FINANCIAL TIMES
TUESDAY 1 NOVEMBER 2022
INTERNATIONAL NEWSPAPER OF THE YEAR
ASIA

Nuclear conflict can be avoided. Probably
GIDEON RACHMAN, PAGE 15

A Bank of Japan pivot would pose global risk
MOHAMED EL-ERIAN, PAGE 9

Lula pushes for Brazilian unity after victory as Bolsonaro remains silent

- Dramatic return to power
- Financial markets cautious
- Populism era closes
- Challenges mount

BRYAN HARRIS — BRASÍLIA
MICHAEL STOTT — RIO DE JANEIRO
MICHAEL POOLER — SÃO PAULO

Luiz Inácio Lula da Silva has pledged to govern for all Brazilians after his slim victory in a bitterly fought presidential election but, more than 18 hours after the official result, defeated President Jair Bolsonaro had still not conceded.

Financial markets traded cautiously yesterday afternoon, with stocks marginally lower and the real slightly up against the dollar, as investors waited for clearer signals from the veteran leftist Lula on economic policy and from Bolsonaro on his political intentions.

The mercurial former army captain spent election night in silence in Brasília after losing by 1.8 percentage points to his rival, with news reports saying he had refused to receive even close aides. The social media accounts of the president and his three sons were uncharacteristically silent in the morning.

"We need to see what Bolsonaro is going to do. We need the president to say something," said Andre Perfeito of brokerage Necton.

Sunday's result marks a dramatic comeback for Lula, who was president for two terms between 2003 and 2010 but then subsequently accused of corruption. He served time in prison before his convictions were annulled.

"From January 2023, I will govern for 215mn Brazilians, not just those who voted for me. We are one people, one country, one great nation," the 77-year-old said in a speech before a crowd in São Paulo that focused on democracy and healing the wounds of the campaign. "We no longer want to fight. We're tired of seeing the other as the enemy," he added.

Lula's win followed a campaign marred by an avalanche of fake news and mudslinging, prompting frequent interventions from the supreme court and top electoral authority, and sparking fears of post-electoral conflict.

In the hours after Bolsonaro's defeat, truckers who backed him blocked highways in 11 of Brazil's 26 states in protest but the incidents appeared isolated and the number of protests reduced during the morning. There was no immediate sign of a co-ordinated attempt to challenge the official election verdict.

Arthur Lira, Speaker of the lower house of Congress and one of the few Bolsonaro allies to comment publicly, said it was "time to disarm the passions and reach out to opponents".

Lula's victory was warmly received by global leaders, who will welcome Brazil's return to multilateralism after the isolation of the Bolsonaro years.

Presidents Joe Biden of the US and Emmanuel Macron of France were among the first to congratulate Lula. Biden said the elections were "free, fair and credible", while Macron said Lula's victory "opens a new page in the history of Brazil".

Russia's Vladimir Putin, a major fertiliser supplier to Brazil, also sent his congratulations.

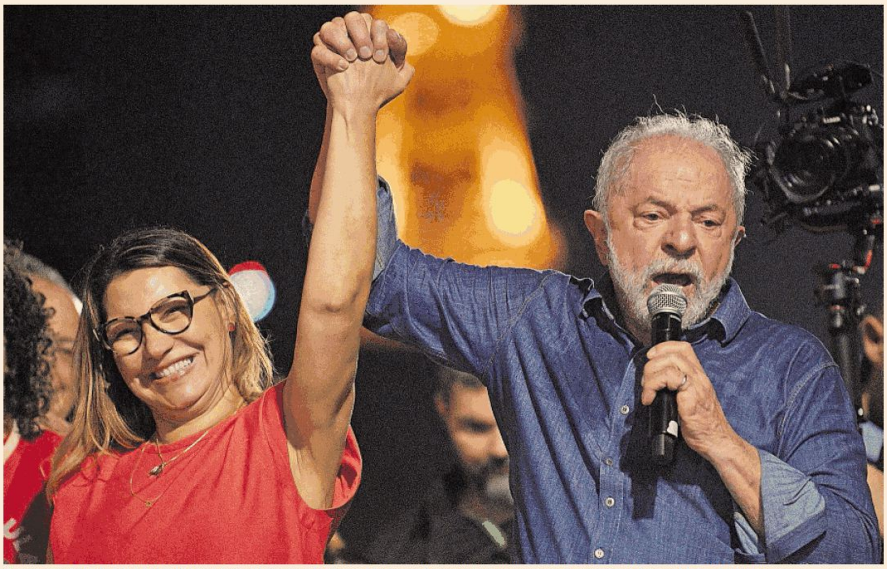
Lula's win will bring to an end to four years of hard-right populism and nationalism under Bolsonaro. It is the latest in a string of races that have turfed out incumbents across Latin America, returning mainly leftwing leaders.

The victory has also raised hopes of an end to illegal deforestation of the Amazon. Lula has pledged to halt it following a surge in destruction of the earth's largest rainforest under Bolsonaro.

"This is the most important election I've taken part in," said Brenda Santos Cunha, a publicist who was celebrating in central São Paulo. "The last few years have been barbaric, it's been maddening. I don't expect Lula's government to be revolutionary but I hope it will provide an ounce of hope."

Lula won 50.9 per cent of the vote versus 49.1 for Bolsonaro after edging ahead in a cliffhanger three-hour count.

He faces huge challenges. Brazil's economy is set to slow sharply next year and government finances have been strained by a pre-election cash splurge from Bolsonaro, who circumvented a cap on spending to try to win the vote.



Luiz Inácio Lula da Silva holds the hand of wife Rosângela 'Janja' da Silva as he speaks to supporters after winning the presidential election — Carl De Souza/AFP/Getty Images

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▸ Lebanon crisis deepens
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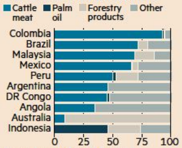
The US is to deploy the bombers in its latest bid to boost military co-operation with Canberra and send a signal to China as tensions mount in the Indo-Pacific.— PAGE 2

Datawatch

Tree lines
% of deforestation attributed to:



Source: Florence Pendrill et al 2019, Environmental Research Letters

Brazil's Luiz Inácio Lula da Silva vowed to preserve the Amazon on his re-election as president. Cattle ranching is responsible for 72 per cent of deforestation in Brazil, which on its own accounts for more than total Indonesian deforestation

Musk orders Twitter staff to work 24/7 on bringing in 'blue tick' subscriber fees

HANNAH MURPHY — SAN FRANCISCO
AND ALISTAIR GRAY — LONDON
JAMES FONTANELLA-KHAN — MILAN

Elon Musk has ordered Twitter staff to work round the clock to introduce a charge on users so they can keep their verified "blue tick".

The renewed focus on subscription revenues comes while Twitter braces itself for a backlash from advertisers as Musk considers loosening moderation controls. The Global Alliance for Responsible Media, a marketing industry group set up by the World Federation of Advertisers, yesterday warned Musk that keeping Twitter free of inappropriate material was "non-negotiable".

Advertising made up more than 90 per cent of Twitter's revenues in its last reported figures as a public company. Before Musk's arrival, efforts were made to persuade users to pay $4.99 a month to subscribe to Twitter Blue, which enables them to access exclusive features, including an edit button.

Musk is said to want to raise the price of Twitter Blue and make it a condition of a verified profile. Hundreds of thousands of users have been verified, including big brands and corporate accounts, as well as celebrities and journalists.

Staff have been working "24/7" to deliver verification, according to two senior employees. One person added that teams were told it was of the "utmost gravity". Twitter did not respond to request for comment.

One person familiar with Musk's thinking before his $44bn purchase of Twitter said several pricing options had been discussed. Technology news site The Verge said Musk was planning to charge $19.99 a month for a Twitter Blue subscription, while the Platformer blog reported it would stay at $4.99 a month.

In a Twitter poll run by Jason Calacanis, a Musk adviser, more than 80 per cent of more than 1.2mn respondents said they would not pay to be verified, while 11 per cent said they would pay $5 a month and 5.5 per cent would pay $15.

One manager at Twitter said the verification model "opens up another vector of abuse for which I highly doubt we will be prepared, given such a timeline".

Garm, which was set up in response to concerns that ads were appearing alongside toxic content on social media, said: "Platforms should be safe for all, and suitable for advertisers. For advertisers, this is non-negotiable — and we expect Twitter to uphold its commitments."

Additional reporting by Cristina Criddle and Arjun Neil Alim in London

Lex page 16

Signs of life for biotechs as investors eye bargains

Analysis ▸ PAGE 7

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	Rupee 350
Philippines	Peso 140
Singapore	S$5.80(inc GST)
Taiwan	NT$140
Thailand	Bht140
Vietnam	US$4.50

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World Markets

STOCK MARKETS

	Oct 31	Prev	%chg
S&P 500	3880.12	3901.06	-0.54
Nasdaq Composite	11000.92	11102.45	-0.91
Dow Jones Ind	32786.93	32861.80	-0.23
FTSEurofirst 300	1630.67	1625.83	0.30
Euro Stoxx 50	3621.21	3613.02	0.23
FTSE 100	7094.53	7047.67	0.66
FTSE All-Share	3876.48	3855.75	0.54
CAC 40	6266.77	6273.05	-0.10
Xetra Dax	13253.74	13243.33	0.08

CURRENCIES

Pair	Oct 31	Prev	Pair	Oct 31	Prev
$/€	0.988	0.995	€/$	1.012	1.005
$/£	1.151	1.159	£/$	0.869	0.863
£/€	0.858	0.858	€/£	1.165	1.165
¥/$	148.635	147.510	¥/€	146.903	146.764
¥/£	171.130	170.986	£ index	78.555	78.186
SFr/€	0.989	0.991	SFr/£	1.152	1.155

CRYPTO

	Oct 31	Prev	%chg
Bitcoin ($)	20427.48	20624.13	-0.95

GOVERNMENT BONDS

Yield (%)	Oct 31	Prev	Chg
US 2 yr	4.47	4.40	0.07
US 10 yr	4.03	3.99	0.04
US 30 yr	4.14	4.12	0.02
UK 2 yr	3.25	3.18	0.06
UK 10 yr	3.51	3.47	0.03
UK 30 yr	3.60	3.56	0.04
JPN 2 yr	-0.07	-0.05	-0.02
JPN 10 yr	0.25	0.24	0.02
JPN 30 yr	1.31	1.43	-0.12

Dubai

Nikkei	27587.46	27105.20	1.78
Hang Seng	14687.02	14863.06	-1.18
MSCI World $	2561.04	2523.59	1.48
MSCI EM $	845.58	859.46	-1.62
MSCI ACWI $	588.95	582.18	1.16
FT Wilshire 2500	5081.20	4964.26	2.36
FT Wilshire 5000	39698.66	38784.56	2.36

Ethereum	1572.05	1590.28	-1.15
COMMODITIES			
	Oct 31	Prev	%chg
Oil WTI $	86.25	87.90	-1.88
Oil Brent $	92.38	93.77	-1.48
Gold $	1648.05	1659.75	-0.70

GER 2 yr	1.93	1.93	0.00
GER 10 yr	2.14	2.10	0.04
GER 30 yr	2.13	2.07	0.06

Prices are latest for edition
Data provided by Morningstar

A Nikkei Company

INTERNATIONAL

Cost of living

Eurozone inflation hits double-digit record

Rising prices and slowing growth create a difficult balancing act for the ECB

MARTIN ARNOLD — FRANKFURT

Eurozone inflation surged to a record high of 10.7 per cent in October, keeping the pressure on the European Central Bank to continue raising interest rates despite a sharp slowdown in growth in the third quarter.

The increase in eurozone consumer prices accelerated from 9.9 per cent in September, which was already the highest in the 23-year history of the euro.

The latest high, reported by the European Commission's statistics arm Eurostat, also outstripped the 10.2 per cent expected by economists polled by Reuters. It was the 12th consecutive month that inflation had set a record high in the eurozone, taking it to more than five times the ECB's 2 per cent target.

Claus Vistesen, an economist at Pantheon Macroeconomics, said the latest inflation figures were "a proper Halloween nightmare for the ECB".

Real interest rates in the region remain deep in negative territory. The central bank raised its nominal policy rate by 0.75 percentage points last week to 1.5 per cent to tackle "far too high" inflation and said more increases were likely, despite signs that the euro area is on the verge of a recession.

Gross domestic product figures published yesterday by Eurostat confirmed eurozone growth slowed in the third quarter, rising 0.2 per cent from the previous quarter. The figure was in line with expectations but marked a slowdown from growth of 0.8 per cent in the previous quarter. Growth accelerated slightly in Germany but France, Italy and Spain reported sharp slowdowns.

Ken Wattret, head of European analysis and insights at S&P Global Market Intelligence, predicted that the "energy-related constraints on economic activity during the winter" would cause a "short but sharp recession", with euro area GDP shrinking 1 percentage point between the final three months of this year and the first quarter of next year.

Investors interpreted ECB president Christine Lagarde's comments last Thursday that it had made "substantial progress" in tightening monetary policy and a recession was "looming much more on the horizon" as indications that the central bank could soon start to slow the pace of rate rises.

However, since then the ECB has sought to distance itself from the idea it was nearing a "dovish pivot" and Lagarde told Irish broadcaster RTE's *The Late Late Show* on Friday evening that "defeating inflation is our mantra, our mission, our mandate".

Yesterday's stronger than expected rise in inflation, despite a sharp fall in wholesale energy prices, is likely to make it harder for the ECB to slow or stop monetary policy tightening soon.

Klaas Knot, head of the Dutch central bank, who sits on the ECB's rate-setting governing council, told Dutch TV show *Buitenhof* on Sunday that it was "possible" it could raise rates by 0.75 percentage points for a third consecutive time in December, despite a recession "becoming more and more likely".

Megan Greene see Opinion

India bridge
Collapse kills at least 132

Rescuers search for survivors in India's Machchhu river yesterday after a bridge collapsed on Sunday night, plunging hundreds of people into the water and killing at least 132.

Authorities in Gujarat, the home state of Prime Minister Narendra Modi, launched a criminal investigation into the collapse. The colonial-era bridge had reopened less than a week earlier, after being renovated by a private company.

Local media reported that four employees of Oreva, the company that maintained and operated the bridge, were among a handful of arrests. Oreva could not be reached for comment.

Hundreds of visitors had descended on the bridge during the Diwali holiday when it collapsed.
Chloe Cornish, Mumbai


Ajit Solanki/AP

Midterms. **Campaign tactics**

Republican focus on migration struggles to resonate

Strategy has appeal in states near border but less traction elsewhere as elections loom

KIRAN STACEY — WASHINGTON

Republican attempts to push immigration to the forefront of the US midterm election campaign are faltering on a national level, new polling shows, but could help seal victory for a handful of their highest-profile candidates.

Figures published yesterday by the pollster Gallup showed voters rank the issue as only fifth in their list of priorities for the November 8 elections, even as migrant apprehensions at the southern border reach record levels.

But separate polling from the Siena College Research Institute suggested immigration is far more prominent an issue for voters in states such as Florida and Texas. Ron DeSantis and Greg Abbott, the incumbent Republican governors of those states, have both been given a boost by their aggressive moves to transport migrants into liberal states.

The Republican focus on immigration is part of a broader push from both parties to energise their core voters before what is set to be a tightly fought election. While Republicans are talking about immigration and crime as the campaign enters its final stretch, Democrats are focusing on women's reproductive rights in the wake of the repeal of Roe vs Wade, that enshrined abortion rights.

Jeff Jones, a pollster at Gallup, said: "What we are seeing more and more with each election is that it is not about trying to change people's minds, it is about getting the base out. Immigration is a good issue to motivate the Republican base."

Don Levy, director of the Siena College Research Institute, said: "How important an issue immigration is for you depends a great deal on where you are. In Florida and Texas it is front and centre of Republicans' minds, and is also a big issue for independents."

In recent weeks, Republicans across the country have focused their campaigns heavily on the twin issues of crime and immigration, often attempting to tie them together in voters' minds.

Citizens for Sanity, a non-profit group run by three former Trump administration officials, has bought $33mn worth of television adverts focusing on the issues, according to AdImpact. The adverts, which are playing in swing states such as Nevada, Arizona and Pennsylvania, warn of "drug dealers and sex traffickers roaming free" as a result of what they say is the Biden administration's "open border policy".

> 'How important an issue immigration is for you depends a great deal on where you are'

Meanwhile, several Republican governors have made political capital out of their eye-catching moves to send immigrants in buses and planes out of their states and into more liberal areas.

DeSantis triggered outrage when he transported a group of immigrants from Texas via Florida to Martha's Vineyard, the holiday destination favoured by many well-off liberal north-easterners. But polling by Siena College shows the transportations have been popular with Republicans and independent voters in both Texas and Florida.

The moves were seen as so politically effective that even Republican candidates in states far away from the border are promising something similar. Doug Mastriano, the Trump ally who is running to be governor of Pennsylvania, said last week that if he won his race he would transport undocumented immigrants across state lines.

Republicans were given further fuel last week when figures from Customs and Border Protection showed that officers had apprehended more than 227,000 people at the southern border in September. That was 19 per cent higher than the same time last year.

Under pressure, the Biden administration has felt compelled to act. Earlier this month, the Department of Homeland Security announced in a dramatic U-turn that it was expanding the use of Title 42, which allows border guards to turn back asylum seekers on public health grounds, so that it now applies to Venezuelans as well.

National polling suggests the focus on the issue from both sides has made little impact nationally.

Data published yesterday by Gallup showed 37 per cent of voters ranked immigration as "extremely important" in deciding their vote, putting the issue behind the economy, abortion, crime and gun policy.

That makes it roughly as important as it always is at this stage of the electoral cycle. In 2018, 40 per cent of voters ranked it as "extremely important". Four years earlier, that figure was 31 per cent, and in 2010 it was 38 per cent.

Carroll Doherty, director of political research at the Pew Research Center, said: "Immigration is generally a second-order concern for most voters heading into an election. One difference this time, however, is that the partisan gap is as wide as we have ever seen it; Republicans care far more about this than Democrats."

Regional tension

US to deploy B-52 bombers to Australia in strengthening of defence ties

DEMETRI SEVASTOPULO — WASHINGTON
NIC FILDES — SYDNEY

The US plans to deploy B-52 bombers to Australia, in Washington's latest effort to boost military co-operation with Canberra and send a strong signal to China as tensions mount in the Indo-Pacific.

The Pentagon will deploy the B-52s, which carry nuclear or conventional weapons, to Australia's Northern Territory as part of rotational bomber task forces that conduct exercises with allies. They will be sent to Tindal air force base for short missions, according to a person familiar with the situation.

The US has deployed B-52s to Australia before. In 2018, two of the bombers conducted exercises with Australian forces in Darwin. But sending as many as six of the aircraft would mark a big increase and comes as the US and Australia seek to work more closely together to counter Chinese activity, particularly near Taiwan.

"The US Air Force has been rotating bombers through Australia for years . . . so this is not new, but a total of six bombers does appear like a significant enhancement to previous deployments and is likely to draw the attention of both regional allies and Beijing," said Eric Sayers, of the American Enterprise Institute think-tank.

"It hints at a future where bomber and tanker rotations will become a regular occurrence or even a permanent presence one day."

In July, the US sent four nuclear-capable B-2 Spirit stealth bombers to Amberley air force base near Brisbane, in another deployment that was partly aimed at sending a deterrence message to China. Another B-2 flew to Amberley in March while Admiral John Aquilino, head of US Indo-Pacific command, was on a week-long visit to the country.

Australia has forged closer military ties with the US over the past decade as tensions with China have risen. Last year, the US, Australia and UK signed "Aukus", a trilateral deal that will provide nuclear-propelled submarines for Australia and boost military research and development.

It is unclear when the US will begin the B-52 deployments. The move comes as the Pentagon debates how to deter China and how to strike the right balance between stationing aircraft in the region and sending them to countries on shorter rotational deployments.

The Financial Times reported last week that the US would start a two-year process to remove four dozen ageing F-15 fighter jets stationed on the Japanese island of Okinawa. The air force will temporarily replace the jets with more advanced F-22 fighters.

The US said its commitment to regional deterrence and the defence of Japan was "ironclad" and that it would maintain a "steady state presence" in Okinawa. But it had not established a long-term solution to replacing the F-15s, which some critics have argued weakens US deterrence.

Australia did not comment on the B-52 deployment. The Pentagon referred questions to the US Air Force, which did not respond to a request for comment on the development, which was first reported by ABC News.

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Former president

Trump companies accused of 'greed and cheating' in tax trial

JOE MILLER — NEW YORK

Manhattan prosecutors alleged two companies owned by Donald Trump engaged in "clear and straightforward" tax fraud as a criminal trial began in New York yesterday.

authorities in August. As part of his plea deal, he agreed to take the stand in the criminal case against his former employer, in exchange for a promised sentence of just five months in jail and a fine of almost $2mn.

Susan Necheles, who is defending one

Anti-aircraft shells

German anger at Swiss veto over arms supplies to Ukraine

SAM JONES — BERLIN

German politicians have called for an end to arms deals with Switzerland as a political dispute deepens over Bern's refusal to allow arms to be shipped to Ukraine.

The Swiss government, as part of the original sales contract with Germany, has a veto over the munitions' resale or donation. Politicians in the wealthy alpine state believe that sending them to Ukraine would jeopardise its neutrality. Switzerland refused a request from

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Susan Hoffinger, executive assistant district attorney in the Manhattan prosecutor's office, described the case to jurors during opening arguments as a story of "greed and cheating" and said the evidence would show a crime that was orchestrated "at the highest levels" of the former president's businesses.

The Trump Organization's legal entities were charged by the Manhattan district attorney last summer with what prosecutors described as a 15-year scheme in which the businesses allegedly compensated senior executives with perks such as luxury cars, rent and school fees that were hidden from authorities.

The group's former chief financial officer, Allen Weisselberg, 75, pleaded guilty to hiding $1.76mn from tax

of the Trump businesses, argued yesterday that the former executive had acted alone, and was individually responsible for the tax filings that failed to list his and others' full income. "Donald Trump did not know that Allen Weisselberg was cheating on Allen Weisselberg's personal tax return," she said.

Necheles also warned jurors against making the case a "referendum on president Trump himself" or his administration's policies.

Neither Trump nor his children have been charged in the case, but a guilty verdict would add to the former president's mounting legal woes and could dissuade creditors from doing business with his organisations. The companies could also be forced to pay fines up to $1.7mn.

Swiss lawmakers responded yesterday with accusations that Germany "no longer respects" Switzerland's political neutrality. The issue has become more urgent since Russia escalated an aerial campaign targeting Ukraine's infrastructure and as Kyiv's weapon stocks have dwindled, German officials said.

German defence minister Christine Lambrecht wrote to the Swiss government 10 days ago, urging it to lift a re-export veto on anti-aircraft shells for German-made "Cheetah" flak guns that Berlin has donated to Kyiv. Bern first refused a request by Berlin to lift the veto in April. Germany wants to send 12,000 Swiss-made 35mm rounds that were bought by Berlin decades ago to restock the 50 Cheetah flak cannons it has pledged to Ukraine.

Denmark for the re-export of two dozen Swiss-made "Piranha" armoured personnel carriers to Ukraine in May.

The German government has been struggling to find more shells to send to Kyiv. Brazil, which makes suitable munitions for the Cheetah guns, has also refused to allow their re-export.

"Anyone who does not deliver munition to an attacked state for national defence can no longer be a reliable supplier of ammunition for us either," wrote Marcus Faber, head of the liberal Free Democratic party's parliamentary defence group on Twitter on Sunday.

Roderich Kiesewetter of the opposition conservative Christian Democrats told the Frankfurter Allgemeine newspaper yesterday he would also support an end to Swiss weapons purchases.

Russia and Ukraine prepare for rigours of winter

Extreme cold will affect both sides but Kyiv hopes local support will outweigh Moscow's attacks on the energy grid

JOHN PAUL RATHBONE — LONDON
CHRISTOPHER MILLER — KYIV
MAX SEDDON — RIGA

Winter has played a major role in Russian and Ukrainian military history. It was decisive in their victories over Napoleon and Nazi Germany, and in what Kyiv-born writer Mikhail Bulgakov called that "great and terrible year" of 1918, when "the snowstorm from the north howled and howled" and Ukraine was beginning its war of independence.

The weather is set to be a critical factor again as the fighting between Ukrainian and Russian forces enters its ninth month, say security officials and military experts.

Keeping warm in a country where winter temperatures can drop as low as minus 30C is not the only consideration. At such extremes, equipment becomes harder to operate, booby traps can be hidden under snow, more fuel is needed for generators, supplies must move at night because there is less field cover, and navigation systems for some drones ice over. Even bullets are slower because cold air is denser than warm.

While freezing temperatures did not stop Russian president Vladimir Putin's full-scale invasion of Ukraine on February 24, that came as winter was ending.

"Weather has an impact on any kind of activity, including military," said Oleksiy Melnyk, a former Ukraine air force lieutenant-colonel, now co-director of the Razumkov Centre think-tank in Kyiv. "It will have an impact on both sides."

However, the combatants will be affected very differently, according to military experts. Putin is betting that the waves of missile and drone attacks that Moscow launched this month, which have destroyed 40 per cent of Ukraine's energy infrastructure, will demoralise Ukrainian civilians and sap Kyiv's ability to support its troops.

> 'Weather has an impact on any . . . activity, including military. It will have an impact on both sides'

Kyiv residents were told on Thursday to prepare for longer and more frequent blackouts, while Ukrainian refugees have been told not to return to the country this winter to ease strains on the energy system.

"The networks will not cope," warned deputy prime minister Iryna Vereshchuk. "We need to survive the winter."

A second strand of Putin's strategy is that the cold typically slows the tempo of military operations. That will help Russia sustain its defences and hold captured territory — an approach analysts say is central to the thinking of General Sergei Surovikin, recently appointed Russia's commander in Ukraine.

"In winter, you need more logistics to support people because it's colder and darker. You need more fuel. All this adds to frictions that slow operations, which tend to favour defence," said Anthony King, professor of war studies at Warwick university.

However, Ukraine has other advantages that may prove more decisive, especially when it comes to keeping troops supplied and warm. Canada is providing Ukraine with half a million winter uniforms, while a Nato summit this month focused on how to support Ukraine through the colder months.

Digging in: Ukraine troops prepare their trench last week on the front line in Donetsk
Dimitar Dilkoff/AFP/Getty

> 'The Russians expect the winter season will help them, at least in the energy war . . . But Ukrainian soldiers will be much better off'

"The Russians expect the winter season will help them, at least in the energy war . . . But Ukrainian soldiers will be much better off," said Melnyk, partly because they can rely on material support from local populations. He cited a recent visit to a detachment near Kyiv, where he saw "locals helping provide [clean laundry], making sure [the soldiers] had food and bringing them whatever they needed".

Special forces officer Taras Berezovets, who is deployed in the frontline city of Bakhmut in eastern Ukraine, said: "We have a lot of stuff from volunteers. We have gas stored up. We have autonomous sources of power . . . The command was: get prepared."

Russian troops do not enjoy the same level of support in newly occupied areas. Many of the tens of thousands of recently mobilised soldiers Moscow is rushing to Ukraine's 1,100km front line also lack basic equipment.

In one video on Russian news outlet Astra, recruits complained they had been sent to Ukraine's Zaporizhzhia region without adequate supplies. "We're in enemy territory and we don't have a single cartridge," one man said.

"I get lots of messages from the training camps where they're sending the recruits," said Pavel Gubarev, a former separatist leader in Donetsk, one of four Russia-controlled Ukrainian regions that Putin annexed in September. "There's no military training and the conditions are dire."

After Putin last week held the first meeting of a new government council charged with ensuring military supplies, the Kremlin said "problems with equipment continue to exist".

The biggest unknown is the severity of the coming winter, say security officials and military experts, and whether the temperature drops to zero with lots of rain and mud, or to minus 10C when everything freezes.

A warm winter would blunt Putin's energy war, while muddy fields require heavy supply trucks to stick to paved roads to avoid becoming stuck. That would play to Ukrainians' ability to pick off Russian supply lines and logistics.

Mykola Bielieskov, analyst at Ukraine's National Institute for Strategic Studies, said Kyiv's forces could use their "battlefield precision-guided munitions advantage to [wear down] Russian forces".

But mud would also limit Ukraine's ability to mount counteroffensives. Defence minister Oleksii Reznikov said last week that heavy rain and rough terrain were making Kyiv's attempt to retake the city of Kherson harder.

By contrast, "a deep freeze will make it possible to move [across] fields and theoretically open a way to offensives", Bielieskov said. He added that sustaining morale through winter was the most important task for both sides. "There's a real possibility that Russian forces in the field might cross a point of no return if they're not properly sustained."

Gideon Rachman see Opinion

Food exports

Kyiv resumes grain shipments despite Black Sea deal collapse

FT REPORTERS

Ukraine said 12 ships carrying grain left its Black Sea ports yesterday, despite Russia's withdrawal from a UN-backed

such a deal is hardly feasible, and it takes on a different character: much more risky, dangerous and unguaranteed," Interfax news agency quoted him as saying.

deal that allowed the passage of millions of tonnes of grain during Moscow's full-scale invasion.

The UN and Turkey, which brokered the so-called Black Sea Grain Initiative in July, approved the resumption of shipments, which had stopped on Sunday. Russia's decision on Saturday shook global markets, pushing up wheat prices.

Oleksander Kubrakov, Ukraine's infrastructure minister, said yesterday that "12 vessels left Ukrainian ports" and four more were heading towards Ukraine's coast for loading.

"The UN and Turkish delegations provide 10 inspection teams to inspect 40 vessels aiming to fulfil the Black Sea Grain Initiative. This inspection plan has been accepted by the Ukrainian delegation. The Russian delegation has been informed," he wrote on Twitter.

It is not clear how Russia will respond to yesterday's shipments. Dmitry Peskov, Russian president Vladimir Putin's spokesman, has questioned the feasibility of maritime Ukrainian grain exports without Russia's backing.

"In conditions when Russia talks about the impossibility of guaranteeing the safety of navigation in these areas,

Without making clear whether Russia would try to stop such shipments, he said "contacts continue with the Turkish side, as well as with the UN through the diplomatic and other departments".

Insurers at Lloyd's of London providing cover for grain and other foods shipped out of Ukraine under the Black Sea agreement said they would pause quoting on new shipments until a new deal could be agreed.

Chris McGill, head of marine cargo underwriting at insurer Ascot, said insurance that had already been issued still stood. He added: "We're hopeful negotiations will be successful and we can recommence quoting."

Russia announced on Saturday its decision to suspend participation in the agreement, which involved joint inspections of vessels in Istanbul, after what it claimed was a Ukrainian strike on its navy in Sevastopol, in Crimea.

Wheat futures on the Chicago Board of Trade rose as much as 7.7 per cent yesterday morning and were later trading up 5.7 per cent at $8.29 a bushel.

Roman Olearchyk in Kyiv, Emiko Terazono in London, Ayla Jean Yackley in Istanbul

See Lex

Head of state

Lebanon crisis spreads to presidency

Aoun's 6-year spell ends but politicians unable to choose a successor

RAYA JALABI — BEIRUT

Lebanon president Michel Aoun's six-year term ended yesterday with the country's fractious political class unable to agree on a successor, creating a vacuum that risks plunging the failing state into more chaos.

Aoun's exit means Lebanon, which is enduring its worst economic crisis in decades, is in the unprecedented situation of being run by a caretaker government and having no head of state. This has raised fears of a constitutional crisis amid a lack of clarity over the powers of the interim administration. The void in the presidency came after lawmakers failed to agree on a new president four times this year.

A candidate must secure the support of at least two-thirds of MPs to be successful. Under Lebanon's confessional political system, the presidency is reserved for a Maronite Christian.

Lebanon has also been without a functioning government since parliamentary elections in May as rival political factions have been unable to agree on the composition of a cabinet.

The turmoil has delayed reforms that are necessary to finalise a deal with the IMF to unlock a $3bn loan deemed critical to easing Lebanon's economic woes.

"Lebanon is a boat that's sinking and no one is at the helm," said Sami Atallah, the founding director of Beirut-based The Policy Initiative. "This is about the usual wrangling over who gets the bigger piece of the pie." Atallah said it could take weeks or months before Aoun's successor is agreed on.

Aoun, who is an ally of Hizbollah, the Iran-backed militant group, took office in 2016 amid another period of political turmoil during which Lebanon went 29 months without a president.

Today, Lebanon is enduring what the World Bank describes as one of the world's worst economic crises in 150 years.

Since 2019, bank depositors have been locked out of their savings, and the currency has lost more than 95 per cent of its value, impoverishing broad swaths of the population.

'Lebanon is a boat that's sinking and no one is at the helm'

Sami Atallah, The Policy Initiative

Many Lebanese, including civil servants, are living on salaries worth $50 a month or less. Thousands of others have fled the country.

"There's a real concern that we're going to end up with no IMF programme, which only benefits the political players who've blocked reforms," said Diana Menhem, managing director of Kulluna Irada, an advocacy group.

She said that after Beirut struck a maritime border deal with Israel last month, "increasingly you have key political players saying we can do without the IMF because we have oil and gas revenues coming soon".

She added: "The only battle that remains is holding political players accountable."

Comeback. Election

Win is Lula's latest triumph over adversity

Charisma and record fighting hunger and poverty are secrets of political appeal

MICHAEL STOTT — RIO DE JANEIRO

Luiz Inácio Lula da Silva's journey from a jail cell four years ago to winning the highest office in Brazil for a third time is a political comeback story like few others.

Yet the one-time trade union leader's success in Sunday's presidential election, defeating bitter rival Jair Bolsonaro, is only the latest victory in a lifetime of triumph over adversity, which has made him one of the world's most famous political names.

Born to tenant farmers in the poor north-east of Brazil, Lula spent his early years in a two-room shack with no electricity or running water before embarking aged seven with his mother and six siblings on a two-week journey south by truck in search of a better life.

Decades later, he would draw on those hard lessons to explain his economic thinking. "I learned when I was still very young from my illiterate mother that I couldn't spend more than I earned," Lula, 77, told the Financial Times in an interview this year, while outlining why he could be trusted with the nation's finances. "I don't need any economists to tell me about [fiscal] responsibility."

Lula's personal story, his charisma and his record fighting hunger and poverty are the secrets of his political appeal in Brazil and abroad, despite controversies over corruption and economic mismanagement during the governments led by his Workers' party (PT).

Perhaps best known for channelling the windfall profits from a commodity boom into social programmes during his 2003-10 presidencies, Lula's signature welfare programme Bolsa Família transformed the lives of millions of Brazilians.

"The Bolsa Família programme, which took 40mn people out of poverty, was a revolution," said Fernando Morais, Lula's biographer and a political ally. "He managed to get 40mn people, four times the population of Portugal, to eat every day."

Celebrations: supporters in Rio de Janeiro hail victory by Luiz Inácio Lula da Silva

Fernando Souza/dpa

In those days, Lula strode the interna- heading a coalition of like-minded leftwing South American leaders.

Few would argue with the life experience of a head of state whose first job was shining shoes and who never finished secondary school. Lula trained as a metalworker in the rapidly industrialising towns around São Paulo in the 1960s before embarking on a career as a union activist, where he clashed with Brazil's military dictatorship over wage rises and was briefly imprisoned.

In 1980 he helped found the PT, Brazil's main leftwing party, and after three unsuccessful attempts, finally won the presidency in 2002.

When Lula ended his second term in 2010, with an approval rating of 87 per cent and the economy growing more than 7 per cent a year, then-US president Barack Obama described him as "the most popular politician on earth".

A few years later, Brazil plunged into recession under Lula's handpicked successor, Dilma Rousseff. The ex-president and several close aides were implicated in a corruption scandal centred on

Lula was convicted, beginning a 12-year prison sentence in 2018, with supporters staging a round-the-clock vigil outside.

Despite starting the 2018 presidential election as the clear favourite, Lula had to watch from his jail cell as Bolsonaro won the election. But less than 11 months after Bolsonaro was sworn in, Lula was released pending appeal. Last year, the Supreme Court annulled his convictions. Lula vowed to fight the 2022 vote and win back the presidency, showing the fighting spirit that has characterised his life.

Lula's gravelly voice is the result of cancer of the larynx more than a decade ago, and he has overcome personal tragedies. His first wife died while pregnant along with his first son, and his second wife succumbed to a stroke in 2017. A life-long Catholic, he remarried this year and has five children from his previous relationships. Although he has cobbled together a broad coalition with the centre and centre-right to win Sunday's election, Lula remains a candid in private that they only did so to stop Bolsonaro, not because they believed in Lula's policies. A section of the electorate remains unconvinced that Lula is innocent of corruption and thinks he should not be running at all.

Lula finds it easier to convince doubters when he talks about the environment, referencing his record in government to reduce deforestation.

His foreign policy thinking will be more controversial in the west. Lula has suggested Ukraine and Nato are partly responsible for the war with Russia, has defended Cuba's one-party regime and wants good relations with China.

Above all, he favours negotiation over confrontation. Lula remains one of the few global politicians to command respect from nations as diverse as the US, Russia, China and Germany.

"If I win the elections and this war is still going on, you can be certain that I am going to talk to the Europeans, the Americans, the Chinese and the Russians," he said. "Someone has to start talking about peace in this world."

GLOBAL INSIGHT

SOUTH AMERICA

Michael Stott

Leftist leader returns to tougher task in very different Brazil

Rather than a triumphant, sweeping comeback, Luiz Inácio Lula da Silva's victory in the Brazilian presidential election on Sunday was a tense, slow grind. Governing promises to be harder.

As the electronic vote count proceeded over three hours, it soon became clear there would be no repeat of the landslide victories Lula enjoyed in 2002 and 2006. His victory this time, over Jair Bolsonaro, the hard-right incumbent, was eked out painstakingly. Just 1.8 percentage points separated the two men by the end.

Had it not been for a series of blunders by Bolsonaro and his supporters in the final days of the campaign, including one incident in which an ally was videoed brandishing a pistol through São Paulo in pursuit of a black man, the forces of the nationalist right might have triumphed.

The result was a reminder of how profoundly Brazil has changed, not just in the four years under Bolsonaro, nicknamed "tropical Trump", but over the past two decades. The astonishing rise of evangelical churches is one element; their flock includes almost one in three Brazilians.

The lobbying clout of agribusiness, which accounts for nearly 30 per cent of gross domestic product, is another. Both are drivers of social conservatism and small-state capitalism. Neither will go away under a Lula government.

Lula, 77, a leftwing former union leader, will need to summon up all his skills as a conciliator to unite a deeply divided nation. His unwieldy coalition includes centre-right figures who were bitter opponents before they decided that Lula represented the lesser of two evils.

As one banker put it last week: "We will get Lula elected in order to stop Bolsonaro. Then, on day one of his government, we go into opposition."

'It will be an enormous challenge to hold [coalition] together to pass legislation'

Matias Spektor, professor of international relations at the Getulio Vargas Foundation, a higher education institution, said Lula was elected on a "promise to boost public spending but he won't be able to" for lack of funds. "And he won't have a majority in Congress. His coalition is ideologically broad and it will be an enormous challenge to hold it together to pass legislation."

In a reminder of the strength of the conservative movement, Tarcísio Gomes de Freitas, Bolsonaro's former infrastructure minister, won a convincing victory in the governor's race in São Paulo, Brazil's biggest state. Allies of Bolsonaro, 67, now run the top three states and make up the largest party in the Senate and lower house.

"Lula will have a tough time in view of the consolidation of the far right in Congress, and in . . . São Paulo," said Monica de Bolle, senior fellow at the Peterson Institute for International Economics, a think-tank in Washington. "His challenges are massive."

Bolsonaro's future is unclear. If he accepts defeat he may return to fight the 2026 presidential election and his sons, Flávio and Eduardo, are important figures in Congress.

US president Joe Biden and French counterpart Emmanuel Macron, who have criticised Bolsonaro for allowing Amazon deforestation to soar, were quick to congratulate Lula, who has pledged zero deforestation and new protection for indigenous land.

But this task is likely to prove much harder now than in Lula's first two terms, when he reduced Amazon destruction by about two-thirds. Bolsonaro has gutted the agencies responsible for environmental enforcement, slashing budgets and appointing allies to run them. Loggers, landgrabbers and ranchers have been emboldened to carve out tens of thousands of hectares of agricultural land while illegal miners have operated on an industrial scale.

"The machinery of the state is a mess and it will need to be rebuilt," said Miguel Corrêa do Lago, a Brazilian political scientist at Columbia University. "There is already a fiscal black hole because of Bolsonaro's election welfare programme and Lula will face a very organised opposition in Congress. On the positive side, the Amazon will be central for him and a priority for his government. This could tional stage, winning the attention of political figures as diverse as Tony Blair, Fidel Castro and Vladimir Putin and

more than $2bn in bribes paid by state-run oil company Petrobras to business people and politicians.

deeply polarising figure for Brazilians.

Many establishment figures who backed him in Sunday's election were

Additional reporting by Bryan Harris in São Paulo

See The FT View and Lex

attract a lot of money to Brazil."

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Electric vehicles

Jakarta eyes Opec-style cartel for battery metals

HARRY DEMPSEY — LONDON
MERCEDES RUEHL — SINGAPORE

Indonesia is considering the creation of an Opec-like cartel for nickel and other battery metals, highlighting the geopolitical confidence of nations rich in resources needed to make electric cars.

Bahlil Lahadalia, the country's investment minister, said that Jakarta was looking at mechanisms like those used by Opec, the group of 13 oil-producing nations, that could be employed in the supply of metals central to the energy transition.

"I do see the merit of creating Opec to manage the governance of oil trade to ensure predictability for potential investors and consumers," he said. "Indonesia is studying the possibility to form a similar governance structure with regard to the minerals we have, including nickel, cobalt and manganese."

Indonesia is the world's largest nickel producer, generating 38 per cent of global refined supply, according to consultancy CRU. It holds a quarter of the world's reserves of the metal.

Asked whether it had contacted other large nickel producers about the cartel idea, the investment ministry said it was still formulating a structure it could propose.

Any attempt to form a cartel to control global prices for nickel would be far from straightforward. Russia supplies a fifth of the high-purity nickel that is used in batteries, while Canada and Australia are also big producers. However, Indonesia is expected to be the biggest source of growth in the years ahead.

> Indonesia is the world's largest nickel producer, generating 38 per cent of global refined supply

One complication is that Indonesia relies on foreign companies such as China's Tsingshan, the world's largest stainless steel producer, and Brazil's Vale, to extract nickel. Among powerful Opec nations, such as Saudi Arabia, oil production is dominated by state companies.

Indonesia was an original Opec member nation but suspended its membership over concerns about the impact of high oil prices on its economy and the effect of the cartel's production cuts on its government finances. Indonesia became a net importer of oil in 2004.

The country's capabilities to supply battery-grade nickel are also still nascent. Much of its output is lower purity material used in stainless steel, and further processing facilities to turn it into battery material are needed. It has banned nickel ore exports since 2020 in a bid to grow a domestic processing industry.

Despite Indonesia's mineral richness, its role in supplying western automakers with nickel is under threat from the fact that swaths of production are Chinese-owned and carbon-intensive because of reliance on coal-fired power generation.

Government data show that China doubled investment in the country in the first half of 2022 to $3.6bn, compared with the same period a year earlier, led by nickel smelter construction.

See Companies and Markets

Narcotics

Drug prices rise in Afghanistan after trade ban

BENJAMIN PARKIN — NEW DELHI

The price of illegal drugs has soared in Afghanistan since the Taliban outlawed the trade, according to new data, despite limited evidence the Islamist militants are enforcing the ban.

Opium prices within Afghanistan have risen more than 50 per cent since the Taliban announced the ban in April, while prices for methamphetamines have also risen, according to data gathered from across the country by UK-based Alcis, which conducts satellite imagery research for governments and non-governmental organisations.

The price surge comes after the Taliban formally outlawed the trade following a 20-year insurgency in which the group profited from drug smuggling. Afghanistan is the world's biggest opium and heroin producer, while crystal meth manufacturing has also taken off in recent years.

Analysts say that although the ban is seemingly not yet widely enforced, prices are rising over the threat of a crackdown and subsequent shortages.

Alcis's satellite imagery shows that authorities appear to have cracked down on at least some of the meth trade by closing a number of labs and markets, fuelling higher prices.

But with only days to go until the new opium poppy planting season, it is unclear to what extent local Taliban commanders intend or are even able to enforce the ban on the more widespread opioid — an issue that analysts say may define the future of both the regime and of global narcotics supply.

The degree to which the Taliban will follow through on the opium growing ban is unclear

Observers say that failure to follow through will cement the status of the Islamist group, notorious for their hardline restrictions on women's freedom, as international pariahs. But targeting the trade, in a largely agricultural country where poppies are the main cash crop, risks provoking a severe domestic backlash. A historic economic collapse since the Taliban took over has led to widespread joblessness and poverty.

"The things that people used to survive on in the face of a drugs ban — in terms of joining the [army], working in the cities in construction — those options are gone," David Mansfield, a researcher on the report and expert on Afghanistan's drugs trade, said. "Do local Taliban . . . press on this and risk increasing a humanitarian crisis, alienating a population, or do they let it ride because of the fear of resistance?"

Following the abrupt announcement of the ban, the Taliban subsequently added a two-month "grace period", ostensibly to allow poppy farmers time to find alternatives. But Alcis says authorities so far appear to have left the huge heroin trade mostly unhindered, with vast poppy fields still cultivated.

The Taliban successfully restricted poppy cultivation during their previous rule in 2000.

Opium production took off again after the US-led invasion in 2001, with land under cultivation nearly tripling despite billions of dollars in internationally backed eradication efforts.

Crypto territory Hong Kong at variance with Beijing as it takes steps towards legalising retail trading of digital assets ● MARKETS

Companies & Markets

Zuckerberg's spending push on metaverse irks investors

- Frustration over supervoting rights
- Losses to rise at Meta's Reality Labs

RICHARD WATERS AND HARRIET AGNEW

Some of Meta's biggest investors have lined up to vent their anger at the group's management after it stunned Wall Street with plans to ramp up its lossmaking push to build the metaverse.

Even after a fall that has wiped 74 per cent from Meta's stock price in little over a year, investors and boardroom experts said there was little outsiders could do to stop chief executive Mark Zuckerberg from using his majority control to plough ahead with a bet that has lost the confidence of Wall Street.

Meta fell 25 per cent last Thursday after the company revealed that losses from Reality Labs, its unit that is building the metaverse, would grow "significantly" in 2023, after reaching $9.4bn in the first nine months of this year.

> 'If this was any other CEO who had only a 1% stake, he'd probably be gone'
> Steve Diamond, governance expert

Investors were startled by another rise in capital spending that Meta said would consume as much as $39bn next year, more than double the level of 2021.

"If any other company had done this, you'd have activist investors writing letters, proposing alternative slates of directors, demanding change," said Jim Tierney, chief investment officer for US growth at AllianceBernstein, a Meta shareholder.

The anger has spilled over into meetings with managers, some of which Zuckerberg has attended. "It does seem like there's a sense of frustration" over ballooning costs, said a person familiar with the discussions. Referring to informal follow-up calls with investors after the group announced its earnings, Tierney said: "When people had callbacks with the company, they got more disgusted, not less disgusted."

David Older, head of equities at Carmignac, which has holdings in Amazon, Microsoft and Google but not Meta, said: "Zuckerberg was tone-deaf to the investment community, doubling down on everything. The timeline for the metaverse is very stretched. I don't think you're going to know if it is the right move for five or 10 years."

Meta said: "We value the opinions of our investors and regularly engage with them to ensure we're aware of their respective perspectives."

Zuckerberg owns 13 per cent of the equity in the company but controls 54.4 per cent of the votes through a special class of shares.

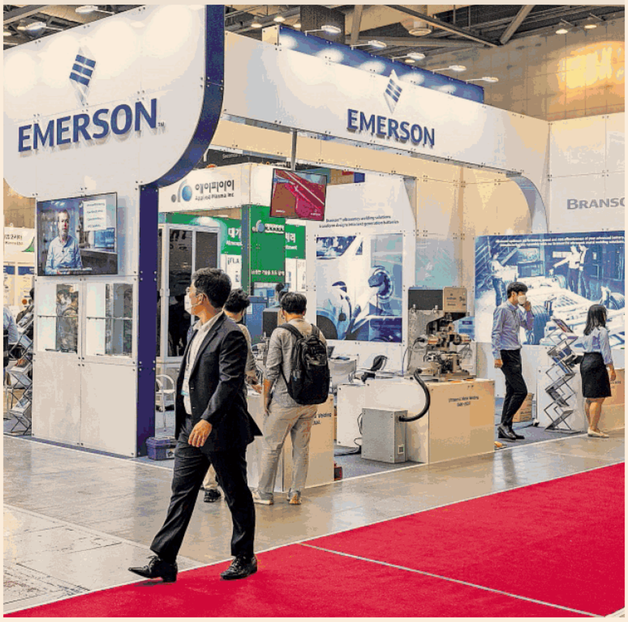
Frustration at Zuckerberg's personal control over Meta has crept up as the company has found itself at the centre of controversies over misinformation and privacy, at the same time as it has been betting big on the metaverse.

A shareholder proposal to scrap the supervoting shares received 28 per cent of votes at Meta's annual shareholder meeting earlier this year, despite Zuckerberg's majority stake. That was up from the 17 per cent support a similar proposal received in 2014.

Legally, Meta's directors had a responsibility to represent all shareholders, even if the chief executive controlled who was elected to the board, said Steve Diamond, a corporate governance expert at Santa Clara University School of Law. A court could intervene on behalf of shareholders if a board was found to have engaged in "waste" of the company's resources, though that was "a very high standard to meet".

Diamond said: "I'm astounded by how much they have already spent [on the metaverse], and they have little to show for it. If this was any other CEO who had only a 1 per cent stake, he'd probably be gone."

Trend breaker Blackstone braves frigid debt market with Emerson climate tech unit stake



'Marquee transaction': the deal will help the climate control unit to streamline operations — Chris Jung/NurPhoto/Shutterstock

ANTOINE GARA — NEW YORK
KAYE WIGGINS — LONDON

Blackstone has agreed to buy a majority stake in Emerson Electric's climate technologies business in a deal that values the industrial conglomerate's unit at $14bn and was arranged at a time when debt financing had largely seized up.

The US private equity group, alongside sovereign wealth funds Abu Dhabi Investment Authority and Singapore's GIC, will buy a 55 per cent stake in the unit in a move that should help accelerate the company's efforts to streamline its operations.

Founded in St Louis, Missouri, in the 1890s, Emerson is selling business lines to strategic buyers and private equity firms as part of a broader corporate restructuring. It will receive $9.5bn in cash from the sale — $4.4bn of it from Blackstone and the remainder from debt financing sources — that chief executive Lal Karsanbhai said would be used to invest in growth projects. The company will retain a 45 per cent stake in the business and is providing $2.25bn in seller financing that will eventually be repaid.

The deal would be structured as a joint venture until its potential sale or initial public offering, the groups said.

Emerson's climate tech unit sells refrigeration units, products used in heating and air conditioning systems, and tools that supermarkets use to monitor and manage their lighting and refrigeration systems.

Over the past 18 months, Emerson has sold "non-core" businesses as it seeks to reinvest in its most important business of manufacturing and selling automation machinery to the automotive, energy and industrial sectors, among others.

Blackstone, which arranged the debt financing package, believes the deal underscores its financial clout at a time of broad market dislocation. Joe Baratta, head of Blackstone's private equity business, said: "This is a marquee transaction for our private equity business and a testament to our ability to deliver solutions to our partners even in difficult economic and market environments."

Since the spring, banks have been less willing to provide debt financing for big leveraged buyouts, having struggled to sell on the debt they agreed to provide for several of these deals earlier this year.

Tightening financial conditions as interest rates rise and the economic outlook has become uncertain have slowed the progress of many large corporate restructurings undertaken by conglomerates such as Emerson and cooled off private equity interest in significant corporate carve-outs.

Blackstone has already placed more than $5bn of debt for the acquisition.

See Lex

Tokyo's drive to revive yen costs it $43bn in October

KANA INAGAKI — TOKYO

Japan spent a record ¥6.35tn ($43bn) in October to prop up the yen in an increasingly intense battle to stem the currency's decline to 32-year lows.

Tokyo had already spent $20bn in September conducting the first yen-buying operation since 1998, but there had been no announced action since then.

Traders had speculated that Japan had carried out two more interventions last month, one on October 21 that analysts estimated cost ¥5.5tn and a smaller one on October 24. The intervention figure for September 29 to October 27 released by the finance ministry late yesterday did not disclose how many times the authorities had stepped in.

Analysts at Goldman Sachs said a third intervention might have been carried out on October 13. "We would not rule out the possibility of additional unannounced interventions being made after October 28," they added.

The combined intervention amount in the past two months has reached ¥9.2tn, more than the ¥4.2tn spent during the last phase of yen-buying in 1998.

Despite the actions and verbal warnings by officials, the yen has continued to hover near the ¥150 level because of the gulf between the Bank of Japan's ultra-loose monetary policy and the tightening by other large central banks. Yesterday, the yen traded at ¥148.71.

BoJ governor Haruhiko Kuroda last week suggested that the country was getting close to achieving its 2 per cent core consumer inflation target. But he again ruled out any early increase in interest rates until the rise in prices was matched by an increase in wages.

Masato Kanda, the country's top currency official, recently suggested that the government, which has $1.3tn in foreign reserves, had a "limitless" amount of funds to conduct interventions, suggesting that authorities were ready to conduct more yen-buying operations.

But analysts have questioned the effectiveness of such unilateral actions, with some warning that outsized operations risked stoking volatility.

With the BoJ unlikely to raise rates in the near future, the focus remains on when the US Federal Reserve will shift towards smaller rate increases to stem inflation and gradually end the tightening. The US central bank is expected to boost its main interest rate by 0.75 percentage points when policymakers meet later this week.

Slick lawyers test the limits in distressed debt machinations

INSIDE BUSINESS

FINANCE

Sujeet Indap

Judges, as it turns out, do not always appreciate being told by lawyers in their courtroom what they may rule on.

A series of private equity-backed companies raised rescue capital in 2020 by allowing a subset of existing lenders to jump ahead of other lenders in claiming collateral in exchange for the fresh cash.

Such deals eventually would come to be colloquially known as "creditor on creditor violence" since a slim majority of hedge funds that held a company's loans could jump in priority for repayment while leaving the disfavoured group stuck holding distressed debt.

Several deals have landed in New York state court, where judges are being asked to determine if debt contracts ultimately allow for priority of lenders to be rearranged without the unanimous consent of all existing lenders.

Yet, these refinancings have also featured another inflammatory element. The favoured group changed the loan contract's "no-action" clause. These standard clauses govern when a creditor is allowed to sue after they believe they have been harmed by the company.

In a highly anticipated ruling earlier this month, involving the Oaktree Capital-owned retailer Boardriders, New York state judge Andrea Masley said that the company's owners had "sufficiently alleged that [the no-action clause] was amended in bad faith to prevent plaintiffs from suing to enforce their rights". Among the amendments to the no-action clause, the suing creditors were told to put up the cash needed to litigate the dispute upfront into an escrow account.

Many lawyers note that no-action clauses are generally sensible to prevent chaos. Typically, a minimum number of creditors — say 25 per cent — would have to agree to file a lawsuit against a company over a lending dispute, and the clause would sometimes demand that any lawsuit be brought by the bank that administered the loan.

But in these 2020 deals, where an aggressive reordering of capital stack might be permissible, amending the no-action clause to additionally make it almost impossible to sue was just asking for trouble with the court.

> Amending the no-action clause to additionally make it almost impossible to sue was just asking for trouble with the court

"Aggressively trying to shut down litigation was clearly offensive to the judge and unnecessary," said one top lawyer.

The drama around the no-action clause has highlighted just how aggressive lawyers have been in designing complex financing transactions. Even those involved in the ruthless world of corporate restructuring who are not offended by creditor-on-creditor violence are concerned about provoking judges. One lawyer said, if a refinancing deal is permissible under a contract, a company and its lawyers should feel comfortable they can prevail in a legal dispute over it without resorting to attempts to short-circuit a lawsuit.

Another lawyer, Randall Klein of Goldberg Kohn, wondered how far lawyers will take no-action clause aggression. "If the amended docs say you must sacrifice your first born to sue the majority, is that too extreme?" he said.

When it comes to pointing at Congress, however, one bankruptcy judge is desperate for some help. Creditors of a bankrupt US grocery chain, Tops, have sued the chain's one-time owner, the private equity arm of Morgan Stanley. Morgan Stanley had taken out hundreds of millions in dividends prior to Tops' failure and those creditors are now seeking to unwind those payments.

Morgan Stanley's defence includes relying on a crucial but esoteric section of the US bankruptcy code known as 546(e). Congress had enacted 546(e) as a "safe harbour" so that certain financial transactions, such as the settlement of derivatives, could not be reversed because doing so would put at risk systemic financial stability. The problem with 546(e), however, is that private equity firms have been able to rely on its usually generous interpretation to shirk accountability when their payouts trigger a bankruptcy.

In deciding to send the Tops dispute to trial, the longtime and soon-to-be-retired federal bankruptcy judge Robert Drain took an extraordinary shot at private equity firms when asking for legislative assistance in attempting to hold those players accountable. "Given the importance of fraudulent transfer law in bankruptcy cases, Congress should act to restrict to public transactions its current overly broad free pass in section 546(e) that has informed the playbook of private loan and equity participants to loot privately held companies."

The lesson for lawyers then is if judges need advice themselves, the firms will be sure to ask.

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COMPANIES & MARKETS

Technology

Survival of UK battery start-up in doubt

Britishvolt in final push for private rescue as plea for state cash is rebuffed

PETER CAMPBELL, HARRY DEMPSEY AND GEORGE PARKER — LONDON

Britishvolt was teetering on the brink of collapse yesterday after government ministers turned down a request for emergency funding and the battery start-up made a final effort to secure a private rescue to avoid bankruptcy.

The company, which planned to develop a £3.8bn gigafactory in the north-east of England, had been preparing to appoint administrators earlier yesterday, according to three people with knowledge of the matter. The move had been triggered in part by a government decision over the weekend to reject a £30mn funding request. The company needs the sum to avoid running out of cash within weeks.

Talks with outside investors had resumed yesterday, according to the people familiar with the situation, with the company trying to raise short-term financing until a longer-term acquirer could be found.

Entering administration in the coming days remained the most likely outcome, two of the people said. A restructuring and insolvency team from EY was brought in to advise the board in preparation for a potential administration. EY declined to comment

Britishvolt, backed by mining group Glencore, said it was "actively working on several potential scenarios that offer the required stability".

Britishvolt had earlier held talks with potential buyers including India's Tata Motors, which owns Jaguar Land Rover.

The company's potential collapse marks the end of a dream promoted by Boris Johnson of a UK battery champion, but paves the way for a more established manufacturer to take over the proposed site in Northumberland.

Any administration is likely to trigger a rush to secure the rights to the Blyth site, which the business had planned to develop into a £3.8bn gigafactory.

Several other companies have been in talks with landowners to express their interest in the site, which is reckoned to be one of the best in Europe for battery manufacturing because of its deep sea-port, rail links and clean energy.

Automotive leaders and analysts had always questioned the company's strategy of setting up a factory before securing firm orders from a car manufacturer, rather than the established industry pattern of finding a customer and then building a plant.

Recently, the business's current leaders have been trying to raise smaller sums in order to buy time. The company has around one month's cash left, according to two people briefed on the matter.

Ministers had promised the company £100mn, but the funding was only to be drawn down as construction work hit a certain milestone, which has not yet been reached. Britishvolt had been trying several government avenues to unlock further financial support.

Over the weekend, Grant Shapps, who has been business secretary since last Tuesday, decided he could not hand over taxpayers' money to the company after concluding that its management was "totally chaotic".

An ally of Shapps said there had been an "awful lot of communication" between company executives and government. "The idea that the government ignored them and let them fall into insolvency is not true."

Additional reporting by Michael O'Dwyer and Arash Massoudi

Automobiles. Sector disruption

China's electric car insurgents burst into Europe

Geely and MG owner SAIC advance while Great Wall, BYD and Nio gain foothold

PETER CAMPBELL — PARIS

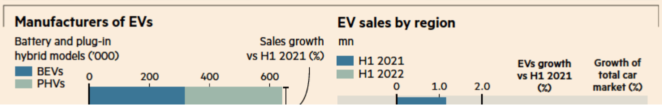
Herbert Diess, former boss of Volkswagen, was once asked privately what carmaker he feared most.

Rather than EV pioneer Tesla, or one of his rivals in Europe or the US, he pointed to BYD, the Chinese carmaker that is little known among western consumers.

The group, backed by Warren Buffett, is one of nearly a dozen Chinese brands preparing to use electric cars to storm Europe's market. Their ascendance, say industry leaders and analysts, will reshape the continent's automotive landscape over the next decade.

"The market is wide open to the Chinese," said Stellantis chief executive Carlos Tavares, in a warning to established carmakers in Europe. He was speaking last week at the Paris Motor Show, where BYD and Great Wall erected large stands directly opposite

> 'They now feel confident to give it another shot with a fully charged line-up'
>
> Matthias Schmidt, industry analyst



fully charged line-up," said Matthias Schmidt, a cars analyst. "The class of 2022 is almost unrecognisable from those models arriving 15 years ago."

He forecast that traditional carmakers would limit electric sales before 2025, when CO_2 targets in the region tightened, in order to eke out as many higher-margin petrol or diesel sales as possible. He said that presented an opportunity for the Chinese brands.

With little fanfare, China's carmakers have built a toehold in the European market. One in 20 electric vehicles sold in the region in the first six months of 2022 was a Chinese-owned brand, led by SAIC's MG, and Polestar, backed by Geely.

It is just the start. BYD will begin selling its three new models before the end of the year. Premium brand Nio has recently announced plans to sell outside European EV outlier Norway. Aiways, a mass-market brand backed by Jiangling Motors, claims to have orders for 10,000 vehicles.

Transport and Environment, a green lobby group, expects the Chinese share of Europe's battery car market to grow to one in six cars by the middle of the decade. "If Europe wants to maintain the competitiveness of its car industry, the EU must introduce a strong industrial policy of its own to match the Chinese and Americans' muscular support for EVs," said Julia Poliscanova, director at the agency.

A wave of factories is likely to follow

Financials

US drops Libor rigging charges against former Citi and UBS trader Hayes

KATE BEIOLEY — LONDON

A New York judge has thrown out criminal charges against Tom Hayes, the former UBS and Citigroup trader who served more than five years in prison in the UK for conspiring to manipulate the Libor benchmark interest rate.

The scandal over Libor — the London Interbank Offered Rate — sent shockwaves through global financial markets more than a decade ago. Several banks were required to pay fines for rigging the benchmark in their favour.

At issue was the way the interest rate was set, based on banks' submissions rather than actual transactions, potentially allowing traders to push the rate higher or lower and profit from the effect on derivatives contracts.

Hayes had been accused by British and US prosecutors of being a key participant in a global conspiracy to manipulate Libor, which was used to price hundreds of trillions of dollars of assets worldwide.

The decision to drop US charges against Hayes follows an appeals court ruling in a separate US case, which overturned the Libor-rigging convictions of two former Deutsche Bank traders. That ruling found the government had "failed to show that any of the trader-influenced submissions were false, fraudulent or misleading".

Prosecutors in the Hayes case said the previous ruling brought into question their ability to secure a conviction. Charges against another former trader, Roger Darin, were also dismissed.

Hayes was convicted in the UK in 2015 of conspiring to rig Libor and sentenced to 14 years in prison, reduced to 11 on appeal. He was released in January last year after serving five-and-a-half years and has continued to battle against the conviction. He is awaiting a final decision from the Criminal Cases Review Commission, which investigates potential miscarriages of justice.

> 'That should be grounds enough for these cases to be referred back to the Court of Appeal in the UK'

Hayes was told by the CCRC it had made a provisional decision not to refer the exhibition's French stalwarts Renault and Peugeot.

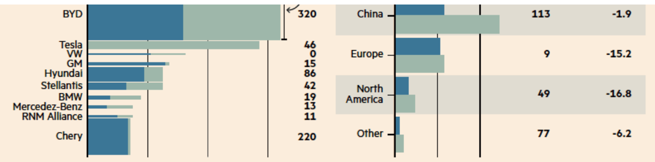
Great Wall's Ora brand aims to break into the market with its £30,000 Ora Funky Cat model and the premium sector with its Wey nameplate. BYD prices its cars at the same level as VW's battery models, but says the range of services on its three new vehicles will set it apart.

The company makes everything in its vehicles except the tyres and glass, preventing it from falling into the same supply chain trap that has snared most other manufacturers.

"In order to be a global player, we have to win in terms of our quantity," Great Wall's European president Meng Xiangjun said. "The priority for us now is to enter the European market."

BYD's Michael Shu, who leads its European rollout, said the company had not set sales targets but focused exclusively on customer satisfaction. "We believe that is the core to help the business for us," he said. "It doesn't matter about the politics, doesn't matter there is a lot of competition, doesn't matter there is the earthquake from the energy prices going up. We focus on customer satisfaction. That is our major focus."

Michael Dunne, a former General Motors executive in China who runs the ZoZoGo consultancy, said: "To triumph, they must win trust on two fronts: customers unfamiliar with their brands,



Source: EV-Volumes H1 2022 aggregate sales/registrations by country

Build your dreams: BYD's Han saloon at the Paris motor show. The Xi'an-based challenger will start selling three new models this year and is in talks with several countries about a plant for manufacturing both batteries and vehicles Nathan Laine/Bloomberg

and political leaders wary of China's masterplans."

Shanghai's SAIC swerved the brand issue by buying MG, which is the top selling electric brand from a Chinese company in the region. The political hurdle will be harder to clear.

Stellantis's Tavares warned that the Chinese companies would sell vehicles at a loss in order to undercut European brands and grow market share. "We don't want to have Chinese neighbours that sell at a loss in Europe and then put the automotive industry on their knees," he said, calling for the EU to impose tariffs on cars imported from China.

Nio chief executive William Li said he was not concerned about political opposition, pointing out that many US car buyers opted for Japanese brands during the height of a trade war in the 1980s. The company would focus "on user interests" that would outweigh "any potential trend against the brands for China".

Europe is no stranger to the breakthrough of Asian brands, having witnessed the arrival of Toyota, Nissan and Honda, and later Hyundai and Kia.

For years, China's carmakers were confined to their home market, and even there struggled to compete with western or Japanese brands with petrol engine models. But the advent of electric vehicles has given the brands their first shot at dominance — not just in their own market, but on the international stage.

"Chinese carmakers, once having been the butt of all automotive jokes following failed crash tests and poor quality standards, now feel confident enough to give it another shot with a

> 'I think the ones that are under the most threat are probably the mass-market brands'
>
> Henrik Fisker, founder of eponymous EV start-up

sales, as was the case with both the Japanese and then the South Koreans, as they establish production closer to their customers.

BYD was in talks with several countries, including the UK, according to two people, about setting up a factory making both batteries and vehicles.

Shu said the company would decide how many plants it needed based on its sales. He declined to comment on its possible locations.

Li said Nio, which launched in Germany, Denmark, Sweden and the Netherlands and will enter the UK next year, expected to build a site once it passed 200,000 sales.

Great Wall is preparing to build the next version of the electric Mini through a joint venture with BMW in China. The company is also looking to secure a European site in time.

Henrik Fisker, a former BMW and Aston Martin executive who runs start-up electric vehicle company Fisker, said that eventually the quality of the products would win over new customers.

"I think the ones that are under the most threat are probably the mass-market brands in Europe," he said, while sitting in the new Fisker Ocean manufactured by Magna Steyr in Austria. "Quite frankly, I think, yeah, some of [the Chinese EVs] are pretty nice electric cars."

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his case, but will now hear further submissions from his legal team before it makes a final decision.

Although Hayes was charged in both the US and the UK, he was only tried in the UK. If a Briton is charged by UK and overseas authorities for the same wrongdoing, they are not usually extradited to face the overseas charges.

In a statement yesterday, Hayes said: "The US Department of Justice has seen fit to dismiss charges based on the same facts, evidence and case in law that the UK courts used to justify my 11-year prison sentence. That alone should be grounds enough for these cases to be referred back to the Court of Appeal in the UK and, if need be, to the Supreme Court, which is yet to hear the case."

Hayes has argued he was made a scapegoat for his managers and the banks themselves, who he said supported his actions.

Hayes was a star derivatives trader at UBS in Tokyo from 2006 until 2009 and claimed to have made the bank more than $280mn of profits. He was poached by Citigroup with a $4.2mn joining bonus, only then to be dismissed 10 months later as the Libor scandal accelerated.

The UK Serious Fraud Office closed its probe into rate rigging in 2019. Thirteen people were charged with conspiracy to defraud and four were convicted.

Technology

iPhone assembler shifts from Covid-hit plant

GLORIA LI — HONG KONG
RYAN MCMORROW AND NIAN LIU
BEIJING

Apple's main iPhone assembler Foxconn is preparing to shift production to other parts of China after masses of workers began fleeing its main hub to escape a worsening Covid-19 outbreak. City officials yesterday bussed workers away from the Zhengzhou plant, where staff say the company has failed to provide adequate food and a safe working environment during the outbreak, which is testing Apple's supply chains.

Analysts say the factory complex represents about 60 per cent of Foxconn's iPhone assembly capacity.

"We're in peak production season right now so we need a lot of assembly-line workers . . . our company is co-ordinating back-up production capacity at other sites," the Foxconn plant said.

Shares in Hon Hai Precision Industry, Foxconn's Taiwan-listed entity, fell 1.4 per cent yesterday. "With the current pandemic situation it is a protracted war to do a good job keeping more than 200,000 employees safe," Foxconn said in a stock exchange filing on Sunday. Apple has based most of its supply chain in China, leaving the US technology group exposed to Beijing's rigid zero-Covid strategy.

Ming-chi Kuo, analyst at TF International Securities, estimated the situation in Zhengzhou affected "more than 10 per cent of global iPhone production capacity". But Kuo said the coronavirus outbreak was not yet denting forecasts for Apple's iPhone shipments in the current quarter.

"It's expected that Foxconn's production capacity will gradually improve within a few weeks, and there should be a limited impact on the 4Q22 iPhone shipments," he said.

Local Chinese authorities on Sunday tasked Foxconn with helping employees return home and improving conditions at the factory after photos and videos of hundreds of workers leaving the campus on foot went viral on social media.

Analysts at Morgan Stanley said they were monitoring the situation.

Foxconn and Apple did not immediately respond to requests for comment.

See Lex

Technology

Chipmaker Kioxia weighs cost of decoupling

KANA INAGAKI — YOKKAICHI

Decoupling global supply chains will be "complicated, expensive and time-consuming", Kioxia, a top chipmaker, has warned as US-China tensions threaten to worsen a sharp market downturn.

The Japanese company was analysing the impact of the latest US export controls, said Lorenzo Flores, vice-chair, and the challenge was to gauge Beijing's response to moves to hamper its efforts to make advanced semiconductors.

Washington has targeted Yangtze Memory Technologies, Kioxia's Chinese rival, which has asked US staff in core tech positions to leave as it rushes to comply with the controls.

"We've always viewed YMTC as . . . potentially an emerging competitor," Flores said, noting the Chinese company had "leapfrogged" in technology after trailing bigger global rivals.

Analysts suggest Nand flash memory makers that compete directly with YMTC, such as Kioxia and Micron in the US, might benefit from the controls. But China is also expected to accelerate domestic capabilities, which could pose a threat to Kioxia in the long term.

Kioxia, a spin-off of Toshiba's chip unit, makes its flash memory chips mainly in Japan, but Flores said decoupling supply chains from China would be expensive and would not "happen in six months or a year".

"Whether [decoupling] is an imperative or not, I don't know. The prudent thing to do is to look for ways to de-risk your own supply chain and increase your competitiveness simultaneously. The logical alternative is [the] friend-shoring approach," he said, referring to the term for building supply chains with like-minded countries.

Kioxia has said it would spend ¥1tn ($6.8bn) on its new No 7 chip fabrication plant at its main Nand production facility in Yokkaichi, western Japan, despite a sharp drop in demand for electronic devices that has forced the company to cut wafer output by 30 per cent.

Tough market conditions have also forced Kioxia to delay its listing plans. "The IPO is not the end. It is a step," Flores said, acknowledging the need for scale in the semiconductor industry.

Investors return to hunt for biotech bargains

Valuations soared in the pandemic, then crashed, but start-ups are raising funds again in the wake of positive drug trials

HANNAH KUCHLER — LONDON

After spectacular fundraising success in the pandemic followed by a crash when ideas failed to bear fruit, investors are starting to return to the more promising parts of the listed biotech sector.

The Covid-19 generation of newly public biotechs has been struggling in the industry's worst bear market since the 2000s. But after dire first and second quarters that hit biotech stocks indiscriminately, a gap is opening up between the more robust companies, which have begun to raise more money after positive trial data, and the rest.

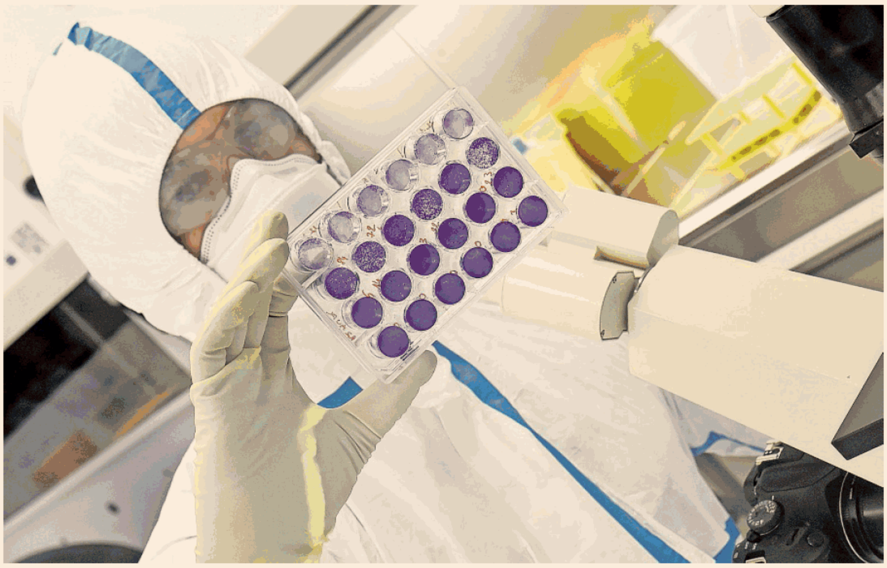
Vincent Meunier, a managing director at European investment bank Bryan Garnier & Co, said the market already felt different from just two months ago. "Before the summer break, it's true we had to postpone a lot of transactions. The market was simply not open, investors were really fed up and exhausted."

But now, investors are noticing the opportunities offered by low valuations, he said. He just completed an oversubscribed €102.9mn follow-on fundraising for Valneva, the French vaccine maker, which is down 64 per cent so far this year. "A couple of months ago, cheap was cheap, but for good reasons. Now, cheap is appealing," he said.

In 2000, the Nasdaq biotechnology index dropped almost 70 per cent over three years. This time, that index, which now includes larger biotechs, has fallen 28 per cent from its peak in early September last year, and the S&P XBI, of smaller companies, has fallen 41 per cent since last November's high.

Some companies, usually those with new clinical data that show their product is on the right track, have been able to raise follow-on funds in the public market, with $5.2bn raised in the third quarter, more than the first and second quarters combined.

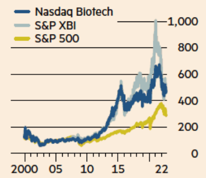
But even for those companies, most of the funding is from existing investors, with one healthcare banker saying new shareholders often made up only about 40 per cent of a raise, compared with 60 or 70 per cent before the sell-off. Share offerings are now done quickly and qui-



Under the microscope: investors now see opportunities in French vaccine maker Valneva, which has just seen strong demand for a follow-on fundraising despite a slide in its share price this year — Jean-Francois Monier/AFP/Getty Images

Shares

Rebased to Feb 2006



Biotech deals

valuation cuts of 30 to 40 per cent.

Geraldine O'Keeffe, a partner at venture capital firm EQT Life Sciences, said most investors were assuming the biotech initial public offering market would not reopen until next year, so other funding options will be important.

"Not all companies will survive. I think where there are good assets they should hopefully find a home, but there are tough times ahead," she said.

If biotechs cannot raise money, investors are pushing cuts in spending, and raising the idea of merging with other companies, or reverse merging into public companies with cash and a listing

many biotechs prefer partnerships with Big Pharma. Papiernik said the terms were now better for Big Pharma but as long as companies do not partner away their only asset, partnership deals are a "really good way to bridge that gap".

One pharma executive said he had done deals in recent months where he felt biotech boards were more ready to engage because of the lack of alternatives. But he added that whether for M&A or partnerships, Big Pharma tends to be drawn to the same targets. "There's a few companies that are very competitive. And a lot where no one wants them," he said.

There are other fundraising options, such as private equity, venture debt — loans for young businesses — and specialist royalty deals.

Private equity, which used to focus on healthcare and pharma services companies, has become more interested in biotechs with approved drugs or those in late-stage development. Now firms see opportunities in consolidation and creating royalty streams to finance drugs in return for a slice of future sales.

Last year, Christian Itin, chief executive of Autolus, which is developing advanced cancer therapies, foresaw that rising interest rates would prompt investors to move out of biotech.

> 'Where there are good assets they should find a home, but there are tough times ahead'

"We were looking at the outlook and it was quite clear what was coming, way before [Vladimir] Putin decided to invade Ukraine, which obviously made the whole thing a lot worse," he said.

Concluding that he could "not cost cut his way to an approval", he signed a deal worth up to $250mn with Blackstone Life Sciences, which employs specialist advisers, including the former chief executive of drugmaker Sanofi, and has a $4.6bn flagship fund. Blackstone invested $100mn in Autolus stock and $150mn in product financing to get its leukaemia treatment ready to launch.

Allan Marchington, head of life sciences at private equity group Intermediate Capital Group, predicted there would be lots of deals in the next six months as biotechs that have held off raising money find they need funds.

"It is a great time to invest. It's the sale of the century. You just have to get the right deal and structure," he added.

Additional reporting by Nicholas Megaw in New York etly to avoid the impact of giant swings in the market, and investors want to do much more due diligence, he added.

Biotechs soared during the pandemic. Non-specialist investors and hedge funds piled in, pushing up valuations and funding large swaths of start-ups that had not even begun human trials.

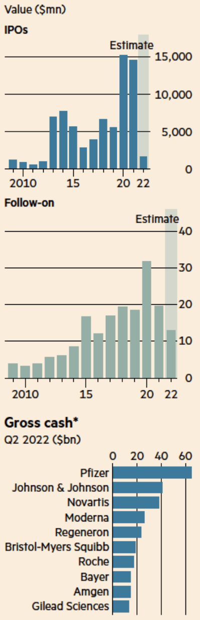
Their subsequent retreat was a big factor in the fall in share prices, along with concerns about overvaluation, disappointing clinical results and US government plans to restrict some drug prices. Wider worries, including the war in Ukraine and an economic slowdown, made investors even more risk averse.

Now there are signs that some believe prices are close to turning a corner, with hedge funds stepping up investments since late summer.

Antoine Papiernik, chair of venture capital firm Sofinnova Partners, said the investment case was pretty clear. "We believe healthcare and life sciences will be a huge area for secular industry. People don't want to die. It's pretty basic."

But for companies not lucky enough to report stellar data this year, fundraising is daunting. Yet they still need to fund trials that can cost hundreds of millions of dollars to create drugs they hope will save lives and make fortunes.

The pain in the public markets is also putting pressure on private companies. Their venture capital backers have become more cautious, knowing they might have to offer support for longer, and aware of scrutiny from their own investors. According to Torreya, a life science-focused investment bank, the size of the average private fundraising deal fell 44 per cent between the first and third quarters, while several venture capitalists report companies taking



* Cash, cash equivalents, marketable securities, long-term and equity method investments
Sources: Refinitiv; Jefferies

but only failed drugs, according to people familiar with the market.

Biotechs are usually bought out by big pharmaceutical companies that have the financial muscle to fund large phase 3 clinical trials and commercialise successful treatments.

The conditions appear ripe for a mergers and acquisitions boom: big drugmakers are sitting on almost $300bn of cash and many, including Merck and Bristol-Myers-Squibb, need to refill their pipelines because of patent expiries in the second half of the decade.

There have been some deals in recent months. Pfizer bought Biohaven for $11.6bn, and Global Blood Therapeutics for $5.4bn, while in the summer, Merck was in talks over a $40bn bid for Sea-Gen, an oncology company, according to people close to the details.

But there is less activity than some in the market expected, given the sharp falls in valuations. Two healthcare bankers said one reason is that sellers are asking for too much. "There's still a valuation gap between sellers and buyers. And as long as this gap remains, it is difficult to agree on terms," said one banker. "[Big Pharma groups] are looking more, trying to get deals done, but deals are not happening."

Nooman Haque, managing director of life sciences and healthcare for Emea at Silicon Valley Bank, believes M&A will increase but pharma companies are taking time to sort through target companies, perhaps because it does not look like the market will recover soon.

"They have the cash, they certainly have the motivation with patent cliffs and expiries coming, and so many companies want to talk to them," he said.

Instead of being bought at the bottom,

Pharmaceuticals

Human trials begin on drug found with AI

JAMIE SMYTH — NEW YORK

A biotech backed by Merck, Eli Lilly and private equity group BlackRock says it has begun one of the first clinical trials in humans of a drug discovered using artificial intelligence to analyse a vast database of brain tissue.

Verge Genomics, founded by Alice Zhang, 33, a former neuroscience doctoral student at University of California, said it had dosed its first patient with VRG50635, a novel therapy, to target ALS, a neurodegenerative disease for which there is no known cure.

The San Francisco company is one of a new generation of biotechs using AI technology in drug discovery.

AI platforms can crunch vast amounts of data to identify proteins associated with particular diseases and molecules that can be made into medicines. Experts say the technology can slash the time it takes a drug to go from initial discovery to approval, cut the costs of development and reduce the high failure rate in clinical trials.

Last year Verge raised $98mn from investors for its development work and fund its ALS clinical trial. It also signed a partnership with Lilly to develop treatments for the same disease.

Biotechs including Exscientia, Evotec and Insilico Medicine have recently announced drugs discovered or developed using AI that have progressed to clinical trials.

Zhang said it took Verge four years to get its ALS drug through discovery and into clinical trials, faster and more cost-effective than standard techniques that often rely on trial and error.

"Hypothesis are usually sourced from academic discoveries or publications and tested in a sequential way, mostly in animals, mice or even cell models to predict which of these drugs would actually work in humans. Hundreds of millions of dollars later you are entering clinical trials and, unsurprisingly, the drug fails," said Zhang. "We are saying why not start in humans from day one, using a data driven approach if we want to succeed in humans?"

Verge said it discovered a new causative mechanism in ALS — the loss of endolysosomal function that impacts human cells — by evaluating more than 11.4mn data points, which uncovered a promising new therapeutic target.

Fixed income. Volatility surge

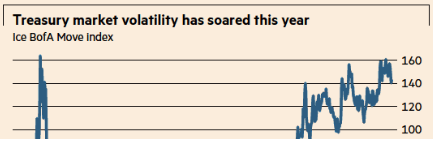
Investors urge US Treasury to boost bond liquidity

Set in stone: the Treasury department is being asked to provide clues of its plans when it makes its fourth-quarter funding

Participants are looking to policymakers for signals that buybacks are contemplated

KATE DUGUID — NEW YORK
COLBY SMITH — WASHINGTON

US government bond investors are


Treasury market volatility has soared this year
Ice BofA Move index

Barclays, referring to a Fed policy used in 2011 and 2012 whereby the central bank would sell its holding of short-term Treasuries and use the proceeds to buy longer-term securities in an effort to lower interest rates and stimulate the economy.

To avoid comparisons to that programme, Abate said the Fed should

Commodities

Freeport fears impact on climate plans of copper shortages

HARRY DEMPSEY AND LESLIE HOOK
LONDON

Global plans to electrify economies and cut carbon emissions could be slowed down by copper shortages, the head of the largest listed producer of the metal has warned.

Richard Adkerson, chief executive and chair of US mining group Freeport-McMoRan, said surging global demand for copper for the rapid rollout of electric cars, renewable electricity and power lines would cause a shortfall.

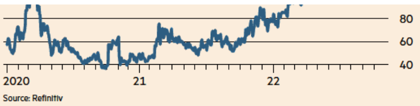
"There is going to be a very significant shortage in copper," he said. "It's going to be very difficult to meet the aspirations that have been set."

Copper is crucial for "greening" the economy because of its ability to conduct electricity. An electric car can use three times the amount of copper as its combustion-engined counterpart, while renewable energy projects tend to need five times the volume of the metal as gas, coal and nuclear power plants.

In a report issued last week, consultancy Wood Mackenzie said 9.7mn tonnes of annual supply needs to come from projects yet to be sanctioned over the next decade. The market size is at present 25mn tonnes a year.

"To date, a shortfall of this magnitude

'This economic turmoil is only making the problem



Source: Refinitiv

urging the Treasury department to intervene in the market, hoping for signals this week of possible buybacks after months of wild price swings and poor liquidity.

The US Federal Reserve's aggressive increases in interest rates and quantitative tightening programme this year have amplified the drama in the normally staid $24tn Treasury market.

Investors want the Treasury to provide clues of its plans when it makes its fourth-quarter funding announcement in the coming days.

Treasury yields, which determine the US government's borrowing costs and are used as benchmarks for prices across asset classes, have gyrated wildly in 2022.

The volatility has made it harder and more expensive for investors to buy or sell Treasury bonds in a market that is ostensibly the most liquid in the world.

Treasury secretary Janet Yellen has said she is watching the situation closely. The Treasury department also asked primary dealers — banks that buy bonds directly from the Treasury — in a mid-October survey whether it should buy back older Treasury bonds, which are traded less frequently.

The prospect of buybacks was first raised by the Treasury Borrowing Advisory Committee in an August report that highlighted the declining depth of the Treasury market, one measure of liquidity.

After discussing the results of that survey with primary dealers last week, investors, strategists and primary dealers are expecting the Treasury to include some details in the documents that it releases this week. The Treasury was due to announce yesterday its estimated financing needs for the fourth quarter and issuance plans tomorrow.

The Treasury department declined to comment on the topic of buybacks.

While buybacks are not expected to be announced yet, even the prospect of that intervention could help buoy a market in which liquidity has deteriorated to the worst levels since March 2020.

An announcement could also shore up faith after the turmoil that engulfed UK financial markets, during which government yields rose more than 1 percentage point in a matter of days.

"Buybacks will give the market confidence that there is a backstop if things get too cheap," said Gennadiy Goldberg, a rates strategist at TD Securities, who expects buybacks to be officially announced in early 2023. "Buybacks would allow banks to get [bonds] off their balance sheet when there are no buyers and would allow them to use their balance sheet more efficiently."

This is just the latest in a string of liquidity problems in the Treasury market, which picked up following the great financial crisis.

Post-2008 capital requirements made it more expensive for banks to own Treasury debt, so holdings relative to the size of the market have fallen.

Since then, hedge funds and high-speed trading firms have come to play a much larger role in the market, stepping in where banks have stepped back.

As the structure of the market has shifted and the Treasury market has quadrupled in size, problems have proliferated, including the 2014 flash rally, the 2019 repo crisis and the March 2020 meltdown.

Buybacks, which were last done in the early 2000s, involve the Treasury department buying older Treasuries — so-called "off-the-run" bonds — that have been circulating in the market for longer and are harder to trade.

The acquisitions free up space on balance sheets for market participants to trade newer supply and narrow the gap in yields between on- and off-the-run securities, a key measure of liquidity.

Having bought back old off-the-run bonds, the Treasury has to simultaneously replace them with new debt, which some investors think will be ultra-short, ultra-liquid Treasury bills, and some think will be new debt at the same maturity as that which was bought.

"They do have this perception issue with respect to Operation Twist," said Joseph Abate, a managing director at replace "similar maturity with similar issuance", which would keep the average maturity of the debt constant.

announcement in coming days
Joshua Roberts/Bloomberg

> 'Buybacks will give the market confidence that there is a backstop if things get too cheap'

One concern is that the Treasury programme will appear at odds with what the Fed is trying to accomplish in terms of rapidly tightening monetary policy by raising interest rates and shrinking its nearly $9tn balance sheet.

Since June, the central bank has been reducing its holdings of Treasuries and agency mortgage-backed securities by ceasing to reinvest the proceeds of maturing securities.

As of September, it has capped the so-called "run-off" at $95bn a month.

"The communications is the hardest hurdle to clear," Kathy Bostjancic, chief US economist at Nationwide, said of the buyback programme. To overcome this, she said the Treasury needs to frame its purchases as "purely a tactical liquidity-driven operation" that is separate from the Fed's operations.

In the end, such a programme could actually enhance the Fed's ability to press ahead with its plans to shrink its balance sheet, given that it would significantly reduce the risks of a destabilising episode of illiquidity.

Given the intensity of inflationary pressures, few things are likely to deter the Fed from ploughing ahead with tighter monetary policy but a systemic financial market dust-up is one of them.

"We think it actually makes QT more likely to continue because if Treasury is able to move ahead and help with market liquidity, it gives us more confidence that the Fed can move ahead with QT," said Meghan Swiber, a rates strategist at Bank of America.

FT

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> worse. Companies are reluctant to invest'

has never been overcome," the authors wrote, projecting that $23bn of annual investment in new projects was needed, two-thirds more than the average over the past 30 years.

Maximo Pacheco, chair of Codelco, the largest copper producer, said he expected a deficit of 6mn to 7mn tonnes of copper over the next decade. Codelco has been struggling to maintain output, with Pacheco saying it would not be able to recover to last year's levels for up to four years. "It's a tremendous effort to replace the resources," he said.

Mining executives say the supply challenge is compounded by the downturn in the global economy, which has dragged copper prices lower and led commodity strategists to project a market surplus next year.

"This current economic turmoil is only making the problem worse," Adkerson said. "Companies are reluctant to invest in today's world."

Visible copper stocks, which make up a small fraction of the inventory held but influence purchasing managers' decisions, are running at record lows, creating a risk of volatile price changes.

Sector executives said the shunning of Russia supplies had led to a more immediate rush in Europe, where buyers have been willing to pay hefty premiums or sign longer-term deals. But a response by increasing output from scrap copper could ease some of the pressure, and Adkerson said unforeseen technological advances could unlock supply.

Asset management

Institutions focus on hunt for returns outside America, says SuMi Trust chief

ADRIENNE KLASA

Some of the world's biggest institutional investors are looking to lessen their dependence on the US for returns, benefiting asset managers from other regions of the world, according to the chief executive of Japan's Sumitomo Mitsui Trust Asset Management.

SuMi Trust has seen its assets under management from investors outside Japan triple in the past five years, largely driven by passive mandates from sovereign wealth funds and central banks.

Over that period "many sovereign wealth funds and central banks have started to diversify their portfolio, both in terms of the markets in which they invest but also the investors they look to," Yoshio Hishida told the Financial Times. "In the past, if they had [mandates] with three passive managers, three out of three were US managers. Now some are starting to think: two out of three is fine, but one should be a non-US manager. That trend was very supportive for us."

A string of geopolitical ruptures has driven many institutions to look for different ways to diversify their risk — including geographically.

"The trigger was Covid-19 and the Russian invasion, which is obviously an extraordinary case, but people started thinking if something happens with China or the US . . . well, maybe we should diversify the asset managers," Hishida said.

Some investors have speculated that the war in Ukraine and the western sanctions it triggered on Russia will amplify the desire in some quarters to reduce dependency on the US financial system — particularly for capital owners from outside the western sphere.

Yoshio Hishida said the trigger was Covid-19 and the Russian invasion

Growing tension between China and the US has also exacerbated these concerns.

The use of renminbi for payments globally, often seen as a proxy for shifts away from US financial dominance, has risen steadily over the past decade while the dollar's share has decreased — though it still remains on top, accounting for 42 per cent of global payments in September, according to Swift.

The fund manager has $572bn under management making it one of the largest fund managers in Asia. Its core business remains investing on behalf of Japan's large pension funds.

But with the world's most rapidly ageing population, SuMi Trust is looking to expand internationally while also building its domestic retail business.

However, shifting Japanese households' vast amount of savings into investment has proved slow.

Only about 16 per cent of Japanese savings were held in stocks, bonds or mutual funds in the second quarter of 2022, according to the central bank.

Crypto

Hong Kong explores legalising retail digital asset trades as competition grows

CHAN HO-HIM, HUDSON LOCKETT AND PRIMROSE RIORDAN — HONG KONG

Hong Kong is taking steps towards legalising retail trading of crypto assets, in a reversal that contrasts with Beijing's crackdown on such transactions in mainland China.

The Chinese territory's regulators are also exploring the listing of crypto exchange traded funds, Hong Kong's financial authorities said yesterday as the city's rivalry with Singapore to be the region's financial hub intensifies.

The Securities and Futures Commission has been "looking to set up a regime to authorise ETFs which provide exposure to mainstream virtual assets with appropriate investor protection guardrails", said deputy chief executive and executive director Julia Leung.

"At the initial stage, we expect the underlying assets to be confined to bitcoin futures and ether futures traded on the Chicago Mercantile Exchange," Leung said at the government's FinTech Week, one of the first big financial events to be held after Hong Kong scrapped hotel quarantine last month.

The SFC will conduct a public consultation on how retail investors may be given a suitable degree of access to digital assets under the new licensing regime, the Hong Kong government said. Rules currently limit crypto trades to institutional investors with a portfolio of at least HK$8mn ($1mn).

Hong Kong's move comes as Singapore looks at tightening the threshold for retail crypto trading with new restrictions expected to be rolled out. Last year, Beijing declared all activities related to digital coins illegal.

> 'I think it will move the psychological needle quite a bit and at least allow the conversation to take place'

Speaking at FinTech Week via video after catching coronavirus, Hong Kong's financial chief, Paul Chan, said the city was "open and inclusive" with regards to digital assets.

Hong Kong's economy yesterday recorded its worst decline in two years as the city's gross domestic product fell 4.5 per cent in the third quarter.

A bill to establish a statutory licensing regime for virtual asset providers is going through Hong Kong's rubber-stamp legislature and is expected to come into force in March next year.

Charles Li, former chief executive of Hong Kong Exchanges and Clearing, which runs the city's stock exchange, said of the policy announcement: "I think it will move the psychological needle quite a bit and at least allow the conversation [about digital assets in Hong Kong] to take place."

But he warned that many segments of the industry had "imported all the crap and all the fraud that we have been practising in traditional finance for over 100 years". Li added: "There's a new generation of people who are willing to be robbed."

Others were more sanguine. "Hong Kong has a rich history of retail foreign exchange trading and we have believed for some time that this could one day be replicated with virtual currencies," said Vince Turcotte, Hong Kong-based director of digital assets at Eventus Systems. "That day has come."

Additional reporting by William Langley in Hong Kong

COMPANIES & MARKETS

The day in the markets

What you need to know

- **Wall Street stocks fade as traders await Fed meeting**
- **US Treasury bonds slip while Bunds trade steadily**
- **European equities advance but Asian indices mixed**

US stocks fell yesterday as investors braced themselves for this week's widely anticipated Federal Reserve meeting and a fresh round of corporate earnings.

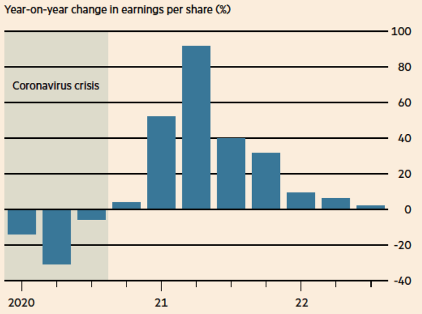
Wall Street's benchmark S&P 500 fell 0.8 per cent in afternoon trading in New York while the tech-heavy Nasdaq Composite lost 1.1 per cent.

Both indices finished higher on Friday, registering back-to-back weekly gains for the first time since August, despite companies including Amazon, Facebook owner Meta and Google parent Alphabet disappointing investors with their third-quarter results and forward guidance.

The concerns over corporate America come at a time when market participants are also keeping a keen eye on policy meetings at the Bank of England and Fed this week.

The US central bank is forecast to implement its fourth straight 0.75 percentage point rate rise tomorrow and to signal further increases in an effort to curb rapid price growth even as fears mount that the US could enter recession.

The Chicago Business Barometer, which measures corporate activity in the US midwest, fell to 45.2 in October, down



Third-quarter 2022 figure takes into account reported and estimated results
Source: FactSet

at UBS Global Wealth Management, said the latest inflation figures meant it was "too early" for the Fed to follow the Bank of Canada or the European Central Bank in issuing "less hawkish signals".

Investors have also been watching the latest corporate earnings season for signs of strain from high inflation and rising borrowing costs.

Companies listed on the S&P 500 have have not. That would mark the lowest rate of profit expansion since the third quarter of 2020.

In government bond markets, the yield on the 10-year US Treasury note added 3 basis points to 4.04 per cent as its price fell. The yield on 10-year German Bunds was steady at 2.1 per cent.

In equity markets, the pan-regional Stoxx Europe 600 added 0.4 per cent.

Risk looms from Bank of Japan's inevitable pivot

Mohamed El-Erian

Markets Insight

After occupying a central role in international trade and currency developments in the 1980s and 1990s, Japan's influence on the global economy and markets faded. "What happens in Japan stays in Japan" became the mantra for many. But this could change if the Japanese authorities do not prepare well for what increasingly looks like an inevitable exit from its "yield curve control" policy.

YCC is a monetary policy regime introduced in 2016 under which the Bank of Japan caps a key longer-term interest rate by buying bonds when the market yield tests that level. By capping this, and influencing short-term bond yields through the setting of benchmark policy rates, the central bank seeks to stimulate growth and counter deflation.

Whatever your views on the effectiveness of YCC (and this is subject to debate), rising yields around the world make it hard to maintain the policy forecast is after the second five-year term of the current governor, Haruhiko Kuroda, ends in March of next year. If correct, this gives the Japanese authorities months to prepare for what is an inherently tricky policy manoeuvre.

Time and time again, history has shown exiting a protracted fixed price regime is full of complexities, whether it involves the currency, interest rates, or domestic prices and subsidies. This is especially true when the peg in question has already caused multiple distortions.

We should expect a good part of the Japanese interest rate structure to move significantly higher when YCC is

> The longer Japan sticks with YCC, the more the authorities must spend to resist a depreciation

entities outside Japan such as companies or sovereigns. Third, the Bank of Japan would face many more obstacles in pursuing surgical interventions to calm markets if this were required.

The risk scenario here is the possibility large losses and margin calls pressure certain overexposed Japanese entities to dispose of assets in a disorderly manner. Given the extent of crossholdings, this would fuel contagion across markets and borders which would be felt notably in places such as US and European investment grade corporates, high yield, leveraged bank loans, and emerging markets. It would come at a time when US Federal Reserve's now-rapid rate rises to tackle inflation have contributed to large losses for investors and unsettling volatility. There has been a sense of nowhere to hide.

The importance of minimising this risk scenario is heightened by the existing concerns about liquidity and the orderly functioning of other markets in from 45.7 in September and below the 47 figure expected by economists polled by Reuters. A figure below 50 indicates a contraction.

Mark Haefele, chief investment officer

so far reported year-on-year earnings growth of 2.2 per cent for the third quarter, according to FactSet data, which has taken into account groups that have reported and estimates for those that

London's FTSE 100 gained 0.7 per cent, erasing an earlier loss.

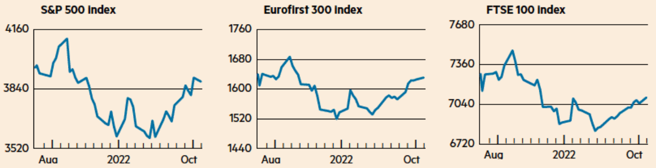
In Asia, Tokyo's Topix gained 1.6 per cent and Hong Kong's Hang Seng index fell 1.2 per cent. **George Steer**

Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3880.12	1630.67	27587.46	7094.53	2893.48	113938.63
% change on day	-0.54	0.30	1.78	0.66	-0.77	-0.52
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	111.237	0.988	148.635	1.151	7.299	5.247
% change on day	0.438	-0.704	0.763	-0.690	0.571	-1.707
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	4.033	2.140	0.255	3.507	2.643	11.562
Basis point change on day	4.070	4.000	1.760	3.400	-2.500	-5.700
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	386.35	92.38	86.25	1648.05	19.23	3531.60
% change on day	-0.44	-1.48	-1.88	-0.70	-0.75	-2.58

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

Main equity markets



Biggest movers

%	US		Eurozone		UK	
Ups	Wynn Resorts	10.98	Vopak	6.20	Int Consolidated Airlines S.a.	5.45
	Align Technology	5.73	Fresenius	5.82	Centrica	4.73
	Davita	4.20	Fresen.med.care	5.52	Natwest	4.40
	Eqt	3.83	Ses	5.34	Flutter Entertainment	2.98
	Las Vegas Sands	3.72	A.p. Moller - Maersk B	3.51	Coca-cola Hbc Ag	2.73
Downs	Global Payments	-7.09	Dsm	-3.65	Intertek	-2.77
	Newell Brands	-6.71	Cap Gemini	-3.20	Croda Int	-1.54
	Henry Schein	-4.22	Schneider Electric	-2.32	Mondi	-1.52
	Take-two Interactive Software	-3.48	Inditex	-2.26	Rs	-1.39
	Dxc Technology	-3.45	Kerry Grp	-2.20	Spirax-sarco Eng	-1.38

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

All data provided by Morningstar unless otherwise noted.

Wall Street

Casino operators **Wynn Resorts** and **Las Vegas Sands** climbed following reports that China's immigration bureau would allow residents to apply for electronic travel permits to Macau.

Both companies have properties located in the narrow peninsula off the south coast of China.

Providing a further fillip for Wynn was a regulatory filing revealing that billionaire Tilman Fertitta had taken a 6.1 per cent stake in the group. Fertitta owns regional casinos in Nevada, Louisiana and Mississippi alongside the Houston Rockets basketball team.

Promising clinical data helped lift **Bristol Myers Squibb**, which reported positive results for its late-stage trial of Reblozyl, its experimental treatment for patients suffering from a type of anaemia.

The group said the drug met its primary goal, "demonstrating a highly statistically significant and clinically meaningful improvement" in subjects.

The decline in many tech stocks last week continued, with Facebook owner **Meta** falling further. The social network is down about 70 per cent this year.

Chipmaker **ON Semiconductor** retreated after a warning about "uncertainty in the market" from its chief executive overshadowed "another quarter of record results". *Ray Douglas*

Europe

Swiss lender **Credit Suisse** rallied after revealing details of its plan to raise SFr4bn ($4bn).

The bank said "qualified investors" had already committed to buy 462mn new shares at SFr3.82 each, generating gross proceeds of SFr1.76bn. From that placement, 307.6mn shares were earmarked by the Saudi National Bank, which would end up with a 9.9 per cent stake in Credit Suisse.

The remaining funds would come from another share issue targeted at existing investors, said the lender.

Online pharmaceutical retailer **Shop Apotheke** climbed after its third-quarter release ticked "all the ecommerce boxes", said Jefferies. Core earnings of €3mn beat expectations of a loss €1.2mn, said the broker, which highlighted the Dutch group's ability "to switch to profitability" in a market dominated by over the counter transactions. Swiss peer **Zur Rose** also rallied after the update.

Norway's fish farmers **SalMar**, **Leroy**, **Grieg** and **Mowi** all jumped following a report of a possible postponement of the Oslo government's plan for a resource tax on aquaculture.

Newspaper Dagens Næringsliv said opposition leader Erna Solberg had cast doubt on the original proposal but was open to raising other taxes on the sector. *Ray Douglas*

London

International Distributions Services, formerly Royal Mail, rose sharply on news that the UK government would not prevent Czech billionaire Daniel Křetínský from increasing his stake in the postal operator.

Křetínský's investment vehicle Vesa Equity earlier this year said it had notified authorities of its intention to raise its holding in IDS to more than 25 per cent — a move that would trigger a review under the National Security and Investment Act.

The secretary of state had now given Křetínský's potential share purchase its blessing, IDS said.

TP Group, which focuses on the maritime and services sectors, soared after agreeing to be bought by Science Group for 2.25p a share, a 190 per cent premium on Friday's closing price.

The consulting services company, which already owned a 28 per cent stake in TP, had a previous bid rebuffed.

In a sign that enthusiasm over digital currencies was tailing off, crypto miner **Argo Blockchain** plummeted after revealing that its planned £24mn funding round had fallen through, although it was "continuing to explore other financing opportunities".

Argo said it had sold 3,843 new in-box Bitmain S19J Pro machines for around £4.8mn in a bid to "maximise liquidity and preserve cash". *Ray Douglas*

without intensifying collateral damage and unintended consequences. This has included a rapidly depreciating currency, large central bank foreign exchange interventions, and recurrent stress in market functioning for Japanese government bonds (including days with little if any trading).

The longer Japan sticks with YCC in the current global context, the more the authorities will have to spend to resist a depreciation, and the greater the structural damage to the core of the country's financial system.

No wonder most observers expect Japan to have to exit this policy — a view reinforced by higher inflation and the mounting wage demands from the major labour unions. When it comes to the timing of this, the consensus

removed. The impact would be particularly acute for the domestic large holders of Japanese government bonds who, long confident in the longevity of the interest rate cap, had found ways to leverage their "safe asset" holdings in order to increase returns.

On the surface, this is the behaviour that was adopted by UK pension schemes. Its viability was turned upside down by the surge in market yields caused by the "mini" Budget debacle.

I say "on the surface" as there are three notable differences. First, while the UK situation predominantly involved the leveraging of government "interest rate" risk, that of Japan appears to involve more "credit risk". Second, a good portion of that risk has been obtained through claims on

advanced countries. It is even more vital at a time when a slowing global economy can ill-afford contamination from market accidents.

The policy approach for Japan involves the early identification of "pain trades", the encouragement of pre-emptive orderly deleveraging, and clarity on the nature and duration of an emergency intervention if needed, including the degree of acceptable regulatory forbearance. None of this is easy, and it is not guaranteed to work immediately. Yet the alternative of letting markets do it their way would be more problematic for Japan and the rest of the world.

Mohamed El-Erian is president of Queens' College, Cambridge, and an adviser to Allianz and Gramercy

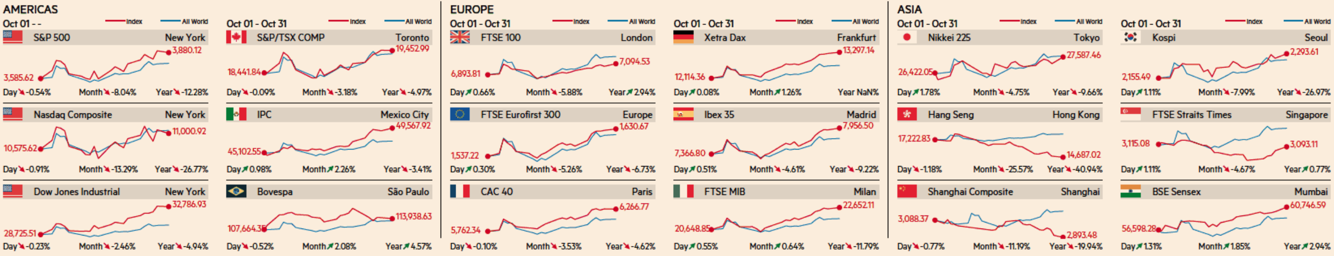
MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.54%	-0.91%	-0.23%	0.66%	0.30%	1.78%	-1.18%	-0.44%	-0.704%	-0.690%	0.763%	No change	-2.09%	-0.70%



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	147885.72	147845.40
Australia	All Ordinaries	7054.80	6973.50
	S&P/ASX 200	6863.50	6785.70
	S&P/ASX 200 Res	5252.10	5260.20
Austria	ATX	2936.87	2932.56
Belgium	BEL 20	3567.43	3553.63
	BEL Mid	9125.32	9115.88
Brazil	IBovespa	113938.63	114539.05
Canada	S&P/TSX 60	1178.76	1179.83
	S&P/TSX Comp	19452.99	19471.19

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1184.13	1184.14
Denmark	OMXC Copenahgen 20	1662.17	1651.72
Egypt	EGX 30	11372.79	11100.67
Estonia	OMX Tallinn	1671.63	1666.46
Finland	OMX Helsinki General	10396.02	10366.42
France	CAC 40	6266.77	6273.05
	SBF 120	4820.09	4820.98
Germany	M-DAX	23678.05	23651.17
	TecDAX	2845.22	2849.64

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	24619.46	24465.41
	FTSE Italia Mid Cap	37638.37	37608.25
	FTSE MIB	22652.11	22529.20
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27587.46	27105.20
	S&P Topix 150	1657.40	1629.60
	Topix	1930.17	1935.49
Jordan	Amman SE	2441.97	2468.14
Kenya	NSE 20	1680.11	1692.53
Kuwait	KSX Market Index	6633.44	6603.51

Country	Index	Latest	Previous
Philippines	Manila Comp	6153.43	6230.58
Poland	Wig	50371.89	49547.35
Portugal	PSI 20	5718.28	5657.59
	PSI General	4353.43	4305.92
Romania	BET Index	10802.67	10835.92
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11632.33	11709.50
Singapore	FTSE Straits Times	3093.11	3059.19
Slovakia	SAX	335.54	335.57

Country	Index	Latest	Previous
Taiwan	Weighted Pr	12949.75	12788.42
Thailand	Bangkok SET	1608.76	1606.07
Turkey	BIST 100	3978.96	3978.96
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2340.60	2314.50
	FTSE 100	7094.53	7047.67
	FTSE 4Good UK	6335.86	6299.77
	FTSE All Share	3876.48	3855.75
	FTSE techMARK 100	6016.10	6022.68
USA	DJ Composite	10866.66	10868.80

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	408.41	410.82
	Euro Stoxx 50 (Eur)	3621.21	3613.02
	Euronext 100 ID	1194.14	1191.98
	FTSE 4Good Global ($)	9286.81	9355.26
	FTSE All World ($)	386.35	388.04
	FTSE E300	1630.67	1625.83
	FTSE Eurotop 100	3205.90	3194.81
	FTSE Global 100 ($)	2411.24	2430.96
	FTSE Gold Min ($)	1476.68	1494.69
	FTSE Latibex Top (Eur)	4440.00	4432.20

	S&P/TSX Div Met & Min	1286.16	1394.40
Chile	S&P/CLX IGPA Gen	28101.97	28177.89
China	FTSE A200	9316.86	9418.83
	FTSE B35	9000.71	8988.96
	Shanghai A	3032.52	3056.00
	Shanghai B	278.06	283.07
	Shanghai Comp	2893.48	2915.93
	Shenzhen A	1973.52	1965.91
	Shenzhen B	1055.75	1072.37
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29
	XETRA Dax	13253.74	13243.33
Greece	Athens Gen	874.00	860.76
	FTSE/ASE 20	2121.14	2087.05
Hong Kong	Hang Seng	14687.02	14863.06
	HS China Enterprise	4938.56	5028.98
	HSCC Red Chip	2830.97	2958.39
Hungary	Bux	41053.71	40990.22
India	BSE Sensex	60746.59	59959.85
	Nifty 500	15424.00	15241.60
Indonesia	Jakarta Comp	7098.89	7056.04
Ireland	ISEQ Overall	6978.98	6927.12
Israel	Tel Aviv 125	1973.06	1956.84
Latvia	OMX Riga	1062.00	1062.31
Lithuania	OMX Vilnius	903.35	902.99
Luxembourg	LuxX	1377.98	1363.79
Malaysia	FTSE Bursa KLCI	1460.38	1447.31
Mexico	IPC	49567.92	49086.30
Morocco	MASI	10850.63	10844.40
Netherlands	AEX	670.62	667.52
	AEX All Share	906.44	901.21
New Zealand	NZX 50	11338.43	11129.53
Nigeria	SE All Share	43912.64	44625.18
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	41264.66	41140.34
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	66671.65	66385.58
	FTSE/JSE Res 20	62594.58	62567.29
	FTSE/JSE Top 40	60030.53	59687.06
South Korea	Kospi	2293.61	2268.40
	Kospi 200	299.58	295.06
Spain	IBEX 35	7956.50	7916.50
Sri Lanka	CSE All Share	8602.16	8728.60
Sweden	OMX Stockholm 30	1968.53	1974.28
	OMX Stockholm AS	750.42	752.19
Switzerland	SMI Index	10827.93	10772.37
	DJ Industrial	32786.93	32861.80
	DJ Transport	13674.45	13574.98
	DJ Utilities	916.05	921.17
	Nasdaq 100	11417.49	11546.21
	Nasdaq Cmp	11000.92	11102.45
	NYSE Comp	14769.64	14795.63
	S&P 500	3880.12	3901.06
	Wilshire 5000	38756.76	38952.71
Venezuela	IBC	9101.52	9170.69
Vietnam	VNI	1027.94	1027.36
	FTSE Multinationals ($)	2540.43	2500.96
	FTSE World ($)	704.46	707.59
	FTSEurofirst 100 (Eur)	4299.05	4288.05
	FTSEurofirst 80 (Eur)	4928.22	4925.53
	MSCI ACWI Fr ($)	588.95	582.18
	MSCI All World ($)	2561.04	2523.59
	MSCI Europe (Eur)	1654.31	1653.62
	MSCI Pacific ($)	2335.33	2370.52
	S&P Euro (Eur)	1633.19	1630.58
	S&P Europe 350 (Eur)	1670.18	1664.45
	S&P Global 1200 ($)	2799.30	2809.49
	Stoxx 50 (Eur)	3543.64	3525.45

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

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Apple	69.9	153.27	-2.47
Tesla	67.1	227.15	-1.37
Amazon.com	54.0	101.71	-1.70
Nvidia	31.1	135.15	-3.19
Microsoft	24.6	233.36	-2.51
Advanced Micro Devices	23.5	60.08	-1.93
Exxon Mobil	10.8	111.34	0.64
Alphabet	10.7	94.74	-1.55
Alphabet	10.4	95.04	-1.54
Netflix	9.6	291.00	-4.72

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Wynn Resorts	64.70	6.40	10.98
Align Technology	199.43	10.81	5.73
Davita	73.50	2.96	4.20
Eqt	40.16	1.48	3.83
Las Vegas Sands	38.47	1.38	3.72
Downs			
Global Payments	116.43	-8.88	-7.09
Newell Brands	14.04	-1.01	-6.71
Henry Schein	67.17	-2.96	-4.22
Take-two Interactive Software	119.71	-4.31	-3.48
Dxc Technology	28.86	-1.03	-3.45

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shell	233.2	2404.00	-14.50
Glencore	173.6	499.50	2.75
Bp	155.1	479.80	6.85
Unilever	149.5	3974.50	56.50
Astrazeneca	147.3	10254.00	130.00
Rentokil Initial	144.9	544.40	0.00
Rio Tinto	123.3	4537.00	51.00
Hsbc Holdings	122.8	447.30	5.10
Gsk	121.6	1428.80	12.20
Imperial Brands	111.6	2124.00	6.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Helios Towers	125.50	11.30	9.89
Wizz Air Holdings	1715.00	104.00	6.46
Easyjet	348.40	19.90	6.06
Int Consolidated Airlines S.a.	121.56	6.28	5.45
Carnival	696.20	34.20	5.17
Downs			
Petrofac	107.70	-7.20	-6.27
Bridgepoint	199.30	-9.70	-4.64
Oxford Instruments	1914.00	-91.00	-4.54
Coats	60.50	-2.70	-4.27
Genus	2554.00	-98.00	-3.70

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Nestle N	380.8	110.24	1.29
Roche Gs	369.9	336.22	0.86
Novartis N	325.5	81.79	0.83
Unicredit	285.1	12.55	0.29
Asml Holding	232.4	478.90	-1.50
Totalenergies	213.5	55.21	0.62
Intesa Sanpaolo	203.4	1.93	0.02
Eni	187.1	13.25	0.12
Novo Nordisk B A/s	183.4	110.02	0.95
Prosus	125.8	43.74	2.43

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Prosus	43.74	2.43	5.88
Fresenius Se+co.kgaa O.n.	23.45	1.29	5.82
Cs N	4.18	0.21	5.20
Mowi	15.09	0.70	4.83
A.p. M__ller - M__rsk B A/s	2116.92	71.86	3.51
Downs			
Infineon Tech.ag Na O.n.	24.70	-0.60	-2.35
Schneider Electric	127.20	-3.02	-2.32
Inditex	22.94	-0.53	-2.26
Dassault Systemes	33.78	-0.70	-2.04
Lvmh	639.00	-10.30	-1.59

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	1858.9	6400.00	374.00
Keyence	827.8	56320.00	4610.00
Tokyo Electron	584.0	39490.00	510.00
Mitsui O.s.k.lines,	537.3	2951.00	49.00
Toyota Motor	471.0	2059.50	29.50
Fast Retailing Co.,	417.2	82990.00	740.00
Nippon Yusen Kabushiki Kaisha	407.4	2699.00	56.00
Takeda Pharmaceutical	357.0	3918.00	83.00
Nintendo Co.,	346.3	6070.00	123.00
Sony	341.8	9988.00	199.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Alps Alpine Co.,	1280.00	172.00	15.52
Jtekt	1050.00	103.00	10.88
Keyence	56320.00	4610.00	8.92
Toyota Tsusho	5000.00	375.00	8.11
Ntn	265.00	17.00	6.85
Downs			
Pacific Metals Co.,	1845.00	-172.00	-8.53
Ngk Insulators,	1737.00	-125.00	-6.71
Toto	4250.00	-225.00	-5.03
Mitsubishi Logistics	3265.00	-95.00	-2.83
Mitsubishi Electric	1310.00	-28.50	-2.13

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Oct 31 price(p)	%Chg week	%Chg ytd	FTSE 250	Oct 31 price(p)	%Chg week	%Chg ytd	FTSE SmallCap	Oct 31 price(p)	%Chg week	%Chg ytd	Industry Sectors	Oct 31 price(p)	%Chg week	%Chg ytd
Winners				**Winners**				**Winners**				**Winners**			
Centrica	76.62	11.3	6.9	Molten Ventures	320.00	27.8	-	Up Global Sourcing Holdings	122.00	26.8	-	Oil & Gas Producers	8353.82	3.8	46.3
Melrose Industries	116.90	9.8	-25.2	Helios Towers	125.50	22.7	-	Provident Fin	163.30	19.8	-	Industrial Transportation	3305.65	2.8	-
Int Consolidated Airlines S.a.	121.56	7.8	-	Wizz Air Holdings	1715.00	21.9	-	Saga	85.90	17.8	-	Aerospace & Defense	4786.88	2.1	14.4
Flutter Entertainment	11580.00	7.5	-1.4	Dr. Martens	248.80	15.6	-	Luceco	79.00	16.5	-	Travel & Leisure	6223.70	1.4	-18.6
Rolls-royce Holdings	78.15	6.3	-	Moonpig	137.70	14.3	-	Hunting	267.50	15.6	67.2	Media	8968.49	0.6	-8.0
Land Securities	570.40	6.2	-	Carnival	696.20	12.0	-	Xp Power	1752.00	15.0	-	Tobacco	37141.61	0.4	26.8
Rentokil Initial	544.40	6.2	-5.4	Ninety One	203.60	12.0	-	Bloomsbury Publishing	461.50	14.2	25.4	Pharmaceuticals & Biotech.	19456.81	-0.3	3.7
Kingfisher	218.90	5.9	-	Synthomer	112.50	11.9	-	Trustpilot	108.70	12.4	-	Personal Goods	28997.86	-0.8	-
B&m Eur Value Retail S.a.	322.60	5.5	-	Easyjet	348.40	11.4	-	City Of London Investment	384.50	11.9	-	Electronic & Electrical Equip.	8451.49	-1.3	-
Entain	1263.00	5.4	-	Liontrust Asset Management	854.00	11.2	-	On The Beach	103.40	11.8	-	General Industrials	5864.65	-1.4	-17.0
Segro	785.00	5.3	-	Ti Fluid Systems	138.80	10.9	-	Restaurant	31.80	10.6	-	Support Services	9886.02	-1.7	-
Ashtead	4550.00	5.0	-	Assura	55.95	10.8	-	Dfs Furniture	122.20	10.5	-	Health Care Equip.& Services	10755.13	-2.3	30.4
Losers				**Losers**				**Losers**				**Losers**			
Airtel Africa	113.10	-9.5	-	Bytes Technology	359.20	-13.5	-	Costain	35.45	-11.4	-	Automobiles & Parts	1228.28	-25.7	-
Standard Chartered	520.20	-7.4	16.7	Ferrexpo	102.10	-6.7	-	Harworth	103.50	-7.6	-41.7	Real Estate & Investment Servic	2015.07	-18.6	-
Hsbc Holdings	447.30	-5.9	0.0	Centamin	88.72	-4.6	1.8	Rank	52.40	-7.6	-	Real Estate Investment Trusts	2223.07	-15.3	-
Rio Tinto	4537.00	-4.5	-7.4	Genuit	255.50	-4.5	-	Superdry	110.00	-7.6	-	Electricity	9481.78	-14.9	-5.9
Anglo American	2608.50	-2.9	-	Fidelity China Special Situations	178.60	-4.1	-	Funding Circle Holdings	48.85	-7.5	-	Banks	2900.96	-13.4	-4.6
Intertek	3654.00	-2.9	-	Tritax Eurobox	59.00	-3.6	-50.0	Capita	24.30	-7.0	-	Life Insurance	5817.26	-12.1	-
Reckitt Benckiser	5780.00	-2.9	-8.9	Computacenter	1810.00	-3.1	-	Severfield	48.95	-6.4	-	Gas Water & Multiutilities index	5290.53	-11.6	-
Natwest	234.80	-2.4	-3.6	Hg Capital Trust	348.00	-2.5	-17.6	Pollen Street	710.00	-6.1	-	Household Goods	9540.58	-10.2	-
Haleon	268.00	-2.1	-	Sequoia Economic Infrastructure ome Fund	83.00	-2.4	-	Hochschild Mining	53.35	-5.8	-58.4	Mining	9299.54	-8.1	-52.5
M&g	175.20	-1.8	-	Icg Enterprise Trust	1004.00	-2.3	-	Avon Protection	1040.00	-5.5	-9.4	Software & Computer Services	1740.11	-7.9	-
Mondi	1462.50	-1.6	-	Bh Macro	4690.00	-2.3	23.7	Tt Electronics	135.00	-5.5	-	Mobile Telecommunications	2511.68	-7.2	-
Whitbread	2572.00	-1.5	-	Harbourvest Global Private Equity	2155.00	-1.8	-	Seraphim Space Investment Trust	49.25	-5.3	-	Chemicals	11389.60	-6.7	-

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

CURRENCIES

Oct 31	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	156.8950	0.8825	155.0668	-0.1572	180.6401	-0.2020
Australia	Australian Dollar	1.5638	0.0032	1.5456	-0.0072	1.8005	-0.0085
Bahrain	Bahrainin Dinar	0.3770	-0.0001	0.3726	-0.0025	0.4340	-0.0030
Bolivia	Bolivian Boliviano	6.9100	-	6.8295	-0.0456	7.9558	-0.0539
Brazil	Brazilian Real	5.2473	-0.0911	5.1861	-0.1253	6.0414	-0.1466
Canada	Canadian Dollar	1.3641	0.0029	1.3482	-0.0061	1.5705	-0.0073
Chile	Chilean Peso	943.8150	10.2050	932.8171	3.9259	1086.6560	4.4606
China	Chinese Yuan	7.2986	0.0414	7.2136	-0.0069	8.4032	-0.0089
Colombia	Colombian Peso	4883.2000	73.2750	4826.2991	40.6827	5622.2447	46.8128
Costa Rica	Costa Rican Colon	618.0400	-3.6500	610.8382	-7.7096	711.5768	-9.0562
Czech Republic	Czech Koruna	24.7706	0.1508	24.4820	-0.0135	28.5195	-0.0186
Denmark	Danish Krone	7.5325	0.0507	7.4448	0.0008	8.6726	0.0000
Egypt	Egyptian Pound	24.1764	1.0274	23.8947	0.8627	27.8354	1.0022
Hong Kong	Hong Kong Dollar	7.8498	0.0004	7.7584	-0.0513	9.0379	-0.0608
Hungary	Hungarian Forint	414.9087	0.3150	410.0739	-2.4243	477.7027	-2.8743
India	Indian Rupee	82.7775	0.3056	81.8129	-0.2421	95.3054	-0.2920
Indonesia	Indonesian Rupiah	15597.5000	46.0000	15415.7552	-57.1510	17958.0930	-68.4673
Israel	Israeli Shekel	3.5195	-0.0140	3.4785	-0.0372	4.0522	-0.0437
Japan	Japanese Yen	148.6350	1.1250	146.9030	0.1386	171.1300	0.1436
..One Month		148.6345	1.1240	146.9028	0.1382	171.1296	0.1427
..Three Month		148.6332	1.1214	146.9023	0.1372	171.1285	0.1405
..One Year		148.6274	1.1099	146.8991	0.1309	171.1296	0.1354
Kenya	Kenyan Shilling	121.3500	-0.0500	119.9360	-0.8504	139.7156	-1.0054
Kuwait	Kuwaiti Dinar	0.3098	-0.0001	0.3061	-0.0021	0.3566	-0.0025
Malaysia	Malaysian Ringgit	4.7280	0.0055	4.6729	-0.0257	5.4436	-0.0305
Mexico	Mexican Peso	19.8490	0.0305	19.6177	-0.1006	22.8530	-0.1196
New Zealand	New Zealand Dollar	1.7213	0.0003	1.7013	-0.0111	1.9818	-0.0131
Nigeria	Nigerian Naira	440.7500	-	435.6141	-2.9082	507.4550	-3.4411
Norway	Norwegian Krone	10.3969	0.0572	10.2757	-0.0116	11.9704	-0.0148
Pakistan	Pakistani Rupee	220.3750	-1.0000	217.8071	-2.4490	253.7275	-2.8797
Peru	Peruvian Nuevo Sol	3.9862	0.0210	3.9398	-0.0054	4.5895	-0.0068
Philippines	Philippine Peso	57.9500	-	57.2747	-0.3824	66.7204	-0.4524
Poland	Polish Zloty	4.7714	0.0315	4.7158	-0.0001	5.4935	-0.0007
Romania	Romanian Leu	4.9683	0.0228	4.9104	-0.0101	5.7202	-0.0124
Russia	Russian Ruble	61.7000	0.0500	60.9810	-0.3574	71.0379	-0.4238
Saudi Arabia	Saudi Riyal	3.7576	-0.0010	3.7138	-0.0258	4.3262	-0.0306
Singapore	Singapore Dollar	1.4151	0.0033	1.3986	-0.0060	1.6293	-0.0072
South Africa	South African Rand	18.3775	0.2588	18.1634	0.1362	21.1588	0.1565
South Korea	South Korean Won	1424.4500	2.9000	1407.8515	-6.5137	1640.0323	-7.7598
Sweden	Swedish Krona	11.0505	0.0846	10.9217	0.0113	12.7229	0.0118
Switzerland	Swiss Franc	1.0008	0.0044	0.9891	-0.0023	1.1522	-0.0028
Taiwan	New Taiwan Dollar	32.2225	0.1010	31.8470	-0.1121	37.0992	-0.1345
Thailand	Thai Baht	38.0600	0.1650	37.6165	-0.0870	43.8202	-0.1059
Tunisia	Tunisian Dinar	3.3305	0.0283	3.2916	0.0061	3.8345	0.0067
Turkey	Turkish Lira	18.6029	-0.0043	18.3861	-0.1271	21.4183	-0.1503
United Arab Emirates	UAE Dirham	3.6731	-	3.6302	-0.0242	4.2289	-0.0287
United Kingdom	Pound Sterling	0.8686	0.0058	0.8584	0.0001	-	-
..One Month		0.8686	0.0059	0.8583	0.0001	-	-
..Three Month		0.8689	0.0059	0.8580	0.0001	-	-
..One Year		0.8693	0.0059	0.8567	0.0001	-	-
United States	United States Dollar	-	-	0.9883	-0.0066	1.1513	-0.0078
..One Month		-	-	0.9881	-0.1708	1.1514	-0.0078
..Three Month		-	-	0.9876	-0.1708	1.1517	-0.0078
..One Year		-	-	0.9857	-0.1708	1.1521	-0.0077
Vietnam	Vietnamese Dong	24850.0000	17.5000	24560.4900	-146.5463	28610.9116	-173.7703
European Union	Euro	1.0118	0.0067	-	-	1.1649	-0.0001
..One Month		1.0116	0.0067	-	-	1.1648	-0.0001
..Three Month		1.0110	0.0067	-	-	1.1645	-0.0001
..One Year		1.0092	0.0067	-	-	1.1632	-0.0001

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

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	£ Strlg Oct 31	Day's chge%	Euro Index	£ Strlg Oct 28	£ Strlg Oct 27	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7094.53	0.66	6429.07	7047.67	7073.69	7237.57	3.80	1.75	15.01	238.39	7256.32
FTSE 250 (250)	17889.93	-0.15	16211.89	17916.67	18081.92	23106.61	3.32	1.02	29.65	477.97	14836.85
FTSE 250 ex Inv Co (174)	18120.57	-0.13	16420.89	18143.79	18336.47	24038.08	3.48	1.47	19.58	515.94	15339.99
FTSE 350 (350)	3914.69	0.55	3547.50	3893.43	3910.95	4147.54	3.73	1.66	16.17	127.57	7946.17
FTSE 350 ex Investment Trusts (271)	3852.90	0.57	3491.51	3830.98	3847.45	4039.79	3.80	1.74	15.10	128.03	4041.89
FTSE 350 Higher Yield (131)	3391.58	0.53	3073.45	3373.65	3397.84	3255.83	5.21	1.83	10.51	141.27	7745.84
FTSE 350 Lower Yield (219)	4033.18	0.56	3654.87	4010.67	4017.42	4804.85	2.18	1.23	37.33	88.61	4962.15
FTSE SmallCap (240)	5852.31	0.22	5303.38	5839.19	5875.96	7417.66	3.60	0.59	47.13	180.28	9805.22
FTSE SmallCap ex Inv Co (127)	4681.86	0.00	4242.71	4682.09	4718.56	6256.02	3.79	2.40	11.00	137.64	8153.47
FTSE All-Share (590)	3876.48	0.54	3512.87	3855.75	3873.27	4129.16	3.73	1.63	16.45	126.11	7945.76
FTSE All-Share ex Inv Co (398)	3782.56	0.56	3427.76	3761.34	3777.69	3981.37	3.80	1.75	15.02	125.48	4028.83
FTSE All-Share ex Multinationals (527)	1012.39	0.39	762.62	1008.45	1020.51	1327.65	4.12	1.29	18.75	35.58	2147.51
FTSE Fledgling (83)	11161.16	0.06	10114.26	11154.90	11127.50	13434.48	3.78	4.91	5.39	286.16	24033.93
FTSE Fledgling ex Inv Co (33)	14353.90	0.23	13007.52	14321.07	14290.64	18361.87	3.42	8.32	3.52	365.43	30008.95
FTSE All-Small (323)	4086.48	0.22	3703.18	4077.70	4101.40	5165.16	3.61	0.84	33.03	124.76	8780.47
FTSE All-Small ex Inv Co (160)	3524.38	0.00	3193.80	3524.25	3550.43	4701.97	3.78	2.59	10.21	103.12	7772.55
FTSE AIM All-Share (765)	806.13	0.10	730.52	805.37	809.46	1223.18	1.69	1.50	39.43	11.23	945.36
FTSE All-Share Technology (21)	1861.24	-0.51	1473.64	1870.84	1889.61	2264.24	2.03	0.80	61.20	36.68	2691.93
FTSE All-Share Telecommunications (6)	1626.20	1.83	1287.55	1596.98	1579.03	1712.51	6.44	1.06	14.67	57.66	2420.16
FTSE All-Share Health Care (14)	13573.68	1.02	10747.00	13436.01	13231.94	13313.71	2.93	1.14	29.90	343.37	12543.93
FTSE All-Share Financials (256)	4170.29	0.70	3301.84	4141.27	4207.42	4976.50	4.03	1.48	16.78	156.97	4631.87
FTSE All-Share Real Estate (55)	808.29	-0.64	669.48	813.53	823.06	1163.70	4.30	4.54	5.12	28.40	847.21
FTSE All-Share Consumer Discretionary (85)	4326.04	0.52	3425.15	4303.83	4343.66	5492.56	2.44	1.06	38.47	100.24	4581.38
FTSE All-Share Consumer Staples (24)	19088.63	1.14	15113.48	18873.53	18741.24	18720.07	3.99	1.16	21.68	613.22	17431.70
FTSE All-Share Industrials (84)	5983.95	-0.17	4737.81	5993.95	6003.04	7107.69	2.39	1.34	31.27	130.23	6921.56
FTSE All-Share Basic Materials (22)	7891.95	0.25	6248.47	7872.54	8059.41	7819.79	6.89	2.01	7.22	536.92	10756.41
FTSE All-Share Energy (13)	8639.50	0.09	6840.35	8631.72	8705.22	6200.73	3.21	2.96	10.50	220.07	10411.30
FTSE All-Share Utilities (10)	7861.18	0.36	6224.11	7832.68	7747.39	8040.48	4.85	0.66	31.06	292.26	11875.03
FTSE All-Share Software and Computer Services (18)	2010.86	-0.42	1592.10	2019.36	2039.57	2426.61	2.03	0.80	61.39	39.73	3077.03
FTSE All-Share Technology Hardware and Equipment (3)	4568.17	-2.86	3616.86	4702.49	4752.99	6944.60	1.94	0.91	56.70	78.21	5903.98
FTSE All-Share Telecommunications Equipment (1)	581.20	-2.77	460.17	597.74	596.40	671.16	2.12	2.31	20.48	11.51	830.77
FTSE All-Share Telecommunications Service Providers (5)	2507.88	2.03	1985.62	2458.03	2429.45	2627.74	6.62	1.04	14.50	90.35	3397.35
FTSE All-Share Health Care Providers (3)	10802.15	0.58	8552.64	10739.44	10757.54	8593.75	0.54	4.48	41.38	58.27	10026.14
FTSE All-Share Medical Equipment and Services (2)	5196.76	1.26	4114.55	5132.15	5118.14	5984.45	2.75	0.97	37.71	142.76	5019.88
FTSE All-Share Pharmaceuticals and Biotechnology (9)	19397.89	1.02	15358.34	19202.58	18894.25	18890.10	2.97	1.14	29.47	492.51	16139.35
FTSE All-Share Banks (12)	2862.10	1.32	2266.08	2824.73	2904.85	3067.53	4.55	2.59	8.48	128.47	2532.83
FTSE All-Share Finance and Credit Services (8)	10245.46	-0.07	8111.87	10252.14	10264.77	10126.34	2.04	2.05	23.94	208.41	13765.67
FTSE All-Share Investment Banking and Brokerage Services (31)	7766.09	0.13	6148.83	7755.89	7851.04	10675.32	5.68	1.86	9.48	379.93	10896.06
FTSE All-Share Closed End Investments (192)	11238.72	0.15	8898.29	11221.91	11305.64	14171.45	2.76	-0.86	-41.90	256.23	7015.59
FTSE All-Share Life Insurance (6)	5922.56	1.29	4689.20	5847.25	5933.74	8307.63	5.17	1.08	17.88	294.59	7247.71
FTSE All-Share Nonlife Insurance (7)	3421.48	0.38	2708.96	3408.44	3424.39	3529.86	4.22	1.24	19.14	130.27	7286.51
FTSE All-Share Real Estate Investment and Services (16)	1941.64	-0.73	1537.30	1956.00	1972.35	2944.89	2.59	3.76	10.25	41.03	5789.64
FTSE All-Share Real Estate Investment Trusts (45)	2026.93	-0.63	1604.83	2039.73	2064.82	2883.57	4.59	4.62	4.72	76.83	3060.34
FTSE All-Share Automobiles and Parts (2)	1234.57	1.17	977.47	1220.30	1223.45	4251.61	0.79	-19.25	-6.59	14.02	1284.37
FTSE All-Share Consumer Services (2)	3028.55	-0.51	2397.86	3044.17	3023.82	2578.29	1.27	1.71	46.10	38.43	3841.71
FTSE All-Share Household Goods and Home Construction (13)	7964.09	-0.70	6305.59	8020.44	8106.80	14048.70	8.91	1.61	6.98	665.58	7128.54
FTSE All-Share Leisure Goods (2)	17362.37	-1.22	13746.70	17577.59	17944.36	24659.90	3.89	1.59	16.12	831.45	19403.83
FTSE All-Share Personal Goods (4)	24958.55	-0.36	19761.00	25048.93	25691.85	29910.90	2.07	2.81	17.14	402.68	19521.46
FTSE All-Share Media (11)	9201.70	0.20	7285.47	9183.37	9159.45	9600.83	2.41	1.45	28.59	221.28	6474.23
FTSE All-Share Retailers (22)	1629.21	0.46	1289.93	1621.69	1665.74	2721.00	3.10	3.62	8.91	43.59	2114.06
FTSE All-Share Travel and Leisure (29)	6065.34	2.10	4802.25	5940.84	6057.64	8399.09	0.64	-10.31	-15.15	35.41	6267.87
FTSE All-Share Beverages (5)	27466.97	1.28	21747.05	27120.66	26883.67	28351.43	2.18	1.99	23.03	584.47	22012.51
FTSE All-Share Food Producers (10)	5347.55	0.66	4233.94	5312.69	5367.49	6460.06	2.77	2.14	16.84	83.25	5148.06
FTSE All-Share Tobacco (2)	37141.68	0.50	29407.03	36956.99	36901.99	27413.81	6.38	0.92	16.99	1728.22	34714.29
FTSE All-Share Construction and Materials (15)	6857.83	0.20	5429.70	6844.03	6752.21	8278.87	3.35	0.65	46.17	225.45	8361.92
FTSE All-Share Aerospace and Defense (7)	5032.40	0.24	3984.42	5020.38	4978.55	4552.55	2.34	0.05	868.37	104.10	6137.98
FTSE All-Share Electronic and Electrical Equipment (10)	9924.50	-1.50	7857.75	10075.83	10190.09	13734.86	1.76	1.98	28.73	149.46	9804.15
FTSE All-Share General Industrials (8)	4718.34	0.10	3735.76	4713.58	4758.73	5436.49	3.02	1.17	28.41	134.98	6223.44
FTSE All-Share Industrial Engineering (5)	14889.02	-1.31	11788.42	15087.14	15236.11	19899.09	1.76	2.01	28.35	261.52	19999.98
FTSE All-Share Industrial Support Services (31)	9515.62	-0.54	7534.01	9567.46	9585.05	11615.30	1.99	1.67	30.12	181.51	10943.09
FTSE All-Share Industrial Transportation (8)	4988.08	1.30	3949.33	4923.86	4967.93	6856.22	2.34	3.42	12.52	98.14	5226.20
FTSE All-Share Industrial Materials (1)	14727.75	1.55	442.99	14502.71	13752.57	18003.36	2.23	1.81	24.76	329.06	18603.35
FTSE All-Share Industrial Metals and Mining (9)	7045.44	0.42	5578.25	7016.13	7189.69	6406.64	7.41	2.01	6.71	517.27	10814.56
FTSE All-Share Precious Metals and Mining (5)	8857.60	-0.04	7013.03	8861.27	9185.07	19876.67	4.04	1.86	13.32	358.99	6244.92
FTSE All-Share Chemicals (7)	12599.08	-1.29	9975.35	12764.26	12898.99	18904.84	2.82	2.11	16.82	324.25	12627.37
FTSE All-Share Oil, Gas and Coal (12)	8387.21	0.09	6640.59	8379.66	8451.02	6017.75	3.21	2.96	10.50	213.64	10482.11
FTSE Sector Indices											
Non Financials (334)	**4784.89**	**0.49**	**4336.07**	**4761.41**	**4768.23**	**4931.92**	**3.65**	**1.68**	**16.36**	**149.07**	**8625.12**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7047.12	7041.40	7060.12	7058.43	7058.89	7064.10	7101.71	7120.40	7097.38	7132.78	7030.51
FTSE 250	17910.71	17852.71	17878.91	17886.39	17903.00	17913.76	17909.53	17920.05	17898.93	17965.94	17830.38
FTSE SmallCap	5833.46	5829.23	5827.66	5828.54	5835.15	5835.16	5839.17	5849.79	5846.73	5852.31	5826.16
FTSE All-Share	3855.21	3850.76	3860.06	3859.53	3860.36	3863.06	3880.12	3889.13	3877.95	3895.23	3847.64

Time of FTSE 100 Day's high:15:10:30 Day's Low08:35:00 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:15:09:00 Day's Low08:35:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

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FT 30 INDEX

	Oct 31	Oct 28	Oct 27	Oct 26	Oct 25	Yr Ago	High	Low
FT 30	2340.60	2314.50	2343.10	2342.20	2333.80	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2314.5	2321.7	2329.8	2334.7	2336.2	2340.2	2339.6	2344.8	2338.5	2349	2314.5

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

FT WILSHIRE 5000 INDEX SERIES

	Oct 28		Oct 28
FT Wilshire 5000	39698.66	FT Wilshire Mid Cap	5318.04
FT Wilshire 2500	5081.20	FT Wilshire Small Cap	4870.76
FT Wilshire Mega Cap	5065.47	FT Wilshire Micro Cap	4843.04
FT Wilshire Large Cap	5107.64		

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FTSE GLOBAL EQUITY INDEX SERIES

Oct 31 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9529	660.91	1.1	4.2	-22.0	1057.33	-20.5	2.4
FTSE Global All Cap	9529	660.91	1.1	4.2	-22.0	1057.33	-20.5	2.4
FTSE Global Large Cap	1909	590.49	1.1	3.7	-22.2	973.74	-20.7	2.4
FTSE Global Mid Cap	2265	853.88	1.0	5.5	-20.4	1285.04	-18.9	2.3
FTSE Global Small Cap	5355	886.63	0.7	5.5	-22.5	1276.09	-21.2	2.1
FTSE All-World	4174	388.04	1.1	4.1	-21.9	657.42	-20.4	2.4
FTSE World	2667	707.59	1.3	4.8	-21.2	1608.63	-19.7	2.4
FTSE Global All Cap ex UNITED KINGDOM In	9237	699.15	1.1	4.0	-22.0	1097.08	-20.6	2.3
FTSE Global All Cap ex USA	7720	441.93	-1.0	3.0	-26.3	784.54	-24.2	3.5
FTSE Global All Cap ex JAPAN	8124	692.09	1.2	4.4	-21.7	1116.91	-20.3	2.3
FTSE Global All Cap ex Eurozone	8860	703.49	1.2	3.7	-21.4	1100.91	-20.0	2.3
FTSE Developed	2181	651.23	1.4	5.0	-21.1	1048.83	-19.7	2.2
FTSE Developed All Cap	5834	679.16	1.3	5.1	-21.2	1077.66	-19.8	2.2
FTSE Developed Large Cap	834	611.00	1.4	4.8	-21.2	1001.60	-19.8	2.2
FTSE Developed Europe Large Cap	220	341.72	-0.3	8.7	-24.0	676.14	-21.7	3.4
FTSE Developed Europe Mid Cap	356	506.74	-0.7	9.9	-34.3	870.43	-32.5	3.2
FTSE Dev Europe Small Cap	752	717.31	-1.1	10.6	-35.1	1183.63	-33.3	3.3
FTSE North America Large Cap	234	838.97	2.4	4.5	-19.6	1258.30	-18.5	1.7
FTSE North America Mid Cap	423	1092.75	1.9	5.8	-16.4	1515.19	-15.2	1.8
FTSE North America Small Cap	1332	1086.38	1.7	6.4	-17.7	1444.52	-16.7	1.6
FTSE North America	657	548.98	2.3	4.8	-19.0	841.76	-17.9	1.7
FTSE Developed ex North America	1524	233.89	-0.8	5.5	-25.8	447.21	-23.7	3.3
FTSE Japan Large Cap	169	334.71	-1.4	0.7	-26.6	491.87	-24.8	2.6
FTSE Japan Mid Cap	340	475.42	-1.2	-0.6	-22.6	663.57	-20.6	2.6
FTSE Global wi JAPAN Small Cap	896	526.75	-1.3	-0.6	-24.3	763.27	-22.2	2.8
FTSE Japan	509	138.03	-1.3	0.4	-25.8	227.13	-23.9	2.6
FTSE Asia Pacific Large Cap ex Japan	1088	576.06	-1.9	-4.6	-30.9	1048.52	-29.0	3.6
FTSE Asia Pacific Mid Cap ex Japan	868	845.51	-1.4	-0.7	-25.4	1484.07	-23.2	3.8
FTSE Asia Pacific Small Cap ex Japan	2116	480.23	-1.8	-1.0	-34.0	819.13	-32.3	3.4
FTSE Asia Pacific Ex Japan	1956	460.30	-1.9	-4.2	-30.4	890.43	-28.4	3.6
FTSE Emerging All Cap	3695	626.27	-1.6	-3.9	-28.9	1090.35	-26.6	4.1
FTSE Emerging Large Cap	1075	572.45	-1.6	-5.1	-30.4	1002.26	-28.2	4.1
FTSE Emerging Mid Cap	918	942.06	-1.1	1.8	-18.0	1650.11	-15.3	4.2
FTSE Emerging Small Cap	1702	693.45	-1.5	-1.3	-28.4	1155.97	-26.2	3.6
FTSE Emerging Europe	113	101.14	-1.1	14.8	-75.6	211.43	-74.6	3.2
FTSE Latin America All Cap	262	725.37	-0.3	7.2	2.3	1417.74	9.7	10.9
FTSE Middle East and Africa All Cap	331	743.49	-0.6	3.4	-6.7	1360.60	-4.0	3.2
FTSE Global wi UNITED KINGDOM All Cap In	292	286.05	-0.3	8.9	-20.5	583.36	-18.0	3.8
FTSE Global wi USA All Cap	1809	943.90	2.4	5.0	-19.0	1364.64	-18.0	1.7
FTSE Europe All Cap	1470	385.79	-0.4	9.1	-27.9	732.86	-25.8	3.3
FTSE Eurozone All Cap	669	369.17	-0.6	10.7	-28.8	696.13	-26.7	3.3
FTSE EDHEC-Risk Efficient All-World	4174	444.21	0.9	5.2	-18.6	698.25	-16.9	2.7
FTSE EDHEC-Risk Efficient Developed Europe	576	280.06	-0.8	9.0	-32.2	491.98	-30.3	3.4
Oil & Gas	132	409.68	0.2	17.2	25.0	835.07	30.1	4.5
Oil & Gas Producers	88	411.17	0.4	18.8	29.4	860.53	35.2	4.7

Oct 31 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	273.20	-0.7	13.7	16.8	503.94	20.8	4.2
Basic Materials	394	540.14	-1.5	5.3	-19.7	993.67	-16.4	5.2
Chemicals	196	747.77	-0.1	5.6	-22.8	1321.44	-20.7	3.2
Forestry & Paper	20	242.10	-1.4	6.3	-20.7	487.29	-18.4	4.0
Industrial Metals & Mining	98	426.17	-2.6	6.7	-23.0	814.66	-19.0	8.6
Mining	80	821.18	-3.1	3.8	-11.8	1600.37	-6.4	6.8
Industrials	802	463.41	0.9	7.6	-22.8	738.43	-21.4	2.1
Construction & Materials	154	521.52	0.4	4.7	-29.4	877.00	-28.0	2.3
Aerospace & Defense	35	855.99	2.2	15.3	6.6	1334.05	8.0	1.5
General Industrials	76	220.55	1.3	10.3	-20.5	388.99	-18.7	2.7
Electronic & Electrical Equipment	157	571.26	0.4	7.3	-29.0	820.49	-27.9	1.6
Industrial Engineering	158	906.13	0.7	10.9	-21.7	1439.61	-20.2	2.0
Industrial Transportation	132	846.80	0.2	3.0	-23.8	1374.44	-21.5	3.6
Support Services	90	510.86	1.0	4.7	-28.1	759.66	-27.2	1.5
Consumer Goods	569	526.22	0.6	-0.7	-23.6	883.81	-22.2	2.4
Automobiles & Parts	132	520.25	0.4	-8.2	-32.7	841.02	-31.7	1.9
Beverages	72	730.95	1.3	2.6	-9.3	1239.19	-7.7	2.3
Food Producers	134	685.90	0.3	3.1	-12.7	1180.93	-10.8	2.5
Household Goods & Home Construction	65	484.80	1.6	2.8	-25.9	817.13	-24.0	2.9
Leisure Goods	53	217.18	-0.9	-1.3	-31.8	306.99	-31.0	1.5
Personal Goods	98	797.05	0.0	-0.3	-31.0	1225.10	-29.9	2.0
Tobacco	15	951.25	1.5	8.3	-1.1	2689.03	3.4	6.1
Health Care	343	695.60	1.2	6.6	-11.9	1107.53	-10.5	1.8
Health Care Equipment & Services	133	1337.54	0.9	5.9	-19.6	1640.06	-18.9	1.0
Pharmaceuticals & Biotechnology	210	467.82	1.4	7.2	-5.9	800.58	-3.9	2.3
Consumer Services	427	510.96	-0.5	0.7	-27.5	728.99	-26.8	1.2
Food & Drug Retailers	69	303.99	0.8	3.6	-11.7	483.01	-9.8	2.4
General Retailers	141	898.26	-1.8	-2.9	-29.7	1226.41	-29.2	1.0
Media	75	295.88	0.6	7.4	-37.0	425.24	-36.3	1.3
Travel & Leisure	142	423.18	1.3	4.9	-17.5	617.16	-16.7	1.1
Telecommunication	89	127.17	1.7	4.6	-14.2	299.33	-11.0	4.3
Fixed Line Telecommuniations	31	99.79	1.0	6.7	-11.5	269.84	-7.4	5.2
Mobile Telecommunications	58	149.93	2.1	3.5	-15.7	304.04	-12.9	3.8
Utilities	200	300.97	1.5	-0.8	-12.3	701.67	-10.0	3.5
Electricity	142	345.09	1.6	-1.2	-10.5	792.17	-8.2	3.3
Gas Water & Multiutilities	58	287.54	1.2	0.2	-16.6	694.12	-14.2	3.8
Financials	855	246.10	1.0	6.1	-18.0	472.15	-15.7	3.3
Banks	272	189.57	0.2	6.8	-16.2	405.23	-13.2	4.2
Nonlife Insurance	71	337.61	2.0	9.8	-3.7	563.23	-1.0	2.9
Life Insurance	51	192.71	-0.1	3.0	-20.3	370.77	-17.3	4.4
Financial Services	211	410.84	1.9	8.0	-17.7	623.01	-16.5	1.8
Technology	363	445.15	3.2	0.3	-34.4	580.36	-33.9	1.1
Software & Computer Services	187	668.28	2.3	-2.0	-37.5	807.69	-37.2	0.7
Technology Hardware & Equipment	176	396.99	4.1	2.8	-30.7	556.88	-29.9	1.6
Alternative Energy	20	169.19	-1.1	-2.3	-18.8	242.78	-18.5	0.4
Real Estate Investment & Services	142	222.67	-1.9	-4.2	-32.3	432.90	-30.6	3.6
Real Estate Investment Trusts	108	424.10	1.8	0.9	-28.9	989.44	-27.0	4.0
FTSE Global Large Cap	1909	590.49	1.1	3.7	-22.2	973.74	-20.7	2.4

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

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	46.36	Utilities	-9.86	FTSE SmallCap Index	-21.54
Oil & Gas	45.66	Mobile Telecomms	-10.44	Support Services	-22.13
Tobacco	26.81	Media	-10.99	Food Producers	-22.65
Aerospace & Defense	13.92	Gas Water & Multi	-11.15	FTSE 250 Index	-23.81
Pharmace & Biotech	3.70	Travel & Leisure	-11.23	Life Insurance	-23.87
Health Care	2.89	Beverages	-12.00	Construct & Material	-23.96
Mining	2.43	Telecommunications	-12.73	Household Goods & Ho	-27.84
Beverages	31.66	Nonlife Insurance	-13.99	Industrial Eng	-28.09
Personal Goods	-1.60	Oil Equipment & Serv	-14.57	Chemicals	-31.61
Basic Materials	-3.87	Software & Comp Serv	-15.36	Leisure Goods	-31.62
FTSE 100 Index	-3.93	Technology	-15.50	Electronic & Elec Eq	-31.68
Banks	-4.91	Tech Hardware & Eq	-16.65	Real Est Invest & Tr	-34.32
Consumer Goods	-5.52	Financials	-18.10	Food & Drug Retailer	-37.79
NON FINANCIALS Index	-5.66	Fixed Line Telecomms	-18.69	Real Est Invest & Se	-38.38
Electricity	-6.01	Financial Services	-19.14	General Retailers	-39.87
FTSE All{HY-}Share Index	-7.88	Industrials	-19.16	Industrial Transport	-46.80
Health Care Eq & Srv	-8.15	Consumer Services	-20.41	Automobiles & Parts	-66.14
		Equity Invest Instr	-21.19	Industrial Metals &	-83.25

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1160.5	-5.50	International Consolidated Airlines Group S.A.	121.56	6.28
Admiral Group PLC	2017	19.00	Intertek Group PLC	3654	-104.00
Airtel Africa PLC	113.10	-1.00	Jd Sports Fashion PLC	97.44	0.58
Anglo American PLC	2608.5	-16.50	Kingfisher PLC	218.90	3.70
Antofagasta PLC	1175.5	-10.00	Land Securities Group PLC	570.40	-4.60
Ashtead Group PLC	4550	55.00	Legal & General Group PLC	232.90	2.40
Associated British Foods PLC	1349.5	16.00	Lloyds Banking Group PLC	42.02	0.75
Astrazeneca PLC	10254	130.00	London Stock Exchange Group PLC	7566	-20.00
Auto Trader Group PLC	521.60	1.20	M&G PLC	175.20	1.80
Aveva Group PLC	3120	-9.00	Melrose Industries PLC	116.90	0.40
Aviva PLC	418.10	4.80	Mondi PLC	1462.5	-22.50
B&M European Value Retail S.A.	322.60	0.80	National Grid PLC	948.40	0.20
Bae Systems PLC	814.40	-	Natwest Group PLC	234.80	9.90
Barclays PLC	147.76	1.32	Next PLC	4929	-6.00
Barratt Developments PLC	376.20	-2.00	Ocado Group PLC	472.40	2.20
Berkeley Group Holdings (The) PLC	3471	-48.00	Pearson PLC	960.40	7.60
BP PLC	479.80	6.85	Pershing Square Holdings LTD	2835	60.00
British American Tobacco PLC	3433.5	19.00	Persimmon PLC	1305	-7.00
British Land Company PLC	365.90	1.00	Phoenix Group Holdings PLC	542.40	4.20
Bt Group PLC	129.80	3.15	Prudential PLC	810.80	13.20
Bunzl PLC	2841	12.00	Reckitt Benckiser Group PLC	5780	102.00
Burberry Group PLC	1815	-2.00	Relx PLC	2341	1.00
Centrica PLC	76.62	3.46	Rentokil Initial PLC	544.40	-
Coca-Cola Hbc AG	1902.5	50.50	Rightmove PLC	491.80	-0.40
Compass Group PLC	1836.5	-9.50	Rio Tinto PLC	4537	51.00
Convatec Group PLC	218.00	1.80	Rolls-Royce Holdings PLC	78.15	1.16
Crh PLC	3129	15.00	Rs Group PLC	958.50	-13.50
Croda International PLC	6760	-106.00	Sage Group PLC	726.80	-4.80
Dcc PLC	4840	-2.00	Sainsbury (J) PLC	194.40	3.95
Dechra Pharmaceuticals PLC	2620	-24.00	Schroders PLC	391.70	-2.80
Diageo PLC	3598	44.00	Scottish Mortgage Investment Trust PLC	729.20	7.20
Endeavour Mining PLC	1516	1.00	Segro PLC	785.00	-6.60
Entain PLC	1263	14.50	Severn Trent PLC	2503	-15.00
Experian PLC	2774	-10.00	Shell PLC	2404	-14.50
F&C Investment Trust PLC	897.00	13.00	Smith & Nephew PLC	1030	14.50
Flutter Entertainment PLC	11580	335.00	Smith (Ds) PLC	290.20	1.80
Frasers Group PLC	647.50	2.00	Smiths Group PLC	1560.5	18.50
Fresnillo PLC	729.00	5.20	Smurfit Kappa Group PLC	2874	15.00
Glaxosmithkline PLC	1428.8	12.20	Spirax-Sarco Engineering PLC	10750	-150.00
Glencore PLC	499.50	2.75	Sse PLC	1556	9.00
Haleon PLC	268.00	-1.30	St. James's Place PLC	1065	-1.00
Halma PLC	2115	-23.00	Standard Chartered PLC	520.20	0.60
Harbour Energy PLC	377.90	3.90	Taylor Wimpey PLC	93.78	-1.18
Hargreaves Lansdown PLC	763.20	6.60	Tesco PLC	215.10	2.40
Homeserve PLC	1186	-	Unilever PLC	3974.5	56.50
HSBC Holdings PLC	447.30	5.10	Unite Group PLC	891.00	-9.00
Imperial Brands PLC	2124	6.00	United Utilities Group PLC	939.40	-2.80
Informa PLC	555.60	0.40	Vodafone Group PLC	101.64	1.83
Intercontinental Hotels Group PLC	4696	9.00	Whitbread PLC	2572	4.00
Intermediate Capital Group PLC	1062	14.50	Wpp PLC	766.00	6.00

UK STOCK MARKET TRADING DATA

	Oct 31	Oct 28	Oct 27	Oct 26	Oct 25	Yr Ago
Order Book Turnover (m)	119.17	90.05	90.05	59.16	339.44	463.89
Order Book Bargains	606149.00	661246.00	661246.00	760436.00	760071.00	709373.00
Order Book Shares Traded (m)	1389.00	1208.00	1208.00	1548.00	1798.00	1409.00
Total Equity Turnover (£m)	4738.97	5027.15	5027.15	5342.59	12467.91	1351499.85
Total Mkt Bargains	815479.00	875575.00	875575.00	1000654.00	972781.00	920486.00
Total Shares Traded (m)	6432.00	5627.00	5627.00	7610.00	7284.00	6481.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
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UK RIGHTS OFFERS

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

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

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Cloudbreak Discovery	Pre	**0.000**	0.000	**5.557L**	0.902L	**0.010L**	0.000	**0.00000**	0.00000	-	**0.000**	0.000
Critical Metals	Pre	**0.000**	0.000	**0.662L**	0.348L	**1.590L**	1.180L	**0.00000**	0.00000	-	**0.000**	0.000
Limitless Earth	Int	**0.000**	0.019	**0.062L**	0.103L	**0.200L**	0.200L	**0.00000**	0.00000	-	**0.000**	0.000
Lok'n Store Group	Pre	**26.902**	21.892	**15.874**	6.448	**41.240**	11.330	**12.25000**	10.67000	Jan 6	**17.250**	15.000
Mila Resources	Pre	**0.000**	0.000	**1.011L**	0.382L	**0.520L**	1.650L	**0.00000**	0.00000	-	**0.000**	0.000
Renalytix	Pre	**2.970**	1.491	**49.628L**	35.788L	**0.780L**	0.430L	**0.00000**	0.00000	-	**0.000**	0.000
Vast Resources	Pre	**3.781**	0.896	**15.492L**	7.719L	**0.057L**	0.049L	**0.00000**	0.00000	-	**0.000**	0.000

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
10/27	10.00		UMR	Unicorn Mineral Resource PLC	17.50	2.00	19.50	10.00	485.7
10/24	1.00		ATN	Eastinco Mining and Exploration PLC	0.95	0.00	1.00	0.90	916.5
10/21	55.00	AIM	SND	Sondrel (Holdings) PLC	58.50	0.50	59.94	51.67	5116.5
10/07	10.00		ACG	ACG Acquisition Company Ltd	9.90	0.03	10.10	9.95	154.7
10/04	1.00		MII	Milton Capital PLC	1.03	0.00	1.20	1.00	102.5

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	25.56	0.35	28.66	20.78	5.71	11.08	48868.45
BHP Group	37.36	-0.12	53.72	35.56	10.63	9.07	120938.45
CmwBkAu	104.68	1.46	110.19	86.98	3.23	20.36	113545.62
CSL	280.48	6.23	319.78	240.10	1.04	41.53	86487.11
NatAusBk	32.42	0.42	33.75	25.43	2.68	17.86	65381.77
Telstra	3.92	0.06	4.20	3.62	2.47	32.98	28962.91
Wesfarmers	45.46	1.42	61.34	40.03	3.78	24.17	32960.13
Westpac Bank	24.11	0.12	24.70	18.80	3.56	18.14	53977.52
Woolworths	33.02	0.24	41.13	32.19	3.16	38.95	25685.51
Belgium (€)							
AnBshInBv	50.60	0.40	58.72	45.56	1.03	25.80	86877.57
KBC Grp	50.70	-0.48	86.50	45.53	6.64	8.43	20889.71
Brazil (R$)							
Ambev	15.78	0.01	18.12	12.81	3.45	24.66	47365.47
Bradesco	16.38	0.15	17.72	13.53	4.89	7.84	15204.2
Cielo	5.69	0.05	6.22	2.01	2.47	19.92	2946.06
ItauHldFin	25.20	0.40	26.04	18.86	2.97	10.32	23812.29
Petrobras	32.99	-2.79	42.08	26.54	14.05	4.87	46791.45
Vale	66.65	-0.80	107.11	61.85	18.82	3.08	60700.93
Canada (C$)							
Bausch Hlth	9.11	0.13	36.26	5.10	-	-2.98	2410.92
BCE	61.45	-0.43	74.09	55.66	5.23	22.39	41082.71
BkMontrl	125.86	-1.94	154.47	113.73	3.30	10.54	62491.16
BkNvaS	66.23	0.05	95.00	63.19	5.14	9.02	57845.49
Brookfield	54.56	-0.13	79.04	51.07	1.11	19.69	64788.19
CanadPcR	102.15	1.62	106.93	86.12	0.68	26.62	69651.73
CanImp	61.81	0.20	167.50	55.35	8.92	4.66	41003.58
CanNatRs	81.77	0.40	88.18	48.42	2.24	13.79	66534.42
CanNatRy	161.91	-0.13	171.48	137.26	1.39	25.60	80673.92
Enbridge	52.99	-0.14	59.69	46.88	5.79	20.11	78658.76
Finland (€)							
Nokia	4.51	0.06	5.71	4.12	-	15.89	25373.88
SampoA	46.28	-0.30	48.74	35.85	3.62	10.07	24382.61
France (€)							
Airbus Grpe	109.58	-0.42	120.36	86.52	-	20.53	85365.05
AirLiquide	132.30	-1.12	153.40	114.48	2.03	24.96	68437.33
AXA	25.00	0.06	29.09	20.34	5.59	8.61	57733.06
BNP Parib	47.50	0.21	68.07	40.67	5.51	6.99	57941.45
ChristianDior	626.50	-1.00	733.50	513.00	1.09	23.38	111770.19
Cred Agr	9.19	0.05	14.27	8.09	8.52	5.13	27623.29
Danone	50.34	0.54	58.41	46.48	3.77	17.51	33625.24
EDF	11.95	0.02	12.56	6.64	3.99	9.40	45903.44
Engie SA	13.15	0.06	14.61	9.79	3.94	9.47	31660.46
EssilorLuxottica	160.35	-1.10	195.00	132.70	0.66	49.98	70908.27
Hermes Intl	1310.5	-9.50	1678	957.60	0.34	57.51	136736.59
LOreal	318.10	3.85	433.65	300.45	1.23	39.61	168743.96
LVMH	639.00	-10.30	741.60	535.00	1.07	27.35	317834.18
Orange	9.63	0.09	11.94	8.93	6.09	3267.80	25320.47
PernodRic	177.70	1.85	214.50	166.60	1.72	27.42	45303.12
Renault	31.17	-0.13	38.07	20.47	-	-23.79	9110.25
Safran	112.72	-0.98	123.12	87.85	0.37	1152.48	47597.59
Sanofi	87.33	1.13	106.08	76.45	3.58	18.05	109399.2
Sant Gbn	41.40	0.21	64.82	35.20	3.21	10.12	21103.51
Schneider	128.26	-1.96	173.78	110.02	1.98	23.13	72394.85
SocGen	23.23	0.30	37.68	18.34	2.33	4.01	19508.55
Total	55.10	0.51	57.41	40.09	4.80	10.82	142632.49
UnibailR	47.88	1.10	73.09	39.68	-	-6.97	6566.39
Vinci	93.18	-0.10	103.74	80.74	2.82	21.12	55071.17
Vivendi	8.28	0.11	12.16	7.59	7.08	-15.12	9076.32
Germany (€)							
Allianz	182.20	0.80	232.50	156.22	5.15	11.77	73553.82
Denso	7390	249.00	9575	6549	2.08	18.91	39175.92
EastJpRwy	8040	92.00	8280	6373	1.36	-7.53	20443.21
Fanuc	19630	200.00	25300	18740	2.53	21.80	26665.87
FastRetail	82990	740.00	88230	54310	0.69	36.37	59225.97
Fuji Hvy Ind	2315.5	39.50	2684	1664.5	2.65	24.83	11982.55
Hitachi	6760	385.00	7460	4750	1.87	9.25	44051.17
HondaMtr	3373	54.00	3755	3043	4.20	6.66	41107.05
JapanTob	2464	34.50	2464	2000	6.08	11.71	33155.04
KDDI	4395	12.00	4636	3237	3.00	13.75	68089.08
Keyence	56320	4610	75090	44880	0.39	43.94	92154.99
MitsbCp	4031	23.00	4845	3355	3.76	8.40	39979.01
MitsubEst	961.39	12.10	972.04	876.51	-	-	-
MitsubishiEle	1310	-28.50	1557	1225.5	3.35	10.93	18924.45
MitsuiFud	886.47	7.87	949.18	684.38	-	-	-
MitUFJFin	699.50	12.00	828.30	601.40	4.08	6.62	62507.19
Mizuho Fin	1606	18.50	1683.5	1397	5.33	7.17	27436.57
Murata Mfg	7300	217.00	9410	6604	1.80	13.68	33190.52
Nippon T&T	4094	6.00	4128	3054	2.81	12.03	99764.64
NipponTT	4094	6.00	4128	3054	2.81	12.03	99764.64
Nissan Mt	474.40	13.00	654.30	436.50	-	14.06	13471.3
Nomura	481.80	7.90	562.20	460.30	5.24	-30.24	10481.59
Nppn Stl	2042.5	14.50	2318.5	1690.5	4.30	2.94	13059.05
Panasonic	1064.5	11.50	1429.5	1006.5	2.58	9.82	17575.56
Seven & I	5554	44.00	6083	4552	2.03	19.29	33123.41
ShnEtsuCh	15540	185.00	20770	14185	2.05	13.59	43562.69
Softbank	6400	374.00	7217	4210	0.75	5.02	74187.8
Sony	9988	199.00	14745	9213	0.66	11.64	84742.39
SumitomoF	4173	71.00	4461	3672	5.26	7.41	38595.13
Takeda Ph	3918	83.00	4063	2993	5.04	12.83	41708.93
TokioMarine	2691	45.50	2787.33	1886	8.97	3.99	36933.69
Toyota	2059.5	29.50	2375.5	1805	2.72	8.48	226061.93
Mexico (Mex$)							
Novartis	80.90	0.82	88.42	73.01	3.48	8.95	194315.31
Richemont	97.94	0.16	146.10	90.28	1.87	23.77	51086.37
Roche	332.55	0.85	404.20	298.60	2.47	22.68	233462.13
Swiss Re	74.40	-1.02	102.20	68.18	7.42	18.30	23604.1
Swisscom	494.30	8.50	587.40	443.40	4.16	14.97	25586.51
UBS	15.89	-0.07	19.90	13.10	2.04	8.33	55964.48
Zurich Fin	427.30	3.60	461.70	376.00	4.38	14.49	64243.45
Taiwan (NT$)							
Chunghwa Telecom	111.00	2.00	132.50	105.50	3.81	24.43	26722.85
Formosa PetChem	83.00	1.20	104.00	75.20	0.70	16.17	24537.35
HonHaiPrc	102.50	-1.50	116.00	99.50	3.86	10.45	44098.31
MediaTek	590.00	25.00	1200	533.00	6.21	8.49	29283.67
TaiwanSem	390.00	10.50	650.00	370.00	2.71	15.69	313844.21
Thailand (THB)							
PTT Explor	36.00	-	41.25	32.75	5.43	9.81	27016.88
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	2608.5	-16.50	4292.5	2487.5	6.83	5.17	42184.54
AscBrFd	1349.5	16.00	2066	1223	0.46	22.31	12300.55
AstraZen	10254	130.00	11540	8090.32	2.02	1736.20	149515.47
Aviva	418.10	4.80	606.58	341.92	5.11	55.01	19318.82
Barclays	147.76	1.32	209.45	132.06	2.03	3.59	29029.39
BP	479.80	6.85	484.00	310.53	3.28	17.41	110099.94
BrAmTob	3433.5	19.00	3645	2508	6.28	11.62	73704.33
BT	129.80	3.15	201.40	117.05	-	12.60	14827.69
Compass	1836.5	-9.50	1970.5	1435	0.76	44.68	34773.93
Diageo	3598	44.00	4364.1	3282.5	2.02	27.68	104286.08
GlaxoSmh	1428.8	12.20	2753.96	1280.92	5.60	16.50	80900.74
Glencore	499.50	2.75	548.30	346.40	1.77	18.29	82956.11
HSBC	447.30	5.10	567.20	409.85	3.61	9.77	103257.38
Boeing	143.03	-0.81	233.94	113.02	-	-23.53	84932.75
Booking Holdings	1879.63	7.91	2715.66	1616.85	-	78.49	74633.05
Bristol-Myers	78.27	1.44	80.59	53.22	2.18	29.51	166417.55
Broadcom	470.33	-2.57	677.76	415.07	2.72	31.25	190484.33
Cadence Design	151.58	0.10	194.97	132.32	-	71.33	41580.82
CapOne	105.76	-1.34	160.54	90.27	1.61	4.62	40592.56
CardinalHlth	76.01	-1.13	77.20	45.85	2.19	46.33	19915.64
Carnival	9.07	0.13	25.29	6.11	-	-1.27	10091.69
Caterpillar	217.26	-2.08	237.90	160.60	1.67	21.60	114693.54
Centene Corp	85.59	-0.21	98.53	68.45	-	44.16	48466.17
CharlesSch	79.51	-0.68	96.24	59.35	0.77	33.05	144532.81
Charter Comms	367.72	-0.52	706.93	297.66	-	17.68	59075.96
Chevron Corp	182.25	2.27	183.84	110.73	2.48	26.34	358087.25
Chipotle Mexic.	1515.91	10.91	1895.99	1196.28	-	77.87	42022.57
Chubb	214.09	-0.42	218.99	173.78	1.26	13.07	89410.76
Cigna	322.92	-1.84	325.16	191.74	1.05	24.15	98528.12
Cintas Corp	427.49	-0.15	461.44	343.86	0.72	44.09	43409.61
Cisco	45.45	-0.20	64.29	38.61	2.79	18.98	186726.42
Citigroup	46.03	-0.10	70.61	40.01	3.77	5.34	89146.74
CME Grp	174.08	-0.68	256.94	166.58	1.76	28.09	62568.35
Coca-Cola	59.95	-0.81	67.20	52.28	2.38	31.34	259254.57
Cognizant	62.25	-0.77	93.47	55.40	1.31	18.08	32232.11
ColgtPlm	74.55	-0.10	85.18	67.84	2.04	34.39	62179.49
Comcast	31.55	-0.40	54.59	28.39	2.69	12.21	136105.57
ConocPhil	128.02	0.85	129.98	66.06	1.29	24.81	165580.94
Constellation	247.88	0.79	261.53	207.59	1.05	-1313.02	39964.33
Corning	32.07	-0.42	43.47	28.98	2.54	29.47	27125.17
Corteva	65.66	-0.36	66.69	42.14	0.69	32.58	47518.14
Corteva	65.66	-0.36	66.69	42.14	0.69	32.58	47518.14
Costco	505.21	-5.66	612.27	406.51	0.54	47.44	223608.04
CrownCstl	132.17	-0.33	208.69	121.71	3.51	58.23	57234.8
CSX	29.20	-0.02	38.63	25.80	1.14	18.97	61390.33
Lilly (E)	361.55	1.65	363.92	231.87	0.80	69.50	343535.71
Linde	300.39	-1.41	346.50	262.47	1.20	48.28	148506.67
Lockheed	485.03	0.16	491.14	324.23	1.95	24.50	127113.73
Lowes	195.68	-3.05	263.31	170.12	1.32	18.94	121458.69
Lyondell	77.82	-0.17	117.22	71.46	4.85	5.46	25385.35
Marathon Ptl	113.41	-0.16	115.72	59.55	1.74	66.05	56548.95
Marsh&M	163.21	-0.53	183.14	142.80	1.40	29.53	80953.71
MasterCard	327.86	-1.61	399.92	276.87	0.58	44.03	312713.87
McDonald's	272.52	-2.00	274.81	217.68	1.64	31.93	200497.67
McKesson	391.10	-3.62	396.00	203.34	0.39	52.11	56212.98
Medtronic	87.12	0.30	124.63	79.44	2.43	27.97	115795.83
Merck	101.05	0.28	101.50	71.50	2.22	24.46	255987.93
Meta	196.64	0.99	384.33	169.00	-	15.41	450997.53
Metlife	73.36	0.22	73.56	57.05	2.20	11.81	59656.79
Microsoft	233.36	-2.51	349.67	219.13	0.84	29.24	1739575.85
Mnstr Bvrg	93.95	0.41	99.81	71.78	-	43.01	49500.89
MondelezInt	61.76	0.06	69.47	54.72	1.83	23.90	84646.16
Monsanto	9.95	0.01	9.96	9.66	-	53.66	248.75
MorganStly	82.66	0.44	109.73	72.05	2.16	12.11	141912.86
Netflix	291.00	-4.72	700.99	162.71	-	30.46	129500.96
NextEraE	77.28	-1.75	92.91	67.22	1.79	119.43	151841.08
Nike	93.40	-0.44	179.10	82.22	1.07	28.72	118018.84
NorfolkS	230.25	1.11	296.87	203.65	1.54	22.37	53306.15
Northrop	547.75	-0.37	556.27	345.90	0.96	14.80	84304.61
NXP	146.85	-4.81	239.91	132.08	1.30	25.44	38562.59
Occid Pet	73.21	1.37	77.13	26.05	0.05	41.81	68607.25
Oracle	77.46	0.10	106.34	60.78	1.42	34.45	208845.04
Pepsico	182.40	0.17	182.93	153.37	1.98	39.08	251294.16
Perrigo	40.36	-0.36	47.95	31.32	2.02	-48.45	5433.18
Pfizer	47.10	-0.34	61.71	41.45	2.82	14.10	264313.71
Phillips66	103.68	-0.52	111.28	67.08	2.97	41.07	49875.38
PhilMorris	91.78	-0.76	112.48	82.85	4.54	18.52	142269.82

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
SHOP	47.94	46.55	1.39	2.99	8.45	21.4	8.53
DanskeBk	121.60	121.00	0.60	0.50	19.55	19.2	20.58
Keyence	56320.00	51710.00	4610.00	8.92	8400.00	17.5	-1.44
GileadSci	79.08	79.27	-0.19	-0.24	10.08	14.6	21.32
MTN Grp	129.84	128.50	1.34	1.04	15.59	13.6	-6.19
Caterpillar	217.26	219.34	-2.08	-0.95	25.96	13.6	11.40
Centene Corp	85.59	85.80	-0.21	-0.24	9.78	12.9	-11.46
CharlesSch	79.51	80.19	-0.68	-0.85	8.81	12.5	8.12
AmerTower	207.63	204.71	2.92	1.43	22.23	12.0	-23.96
ImpOil	74.29	73.63	0.66	0.90	7.64	11.5	20.17
Softbank	6400.00	6026.00	374.00	6.21	642.00	11.1	10.96
Naspers N	1900.10	1760.00	140.10	7.96	188.75	11.0	-23.18
Carnival	9.07	8.94	0.13	1.45	0.85	10.3	-7.85
GenMotors	39.38	38.85	0.53	1.36	3.66	10.2	-0.53
LasVegasSd	38.47	37.09	1.38	3.72	3.42	9.8	2.50
Yum!Brnds	118.89	117.88	1.01	0.86	10.12	9.3	2.10
DiscFinServ	104.76	105.64	-0.88	-0.83	8.90	9.3	-1.71
Charter Comms	367.72	368.24	-0.52	-0.14	30.65	9.1	-18.75
Deut Bank	9.70	9.83	-0.12	-1.26	0.81	9.1	8.60
Unicred	12.55	12.26	0.29	2.37	1.04	9.0	30.10

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Ch OSLnd&Inv	14.98	15.76	-0.78	-4.95	-5.47	-26.7	-24.34
Hunng Pwr	2.81	2.91	-0.10	-3.44	-0.93	-24.9	-34.11
China Vanke	10.08	11.32	-1.24	-10.95	-3.12	-23.6	-31.66
HK Exc&Clr	209.00	214.80	-5.80	-2.70	-43.00	-17.1	-37.34
Kweichow	1350.00	1360.00	-10.00	-0.74	-274.00	-16.9	-28.76
ShenwanHong	0.08	0.09	-0.01	-6.67	-0.02	-16.0	-50.30
New Ch Life Ins	12.46	13.24	-0.78	-5.89	-2.26	-15.4	-31.42
Edwards Lifesc.	72.05	70.87	1.18	1.66	-12.87	-15.2	-26.58
Amazon	101.71	103.41	-1.70	-1.64	-18.11	-15.1	-26.11
PingAnIns	31.40	32.45	-1.05	-3.24	-5.40	-14.7	-27.78
ChinaMBank	25.80	26.65	-0.85	-3.19	-4.35	-14.4	-36.34
ChShenEgy	20.65	21.90	-1.25	-5.71	-3.15	-13.2	-12.13
Ch Rail Gp	3.41	3.84	-0.43	-11.20	-0.49	-12.6	-22.85
CredSuisse	4.13	3.93	0.20	5.20	-0.56	-12.0	-18.15
Petrobras	32.99	35.78	-2.79	-7.80	-4.46	-11.9	-7.11
PetroChina	3.00	3.27	-0.27	-8.26	-0.40	-11.8	-12.54
ChinaLife	8.55	8.80	-0.25	-2.84	-1.14	-11.8	-24.07
Tencent	205.60	200.80	4.80	2.39	-27.20	-11.7	-34.41
Citic Secs	11.74	11.94	-0.20	-1.68	-1.48	-11.2	-27.80
Sinopec Corp	3.10	3.30	-0.20	-6.06	-0.36	-10.4	-15.07

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Oct 31	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
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

Oct 31	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
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

Oct 31	Rate	Current	Since	Last
US	Fed Funds	3.00-3.25	21-09-2022	2.25-2.5
US	Prime	6.25	22-09-2022	5.50
US	Discount	2.50	27-07-2022	1.50
Euro	Repo	0.374	20-09-2022	0.141
UK	Repo	2.25	22-09-2022	1.75
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Oct 31 (Libor: Oct 28)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	3.06386	0.001	2.138	0.014	3.76771	4.43957	4.93086	5.36900
Euro Libor	-0.64957	-0.064	-0.224	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	-0.043	0.019	2.83360	3.34010	4.01990	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.02899	0.03836	0.04867
Euro Euribor				0.075	1.20800	1.64100	2.03400	2.56700
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.050	3.81000	4.41000	4.87000	
Euro CDs				0.060	1.34000	1.59000	2.01000	

Oct 31	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	0.52	0.82	0.97	1.27	1.19	1.49	1.44	1.74	1.86	2.16	2.25	2.55
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	2.86	3.06	3.53	3.73	3.71	3.91	4.31	4.51	4.77	4.97	5.13	5.33
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

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

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	187.96	0.12	-0.32	-14.48	0.88	-13.89
Corporates(£)	316.97	0.39	5.13	-19.92	5.09	-20.38
Corporates(€)	205.40	-0.31	0.24	-14.96	0.32	-15.17
Eurozone Sov(€)	213.81	-0.42	0.91	-15.96	1.03	-16.35
Gilts(£)	276.88	0.90	4.98	-22.98	5.41	-23.24
Overall(£)	283.02	0.75	4.86	-21.81	5.16	-22.12
Overall(€)	207.96	-0.40	0.67	-15.70	0.80	-16.06
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	585.16	-2.85	-	-	-17.37	-22.70
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	555.79	11.56	-29.44	-83.64	688.92	543.59
Europe 5Y	113.99	2.45	-7.60	-19.82	142.08	111.02
Japan 5Y	103.03	-1.89	-3.33	-13.54	119.29	98.33
Senior Financials 5Y	123.44	2.75	-7.85	-24.23	155.06	120.06
Markit CDX						
Emerging Markets 5Y	285.31	-6.75	-28.95	-48.25	335.29	285.31
Nth Amer High Yld 5Y	501.79	-35.17	-40.96	-106.95	625.47	501.79
Nth Amer Inv Grade 5Y	87.58	-6.11	-6.72	-20.26	110.98	87.58

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

VOLATILITY INDICES

	Oct 31	Day Chng	Prev	52 wk high	52 wk low
VIX	26.50	0.75	25.75	38.93	14.73
VXD	23.81	0.34	23.47	45.37	3.27
VXN	32.44	0.58	31.86	44.05	15.70
VDAX	25.24	0.38	24.85	93.30	-

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

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	11/22	2.25	99.97	2.78	0.00	0.00	-0.09	2.47
	05/32	1.25	80.22	3.73	-0.10	-0.47	-0.16	-
	02/50	1.00	93.53	1.72	-0.11	-0.41	-0.26	1.44
Austria	02/29	0.50	88.18	2.55	0.08	-0.36	-0.07	2.65
	02/47	1.50	76.49	2.85	0.01	-0.43	-0.07	2.38
Belgium	06/27	0.80	93.82	2.22	0.10	-0.31	-0.03	2.49
	06/47	1.60	75.35	3.03	0.03	-0.41	-0.05	2.28
Canada	03/25	1.25	94.38	3.79	0.02	-0.35	0.06	2.59
	06/30	1.25	86.84	3.22	0.03	-0.41	0.01	1.64
	12/48	2.75	89.43	3.36	-0.01	-0.38	0.23	1.43
Denmark	11/29	0.50	87.85	2.40	0.07	-0.34	-0.09	2.45
	11/52	0.25	54.93	2.36	-0.01	-0.45	-0.19	2.00
Finland	09/24	0.00	96.44	1.96	0.09	-0.21	0.02	2.48
	09/29	0.50	87.10	2.57	0.08	-0.37	0.01	2.66
France	05/28	0.75	92.07	2.28	0.10	-0.33	-0.07	2.42
	05/48	2.00	83.01	2.96	0.04	-0.41	-0.05	2.24
Germany	08/29	0.00	87.54	1.98	0.11	-0.30	-0.01	2.27
	08/50	0.00	56.67	2.06	0.01	-0.41	-0.03	1.93
Greece	01/23	3.50	100.59	1.09	0.03	-0.27	-0.20	1.34
	01/28	3.75	98.55	4.06	-0.08	-0.49	-0.20	3.52
Ireland		-	-	-	-	-	-	-
	05/26	1.00	96.44	2.05	0.10	-0.25	-0.05	2.37
	02/45	2.00	84.47	2.96	0.04	-0.42	-0.06	2.31
Italy	02/25	0.35	94.76	2.77	0.15	-0.47	-0.31	2.75
	05/30	0.40	91.75	1.56	0.05	-0.71	-0.70	2.43
	03/48	3.45	88.64	4.18	0.06	-0.52	-0.21	2.45
Japan	04/25	0.05	100.02	0.04	-0.01	-0.05	-0.01	-0.04
	12/29	0.10	99.40	0.18	-0.02	-0.07	-0.03	0.18
	12/49	0.40	77.91	1.38	-0.05	-0.10	0.06	0.70
Netherlands	07/27	0.75	94.03	2.10	0.12	-0.30	-0.02	2.44
	01/47	2.75	105.45	2.45	0.01	-0.43	0.00	2.28
New Zealand	05/31	1.50	80.54	4.24	-0.07	-0.39	-0.03	1.64
	09/40	2.50	118.42	2.38	-0.08	-0.36	-0.20	1.58
Norway	08/30	1.38	85.07	3.60	0.06	-0.20	0.32	1.95
Poland	01/23	2.50	98.91	7.40	0.00	-0.22	-0.02	5.83
	07/27	2.50	77.90	8.34	0.18	-0.60	0.95	5.94
	04/47	4.00	54.04	8.53	0.00	0.13	1.86	5.25
Portugal	04/27	4.13	107.22	2.39	0.09	-0.30	-0.05	2.56
Spain	10/22	0.45	100.00	4.67	-	-	-	-
	10/29	0.60	86.35	2.77	0.11	-0.40	-0.15	2.52
	10/46	2.90	90.73	3.48	0.05	-0.43	-0.10	2.35
Sweden	06/30	0.13	114.55	-0.14	0.05	-0.13	-0.01	1.63
	03/39	3.50	120.09	2.05	-0.04	-0.23	-0.05	1.46
Switzerland	04/28	4.00	116.40	0.89	0.05	-0.18	-0.11	1.16
	06/29	0.00	93.80	0.97	0.04	-0.20	-0.08	1.16
United Kingdom	07/23	0.75	98.43	2.96	-0.02	-0.55	-0.88	2.40
	07/27	1.25	90.09	3.55	0.00	-0.57	-0.86	2.82
	07/47	1.50	65.35	3.64	-0.07	-0.51	-0.21	2.52
United States		-	-	-	-	-	-	-
	03/25	0.50	91.28	4.34	0.10	-0.14	0.10	3.46
	02/30	1.50	84.03	4.05	0.09	-0.19	0.17	2.56
	02/50	0.25	67.04	1.78	-0.01	-0.16	-0.10	-

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

GILTS: UK CASH MARKET

Oct 31	Price £	Red Yield	Change in Yield Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.41	2.99	2.75	-3.86	-24.30	374.60	100.82	97.34	34.36
Tr 0.125pc '24	96.22	3.24	2.86	-2.99	-25.35	356.34	99.44	94.34	35.55
Tr 2pc '25	96.53	3.28	2.82	-4.93	-24.42	355.56	105.99	93.15	39.93
Tr 0.125pc '26	89.95	3.43	2.69	-5.51	-22.22	351.32	98.77	86.33	35.32
Tr 1.25pc '27	89.84	3.61	2.27	-5.00	-17.39	340.24	104.30	85.65	40.99
Tr 0.875pc '29	83.42	3.58	2.29	-5.54	-15.57	284.95	102.36	78.21	43.62
Tr 4.25pc '32	105.91	3.52	2.33	-5.88	-13.73	228.97	135.62	98.13	40.33
Tr 4.25pc '36	104.79	3.79	2.43	-4.05	-10.19	244.55	145.94	94.91	31.68
Tr 4.5pc '42	109.21	3.84	2.67	-3.52	-6.57	231.03	169.96	93.79	28.35
Tr 3.75pc '52	102.25	3.63	2.54	-3.46	-6.44	224.11	180.27	82.51	25.11
Tr 4pc '60	111.75	3.44	2.38	-4.97	-5.75	244.00	213.01	87.32	25.13

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

GILTS: UK FTSE ACTUARIES INDICES

Price Indices

Fixed Coupon	Oct 31	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.26	-0.20	2336.87	2.49	-4.55	3.42
2 5 - 10 Years	147.64	-0.52	3114.37	4.57	-14.43	3.58
3 10 - 15 Years	157.41	-1.01	3616.64	4.94	-21.69	3.76
4 5 - 15 Years	149.07	-0.66	3235.47	4.67	-16.68	3.65
5 Over 15 Years	225.23	-1.58	3854.80	2.43	-37.03	3.62
7 All stocks	137.62	-0.83	3060.55	3.12	-22.32	3.61

Index Linked	Oct 31	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	324.76	-0.26	2.19	3.67	2738.91	2.19	4.84
2 Over 5 years	555.30	-2.53	-5.52	-36.74	4227.10	-5.52	-36.49
3 5-15 years	444.81	-1.64	1.15	-16.12	3591.80	1.15	-15.50
4 Over 15 years	642.86	-3.05	-9.16	-44.92	4751.71	-9.16	-44.78
5 All stocks	524.17	-2.18	-4.39	-32.59	4069.77	-4.39	-32.26

Yield Indices	Oct 31	Oct 28	Yr ago		Oct 31	Oct 28	Yr ago
5 Yrs	3.45	3.37	0.79	20 Yrs	3.82	3.72	1.22
10 Yrs	3.69	3.60	1.06	45 Yrs	3.33	3.24	0.94
15 Yrs	3.83	3.73	1.19				

Real yield	inflation 0% Oct 31	Dur yrs	Previous	Yr ago	inflation 5% Oct 31	Dur yrs	Previous	Yr ago
Up to 5 yrs	-1.12	1.49	-1.30	-3.48	-1.78	1.50	-1.95	-3.88
Over 5 yrs	0.19	19.34	0.06	-2.39	0.16	19.40	0.03	-2.41
5-15 yrs	0.11	8.54	-0.08	-2.87	0.01	8.55	-0.19	-2.97
Over 15 yrs	0.21	25.73	0.09	-2.34	0.20	25.75	0.08	-2.35
All stocks	0.18	16.63	0.04	-2.40	0.14	16.71	0.01	-2.42

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

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

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Dec	86.06	-1.84
Brent Crude Oil‡		92.38	-1.39
RBOB Gasoline†	Dec	2.50	-0.06
Natural Gas†	Dec	6.29	0.61
Base Metals (♦ LME 3 Months)			
Aluminium		2220.00	-14.00
Aluminium Alloy		1675.00	-905.00
Copper		7457.50	-100.00
Lead		1972.00	-20.00
Nickel		21845.00	-225.00
Tin		17590.00	-480.00
Zinc		2665.00	-155.50
Precious Metals (PM London Fix)			
Gold		1648.05	-11.70
Silver (US cents)		1922.50	-14.50
Platinum		950.00	-2.00
Palladium		1908.00	-36.00
Bulk Commodities			
Iron Ore		79.41	-2.01
Baltic Dry Index		1463.00	-71.00
Richards Bay ICE Futures		236.00	2.40

Agricultural & Cattle Futures		Price*	Change
Corn♦	Dec	695.50	14.75
Wheat♦	Dec	875.75	46.50
Soybeans♦	Nov	1395.75	8.00
Soybeans Meal♦	Dec	427.10	1.70
Cocoa (ICE Liffe)⊕	Dec	1919.00	25.00
Cocoa (ICE US)♥	Dec	2342.00	40.00
Coffee(Robusta)⊕	Nov	1900.00	29.00
Coffee (Arabica)♥	Dec	176.25	6.45
White Sugar⊕		527.20	11.60
Sugar 11♥		17.85	0.27
Cotton♥	Dec	71.83	-0.28
Orange Juice♥	Nov	209.75	2.80
Live Cattle♣	Dec	152.93	-0.50
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Dec	86.13	1.00

	Oct 28	% Chg Month	% Chg Year
S&P GSCI Spt	633.96	-5.06	18.07
DJ UBS Spot	112.46	-7.95	15.42
TR/CC CRB TR	293.59	-6.05	24.36
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

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

BONDS: INDEX-LINKED

	Price Oct 28	Yield Oct 28	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.53	1.337	1.278	0.41	5.25	72022.55	8
Fr 0.25%' 24	103.33	-1.626	-1.519	0.77	17.92	249375.32	17
Swe 1.00%' 25	125.03	-0.566	-0.651	1.34	35.38	215165.43	6
UK 0.125%' 24	104.81	-3.209	-3.221	3.06	15.24	584711.61	31
UK 2.50%' 24	378.14	-2.306	-2.297	3.42	6.82	584711.61	31
UK 2.00%' 35	245.38	-0.052	-0.042	1.98	9.08	584711.61	31
US 0.625%' 24	98.43	1.939	1.866	0.82	40.98	1573057.68	46
US 3.625%' 28	109.81	1.735	1.680	1.24	16.78	1573057.68	46

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

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.73	1.75	-0.32	Netherlands	2.10	0.12	-1.95
Austria	2.55	0.57	-1.50	New Zealand	4.24	2.26	0.19
Canada	3.22	1.24	-0.83	Norway	3.60	1.62	-0.45
Denmark	2.40	0.42	-1.65	Portugal	2.39	0.41	-1.66
Finland	2.57	0.59	-1.48	Spain	2.77	0.79	-1.28
Germany	1.98	0.00	-2.07	Sweden	-0.14	-2.12	-4.19
Italy	1.56	-0.42	-2.49	Switzerland	0.97	-1.01	-3.08
Japan	0.18	-1.80	-3.87	United States	4.05	2.07	0.00

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

ARTS

‘We are relentless. We don’t give up’

As Giuseppe Eskenazi celebrates 50 years at the

best and really want, we will buy it, even though it may take some time to sell.” The record auction prices the gallery *pinnacle of London's Asian art scene, he talks to Susan Moore*

Above: Giuseppe Eskenazi shot for the FT by Leo Goddard. Above right: Eskenazi gallery in Clifford Street, London

It all started from zero really," says Giuseppe Eskenazi, the London-based East Asian art specialist, talking about how his father set up a tiny London branch of his family's Milan-based gallery in 1960. The plan had been simply to supply his cousin Victor's "Oriental" art gallery. But after his father's premature death, Eskenazi took over the fledgling business in his twenties and now — at a spry 83 — is marking his 50th year of shows in London and New York, with a loan of five masterpieces sold to and now borrowed back from a private family collection. (The show coincides with the 25th anniversary of Asian Art in London.)

Although the business is now run by his son Daniel, who joined in 1990, Giuseppe Eskenazi is still to be found in the grand six-floor gallery off Bond Street from 8.30am to 4.30pm every working day. We meet in the light-filled third-floor library, which houses a fraction of the gallery's 25,000 reference books. Few dealers will have devoted as much energy to preparing spectacular exhibitions and handsome scholarly catalogues as the smiling, courteous Eskenazi.

London was exceptionally attractive for art dealers back then. It had usurped Paris as the centre of the international art trade, thanks to minimal import, export or sales taxes and little bureaucracy. It benefited from outstanding museum study collections of Asian art, perhaps a dozen top dealers in the field and monthly auctions. The cosmopolitan, polyglot Eskenazis were anglophiles too: the family had been granted British citizenship in 1863 in Constantinople, where Giuseppe was born, in return for unspecified service — said within the family to be espionage.

London's established dealers were, however, far from welcoming or generous, the exception being Sydney Moss. It suited them to buy works from Eskenazi to sell at London's flagship Grosvenor House fair rather than invite him to participate. As he put it in his memoir, "When it rained and I needed an umbrella, I wasn't offered one. When the sun came out, I was offered many."

It is one reason why he is probably the only leading western dealer never to have exhibited at any art fair. More pertinently, fairs, which he recognises would have enabled him to meet more people, do not lend themselves to the Eskenazi way of doing business.

"Japan was a big influence on me," Eskenazi says by way of explanation. Its culture reveres early Chinese works of art, recognising them as the bedrock of its own culture, and takes a different approach to engaging with objects (and their sales).

"In the early 1960s, I had the courage to go to there on my own, speaking not a word of Japanese. You would sit with a dealer, and he would show you one piece and look to see how you were responding to it and wait for your questions. Then he would show you another piece, if he felt you were worthy. This could go on for days. If you bought something, you were a friend forever."

He wanted this kind of close relationship with clients, to let them sit and handle pieces, to bring out books. You cannot do that standing in a booth. Japanese taste informed his own, too: from neolithic pottery and Shang bronzes of the 12th century BCE to early Ming blue and white porcelain of the 15th century, which dominated the market in the 1960s.

What distinguished Eskenazi from his fellow Asian art dealers in London is that he wanted a gallery, not a shop. In 1971, he moved his premises on Piccadilly down to the first floor and into a sleek modern gallery. Where others had shelves stuffed with stock, he showcased a single piece in a display. Encouragement and help came from unlikely quarters. Art dealers Marlborough urged him to stage exhibitions. Peter Wilson, Sotheby's mercurial chair, lent him a publicist for the gallery's inaugural show. It generated the first of many long queues of Japanese people snaking along Piccadilly.

These largely thematic shows, up to 10 years in the assembling, played to current taste but also broke new ground. The 1978 show of early Buddhist sculpture, for instance, was the first staged in the west since 1944. Another speciality was early inlaid bronzes. The company was one of the first to implement pioneering thermoluminescence testing, which determined the age of ceramics and cast bronzes in a market flooded with fakes. Its catalogues may also have been the first in the western art trade to include information in Chinese, thanks to Eskenazi's wife, Laura.

Eskenazi has weathered numerous storms, not least the oil crisis and property slump of 1973-77. He was bold enough to buy and remodel the firm's current Clifford Street building during the recessionary years of the early 1990s. He has a theory for his firm's survival: "We are relentless. We don't give up. If there is something we think is the

has paid over the decades are legion.

Institutional buyers have always been its core clients: Eskenazi is proud to have sold to more than 80 museums, supplying more than 30 pieces to the Cleveland Museum of Art, for instance, and almost the entire Chinese collection of Japan's Miho Museum.

The demand for Chinese art has not diminished over the years, even if the buyers and their tastes have changed. After the Japanese market collapsed in the early 1990s, Hong Kong and Taiwan were ascendant, followed by the US later in the decade. For the past 15 years, mainland Chinese buyers have pushed prices to extraordinary heights, initially for showy, technically complex Qing porcelains. The gallery has continued to adapt, with Daniel introducing ink paintings by contemporary artists, gogottes and Japanese baskets.

It needs to adapt to London's diminished status too, says Eskenazi. "London is not what is was. There are fewer top dealers and, as a result of Brexit, the auction houses have either closed their Asian art departments or are staging more of their sales in Paris. The power is ebbing away from London but we are working hard to keep it."

What has he learnt in his seven decades in the business? "In my early days, I could only see the surface of an object. As the years went by — as everyone who deals in art experiences — I could look into it, see how and why it was created." He adds, "I can also now see rubbish straight away!"

'50 Years of Exhibitions', to February 3, eskenazi.co.uk. Asian Art in London, to November 5, asianartinlondon.com

> 'The power is ebbing away from London but we are working hard to keep it'

Eskenazi exhibition includes a Yuan dynasty jar, left, and a Qing dynasty bowl

ARTS ONLINE

The Life of a Song
How The Beatles paid homage to their US R&B heroes with 'Got to Get You Into My Life'

ft.com/arts

Graceful Alice and a flatulent horse

DANCE

Jasmin Vardimon: Alice
Arthur Pita: Ten Sorry Tales
Sadler's Wells, London

Louise Levene

"Family friendly." A phrase that either enfolds you like a comfort blanket or has you reaching for the absinthe bottle. In London, the Royal Opera House blithely rose above the half-term break, offering a choice between Crystal Pite's doomy treatise on life, death and the refugee crisis or Kenneth MacMillan's *Mayerling*. The latter is billed as "suitable for ages 14+" but there were still some seven-year-olds in the stalls for Vadim Muntagirov's superb debut last week. Intravenous drug use, marital rape, rough sex, syphilis and suicide: you can't help wondering where their parents would draw the line. Meanwhile Sadler's Wells embraced the school holiday with a choice of family viewing: Jasmin Vardimon's *Alice* (on the main stage) and Arthur Pita's *Ten Sorry Tales* (at the Lilian Baylis Studio).

The adventures of Lewis Carroll's dogged, prosaic little heroine have always been box-office catnip — Christopher Wheeldon's 2011 *Alice* for the Royal Ballet and the National Ballet of Canada has become a cash cow to rival *The Nutcracker*. Sales for Vardimon's UK tour of *Alice* have been brisk, but anyone expecting a design-led extravaganza will have reckoned without this dancemaker's determination to burden even the simplest narrative with intellectual baggage. Her dismal 2018 *Medusa* managed to work in #MeToo, anti-capitalism and oceanic pollution. *Alice* becomes a Trojan horse for her thoughts on metamorphosis, the menarche and the menopause (she missed out "muchness", sadly).

The soundtrack offers Vardimon's usual random playlist — everything from Vivaldi to The Swingle Singers — but it looks pretty good, thanks to imaginative designs by Vardimon and regular collaborator and dramaturge Guy Bar-Amotz. The space is dominated by a vast book whose turning pages make for swift transformations. There is cunning use of shadowplay and Andrew Crofts creates beguiling projections.

Vardimon's seven dancers are tireless and versatile and get to showcase an impressive range of skills. Donny Beau Ferris and Sean Moss are impressively acrobatic as the Queen's guards. Evelyn Hart is a galumphing but strangely graceful Alice, though her story never engages us. The 90-minute string of vignettes aspires to non-linear dream logic but just feels incoherent. ★★★☆☆
Touring to Ashford and Ipswich in December, jasminvardimon.com

Arthur Pita follows the success of his 2013 *The Little Match Girl* with *Ten Sorry Tales*, based on the 2005 story collection by Mick Jackson. Jackson's offbeat, often macabre narratives — a flatulent horse that steals buttons, a contemporary artist killed by his own butterflies, an alien abduction ("Someone's abducted the aliens!") — are a perfect fit for Pita's slyly witty world view.

Frank Moon's commissioned score supplements recorded material with manic live accompaniment by the composer himself on piano, violin, mandolin, banjo and melodica. Jann Seabra's designs have welcome echoes of David Roberts' Gorey-esque book illustrations and allow the versatile cast of six to morph readily into schoolboys, fishwives and bungling undertakers with minimal props and some deliciously creepy face masks.

Each story is punctuated by exquisite little flurries of folk-inflected movement including a deliciously deadpan step dance for Simon Palmer — imagine Will Self doing a Schuhplattler routine. Nathan Goodman delivers a splendid comic turn as the flatulent horse in "The Button Thief". A dark delight.
★★★★☆
sadlerswells.com

Evelyn Hart as Alice in Jasmin Vardimon's adaptation
Tristram Kenton

FT BIG READ. MIDDLE EAST

Egypt's overbearing army

The global crisis has magnified the fragility of the country's state-driven economic model and forced it to take out a new loan from the IMF. Sisi is now under pressure to reduce the military's role in the economy.

By Andrew England

President Abdel Fattah al-Sisi, a former army chief, faces calls to let the private sector flourish. But in doing so, he must take on the nation's most powerful institution

FT montage: Reuters; Bloomberg

When Egypt was forced to go cap-in-hand to the IMF as it struggled with a foreign currency crisis and dwindling reserves in 2016, President Abdel Fattah al-Sisi was adamant that he would take the "hard decisions" that his predecessors avoided in order to turn round the ailing economy.

Knowing he would have to push through politically sensitive reforms that would heap pain on millions of impoverished Egyptians to secure a $12bn loan from the fund, he insisted the Arab state had to bridge the gap between resources and spending.

"We borrow and we borrow, and the more we borrow the more the debt grows," Sisi said. "All the hard decisions that many over the years were scared to take: I will not hesitate for a second to take them."

Yet six years on, Egypt is once again depending on IMF support as it grapples with another foreign currency shortage, with the fund agreeing last week to a new $3bn loan package. It is the fourth time Cairo has sought the fund's help since Sisi seized power in a coup in 2013, with Egypt holding the unwanted mantle of being the second biggest debtor to the IMF after Argentina. In total, it owes multilateral institutions $52bn.

In part, Egypt's woes have underscored the vulnerabilities of poorer nations to the repercussions of Russia's war in Ukraine after it triggered capital flight from emerging markets and caused food and energy prices to soar — raising import costs just as a vital source of foreign currency dried up. But economists and Egyptian businessmen say that there are more fundamental issues at stake, arguing that the global crisis has magnified the fragility of Sisi's state-driven economic model.

Under Sisi's watch, Cairo became increasingly dependent on hot money flowing into domestic debt to finance its current account deficit as the central bank propped up the pound and kept interest rates in the double digits. One result is that Cairo had until recently been paying the world's highest real interest rates on its debt.

At the same time, Sisi relied on the military to drive growth as it was put in charge of scores of infrastructure projects and encouraged to spread its economic footprint across myriad sectors, from pasta to cement and beverages, crowding out the private sector and dissuading foreign investment. The complaint is that the hot money was used to support massive state spending, much of it through the military.

Now, the question Egyptian businessmen and analysts are asking is whether the shock of the past six months will be sufficient to force Sisi to take arguably his toughest economic decision: rolling back the army's role in the economy. That, economists say, will be crucial if the private sector is to flourish and for the country to attract greater levels of FDI to bring in more sustainable sources of foreign currency.

"We need to stop the bleeding," says a business owner, who, like many others, wants to remain anonymous given fear of repercussions in an autocratic state. "If we carry on this way it's to the Paris Club [for debt relief], haircuts, selling assets and in a state of bankruptcy."

Some businessmen cautiously hope that the rattled government has finally woken up to the precarious path the economy was heading. "It [the crisis] could be a blessing in disguise," says another executive. "There seems to be a consensus and an understanding that things have to change because there's no other solutions."

Others remain wary. If Sisi is to reduce the military's footprint, the former army chief will be taking on his core constituency and the nation's most powerful institution with all its associated vested interests. "It will be very difficult," says the business owner. "You give your kid a toy and how do you take it away? It will take a lot of courage to take back from the army and I worry about this. If you think privatisation in the public sector is difficult, what about a military factory?"

Jason Tuvey at Capital Economics says "the military is not going to give up its interests very quickly".

Michael Wahid Hanna, an analyst at Crisis Group, says that reducing the role of the military "would require a rewiring and reordering of large parts of the economy". He adds: "And that's hard."

The 'crisis committee'

Egypt's leaders were jolted into action almost as soon as Russians invaded Ukraine in late February as they braced for the global repercussions of the conflict. The regime swiftly established a "crisis committee" to meet weekly and focused on ensuring food security for its 100mn population, tens of millions of whom rely on subsidised bread. The army was ordered to supply millions of heavily discounted "food boxes" to vulnerable families, while officials sought to diversify sources of imports for the world's top wheat importer. Before Russian president Vladimir Putin launched his offensive, Egypt depended on Russia and Ukraine for about 80 per cent of its imported wheat, and the fear was that it would be one of the countries most exposed to supply shortages and increases in food prices.

"I worry about Egypt," Kristalina Georgieva, managing director of the IMF, said in March.

But it was not food security that would prove to be the state's Achilles heel. Instead, it was wary foreign fund managers pulling about $20bn out of Egyptian debt in February and March, triggering the foreign currency crisis.

Sisi, who brooks zero dissent, was shocked to discover the weaknesses in the system, people briefed on government discussions said.

'The fundamental problem is Egypt has been living beyond its means. It sells significantly less than it imports, which it finances through debt'

On March 8, he jumped on a plane to Saudi Arabia, one of Cairo's traditional backers, and by the end of the month Riyadh had deposited $5bn in Egypt's central bank. It was part of a wider Gulf bailout, with the United Arab Emirates depositing $5bn and Qatar $3bn.

"I dread to think," says an Egyptian banker, when asked what would have happened if the Gulf states had not intervened. "Sisi was very unhappy and it took him by surprise — the degree of fragility in the financial system."

The three Gulf states also committed to investing billions of dollars to acquire state holdings in Egyptian companies through their sovereign wealth funds. Saudi Arabia's Public Investment Fund and Abu Dhabi's ADQ fund have already spent about $4bn this year acquiring stakes in companies, including a bank, and chemicals, fertiliser and tech groups. It was also in March that Cairo turned to the IMF for support, finally sealing the $3bn loan last week. In addition, Egypt will receive another $5bn from multilateral and regional donors — likely to be the Gulf states again — this financial year, the fund said.

Even officials are acknowledging that the crisis was a wake-up call.

A state official says that it was always the government's goal to "unlock FDI". But "maybe people got a bit relaxed and didn't put the plan to work properly".

"Did we learn from the lesson? Yes . . . the guys at the central bank understand it's not easy money," says an Egyptian banker. "My feeling is, at the top, people understand we have a challenge, that challenge is we overspent in a short period of time."

$3bn Size of the IMF loan package agreed last week with Cairo

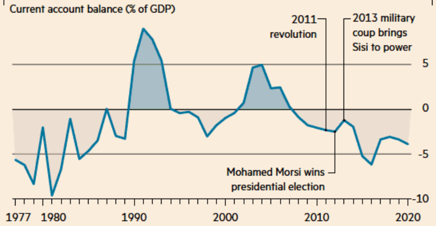
$52bn What Egypt owes multilateral institutions in total

But the critical test will be whether the regime seriously addresses the overbearing dominance of the state in the economy, particularly the military's role. "The fundamental problem is Egypt has been living beyond its means. It produces and sells to the rest of the world significantly less than it imports, which it finances through debt," says an Egyptian economist. "A lot of the state consumption comes outside the budget in the form of military investment. If you look at a lot of these megaprojects it's the military financing it . . . they are adding to the import bill and creating a net outflow of dollars."

Rhetorically, at least, the leadership has signalled it is ready to act.

Egypt's worsening current account deficit

Current account balance (% of GDP)



Source: World Bank

Speaking to businessmen and government officials at an economic conference held earlier this month in response to the crisis, Sisi gave mixed signals, defending his record while also suggesting he was willing to reduce the state's role. "I solved the problem of the ports and of the infrastructure of the state in a different way. The route that you suggested offering [projects] to the private sector and offering it to the foreigners, I'm with you, but I didn't have the time for more delays," the president said.

Two months earlier, Sisi had accepted the resignation of central bank governor Tarek Amer, who many criticised for his role in the malaise.

The central bank has since said it would allow a flexible exchange regime, something the fund was demanding. The loan package was intended to help Egypt "push forward deep structural and governance reforms to promote private sector-led growth and job creation," the IMF said.

As far back as April, Sisi had announced that the government would raise $40bn over four years through the sale of state assets and said it would start selling stakes of military companies on the stock exchange "before the end of year". In the same speech, he also called for "political dialogue" with youth movements and political parties, a surprise move for a president whose regime that has jailed tens of thousands of people and is accused of being Egypt's most oppressive in decades.

'You give your kid a toy and how do you take it away? If you think privatisation in the public sector is difficult, what about a military factory?'

Hanna, the Crisis Group analyst, says while the dialogue is limited in nature, the regime is "doing some things we didn't think possible not so long ago".

"There's a lot of scepticism and frustration with it, and concerns that it's a PR exercise," Hanna says. "But it's reflective of the fact there's pressure; they recognise this moment is different and they need to respond differently."

The government is also working on a "state-ownership" document intended to outline sectors in which it envisages a role for state entities, including the military, and where their presence should be reduced or completely withdrawn.

In drawing up its plans, the government has engaged with the IMF, the World Bank and businessmen as it targets more than doubling the private sector's role in the economy to 65 per cent over the next three years. But months after the initiative was first announced, the final document has not been published. Sisi has previously made pledges to sell-off stakes in military companies over the past three years, but the rhetoric has yet to be matched by asset sales on the ground. "It's a hard thing to unwind; it would be in a sense a major ideological reversal," Hanna says. "During the Sisi era, military privilege has increased; their role in the economy has increased and that has created real winners, including within the military and former military. It is its own kind of patronage."

Leaning on the military

Sisi has relied on the military as the prime vehicle to drive his economic plans since he inherited a broken economy after ousting Islamist leader Mohamed Morsi, the country's first democratically elected president, nine years ago.

His government earned plaudits from the IMF, businessmen and bankers in 2016 after pushing through tough reforms, including slashing energy subsidies and trimming the state's wage bill, to secure that year's $12bn loan and bring fiscal stability. It also allowed the pound to devalue, with the currency losing half its value that year.

However, the regime did little to improve the investment climate in a country long blighted by an unwieldy bureaucracy, poor logistics and corruption, businessmen and economists say.

Instead, the president forged ahead with an estimated $400bn worth of infrastructure projects as he promised to build a "new republic". As the country morphed from being a police state to a military-led state, the army extended its reach across the economy, from steel and cement to agriculture, fisheries, energy, healthcare, food and beverages.

The economy went on to post some of the region's highest growth rates, but economists cautioned that it was mainly driven by construction, the energy sector and real estate. While some of the infrastructure projects were deemed necessary, critics view others as vanity projects that the country could ill-afford. Poverty rates rose after the devaluation and private sector investment remained below historical averages.

The government has relied on the military as the prime vehicle to drive Sisi's economic plans

Many businessmen, who had welcomed Sisi's coup for returning a semblance of stability to the country, also believe he entered office suspicious and disdainful of the private sector. As the military's presence in the economy expanded, whispered concerns grew that it was putting off both local and foreign investment.

The issue was not just the scale of the military's ever growing reach, but fear among businessmen that they would wake up and find themselves competing with an untouchable institution that controls much of Egypt's land, can use conscript labour and is exempt from some taxes.

Two years ago, there were tentative signs that the regime was beginning to listen to businesses' concerns when the Sovereign Fund of Egypt was tasked with selling stakes in 10 military-owned companies. It identified two, Wataniya, which operates about 200 service stations, and Safi, a water bottling and food company, as the first assets it would privatise but neither has been sold-off.

Ayman Soliman, the fund's chief executive, says there is a "slew" of companies ready for a listing, adding that the fund was corporatising the companies to get them ready for sale, either through listings or selling stakes to strategic investors pre-IPO.

"The programme hasn't changed, but as we build our learning curve, we are educating our counterparts; we are building a road map," says Soliman. "We have had companies earmarked for IPO for long, but there's no market out there even if you have the best product."

But even if the regime is serious about selling off military companies, it will face myriad challenges attracting investors, experts say. And economists caution that asset sales alone will not solve Egypt's deep problems, with an estimated 60mn Egyptians living below or just above the poverty line.

Some worry that complacency could set in with the belief that Egypt is too important geopolitically to be allowed to fail, and that it can rely on bailouts from its neighbours.

"We believe in this fiction we are too big to fail, that's not true. For them [Gulf donors], failure is the Muslim Brotherhood taking over again," says an Egyptian academic. "Short of this, there are all sorts of disasters that can happen which our brother Arabs can happily live with . . . [Egypt] stagnant, impoverished and getting worse and worse."

"The crisis acts as a wake-up call," he adds. "But will they wake up in the right place?"

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

Lula should use his victory to revive Brazil's economy

Persistently low growth over a decade has blighted the South American giant

Brazil's presidential election on Sunday offered some hope. One of the world's biggest democracies voted peacefully after a bitter election campaign and its institutions have held firm against attacks by President Jair Bolsonaro on everything from the voting system to the rules of the game. Former president Luiz Inácio Lula da Silva is now set to govern Latin America's biggest economy for a third time, but only by a slim margin: the veteran left-winger prevailed by 1.8 percentage points after an unedifying campaign more akin to a street brawl than a political debate.

World leaders were swift to offer congratulations to the victor. President Joe Biden pointedly remarked that Lula's win followed "free, fair and credible elections". His message was a timely reminder to Bolsonaro and his hard-right supporters that the US will resist any attempt to question the result.

Bolsonaro himself, a former army captain who served in uniform during Brazil's dictatorship and has vowed that only God can remove him from the presidency, remained silent for hours after the result was announced. He had not publicly recognised his defeat at the time of writing, but would be extremely ill-advised to do otherwise — blocking a peaceful transition could pose serious risks to stability in one of the top dozen global economies.

Lula pledged in his victory speech to govern for all Brazilians. Doing so will be hard. Though he won international fame for pulling millions out of poverty during his 2003-10 administrations, Lula's reputation at home was tarnished by corruption scandals and the economic mismanagement of his chosen successor, Dilma Rousseff; many Brazilians backed him this time as the lesser of two evils.

His unwieldy electoral coalition stretched from the left to the centre-right. Its members united to stop Bolsonaro because they believed that he threatened democracy. Now the election is over, the alliance may fracture.

Deep as they are, political divisions are not Brazil's only problem. Real growth in gross domestic product per capita has averaged zero since 2011. The boom years of the 1960s and 1970s, when Brazil grew at more than 7 per cent a year, are a distant memory.

Much of the explanation has to do with governance. Brazil remains a relatively closed economy and has failed to develop internationally competitive exports outside agribusiness and mining. Despite levying taxes at levels close to the OECD average, much public spending is misdirected into featherbedding bureaucrats or oiling political machines. Brazil spends more of its GDP on education than France or Germany, yet the quality of public-sector schools is poor. Investment and productivity are low. Congress is in hock to a host of special interest groups.

Today's fraught geoeconomic climate offers opportunities. The president should act quickly to slash deforestation and make the country attractive to ESG investors

Today's fraught geoeconomic climate offers Brazil major opportunities. The country is rich in food, fuel and metals and has a flourishing renewable energy sector. It is located far from global conflict spots and has traditionally sought good relations with the US, China, Europe and Russia.

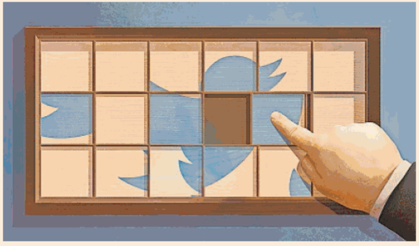
Lula should act quickly on his pledges to slash Amazon deforestation, which has boomed under Bolsonaro, and make Brazil attractive to ESG investors. He should push for swift ratification of the long-stalled trade deal between the South American Mercosur bloc and the EU. He should name a finance minister with the confidence of market investors and outline a credible plan to finance his campaign promises.

Ultimately, though, Brazil will only flourish if its political and economic elite show the same unity of purpose in modernising the country that they have showed in defending democracy.

Opinion Social media

Musk is right: we do need a digital town square

Ewan White



Stephen Bush

There are two responses to Elon Musk's claim that he bought Twitter "to help humanity" rather than to make money. The first is cynicism: nobody ever became the world's richest man by putting the high-minded pursuit of ideals over their eye for commercial advantage, and when push comes to shove, Musk will run Twitter as a profitmaking enterprise first and a social good second.

But the other, and I think more useful, response is to think about the ways in which Musk is right. He is surely correct to argue that one essential plank of civilisation is the ability to resolve disputes without violence, whether they be arguments over property, workplace rights or any other political dispute you care to name. Musk is right, too, to say that, over time, the number of shared spaces where such disagreements can be hashed out has shrunk. So the creation of at least one "digital town square" in which they can be aired is vital.

A degree of management has always been vital to the functioning of public forums

It has never been easier to sort ourselves into communities based not on geography or proximity but on interest. When the film critic Pauline Kael joked that she lived "in a rather special world" where she only knew "one person who voted for Nixon" she wasn't describing a place that was accessible to most people. But it is increasingly easy today to avoid conversations with people of different views and perspectives.

While easy access to the internet has helped to speed that process up, it cannot just be seen as a product of media organisations hunting for, in Musk's words, "clicks". In 1996, the age of dial-up internet, and long before the advent of the smartphone, Fox News was pioneering an approach to news that looks an awful lot like the contained universes Musk worries about.

say that they are not creating an echo chamber but responding to one that already exists. The default "impartial" news channels, they'd argue, were anything but. And perhaps they're right — impartiality and fairness are certainly hard needles to thread.

There are 204 billion reasons to believe that Musk has a better idea than most people how to make money — but there are good reasons, too, to think that the hundreds of politically motivated and polarised publications and broadcast outlets aren't run by fools either.

There are solutions to that problem, but they run up against the absolute right to free speech. In the UK, for instance, a combination of tight restrictions on what broadcasters can do and the BBC's privileged funding model has, for good and for ill, ensured the existence of a common "town square", at least for the 76 per cent of Brits who, according to the regulator's latest survey use some of the corporation's services.

The BBC's dominance endures because it is hard for British competitors to offer something genuinely different. That means the UK still has a common space where most debates can take place — but the BBC, like any organisation, has plenty of blind spots and biases of its own.

The biggest problem for anyone who wants to create a shared forum for debates is that the free exchange of ideas ultimately rests on the ability to get people to stop talking. You can't hold a discussion about the future of telecommunications if people are still rowing about agriculture in the same room.

And that's the thing about town squares: yes, they may host political discussions and debates, but they are also places that people want to celebrate Arsenal winning the FA Cup, to gossip over the latest episode of *The Young and the Restless* or to flirt aimlessly. What allows a political party to hold a rally in a physical town square is the fact that someone else has the job of moving on the celebrating football fans.

Despite the often sentimentalised account of our freedoms in the past there has never been an unrestricted right of access to "town squares" — often they have been the site of excessive repression and control. But a degree of management has always been vital to their functioning.

What remains unclear is whether some alchemy can be found which

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Letters

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The difference between co-founder status and the CEO role

In Cat Rutter Pooley's thoughtful analysis of Made.com's demise, she concludes by drawing the timing parallel between Made.com and lastminute.com's IPOs at the top of the market 21 years apart ("Made.com is the Covid trade come unstuck", Opinion, October 28.)

I do indeed remember what it was like to run lastminute.com in the dotcom bust when the share price fell 95 per cent. It added extra challenges but the team rose to the occasion and ended up selling five years later for $1.1bn. I quickly learnt the pros and cons of the public markets. I did not push for Made.com to go public and in fact had left the chair role five years prior to the IPO and left the board before the IPO, as I knew that any misses by Made or broader market shifts would have led to extreme volatility. I wanted to ensure, for the company and shareholders, that any comparisons to lastminute.com's IPO couldn't be drawn. Also the Made.com IPO surely pushed the board to go for riskier growth and morph away from an inventory light model. The similarity between the stories is that, yes, venture capitalist as shareholders leaned into a market that was inclined to price for perfection; the difference is that at lastminute.com we used the public market currency quickly for sizeable defining acquisitions, which made us the European market leader. That journey was rewarded. In Made's case, it appears from the touchlines that the market post-Covid moved too fast and the company moved too far from its initial model and didn't use its public currency sufficiently when there was time. My advice when I was a board member was to innovate more, to build larger barriers to entry, to always worry about stock, to raise cash when you don't need it and most importantly to seek a trade sale rather than risk the mood of the markets with an IPO. Your article states reputational risk in the IPO for myself but forgets I wasn't there when the company went public and didn't recommend that route during my time on the board. Many conflate co-founder status with CEO/chair role — the FT knows better!

Brent Hoberman
Chair, Founders Forum, Firstminute Capital, Founders Factory, London, WC2, UK

We are more likely to die as a result of warming

Stephen Bush's article (Opinion, October 25) implies that unless we have a growing population we are doomed to die in "adult diapers". As is often the case, his argument is based on a narrow economic-based analysis. A growing population may indeed increase a nation's total GDP but recent history suggests that any benefits are unevenly spread. Witness the fact that the median wage in the UK has hardly shifted in the past decade.

"SINCE BREXIT, I CAN'T GET HALF THE INGREDIENTS"

And the argument completely ignores the other results of population growth — loss of open countryside, damage to our ecological balance, risks to our food and water security and maybe to our social cohesion. Witness the fact that in recent polling more than 70 per cent thought this country was already overcrowded and that the government should have policies to address the resulting challenges. Some economists argue that a stable, or maybe a slowly declining, population is likely to result in the best overall living conditions for the greatest proportion of a population. If we follow Bush's approach, it seems that we are more likely to die as a result of global warming than to die in "adult diapers".

Robin Hodgson, The Lord Hodgson of Astley Abbotts
House of Lords, London SW1, UK

Stronger transatlantic ties can boost global economy

Suzanne Clark's constructive thoughts on support for the transatlantic business community (Opinion, October 26) should be well read on the US side of the Atlantic. As an American who lived and worked in Europe for two decades, I have seen first-hand how crises tended to expose Europe's vulnerabilities, from lack of fiscal union to slow-moving crisis response to, most recently, overreliance on Russian energy.

But Europe has also demonstrated an ability to overcome challenges and come together to solve problems. It can do so now if it is united in the direction of its crisis management. Progress towards more durable growth could be made if Europe would focus on natural areas of collaboration — shifting supply chains, investments in climate technology and upskilling of traditional manufacturing, to name just a few. As Clark says, a strong US-European alliance is in the best interest of all involved. Though I would remind American readers that Europe's almost certain recession is being brought on by squeezed energy supplies in response to the US and Europe's rightful condemnation of Russia's invasion of Ukraine.

A strengthened alliance, with a more united and vibrant Europe, would help the global economy emerge more resilient and with better prospects for sustainable growth.

Christiana Riley
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Toilet humour?

Ariella Budick writes in her review of *The Tudors* (FT Weekend, October 29) that, "Henry's faithful ransacked libraries and ripped pages out of books", quoting the playwright John Bale, "some to serve theyr jakes [jokes]". Unfortunately, this is a mistranslation and no laughing matter; "jakes" refers not to jokes, but to toilets. A fact which, since first learning of, I have never forgotten.

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OUTLOOK

AMERICA

Why Chinese students are falling out of love with US universities

Sino-US relations are at their worst since I began my love affair with China with the adoption of two Chinese infants 22 years ago, followed by eight years as the FT's Shanghai bureau chief. The news that only around half as many mainlanders are coming to the US to study now as before the pandemic seems a harbinger of worse to come. International students are like unofficial ambassadors between their cultures — halving that group will do nothing to heal the rift between the superpowers.

Some have argued that US president Joe Biden's new export controls on semiconductors amount to declaring economic war against China and president Xi Jinping's new leadership team. These geopolitical tensions have played a role in souring the Chinese view on studying in the US, according to Chinese educational consultants.

But based on interviews with Chinese students who cancelled or deferred plans to study in the US, and the consultants who advise them, there are plenty of other reasons too. These include China's property market crisis and the exorbitant cost of US university education, as well as America's reputation for shocking gun violence, growing anti-Asian racism and before the pandemic, but numbers have plummeted since then. F1 student visas issued to Chinese mainlanders fell 45 per cent in the six months to the end of September from the comparable period in 2019, US state department figures show.

Mainlanders are still going overseas to study, but more are choosing the UK, Singapore and Hong Kong, educational consultants say. Chinese students in the UK rose by 50 per cent between 2016-17 and 2020-21. And India displaced China in US student visa rankings over the past six months. F1 visas for Indian students rose to 87,029, well above China's 49,959, and almost three times the figure for India before the pandemic.

Janet, who prepares Chinese students to study overseas and declined to give her full name due to political concerns, tells me social media portrayals of crime in the US are a big factor. She says: "Families are asking me, 'is America still safe? Are Chinese students getting discriminated against there?'" Everyone I spoke to mentioned the fatal shooting in broad daylight of a Chinese student near the campus of the prestigious University of Chicago. I can sympathise: my Chinese daughter has just started a masters degree we're teaching them martial arts". She says families who might previously have prioritised the US now keep their options open. She also worries that the US tightening of visa restrictions for Chinese students on security grounds will make more families shy away from there. One of her students was denied a visa to study game design in the US this year. "This is the first time I've seen an undergraduate applicant rejected . . . and I don't think it will be the only case," she tells me.

Several consultants say China's economic crisis, and the weakening renminbi, are making parents more price sensitive. "Previously you had large numbers of very affluent students applying to the US because it was just like another handbag they needed to have," says one Chinese consultant, who also declined to give his name. It's cheaper to get a degree in the UK, where undergraduate study usually takes three years rather than four, he says. He notes, though, that top US universities, where the annual cost can be $90,000 for a Chinese student, have seen no decline — lower ranked schools have suffered more.

But geopolitical tensions loom large in parents' minds, he says. "Everyone is afraid their kid may not be able to complete their education" if Beijing

Former US president Bill Clinton observed as long ago as 2011 that MSNBC had become the liberal "version of Fox". Another late 1990s creation, the French channel CNews, has also been compared to Fox.

Of course, advocates for Fox or CNews, or indeed for MSNBC, would

allows the effective running of digital town squares without destroying the ability of societies to resolve disputes peacefully. We should hope that if Musk hasn't found a way to do that, someone else soon will.

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by Patti Waldmeir

pandemic-related travel problems. The targeting of Chinese academics on US campuses as spies during the Trump administration also did nothing to help.

Years of explosive growth in the number of Chinese students in America had begun to plateau even

there, only to have three shootings (one deadly) outside her apartment building in the first weeks of term.

Janet is now providing self-defence lessons to clients applying to study in the US: "before we just taught students how to write essays, now

attacks Taiwan and the US restricts visas for mainlanders as a result. That makes studying anywhere but the US much more appealing.

The writer is a contributing columnist, based in Chicago

Opinion

How will we remember the age of cheap money?

FINANCE

Sarah O'Connor

After the end of every era, a handful of images tend to linger in the mind. For me, the period of financial exuberance that came to a messy end in 2008 will always be encapsulated by the jobs fair I went to in my final year of university in 2006. I remember strolling from one recruiter's stand to the next to gather up their extravagant freebies. I got a very nice shower radio from Goldman Sachs. Another company (I forget which) was handing out popcorn machines. There was no real question we would get good jobs; the question was which we would choose.

Of course it didn't last. The decade that followed the financial crisis was grim by a number of metrics, notably in terms of people's pay packets. Wage growth across OECD countries was unusually weak. In the UK, real wages grew an average 33 per cent a decade from 1970 to 2007 but didn't grow at all in the 2010s.

Now we are watching another era come to an end. Not, sadly, the era of tough economic times, but the era in which those problems were accompanied by very low interest rates. Central banks around the world are raising rates to combat inflation. So what will we remember of the age of cheap money?

The answer probably depends on who you are. For homeowners, much lower mortgage payments helped to take the edge off stagnant wage growth. Low rates also helped to boost the prices of homes and other assets. People who owned houses had the weird feeling their properties were earning more than they themselves were. People who weren't on the housing ladder watched the bottom rung move further away. In the UK, 55 per cent of those born between 1956 and 1960 were homeowners by the age of 30. For people like me born between 1981 and 1985, that figure was just 27 per cent.

The car market changed too. Instead of buying a new car with cash up front, it became increasingly popular to use "personal contract purchase" schemes which allowed customers to pay a deposit and a monthly fee. This allowed people to drive fancier cars. In the UK in 2006, 46 per cent of new car registrations were financed at the point-of-sale by members of the Finance & Leasing Association. By 2019, that figure was almost 92 per cent. The UK wasn't getting much richer as a nation, but you wouldn't have known it from all the Audis on the roads.

> The decade was a time when economic stagnation came with a veneer of affluence

Low interest rates also sent money gushing into lossmaking start-ups that promised to grow quickly. From Uber and Deliveroo to quick grocery delivery apps like Getir and Gopuff, investors subsidised people's taxi rides, takeaway meals and 15-minute deliveries of treats like beer and chocolate.

Then there was the expansion of "buy now, pay later" companies, which partner with retailers to give customers the option to pay for their stuff via interest-free instalments. This business model was perfectly placed to help retailers drive up sales in an era in which young consumers were feeling the pinch in their pay packets.

Swedish company Klarna, for example, has said US retailers that offer customers four interest-free instalments report a 68 per cent increase in average order value and 21 per cent higher purchase frequency.

A survey by the US Federal Reserve in 2021 found that while 78 per cent of buy-now-pay-later service users did it for convenience, 51 per cent also said it was the only way they could afford their purchase.

It would be overly curmudgeonly to say the opportunity afforded by low interest rates was entirely frittered away on services like these. Low rates also helped to foster important investments in renewable energy and to underpin the shale boom in the US. But I will remember the decade as a time when economic stagnation came with a veneer of affluence. Money was tight but people could summon cheap rides and buy things even when they couldn't afford them.

These business models are now under strain. Uber's and Deliveroo's share prices have tumbled. Rapid grocery delivery apps are closing down or merging. The valuation of Klarna, once Europe's most valuable private tech company, has dropped from $46bn to $6.7bn.

For that reason, I think the lasting image of the era of cheap money for me will be the recent announcement that customers can now pay for a Deliveroo takeaway in instalments via Klarna. Deliveroo and Klarna say this isn't problematic, given that plenty of people buy takeaways with credit cards. Still, it's hard to escape the impression of two drunks propping each other up at the end of a long party.

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Nuclear threats that hang over the world

GLOBAL AFFAIRS

Gideon Rachman

"A nuclear war cannot be won and must never be fought." That joint statement was issued at the beginning of this year by China, France, Russia, the UK and the US — the five official nuclear weapons states.

The following month, Russia invaded Ukraine. Ever since, world leaders have been grappling with the threat that a nuclear war might indeed be fought — quite soon.

From the outset, Vladimir Putin has described the conflict as existential for Russia and hinted that he might use nuclear weapons to prevail.

A little more than a week ago, western security officials rushed into their offices over the weekend — alarmed that Moscow's accusations that Ukraine was poised to use a "dirty bomb" might be a signal that Russia itself was seeking a pretext to go nuclear.

Although that immediate crisis receded, the overall threat that Russia will use a nuclear weapon is still judged to be rising. One scenario discussed in the US government is that a humiliating Russian defeat in the battle for Kherson might persuade Putin to use tactical nuclear weapons against Ukrainian troops in an effort to reverse the tide on the battlefield.

It is sometimes counter-argued that Putin would not use nuclear weapons so close to Russian territory, for fear of contaminating his own country. But senior US officials point out that the smallest tactical nuclear weapons might kill hundreds of people, rather than thousands — and devastate and irradiate a few square miles.

The US and its allies are focused on preventing Russia from making that fatal step across the nuclear threshold — through a mixture of deterrence and diplomacy. But they are also thinking hard about the global aftermath of the use of a Russian nuclear weapon. This is unknown territory and the pressure is intense. As one senior US official puts it: "People will be studying how this crisis was handled for decades to come."

Broadly speaking, there are four main scenarios to consider: nuclear normalisation, nuclear blackmail, avoidance of war, and Armageddon.

It is not hard to see how Russia's use of a nuclear weapon could spiral into an all-out nuclear war — leading to what President Biden has termed "Armageddon". Washington has warned that if Moscow were to use a nuclear weapon, there would be a response with "catastrophic" consequences for Russia.

The Americans have not spelt out in public what that response would be. Many commentators think that it would be military, but non-nuclear. General David Petraeus, a former CIA head, has talked of Nato forces attacking Russian troops on the ground in Ukraine with conventional weapons and sinking the Russian Black Sea fleet.

The argument for a western military response is that if Russia got away with using a nuclear weapon — and even succeeded in reversing the course of the war — then the nuclear taboo that has held since 1945 would be smashed.

But direct western military involvement would probably trigger a further Russian response. The west and Russia might then rapidly move up the "escalation ladder", making the nightmare of all-out nuclear war distinctly possible. As one US official puts it: "I don't think anyone should be confident that we can control the escalation risks."

Because the prospect of escalation to Armageddon is so horrific, there is also a real possibility that even the use of a Russian nuclear weapon would not trigger a direct western military response — with the US instead trying to organise the complete economic and diplomatic isolation of Russia. But that would open the door to another disturbing future: "nuclear normalisation".

> A dystopian future beckons if Russia discovers it can succeed by simply threatening a strike

Nuclear weapons would have been shown to be tools that can be used in a war of aggression — not just for deterrence. Russia, and even China, might be tempted to cross the nuclear threshold again. And non-nuclear states — such as Japan, South Korea, Germany and a host of others — would rush to acquire nuclear weapons to protect themselves.

Global turmoil would follow the use of a nuclear weapon. Markets would crash and publics might panic across the world, with the possibility of large-scale population movements out of cities.

The fear of such effects is leading to increasing chatter about the need to start peace negotiations with Russia. But western officials are resistant to that move now for fear of a third scenario — successful nuclear blackmail.

If Russia discovers that it can succeed in wars of aggression by simply threatening to use nuclear weapons, another dystopian future beckons. What would stop Moscow from making further nuclear threats, perhaps aimed at eastern Europe? And what conclusions would China or North Korea draw about future conflicts over Taiwan or the Korean peninsula?

The three darkest scenarios — Armageddon, normalisation and successful nuclear blackmail — are all far more possible than they should be. But, collectively, they remain less likely than the fourth possibility — that nuclear war is avoided.

In all previous nuclear crises since 1945, the leaders of great powers have drawn back from the brink. The knowledge that a false move could cause millions of deaths — or even destroy the planet — is enormously sobering. It has kept the world from sliding into nuclear conflict since 1945. It should work again. Probably.

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There's one inflation gauge that bucks the trend

MARKETS

Megan Greene

Whenever there's an eco-

name. There wasn't any significant underlying inflation in the years after the global financial crisis. While the Fed and financial markets are fixated on the 2 per cent inflation target, the UIG isn't primarily a level forecast. Its real value is in predicting inflection points. It correctly anticipated the lasting high inflation we are now observing. And while it's still high, the UIG is suggesting it will

smooth out the index. But the risk with these indices is that they can miss large price moves — up or down — that could be a signal of inflation changing direction.

The UIG is constructed differently, removing noise rather than items from the index. The idea is that movements in trend inflation happen alongside related changes in the trends of other

the level of inflation, as has sometimes been suggested. Where it matters is in showing when the inflation trend is changing, and on this it has a decent track record in both normal and unprecedented times. When CPI hit a peak in 2018, for example, UIG clearly showed the peak while core CPI and trimmed mean and median indices suggested inflation would continue rising.

underlying inflation. The Fed is now looking for signs that trend inflation has peaked and that monetary tightening is bringing inflation back towards its target. Much to its alarm, core inflation dipped in the second quarter of this year before accelerating in August and September. Median and trimmed mean inflation have been on a steady upward climb, with no signs of stabilisation. But

Issuing perpetual bonds would show that Sunak is serious

George Soros

After Liz Truss's disastrous financial performance as UK prime minister, the first task of her successor, Rishi Sunak, is to reassure markets that he is a professional. He must acknowledge the market worries about deficit spending, which were on full display in the turmoil after former chancellor Kwasi Kwarteng's "mini" Budget.

But Sunak must be careful not to impose too much austerity, which could trigger a full-blown financial crisis in a country that is facing many headwinds, including a shortage of affordable housing and a looming pension crisis.

To deal with these problems he has a useful tool at his disposal: issuing perpetual bonds. Often called "war bonds" or "consols", perpetual bonds have a long history in the UK. They were first issued in 1752, and later used to consolidate the debt from the Napoleonic Wars (which is why they were called "consols"). These wars pale in comparison with the global distress brought on by Covid-19. Issuing "Covid consols" to help confront the aftereffects of a calamity looks eminently reasonable.

The main advantage of perpetual bonds is that the principal never has to be repaid; only the coupon must be paid while the bonds are outstanding. The current interest rate environment may not seem the best time to issue perpetual bonds because the coupon would be rather high. But that doesn't matter. The bonds can be redeemed (after a "non-call" period) and replaced with another perpetual bond with a lower coupon. Perpetual bonds are the ideal tool to use to resolve a serious financial crisis like the present one. Not having to repay the principal provides a tremendous advantage that dwarfs the temporary cost of a high coupon. It could help solve both the housing and pension crises.

> UK prime minister must calm market fears about deficit spending without excessive austerity

UK pension funds are struggling to manage their gilts portfolios as interest rates go up and the Bank of England sheds the assets it accumulated during quantitative easing. Pension funds don't know what to expect from the BoE.

Under QE, the BoE purchased long-term gilts with short-term interest-bearing cash, which has put the bank in a bind. By raising rates to fight inflation, the BoE is simultaneously raising its funding costs and driving down gilts prices. In combination, these will generate large losses for the bank. If the BoE were shielded from politics, it could ignore these book-keeping losses. Yet these are fraught times; the BoE cannot ignore politics when setting monetary policy, making it harder for pension funds to manage their portfolios.

The Treasury could alleviate the situation by replacing (through a swap) the BoE's long-term gilts with shorter-term bonds. (For its part, the BoE could reduce what it pays on cash reserves.) This would attenuate the BoE's maturity mismatch, reduce its exposure to losses and relax the political constraints that make it hard to predict the central bank's moves. This would be a relief for pension funds.

But it would also shorten the maturity of the Treasury's debt. The Treasury could offset this by issuing perpetual bonds, which would have the added benefit of creating a single liquid benchmark to anchor the long end of the gilt market. This would address another difficulty pension funds have faced — the relative illiquidity of long-term gilts created by QE. By having the Treasury

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nomic consensus on anything, it's worth considering how it might be wrong. There seems to be general agreement that inflation and rates will be higher for longer, and "team transitory" has been defeated. But what if we are at an inflection point on inflation? This is the question policymakers should be asking. By one key measure, inflation in the US has already peaked. In fact, it peaked in March, the same month that the Federal Reserve began raising the benchmark rate.

The New York Fed's underlying inflation gauge has largely been ignored for decades. That's understandable, and not just because of the snoozer of a be abating.

The media and the public are obsessed with the consumer price index, while the Fed's target is based on the personal consumption expenditures index. Both can be "noisy", since they include the prices of volatile items such as energy and food. But they are not the only price measures. The Atlanta Fed tracks nine other indices for inflation that aim to strip out noise. They show inflation somewhere between 4.7 and 7.3 per cent in September.

Most of these gauges remove data to try to identify underlying inflation. Core CPI excludes energy and food costs, for example, while trimmed mean and median measures strip out components with the largest changes in prices to economic and financial factors. The index looks at moves in prices, the labour market, financial markets and the real economy every month and checks the historical data going back to 1995 to see if similar moves had previously lasted at least a year. If so, they are included in that month's UIG and if not, they are filtered out as noise.

> All the different measures suggest it is above target. But monetary policy works with long lags

You really can't use the UIG to forecast In mid-2009, UIG showed a trough in inflation while the other measures took another year to reach a nadir.

What about during the pandemic? Core CPI did a good job of signalling a bottom for inflation in mid-2020 before rising, but dipped in the third quarter last year, wrongly suggesting that inflation would come down. The trimmed mean and median inflation indices failed to indicate a shift towards higher inflation, showing a trough more than six months after CPI and core CPI.

UIG found a bottom roughly in line with headline CPI and then started a steady climb upwards, rightly ignoring the slump in the third quarter of 2021. Of these metrics, it provided the earliest and most reliable signal for a rise in the UIG peaked in March 2022, stabilised at high levels and has been gradually falling since July.

All the different gauges for inflation suggest it is way above the Fed's target. But we know monetary policy works with long and variable lags, and there is a danger overtightening could spark a recession. The central bank aims to look through transitory factors and set policy based on the underlying trend. The UIG shows the trend is finally starting to reverse course. With rates now restrictive, that suggests it's time for Fed officials to consider slowing their tightening path.

The writer is an FT contributing editor and global chief economist at Kroll

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issue perpetual bonds, Sunak would show that he is serious and so enjoy the support of financial markets.

There is a real danger, however, that the Sunak government may take a more conservative approach. I proposed perpetual bonds in January 2020, when interest rates were much lower. There was no response. I find the reappointment of Suella Braverman as home secretary disturbing. Restricting immigration will raise wage costs and fuel inflation. If this is the route Sunak is choosing, the prevailing optimism in financial markets will not be justified.

The writer is chair and founder of Soros Fund Management and the Open Society Foundations

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Twitter: @FTLex

Brazil/Lula: a prophet in his own land

Will investors learn to love Lula? The stock market recorded a small drop followed by a small gain, suggesting that foreign bullishness had won out over the bearishness of locals.

Sentiment towards Brazilian assets teeters on a knife edge, just as the election did. Luiz Inácio Lula da Silva, the leftwing former metalworker and two-times ex-president, beat Jair Bolsonaro, the rightwing incumbent, by just 1.8 percentage points, a little over 2mn votes of the 118.5mn cast.

Brazilian investors are often more critical of Lula than their foreign counterparts. The latter remember his two terms in office in 2003-10 not for leftwing extremism but prosperity fuelled by a commodities boom and orthodox policymaking. Global investors are also inclined to see restrictions on the deforestation of Amazonia as a positive.

Locals focus on the vote-buying in congress that marred Lula's previous terms. They liked the pro-market policies of Bolsonaro's Chicago-trained economy minister and are more comfortable with the reactionary conservatism of his social policies.

Both sets of investors worry about fiscal profligacy. But there is less to separate Lula and Bolsonaro in that area than many imagine. Lula was tipped to win Sunday's election. Polls put the gap at about 6 percentage points. Bolsonaro had the momentum in the run-up. Some on local markets thought their man might steal it.

Investors have singled Brazil out as a favourite this year. The government bonds of countries including Colombia, South Africa and Poland have risen to 20-year highs in recent weeks. Brazil's 10-year benchmark is within its range for the past 15 years. Its yield has come down from more than 13.5 per cent in July to just over 12 per cent today.

The currency is one of the world's few to have appreciated against the dollar, thanks partly to the central bank's early and aggressive response to inflation. High interest rates have made stocks cheap. The Bovespa index is trading at just over 7 times forward earnings compared with a 10-year average of about 11.3 times.

Foreign investors hope the threat of an ugly dispute over the election result will blow over. They interpret the narrowness of Lula's victory a constraint on leftwing excesses that may still tempt him. He must now name his economics team quickly to give them the reassurance they crave.

Blackstone/Emerson: vendor lender

Private equity deals are not quite dead. But vendor companies may just have to wait to get all their cash.

Blackstone is acquiring a majority stake in Emerson's air conditioning components business at an enterprise valuation of $14bn. The biggest private capital firm in the world is starting with a restrained 55 per cent stake.

Blackstone is investing $2.4bn for common equity along with $2bn of convertible preferred stock. It is also raising third-party debt of $5.5bn from banks and the private debt funds of Sixth Street and Goldman Sachs, among others. The structure is reminiscent of Blackstone's foray at Thomson Reuters, where it bought a stake in financial data unit Refinitiv.

Intriguingly, Emerson is itself a lender to Blackstone via so-called "seller financing". Blackstone will owe $2.25bn to Emerson, due in a decade. That requires interest payments in the interim. In a more buoyant financial environment, Emerson could simply direct Blackstone to come up with that cash elsewhere to pay them upfront. Instead, it will allow the investment firm to pay when conditions improve.

Emerson is pivoting its portfolio towards higher-growth areas such as automation technology. Its shares have risen 50 per cent in the past five years against 36 per cent for the S&P 500.

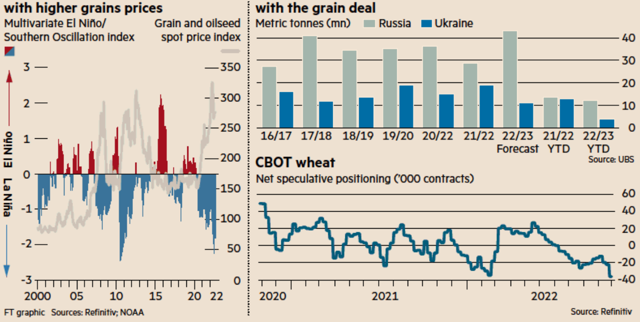
Emerson and Blackstone have come up with the financial engineering to meet their imperatives. They hope markets will catch up sooner or later.

The best private equity opportunities arise when markets are unsettled. A Blackstone flagship fund that invested in 2002-05 recorded an annualised internal rate of return of 36 per cent. On the strength of those profits, it raised a mega fund that invested in 2005-11. The IRR was just 8 per cent.

Wall Street banks can provide a cheap form of financing but the availability of the latter reflects market whims. Direct lending from private credit firms is efficient but pricey and has size constraints. "Seller financing" is one unorthodox way to fill the void.

Wheat: paradox of plenty

An extended La Niña period is bringing drought to wheat-producing regions in Argentina and the US. An ample wheat harvest has taken short positioning to a two-year high but further logistical and weather disruptions pose a threat to supply


La Niña conditions have coincided with higher grains prices

Black Sea exports were starting to get some momentum with the grain deal

CBOT wheat

FT graphic Sources: Refinitiv; NOAA

Source: UBS

Source: Refinitiv

Russia has withdrawn from a deal allowing Ukrainian grain exports from Black Sea ports. No one should panic. The Chicago wheat futures benchmark rose 7 per cent to almost $9 a bushel. That is relatively high.

But the figure is still well below the peak that followed Russia's invasion of Ukraine in February. The picture mirrors the hydrocarbons market.

After eight months of war, supply uncertainties have come into sharper, narrower focus, reducing volatility. Wheat is plentiful, thanks to a good harvest. Getting it to where it is needed remains a problem.

Ukraine and Russia previously accounted for almost a third of global wheat exports. Ukraine may export just 6mn tonnes this year if it is lucky, one-third of what is typical, according to UBS estimates. Russia is also failing to get much of its crop to market. Many shippers are unwilling or unable to send vessels into harm's way. Even so, a bumper global harvest pushed net speculative short positioning on US wheat futures to a two-year high last week, noted Saxo Bank.

That looks odd, given supply concerns. Russia should export about 42mn tonnes of this year's harvest. It has managed to ship only about 12mn tonnes so far, slightly below last year.

Countries in Africa and the Middle East are reliant on these exports and are now paying steep premiums.

Weather is likely to return as a factor with the start of harvests in the southern hemisphere. This is subject to a third consecutive period of disruptive La Niña conditions. Rain is already causing flooding in Australia. A drought in Argentina means the harvest could be a quarter below normal.

US water shortages suggest winter wheat for harvest next year will suffer, too. Russian and Ukrainian farmers may meanwhile plant less wheat next year if the war continues, impeding lucrative exports.

The sensitivity of agricultural commodities prices to multiple granular factors is hardly news to traders and food manufacturers, however. The war has simply become one of those factors. Reflecting this, prices are only slightly higher than their prewar peak of $8.40 a bushel.

Tesla/metal supply: nickel pickle

Elon Musk can thumb his nose at Opec: an oil supply cartel holds no fears for an electric vehicle tycoon. He cannot afford complacency when it comes to metals vital to EVs. Indonesia is mulling over an Opec-like nickel cartel.

Both stories point to an intensifying battle for control of raw materials used in batteries. But it is hardly surprising that Tesla's talks with Glencore on buying 20 per cent of the miner foundered earlier this year. It would make little sense for either side.

A £13bn holding would not guarantee fresh cobalt supplies for Tesla any more than it did for Japanese mills with holdings in Australian iron ore and coking coal miners in the 1980s.

If Tesla wanted to pay far above the market price for an extended contract, Glencore might consider diverting supplies. But a deal at mates' rates would leave other Glencore investors asking why Tesla was getting preferential treatment at their expense. Tesla shareholders would want to know why Musk had made them indirect investors in a business with a big coal mining operation.

The prospect of an Opec-style nickel cartel led by Indonesia is a more substantial possibility. About 38 per cent of world nickel supply comes from the archipelago, with another 23 per cent from the Philippines and Russia. The nickel market is in disarray. Since a short squeeze in March, average daily nickel volumes have fallen by half on the London Metal Exchange.

The threat of a nickel cartel is credible, according to Liberum analysts. Indonesia's output depends on producers such as Xiang Guangda's Tsingshan Holdings, which is based in China. Nickel miners in western countries, such as Glencore and BHP, could face legal challenges.

But mining laws give Indonesia plenty of power domestically. In January, it halted thermal coal exports, including from foreign miners. As the world's largest exporter, that move rocked the coal market. Expect supply shocks in battery materials too.

Apple/China: messy break-up

Breaking up is hard to do. Just ask Apple. The iPhone maker has been trying to reduce its dependence on China, its third most important market and the place where most of its products are assembled.

It has already shifted the production of some of its products to Vietnam and India after coronavirus-related lockdowns caused massive supply chain disruption during the pandemic.

Yet the reality is America's most valuable company remains reliant on the Asian country. Beijing's insistence on sticking to its zero-Covid policy means Apple's problems in China risk becoming a recurring feature.

Video footage of workers from Foxconn, one of Apple's main suppliers, scaling fences to escape the factory that they worked in — prison-break style — offers a timely and vivid reminder of this. The manufacturing complex in Zhengzhou, known as "iPhone City", accounts for about 60 per cent of Foxconn's iPhone assembly capacity, according to analysts.

Foxconn said it was prepared to shift production to other plants. The disruption came just after Apple launched its new iPhone 14 and ahead of the all-important holiday season.

It could affect more than 10 per cent of global iPhone production capacity, according to one estimate.

Look at Apple's third-quarter results and one could shrug off the supply chain woes. In an otherwise brutal quarter for Big Tech, Apple's sales and profits growth both topped estimates. But a chunk of this growth was driven by production bottlenecks that had delayed sales in the previous quarter.

Rising labour costs, a slowing Chinese economy and growing tension with the US give Apple plenty of reasons to reduce its reliance on China. To be fair, Apple already gets many of its components from elsewhere.

China's reliable energy grid and efficient transport infrastructure, not to mention the network of local suppliers, make it particularly hard for Apple to hang up on the country.

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CROSSWORD

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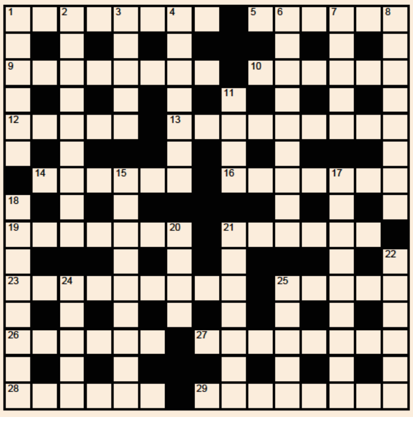


ACROSS

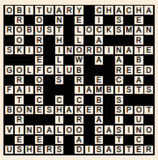
1 Kind fellow by a church font (8)
5 Bear a loud American president (6)
9 Tirade after Jack's naked (8)
10 Instrument upset conductor (6)
12 All leave early on a regular basis (5)
13 Servant upset about this writer's declarations (9)
14 Scoffed after bachelor's defeated (6)
16 Writer with weapon bagging one bird (7)
19 In shopfront he got busy (2,3,2)
21 Nicest bats for cricket? (6)
23 Butchers moved outside centre of Singapore City (9)
25 Quarrel about river fish (5)
26 Story turned editor wild with excitement (6)
27 Show I acted in is broadcast (8)
28 Polynesian country concealing business's last turnover (6)
29 Passion from two Europeans in romantic entanglements (8)

DOWN

1 Golf supporter swallowing rotten sweet (6)
2 Mountain climbing on secure location (9)

JOTTER PAD

Solution 17,239



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U	S	H	E	R	S		D	I	S	A	S	T	E	R

location (9)

3 Sally in favour of 24 hours without daughter (5)

4 Control prisoner with whip one's grabbed (7)

6 Female with cloth intended to leave adult small pieces (9)

7 Frequently working to keep this newspaper profitable, ultimately (5)

8 Bandage doctor put on writer lacking length (8)

11 Look both ways (4)

15 Youths eat greens irregularly (9)

17 Nicer aunt shot up in the air (9)

18 They might make platforms rot (8)

20 Frank's leg restricting exercises (4)

21 Sounds like where campers could be passionate (7)

22 Anxiety as American's cut hair (6)

24 Has PM lost power after Conservative rift? (5)

25 Papa poorly after onset of stomach upset (5)