the pandemic shift to working from home. If even a few small banks have to write down assets, solvency questions will become contagious.

Another risk lies in private markets. They do not have to mark to market, and have booked much smaller paper losses than public markets over the past year. They may delay crystallising losses in the hopes that asset values reflate in the meantime. If assets continue to fall, however, the losses could be staggering. Private markets could undermine financial stability.

We shouldn't assume the cat is dead and a banking crisis is upon us, but we will keep hitting pockets of market dislocation as central banks continue to withdraw liquidity by raising rates and shrinking balance sheets. This is the third time in two decades we've had banking issues, after the financial crisis and eurozone crisis. More needs to be done to rebuild and maintain confidence in the system. Even if the cat is alive this time, we can't assume it has nine lives.

The writer is an FT contributing editor

Why we need to create guardrails for AI



BUSINESS
Rana Foroohar

What if the only thing you could truly trust was something or someone close enough to physically touch? That may be the world in which AI is taking us. A group of Harvard academics and artificial intelligence experts has just launched a report aimed at putting ethical guardrails around the development of potentially dystopian technologies such Microsoft-backed OpenAI's seemingly sentient chatbot, which debuted in a new and "improved" (depending on your point of view) version, GPT-4, last week.

The group, which includes Glen Weyl, a Microsoft economist and researcher, Danielle Allen, a Harvard philosopher and director of the Safra Center for Ethics, and many other industry notables, is sounding alarm bells about "the plethora of experiments with decentralised social technologies". These include the development of "highly persuasive machine-generated content (eg ChatGPT)" that threatens to disrupt the structure of our economy, politics and society.

They believe we've reached a "constitutional moment" of change that requires an entirely new regulatory framework for such technologies.

Some of the risks of AI, such as a Terminator-style future in which the machines decide humans have had their day, are well-trodden territory in science fiction — which, it should be noted, has had a pretty good record of predicting where science itself will go in the past 100 years or so. But there are others that are less well understood. If, for example, AI can now generate a perfectly undetectable fake ID, what good are the legal and governance frameworks that rely on such documents to allow us to drive, travel or pay taxes?

One thing we already know is that AI could allow bad actors to pose as anyone, anywhere, anytime. "You have to assume that deception will become far cheaper and more prevalent in this new era," says Weyl, who has published an online book with Taiwan's digital minister, Audrey Tang. This lays out the risks that AI and other advanced information technologies pose to democracy, most notably that they put the problem of disinformation on steroids.

The potential ramifications span every aspect of society and the economy. How will we know that digital fund transfers are secure or even authentic? Will online notaries and contracts be reliable? Will fake news, already a huge problem, become essentially undetectable? And what about the political ramifications of the incalculable number of job disruptions, a topic that academics Daron Acemoglu and Simon Johnson will explore in a very important book later this year.

One can easily imagine a world in which governments struggle to keep up with these changes and, as the Harvard report puts it, "existing, highly imperfect democratic processes prove impotent . . . and are thus abandoned by increasingly cynical citizens".

We've already seen inklings of this. The private Texas town being built by Elon Musk to house his SpaceX, Tesla, and Boring Company employees is just the latest iteration of the Silicon Valley libertarian fantasy in which the rich take refuge in private compounds in New Zealand, or move their wealth and businesses into extragovernmental jurisdictions and "special economic zones". Wellesley historian Quinn Slobodian tackles the rise of such zones in his new book, *Crack-Up Capitalism*.

> Some concerns, such as a Terminator-style future, are well-trodden territory in science fiction

In this scenario, tax revenues fall, the labour share is eroded and the resulting zero-sum world exacerbates an "exitocracy" of the privileged.

Of course, the future could also be much brighter. AI has incredible potential for increasing productivity and innovation, and might even allow us to redistribute digital wealth in new ways. But what's already clear is that companies aren't going to pull back on developing cutting-edge Web3 technologies, from AI to blockchain, as fast as they can. They view themselves as being in an existential race with each other and China for the future.

As such, they are looking for ways to sell not only AI, but the security solutions for it. For example, in a world in which trust cannot be digitally authenticated, AI developers at Microsoft and other firms are thinking about whether there might be a method of creating more advanced versions of "shared secrets" (or things that only you and another close individual might know about) digitally and at scale.

That, however, sounds a bit like solving the problem of technology with more technology. In fact, the best solution to the AI conundrum, to the extent that there is one, may be analogue.

"What we need is a framework for more prudent vigilance," says Allen, citing the 2010 presidential commission report on bioethics, which was put out in response to the rise of genomics. It created guidelines for responsible experimentation, which allowed for safer technological development (though one could point to new information about the possible lab leak in the Covid-19 pandemic, and say that no framework is internationally foolproof).

For now, in lieu of either outlawing AI or having some perfect method of regulation, we might start by forcing companies to reveal what experiments they are doing, what's worked, what hasn't and where unintended consequences might be emerging. Transparency is the first step towards ensuring that AI doesn't get the better of its makers.

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A sensible strategy for the UK requires radical changes on pensions

BRITAIN
Martin Wolf

What would be a sensible growth strategy for the UK? For an answer, forget what Jeremy Hunt, chancellor of the exchequer, said in his Budget last week. Turn instead to A New National Purpose, a report from Tony Blair and William Hague. The big lesson from this report is that after a long period of disappointing performance, the country needs a more radical approach. They are right.

Among the most important areas where the UK lacks a sensible strategy is pensions. It has consistently answered the wrong questions, with dire results for both the economy and for people.

Once, the question was how employers were to provide salary-linked pensions to their employees. The answer meant 7,751 defined benefit funds in 2006. Then the question was how to make those pensions safe. The answer was to slash the proportion of funds open to new members and new contributions from 43 per cent in 2006 to 10 per cent in 2022 and to reduce the share of assets invested in equities from 61 per cent in 2006 to 19 per cent in 2022. The price of making DB pensions perfectly safe was to turn them into financiers of the government, while killing them off.

Then the question was how to get people to save for pensions on their own. The answer was the creation of defined contribution funds in which individuals bore the risk, contribution rates were too low and pensions would be inadequate. Meanwhile, public sector workers get index-linked pensions that they do not even seem to value that much.

The UK pension system is incoherent, fragmented and risk-averse. Not surprisingly, Blair and Hague note, "overseas pensions invest 16 times more in venture capital and private equity in the UK than domestic public and private pensions do". This is madness.

Between the third quarter of 2000 and the last quarter of 2022, the value of the stock market in the UK also fell from 159 per cent of GDP to 95 per cent. Over the same period, the US ratio went from 153 to 149 per cent, while the French ratio stayed at 98 per cent. Thus, the UK market has moved from being like that of the US to being like the French. The FTSE 100 is a corporate museum, not a home of dynamic new businesses. It is implausible that new large domestic companies will emerge without domestic pools of patient, committed capital.

> The FTSE 100 has become a corporate museum, not a home of dynamic new companies

The underlying mistakes are characteristically British. First, policy is made piecemeal, rather than systematically. Second, there is over-reliance on the rationality of financial markets and so on the existence of a measurable "equity risk premium". Finally, there is a tendency to focus on details rather than on the big picture. A sensible national pensions policy must deliver two things: security in old age and a more dynamic economy. This is feasible. But it will not happen without a new approach.

The answer, as I have argued before, lies in creating a limited number of large collective defined contribution funds. These would be eternal. The contributions of active members, plus the higher expected returns on equity, would allow such funds to provide (reasonably) predictable — though also, when necessary, adjustable — pensions. In return for the tax benefits granted by the government, these would be required to invest a certain proportion of their funds in new and dynamic businesses. But decisions on where and how to do so would rest with the funds. Given their economies of scale, such funds should be able to identify and invest in new opportunities. This would be good for everybody.

So, how might the country get from here to there? As Michael Tory, of Ondra, has argued and Blair and Hague repeat in their report, the dying DB schemes of today (still 5,131 in number in 2022) should be radically consolidated and turned into open collective defined contribution schemes. The government would then guarantee the already vested pensions. People with investments in today's DC schemes would be allowed to transfer their funds into these new schemes. Ideally, so should public sector employees. Moreover, employers and employees would be given mandates, incentives and encouragement to contribute on a scale sufficient to provide decent pensions in retirement. Finally, the funds would invest in ways that make sense for a multi-generation contract, namely in prosperity, not in narrow safety, and in their own economy, as well as in others.

In many areas, UK policy needs to be bolder, but also wiser. Brexit was bold; but it was not wise. In pensions, the UK has muddled its way through to injustice, inefficiency and absurdity. The time has come to embark on coherent reform. Policies that do not work should be transformed into ones that can.

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Fall of Credit Suisse shows more work to do on risk

Jérôme Legras

Bank investors are well aware of the risks; they know that banking relies on trust and that sentiment can change quickly. The crisis now faced by Credit Suisse is, however, a previously unseen phenomenon.

Every single bank failure I can remember was caused by hidden losses, be they in loan books, derivatives books or bond books. Even though this latest episode of market panic was triggered by bond losses in midsized American banks, there is no suggestion that the current Credit Suisse crisis stems from this problem. So how did this happen and what are the lessons we can draw from the crisis and the intervention by the Swiss authorities?

In shaky markets following the collapses of Silicon Valley Bank and Signature Bank, an awkward statement by Credit Suisse's largest shareholder, saying that it would not provide any further assistance, was enough to send the bank's share price into a tailspin. Financial assistance is the Chekhov's gun of banking: mention it and it is very likely that it will be used before the end of the play.

It is not a coincidence that Credit Suisse has become the main target of the markets. For years now, it has been embroiled in a series of scandals and management controversies. It sometimes feels like its annual report is nothing but a long list of litigations both old and new along with acknowledgment of poor risk controls.

Consequently, CS has established itself as the weakest link of the European globally systemic banks. It is a bit of an odd weak link, because it had plenty of capital and plenty of liquidity. It is not the only bank with low profitability and is not even the only one that had deposit outflows in the fourth quarter. And it is certainly not the only bank to face scandals over the years. It is, however, the one that had all these weaknesses at the worst possible moment.

> Its own clients decided its fate, not the investors. They had made up their minds and withdrew funds

What were the options to stop the bleed? The Swiss authorities did not really have a choice. Ultimately, Credit Suisse's own clients decided its fate, not the investors. They had made up their minds and withdrew funds. Merging with UBS is an obvious solution that was on everyone's mind. Maybe the Swiss authorities will be criticised because they reportedly did not do more to open the bidding war to non-Swiss players, but can we really blame them? Can anyone remember a bank failure resolved in a weekend with a foreign white knight?

This is why UBS has been in a very strong negotiating position. People will argue about the possibility of litigation losses, further bad loans or the cost of winding down the investment bank of Credit Suisse. But UBS is paying a fraction of the bank's shareholder equity, estimated at SFr45bn ($49bn) at the end of last year. Even after accounting for the likely sale of some assets in the Swiss retail bank to manage competition issues, this deal is likely to be very value enhancing for UBS shareholders. Restoring client confidence and low funding costs could also be a game-changer for profitability.

It appears bondholders, however, are going to be forced to take a loss. In the longer term, this could raise issues of financial stability given this case was driven by market panic on a bank with high capital and liquidity that was supported by its supervisor.

There are many lessons to be drawn from this crisis, but my hope is that ultimately the one that will prevail is this: a bank's culture is too important to treat it lightly. A bout of market volatility after internal failings or even a banker gone rogue can jeopardise the work of tens of thousands of hard-working people who will feel both betrayed and frowned upon just because they worked in the wrong company. Regulators and investors have done a lot of work on this, but evidently there is still much to do.

The writer is managing partner and head of research at Axiom Alternative Investments. Axiom trades in bonds of Credit Suisse and other banks


Cartier