FINANCIAL TIMES

MONDAY 12 DECEMBER 2022 INTERNATIONAL NEWSPAPER OF THE YEAR ASIA

Europe succumbs to migrant fatigue
BIG READ, PAGE 19

Decoupling exposes some unpleasant truths
RANA FOROOHAR, PAGE 21

Storm chasing
Bright outlook for forecasters

A stag grazes on frozen grass in Richmond Park in London yesterday as a band of cold weather grips Europe.

A new generation of European weather satellites is due to launch tomorrow. Meteosat Third Generation — a collaboration between the European Space Agency and Eumetsat — will provide 50 times more data than the current vehicles and increase the accuracy of warnings on imminent storms.

"Local detail of storms is incredibly hard to predict even with the best computer modelling," said Simon Keogh of the UK Met Office. Forecasting across very short timescales and distances depends mainly on the quality of rainfall radar and satellite observations.

MTG will deliver better warnings of severe weather, with economic benefits running to billions of dollars on top of saving lives, Keogh said.

Satellites set to launch page 3

Alex Lentati/LNP

Two MEPs held as Qatari corruption scandal shakes European parliament

● Belgian judge charges four people ● €600,000 in cash seized ● Doha denies influence peddling

VALENTINA POP AND ANDY BOUNDS — BRUSSELS
SILVIA SCIORILLI BORRELLI — MILAN
SIMEON KERR — DUBAI

The European parliament is at the centre of a spreading corruption scandal after Belgian police seized €600,000 in cash and detained two MEPs as part of an international investigation into claims that World Cup host Qatar sought to buy influence.

A Belgian judge charged four unnamed people yesterday with "participation in a criminal organisation, money laundering and corruption" following multiple arrests and house searches over the weekend, including the homes of two MEPs and a former MEP's family in Italy.

The charges against the MEPs have already triggered resignations and the suspension of a parliamentary vote on granting Qatari nationals visa-free travel to the bloc, due next week.

Parliamentarians have voiced shock at the arrests of the four people — and of the related detention of family members of a former Italian MEP — who were allegedly offered a holiday worth €100,000 by the Qataris.

Campaigners have lambasted the parliament's "culture of impunity".

> 'They were hoping to improve the country's reputation . . . in the run-up to the World Cup'

The allegations come as Qatar is the centre of world attention, with the World Cup semi-finals and final to be played over the next week. The matches are the culmination of a tournament the Gulf state had long sought but which has brought unprecedented scrutiny of its stance on gay rights, treatment of migrant workers and the use of its wealth to bolster its role in the world.

Belgium's federal prosecutors office said it suspected "that third parties in political and/or strategic positions within the European parliament were paid large sums of money or offered substantial gifts to influence parliament's decision".

Prosecutors had previously said Belgian police investigators suspected a "Gulf country" of seeking to sway the parliament. An official familiar with the investigation confirmed that the country in question was Qatar.

Doha has rejected any allegations of misconduct. "Any association of the Qatari government with the reported claims is baseless and gravely misinformed," an official said.

While Belgian authorities have not named the suspects, Eva Kaili, a vice-president of the European parliament, has been stripped of her duties in the legislature as well as her membership in Pasok, the Greek socialist party.

Kaili, a former television news presenter, defended Qatar's human rights record last month in the parliament, hailing the country as "a frontrunner in labour rights" for its decision to scrap a migrant workers sponsorship system. She alleged that other MEPs were seeking to discriminate against Qatar.

Italian prosecutors added that Antonio Panzeri, president of a Brussels-based non-governmental organisation and a former MEP, had been detained in the Belgian capital, while his wife and daughter had been held in Bergamo on the basis of a European arrest warrant.

Both women deny the allegations, according to their lawyer. Panzeri did not respond to a request for comment.

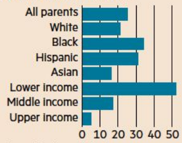
Italian MEP Dino Giarrusso said he and many other lawmakers in Brussels had been approached by Qatari officials numerous times since 2019. "They were hoping to improve the country's reputation, especially in the run-up to the Fifa World Cup," said Giarrusso.

Additional reporting by Eleni Varvitsioti

Briefing

Datawatch

Feeling the pinch
% of parents who had problems affording food in past year



Source: Pew Research Center

One in four American parents say there have been times in the past year when they could not afford food for their families or to pay their rent or mortgage. Among lower-income parents, the share rises to 52 per cent

Credit Suisse's Greensill loan spotlights risk failures

Suspicious collateral ▸ PAGE 6

US scientists boost clean power hopes with breakthrough in fusion energy

TOM WILSON — LONDON

US government scientists have made a breakthrough in the pursuit of limitless, zero-carbon power by achieving net energy gain in a fusion reaction for the first time, according to three people with knowledge of preliminary results from a recent experiment.

Physicists have since the 1950s sought to harness the fusion reaction that powers the sun but no group had been able to produce more energy from the reaction than it consumes — a milestone known as net energy gain or target gain. Reaching it would help prove the process could provide a reliable, abundant alternative to fossil fuels and conventional nuclear energy.

The federal Lawrence Livermore National Laboratory in California, which uses a process called inertial confinement fusion that involves bombarding a tiny pellet of hydrogen plasma with the world's biggest laser, has achieved net energy gain in a fusion experiment in the past two weeks, the people said.

Although many scientists believe fusion power stations are still decades away, the technology's potential is hard to ignore. Fusion reactions emit no carbon and produce no long-lived radioactive waste. A small cup of the hydrogen fuel could theoretically power a house for hundreds of years.

The fusion reaction at the US government facility produced around 2.5 megajoules of energy, which was about 120 per cent of the 2.1 megajoules of energy in the lasers, the people with knowledge of the results said.

The US Department of Energy has said energy secretary Jennifer Granholm and under-secretary for nuclear security Jill Hruby would announce "a major scientific breakthrough" at the Lawrence Livermore National Laboratory tomorrow.

The laboratory confirmed that a successful experiment had recently taken place at its National Ignition Facility but said analysis of the data was continuing.

Two of the people with knowledge of the results said the energy output had been greater than expected, which had damaged some diagnostic equipment, complicating the analysis. The breakthrough was already being widely discussed by scientists, the people added.

"If this is confirmed, we are witnessing a moment of history," said Dr Arthur Turrell, a plasma physicist.

Additional reporting by David Sheppard and Derek Brower

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

	Dec 9	Prev	%chg
S&P 500	3974.81	3963.51	0.29
Nasdaq Composite	11130.73	11082.00	0.44
Dow Jones Ind	33826.94	33781.48	0.13
FTSEurofirst 300	1735.38	1721.34	0.82
Euro Stoxx 50	3939.22	3921.27	0.46
FTSE 100	7476.63	7472.17	0.06
FTSE All-Share	4087.39	4082.24	0.13
CAC 40	6677.64	6647.31	0.46
Xetra Dax	14335.17	14264.56	0.50
Nikkei	27901.01	27574.43	1.18

CURRENCIES

	Dec 9	Dec 2		Dec 9	Dec 2
$/€	1.054	1.047	€/$	0.949	0.955
$/£	1.229	1.222	£/$	0.814	0.819
£/€	0.857	0.857	€/£	1.166	1.166
¥/$	136.595	135.475	¥/€	143.978	141.890
¥/£	167.917	165.496	£ index	79.486	78.669
SFr/€	0.983	0.986	SFr/£	1.147	1.150

CRYPTO

	Dec 9	Prev	%chg
Bitcoin ($)	17180.84	17227.83	-0.27
Ethereum	1277.59	1280.07	-0.19

GOVERNMENT BONDS

Yield (%)	Dec 9	Dec 2	Chg
US 2 yr	4.32	4.27	0.04
US 10 yr	3.54	3.47	0.07
US 30 yr	3.52	3.44	0.08
UK 2 yr	3.45	3.35	0.11
UK 10 yr	3.18	3.09	0.09
UK 30 yr	3.57	3.51	0.06
JPN 2 yr	-0.02	-0.01	-0.01
JPN 10 yr	0.25	0.25	0.00
JPN 30 yr	1.40	1.44	-0.04
GER 2 yr	2.14	2.04	0.11

Oil production

Biden adviser blasts anti-drilling investors

White House aide says opposition to shale output is 'un-American'

DEREK BROWER — NEW YORK

The White House's chief energy adviser has described as "un-American" the refusal of US shale investors to increase drilling, even as Moscow's invasion of Ukraine causes havoc on global oil and gas markets.

US oil groups have been under pressure from Wall Street to funnel record profits back to investors this year, despite repeated calls by President Joe Biden to pump more oil to help tame rampant inflation.

"I think that the idea that financiers would tell companies in the United States not to increase production and to buy back shares and increase dividends when the profits are at all-time highs is outrageous," said Amos Hochstein, President Biden's international energy envoy. "It is not only un-American, it is so unfair to the American public.

"You want to pay dividends, pay dividends. You want to pay shareholders. You want to get bonuses, do that, too. You could do all of that and still invest more. We are asking you to increase production and seize the moment."

Hochstein's comments came just days after the twinned launch of an EU embargo on seaborne Russian oil imports and a G7 price cap on the country's oil in an attempt by western powers to stymie the Kremlin's income while keeping its crude flowing to the global market. Moscow has repeatedly vowed not to sell oil to countries complying with the cap. On Friday, President Vladimir Putin said Russia would "even think . . . about a possible cut in production".

'It is unfair to the American public . . . We are asking you to increase production and seize the moment'

Oil prices have swung wildly this year, spiking after Russia's invasion to almost $140 a barrel, leading the White House to release crude stored in emergency stockpiles in a bid to cool inflation.

Prices have tumbled in recent days on fears of a global recession, with international benchmark Brent settling at a year-to-date low of $76.10 per barrel on Friday.

But further turmoil in global energy was likely, especially in Europe's gas market, as the stand-off between Putin and the west deepened, Hochstein said.

While an "unprecedented" effort by the US and other liquefied natural gas exporters had left Europe adequately stocked with the fuel for this winter, the loss of Russian pipeline imports would mean repeating the effort "winter by winter", Hochstein warned.

Extra global LNG supplies would not arrive until plants being built in the US and Qatar came online later this decade, meaning "the mountain to climb [to build] gas stockpiles for next year is much higher".

"We are really preparing and living from an energy perspective, in Europe and beyond, in a hand to mouth, step by step [way]," Hochstein said.

The Biden adviser's comments will spark a reaction in the US shale sector, which has complained about mixed signals from a White House that has called for more fossil fuel output while also talking of cutting demand and speeding up a shift away from oil and gas.

But Hochstein denied any contradiction, saying the US could "do two things at the very same time, ensuring we have enough [oil] supply for a strong global economy, while accelerating the energy transition".

Energy supplies. Contingency planning

Alarm rises in France over threat of power cuts

Government's messaging fuels fears over who could be hit and how to protect the vulnerable

SARAH WHITE — PARIS

As falling temperatures test Europe's resistance to a winter energy crisis, France has unveiled contingency plans for possible power cuts — including a stark reminder that in the event of a blackout elevators would be off-limits.

But far from reassuring the public, the government's messaging — which also warns that some emergency telephone numbers could go down — has fuelled concerns over who could be hit and how to protect the most vulnerable.

"Right now it's just raising a lot of questions and causing more panic than the opposite," said Florence Compte, the headmistress of a primary school in the southern Var region, after hearing classrooms in areas hit by short, targeted cuts would have to shut for the morning, as they would be unheated and unlit.

France is not alone in envisaging power cuts as a last resort to energy shortages this winter. From Britain to Finland and Estonia, several countries expecting strains have warned that networks might have to be cut for short periods. The German central bank has made arrangements to have more emergency cash available in case ATMS are paralysed by outages. From Switzerland to Italy, telecoms operators have been lobbying to be spared from blackouts.

But few countries have gone as far as France in detailing the possible fallout from programmed power cuts, with most governments choosing to focus on appeals for businesses and households to cut energy usage rather than on contingency plans.

In some other large European economies such as Germany and Italy, talk of power cuts has even eased, thanks to high gas storage levels and falls in industrial demand as the continent pivots away from Russian gas supplies.

German government warnings over the summer that it might have to introduce gas rationing have faded. In Spain, Beatriz Corredor, chair of Redeia, the parent company for the grid operator, told the Financial Times that the country would have no power supply problems, thanks in part to its mix of wind and solar power and six gas processing plants.

Hadj Benhalima from the On the Spot collective turns off lights during a night of action to black out Paris storefronts as concerns rose over energy security in the summer
Lewis Joly/AP

But France, with its heavy reliance on nuclear energy, is more vulnerable because of a record number of outages and maintenance stoppages at its nuclear power plants this year. That problem has spilled over into countries such as Britain, which normally leans on French power supplies.

France's preparations for a worst case energy scenario come after the government was accused of lacking foresight in the early days of the Covid pandemic, when face masks were scarce and hospitals were overrun. However, the public messaging about possible fuel cuts appears to have backfired, forcing President Emmanuel Macron and his ministers to urge people not to panic.

"Stop all this," Macron said this week. He said the debate over power cuts had become absurd. "We're a great nation, we have a great energy model and we will make it through this winter despite the war."

Prime minister Elisabeth Borne rebuked an executive from EDF-owned power distributor Enedis for saying people reliant on respirators in their homes would not be spared power cuts like hospitals and nursing homes. She said emergency care provisions would be made.

Officials are now at pains to reassure the public that energy-saving power cuts would last no longer than two hours and be dotted across the country in a "leopard skin" pattern.

People would be warned three days before in televised "red alerts" that strains were building, in an appeal for them to cut their consumption to ease shortages. If that failed, areas hit by cuts would be able to check online the night before if they were affected.

'If our [grocery store] fridge goes out for two hours, everything will end up in the garbage'

That would be similar to the types of measures envisaged in Britain, where the grid has warned households could experience blackouts between 4pm and 7pm in January and February if temperatures plummet.

French grid operator RTE has said power cuts could still be avoided, especially as more nuclear reactors come back online.

And some of the contingency planning has shown that very short power cuts may be manageable for some sectors. Klépierre, which owns and operates shopping centres in France, said it had carried out trial blackouts. It would be able to keep fire detectors running and dimmed lights on thanks to generators, allowing malls to open, even if lifts were cordoned off.

But despite the soothing words, the uncertainty created by even the threat of power cuts has highlighted the potential political cost to the government.

"If France has to cut its electricity from time to time, how can it claim to be the master of Europe?" said Bruno Cautrès, a political scientist with Sciences Po university.

Mayors' associations have warned that rural areas could be disproportionately affected because of the concentration of priority sites such as hospitals in cities like Paris, despite official assurances to the contrary.

Accusations that politicians and urban elites were removed from the concerns of countryside dwellers helped fuel the anti-government protests of 2018, when Macron had to backtrack on a fuel tax that would have hit drivers.

Some analysts and businesses said the warnings might be scare tactics to encourage more energy savings, and that the government would be likely to use every lever it had, including leaning on large industrial groups to make bigger efforts, before resorting to widespread power cuts.

"It can't happen," said the manager of a Franprix grocery store in Paris. "If our fridge goes out for two hours, everything will end up in the garbage. They're just doing this to frighten people."

Additional reporting by Barney Jopson, Martin Arnold, Guy Chazan, Nathalie Thomas and Sam Jones

Renewables push

Europe must invest more in electricity grid, warns Eon chief

ALICE HANCOCK — BRUSSELS

Europe's renewable power push will be a "big mistake" unless it significantly increases investment in the continent's electricity grid to cope with mismatches in supply and demand, warns the chief executive of European energy major Eon.

Leonhard Birnbaum, who took over last month as president of Eurelectric, the European electricity industry body, said the accelerated installation of wind turbines and solar panels across the EU as the bloc tries to wean itself off Russian fossil fuels was creating bottlenecks that the grid was not designed to cope with.

To support the rapid increase in renewables, Eurelectric estimates, investment in the grid needs to increase by 50-70 per cent to reach €34bn-€39bn a year by 2030.

"If we accelerate renewables, we need to accelerate the grid," Birnbaum said. "If we accelerate renewables only, we are making a big mistake."

Despite Europe having younger and generally more resilient electricity grids than the US, he said, reserve capacity designed to offset shortages when the weather was not optimal for renewable power was already stretched by the number of wind turbines and solar panels that had been brought online since the war in Ukraine started.

"We have been adding renewables, often using up reserves which we traditionally had in the grid . . . we built a system with lots of reserves. The reserve is gone," Birnbaum said.

Solar capacity in the bloc has increased by 40 gigawatts this year, a 40 per cent increase on the new capacity added during 2021 and enough to supply 12mn homes, according to SolarPower Europe.

Russia's curtailment of most of its gas exports to the EU in retaliation for its support for Ukraine has forced the bloc to diversify its energy supply rapidly. The European Commission and EU governments have signed agreements to increase shipments of gas from other regions at the same time as pushing for more renewable power.

In May, Brussels said it wanted to increase an EU-wide target for the proportion of renewable energy in its total supply from 40 per cent to 45 per cent by 2030 — a proposal that is still pending agreement among member states.

It also called for an extra €29bn of funding into the power grid by 2030 and, on Friday, announced a new solar industry alliance to encourage investment in large-scale photovoltaic factories and increase solar capacity in the bloc six times by 2030.

Eon, one of Europe's largest utilities, with operations in 20 European countries, has said that it plans to connect 37GW of new renewables to its networks by 2026, equivalent to the total amount of wind and solar capacity installed across Europe in 2021.

Eurelectric's call for more funding was echoed in a letter sent by the European wind and chemical industry associations to the European Commission. It said "accelerating the deployment of new, and the strengthening of, electricity grids is an absolute priority", adding that Europe had underinvested in its electricity infrastructure.

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Central banks Rising losses risk bailouts and political pressure

MARTIN ARNOLD — FRANKFURT

When a company tells its shareholders it expects to make €9bn of losses over the next five years that will more than wipe out all its provisions and equity, it would usually trigger an existential crisis. The normal rules do not appear to apply to the Belgian central bank.

The National Bank of Belgium's warning did cause its shares to fall about 18 per cent last week. But it still was able to reassure investors that its financial woes would not call into question its stability. "After all, a central bank can continue to operate, at least temporarily, with a negative capital position," said the 172-year-old institution.

With central banks around the world raising interest rates sharply to tackle soaring inflation and unwinding their massive bond purchases, economists expect many of them to make sizeable

nomic research at Pictet Wealth Management. That sum is far larger than in recent years as a result of the European Central Bank's aggressive monetary easing from 2014-21, when negative rates meant lenders paid to deposit money at the central bank.

The scale of the payout on deposits will drag many eurozone central banks into the red, Ducrozet warned, adding that some "could face growing political pressure to be recapitalised".

Some think this will only amount to a "storm in a teacup", as Danske Bank strategist Piet Haines Christiansen said, pointing out that central banks do not aim to make profits and cannot go bust when they have the power to print money, earning revenue on the production of currency through a process called seigniorage.

Several central banks have already fallen into negative equity in the past

Bank of Belgium, which is 50 per cent state-owned — have been paid to finance ministries. Lower dividends from central banks will, therefore, hit public finances. If the losses get too big, they may need state bailouts that risk increasing political pressure, threatening their independence.

For the past decade, eurozone central banks have been making healthy profits, totalling about €300bn between 2012 and 2021, thanks mainly to income on the bonds they bought during this time and the negative interest earned on commercial bank deposits.

While part of these profits went to national governments, they also used a big chunk to build up reserves that can absorb losses as they unwind their ultra-loose monetary policies. These buffers have come into play since central banks started raising interest rates sharply.

Some central banks are also suffering losses on large bond portfolios acquired in recent years. The Reserve Bank of Australia recently announced an A$37bn ($25bn) accounting loss on its pandemic bond purchase programme, leaving it with a negative equity position of A$12bn.

The Office for Budget Responsibility estimated the Bank of England will need £133bn from the government over the next five years to cover losses on its quantitative easing portfolio.

Big central banks, such as the ECB and the US Federal Reserve, can deal with any negative equity by accumulating a

INTERNATIONAL

Netanyahu forges Israel's most rightwing government

Liberals and Palestinians fear role of ultranationalists in PM's coalition

JAMES SHOTTER — JERUSALEM

Barely 18 months after he was ousted as prime minister, battling corruption charges and estranged from former allies, Benjamin Netanyahu is poised for a remarkable return to power at the head of the most rightwing government in Israeli history.

Following an unexpectedly clear-cut victory in last month's election, the Likud party has clinched provisional deals with all five of the far right and religious groups with which Netanyahu, 73, hopes to form a government. Last week, Israel's president granted Netanyahu a further 10 days to finalise the process.

The outline of the new government has been hailed by supporters, who see it as a once-in-a-generation chance to remake Israel in their own deeply conservative and religious image. But the anti-Arab, homophobic and sexist rhetoric of some of its potential key figures, along with plans to dismantle judicial checks and balances, have sparked a backlash from liberal opponents and growing unease among Israel's allies.

'Israel is being transformed from a democracy to a theocracy'
Ron Huldai, mayor of Tel Aviv

"This election really is a turning point," said Dahlia Scheindlin, a political analyst and pollster. "It is a significant break from the past in terms of how extreme they are."

Much of the furore surrounding the new government has centred on two ultranationalists with a history of provocative anti-Arab rhetoric, Itamar Ben-Gvir and Bezalel Smotrich. An alliance headed by the pair and brokered by Netanyahu came third in last month's election, giving them leverage to demand roles that will give them huge sway over relations between Israelis and Palestinians — both in Israel and in the West Bank, which Israel has occupied since 1967.

Ben-Gvir was previously convicted of incitement to racism and, until a couple of years ago, kept in his house a picture of a Jewish extremist who gunned down 29 Palestinians in a mosque. He will be national security minister, with expanded powers and responsibility for Israel's police.

Smotrich, a settler leader who once dubbed himself a "proud homophobe", said last year that Israel's first leader, David Ben-Gurion, made a mistake by not expelling all Arabs in 1948. He had sought the defence portfolio, but US officials were sufficiently concerned to lobby strongly against it, and instead he is set to be finance minister.

Palestinian officials fear that the appointment of the two men, who oppose Palestinian statehood and back the expansion of Israeli settlements in the West Bank — which most of the international community considers illegal — will erode any lingering prospect of a two-state solution.

"They will employ [their new powers] to complete the processes . . . of the gradual and silent annexation of the West Bank," the Palestinian Authority said last week.

An outcry has also erupted over Netanyahu's decision to make Avi Maoz — an ultranationalist known for his virulent opposition to LGBT+ rights — head of a body promoting Jewish identity and give him powers over some extracurricular activities in schools.

Netanyahu has insisted that he will not countenance any erosion of LGBT rights, and dismissed concerns that Maoz — who once said a woman's biggest contribution to society was marrying and raising a family — would have an outsize influence over education.

But liberal and secular Israelis are alarmed. More than 50 municipal officials and 300 school principals have protested against Maoz's proposed role. "Israel is being transformed from a democracy to a theocracy," Ron Huldai, the mayor of Tel Aviv, told Channel 12 News last week.

Another big domestic clash is looming over the incoming government's plans to overhaul Israel's judiciary. Among the ideas proposed are allowing a majority of lawmakers to override High Court rulings; giving politicians control over appointing judges; and cancelling the offence of breach of trust — one of the charges against Netanyahu in his corruption trial.

Proponents argue the changes are needed to bring to heel an increasingly activist judiciary that has used powers it was never formally given to favour a broadly leftwing agenda.

But critics see them as an assault on Israel's checks and balances that could also help extricate Netanyahu from his legal woes. "There will be a government without restraints or oversight," Avi Himi, head of the Israel Bar Association, told the Haaretz news site.

Netanyahu has denied any wrongdoing, and he and his allies have insisted that the legal reforms will not affect his trial. Given their broad ideological alignment, Netanyahu and his allies were expected to form a government relatively quickly. But as talks have dragged on, some analysts have begun to wonder whether their rancorousness indicates that the coalition could prove less durable than its comfortable majority might suggest.

Shalom Lipner, senior fellow at the Atlantic Council, said the far-reaching demands Netanyahu's partners had sought to lock in during negotiations reflected their concerns that "once [he] resolves his personal problems, he will be far less inclined to meet their demands".

Lipner added: "They're eminently conscious of the fact that their moment in the sun could be time-limited."

'This election really is a turning point. It is a significant break from the past in terms of how extreme they are'

Benjamin Netanyahu, middle row centre, with leaders of political parties last month
Kobi Wolf/Bloomberg

Forecasting

Europe's next generation of weather satellites to launch

CLIVE COOKSON — LONDON

The first of a new generation of European weather satellites will launch tomorrow, aiming to provide 50 times more data than is currently possible so that meteorologists can increase the accuracy of their forecasts, particularly of imminent storms.

The €4.3bn Meteosat Third Generation (MTG) system will consist of three satellites in geostationary orbit positioned 36,000km above the equator over Africa. They will provide images of Europe every two and a half minutes, including the first comprehensive observations of lightning from space.

When fully deployed in 2026, the new satellites will provide 50 times more

Evans, director-general of Eumetsat, the 30-state European weather and environment satellite agency, which will operate the system.

Meteorologists are most excited by the boost that MTG observations will give to forecasting the immediate future — up to two hours ahead. Nowcasting, as it is called, is critical for warning about severe weather, particularly intense storms, in time for the authorities to take remedial action such as evacuating people before floods hit.

MTG is a collaboration between two pan-European intergovernmental organisations. The European Space Agency, which is in charge of the system's development, is contributing €1.4bn while Eumetsat provides

Pandemic

Beijing lifts Covid curbs for freight workers

State Council eases stifling policy in face of protests and economic downturn

PRIMROSE RIORDAN AND GLORIA LI
HONG KONG

China has lifted tough pandemic restrictions on transport workers that have slowed the flow of freight in the country, as Beijing rapidly eases its economically damaging zero-Covid policy.

The order to local governments follows moves to reopen the country after nearly three years of a stifling strategy to fight Covid-19 that has led to lockdowns and border closures, hitting business.

The State Council, China's cabinet, said long-haul truckers should no longer have to work on "closed loop arrangements", under which they have been subjected to long quarantines, and said authorities should not subject them to constant PCR testing.

The country's roads and ports had been riddled with checkpoints at which drivers have had to show a recent negative PCR test and health code, congesting the flow of cargo and slowing the nation's economic recovery.

"[Local governments should] make every effort to ensure the transportation service of vaccines, antigen detection reagents, medicines, masks and other medical materials," the State Council added in the notice.

China also eased restrictions on air crew, according to Hong Kong airline Cathay Pacific. Crew will have to spend only three days in Hong Kong before flying to the mainland, down from seven. "We welcome this adjustment," the airline said.

The sudden about-face on the virus followed nationwide protests and an economic slowdown spearheaded by a property liquidity crisis.

But the reopening has led to concerns of a deadly "exit wave" of Covid cases because of inadequate healthcare resources and low vaccination rates among the elderly.

China reported just 10,815 new Covid-19 infections for December 10 and no new deaths. But analysts said considering the drop in testing requirements since the policy shift, the statistics were unlikely to reflect the situation on the ground.

In central Beijing at the weekend, streets and shopping malls were virtually deserted as many people stayed home. Residents who had contracted Covid told the Financial Times that they were isolating in their homes without notifying the authorities of their cases.

"The transitional phase will probably be bumpy as the country may need to grapple with surging cases and increasingly stretched health systems. Near-term, we may see growth dip," said Jing Li, HSBC's chief economist for Greater China.

"But with vaccination rates increasing and virus control measures eased over time, we are likely to see a subsequent strong recovery."

China has a gross domestic product growth target of 5.5 per cent this year but HSBC's forecast is 3 per cent.

China's leading epidemiologists, such as Zhong Nanshan and Li Lanjuan, have assured the public of the milder nature of the Omicron coronavirus variant in state media interviews in recent days after being largely out of public view for months.

Their reappearance has provoked a backlash from people online, with some querying the timing, saying the epidemiologists used to emphasise the high infectiousness of the variant in domestic media but now advocate for reopening in line with the government.

Real estate. Housing affordability

China property woes push young to rent

Potential buyers are doubting whether a costly new home is still a sensible investment

CHENG LENG — HONG KONG
THOMAS HALE — SHANGHAI

A few months after her wedding this year, Lilian Li moved from the south-western Chinese city of Chongqing to an apartment near Beijing's financial district.

But while Chinese newly-weds typically see property ownership as an essential next step after marriage, Li and her husband are instead renting a two-bedroom apartment in the capital for Rmb13,000 ($1,868) a month.

To buy an identical apartment, Li and her family would need more than Rmb5mn just for the down payment — the equivalent of more than 30 years' rent. "My husband and I had a deep conversation about the life we want, and we reached an agreement not to buy," said Li, 28. "We don't want to owe our parents a massive down payment or to fall heavily into debt."

Increasing numbers of young Chinese, the main buyers of urban homes, are making the same decision — with potentially far-reaching implications for the nation's troubled property market.

Affordability is a thorny issue for homebuyers in China, where average house prices have nearly doubled over the past decade. Rents have also increased, but by much less. The ratio of the cost to buy residential properties to their monthly rent was above 600 in big cities in June 2022, according to calculations by real estate data company Zhuge Zhaofang. In 2007, the ratio was 400 or below.

A ratio of more than around 200 is considered a warning signal of a potential property price bubble, according to a report by the Chinese Academy of Social Sciences, a state think-tank.

In Beijing, the average apartment now costs about Rmb69,000 a square metre, according to real estate data provider creprice.cn.

First-time buyers typically rely on family support and debt to purchase a living space in big cities. But the woes of real estate developers such as Evergrande, which defaulted last year as a liquidity crisis gripped the property sector, have left many buyers with unfinished homes. That has prompted potential purchasers such as Li to question what has for decades been seen as China's best household investment opportunity.

A couple pose for wedding photographs in Shanghai. Newly wed Chinese typically see property ownership as an essential next step after marriage
Qilai Shen/Bloomberg

Chinese home sales by floor area in 100 cities were down about 20 per cent year on year in October, according to a survey by China Index Academy, a real estate research company. While sales have not fallen as fast in prime areas of big cities, the pessimism across the market has dented confidence. And while new homes remain expensive, average prices across 70 cities were down 2.4 per cent in October from a year ago, the seventh consecutive month of decline, government data showed.

"With no wealth-creation effect, what's the point of buying properties like crazy? Why not just rent?" said Victoria Zhan, a young banker who has postponed plans to buy an apartment in suburban Shanghai this year.

The research department of China International Capital Corporation forecast that the number of Chinese renting would grow by 200mn to reach 300mn by 2035.

The cooling enthusiasm for home-buying comes as the government moves to make more affordable rented housing available to young people as part of President Xi Jinping's drive for "common prosperity".

Authorities are pushing more government-subsidised rental homes on to the market and have introduced "accommodative policies" for the sector including low-interest loans for developers of rental housing.

Qiqi Zhang, a Shanghai-based managing director at US private equity group Warburg Pincus, which first invested in rental property in China in 2013, said high house prices in big cities still put "a lot of pressure" on young people.

The government "really wants to promote rental housing to solve the accommodation needs of young people", Zhang said.

In January, China's housing ministry announced a target of 6.5mn units of affordable homes to be built in 40 cities over the five years to 2025, enough to house 13mn young people and new residents.

The government's promotion of the rental housing market is increasingly intertwined with its support for property developers struggling to complete residential construction projects.

> 'With no wealth-creation effect, what's the point of buying properties like crazy? Why not just rent?'

Financial regulators last month called for increased state-led conversion of unfinished homes to rental housing, and revealed more sophisticated financial routes to help banks and investors buy out unfinished projects. In response, the government of Kaifeng city in China's central Henan province said it planned to buy more than 1,000 unfinished apartments next year from Evergrande to turn into rental homes.

China Construction Bank, the country's second-largest bank by assets, said it had set up a Rmb30bn rental housing fund to buy out unfinished residential construction projects in more than 20 cities.

Li said renting rather than buying would save her and her husband money and so help them maintain their quality of life. "We can buy an apartment in Chongqing when we are getting old and ready to retire," she said. "Before that, I think we'll keep renting in Beijing."

International plea

Dominican Republic calls for help to tackle Haiti's gang violence

MICHAEL STOTT — SANTO DOMINGO

The president of the Dominican Republic has called on the international community to intervene in Haiti without delay to halt gang violence, instead of making speeches about helping the stricken Caribbean nation.

"The international community needs to be more responsible," President Luis Abinader told the Financial Times in an interview. "If it's really concerned about Haiti, it needs to go and help there. It has to help Haiti against the gangs who are raping boys and girls every day, who are killing innocent people every day."

Haiti's interim prime minister Ariel Henry called in October for an international military force to stop armed gangs from terrorising the country, saying there was a risk of a major humanitarian crisis.

The US has tried to win agreement on a multinational force but has met resistance from regional allies. They are concerned about being seen to prop up Haiti's unelected interim government, which came to power after President Jovenel Moïse was assassinated in July last year. They want to see a broader political consensus inside the country before committing to intervention but Abinader said the situation demanded immediate action.

"You have to help pacify Haiti," Abinader said. "Not with speeches about 'we are going to help', but with real actions . . . The Haitians themselves can't . . . The person who asked for a force was the Haitian PM. If he asks for it, it's because he needs it."

The Dominican Republic's flourishing economy, based around tourism, duty-free zones and regional logistics, has been sucking in large numbers of Haitian migrants in recent years, many of whom illegally cross the border between the island's two nations. Abinader's government has responded by deporting record numbers of Haitians.

Volker Türk, the UN high commissioner for human rights, last month called on the Dominican Republic to stop deporting Haitians and the US has criticised the mass detention of suspected illegal Haitian migrants for days in what it says are overcrowded detention centres, sometimes without access to food or lavatories.

But Abinader was unrepentant about the policy, which has led to around 20,000 Haitians a month being sent home from the Dominican Republic since August. "We have a border with one of the world's poorest countries, perhaps among the two or three poorest countries in the world, with a very weak government where a significant part of the territory is ruled by gangs," he said. "As president of the Dominican Republic, I have to protect my country."

Abinader's government is building a security fence along the border with Haiti to deter illegal migration. The first section will be finished next year and by 2024 it will extend across about half of the frontier, with surveillance technology covering more mountainous areas. The president rejected criticism of the border fence, saying "it's the same as the US is doing with Mexico".

The Dominican Republic has been among the fastest-growing economies in Latin America and the Caribbean over the past two decades, helped by a consensus around business-friendly policies and a thriving tourism industry.

Brazil

Bolsonaro ends weeks of silence to rally supporters as presidency draws to a close

BRYAN HARRIS — SÃO PAULO

Outgoing Brazilian president Jair Bolsonaro has broken a near six-week silence after his election defeat in October, telling supporters they will decide his next steps.

"Who decides where I go are you. Who decides which way the armed forces go are you," the rightwing populist told radical supporters, who are calling for a military intervention against the election of leftwing leader Luiz Inácio Lula da Silva.

The once-fiery Bolsonaro remained holed up in the presidential palace in Brasília for almost 40 days, eschewing professional appointments and the regular social media self-promotion that

to be at the forefront of this fight, to take our party to a more important level," said Valdemar Costa Neto, president of the party, known as the PL. "It is very important that he travels around Brazil, that he continues to engage in politics."

Two sources close to the outgoing president, who is believed to be suffering from an infection that has caused his legs to swell, say he has been taking a break and plotting how he will return to the fray. "It's just a breather. The president will be back with a bang, I can assure you," said one close ally of the Bolsonaro family.

Allies say that the former army captain is also wary of making any public statement that might put him in legal jeopardy.

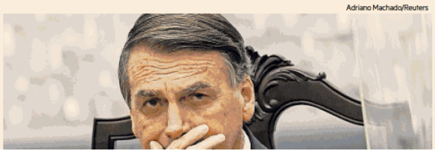
line with protesters and politicians questioning the legitimacy of the polls.

In the comments to supporters on Friday, Bolsonaro did not endorse calls for a military intervention, but said: "Nothing is lost . . . the armed forces are united . . . and they are responsible for our freedom."

One individual who met the president following the election said: "He [Bolsonaro] knows if he travels the country and starts making rallies, he could say something that might be considered anti-democratic. That worries him."

Bolsonaro had publicly admitted before the election that he feared prosecution when he lost presidential immunity. He faces multiple legal cases, including one that accuses him of spreading fake news during the Covid pandemic.

Adriano Machado/Reuters



Despite a large show of popular support for him immediately after the election, demonstrations have since dwindled and only a core of radical Bolsonaro supporters remain outside the country's military bases.

"In the immediate aftermath of the elections, Bolsonaro expected a strong political, military and popular outpouring against the results. But, as time went by, it became clear this movement was weak," said Bruno Carazza, a professor at the Dom Cabral Foundation, a business school. "So instead of being a lame duck, he decided to just disappear."

Costa Neto has tried to coax Bolsonaro

tion of his party, with an office, a team of lawyers and even a salary."

Bolsonaro's leadership of the Brazilian right is also threatened by the emergence of more moderate, technocratic figures. In the recent elections, the governorships of São Paulo and Minas Gerais — two of Brazil's biggest states — were both won by rightwing candidates who eschew Bolsonaro's more extreme rhetoric and policies.

"Bolsonaro's ability to be an effective opposition leader is affected by the facts that the *bolsonarismo* is not organised in one single political party and that other leaders have emerged, who could be seen as more interesting by the elites," Carazza said.

As Bolsonaro's term draws to a close at


WAIT.
THIS ISN'T IN
THE METAVERSE?

Pit of despair Zambia's lead mining pollution suit against Anglo American is set to become an ESG test case ➔ PETER HAIN, PAGE 21

Companies & Markets

Doubt cast on collateral for Credit Suisse's Greensill loan

- Liberty invoices called into question
- Bills made $140mn lifeline possible

ROBERT SMITH, CYNTHIA O'MURCHU AND OWEN WALKER — LONDON
KANA INAGAKI — TOKYO

Credit Suisse provided an emergency $140mn loan to Greensill Capital based partly on invoices to companies that deny ever doing the business stated on the documents.

The Swiss bank provided the loan in October 2020, less than five months before the collapse of Greensill, a supply chain finance firm that counted former British prime minister David Cameron as a senior adviser.

Invoices issued by metals magnate Sanjeev Gupta's Liberty Commodities and sold to Greensill formed part of the collateral for the loan, according to documents seen by the Financial Times and people familiar with the transaction. Yet several of the parties named on the invoices have told the FT they did no business with Liberty.

> The bank accepted the collateral even after one of its biggest clients warned over a suspicious invoice

The apparent failure to spot that suspicious invoices were pledged as collateral casts fresh light on risk management failures at Credit Suisse.

It also raises new questions over the practices at Greensill and Liberty. The commodities company is part of Gupta's GFG Alliance, which is being investigated by the UK's Serious Fraud Office and French police over suspected fraud and money laundering. GFG has consistently denied any wrongdoing.

Credit Suisse's loan had a clause dictating that the collateral value had to be equal to or greater than the $140mn borrowed. The terms of the debt agreement only allowed invoices on Greensill's balance sheet to count towards this tally if the party named on the bill was investment-grade rated.

In the days leading up to Greensill's collapse, Credit Suisse produced a schedule of receivables dated February 2021, detailing $99mn of these eligible invoices naming 12 different companies.

The FT has seen invoices that Liberty Commodities sold to Greensill naming seven of these same companies. Four of them — Cargill, Mitsui Bussan Metals, Toyota Tsusho Asia Pacific and Itochu Singapore — told the FT they had no record of any transactions with Liberty Commodities. The others declined to comment or could not be reached.

Credit Suisse accepted the bills as collateral even after one of its biggest clients — Swiss commodities trader Trafigura — had warned the bank that Liberty Commodities appeared to have raised financing through Greensill using a suspicious invoice.

The FT revealed last year that Credit Suisse's Greensill-linked supply chain finance funds contained suspect invoices from Liberty Commodities. It has not been reported previously that the lender's investment banking division accepted the same bills as collateral for a corporate loan it made to Greensill.

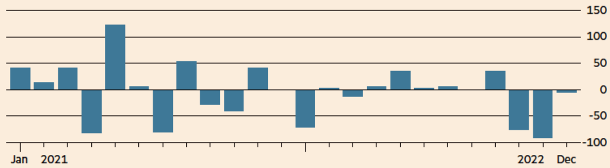
Despite the suspicious collateral, the $140mn loan has since been repaid because Credit Suisse had first-ranking security on other Greensill assets, including $50mn of cash.

The invoices the FT has seen all refer to sales of nickel supposedly carried out already, including precise details of when and where the metal was delivered. Greensill's administrator Grant Thornton declined to comment.

Bitcoin retreat Investors pull record holdings from crypto exchanges after collapse of FTX

NurPhoto via Getty Images

Investors pull coins from crypto trading venues
Net flows from centralised exchanges ('000s of bitcoin)



Dec 2022 figure is first seven days of the month
Source: Cryptocompare

NIKOU ASGARI — LONDON

Investors are pulling record levels of bitcoin from crypto exchanges as the collapse of Sam Bankman-Fried's FTX stirs fears over the safety of their assets.

FTX, once the darling of the crypto industry, filed for bankruptcy protection in mid-November after an $8bn hole emerged in its balance sheet.

New chief executive John Ray described a lack of basic risk management and Bankman-Fried has admitted to poor internal controls.

Its rapid descent has alarmed investors who keep and trade their assets on other centralised crypto exchanges, leading to record levels of withdrawals of bitcoin, the most widely traded crypto token. FTX failed last month with potentially more than 1mn creditors.

Last month, investors pulled 91,363 bitcoin, worth a total of close to $1.5bn based on the November average price of around $16,400, from centralised exchanges including Binance, Kraken and Coinbase.

That marked the largest bitcoin outflow on record, according to data from CryptoCompare. It is unclear whether the coins are being sold or moved to private wallets.

The rush for the exit comes as the price of bitcoin has plunged 64 per cent this year and is currently trading around $17,000.

Withdrawals in October were also high, at 75,294 bitcoin, as crypto traders pulled their funds following a crisis-laden summer which included the collapse of digital asset lenders Celsius and Voyager Digital.

Rival exchanges have rushed to distance themselves and their practices from the chaos at FTX in an effort to ease customer nerves and limit potential market contagion.

But the record outflows highlight investors' wariness of bitcoin as the digital asset industry faces increased scrutiny from global regulators. In the first seven days of December, 4,545 bitcoin were withdrawn from centralised exchanges, compared with inflows of 3,846 bitcoin in the same period last year, according to CryptoCompare.

In a sign of the detrimental impact of FTX's collapse on its once-rival exchanges, credit rating agency Moody's placed US-listed Coinbase's bond rating on review for downgrade in late November, citing "the increasing likelihood of sustained declines in trading volumes and client engagement, two essential revenue drivers".

Eric Robertsen, global head of research at Asia-focused bank Standard Chartered, wrote last week: "While the bitcoin sell-off decelerates, the damage has been done."

He predicted that the pain for crypto investors would continue well into 2023. "More and more crypto firms and exchanges find themselves with insufficient liquidity, leading to further bankruptcies and a collapse in investor confidence in digital assets," he added.

EY scraps US merit bonuses as economic mood darkens

STEPHEN FOLEY — NEW YORK

EY has told its US staff they will not be getting holiday bonuses this year, becoming the latest large firm in the financial and professional services sectors to signal a challenging economic outlook.

The news was delivered on Friday in an all-hands meeting at the Big Four accounting firm, which is planning to split its historic audit business from a tax and advisory business that has grown rapidly in recent years.

Staff were told the economic outlook had darkened in the US and globally, according to people who were on the call. For the past two years, EY US has paid merit bonuses to top performers around this time, on top of the main bonuses awarded at the end of its fiscal year in June, but there would not be funds available for the scheme in 2022, executives said.

"While EY continues to experience strong revenue growth, we have elected at this time not to fund our additional, discretionary mid-year programme given the changing economic environment," EY confirmed in a statement to the Financial Times.

"We remain steadfast in our commitment to being a leader in recognition and rewards. This includes our intention for planned annual performance-based bonuses and ongoing recognition awards," it said. The mid-year scheme could be resurrected in future years.

Goldman Sachs chief executive David Solomon was among several bank executives to warn the US was flirting with the possibility of recession next year.

The investment bank Jefferies has already told its staff to expect "a more difficult compensation season" and a sharp slowdown in corporate dealmaking is likely to cut bonus payouts at other banks, too.

EY's global leaders had called the period to June 2022 "one of the most successful years in the history of the organisation", with strong double-digit percentage growth in revenues in the US led by the consulting and financial transactions businesses. The Americas region, which is dominated by the US firm, posted revenues of $21.1bn, up 19 per cent on the previous fiscal year.

The firm's global leadership is preparing to put its plan to split EY to votes of its 13,000 partners around the world by next spring, but financial details are still to be narrowed down.

Technology. **Meituan and Pinduoduo**

China's internet darlings leap forward for growth

> Pandemic winners adapt to renewed competition with relaxed curbs after zero-Covid

ELEANOR OLCOTT — HONG KONG
NIAN LIU AND RYAN MCMORROW
BEIJING

Two Chinese internet companies that have emerged as corporate winners through the pandemic are adapting to renewed competition as the country begins to shed its zero-Covid policy.

Food delivery group Meituan and bargain shopping app Pinduoduo raked in a combined Rmb11.8bn ($1.7bn) in profit during the three months to the end of September as shoppers shifted to spending on food delivery and bulk purchases of staple consumer goods.

Meituan and Pinduoduo also increased sales by 28 per cent and 65 per cent year on year, respectively. During the same period, Tencent's revenues slid while Alibaba's grew just 3 per cent.

But as Beijing announced wide-ranging relaxations to President Xi Jinping's contentious zero-Covid restrictions last week, both companies are seeking alternative revenue streams.

"These are the two highest quality companies in China's internet land," said Robin Zhu, an analyst at AB Bernstein. "They were both agile in the face of the Shanghai lockdown," referring to the weeks-long shutdown of China's big-

to break up the stranglehold of ecommerce group Alibaba, which forced some merchants to sign up exclusively for its popular Taobao and Tmall shopping platforms.

In the three months to the end of September, Pinduoduo's online marketing services revenue — which includes merchant advertising spending — grew to Rmb28.4bn, a 58 per cent increase from the previous year.

Meituan was able to raise prices as competitors retreated and spending on food delivery soared.

"Meituan's profitability has improved during the pandemic as people have been unable to travel or leave their homes," said Li Chengdong, head of the Haitun ecommerce think-tank. "They've been spending more money on local services such as food delivery."

Meituan's pre-eminence may prove fleeting. Beijing's regulatory clampdown on anti-competitive behaviour has opened the door for new performers funded by rivals with deep pockets.

Douyin, the Chinese version of social media app TikTok, has announced a partnership with three companies to provide food delivery services, putting it in direct competition with Meituan.

Li said this move meant restaurants would probably shift some advertising spend from Meituan to Douyin.

Alibaba is also poised to fight for market share, having cut spending in recent months. "Alibaba dialled back its price

the hotel and travel booking segment, its most profitable business before the pandemic.

Meituan and Pinduoduo are both trying to secure future revenue streams, the former through its travel and Yelp-like restaurant directory service and the latter through Temu, a Shein-like fast fashion app targeting western shoppers.

Analysts said Meituan and Pinduoduo were able to make decisive moves putting them ahead of the competition during lockdowns because the pair were still founder-led.

Meituan's Wang Xing is still steering the company as chief executive and while Pinduoduo's Colin Huang has formally stepped down as CEO, he is still the largest shareholder and continues to play a central role in guiding the company's direction, according to two people close to Pinduoduo.

Insiders said Meituan executed deep spending and personnel cuts which aided its profitability.

In the results of an April investigation

of the industry, the powerful Cyberspace Administration of China said tech employment remained stable, despite its battering regulatory campaign and depressed share prices.

Pinduoduo and Meituan did not respond to requests for comment.

Despite Meituan's growth and profitability, investors have been shaken by main shareholder Tencent's move to divest its stake in the group.

Meituan's Hong Kong-listed share price has fallen more than 20 per cent in the past 12 months to HK$189 ($24) while Pinduoduo's Nasdaq stock has risen nearly 50 per cent to $91.

Pinduoduo benefited as shoppers stuck at home turned to hunt for bargains on its hit app.

But after reporting a bumper quarter of accelerating sales growth and increasing profits, early backer Neil Shen of Sequoia Capital China, considered the country's top venture capitalist, decided to exit its board and cash out some of the fund's gains.

Shen last month said he was stepping down "to focus on my other interests and engagements". Entities affiliated with Sequoia filed to sell as much as $390mn worth of Pinduoduo shares on the same day.

The departure comes as Pinduoduo seeks to make inroads in the territory of another Sequoia-backed company, Shein, after it launched fast-fashion business Temu in September, targeting

Spain's Mango reassesses its reliance on China

Clothing group forced to rethink its supply chain amid fallout from pandemic and friction between Beijing and the west

BARNEY JOPSON
PALAU-SOLITÀ I PLEGAMANS, SPAIN

In 1970, a young Turkish immigrant named Isak Andic began importing blouses from the country of his birth to Spain, bringing something different to people living under a dictatorship.

Aged 17, he traded them first as a wholesaler in Barcelona, then opened a store and also sold them from the back of a car he drove around the country. It was the start of a fashion business that 14 years later he would name Mango.

Today, Andic's status as Mango's sole shareholder has made him one of the richest people in Spain and his empire has expanded to about 2,600 stores worldwide. It continues to buy clothes from Turkey and 18 other countries.

But the pandemic and a war in Europe, together with friction between Beijing and the west, are forcing a rethink of its supply chain and China's central role in its operations.

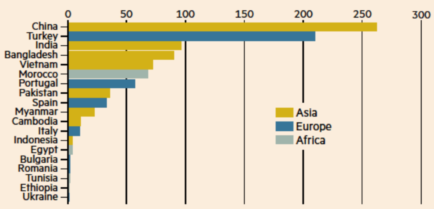
Toni Ruiz, appointed as chief executive by Andic in 2020, said that globalisation had enabled companies to become "super efficient" in limiting production costs in tranquil times. "But in the end, what we've realised is that things can change from one moment to the next."

He recalled recent shortages of Taiwanese microchips and the European car factories that were brought to a halt by the lack of a Ukraine-made wire harness. "The whole [supply] chain is only as strong as its weakest link," he said.

In Mango's case, the chain is mind-bogglingly complex. The retailer procures its glittery €40 party dresses, €15 T-shirts and €100 winter coats from 408 suppliers that own some 1,000 factories, three-fifths of them in Asia. Apple, which recently warned of disrupted supplies because of a lockdown revolt at a Chinese factory, has 180 direct suppliers.

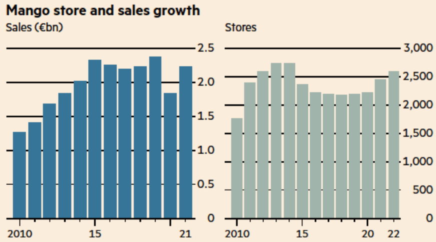
"What we're looking at is the extent to which all this global sourcing, developed over many years, might become more local," Ruiz said. "We're constantly mulling alternatives." Mango already exercises a lot of central control.

Three-fifths of the factories that supply Mango are in Asia
Number of supplier factories by country



Source: company

Mango store and sales growth



Fashion factory: the cutting area at Mango's Palau-solità i Plegamans headquarters, near Barcelona. Below, Toni Ruiz, chief executive — Anna Huix/FT

No product reaches shoppers without first passing through its distribution centre north of Barcelona, where 75,000 items an hour swoop along a circuit of overhead rails to be sorted into a vast 170m-long wardrobe.

But during the pandemic, the company was in a constant scramble, dialling production up and down across Asia as Covid-19 outbreaks flared and faded in China, Vietnam, Bangladesh and India. Last year, a lack of container ships left its products stranded far from Europe.

"In September, October, November, we were all praying that the weather wouldn't be bad because we didn't have any warm clothes," Ruiz said.

There are specific issues in China, where Mango sources from 262 factories, starting with the zero-Covid policies that Beijing has begun to relax and strict visa and quarantine rules that deter business travellers.

Then there are Beijing's fraught relations with Washington and European powers, which Ruiz highlighted, and worries about potential conflict between China and Taiwan, which he described as "part of it all".

"In this debate about whether 30 years of globalisation will continue or go backwards, the most important thing for us to follow in detail is the China issue," he said. Asked if Mango would reduce the proportion it buys from the country, Ruiz replied: "I would say yes, but we'll be very alert to how things evolve."

> 'What we're looking at is the extent to which all this global sourcing, developed over years, might become more local'

Mango gains some freedom from the fact it has only six stores in mainland China and consumers there contribute little to total sales, which it predicts will this year surpass its 2019 record of €2.4bn.

Other brands have already moved more decisively. The US jeans maker Levi's and UK bootmaker Dr Martens have been reducing their sourcing from China significantly.

Another factor forcing companies to reassess their exposure is Xinjiang, says Brian Ehrig, a supply chain expert at Kearney, a consultancy.

Allegations of the use of forced labour in the region's factories have led to legislation in the US, UK, Germany and elsewhere that pressures companies to eliminate potential links to abuse.

"What we're seeing more is that the path of least resistance is to move production out of China as quickly as possible," said Ehrig. Mango said it had no Xinjiang suppliers and did not work directly with any other company in the region.

The company has alternatives to China through a twin-track supply chain. Asia is the "long distance" track, producing basics such as T-shirts that normally take six to eight weeks by ship to get to Spain.

The "proximity" track comprises mainly Turkey and Morocco, where it produces its most fashionable outfits, all designed at its headquarters in Palau-solità i Plegamans in the Catalan countryside. Those products reach its distribution centre in four to six days, giving Mango the ability to ramp up production quickly to replenish supplies when an item is popular.

Turkey and Morocco play a similar role for Zara owner Inditex and are the obvious places for Mango to expand production closer to home. It also pointed to the potential of Romania, where it uses three factories. Ruiz said Mexico was an option in Central America as it plans to quadruple the number of stores in the US to 40 by 2024.

Luis Casacuberta, director of Mango's women's, kids' and home businesses, said the company was looking for not only flexibility but "robustness". Unlike carmakers, he said, that did not mean simply having a larger number of suppliers on hand.

"We have a reasonable level of diversification already. What we are aiming for is the opposite. How do we build a much more solid base?"

Key to that, he said, was finding suppliers that already did a good job making Mango products and were willing to open up factories in more than one country. "So the flow of ships from the Bangladeshi ports is disrupted? Or there's been flooding? That allows us to pivot with the same supplier."

Ruiz has been grappling with unwelcome surprises from day one. He succeeded Andic, now Mango's chair, as the pandemic took hold.

The first document he signed put several thousand employees on furlough. But if Mango obsessed too much about what could go wrong, he said, "we wouldn't do anything".

"The things that are outside our sphere of influence are so huge, but it's about managing the things that are inside our sphere of influence.

"So let's be on the offensive, let's conquer the market, then let's have alternative plans in case things happen."

Automobiles

Cost of owning EVs dips below petrol and diesel

PETER CAMPBELL — LONDON

Rising fuel prices this year mean that the cost of owning and running an electric car is now lower than for a petrol or diesel vehicle in almost every country in Europe, according to data from automotive lease provider LeasePlan.

Battery vehicles remain more expensive to buy than combustion-engine models, but they have lower running costs because they require less maintenance and recharging is cheaper than fuel.

The industry considers the point at which electric cars become as cheap as petrol models to own, run and service — the total cost of ownership (TCO) — to be a key moment that could trigger a widespread switch to battery vehicles.

"… petrol or diesel cars," the LeasePlan report said.

The research found the costs of a standard family car, such as a Ford Kuga or an electric Škoda Enyaq, were equal or lower in 19 of the 22 countries, including the UK, France, Germany and the Netherlands. Only in Poland, Italy and the Czech Republic was the electric model notably more expensive.

> The point at which electric cars become as cheap as petrol models could trigger a widespread switch

Among smaller cars, such as the …

costs remained similar across most countries, the costs of recharging an electric car varied wildly. Typically, charging at home overnight for several hours was cheaper than using public fast-chargers, which attract a premium for their higher speed.

For its EV charging calculations, LeasePlan took the charging habits of its average electric customer: 65 per cent charged at home, 20 per cent at a workplace and 15 per cent at a public charging point. It found that charging costs amounted to 15 per cent of the cost of owning and running an electric car, while the cost of refuelling a diesel vehicle was 28 per cent of the TCO. "Despite energy price inflation, fuel costs remain significantly lower for electric cars than …

COMPANIES & MARKETS

Technology

Japanese cast doubt on US chip sanctions

Curbs aimed at China will have only temporary impact, warn executives

ERI SUGIURA — TOKYO

Tech executives in Japan have warned that the latest US chip export controls are unlikely to suppress China's progress in artificial intelligence and super computers, calling into question the long-term effectiveness of the sanctions.

The warnings from Sony's chief technology officer and NEC's chief executive come as Washington tries to convince the Netherlands and Japan, both big players in the global chipmaking industry, to strike a trilateral deal that would impose further restrictions on China obtaining tools to make chips.

In an interview with the Financial Times, Sony technology head Hiroaki Kitano said he expected the US-led sanctions to "temporarily impact" China's ability to procure semiconductors but added that it was "entirely possible" that its global presence in AI would continue to increase.

"The driving force of AI [development] in China is that they have access to very large data sets. I am not sure what kind of long-term impact [the US export curbs] can have there," he said.

In a recent media session, NEC chief executive Takayuki Morita also expressed doubts about the long-term effectiveness of Washington's measures, which are designed to slow China's ability to develop chips and prevent it from obtaining advanced semiconductors that can be used for military purposes.

"Personally, I feel that while it may be possible for the US-China technology dispute over chips to slow down China's technology progress, the overall trend will not change," Morita said. "It's not possible to ignore China's competitiveness in technology and it will become one of the forces [to reckon with] in the long run."

The sanctions Washington imposed in October are the toughest tech measures President Joe Biden has introduced to combat Chinese advances.

But the broader impact on some Japanese companies so far appears to be more limited than when Chinese telecoms equipment maker Huawei was cut out of supply chains, corporate and government officials in Japan said. That move heavily hit Sony and other companies supplying components to Huawei.

Analysts said the latest measures would probably accelerate China's efforts to expand its homegrown chip industry, part of the Communist party's Made in China 2025 road map to becoming a global leader in AI and quantum computing.

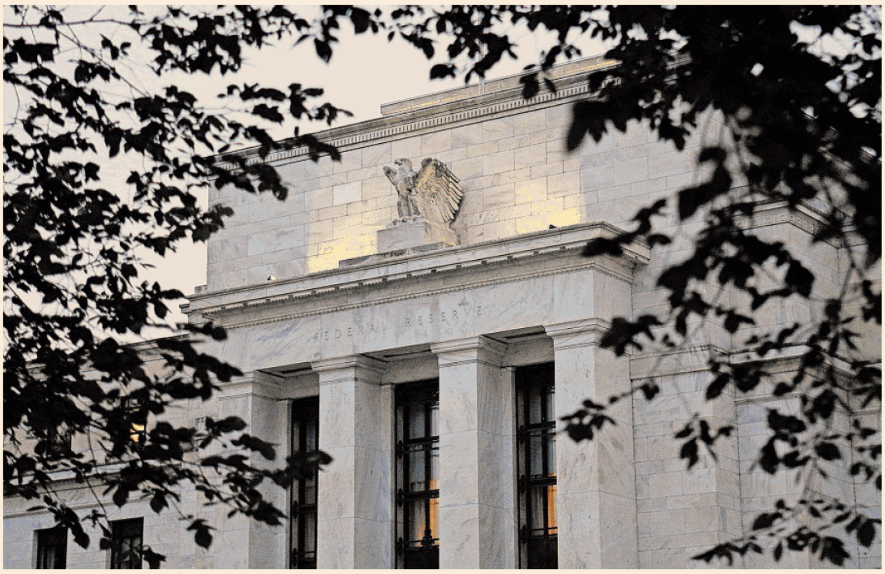
Kitano said Sony was unlikely to be affected by the US export curbs as its main AI research centres were located in the US and Europe.

NEC does not expect to be affected by the sanctions either as the company is focused on facial recognition and software. Its presence in the Chinese market was also limited because of privacy concerns, said Morita.

Kitano said one big question was whether China could maintain its existing standards for research and development in terms of the quality of its engineers. "It's hard to know how it will turn out in terms of whether China can sustain advanced research and development under the current environment," he said.

Market questions. Week ahead

Fed's 'dot plot' offers clues to the pace of rate rises


Investors could be forced to adjust their positions if the Fed's survey of officials suggests that the central bank is prepared to keep policy tighter for longer — AP Photo/ Patrick Semansky

What will the Fed's 'dot plot' reveal about rate expectations?

The Federal Reserve is widely expected to conclude its last policy meeting for the year on Wednesday with an announcement that it will raise interest rates by 0.5 percentage points, slowing its pace after four consecutive 0.75 percentage point increases.

Fed chair Jay Powell said in a speech last week that the time to slow its pace of increases may come as soon as December and acknowledged that the US central bank was concerned about the prospects of overtightening policy.

The slowdown has come as US data have begun to show evidence of cooling inflation. In October, consumer prices rose but at their slowest rate since January.

The real story will be in the Fed's "dot plot", a survey of officials on where they believe interest rates, inflation, unemployment and gross domestic product will be in the years to come.

Rate estimates in the survey are expected to have increased meaningfully from September and show a Fed that is prepared to keep policy tighter for longer.

At present, the futures market shows investors expect interest rates to peak in May at about 5 per cent before the Fed is forced to cut rates by the end of the year by at least 0.5 percentage points.

But New York Fed president John Williams, a close colleague of Powell's, has indicated that he does not expect the bank to cut interest rates until at least 2024.

A dot plot showing tighter policy through the end of 2023 could force investors at present betting on looser monetary policy to adjust their positions. *Kate Duguid*

How will fresh data affect the BoE's interest rate decision?

Investors expect the Bank of England to slow the pace of rate increases on Thursday but economists noted that data released at the start of the week could still change the outcome.

Markets are pricing in an 80 per cent probability that the central bank will increase its policy rate by half a percentage point to 3.5 per cent.

The BoE has been battling the fastest pace of inflation in 41 years and raised the benchmark by 0.75 percentage points in November.

Anna Titareva, European economist at UBS, expects "the majority of the [Monetary Policy] Committee to vote in favour of a smaller rate increase".

This was because medium-term inflation expectations "have eased in recent months", while several members of the BoE "have noted indications of an easing in labour demand", she said.

"Last but not least, given the lags in monetary policy transmission, most of the impact of the hikes already delivered is still yet to come, with the magnitude subject to significant uncertainty."

Elizabeth Martins, economist at HSBC, also thinks the BoE will increase rates by 50 basis points but noted that influential economic releases may sway members of the committee.

These include November's CPI inflation data, which economists polled by Reuters expect to have slowed to 10.9 per cent from 11.1 per cent in October; October's GDP, set to show a small gain of 0.4 per cent; and the labour market report, which is forecast to show more signs of falling job vacancies and declining employment numbers. "If all three come out strong, it might tip the balance [of the MPC] towards a larger hike," said Martins. *Valentina Romei*

'Most of the impact of the [UK rate rises] already delivered is still yet to come'

Will the ECB slow the pace of rate rises?

Eurozone inflation is falling, the economy is on the brink of recession and interest rates are at their highest level since the 2008 financial crisis. So many economists think it is time for the European Central Bank to switch to smaller rate rises at its meeting on Thursday.

This means a third consecutive 75 basis point rate rise by the ECB seems unlikely. But the final decision may hinge on how quickly the bank expects inflation to return to its 2 per cent target in new forecasts it will publish after Thursday's meeting.

Most economists expect the ECB to revise its inflation projections upwards for the next two years due to rising wages and the delayed impact of high energy costs hitting consumers. But most think the central bank will still forecast inflation returning to its target by 2025.

Silvia Ardagna, chief European economist at Barclays, said this would allow the ECB to "slow the hiking pace to 50 basis points, considering that the 200 basis points of rate hikes delivered so far will have a significant effect on future inflation".

Some ECB watchers, such as ING head of macro research Carsten Brzeski, think a 75 basis point rate rise "is clearly still on the table".

But he added that a compromise could be found for a 50-point rate rise if it comes with "hawkish communication" and an agreement to start shrinking the ECB's €5tn bond portfolio early next year. *Martin Arnold*

Financials

Blackstone private equity fund launch faces delay

ANTOINE GARA — NEW YORK

Blackstone has warned of a possible delay to the launch of a new private equity fund designed for wealthy individuals, as it copes with heavy investor withdrawals at two other funds in real estate and credit aimed at a similar clientele.

The New York-based investment manager has been preparing to open the Blackstone Private Equity Strategies Fund, or BXPE, which would become its flagship strategy for rich individuals to participate in its private equity business. Blackstone historically has catered to institutional clients.

Blackstone has in recent days informed wealthy investors and their financial advisers that it may wait for fundraising conditions and financial markets to improve before launching BXPE, according to people familiar with the matter. Clients of Blackstone's other retail products told the Financial Times they had expected the fund to be launched by early 2023.

The potential delay comes days after the group limited withdrawals from its $69bn Blackstone Real Estate Income Trust (Breit) after a spate of redemption requests from its wealthy individual investors. The curbs on withdrawals from this fund have raised concerns over its future growth and hit Blackstone's share price. Blackstone declined to comment.

Blackstone has also informed clients

The US group has told wealthy investors that it might wait for fundraising conditions to improve

that it will not be raising new capital for vehicles known as the Blackstone Total Alternative Solutions funds, which were designed nearly a decade ago when it initially sought to attract assets from wealthy individuals.

The BTAS funds have a 10-year life and are raised annually. Blackstone instead plans to direct interested clients to BXPE, which is designed to be a perpetual vehicle that does not return capital at the end of a fund's life. BXPE clients would commit their capital when they initially invest, instead of having it called on a deal-by-deal basis.

Since the financial crisis, Blackstone founder Stephen Schwarzman has been seeking ways to make the buyout business available to a broader range of investors beyond the pension, endowment and sovereign wealth funds that traditionally have been its clients.

BXPE is being set up to invest in corporate buyouts and equity-oriented strategies, including late-stage venture investments, music royalties and the purchase of stakes in other private equity firms or their funds.

The fund is poised to be Blackstone's most complex product yet. Unlike Breit and Bcred, the sister credit fund, which both generate a significant portion of their returns from regular cash distributions to investors, BXPE will not pay dividends. Investors will earn their returns from episodic and unpredictable asset sales, or the subjective mark-up or writedown of the quarterly net asset value of its holdings.

Additional reporting by Sujeet Indap

Airlines. Lease deals

Carriers feel squeeze as higher borrowing costs lift price of aircraft rentals

Jump in fees adds to woes of industry dealing with growth in fuel and labour expenses

CLAIRE BUSHEY — CHICAGO
SYLVIA PFEIFER — LONDON

Airlines are flying back into profitability after racking up big losses during the pandemic, but there is a cloud on the horizon — sharp increases in the cost of renting a plane.

More than half of the world's commercial aircraft are owned or managed by leasing companies, and their rates are rising. For Airbus's A320neo and Boeing's 737 Max — the most highly sought single-aisle aircraft — lease rates have respectively risen 14 per cent and

cialist companies that own and hire out aircraft fleets have more costly debt. Lessors must calculate how to pass on these borrowing costs to carriers that are already dealing with ballooning fuel and labour expenses.

Air Lease, a Los Angeles-based lessor, last week raised $700mn through a bond offering at an interest rate of 5.85 per cent — roughly double the rate of a similar bond issuance in January.

The deal, the first such bond offering since Russia invaded Ukraine, was "somewhat of a bellwether", said Philip Baggaley, analyst at S&P Global. "They had to pay a lot more than they used to borrow at, but that's the market reality."

Air Lease executive chair Steven Udvar-Hazy said he had not seen the cost of capital increase this quickly since the 1970s, when inflation was rampant.

said. "I've never had an airline say that our lease rates are too low. It's like a big Istanbul grand bazaar: The leasing company says 100, the airline says 80, and we hope to negotiate at 99 and a half."

Many airlines asked lessors for financial relief during the pandemic. But they are back in the black as air travel has roared back. "So it's very hard to plead poverty," Udvar-Házy said. "Yes, we're going to work with our customers, but they read the newspapers, they see what's going on. The cost of financing is going up."

Several airlines referred to rising interest rates with regard to leases in their recent earnings calls.

Wizz Air of Hungary told investors last month that it benefited from having "fixed interest rate structures financing 94 per cent of its existing fleet". In the US, Frontier Airlines chief financial officer Jimmy Dempsey said it had financed 35 out of its next 37 aircraft deliveries, "and we've done it in a way that has capped interest rate exposure on a lot of these leases".

Andy Cronin, chief executive of Irish leasing company Avolon, said lease rates were moving upwards for both new and used aircraft in response to the undersupply of aircraft in the market, rising interest rates and the withdrawal from the market of certain lessors, in particular some from Asia.

Surging interest rates have hit the market for bonds composed by bundles of plane leases. The value of deals for such asset-backed securities is expected to total $1.1bn in 2022 compared with $9.2bn last year, revealing a changed

central banks' sudden move to tighten monetary policy.

Tense bargaining between lessors and airlines will be limited somewhat because only 15 to 20 per cent of a lessors' fleet comes up for lease renewal in any given year.

"Current market lease rates for new aircraft are up 5 to 10 per cent. But that is not the 30 per cent that might be required given the interest rate increases we have seen this year. Lessors will therefore face some [profit] margin compression," said Rob Morris, head of global consultancy at Ascend by Cirium.

As they enter into negotiations, leasing executives point out that airlines have not hesitated to raise prices for their own customers. Average US air fares were up 22 per cent year on year in the second quarter of 2022, government

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 $
0.29%	0.44%	0.13%	0.06%	0.82%	1.18%	2.32%	0.55%	-0.095%	0.573%	0.073%	-0.695%	1.36%	0.45%

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

AMERICAS

S&P 500 — New York — Nov 10 - Dec 09 — 3,748.57 / 3,974.81 — Day 0.29% Month 6.04% Year -14.84%

S&P/TSX COMP — Toronto — 19,990.36 / 20,037.60 — Day 0.36% Month 3.59% Year -4.23%

Nasdaq Composite — New York — 10,353.18 / 11,130.73 — Day 0.44% Month 7.50% Year -28.28%

IPC — Mexico City — 50,545.76 / 51,009.52 — Day -1.16% Month -0.10% Year -1.45%

Dow Jones Industrial — New York — 32,513.94 / 33,826.94 — Day 0.13% Month 4.03% Year -5.39%

Bovespa — São Paulo — 113,580.00 / 108,167.39 — Day 1.06% Month -4.57% Year 1.98%

EUROPE

FTSE 100 — London — 7,375.34 / 7,476.63 — Day 0.06% Month 2.45% Year 2.10%

Xetra Dax — Frankfurt — 14,146.09 / 14,335.17 — Day 0.50% Month 8.33% Year -8.45%

FTSE Eurofirst 300 — Europe — 1,704.26 / 1,735.38 — Day 0.82% Month 4.39% Year -6.24%

Ibex 35 — Madrid — 8,133.20 / 8,289.20 — Day 0.78% Month 3.63% Year -2.23%

CAC 40 — Paris — 6,556.83 / 6,666.81 — Day 0.46% Month 3.67% Year -4.80%

FTSE MIB — Milan — 24,394.28 / 24,277.49 — Day 0.29% Month 2.47% Year -9.25%

ASIA

Nikkei 225 — Tokyo — 27,716.43 / 27,901.01 — Day 1.18% Month 0.17% Year -3.27%

Kospi — Seoul — 2,402.23 / 2,389.04 — Day 0.76% Month -0.42% Year -20.41%

Hang Seng — Hong Kong — 16,081.04 / 19,900.87 — Day 2.32% Month 20.30% Year -17.04%

FTSE Straits Times — Singapore — 3,173.18 / 3,245.97 — Day 0.31% Month 3.03% Year 3.56%

Shanghai Composite — Shanghai — 3,036.13 / 3,206.95 — Day 0.30% Month 4.65% Year -11.84%

BSE Sensex — Mumbai — 60,613.70 / 62,181.67 — Day -0.62% Month 1.63% Year 6.03%

Country	Index	Latest	Previous
Argentina	Merval	171100.68	167043.03
Australia	All Ordinaries	7406.30	7369.40
	S&P/ASX 200	7213.20	7175.50
	S&P/ASX 200 Res	6133.20	6037.00
Austria	ATX	3166.36	3160.38
Belgium	BEL 20	3721.33	3692.60
	BEL Mid	9547.53	9421.13
Brazil	IBovespa	108390.46	107249.04
Canada	S&P/TSX 60	1213.67	1209.64
	S&P/TSX Comp	20040.53	19969.19
	S&P/TSX Div Met & Min	1533.57	1501.43
Chile	S&P/CLX IGPA Gen	27582.58	27779.11
China	FTSE A200	10594.92	10499.24
	FTSE B35	9000.71	8988.96
	Shanghai A	3361.46	3351.40
	Shanghai B	291.57	290.15
	Shanghai Comp	3206.95	3197.35
	Shenzhen A	2171.69	2159.70
	Shenzhen B	1163.25	1153.62
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1173.08	1170.60
Denmark	OMXC Copenahgen 20	1796.63	1805.09
Egypt	EGX 30	14787.05	14498.29
Estonia	OMX Tallinn	1777.59	1771.97
Finland	OMX Helsinki General	11038.10	11233.43
France	CAC 40	6677.64	6647.31
	SBF 120	5122.49	5098.00
Germany	M-DAX	25263.08	25627.99
	TecDAX	3028.01	3048.21
	XETRA Dax	14335.17	14264.56
Greece	Athens Gen	915.00	915.40
	FTSE/ASE 20	2219.91	2218.59
Hong Kong	Hang Seng	19900.87	19450.23
	HS China Enterprise	6834.21	6666.77
	HSCC Red Chip	3704.51	3582.44
Hungary	Bux	44182.00	43842.37
India	BSE Sensex	62181.67	62570.68
	Nifty 500	15812.75	15911.10
Indonesia	Jakarta Comp	6715.12	6804.23
Ireland	ISEQ Overall	7251.19	7171.92
Israel	Tel Aviv 125	1881.37	1903.11
Italy	FTSE Italia All-Share	26321.09	26228.12
	FTSE Italia Mid Cap	40133.33	39751.69
	FTSE MIB	24277.49	24207.42
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27901.01	27574.43
	S&P Topix 150	1685.82	1668.31
	Topix	1961.56	1941.50
Jordan	Amman SE	2502.61	2506.93
Kenya	NSE 20	1646.41	1642.72
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1131.69	1134.61
Lithuania	OMX Vilnius	953.61	955.33
Luxembourg	LuxX	1492.32	1493.91
Malaysia	FTSE Bursa KLCI	1477.19	1465.93
Mexico	IPC	50485.70	51078.70
Morocco	MASI	11275.94	11291.05
Netherlands	AEX	724.17	719.83
	AEX All Share	988.98	982.79
New Zealand	NZX 50	11596.03	11617.14
Nigeria	SE All Share	48365.14	48426.49
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	41819.29	41539.94
Philippines	Manila Comp	6580.12	6525.16
Poland	Wig	55793.93	55717.43
Portugal	PSI 20	5751.82	5745.57
	PSI General	4433.02	4418.92
Romania	BET Index	12252.98	12152.46
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	10185.14	10444.27
Singapore	FTSE Straits Times	3245.97	3236.08
Slovakia	SAX	341.88	341.88
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	74548.14	74467.26
	FTSE/JSE Res 20	73314.52	73812.16
	FTSE/JSE Top 40	68350.46	68281.75
South Korea	Kospi	2389.04	2371.08
	Kospi 200	311.63	308.24
Spain	IBEX 35	8289.20	8225.20
Sri Lanka	CSE All Share	8881.34	8843.75
Sweden	OMX Stockholm 30	2088.43	2111.28
	OMX Stockholm AS	799.43	807.28
Switzerland	SMI Index	11068.30	11004.53
Taiwan	Weighted Pr	14705.43	14553.04
Thailand	Bangkok SET	1623.13	1620.49
Turkey	BIST 100	5005.30	5005.30
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2502.60	2495.30
	FTSE 100	7476.63	7472.17
	FTSE 4Good UK	6746.03	6734.64
	FTSE All Share	4087.39	4082.24
	FTSE techMARK 100	6272.06	6230.51
USA	DJ Composite	11211.31	11192.96
	DJ Industrial	33826.94	33781.48
	DJ Transport	13834.67	13809.74
	DJ Utilities	980.03	977.54
	Nasdaq 100	11697.19	11637.50
	Nasdaq Cmp	11130.73	11082.00
	NYSE Comp	15430.85	15399.94
	S&P 500	3974.81	3963.51
	Wilshire 5000	39409.60	39313.43
Venezuela	IBC	15989.25	16274.28
Vietnam	VNI	1041.02	1048.69
Cross-Border	DJ Global Titans ($)	423.04	420.19
	Euro Stoxx 50 (Eur)	3939.22	3921.27
	Euronext 100 ID	1274.72	1269.51
	FTSE 4Good Global ($)	9775.46	9735.61
	FTSE All World ($)	411.59	409.34
	FTSE E300	1735.38	1721.34
	FTSE Eurotop 100	3423.37	3400.34
	FTSE Global 100 ($)	2525.99	2512.32
	FTSE Gold Min ($)	1743.94	1740.34
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2665.50	2646.13
	FTSE World ($)	745.48	741.56
	FTSEurofirst 100 (Eur)	4620.95	4594.09
	FTSEurofirst 80 (Eur)	5351.10	5315.91
	MSCI ACWI Fr ($)	620.25	616.22
	MSCI All World ($)	2670.27	2654.34
	MSCI Europe (Eur)	1753.61	1755.20
	MSCI Pacific ($)	2625.41	2622.65
	S&P Euro (Eur)	1764.23	1752.29
	S&P Europe 350 (Eur)	1779.42	1764.51
	S&P Global 1200 ($)	2969.79	2953.95
	Stoxx 50 (Eur)	3777.43	3756.97

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

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	146.1	174.04	-5.78
Apple	98.1	140.94	-1.97
Nvidia	59.9	161.20	1.33
Amazon.com	59.9	88.46	0.21
Microsoft	50.0	244.37	-0.75
Advanced Micro Devices	41.4	70.14	-0.13
[illegible]			

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
[illegible]			
Bank Of New York Mellon	44.61	1.77	4.13
Svb Fin	208.28	8.02	4.00
Solaredge	310.79	11.81	3.95
Downs			
M&t Bank	147.97	-12.38	-7.72
Brown-forman	68.27	-5.38	-7.30
Expedia	90.79	-6.12	-6.32
Lncln National	35.28	-2.07	-5.54
American Airlines	13.55	-0.78	-5.44

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

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Bp	255.0	[illegible]	[illegible]
Shell	238.0	[illegible]	[illegible]
Unilever	237.2	[illegible]	[illegible]
Astrazeneca	206.9	[illegible]	[illegible]
Glencore	167.2	[illegible]	[illegible]
Rio Tinto	140.8	[illegible]	[illegible]
[illegible]			

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
[illegible]			
Hipgnosis Songs Fund	86.50	4.60	5.62
Man	215.20	10.90	5.34
Smith (ds)	327.70	14.70	4.70
Downs			
Moonpig	125.00	-5.60	-4.29
Ferrexpo	157.90	-7.00	-4.24
Frasers	782.50	-32.00	-3.93
Anglo American	3190.00	-109.50	-3.32
Abrdn	185.20	-5.80	-3.04

Based on the constituents of the FTSE 350 index

EURO MARKETS

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
[illegible]			
Sika N	242.85	6.81	2.89
Mowi	14.80	0.40	2.81
Philips Kon	13.53	0.29	2.16
Downs			
Atlas Copco Ab Ser. A	11.80	-0.43	-3.53
Neste	47.04	-1.64	-3.37
Atlas Copco Ab Ser. B	10.70	-0.31	-2.81
Stellantis	13.72	-0.36	-2.54
Nordea Bank Abp	9.84	-0.23	-2.26

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
[illegible]			
Furukawa Electric Co.,	2616.00	130.00	5.23
Fujikura	1116.00	44.00	4.10
T&d Holdings, .	1623.00	60.00	3.84
Downs			
Sekisui House,	2421.00	-74.50	-2.99
Inpex	1424.00	-21.00	-1.45
Suzuki Motor	4662.00	-57.00	-1.21
Yamaha Motor Co.,	3315.00	-30.00	-0.90
Eisai Co.,	9543.00	-86.00	-0.89

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Dec 09 price(p)	%Chg week	%Chg ytd
[illegible]			
Losers			
[illegible]			
Bt	113.55	-5.9	-
Intermediate Capital	1178.00	-5.2	-
Halma	2133.00	-5.2	-
Vodafone	86.75	-4.8	-
Jd Sports Fashion	122.90	-4.6	-
Mondi	1487.50	-4.5	-
Spirax-sarco Eng	10995.00	-4.2	-
Wpp	840.00	-4.2	-
Bp	461.95	-3.9	38.9
St. James's Place	1138.50	-3.9	-

FTSE 250	Dec 09 price(p)	%Chg week	%Chg ytd
[illegible]			
Losers			
[illegible]			
Ip	58.40	-13.5	-
Tullow Oil	36.60	-13.3	-
Network Int Holdings	310.40	-12.8	5.9
Savills	820.50	-12.6	-
Home Reit	46.40	-12.3	-
Ascential	199.10	-12.0	-
National Express	153.20	-10.8	-40.2
Future	1321.00	-10.3	-
Victrex	1626.00	-9.8	-
Molten Ventures	368.40	-9.6	-

FTSE SmallCap	Dec 09 price(p)	%Chg week	%Chg ytd
[illegible]			
Losers			
[illegible]			
Hunting	244.00	-12.2	52.6
Pollen Street	574.00	-10.7	-
Riverstone Energy	652.00	-8.4	38.1
Funding Circle Holdings	58.00	-7.9	-
Hochschild Mining	66.80	-7.8	-
Middlefield Canadian ome Pcc	117.50	-7.7	1.9
Enquest	22.00	-7.6	17.8
Xaar	182.50	-7.4	1.3
Seraphim Space Investment Trust	45.38	-7.0	-
Forterra	189.80	-7.0	-

Industry Sectors	Dec 09 price(p)	%Chg week	%Chg ytd
[illegible]			
Losers			
[illegible]			
Industrial Engineering	14168.70	-3.9	-
Electronic & Electrical Equip.	9003.45	-3.8	-
Oil & Gas Producers	7954.78	-3.4	39.2
Chemicals	11799.75	-3.4	-28.7
Software & Computer Services	1836.56	-3.3	-
Real Estate & Investment Servic	2191.98	-3.3	-
Personal Goods	32779.40	-3.3	-8.9
Beverages	28540.12	-2.8	-8.5
Industrial Transportation	3568.44	-2.7	-
Support Services	10222.63	-2.5	-

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

CURRENCIES

Dec 09	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	169.8591	0.0062	179.0402	-0.0784	208.8080	1.2731
Australia	Australian Dollar	1.4716	-0.0070	1.5511	-0.0081	1.8090	0.0025
Bahrain	Bahrainin Dinar	0.3770	-	0.3974	-0.0002	0.4634	0.0028
Bolivia	Bolivian Boliviano	6.9100	-	7.2835	-0.0035	8.4945	0.0515
Brazil	Brazilian Real	5.2260	0.0141	5.5085	0.0123	6.4243	0.0562
Canada	Canadian Dollar	1.3635	0.0050	1.4371	0.0045	1.6761	0.0162
Chile	Chilean Peso	859.2300	-5.2700	905.6730	-5.9872	1056.2529	-0.0379
China	Chinese Yuan	6.9483	-0.0253	7.3239	-0.0301	8.5416	0.0209
Colombia	Colombian Peso	4808.7300	-15.6200	5068.6524	-18.8760	5911.3813	16.7398
Costa Rica	Costa Rican Colon	592.3150	-5.4050	624.3307	-5.9961	728.1338	-2.1913
Czech Republic	Czech Koruna	23.0511	0.0133	24.2971	0.0025	28.3368	0.1880
Denmark	Danish Krone	7.0562	0.0029	7.4376	-0.0005	8.6742	0.0561
Egypt	Egyptian Pound	24.5950	0.0218	25.9244	0.0107	30.2347	0.2099
Hong Kong	Hong Kong Dollar	7.7837	0.0012	8.2045	-0.0026	9.5686	0.0595
Hungary	Hungarian Forint	396.5420	0.8044	417.9757	0.6499	487.4697	3.9371
India	Indian Rupee	82.2775	-0.1500	86.7247	-0.1993	101.1439	0.4297
Indonesia	Indonesian Rupiah	15582.5000	-38.0000	16424.7843	-47.8620	19155.6203	69.6839
Israel	Israeli Shekel	3.4189	-0.0145	3.6037	-0.0170	4.2029	0.0078
Japan	Japanese Yen	136.5950	0.1000	143.9782	0.0371	167.9165	1.1398
..One Month		136.5944	0.0988	143.9780	0.0367	167.9159	1.1388
..Three Month		136.5933	0.0967	143.9774	0.0356	167.9148	1.1366
..One Year		136.5881	0.0862	143.9743	0.0293	167.9159	1.1319
Kenya	Kenyan Shilling	122.8500	-	129.4903	-0.0614	151.0197	0.9152
Kuwait	Kuwaiti Dinar	0.3068	-0.0002	0.3233	-0.0003	0.3771	0.0021
Malaysia	Malaysian Ringgit	4.4050	0.0075	4.6431	0.0057	5.4151	0.0420
Mexico	Mexican Peso	19.8250	0.1510	20.8966	0.1493	24.3709	0.3322
New Zealand	New Zealand Dollar	1.5603	-0.0094	1.6446	-0.0107	1.9181	0.0001
Nigeria	Nigerian Naira	445.5000	-	469.5801	-0.2228	547.6539	3.3190
Norway	Norwegian Krone	9.9801	0.0045	10.5195	-0.0002	12.2685	0.0799
Pakistan	Pakistani Rupee	224.5000	0.8750	236.6346	0.8104	275.9782	2.7417
Peru	Peruvian Nuevo Sol	3.8570	-0.0200	4.0655	-0.0230	4.7414	0.0043
Philippines	Philippine Peso	55.3700	-0.0950	58.3628	-0.1279	68.0664	0.2964
Poland	Polish Zloty	4.4519	0.0071	4.6925	0.0052	5.4727	0.0418
Romania	Romanian Leu	4.6701	0.0097	4.9225	0.0079	5.7410	0.0467
Russia	Russian Ruble	62.6250	-0.2250	66.0100	-0.2686	76.9850	0.1916
Saudi Arabia	Saudi Riyal	3.7605	0.0015	3.9638	-0.0003	4.6228	0.0298
Singapore	Singapore Dollar	1.3520	-0.0012	1.4251	-0.0019	1.6620	0.0086
South Africa	South African Rand	17.3600	0.2012	18.2983	0.2035	21.3407	0.3752
South Korea	South Korean Won	1301.4500	-16.6000	1371.7957	-18.1567	1599.8748	-10.5867
Sweden	Swedish Krona	10.3352	-0.0143	10.8938	-0.0202	12.7050	0.0595
Switzerland	Swiss Franc	0.9329	-0.0034	0.9833	-0.0041	1.1468	0.0028
Taiwan	New Taiwan Dollar	30.6470	-0.0600	32.3035	-0.0786	37.6744	0.1550
Thailand	Thai Baht	34.8025	-0.0300	36.6836	-0.0490	42.7828	0.2226
Tunisia	Tunisian Dinar	3.1921	0.0119	3.3646	0.0110	3.9241	0.0384
Turkey	Turkish Lira	18.6433	0.0088	19.6510	-0.0001	22.9182	0.1496
United Arab Emirates	UAE Dirham	3.6729	-	3.8715	-0.0018	4.5152	0.0274
United Kingdom	Pound Sterling	0.8135	-0.0050	0.8574	-0.0056	-	-
..One Month		0.8136	-0.0050	0.8573	-0.0056	-	-
..Three Month		0.8138	-0.0050	0.8571	-0.0056	-	-
..One Year		0.8143	-0.0050	0.8559	-0.0056	-	-
United States	United States Dollar	-	-	1.0541	-0.0005	1.2293	0.0075
..One Month		-	-	1.0538	-0.1678	1.2294	0.0074
..Three Month		-	-	1.0533	-0.1678	1.2296	0.0074
..One Year		-	-	1.0515	-0.1678	1.2301	0.0074
Vietnam	Vietnamese Dong	23575.0000	-275.0000	24849.2891	-301.8061	28980.8031	-160.3772
European Union	Euro	0.9487	0.0005	-	-	1.1663	0.0076
..One Month		0.9484	0.0005	-	-	1.1661	0.0076
..Three Month		0.9480	0.0005	-	-	1.1659	0.0076
..One Year		0.9461	0.0005	-	-	1.1647	0.0076

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

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Dec 09	Day's chge%	Euro Index	£ Strlg Dec 08	£ Strlg Dec 07	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7476.63	0.06	6799.27	7472.17	7489.19	7321.26	3.64	1.63	16.88	266.24	7676.07
FTSE 250 (250)	18916.00	0.49	17202.26	18824.01	18930.57	23148.04	3.20	0.62	50.10	544.66	15743.00
FTSE 250 ex Inv Co (173)	19406.72	0.66	17648.52	19280.40	19417.84	23943.12	3.31	1.28	23.61	579.16	16482.31
FTSE 350 (350)	4127.52	0.12	3753.57	4122.49	4133.91	4188.34	3.58	1.50	18.69	142.83	8409.52
FTSE 350 ex Investment Trusts (270)	4068.55	0.13	3699.95	4063.15	4075.11	4079.79	3.63	1.68	16.39	143.04	4284.07
FTSE 350 Higher Yield (132)	3532.45	-0.15	3212.42	3537.79	3546.12	3298.66	5.05	1.72	11.47	164.43	8120.93
[illegible]											

FT 30 INDEX

	Dec 09	Dec 08	Dec 07	Dec 06	Dec 05	Yr Ago	High	Low
FT 30	2502.60	2495.30	2509.30	2518.40	2525.10	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
2495.3	2503.3	2505.6	2508.1	2499.1	2505.4	2495.9	2499.7	2503.2	2510.8	2484.4

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

FT WILSHIRE 5000 INDEX SERIES

[illegible]

FTSE GLOBAL EQUITY INDEX SERIES

[illegible]

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	39.41	Consumer Goods	-3.08	FTSE 250 Index	-19.44
Oil & Gas	38.67	Health Care Eq & Srv	-3.32	Construct & Material	-20.44
Tobacco	22.79	Travel & Leisure	-6.12	Leisure Goods	-21.29
Mining	21.22	Media	-8.03	Industrial Eng	-22.64
Aerospace & Defense	19.11	Beverages	-8.22	Mobile Telecomms	-22.69
Pharmace & Biotech	12.99	Life Insurance	-8.80	Telecommunications	-23.83
Basic Materials	12.51	Nonlife Insurance	-8.85	Household Goods & Ho	-25.78
Health Care	11.88	Software & Comp Serv	-10.97	Oil Equipment & Serv	-26.17
[illegible]					

FTSE 100 SUMMARY

FTSE 100	Closing Price	Week's Change	FTSE 100	Closing Price	Week's Change
3I Group PLC	1338	20.00	International Consolidated Airlines Group S.A.	132.94	-1.18
Admiral Group PLC	2015	-21.00	Intertek Group PLC	4080	-50.00
Airtel Africa PLC	118.00	-3.80	Jd Sports Fashion PLC	122.90	-5.90
Anglo American PLC	3190	-106.00	Kingfisher PLC	241.60	-7.80
Antofagasta PLC	1457	22.50	Land Securities Group PLC	626.60	4.80
Ashtead Group PLC	4902	-110.00	Legal & General Group PLC	254.70	-0.20
Associated British Foods PLC	1639	-28.50	Lloyds Banking Group PLC	46.44	-0.21
[illegible]					

UK STOCK MARKET TRADING DATA

[illegible]

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. For all queries e-mail ft.reader.enquiries@morningstar.com

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UK RIGHTS OFFERS

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

UK COMPANY RESULTS

[illegible]

UK RECENT EQUITY ISSUES

[illegible]

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

[illegible]

FT 500: TOP 20

[illegible]

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
[illegible]							
Advanced Micro	70.14	70.27	-0.13	-0.19	-7.49	-9.6	16.69
Amazon	88.46	88.25	0.21	0.24	-8.08	-8.4	-0.94
Aptiv	97.79	99.71	-1.92	-1.93	-8.88	-8.3	6.73
Occid Pet	63.95	64.14	-0.19	-0.30	-5.54	-8.0	-11.38
Target	153.76	155.05	-1.29	-0.83	-13.31	-8.0	-3.78
UPS	174.67	175.10	-0.43	-0.25	-15.06	-7.9	6.50
Sychrony Fin	34.63	34.64	-0.01	-0.03	-2.95	-7.8	1.79

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Dec 09	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

[illegible]

INTEREST RATES: OFFICIAL

	Rate	Current	Since	Last
US	Fed Funds	[illegible]	[illegible]	2.25-2.5
US	Prime	[illegible]	[illegible]	5.50
US	Discount	[illegible]	[illegible]	2.50
Euro	Repo	[illegible]	[illegible]	0.374
UK	Repo	[illegible]	[illegible]	2.25
Japan	O'night Call	[illegible]	[illegible]	0.00
Switzerland	Libor Target	[illegible]	[illegible]	-0.75--0.25

INTEREST RATES: MARKET

[illegible]

Dec 09	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.14	1.44	1.20	1.50	1.47	1.77	1.83	2.13	2.19	2.49	2.46	2.76
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	3.63	3.83	4.02	4.22	4.18	4.38	4.53	4.73	4.91	5.11	5.16	5.36
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	201.33	0.32	2.03	-8.40	7.03	-8.09
Corporates(£)	330.92	-0.03	0.71	-16.39	4.60	-17.96
Corporates(€)	213.35	-0.09	1.12	-11.67	4.03	-12.11
Eurozone Sov(€)	219.89	-0.16	1.12	-13.57	4.07	-14.74
Gilts(£)	282.14	-0.18	0.07	-21.51	3.48	-24.45
Overall(£)	289.65	-0.14	0.21	-19.98	3.56	-22.58
Overall(€)	214.18	-0.11	1.08	-13.17	3.90	-14.15
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	715.58	17.56	-	-	17.78	-9.90
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	458.01	-12.26	13.40	-67.29	688.92	434.12
Europe 5Y	89.34	-2.92	1.59	-18.29	142.08	85.48
Japan 5Y	78.17	-0.15	1.53	-14.03	119.29	75.61
Senior Financials 5Y	98.23	-3.23	0.43	-19.00	155.06	94.99
Markit CDX						
Emerging Markets 5Y	235.68	-3.41	7.31	-11.15	335.29	226.18
Nth Amer High Yld 5Y	486.47	-4.38	28.41	0.41	625.47	452.57
Nth Amer Inv Grade 5Y	81.63	-0.54	4.72	-1.42	110.98	75.62

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

VOLATILITY INDICES

	Dec 09	Day Chng	Prev	52 wk high	52 wk low
VIX	22.39	0.10	22.29	38.93	16.62
VXD	20.50	0.15	20.35	45.37	3.27
VXN	27.57	-0.02	27.59	44.05	9.94
VDAX	22.39	0.94	21.45	93.30	-

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

BONDS: BENCHMARK GOVERNMENT

[illegible]

GILTS: UK CASH MARKET

Dec 09	Price £	Yield	Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
[illegible]									
Tr 2pc '25	96.68	3.28	2.50	0.31	7.89	613.04	105.86	93.15	39.93
Tr 0.125pc '26	91.09	3.13	1.95	0.00	0.97	565.96	98.77	86.33	35.32
Tr 1.25pc '27	91.60	3.22	1.26	-1.53	-1.53	519.23	104.30	85.65	40.99
Tr 0.875pc '29	86.16	3.13	2.29	-1.88	-3.99	389.06	102.36	78.21	43.62
Tr 4.25pc '32	108.83	3.17	2.92	0.32	-2.76	311.69	135.62	98.13	40.33
Tr 4.25pc '36	108.62	3.43	1.78	-0.87	-2.00	303.53	145.65	94.91	31.68
Tr 4.5pc '42	112.31	3.63	1.97	1.11	1.68	312.50	169.02	93.79	28.35
Tr 3.75pc '52	103.07	3.58	1.70	1.70	5.92	336.59	178.39	82.51	25.11
Tr 4pc '60	112.63	3.40	2.41	3.03	7.94	407.46	209.66	87.32	25.13

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

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change	Agricultural & Cattle Futures		Price*	Change
Crude Oil†	Jan	72.43	0.97	Corn♦	Mar	646.50	4.00
Brent Crude Oil‡		76.85	0.70	Wheat♦	Mar	749.75	3.50
RBOB Gasoline†	Jan	2.07	0.02	Soybeans♦	Jan	1488.25	2.00
Natural Gas†	Jan	6.12	0.16	Soybeans Meal♦	Jan	468.50	2.10
Base Metals (♠ LME 3 Months)				Cocoa (ICE Liffe)⊕	Mar	1944.00	-34.00
Aluminium		2485.00	-15.00	Cocoa (ICE US)♥	Mar	2550.00	8.00
Aluminium Alloy		1675.00	-905.00	Coffee(Robusta)⊕	Jan	1884.00	-34.00
Copper		8495.00	-41.00	Coffee (Arabica)♥	Dec	157.00	0.10
Lead		2188.50	-16.50	White Sugar⊕		541.00	0.40
Nickel		30410.00	1000.00	Sugar 11♥		19.86	0.18
Tin		24390.00	-110.00	Cotton♥	Mar	82.61	1.76
Zinc		3229.00	0.50	Orange Juice♥	Jan	221.30	-2.95
Precious Metals (PM London Fix)				Live Cattle♣	Dec	152.45	0.53
Gold		1790.15	7.95	Feeder Cattle♣	May	134.88	-
Silver (US cents)		2269.50	31.00	Lean Hogs♣	Feb	84.73	-1.93
Platinum		1004.00	1.00				
Palladium		1859.00	17.00		Dec 08	% Chg Month	% Chg Year
Bulk Commodities							
Iron Ore		109.49	2.40	S&P GSCI Spt	576.09	-9.13	6.39
Baltic Dry Index		1373.00	33.00	DJ UBS Spot	112.08	-2.14	16.12
Richards Bay ICE Futures		240.80	-2.70	TR/CC CRB TR	288.26	-5.88	19.40
				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 Dec 08	Yield Dec 08	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.90	1.177	1.083	0.95	5.25	75762.08	8
Fr 0.25%' 24	102.82	-1.455	-1.523	0.20	17.92	262368.53	17
Swe 1.00%' 25	125.72	-0.215	-0.212	0.06	35.38	219964.04	6
UK 0.125%' 24	103.75	-2.720	-2.777	0.33	15.24	585477.23	31
UK 2.50%' 24	378.30	-0.776	-0.780	0.23	6.82	585477.23	31
UK 2.00%' 35	251.64	-0.026	-0.081	-0.78	9.08	585477.23	31
US 0.625%' 24	97.90	2.576	2.588	-0.02	40.98	1657780.34	47
US 3.625%' 28	110.90	1.496	1.441	0.30	16.78	1657780.34	47

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	3.36	1.60	-0.19	Netherlands	1.94	0.18	-1.61
Austria	2.23	0.47	-1.32	New Zealand	4.03	2.27	0.48
Canada	2.80	1.04	-0.75	Norway	2.95	1.19	-0.60
Denmark	2.04	0.28	-1.51	Portugal	2.17	0.42	-1.38
Finland	2.30	0.54	-1.25	Spain	2.51	0.75	-1.04
Germany	1.76	0.00	-1.79	Sweden	-0.26	-2.01	-3.81
Italy	1.31	-0.45	-2.24	Switzerland	0.94	-0.82	-2.61
Japan	0.20	-1.56	-3.35	United States	3.55	1.79	0.00

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

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Dec 09	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.80	-0.12	2352.87	0.33	-4.65	3.28
2 5 - 10 Years	150.60	-0.51	3205.24	2.00	-14.03	3.19
3 10 - 15 Years	163.83	-0.80	3764.29	2.92	-21.15	3.41
4 5 - 15 Years	152.90	-0.60	3339.92	2.25	-16.31	3.28
5 Over 15 Years	229.28	-1.24	3947.72	0.78	-39.61	3.51
7 All stocks	139.94	-0.66	3125.68	1.12	-23.68	3.43

Index Linked	Dec 09	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	325.92	-0.22	-0.26	1.84	2755.92	0.01	3.01
2 Over 5 years	558.03	-0.82	-3.04	-39.97	4253.41	-2.91	-39.70
3 5-15 years	458.27	-0.80	0.10	-17.58	3706.39	0.26	-16.95
4 Over 15 years	634.57	-0.83	-5.15	-48.80	4695.75	-5.04	-48.64
5 All stocks	526.95	-0.72	-2.55	-35.77	4097.51	-2.41	-35.42

Yield Indices	Dec 09	Dec 08	Yr ago		Dec 09	Dec 08	Yr ago
5 Yrs	3.12	3.05	0.48	20 Yrs	3.62	3.56	0.93
10 Yrs	3.31	3.23	0.75	45 Yrs	3.27	3.18	0.54
15 Yrs	3.54	3.46	0.91				

Real yield	inflation 0% Dec 09	Dur yrs	Previous	Yr ago	inflation 5% Dec 09	Dur yrs	Previous	Yr ago
Up to 5 yrs	-0.29	2.78	-0.37	-4.15	-0.60	2.80	-0.69	-4.52
Over 5 yrs	0.27	20.03	0.23	-2.59	0.25	20.08	0.21	-2.61
5-15 yrs	0.02	9.71	-0.06	-3.26	-0.06	9.72	-0.14	-3.34
Over 15 yrs	0.33	26.69	0.30	-2.51	0.32	26.70	0.29	-2.52
All stocks	0.26	17.26	0.22	-2.61	0.23	17.34	0.18	-2.63

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

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

MANAGED FUNDS SERVICE

SUMMARY FT.COM/FUNDS

Winners - US Fund Mid-Cap Value

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
Invesco Value Opportunities Fund	2.67	11.58	7.01	0.61	30.57
Hotchkis & Wiley Mid-Cap Value Fund	2.33	11.52	4.66	0.59	36.24
Fidelity® Series Intrinsic Opportunities Fund	-0.96	10.51	7.49	0.71	21.27
Victory Sycamore Established Value Fund	0.41	10.14	8.09	0.62	23.36
Fidelity Advisor® Value Fund	-4.74	10.02	7.11	0.57	29.25

Losers - US Fund Mid-Cap Value

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
Meeder Quantex Fund	-9.18	2.05	1.69	0.26	28.09
Janus Henderson Small-Mid Cap Value Fund	-3.92	2.19	3.77	0.25	23.38
Allspring C&B Mid Cap Value Fund	-10.18	2.45	4.10	0.26	25.48
Longleaf Partners Fund	-16.71	2.78	0.68	0.26	25.70
Nuance Concentrated Value Fund	-1.62	2.81	4.77	0.26	15.55

Morningstar Star Ratings

Fund Name	Base Currency	Morningstar Rating 3 Yr	Morningstar Rating 5 Yr	Morningstar Rating 10 Yr
Algebris Financial Income Fund - Class R EUR	Euro	★★★★	★★★	-
Algebris Financial Income Fund - Class I EUR	Euro	★★★★	★★★	-
South East Asia	Pound Sterling	★★	★★★	★★★
Pacific (Ex Japan)	Pound Sterling	★★	★★★	★★
Multi Asset Income Fund W-INC-GBP	Pound Sterling	★	★★	★★★★

Global Broad Category Group - Fixed Income

Morningstar Category	Base Currency	Total Ret 1Yr GBP	Total Ret 3Yr GBP	Total Ret 5Yr GBP
Emerging Bonds	Mexican Peso	-1.85	17.10	2.90
World High Yield Bond US	Yen	8.53	7.85	5.16
World Bank Loan	Yen	16.45	7.65	4.74
High Grade Long-Term Debt	Mexican Peso	-1.97	7.46	0.93
India-Floating Rate Short-Term Bond	Indian Rupee	-1.24	7.40	5.14

Advertising Feature

edentree investment management

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

Firm Name	EdenTree Investment Management Limited
Fund Name	EdenTree Global Equity Cls A Inc
Morningstar Category	Global Large-Cap Blend Equity
Max Annual Charge	
3Yr Rating	★
Morningstar Sustainability Rating	
Bid Price	-
KIID Ongoing Charge	1.51
Offer Price	-
Day-End Bid Price Return	-15.42
+/-	0.60
Total Ret 3Yr	3.53

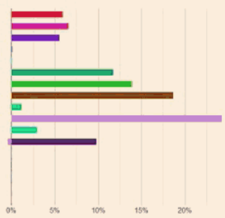
Performance

Dec 2019 - Dec 2022
EdenTree Global Equity Cls A Inc

— Fund — Category

Day ↗ 0.19% Month ↘ -0.45% Year ↘ -19.19%

Weightings - As of 31/10/2022



Sector	Weighting	Cat Avg.
Basic Materials	5.94%	5.05%
Communication Services	6.55%	5.85%
Consumer Cyclical	5.51%	10.37%
Consumer Defensive	0.04%	8.29%
Energy	0.03%	5.10%
Financial Services	11.72%	15.22%
Healthcare	13.87%	12.22%
Industrials	18.61%	11.00%
Real Estate	1.15%	1.75%
Technology	24.25%	15.16%
Utilities	2.94%	2.53%
Cash & Equivalents	9.38%	6.40%
Corporate	-	0.93%
Derivative	-	-0.78%
Government	-	0.81%
Municipal	-	0.00%
Securitized	-	0.11%

Top 10 Holdings - As of 31/10/2022

Holding	Sector	Weighting
Microsoft Corp	Technology	4.64%
Alphabet Inc Class A	Communication Services	4.00%
Salesforce Inc	Technology	2.75%
Novartis AG	Healthcare	2.66%
Prysmian SpA	Industrials	2.60%
Federal Signal Corp	Industrials	2.23%
Roche Holding AG	Healthcare	2.10%
Schneider Electric SE	Industrials	2.10%
Medtronic PLC	Healthcare	2.06%
The Hartford Financial Services Group Inc	Financial Services	2.03%

Risk Measures - As of 30/11/2022

	1Yr	1Yr Cat Ave	3Yr	3Yr Cat Ave	5Yr	5Yr Cat Ave
Alpha	-14.76	-3.05	-5.91	-2.23	-5.73	-2.08
Beta	0.99	0.98	1.08	0.99	1.07	0.99
Information Ratio	-2.90	-0.49	-1.15	-0.44	-1.17	-0.45
R Squared	96.21%	89.33%	95.26%	90.40%	94.06%	90.42%
Sharpe Ratio	-1.22	-0.15	0.11	0.32	0.06	0.29
Std Dev	21.76	19.44	22.26	18.57	19.49	17.18

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Bridge Fund	£2.1757	-	-0.0001	1.91	-12.11	4.74
Global Equity Fund	£3.2350	-	0.0071	1.21	-13.69	7.59
Global Fixed Interest Fund	£0.7569	-	0.0006	5.56	-15.40	-3.73
Income Fund	£0.6278	-	-0.0004	3.17	-8.78	4.73
Sterling Fixed Interest Fund	£0.6922	-	-0.0017	3.74	-20.37	-5.19
UK Equity Fund	£1.9541	-	-0.0070	3.85	-6.51	0.22

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Algebris Financial Credit I EUR	€174.39	-	-0.26	0.00	-9.12	1.38
Algebris Financial Credit R EUR	€150.03	-	-0.21	0.00	-9.73	0.79
Algebris Financial Credit Rd EUR	€91.81	-	-0.13	5.59	-9.73	0.84
Algebris Financial Income I EUR	€177.51	-	0.30	-	-2.59	6.48
Algebris Financial Income R EUR	€161.51	-	0.26	-	-3.47	5.52
Algebris Financial Income Rd EUR	€98.99	-	0.16	-	-3.46	5.52
Algebris Financial Equity B EUR	€157.88	-	0.34	0.00	8.32	10.67
Algebris IG Financial Credit I EUR	€96.08	-	-0.42	0.00	-13.49	-1.44
Algebris IG Financial Credit R EUR	€94.59	-	-0.42	0.00	-13.92	-1.94
Algebris Global Credit Opportunities I EUR	€124.76	-	-0.19	0.00	-3.12	3.23
Algebris Global Credit Opportunities R EUR	€121.77	-	-0.20	-	-3.71	2.87
Algebris Global Credit Opportunities Rd EUR	€107.05	-	-0.18	-	-3.69	2.99
Algebris Core Italy I EUR	€140.87	-	0.33	0.00	-15.77	7.51
Algebris Core Italy R EUR	€133.71	-	0.30	0.00	-16.38	7.84
Algebris Financial Equity R EUR	€132.76	-	0.28	0.00	7.25	9.61

The Antares European Fund Limited
Other International

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
AEF Ltd Usd	$562.26	-	10.91	0.00	-0.01	-4.67
AEF Ltd Eur	€518.24	-	10.01	0.00	-1.19	-5.39

ARTEMIS The Profit Hunter

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Artemis SmartGARP UK Eq I Acc	2312.70	-	-18.84	-	4.65	9.98
Artemis Corporate Bond I Acc	99.49	-	0.69	-	-14.31	-0.37
Artemis SmartGARP Eur Eq I Acc	405.01	-	-2.08	2.83	-0.60	4.36
Artemis European Opps I Acc	121.46	-	1.00	0.43	-13.00	2.77
Artemis SmartGARP Glo EM Eq I Acc	158.81	-	0.74	-	-8.56	4.54
Artemis SmartGARP Glo Eq I Acc	374.81	-	-0.19	-	-4.41	7.91
Artemis Global Income I Inc	108.03	-	-0.36	4.23	-2.94	8.24
Artemis Global Select I Acc	162.31	-	0.51	-	-11.86	7.99
Artemis High Income I Q Inc	68.50	-	0.00	4.37	-10.59	-1.01
Artemis Income I Inc	247.64	-	-0.21	4.01	2.80	4.52
Artemis Monthly Dist I Inc	69.66	-	-0.12	-	-5.34	2.94
Artemis Positive Future Fund	67.02	-	-0.03	-	-33.65	-
Artemis Strategic Assets I Acc	91.74	-	0.21	-	12.48	1.88
Artemis Strategic Bond I Q Acc	101.79	-	-0.13	3.51	-9.54	-1.06
Artemis Target Return Bond I Acc	104.67	-	0.07	2.79	-4.80	1.48
Artemis UK Select Fund Class I Acc	711.69	-	-0.58	1.99	-9.23	5.81
Artemis UK Smaller Cos I Acc	1992.47	-	3.45	1.65	-8.04	1.40
Artemis UK Special Sits I Acc	730.61	-	0.14	1.86	-7.31	2.94
Artemis US Abs Return I Hdg Acc	111.20	-	0.01	0.00	-0.32	-1.13
Artemis US Extended Alpha I Acc	318.44	-	-0.60	-	-9.57	10.42
Artemis US Select I Acc	282.35	-	-1.06	-	-15.83	7.22
Artemis US Smlr Cos I Acc	297.31	-	-1.40	-	-21.11	6.38

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Emerging Markets Equity Fund	$116.25	-	1.83	-	-27.32	2.47

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American Dynamic	$6513.80	-	103.20	-	-17.45	7.64
American One	$6691.32	-	63.55	0.00	-15.78	9.65
Bond Global	€1581.48	1581.48	10.04	0.00	2.90	0.69
Eurocroissance	€1320.13	-	3.55	-	-15.73	4.74
Far East	$1002.99	-	34.00	0.00	-21.43	2.09

BLUE WHALE GROWTH FUND

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Blue Whale Growth USD T	$ 8.84	-	0.17	0.00	-32.82	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Euro High Income	€1.2355	-	-0.0034	2.50	-15.09	-5.33
High Income	£0.6626	-	-0.0024	3.77	-17.92	-5.04
Sterling Bond	£1.2670	-	-0.0047	2.06	-17.73	-4.95
Brooks Macdonald International Multi Strategy Fund Limited						
Cautious Balanced Strategy	£1.2365	-	-0.0013	0.00	-12.58	-1.34
Cautious Balanced Strategy A	£0.8842	-	-0.0009	1.12	-12.15	-
Balanced Strategy	£0.9059	-	-0.0001	0.09	-9.33	-
Balanced Strategy A	£0.9068	-	-0.0001	0.57	-10.39	-
Growth Strategy	£1.9015	-	0.0013	0.00	-12.88	0.17
Growth Strategy A	£0.9088	-	0.0007	-	-12.44	-
High Growth Strategy	£2.6365	-	-0.0068	0.00	-14.49	0.92
High Growth Strategy A	£0.8991	-	-0.0023	0.12	-14.06	-
US$ Growth Strategy	$1.6322	-	0.0106	0.00	-24.27	-1.86

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

Brown ADVISORY Thoughtful Investing.

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
US Small Cap Blend Fund USD B	$ 21.37	-	0.12	-	-12.45	4.94
US Flexible Equity Fund USD B	$ 22.38	-	0.15	-	-19.26	7.13
Global Leaders Fund USD C	$ 19.98	-	0.19	-	-17.37	5.97
US Sustainable Growth Fund USD C	$ 22.21	-	0.38	-	-29.69	10.61
Global Leaders Sustainable Fund USD C	$ 12.17	-	0.12	-	-18.05	6.31
US Equity Growth Fund USD B	$ 45.27	-	0.73	-	-31.68	3.59
US Smaller Companies Fund USD B	$ 34.06	-	0.34	-	-17.93	5.51
US Mid-Cap Growth Fund USD C	$ 16.35	-	0.22	-	-26.32	2.33
Global Sustainable Total Return Bond GBP B	£ 9.50	-	-0.01	-	-	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Absolute Return Cls M Inc	£135.42	136.03	-0.07	1.65	-3.23	4.76
Capital Gearing Portfolio GBP P	£37320.88	37526.66	-35.81	-	-4.32	4.87
Capital Gearing Portfolio GBP V	£181.51	182.51	-0.18	-	-4.33	4.87
Dollar Fund Cls D Inc	£170.16	170.16	4.08	1.20	-3.92	3.39
Dollar Hedged GBP Inc	£ 94.03	94.03	1.59	1.21	-14.34	-0.16
Real Return Cls A Inc	£203.35	203.97	-0.15	1.68	-3.36	3.15

CANDRIAM A NEW YORK LIFE INVESTMENTS COMPANY

Candriam Investors Group (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Eqts L Australia Cap	A$1886.19	-	7.88	0.00	1.59	9.12
Candriam Bonds Credit Opportunities	€194.93	-	-0.06	0.00	-3.92	-0.97
Candriam Bds Euro High Yield Cap	€1167.41	-	-1.50	0.00	-8.48	-0.94
Candriam Bds Euro Sh.Term Cap	€1994.55	-	-1.13	0.00	-3.60	-1.51

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CAM-GTF VCC	$282820.8	282820.8	7885.91	-	-6.36	3.78
CAM GTi VCC	$780.49	-	-32.39	-	12.31	4.69
RAIC VCC	$ 1.64	1.64	0.03	2.06	5.74	-1.66

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Consistent UT Inc	61.81	61.81	-0.31	0.60	-17.71	7.21
Consistent UT Acc	166.80	166.80	-0.80	0.60	-17.71	7.23
Practical Investment Inc	236.70	236.70	-0.40	3.73	-6.59	4.89
Practical Investment Acc	1483.00	1483.00	-2.00	3.73	-6.55	4.19

CP Global Asset Management

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CP Multi-Strategy Fund	$300.40	-	-2.00	-	9.90	13.67

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CPS Master Private Fund	$414.02	-	-0.03	-	10.77	13.39
CP Global Alpha Fund	$343.27	-	-0.66	-	11.56	13.63

DWS

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
DWS Invest Top Dividend	£154.20	154.20	0.05	-	6.03	6.01
DWS Invest Top Euroland	£149.98	149.98	-0.32	0.86	-14.57	4.17
DWS Invest Multi Opportunities	£112.98	112.98	-0.22	0.00	-3.82	1.77
DWS Invest Global Bonds	£ 92.84	92.84	-0.05	0.00	-10.93	-3.53

DODGE & COX® WORLDWIDE FUNDS

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Dodge & Cox Worldwide Funds plc - Global Bond Fund						
EUR Accumulating Class	€ 15.83	-	-0.07	0.00	-0.88	2.50
EUR Accumulating Class (H)	€ 10.40	-	0.00	0.00	-9.80	-0.76
EUR Distributing Class	€ 11.61	-	-0.04	0.96	-3.66	1.54
EUR Distributing Class (H)	€ 7.56	-	0.00	1.01	-12.63	-1.79
GBP Distributing Class	£ 12.27	-	-0.02	0.86	-3.07	2.38
GBP Distributing Class (H)	£ 8.09	-	0.00	1.11	-11.76	-1.10
USD Accumulating Class	$ 12.06	-	0.01	0.00	-7.80	0.93
Dodge & Cox Worldwide Funds plc-Global Stock Fund						
USD Accumulating Share Class	$ 28.42	-	0.15	-	-3.86	7.68
GBP Accumulating Share Class	£ 38.19	-	0.11	-	3.86	10.26
GBP Distributing Share class	£ 25.77	-	0.07	-	3.07	9.99
EUR Accumulating Share Class	€ 40.42	-	0.03	-	3.32	9.37
GBP Distributing Class (H)	£ 13.19	-	0.07	0.53	-6.62	5.42
Dodge & Cox Worldwide Funds plc-U.S. Stock Fund						
USD Accumulating Share Class	$ 37.97	-	0.07	0.00	-5.15	10.16
GBP Accumulating Share Class	£ 48.26	-	-0.02	-	2.51	12.81
GBP Distributing Share Class	£ 28.97	-	-0.01	0.16	1.94	12.60
EUR Accumulating Share Class	€ 46.64	-	-0.12	0.00	1.97	11.88

DRAGON CAPITAL

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Vietnam Equity (UCITS) Fund A USD	$ 25.14	-	0.08	0.00	-35.34	4.00

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Amity Balanced For Charities A Inc	97.07	-	0.03	-	-9.43	0.30
Amity Global Equity Inc for Charities A Inc	155.40	-	0.40	-	-5.67	7.29
EdenTree European Equity Cls A Inc	301.90	-	1.50	-	-2.67	6.88
EdenTree European Equity Cls B Inc	305.70	-	1.50	-	-2.12	7.56
EdenTree Global Equity Cls A Inc	308.40	-	0.60	0.08	-19.19	3.60
EdenTree Global Equity Cls B Inc	311.20	-	0.60	-	-18.78	4.21
EdenTree Responsible and Sust S Dtd Bd B	93.37	-	-0.07	-	-5.30	-1.26
EdenTree Sterling Bond Cls A Inc	86.91	-	-0.15	3.81	-13.73	-2.88
EdenTree Sterling Bond Cls B Inc	98.08	-	-0.17	3.80	-13.19	-2.28
EdenTree UK Equity Cls A Inc	214.80	-	0.20	0.97	-19.08	-3.54
EdenTree UK Equity Cls B Inc	214.40	-	0.20	1.63	-18.63	-2.94
EdenTree UK Equity Opps Cls A Inc	268.30	-	0.20	0.88	-24.15	-2.89
EdenTree UK Equity Opps Cls B Inc	274.10	-	0.20	1.56	-23.74	-2.29
Edentree Global Impact Bond B	86.41	-	-0.23	-	-	-
Edentree Green Future B Net Inc	97.62	-	0.07	-	-	-
EdenTree Managed Income Cls A Inc	119.70	-	0.10	4.93	-8.35	1.00
EdenTree Managed Income Cls B Inc	127.70	-	0.00	4.92	-7.88	1.53

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Smaller Cos Cls One Shares	€ 51.74	-	-0.11	0.00	-18.49	3.50
Smaller Cos Cls Two Shares	€ 33.03	-	-0.07	0.00	-18.83	1.97
Smaller Cos Cls Three Shares	€ 16.48	-	-0.04	0.00	-19.49	1.65
Smaller Cos Cls Four Shares	€ 21.73	-	-0.04	0.00	-17.63	2.57

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Emerging Mkts NAV	£ 7.21	-	-0.16	1.91	-25.57	-4.72

Fidelity INTERNATIONAL

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Allocator World Fund W-ACC-GBP	£ 2.58	-	0.00	1.18	-9.03	7.49
American Fund W-ACC-GBP	£ 50.82	-	-0.27	0.00	-22.94	3.29
American Special Sits W-ACC-GBP	£ 22.63	-	-0.09	-	9.54	12.77
Asia Fund W-ACC-GBP	£ 15.35	-	0.28	0.27	-15.05	2.63
Asia Pacific Ops W-Acc	£ 2.82	-	0.00	0.48	-10.72	9.96
Asian Dividend Fund W-ACC-GBP	£ 2.27	-	0.01	2.93	-3.58	4.66
Cash Fund W-ACC-GBP	£ 1.03	-	0.00	-	1.12	0.43
China Consumer Fund W-ACC-GBP	£ 2.72	-	0.07	0.00	-17.95	-2.93
Emrg Europe, Middle East and Africa Fund W-ACC-GBP	£ 1.62	-	0.01	4.60	-47.84	-9.28
Emerging Asia Fund W-ACC-GBP	£ 1.87	-	0.02	0.29	-11.14	5.65
Enhanced Income Fund W-INC-GBP	£ 0.85	-	0.00	5.91	5.26	3.67
European Fund W-ACC-GBP	£ 23.05	-	-0.07	-	-3.72	9.10
Extra Income Fund W-ACC-GBP	£ 1.26	-	0.00	3.88	-15.27	-2.73
Global Dividend Fund W-ACC-GBP	£ 2.94	-	-0.01	-	0.20	7.00
Global Enhanced Income W-ACC-GBP	£ 2.29	-	-0.01	-	0.93	6.15
Global High Yield Fund W-ACC-GBP	£ 13.71	-	0.00	5.65	-13.17	-3.04
Global Property Fund W-ACC-GBP	£ 1.87	-	0.00	-	-18.47	-2.72
Global Special Sits W-ACC-GBP	£ 52.76	-	-0.22	0.29	-10.64	8.45
Index Emerging Markets P-ACC-GBP	£ 1.65	-	0.01	-	-12.99	2.05
Index Europe ex UK P-ACC-GBP	£ 1.82	-	-0.01	1.94	-8.38	6.01
Index Japan P-ACC-GBP	£ 1.82	-	0.00	-	-11.28	1.60
Index Pacific ex Japan P-Acc-GBP	£ 1.91	-	0.01	3.54	2.45	5.04
Index Sterling Corporate Bond Fund P-ACC-GBP	£ 0.84	-	0.00	-	-18.73	-
Index UK Gilt Fund P-ACC-GBP	£ 0.77	-	0.00	0.58	-23.41	-
Index UK P-ACC-GBP	£ 1.55	-	-0.01	3.09	1.22	4.08
Index US P-ACC-GBP	£ 3.36	-	-0.01	-	-7.70	12.29
Index World P-ACC-GBP	£ 2.61	-	-0.01	-	-8.11	9.62
Japan Fund W-ACC-GBP	£ 5.38	-	-0.01	-	-6.02	8.33
Japan Smaller Companies Fund W-ACC-GBP	£ 3.42	-	0.01	-	-21.69	-1.16
MoneyBuilder Balanced Fund W-ACC-GBP	£ 0.60	-	0.00	-	-6.25	0.51
MoneyBuilder Dividend Fund W-INC-GBP	£ 1.27	-	-0.01	3.71	4.81	4.18
Multi Asset Allocator Adventurous Fund W-ACC-GBP	£ 2.08	-	0.00	1.09	-9.62	5.52
Multi Asset Open Strategic Fund W-ACC-GBP	£ 1.49	-	0.00	-	-6.23	2.62
Open World Fund W-ACC-GBP	£ 2.22	-	-0.01	0.85	-5.97	7.79
Select 50 Balanced Fund PI-ACC-GBP	£ 1.12	-	0.00	-	-10.10	1.44
Short Dated Corporate Bond Fund W-ACC-GBP	£ 10.47	-	0.01	-	-6.53	-0.84
Special Situations Fund W-ACC-GBP	£ 41.90	-	-0.10	1.97	-1.32	3.93
Strategic Bond Fund W-ACC-GBP	£ 1.18	-	0.00	2.18	-14.27	-2.62
Sustainable European Equity Fund W-ACC-GBP	£ 5.20	-	-0.03	-	-12.33	3.51
Sustainable Global Equity Fund W-ACC-GBP	£ 32.18	-	-0.14	0.00	-12.15	7.84
Sustainable MoneyBuilder Income Fund W-ACC-GBP	£ 12.21	-	0.02	3.63	-18.71	-4.14
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 0.92	-	0.00	1.57	-12.38	-
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.89	-	0.00	1.70	-13.79	-
Sustainable Multi Asset Growth Fund W-ACC-GBP	£ 0.94	-	0.00	-	-12.39	-
Sustainable Water & Waste W-ACC-GBP	£ 1.11	-	0.00	-	-19.38	-
UK Opportunities Fund W-ACC-GBP	243.00	-	-1.40	1.26	-21.31	1.45
UK Select Fund W-ACC-GBP	£ 3.61	-	-0.03	-	-6.64	3.22
UK Smaller Companies W-ACC-GBP	£ 3.46	-	-0.01	1.12	-8.81	9.19

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American EUR Unhedged Class	€ 152.60	-	0.76	-	-13.25	-
American Fund USD Class	$160.92	-	1.44	-	-19.28	6.16
American Fund GBP Hedged	£ 79.01	-	0.70	0.00	-21.08	4.53
American Fund GBP Unhedged	£131.69	-	0.93	-	-12.68	8.67

FOORD ASSET MANAGEMENT www.foord.com

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Foord International Fund | R	$ 49.86	-	0.45	0.00	3.61	5.52
Foord Global Equity Fund (Lux) | R	$ 16.15	-	0.26	0.00	-12.58	-
Regulated						
Foord Global Equity Fund (Sing) | B	$ 19.25	-	0.33	0.00	-12.61	4.85
Foord International Trust (Gsy)	$ 48.59	-	0.44	0.00	3.64	5.51

Fundsmith Equity Fund

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Fundsmith Equity T Acc	575.03	-	2.77	-	-14.30	8.37
Fundsmith Equity T Inc	524.73	-	2.52	-	-14.30	8.37

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 124.81	-	0.06	-	11.46	7.45
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£ 98.98	-	0.44	-	-12.82	1.12

GUINNESS GLOBAL INVESTORS

Guinness Global Investors

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Guinness Global Equity Income Y GBP Dist	£ 18.61	-	0.02	2.22	2.74	11.38
Guinness Global Innovators Y GBP Acc	£ 24.64	-	0.29	-	-20.81	10.07
Guinness Sustainable Global Equity Y GBP Acc	£ 10.97	-	0.05	0.00	-15.49	-

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

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Janus Henderson Asia Pacific Capital Growth Fund A Acc	1146.00	-	8.00	-	-15.67	0.26
Janus Henderson Asian Dividend Income Unit Trust Inc	79.95	-	0.36	5.79	-6.19	-0.58
Janus Henderson Cautious Managed Fund A Acc	278.30	-	-1.00	-	-7.08	0.50
Janus Henderson Cautious Managed Fund A Inc	138.10	-	-0.50	-	-7.08	0.75
Janus Henderson China Opportunities Fund A Acc	1231.00	-	19.00	0.00	-22.72	-3.99
Janus Henderson Emerging Markets Opportunities Fund A Acc	194.20	-	0.90	-	-20.77	0.89
Janus Henderson European Growth Fund A Acc	281.70	-	1.70	-	-4.57	6.38
Janus Henderson European Selected Opportunities Fund A Acc	2112.00	-	6.00	1.25	-7.93	6.31
Janus Henderson Fixed Interest Monthly Income Fund Inc	17.84	-	-0.03	5.13	-17.02	-3.23
Janus Henderson Global Equity Fund Acc	4312.00	-	24.00	0.00	-15.93	8.27
Janus Henderson Global Equity Income Fund A Inc	65.22	-	0.04	3.32	1.77	6.23
Janus Henderson Global Sustainable Equity Fund A Inc	458.30	-	2.20	0.00	-17.02	10.26
Janus Henderson Global Technology Fund A Acc	2863.00	-	22.00	0.00	-26.58	8.17
Janus Henderson Instl UK Idx Opps A Acc	£ 1.11	-	0.00	2.91	0.15	3.33
Janus Henderson Multi-Asset Absolute Return Fund A Acc	160.10	-	-0.80	-	0.76	4.03
Janus Henderson Multi-Manager Active Fund A Acc	250.10	-	-0.40	-	-10.23	2.27
Janus Henderson Multi-Manager Distribution Fund A Inc	124.50	-	-0.40	2.66	-9.21	0.09
Janus Henderson Multi-Manager Diversified Fund A Acc	86.35	-	-0.22	2.41	-10.43	-0.92
Janus Henderson Multi-Manager Global Select Fund Acc	301.70	-	-0.40	0.00	-10.42	5.67
Janus Henderson Multi-Manager Income & Growth Fund A Acc	185.30	-	-0.50	-	-8.76	0.38
Janus Henderson Multi-Manager Income & Growth Fund A Inc	145.10	-	-0.40	2.60	-8.76	0.38
Janus Henderson Multi-Manager Managed Fund A Acc	306.30	-	-0.70	0.00	-9.19	1.78
Janus Henderson Multi-Manager Managed Fund A Inc	296.50	-	-0.60	0.00	-9.19	1.79
Janus Henderson Sterling Bond Unit Trust Acc	205.30	-	-0.50	1.45	-18.60	-4.79
Janus Henderson Sterling Bond Unit Trust Inc	56.35	-	-0.12	1.46	-18.58	-4.80
Janus Henderson Strategic Bond Fund A Inc	106.20	-	-0.40	3.37	-15.32	-2.74
Janus Henderson Absolute Return Fund A Acc	164.90	-	0.00	0.00	-0.90	1.65
Janus Henderson UK Alpha Fund A Acc	133.40	-	0.00	1.16	-24.25	-3.98
Janus Henderson UK Equity Income & Growth Fund A Inc	512.20	-	-1.40	-	1.10	2.25
Janus Henderson UK Property PAIF A Acc	£ 2.65	2.78	0.00	2.63	13.53	4.26
Janus Henderson UK Property PAIF A Inc	£ 1.06	1.11	0.00	2.68	13.53	4.32
Janus Henderson US Growth Fund A Acc	1615.00	-	8.00	0.00	-23.24	7.09

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
HC Kleinwort Hambros Growth A Acc	235.13	-	-0.30	1.36	-9.98	2.72
HC Kleinwort Hambros Growth A Inc	213.34	-	-0.26	1.38	-9.97	2.72
HC Kleinwort Hambros Equity Income A Inc	-	-	-	3.06	-1.90	0.93
HC Kleinwort Hambros Equity Income A Acc	189.85	-	-0.76	4.50	-1.90	0.93
HC Kleinwort Hambros Multi Asset Balanced A Acc	168.92	-	0.03	0.81	-10.24	0.51
HC Kleinwort Hambros Multi Asset Balanced A Inc	159.67	-	0.04	0.81	-10.24	0.51
HC Kleinwort Hambros Fixed Income A Acc	123.89	-	-0.03	3.44	-10.07	-2.70
HC Kleinwort Hambros Fixed Income A Inc	93.86	-	-0.02	3.44	-10.07	-2.70

LAZARD ASSET MANAGEMENT

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Developing Markets Acc	116.55	-	0.92	-	-16.18	-1.68
Developing Markets Inc	114.12	-	0.89	-	-16.19	-1.69
Emerging Markets Acc	344.66	-	0.58	-	-8.38	1.01
Emg Mkts Inc	259.66	-	0.44	-	-8.37	1.01
European Alpha Acc	997.51	-	2.31	1.34	-8.77	4.30
European Alpha Inc	854.13	-	1.98	1.36	-8.77	4.30
European Smaller Cos Acc	634.09	-	1.71	-	-25.87	1.22
Global Equity Income Acc	222.13	-	0.34	3.82	-5.63	7.07
Global Equity Income Inc	112.14	-	0.17	3.92	-5.64	7.07
Managed Bal Inc	180.49	-	-0.56	-	-11.03	3.09
UK Income Acc	1552.75	-	-6.62	-	-1.00	1.93
UK Income Inc	564.70	-	-2.41	-	-1.00	1.93
UK Omega Acc	269.81	-	-0.95	1.94	-2.23	2.23
UK Omega Inc	222.79	-	-0.78	1.98	-2.23	2.23
UK Smaller Cos Inc	2001.70	-	8.44	0.40	-24.24	1.74

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Lothbury Property Trust GBP	£1746.66	1794.63	-181.87	3.10	-12.57	-3.47

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Charifund Inc	1455.93	-	-5.60	5.68	0.50	2.69
Charifund Acc	28678.49	-	-110.26	4.77	0.49	2.69
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.11	-	0.00	1.99	-7.48	-1.62
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 39.43	-	-0.11	1.61	-7.48	-1.57
M&G Charity Multi Asset Fund Inc	£ 0.88	-	0.00	-	0.91	4.69

MANAGED FUNDS SERVICE

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
UK Equity Fd Cl A Series 01	£2810.68	2842.19	142.84	0.00	-14.59	-0.37
Diversified Absolute Rtn Fd USD Cl AF2	$1598.99	-	5.05	-	-9.74	-0.92
Diversified Absolute Return Stlg Cell AF2	£1474.75	-	6.33	-	-10.49	-1.95
Global Equity Fund A Lead Series	£1721.66	1727.57	67.75	-	-7.60	3.14

Marlborough Investment Management Limited (UK)
Marlborough, PO BOX 1852 Lichfield, Staffordshire, England, WS13 8XU. 0808 145 2500.
www.marlboroughfunds.com
Authorised Inv Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Balanced	219.61	219.61	-0.12	0.18	-10.86	2.14
Bond Income	41.43	41.43	-0.14	3.92	-17.47	-4.79
Cautious Inc	82.88	82.88	-0.04	1.47	-8.83	-0.54
Emerging Markets	331.00	331.00	1.45	1.00	-8.04	2.87
Conservative P Acc	91.96	-	-0.08	0.00	-9.85	-
European Multi-Cap	668.96	668.96	3.39	1.27	-18.44	12.50
Extra Income	87.35	87.35	-0.09	4.16	-3.17	4.31
Far East Growth A Inc	226.55	226.55	1.40	1.23	-19.02	1.05
Global	283.91	283.91	0.21	0.00	-15.44	3.66
Global Bond Inc	136.92	136.92	-0.47	2.76	-10.71	-2.45
High Yield Fixed Interest	62.26	62.26	-0.12	4.52	-9.82	-1.02
Marlborough Technology Fund A	823.99	823.99	1.30	0.00	-27.28	14.93
Multi Cap Income A Inc	118.19	118.19	-0.02	5.41	-20.17	-4.56
Nano-Cap Growth A Acc	198.59	198.59	-4.02	0.00	-27.14	5.10
Special Situations A Acc	1641.03	1641.03	-0.84	0.00	-31.81	-0.32
UK Multi-Cap Growth A Inc	340.49	340.49	0.98	0.09	-25.95	-0.75
UK Micro Cap Growth A	760.73	760.73	0.82	0.00	-34.17	1.68
US Multi-Cap Income	724.68	724.68	1.57	1.46	-6.69	9.35
MFM - Third Party Funds						
Junior Gold C Acc	29.90	29.90	0.40	0.00	-40.57	1.14
MFM Bowland	332.84	332.84	2.13	0.91	-9.54	6.54
MFM Hathaway Inc	142.96	142.96	-1.92	1.24	-14.58	-1.43
MFM UK Primary Opportunities A Inc	415.58	415.58	-1.41	1.03	-16.19	0.23

Marwyn Asset Management Limited (CYM)
Regulated

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Balanced Fund Personal Class Units	5891.30	-	18.50	1.40	-5.49	6.36
Income Fund Personal Class Units	2843.30	-	-5.50	2.40	-2.44	4.70
Emerging Markets Fund Personal Class Units	2382.30	-	9.70	1.48	0.50	5.04
Smaller Companies Fund Personal Class Units	5864.60	-	37.40	1.30	-23.63	1.83

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
British Innovation Fund	£121.92	-	2.89	0.00	-	-
MAI - Buy & Lease (Australia)	A$103.45	-	0.50	0.00	-16.53	1.41
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00	-7.20	-2.67
Milltrust Global Emerging Markets Fund - Class A	$ 93.77	-	-0.75	0.00	-19.27	1.36

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Milltrust Alaska Brazil SP A	$ 77.52	-	-1.34	0.00	7.25	-
Milltrust Laurium Africa SP A	$ 104.15	-	0.42	0.00	2.06	-
Milltrust Marcellus India Fund	$ 128.65	-	-0.10	0.00	-11.48	-
Milltrust Singular ASEAN SP Founders	$ 129.22	-	0.33	0.00	-18.26	-
Milltrust SPARX Korea Equity SP A	$ 99.17	-	-0.89	0.00	-36.73	-
Milltrust Xingtai China SP A	$ 103.24	-	1.84	0.00	-	-
The Climate Impact Asia Fund SP (Class A)	$ 77.62	-	0.45	0.00	-23.88	-
The Climate Impact Asia Fund (Class B)	$ 77.00	-	0.45	0.00	-24.27	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
The Equity Idx Tracker Fd Inc	1858.00	-	1.00	2.50	-6.59	4.01

Distribution Units

Mirabaud Asset Management (LUX)
www.mirabaud.com, marketing@mirabaud-am.com
Conviction based investment vehicles details available here www.mirabaud-am.com
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Mir. - Glb Strat. Bd I USD	$116.30	-	-0.06	-	-6.50	0.36
Mir. - DiscEur D Cap GBP	£160.86	-	0.64	-	-26.33	4.26
Mir. - UKEq HA Cap I GBP	£134.51	-	-1.40	0.00	-19.59	1.09

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Oasis Crescent Global Equity Fund USD A (Dist)	$ 34.66	-	0.95	0.24	-10.21	2.96
Oasis Crescent Global Income Fund USD A (Dist)	$ 10.06	-	0.01	2.72	-5.84	0.15
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.27	-	0.09	0.59	-9.40	0.24
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.59	-	0.10	0.14	-9.03	1.19
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.68	-	0.01	0.93	-25.35	-5.13
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.94	-	0.00	1.88	-2.39	0.09
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.66	-	0.04	0.17	-8.27	-0.42

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Estimated NAV	$936.92	-	-9.18	0.00	37.53	10.17

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Orbis OEIC Global Cautious Standard	£ 11.73	-	-0.01	-	6.41	4.88
Orbis OEIC Global Balanced Standard	£ 18.93	-	0.01	-	10.29	9.86
Orbis OEIC Global Equity Standard	£ 21.12	-	-0.07	-	-2.78	8.24
Orbis OEIC UK Equity Standard	£ 11.16	-	-0.02	3.21	2.96	10.08

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Platinum All Star Fund - A	$141.55	-	-	-	-14.05	2.28
Platinum Global Growth UCITS Fund	$ 7.98	-	-0.03	0.00	-40.56	-9.87
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 11.21	-	-0.05	0.00	19.26	7.24
Platinum Global Dividend UCITS Fund	$ 47.40	-	0.00	0.00	-19.70	-6.20

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Artificial Intelligence I USD Acc	$ 14.41	14.41	0.18	-	-30.79	5.19
Asian Stars I USD Acc $	$ 14.43	-	0.21	0.00	-23.65	6.55
Biotechnology I USD	$ 38.80	38.80	0.38	0.00	-2.27	14.13
China Stars I USD Acc $	$ 11.35	11.35	0.26	0.00	-19.39	1.95
Emerging Market Stars I USD Acc	$ 11.34	-	0.16	-	-25.35	3.33
European Ex UK Inc EUR Acc	€ 14.09	14.09	-0.03	0.00	6.10	3.39
Financial Opps I USD	$ 13.63	-	0.09	2.56	-13.95	1.47
Global Convertible I USD	$ 13.67	13.67	0.03	0.00	-15.09	0.97
Global Insurance I GBP	£ 10.08	-	0.04	0.00	22.00	10.60
Global Technology I USD	$ 61.93	-	1.18	0.00	-37.27	5.41
Healthcare Blue Chip Fund I USD Acc	$ 18.58	18.58	0.13	0.00	-0.85	8.69
Healthcare Dis I Acc USD $	$ 11.95	-	0.16	0.00	-19.85	-
Healthcare Opps I USD	$ 65.17	-	0.74	0.00	-2.06	7.62
Income Opportunities B2 I GBP Acc	£ 2.92	2.92	0.00	0.00	1.94	7.27
Japan Value I JPY	¥139.88	139.88	0.39	0.00	8.31	3.39
North American I USD	$ 32.13	32.13	0.10	0.00	-16.37	6.67
Smart Energy I USD Acc $	$ 9.10	9.10	0.10	0.00	-18.44	-
Smart Mobility I USD Acc $	$ 8.47	8.47	0.04	0.00	-21.57	-
UK Val Opp I GBP Acc	£ 11.81	11.81	-0.01	0.00	-17.59	-1.21

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Monument Growth 06/12/2022	£545.40	550.74	-0.29	1.06	-0.84	3.56

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Prusik Asian Equity Income B Dist	$177.95	-	1.98	4.58	0.63	2.22
Prusik Asia Emerging Opportunities Fund A Acc	$183.58	-	0.69	0.00	-17.65	5.61
Prusik Asia Fund U Dist.	£211.72	-	1.17	-	-22.55	7.32
Prusik Asia Sustainable Growth Fund A Acc	$ 88.76	-	0.74	-	-	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Global Total Fd PCG A	362.75	-	1.64	0.00	-18.08	9.73
Global Total Fd PCG B	357.54	-	1.62	0.00	-18.29	9.45
Global Total Fd PCG INT	350.94	-	1.59	0.00	-18.49	9.18

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
PCG B ✱	274.34	-	0.37	0.00	-24.49	5.53
PCG C ✱	266.87	-	0.35	0.00	-24.85	5.31

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
RAM Systematic Emerg Markets Eq	$212.51	212.51	2.17	-	-11.51	6.40
RAM Systematic European Eq	€510.05	510.05	-0.60	-	-15.01	2.79
RAM Systematic Funds Global Sustainable Income Eq	$148.53	148.53	0.29	0.00	-8.21	4.01
RAM Systematic Global Eq Sustainable Alpha	$110.04	110.04	0.85	-	-2.39	-1.14
RAM Systematic Long/Short European Eq	€153.17	153.17	-0.03	-	-0.01	1.75
RAM Systematic US Sustainable Eq	$341.37	341.37	3.11	-	-22.24	2.35
RAM Tactical Global Bond Total Return	€139.00	139.00	-0.10	-	-8.89	-2.02
RAM Tactical II Asia Bond Total Return	$143.30	143.30	0.22	-	-8.06	-1.65

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Royal London Sustainable Diversified A Inc	£ 2.29	-	0.00	-	-16.97	2.74
Royal London Sustainable World A Inc	335.80	-	1.40	0.00	-18.22	6.24
Royal London Corporate Bond Mth Income	75.68	-	0.13	-	-16.48	-3.28
Royal London European Growth Trust	195.50	-	-0.60	-	-10.70	6.53
Royal London Sustainable Leaders A Inc	754.20	-	2.30	1.03	-10.24	5.20
Royal London UK Growth Trust	610.40	-	-2.80	2.01	-10.55	2.69
Royal London UK Income With Growth Trust	209.30	-	-1.10	-	0.32	3.37
Royal London US Growth Trust	354.30	-	-2.00	-	-10.28	11.90

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
LF Ruffer Diversified Rtrn C Acc	105.88	-	-0.58	0.85	2.85	-
LF Ruffer Diversified Rtrn C Inc	105.00	-	-0.57	0.95	2.84	-
LF Ruffer European C Acc	765.58	-	2.11	0.82	-14.43	6.15
LF Ruffer European C Inc	137.34	-	0.38	-	-14.41	6.16
LF Ruffer Equity & General C Acc	557.38	-	-6.38	0.78	1.03	7.15
LF Ruffer Equity & General C Inc	503.57	-	-5.77	0.79	1.03	7.15
LF Ruffer Gold C Acc	221.94	-	1.79	0.00	-16.94	6.61
LF Ruffer Gold C Inc	134.33	-	1.09	-	-16.94	6.61
LF Ruffer Japanese C Inc	157.08	-	-3.01	0.25	-15.27	6.88
LF Ruffer Japanese C Acc	338.40	-	-6.49	0.25	-15.28	6.88
LF Ruffer Total Return C Acc	572.90	-	2.43	2.40	3.43	8.96
LF Ruffer Total Return C Inc	357.29	-	1.52	2.45	3.43	8.96

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 132.73	-	0.10	-	-3.92	-1.40
Rubrics Global Credit UCITS Fund	$ 16.60	-	-0.01	-	-8.50	-1.03
Rubrics Global Fixed Income UCITS Fund	$ 169.98	-	-0.24	-	-5.37	-0.50

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Managed Growth ♦	340.90	-	-1.10	0.00	-3.40	7.44
UK Growth ♦	402.90	-	-0.70	-	-4.73	8.58

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Khaleej Equity Fund	$ 566.81	-	1.05	0.00	6.56	15.50
SICO Kingdom Equity Fund	$ 32.88	-	0.07	0.00	5.75	16.85
SICO Gulf Equity Fund	$ 161.90	-	0.70	0.00	8.48	14.08

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Slater Growth A Acc	633.36	633.36	0.08	0.00	-25.62	3.15
Slater Income A Inc	139.79	139.79	-0.52	5.22	-4.61	2.63
Slater Recovery A Acc	330.19	330.19	0.57	0.00	-18.68	7.48
Slater Artorius	289.18	289.18	-0.59	0.00	-23.13	7.64

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
SI Asia Pacific A Acc	1631.44	-	11.16	0.00	-4.22	10.09
SI Asia Pacific A Inc	£ 2.89	-	0.02	0.00	-4.41	9.65
SI Asia Pacific Leaders A Acc	878.39	-	-1.07	-	-10.20	8.65
SI Asia Pacific Leaders A Inc	£ 2.98	-	-0.01	-	-10.23	8.59
SI Asia Sustainability A Acc	745.56	-	1.49	0.00	-4.66	10.53
SI Global Emerging Mkts A Acc	798.25	-	1.93	-	2.52	2.71
SI Global Emerging Mkts Leaders A Acc	548.61	-	-0.05	-	-3.07	1.77
SI Global Emerging Mkts Sus A Acc	366.78	-	1.27	-	-10.64	3.53
SI Indian Sub-Cont A Acc	779.82	-	-3.71	0.00	2.52	17.35
SI Latin America A Acc	£ 2.18	-	-0.01	2.87	-4.66	-8.93
SI Worldwide Equity A Acc	£ 2.36	-	0.05	-	21.94	8.37
SI Worldwide Equity A Inc	£ 2.39	-	0.05	-	23.40	8.80
SI Worldwide Leaders A Acc	568.22	-	1.33	0.00	-12.91	7.81
SI Worldwide Sus A Acc	£ 2.56	-	0.03	-	-18.17	5.45
SI Worldwide Sus A Inc	£ 2.48	-	0.03	-	-18.13	5.56

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
SF Global Best Ideas Eq B USD ACC	$ 221.12	-	2.43	-	-24.54	5.32
SF Global Best Ideas Eq D GBP INC	£ 274.56	-	2.48	-	-18.37	7.81

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Other International Funds						
Superfund Green Gold	$ 1197.90	-	1.25	0.00	-17.83	3.90
Superfund Green Silver	$ 1087.29	-	14.38	0.00	-15.40	7.97
Regulated						
Superfund Green US$	$ 947.29	-	-0.89	0.00	-15.97	-0.14

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
TM New Court Fund A 2011 Inc	£ 18.07	-	0.01	0.00	-10.41	3.59
TM New Court Fund - A 2014 Acc	£ 18.23	-	0.01	-	-10.37	3.59
TM New Court Equity Growth Fund - Inc	£ 19.55	-	0.01	0.00	-12.92	3.99

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Aptus Global Financials B Acc	£ 4.72	-	0.00	4.03	-1.52	9.46
Aptus Global Financials B Inc	£ 3.05	-	0.00	4.51	-1.52	11.54

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Tosca A USD	$ 406.01	-	8.84	0.00	-4.39	11.27
Tosca Mid Cap GBP	£ 174.84	-	4.39	0.00	-25.89	-17.63
Tosca Opportunity B USD	$ 267.84	-	6.72	0.00	-25.51	-16.93
Pegasus Fund Ltd A-1 GBP	£ 41.68	-	1.06	0.00	-25.54	-17.71

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Trojan Ethical O Acc	125.33	-	0.01	0.00	-4.76	5.57
Trojan Ethical Global Inc O Acc	101.10	-	0.32	2.54	-2.56	-
Trojan Ethical Global Inc O Inc	98.59	-	0.31	2.56	-2.60	-
Trojan Ethical O Inc	125.08	-	0.01	0.00	-4.76	5.57
Trojan Ethical Income O Acc	135.00	-	0.37	2.56	-9.44	-1.13
Trojan Ethical Income O Inc	113.14	-	0.32	2.61	-9.43	-1.13
Trojan Fund O Acc	381.82	-	-0.36	0.00	-3.78	5.62
Trojan Fund O Inc	309.06	-	-0.29	0.00	-3.77	5.62
Trojan Global Equity O Acc	445.93	-	0.69	0.00	-16.43	5.90
Trojan Global Equity O Inc	367.93	-	0.57	0.00	-16.43	5.90
Trojan Global Income O Acc	154.97	-	0.20	-	1.02	6.61
Trojan Global Income O Inc	129.43	-	0.17	-	1.01	6.60
Trojan Income O Acc	337.55	-	0.31	2.76	-10.52	-1.76
Trojan Income O Inc	167.11	-	0.16	2.82	-10.52	-1.76

Unicorn Asset Management Ltd (UK)
PO Box 10602, Chelmsford, Essex, CM1 9PD 0845 026 4287
Authorised Inv Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
UK Growth A Inc	592.96	-	-0.46	0.34	-23.25	-1.65
Mastertrust A Inc ✱ F	579.76	-	-0.22	-	-14.05	3.86
UK Growth B Inc	596.46	-	-0.46	1.20	-22.65	-0.93
Mastertrust B Inc ✱ F	519.71	-	-0.19	-	-13.38	4.62
Outstanding British Cos A Acc ✱ F	272.72	-	0.49	0.63	-15.68	-4.92
Outstanding British Cos B Acc ✱ F	300.00	-	0.54	1.43	-15.02	-4.19
UK Smaller Cos A Inc ✱ F	586.86	-	-1.02	1.19	-17.09	0.87
UK Smaller Cos B Inc ✱ F	572.41	-	-0.98	2.02	-16.44	1.61
UK Income A Acc ✱ F	304.56	-	-1.28	5.59	-12.33	-2.67
UK Income A Inc ✱ F	203.76	-	-0.86	5.23	-12.32	-2.82
UK Income B Acc ✱ F	340.94	-	-1.43	-	-11.68	-1.94
UK Income B Inc ✱ F	228.23	-	-0.96	5.19	-11.68	-2.08

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Memnon European Fund - Class U2 GBP	£ 234.18	-	0.11	0.00	6.65	8.59

Guide to Data

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

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The fund prices published in this edition along with additional information are also available on the Financial Times website, **www.ft.com/funds**. The funds published on these pages are grouped together by fund management company.

Prices are in pence unless otherwise indicated. The change, if shown, is the change on the previously quoted figure (not all funds update prices daily). Those designated $ with no prefix refer to US dollars. Yield percentage figures (in Tuesday to Saturday papers) allow for buying expenses. Prices of certain older insurance linked plans might be subject to capital gains tax on sales.

Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)

OEIC: Open-Ended Investment Company. Similar to a unit trust but using a company rather than a trust structure.

Different share classes are issued to reflect a different currency, charging structure or type of holder.

Selling price: Also called bid price. The price at which units in a unit trust are sold by investors.

Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.

Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.

Treatment of manager's periodic capital charge: The letter C denotes that the trust deducts all or part of the manager's/operator's periodic charge from capital, contact the manager/operator for full details of the effect of this course of action.

Exit Charges: The letter E denotes that an exit charge may be made when you sell units, contact the manager/operator for full details.

Time: Some funds give information about the timing of price quotes. The time shown alongside the fund manager's/operator's name is the valuation point for their unit trusts/OEICs, unless another time is indicated by the symbol alongside the individual unit trust/OEIC name.

Losing your life savings on crypto is a Brexit opportunity

Rutherford Hall
Critical Comms

Messages from the archive of Rutherford Hall, critical communications strategist

WhatsApp to Jules: You any good on digital currencies? We've got a new client, the crypto exchange Wampa, and all I know about this stuff is money laundering and Ponzi schemes, so I may need a second chair on this account.

WhatsApp to Jules: Doesn't matter; that's still more than I know. They are worried about a new UK push on regulation, so part of our strategy is to stress that crypto is a Brexit opportunity.

WhatsApp to Jules: Exactly, the right to lose your life savings in minutes is a Brexit growth opportunity. But let's work on the wording of that!

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From: *Rutherford@monkwellstrategies*
To: *EvianShostakovich@wampa.com*

Evian, it's great to be working with you. Can I also introduce my colleague Jules (cc-d), who heads our advanced technologies division. As you say, this is a key moment. The FCA is itching to regulate the industry and clearly Sam Fried-Mybank has made this all harder for us.

BTW, you've always said in public that you'd welcome regulation. Can I check if you mean that?

Ciao, Rutherford
Member DCMS Panel on Business and the Metaverse
Find me on Strava, KoM Sydenham Hill, PR London to Brighton 3h 59m

....

From: *Rutherford@monkwellstrategies*
To: *EvianShostakovich@wampa.com*

OK, that's what I assumed. We are activating our contacts at the Treasury and we see two approaches. First, flat out resistance to Financial Conduct Authority regulation. Tories want to pitch Britain as a crypto hub even though hardly any know what that means. Post-Brexit they're keen to show the UK is still at the leading edge of new financial services, so we'll argue that stifling EU-style regulation will make this industry relocate to where it is now.

But there is a second approach in which we appear to embrace sensible controls by drawing a distinction between good regulation and bad. The truth is there's basically one guy in the FCA who understands the industry and he only works part-time. There is a limit to what they can achieve without our help, and in the current turmoil there may be a business value in being able to call ourselves FCA-authorised.

Good regulation might be some tighter rules on advertising. It doesn't seem to have done gambling any harm. I'm not sure saying "please invest responsibly" at the end of an ad will seriously hit the bottom line.

Obviously we don't want tobacco-style riders like, "Investing in crypto means you may never see your money again". Or "Investments can go up or down, but probably down, possibly within a week". Bad regulation would be suffocating investor protection rules like a proper UK presence, 1:1 reserves on stablecoins, proof of assets, no co-mingling of funds, all those dead-hand of Brussels-type controls. This degree of interference would kill the UK as a global centre for digital finance and betray the promise of Brexit.

The question ministers need to ask is why they would stop British citizens investing with us here via an exchange endorsed by some of our most loved pop stars and footballers. The aim is to seem like a bank but be regulated like a bookie. Don't worry, you won't have to come to London, you can talk to them on Zoom. Better still, invite them to Anguilla for pizza. Yes of course I am happy to communicate by Telegram in future. Or for maximum security we could always fly out to see you . . .

Ciao, Rutherford
Find me on Strava . . .

> The truth is there's basically one guy in the FCA who understands the industry and he only works part-time

Telegram to Evian: Hey Ev, interesting point that you already have to be registered for money laundering purposes anyway, but I worry that describing ourselves as FCA-registered may just wind them up. It's great you are looking at figureheads for your campaign, but I'm not sure Boris Johnson and Matt Hancock give off right vibe. We want someone who screams reassuring, not someone who can gobble back a kangaroo's anus.

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WhatsApp to Jules: When we see the Downing Street guys, keep stressing the UK as a crypto hub. Do they not want to support a financial industry so cutting edge that its primary operating entity is registered to an island in the metaverse? Also talk about nanny-statism. Only a socialist government would interfere with the freedom to give away your money. Use the phrase "stablecoin" a lot. I know the founder of one of those is now on an Interpol red list but it sounds reliable.

....

Telegram to Evian: Yes, we are making progress. That's a very generous offer, I'm a big fan of stablecoin. Sadly, for tax reasons, we find it easier to settle our accounts in sterling or dollars. Regulators, eh?

Messages recovered by Robert Shrimsley

FT Business Book of the Year Award

The great chip war — and the challenge for global diplomacy

The 2022 prizewinner throws a spotlight on the battle for semiconductor supremacy, writes *Andrew Hill*

Chris Miller's interest in semiconductors was piqued when he realised that China was spending more on importing chips than it was on oil
Charlie Bibby/FT

On December 6, US president Joe Biden joined Morris Chang, founder of Taiwan Semiconductor Manufacturing Company, in Arizona for a symbolic "tool-in" ceremony to mark the latest step in the chipmaker's investment in a new factory in the US.

Chris Miller could hardly have wished for a better way to underline the timeliness of his book *Chip War*. On the eve of Biden's Arizona visit, Miller won the Financial Times Business Book of the Year Award. His book is a highly topical history of the development of the semiconductor and how TSMC and a few other manufacturers came to dominate the global supply of advanced microchips.

Chang and Biden appeared in Arizona alongside the chief executives of Apple and Nvidia, two of TSMC's biggest customers. "Companies like TSMC are facing multiple reasons to rethink the geography of supply chains. And it's not just politicians calling them . . . but their customers as well," Miller told the FT this week.

Taiwan sits on geopolitical and seismic faultlines. Until recently, companies trusted that seamless globalised networks would underpin their chip supply. But boards are suddenly worrying about "Taiwan risk". They are contemplating the possibility of military confrontation between the US and China and grappling with the implications of a trade war over chip development and supply.

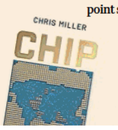
Academics call this situation "weaponised interdependence", in which, Miller writes, "rather than defusing conflicts and encouraging co-operation" the intertwined interests of the economic powers create "new venues for competition". Encouraging more investment in local chip manufacturing, as the US, China and EU are trying to do with subsidies and tax breaks, is one way to offset these risks.

This was not the "unexamined assumption" with which Miller started work on his book five years ago. He believed the risk of "mutually assured economic destruction" would prevent superpowers from using their position in the chip supply chain to put pressure on each other. "And then, over the course of the five years of writing it, it seemed like every day I was reading the Financial Times and a new horrifying data point was coming, suggesting that

mined expectations about geoeconomic stability. In October, just as *Chip War* was hitting the bookshelves, the US imposed export controls on China, to slow down its attempt to become self-sufficient in the manufacture of advanced semiconductors.

Miller explains the main difference between the concept of mutually assured destruction that kept the nuclear peace during the cold war and the economic version. "There's a very clear threshold of nuclear use. [The weapons] are either used or not used, whereas in the economic interdependence space, there's no threshold that [shows] you've crossed the line. And in fact, there's lots of different lines one can cross."

An economic historian specialising in Russia, Miller started by studying the gap that opened up between the US and Soviet militaries in the 1980s, partly because of the former's semiconductor superiority. He switched the focus of his work when he realised "the key technology enabling the military systems that convinced the Soviets that they'd lost the arms race was also the key technology that was structuring US-China competition today". The fact that China was spending more money importing chips than it was spending on oil — a data point so astonishing that an incredulous Miller downloaded it from the United Nations' trade database several times to check — cemented his interest, even though he began with no deep technological knowledge.



Instruments, a pioneer of early chip technology. Chang proposed the world-changing idea of a chip "foundry", which manufactures semiconductors for multiple clients, in the 1970s. TI rejected the plan and later thwarted Chang's ambition to become chief executive. As a result, he was at a loose end in 1985 when Taiwan's government called and gave him a blank cheque to develop his foundry idea there. The success, sophistication and sheer scale of his creation TSMC are now hard for rivals to match.

> US must convince allies 'it can strike a balance between security and economic considerations'

Miller wonders what would have happened if Chang had become TI's chief executive instead. "I think it's easy to imagine ways in which TSMC could [by now] stand for the Texas Semiconductor Manufacturing Company," he says. Another missed opportunity, Miller says, was US chipmaker Intel's failure to build on its success in semiconductor innovation under another US immigrant, Andy Grove, its chief executive. "Intel was too powerful for too long and didn't take some of the risks that it needed to take," claims Miller. "Missing the smartphone, for example, missing the early [artificial intelligence] shift in the industry, and I think missing a bit of the paranoia that had made Grove such an effective, if terrifying, manager."

race to secure semiconductor supremacy as the original breakthrough innovations, or the government support that encouraged them, he suggests.

For example, he singles out ASML, the Dutch manufacturer of highly complex chipmaking tools. "They describe their job as managing a complex supply chain," says Miller, which includes sourcing parts from other manufacturers. "They're brilliant engineers. But in some ways the real brilliance is actually in assembling components which, when you say it that way, sounds low value-add." In fact, ASML's assembly prowess adds enormous value: the company's extreme-ultraviolet lithography machines for etching the most advanced chips contain hundreds of thousands of precision parts and cost $100mn apiece, according to Miller.

If anything, Miller says he has become less optimistic in the past five years about how the world will reconcile the overlapping and sometimes contradictory interests of customers, manufacturers and governments in semiconductors.

In trying to increase pressure on China over chips, the "fundamental problem" for US policymakers, as outlined by a semiconductor executive quoted in the book, is that "our number one customer [China] is our number one competitor". Miller says the Biden administration's biggest challenge in chip diplomacy is convincing its allies that it can "strike a balance between security considerations and economic considerations", when "there are voices on both sides of this issue — people more concerned about security, people more concerned

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Dear Jonathan

YOUR QUESTION FOR OUR EXPERT — AND READERS' ADVICE

I want to quit my job and travel — will it affect my career progression?

This week's problem

I work in product development for a global asset manager but want to leave my firm and travel. Should I take a leap of faith and leave my job, travel for a year, maybe get a contract role in another country and then come back to London? Or could this be too risky and result in years of making up for it? **Female, 20s**

Jonathan's answer

Your career has had a strong start but now you yearn for a different experience; however, you're balancing this with the concern for your long-term career and that you won't be able to "make up for" the year away.

Perhaps these concerns are misplaced. Katy Brown, who recently co-founded two start-ups after 10 years in investment management, suggests you put the decision in the broader context of a (potentially) 45-year career. "Ten years ago, in my 20s, I felt I had to make every minute of every day count. But don't be in such a rush to climb the ladder," she says.

There are many routes up the career mountain; if you look around at what people further up the path have done, you will see an inspiring variety of experiences, and not all staying in the industry and in London. If you plan now for how you will re-enter the market (assuming you will want to after a year away), then you can set off with confidence and purpose.

Karis Stander, managing director of Investment20/20, which provides training and entry-level routes into investment management, was very clear on whether you should go: "Emphatically, yes!"

"If you have a burning desire then it's really important to focus on your own wellbeing, and not deny yourself what you want to do," she adds. Stander agreed with Brown there's no one right path, and both highlighted that global experiences can only bolster your CV, give you a broader perspective, and expose you to developing many transferable skills such as problem solving, planning

investment management industry, you are well placed to talk to colleagues, gather information, ask for feedback on your strengths and development needs, and identify the sort of role you would like next. "For example, many people seek line management positions," Stander says. "How could you build those skills before and during your travels?"

You have other options than just resigning: would your line manager hold your post open? Could you go on a secondment in another country? Stander recommends "getting involved in being an active participant in the firm's networks — understand the skill shortages, build connections, and join any talent programmes".

Also, don't underestimate the benefits of the experiences you will get on your travels, for yourself and your career. Bon voyage!

Readers' advice

I would suggest your year "travelling" should have a purpose, such as language acquisition. Also be prepared to never want to go back home. **Le maquisard**

Educational travel will act like an extra qualification. A few years ago, I did one of the round-the-world yacht races. Of the 50 or so who did the whole thing, 45 of us had been headhunted or promoted by the time we came back. The experience showed team building, grit and the ability to problem solve in moments of stress, and so much more. **Tazzyjoolz**

The next problem

In my previous job, my manager lied about my performance. I presented to her and HR ample evidence I was in fact outperforming but the manager would not change her review. I got lawyers involved, won compensation and left. However, the experience left me scarred and terrified it could happen again. How do I rebuild my confidence and what can I do differently to prevent a repeat of this? **Anonymous**

Jonathan Black is director of the Careers Service at

How to Lead. Bahija Jallal, chief executive, Immunocore

'There was fantastic science but, without financing, we could not go anywhere'

The former researcher has revamped the UK biotech from ailing drugmaker to cancer treatment pioneer, writes *Hannah Kuchler*

Bahija Jallal, who began her career researching molecular biology and oncology, took Immunocore public on the Nasdaq last year, doing the investor roadshow from her basement. – Nate Pesce/FT

Bahija Jallal spent her first day as chief executive of Immunocore on the other side of the world from its Oxford headquarters, trying to raise money to keep the biotech afloat. In January 2019, the AstraZeneca veteran headed straight to the JPMorgan conference in San Francisco to convince investors she could reinvigorate the company.

It was a tough sell: Immunocore had, in many shapes and forms, been trying to develop a cancer drug for 12 years. The company had raised a huge initial series A funding round of $320mn and then disappointed investors with the drug's slow progress.

"I think the company had gone two years into the market and could not raise the money. Most of the executive team had left and they were without a CEO, or at least with an interim CEO, for two years," she says. "I knew there was this fantastic science and this fantastic platform but, without the financing, we could not go anywhere."

Jallal is animated as she narrates, safe in the knowledge that she and Immunocore have overcome this inauspicious start. The company has secured its first approval — of an innovative cancer drug — and is developing many more treatments. It has gone public and, she hopes, will be a success story that shows the UK's life sciences potential.

Back in 2019, one investor told her that it could not be done. She recounts him saying: "I don't believe that anyone can turn around the company. I have so many CEOs come and tell me they're going to turn around [companies] and that never happens." But recently, he admitted to Jallal that he was wrong.

Jallal started her career as a scientist, doing her PhD in physiology at what was then the Université de Paris VI and conducting post-doctorate research in molecular biology and oncology at the Max Planck Institute for Biochemistry

> '[Halting clinical trials when Covid hit] would have been life or death for the company'

in Germany. She then moved to the US to climb the ranks of research in biotechs until she joined MedImmune, a leader in antibody technology, eventually becoming executive vice-president. After it was acquired by AstraZeneca in 2007, she became president of MedImmune and executive vice-president of its Anglo-Swedish owner. When she was approached about taking the top job at Immunocore, she had not been looking for a chief executive position — but she had wanted a challenge.

She spent six months considering whether Immunocore was that challenge — or just a mess. By interviewing people across the company, she discovered that clinical trial investigators — the doctors who lead studies in hospitals — were exasperated because the drug worked, but was nowhere near the market.

"They were really frustrated because nothing had happened. But they tell you: 'I have patients that should not be alive today. They're still alive.' That tells you something," she says.

Treatment for cancer has been transformed in the past decade by drugs harnessing the power of the immune system to tackle tumours. Immunocore's technology fills an important gap in the new generation of treatments, using T-cells, the key white blood cells of the immune system, to take on solid tumours. The drug — called a T-cell receptor bispecific — latches on twice, once to the tumour cell, and on the other side, to the T-cell. Crucial to the scientific challenge was making them soluble, so it could be used as an off-the-shelf product, rather than engineering a treatment from a patient's own cells.

Immunocore's first use of this

ture of a cancer patient, who had no other options but this drug. "There was one image that really convinced me to come here: seeing a patient having a metastasis to the liver and responding to the drug," she says. She thought: "This is really different and it's going to make an impact."

It took Jallal more than a year to raise the series B funding, closing a $130mn round in March 2020. Investors were reluctant to commit more money without more clinical data, so she also had to redesign its flagship trial, expanding it and changing when the data would be reported to ensure it was robust enough for an approval.

Meanwhile, she set about restructuring the company, doing "deep dives" in every department, looking for where it was "bloated", and what to fix. She also hired five or six key people she had worked with previously, which later grew to about 20.

Still based in the US, Jallal would visit Immunocore's headquarters in Oxford about once a month. While it is unusual to lead a company from another continent, Jallal saw there were advantages, such as being closer to the deep pool of biotech investors in the US.

Then the pandemic hit, and she was left to tackle culture change over Zoom. "It was really challenging because the restructuring is the easy part," she says. To try to change the culture for those who remain, she held virtual town halls and staff forums, but she admits there was nothing like being there.

Even more existential was the decision about what to do with the clinical trial as Covid-19 swept through hospitals, putting many studies on hold. Many others in the industry stopped to think — and then found it hard to restart the trials. Within 24 hours, Immunocore committed to continuing no matter what. "This would have been life or death for the company," she says.

Three questions

Who is your leadership hero?
My mother will always be my first hero. Aside from her, I'd have to say Nelson Mandela, a powerful but humble leader.

What was the first leadership lesson you learnt?
You are only as good as your team.

To do so, they had to switch to telehealth fast, with no time to wait for guidance from the regulator. Immunocore had to rapidly come up with plans for every scenario, such as identifying which data was absolutely essential for time-pressed staff to enter, and what to do if a patient developed Covid. In June 2020, the trial ended up finishing enrolling patients on time.

By November of that year the company reported interim data that showed the drug extended patient's lives. The data was earlier than expected, showing a strong benefit.

The results also transformed the company's fortunes, as investors came flooding back. Immunocore raised $75mn. "Raising the series B took me a year. It took two weeks to raise the C," she says.

But Jallal knew that if Immunocore was to commercialise this drug without a large pharmaceutical partner it would need even more money. So just months later, in February last year, she decided

> 'Raising the series B [funding from investors] took me a year. It took two weeks to raise the C'

to take the company public on Nasdaq, doing the investor roadshow from her basement. The timing was good: it raised more than expected, about $312mn in a combined initial public offering and private financing. Later that year, a biotech sell-off would start, effectively closing the IPO window.

"Thank goodness we did," she says. So far this year, Immunocore has bucked the biotech trend, with shares soaring almost 69 per cent.

Jallal hopes Immunocore will also break another convention, or curse, that hangs over British-born biotech, which frequently sells to Big Pharma rather than growing into large independent companies. She believes the key is to have the "best of both worlds": combining the "superb" UK science with capital and company-building experience in the US.

Three and a half years after she arrived, Jallal is now shepherding new potential drugs through trials. Immunocore plans to present early-stage data on a candidate for treating a range of cancers, including of the lung, breast and ovaries, in September next year. It recently dosed the first patient in its HIV treatment trial, aiming to rid

Downfall of a Russian dictator

Red tide: the choir of pilgrims are subjects of a cruel emperor in 'Boris Godunov' — Brescia and Amisano

OPERA

Boris Godunov
La Scala, Milan
★★★☆☆

James Imam

Offstage drama preceded the onstage spectacle of the opening night of La Scala's season, with climate change protesters splattering the theatre's facade with paint on the morning of the show and workers' strikes against funding cuts derailing a November rehearsal. But it was Mussorgsky's opera *Boris Godunov* that dominated headlines last month, when the Ukrainian consul in Milan demanded that La Scala cancel its production, just as Polish National Opera had done with its productin of the same opera in March, as a public indictment of Vladimir Putin's war.

La Scala resisted, highlighting that it had chosen the title years before the war, and that it had shown solidarity with Ukraine in other ways — not least by dismissing star conductor and Putin ally Valery Gergiev from a Milan production shortly after the invasion.

It would have been plausible for the opera house to draw parallels from the Pushkin-inspired libretto about a 16th-century regicide ruling over the hungry, discontented Russian people. Instead, La Scala dodged politics, arguing that art transcends current affairs.

But it was ultimately difficult to banish contemporary associations from the mind. Director Kasper Holten evokes the full might of imperial power, climaxing in a magnificent coronation scene populated by dignitaries in shimmering golden garb (period costumes by Ida Marie Ellekilde). Brawling police officers and staggering drunkards suggest a lawless Russia on the verge of collapse. The added silent role of the regent's bloodied corpse, played by a child actor, means the tsar's brutality hangs over this production.

Pimen's written account of Boris's misdemeanours seem to dictate events, with an illuminated curved backdrop resembling torn sheets of paper and maps forming the cocoon-like space within which the action unfolds. Passages are ripped from the hermit's scroll, a potentially interesting allusion to the manipulation of memory and future events.

Yet the idea never feels fully explored; this was, overall, a relatively straightforward reading, presumably for the benefit of the 1.5mn people who watched on live national TV.

Conducting the first non-Italian opening night opera in eight years, Riccardo Chailly delivered a brooding, aching and often ethereal account of music invested with the anguish of an entire nation. What was lacking was the feral intensity Gergiev has brought to Russian repertoire at this house, reminding us of the necessary price that global culture has paid for the war in Ukraine.

There was excellent stagecraft all round, especially from the mighty Russian bass Ildar Abdrazakov in the title role of the (rare) original shorter and starker 1869 version of the score. His was a towering performance of Shakespearean proportions delivered in a jet-black voice, authoritative in the opening scenes and dramatic in his displays of terror and final death scene.

Ain Anger's dignified hermit Pimen, Dmitry Golovnin's resolute pretender Grigory and Oleg Budaratskiy's brutal guard also stood out. Stanislav Trofimov and Alexander Kravets were darkly comical as the drunken vagabond monks Varlaam and Misail, and Maria Barakova was a bawdy innkeeper. La Scala's first-rate chorus was powerful as the oppressed masses. Dropping Mussorgsky's *Boris* would have been a missed opportunity.

To December 29, teatroallascala.org

THE LIFE OF A SONG

Johnny B. Goode
Chuck Berry's rock'n'roll hymn to himself has been covered by dozens of musicians, from Elvis to the Beatles

ft.com/life-of-a-song from noon

Sumptuous staging for elegant undead

DANCE

Sleeping Beauty
Sadler's Wells, London
★★★☆☆

Louise Levene

Are you sitting comfortably? We'll soon fix that. Matthew Bourne's 2012 *Sleeping Beauty* is back at Sadler's Wells for a seven-week residency. Though sumptuously staged and strongly danced, Bourne's lavish, subversive makeover of Marius Petipa's 1890 ballet is let down by pedestrian choreography and a vampire-themed storyline already showing its age.

Lez Brotherston, who has designed every Bourne production since 1994, excels himself here. The palace's black and gold columns and cornices have a gloomy grandeur and the gauzes and backdrops enhance the depth of the Wells's stage and create multiple centres of interest. Concealed travelators enable the dancers to glide in and out of view — every *Beauty* director should get one. The more gothic moments are bathed in Paule Constable's bloodstained sidelights. The costumes are ravishing, mixing the "anyone for tennis?" Edwardiana of Aurora's birthday party with the shredded, Arthur Rackham-ish threads of Count Lilac and his doomy gang of fairies. Unfortunately, their black tights make leg- and footwork all but invisible against the sooty set.

Bourne cherry-picks from the fairytale, adding flourishes of his own. The childless Royals acquire a baby (Tchaikovsky's thrilling overture repurposed as birth pangs while bad fairy Carabosse conjures the infant into being), and little Aurora (a clever three-man puppet) is entertained by a quintet of fairy variations. Elmhurst-trained Enrique Ngbokota and James Lovell make light work of Fairies Tantrum and Autumnus (ballet's loss was Bourne's gain).

There are regular glimpses of other ballets — *Anastasia* act one, *Giselle*'s mad scene — but the exultant Rose Adagio, in which the balancing ballerina greets each of her four suitors, is reduced to a game of kiss-chase.

Tchaikovsky's score, taped and amplified, has been freely adapted and is supplemented (some might say sabotaged) with baby cries, thunderclaps and other extraneous noises in Paul Groothuis's sound design. Many passages are taken at a thrilling pace to help ginger up Bourne's often uninspired routines in which the chorus twirl, grind and twerk their way through waltz or polonaise.

The new scenario is action-packed but strangely lacking in motivation. Bourne had always been unconvinced by Aurora's convenient coup de foudre at her awakening, and decided to introduce a love interest that predates her 100-year sleep. His barefoot princess (the feather-light Ashley Shaw) shuns courtly protocol, preferring to skip about. She is smitten by the palace gardener (Andrew Monaghan) who submits to a kindly bite from Dominic North's watchful Count Lilac so that he will still be undead (and available) when the princess awakens.

> The chorus twirl, grind and twerk their way through waltz or polonaise

The fatal spindle (here a black rose) is supplied by his rival Caradoc, son of Carabosse, danced with satanic glamour by Paris Fitzpatrick. Unfortunately the characterisation is perfunctory and the love triangle of loss and reconciliation at the heart of Bourne's story never quite takes flight.

To January 15, then touring, new-adventures.net

Wide awake: Andrew Monaghan, left, as the palace gardener and Ashley Shaw as Aurora
Johan Persson

Celebrity pals chit-chat about the big sleep

PODCASTS
Fiona Sturges

Where There's a Will, There's a Wake is ostensibly a podcast about death and its aftermath. "If you could plan your perfect death, what would you do?" asks the blurb for the new series, presented by the actor Kathy Burke, which gives you a broad sense of the tone. Guests are asked about how they would like to die, what they want at their funeral and arrangements for their will. It's all very jolly and irreverent.

The first episode features comedian Dawn French, who says she wants to die on stage, "Tommy Cooper-style", to laughter and applause. For her funeral, she would like a horse-drawn hearse, made of glass, and for the service to be conducted by RuPaul.

French's comedy partner, Jennifer Saunders, would do the eulogy, though it will be written by the screenwriter Richard Curtis — the joke being that Curtis would be unfailingly complimentary, which would drive Saunders up the wall.

Couldn't they have got all that out of the way before pressing record? The second episode features the comedian Joe Lycett, who says he wants to die by being shot in the back of the head while lying in a hammock. He hopes his death will provoke the same level of national grief as David Bowie's in 2016.

The death theme is intended to bring focus to what is essentially a celebrity chat show, which it does to an extent. But in both episodes so far, the conversations lack depth. At one stage, French remarks how, for much of her life, she didn't think she would reach old age, in part because her father died in his forties.

A more curious host would have pressed the 65-year-old on this. French's father died by suicide when she was 19. How did this affect her? And how does she feel having lived 20-plus years longer than him? But Burke lets it pass.

The dominance of the celebrity podcast has been one of the more disappointing developments in podcasting, and *Where There's a Will . . .* underlines a common flaw, which is that famous people don't make the sharpest interviewers. To sustain a 40-minute conversation, a host needs to prepare, listen, be curious and think about the listener at all times. The funeral scenarios in Burke's series are diverting enough, but even comedy needs light and shade.

For real insight into death and grief, the award-winning series *Griefcast* is still going strong after five years. Hosted by Cariad Lloyd, it features people in the public eye talking candidly about their experiences of death and often laughing at the sheer bleakness it all. The series' ratio of silly to serious is just right.

podcasts.apple.com

Kathy Burke, left, and the first guest on her new death-focused podcast, Dawn French
Dave M Benett/Getty Images

War during winter could force more people to leave Ukraine just as the EU faces an increase in migrants from other regions. With facilities already stretched, the political climate is different from the spring.

By Amy Kazmin, Sam Fleming and Raphael Minder

Migration fatigue

Polina Sydorenko, a 19-year-old Ukrainian student, was brimming with both hope and trepidation when she returned to Kyiv in late August, after five months sheltering from the war as a refugee in Italy. Yet her plans to pick up the pieces of her disrupted life at a prestigious university in Kyiv were depressingly shortlived.

Just weeks after her return, the veneer of normality that had been temporarily restored to the capital was shattered as Russia launched new missile attacks on key Ukrainian cities and critical civilian infrastructure — the most serious since the war began. The university where she studied drama shut down again. Sydorenko fled back to Italy, bringing another close student friend with her.

"The situation is awful," says Sydorenko, adding that other Ukrainian friends in Italy who had been considering a return home have now dropped the idea. "It's getting worse and worse and they don't know what to do."

As winter closes in on Europe and Russia sustains its bombardment of Ukrainian power and water facilities, EU member states are braced for many more Ukrainians like Sydorenko to return.

"The aim of Putin is to create a refugee crisis and to put even more pressure on us," says Ylva Johansson, the EU's migration commissioner.

At the same time, as Covid-19 restrictions ease and economic pressures mount, Europe is recording the highest influx of newly arriving migrants from north Africa, the Middle East and Asia since the migration crisis in 2015-16, which put immense strain on the EU and tested its political unity.

The combined pressures of these distinct mass movements of humanity — which have coincided with the rising influence of rightwing parties in several member states — have propelled the issue of migration back to the top of the EU's political agenda.

So far, Europe has maintained its open-door policy towards Ukrainian refugees, many of whom went back home after the initial Russian onslaught was repelled. But with reception facilities in many countries under severe strain and fears of a renewed Ukrainian exodus, tensions are rising between member states over how to handle irregular migrants — people who do not fulfil the legal requirements to enter a country — from other parts of the world.

Italy's new rightwing government, led by Giorgia Meloni, is leading calls both for tougher measures to keep out irregular migrants, and a new more equitable system for sharing the burden of accommodating new arrivals — something that has eluded EU countries for years.

"The political rhetoric around immigration is escalating right now around Europe, which underscores the difficulties many member states are having coming up with coherent solutions," says Alberto-Horst Neidhardt, a migration specialist at the European Policy Centre think-tank.

"We are seeing an emergency situation in the refugee reception systems in many parts of the EU. The prospect of further arrivals from Ukraine, as well as other parts of the world, could put even greater strain on the authorities."

Frostier reception

Europeans won widespread praise for their generous response to the first wave of refugees from Ukraine, encouraged by the EU's unprecedented invocation of a 20-year-old but never previously used power to grant "temporary protection" to refugees fleeing a conflict. With that, Ukrainians were instantly granted the right to move freely within the EU, to work, and some income support.

Sydorenko was among about 173,000 Ukrainians fleeing the conflict that passed through Italy — many of them drawn to join family and friends already in the country. Italian families and civil society groups also opened their doors, donating supplies and helping dislocated students enter the school system.

"There was this overall sense in society of contributing to a heroic effort of resistance — that you are part of something big, part of history," says Nathalie Tocci, director of Rome's Institute of

Migrants are crossing the Mediterranean into Europe in large numbers just as concerns rise of a renewed Ukrainian exodus; Italy's prime minister Giorgia Meloni, below right with deputy prime minister Matteo Salvini, is leading calls for tougher measures on immigrants
FT montage: AFP/Getty Images; Alberto Pizzoli/AFP/Getty Images

are striking. Between January and September, there were 4.4mn applications by Ukrainians for temporary protection in the EU — although hundreds of thousands are estimated to have returned. On top of that, EU countries plus Norway, Switzerland, Iceland and Liechtenstein received 680,640 applications for asylum from nationals of countries including Syria, Afghanistan and parts of Africa and Asia — up 54 per cent from the same period the previous year, according to the EU asylum agency.

Local authorities charged with housing and supporting refugees are struggling to cope. In Germany, where more than 1.1mn people have sought a safe haven this year, towns are scrambling to set up emergency shelters and convert gyms and hostels in an echo of the 2015-16 refugee crisis.

Municipalities are being forced to build mobile homes and rent rooms in hotels for the new arrivals, and say they are running out of school and kindergarten places and "integration courses" for adult refugees. Campaigners in Belgium say there are thousands of refugees living on the streets of Brussels.

In Poland, where over 1.3mn Ukrainians registered for residency, a grassroots army of aid volunteers was initially hailed as a role model. But while Warsaw's support for Kyiv remains unwavering, Ukrainians fleeing to Poland this winter will not find as generous a welcome as they did in the spring.

Poles are "afraid of the economic situation and inflation and are becoming more and more irritated by what they perceive as a favourable treatment of the Ukrainian refugees", says Piotr Buras at the European Council on Foreign Relations.

The Polish authorities have now ended many of the direct subsidies offered to Ukrainians, including free access to public transport and a one-time payment of 300 zloty ($67) that was claimed by over 1mn registered Ukrainians. From March, refugees staying in Poland for more than 120 days will have to pay 50 per cent of the cost of any government-provided accommodation.

In Przemysl, one of the main transit towns for Ukrainians entering Poland, nothing has been done to improve the rudimentary station through which five trains to and from Ukraine travel every day. "There's been no attempt to add seating, heat lamps or basic protection from the elements to make things easier for the many Ukrainians who come and queue up for hours out in the cold for the trains," says William Flemming, a British activist with Kharpp, a charity assisting Ukrainian refugees.

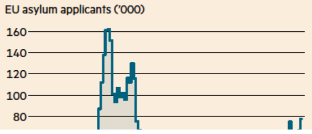
Double standards

Johansson, the migration commissioner, says that for the time being inflows into the union from Ukraine only modestly exceed the numbers returning to Ukraine, but that the EU has been undertaking contingency planning for new arrivals. "If we see millions of people coming during winter, of course there will be a huge challenge, but I think we will manage it well," she told the Financial Times.

Nevertheless, member states that bore the brunt of the earlier wave of Ukrainian refugees are worried. Some diplomats stress that while Ukrainian refugees can move freely where they want inside the EU, the new arrivals tend to go to the big cities where there are already large numbers, adding to the strains on local authorities.

"For us it's clear that if there were to be further migration from Ukraine, we would need better distribution throughout Europe," Nancy Faeser, the German interior minister, said on Thursday. "I wish to underline again that this is an

Refugees into Europe on the rise again



depicted the unregulated flow of migrants from Africa and Asia as grave threats to Italy's national security.

Now in power, they are demanding more help from Europe — including a strong united "defence" of the EU's external borders. Under the EU's so-called Dublin agreement, asylum seeker claims are to be examined and processed in the European country in which they first arrive — a rule that Rome claims puts undue pressure on Italy and other Mediterranean nations given the geography. Last month, Italy, Greece, Cyprus and Malta signed a joint letter demanding changes to the system.

Though France shepherded an initial agreement on disbursement of asylum seekers through the EU during its presidency earlier this year, Italy has been scathing about the results, given that it

> 'We are seeing an emergency situation in the refugee reception systems in many parts of the EU'

is entirely voluntary and envisions the dispersal of 8,000 migrants across the bloc — just a fraction of those arriving.

"The relocations carried out until today are totally insufficient and the procedures themselves are long and cumbersome," Italian interior minister Matteo Piantedosi told the FT. "In the end, it is only Italy and the other countries of first entry that take charge of economic migrants from north Africa."

Nearly 96,000 irregular migrants have arrived in Italy via the Mediterranean Sea so far this year, an increase of

rescued migrants to dock and unload their passengers for nearly two weeks, arguing that their work was also fuelling human trafficking by raising expectations people would always be rescued.

Her government called on Germany and Norway to take responsibility for the ships, which were flying their national flags. Tensions between Italy and France erupted last month after Rome refused to allow a ship carrying 231 migrants rescued from the Mediterranean to dock at an Italian port, forcing it to sail to France to disembark its passengers there.

Andrea Costa, the founder of Baobab Experience, a civil society group that assists migrants, says he sees a double standard in Europe's warm embrace of Ukrainian refugees, and the cold shoulder it gives to those coming from other regions. The attitude has implications for activists themselves, who can be accused of human trafficking for aiding new arrivals that land from across the Mediterranean.

"I am afraid to say it, but really it has a lot to do with racism," says Costa. "It upsets me very much. If I have a van and it's full of blonde, blue-eye kids coming from Ukraine, I have no problem. If I have eight black unaccompanied minors fleeing war in Tigray, Sudan or Somalia I am in trouble because I am doing something illegal."

> 'There was this sense in society of contributing to a heroic effort of resistance — that you are part of history'

The issue of double standards has also been raised in Poland and other countries of central and eastern Europe, which have taken in Ukrainians escaping Russia's war while erecting new border blockades to stop others.

Poland is now adding a fence at its border with the Russian exclave of Kaliningrad, similar to the one built earlier this year along 186km of its border with Belarus. The Polish government says border walls are needed to stop Russia and Belarus from pushing more illegal migration into the EU, but human rights organisations also say that this effort has been coupled with illegal pushbacks of asylum seekers from the Middle East and elsewhere.

In Slovakia, thousands of mostly Syrian refugees are now trapped along the country's border areas because Czech border police have prevented them from entering, while Hungary is refusing to take back those who travelled through Hungary into Slovakia.

As pressures within the EU mount, Johansson says she is optimistic that a long-discussed pact for migration — that would modify the Dublin pact and include a fairer way of distributing asylum seekers around the union — can be delivered before the end of the current commission in 2024.

"They really see the need [to] have a proper European legal framework in place to deal with migration together," she says, stressing the parallel work the EU has been doing to facilitate returns of people deemed not to be eligible to stay in the union. "The increase of irregular arrivals is not unmanageable."

Yet the EU remains deeply split over migration, as was shown at a ministerial meeting on Thursday when Austria vetoed a proposal to expand the Schengen border-free area to Romania and Bulgaria. Vienna's blockade prompted a furious reaction in Romania, where some politicians are demanding a boycott of Austrian companies.

Meanwhile, the inflow of new people pushed by misery at home to seek entry into Europe shows no signs of abating.

On a recent cold rainy night in Rome, Costa's organisation was handing out packed dinners in plastic bags to destitute migrants near one of the city's biggest bus stations. Among them was Awelky Nuru, a 28-year-old from Eretria, who fled his home when 18 to avoid forcible conscription into the army.

A year ago, he managed to cross the Mediterranean in a three-day journey in a leaky boat with around 300 other people. He has struggled ever since. "I

The FT View

FINANCIAL TIMES
'Without fear and without favour'

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Peru's democracy cannot survive constant turmoil

The Andean nation needs political reform to tackle its deep social problems

Peru's president was ousted and imprisoned last week, hours after trying and failing to close congress and seize extraordinary powers. Investors barely noticed. The Andean nation's foreign debt and the sol shrugged off the latest instalment of political turmoil: after all, Peru has had six presidents since early 2018, only two of them elected.

A political novice who swapped subsistence farming for the presidency, Pedro Castillo proved spectacularly inept. The radical left winger's promises to help Peru's long-suffering poor proved empty, giving way to a chaotic administration which churned through more than 80 ministers in less than a year and a half.

Corruption, a perennial evil in Peruvian politics, quickly reared its head. Castillo's chief of staff fled after $20,000 in cash was found in his office lavatory and prosecutors then homed in on the president and his extended family. Castillo was accused of heading a criminal conspiracy to skim bribes off public sector contracts. As legislators gathered to consider his impeachment, Castillo tried to pre-empt them by closing congress and introducing emergency rule. His gambit failed almost immediately as the army, the police and his own cabinet deserted him and he was arrested after fleeing the presidential palace.

Most regional leaders condemned Castillo's hapless attempt to subvert democracy but Mexico's quixotic president, Andrés Manuel López Obrador instead saw fit to attack what he termed a "soft coup" against Castillo carried out by the media and elites. He offered the would-be Peruvian dictator political asylum — a curious perversion of Mexico's tradition as a sanctuary for victims of genuine political persecution.

Castillo's vice-president Dina Boluarte must now pick up the pieces after being sworn in as Peru's first female leader. Politically inexperienced, she faces the task of cobbling together a majority from 13 different political blocs in a venal legislature mainly preoccupied with its own survival.

This is unfortunate because Peru's social and economic problems require urgent attention. Solid growth and sound macroeconomic management have masked serious deficiencies in public healthcare and education and a gaping divide between the relative prosperity of Lima and the poverty of the provinces.

Progress is unlikely without far-reaching political reform. Peru is saddled with an authoritarian constitution drawn up by Alberto Fujimori, a president who closed congress and ruled by decree in the 1990s. Its unicameral parliament of 130 members can be dissolved by the president if it twice rejects his choice as prime minister.

Political parties have proliferated under a poorly designed system of proportional representation, creating a highly fragmented congress where the president must constantly horse-trade. An archaic law, never properly defined, allows legislators to depose a president for "moral incapacity" — a useful big stick for extracting concessions.

> Vice-president Dina Boluarte must now pick up the pieces after being sworn in as the country's first female leader

Most parties are little more than vehicles for the personal ambition of their leaders or the promotion of special interest groups. It is hardly surprising that polls show most Peruvians despise the entire political class. All this makes it all the more remarkable that Peru has survived multiple political crises over the past decade with its democracy intact. Its luck is unlikely to hold, investor insouciance notwithstanding.

Congress and the new president urgently need to come together and agree a package of political reforms to put the country on a sound institutional footing and allow its deep-rooted social problems to be tackled. Otherwise a future coup attempt might succeed.

Opinion Asia

Punctured bike boom could yet receive a boost

Maria Hergueta

Leo Lewis

In the noise and uncertainty of mid-2021, it looked very much like the bicycle had quietly won the pandemic.

The attention may have focused, at the time, on ecommerce giants, in-home entertainers, social media titans and other stewards of seclusion. But the outdoorsy share prices of Taiwanese bike-makers Giant and Merida and of the Japanese component king Shimano, meanwhile, were breezing to almost unimaginable highs. Even Thule, the Swedish maestro of bike racks and other paraphernalia, was surging towards its all-time peak.

But near the close of 2022, the market's two-wheeled fling looks done — a wholesome phenomenon derailed by the world getting back on track. Those four stocks have lost between 25 and 55 per cent of their value this year, after months of steady selling. Halfords, the UK bike retailer, is down more than 46 per cent. In October, Goldman Sachs placed an outright "sell" recommendation on Shimano, warning of an impending correction in component orders from bike-makers.

> While concerns may prove entirely justified in the short term, bicycles have friends in high places

Both halves of this story make sense, though both look overdone. If the bike boom is truly finished, though, the question is whether a bigger one might be induced by regulation, the energy crisis and Emmanuel Macron's vision of "collective sobriety".

The 2021 bike-related share price spikes were propelled by a subset of the belief that Covid-19 has permanently changed the way we live. The pandemic created a world where crowded public transport and gyms presented infection risk, cabin fever was powerful, commuting patterns were in flux and working days were reshaping themselves. The bicycle, already heavily credentialed as a traffic-defeating, health-benefiting eco-machine, answered a lot of new questions about the way we live and work.

into the narrative that global bicycle demand was now on a stratospheric trajectory. A projection by research group Fortune Business Insights valued the global bicycle market at $78bn in 2021, rising to $128bn by the end of the decade.

The reckoning of what Covid-19 achieved for bicycles suggests something impressive, though perhaps less transformational than the market guessed. Morten Paulsen, an analyst who covers Shimano for the brokerage CLSA, calculates that the pandemic created a global demand for about 5mn bicycles that would not have been sold without it. Of those 5mn new owners, he estimates that roughly half remain in the saddle today.

In 2022, even as sales for the likes of Shimano remained firm, investors have decided that their earlier exuberance may have overshot. The pandemic-driven issues for which a bike once seemed a great antidote now seem less severe. Shimano's new orders for delivery nine months from now are looking weaker than a year ago. Investors now fret that the once inadequate global inventories of bicycles are being steadily replenished, and that economic downturn will soften overall demand.

But while those concerns may prove entirely justified in the short term, bicycles have friends in high places — national sponsors of large-scale growth in ownership and the construction of more attractive cycling infrastructure as a route to decarbonisation. Macron's efforts to steer France through a winter of energy crisis, notes Mark Chadwick, an analyst who publishes on Smartkarma, has landed on a formula for presenting energy saving (collective sobriety) in terms that others may seek to emulate and which clearly favours bikes. French citizens are simultaneously being enticed, via a €4,000 subsidy, to trade in cars for electric bicycles: the stated aim is to raise the ratio of cyclists in France from around 3 per cent now to 9 per cent by 2024.

Europe more broadly has also presented Shimano and others with a juicy opportunity. At the end of 2021 — just before the listed bicycle and component makers began to lose their buoyancy — the EU voted to allow member states to cut VAT on sales, rentals and repairs of bicycles from 15 per cent to 5 per cent and to theoretically scrap all such taxes by 2030. Analysts calculate this could enhance existing predictions that combined bicycle and e-bike sales in Europe would rise by roughly 50 per cent from

Letters

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Why Britain's SMEs are losing Irish customers in the post

Andrew Duff's prescription for affiliate EU membership for the UK is compelling if controversial ("Starmer must plot a bold route back to Europe for Britain", Opinion, December 5).

But there is an earlier, wholly uncontroversial step the UK could take to ease trade with the EU.

For reasons not clear, the UK Post Office has refused to implement the necessary systems to comply with the new EU customs rules that applied to the UK after Brexit. The UK government appears uninterested.

Consequently at An Post, the Irish postal service, we have to return thousands of items daily back to Great Britain as they fail EU customs' checks. Predominantly these are items sold by British small and medium-sized enterprises online and delivered through the UK Post Office.

The level of disruption for SMEs has caused many of them to simply not bother trading with Ireland, a full member state of the EU (and where the EU customs rules have been introduced first). Trade from Great Britain to Ireland through postal channels has fallen by 52 per cent in one year.

From January 2023 the EU customs rules are mandatory across the EU so the disruption with Ireland will be repeated with every other EU country, if the necessary actions are not taken.

The UK government should insist immediately that Post Office Limited implement the required procedures for exports to the EU to uphold international trade, to support British businesses and consumers.

Royal Mail has a responsibility to ensure trade is facilitated (not least by repairing the dysfunctional relationship between Royal Mail and the Post Office), implementing a duty-paid system to help EU consumers of British companies.

If it is not too late — but it's already close to that for many SMEs — these steps could have an immediate and positive economic impact on the SME sector and the millions they employ, a sector regularly described by government as the backbone of the British economy.

The system and process implementation has some complexity but is surely a price worth paying if it allows the UK to trade with Europe.

David McRedmond
Chief Executive, An Post
Dublin, Ireland

An awesome disregard of causes of Europe's peace

I write to nominate as the most self-evidently absurd proposition of 2022 Janan Ganesh's statement today that "the EU deserves most of the credit for the continent's post-1945 peace" ("The year Europe's innocent worldview fell apart", Opinion, December 7).

This awesome disregard of the Berlin Airlift, the North Atlantic Treaty and Marshall Aid sets the scene for his apparent oversight of the roles of Presidents Truman, Eisenhower, Kennedy and their successors, not only in standing up to the direct threats from Joseph Stalin and his successors, but also in managing the cold war relationship between nuclear-armed superpowers without, so far, an outbreak of nuclear conflict. All this is to say nothing of the huge outspending by the US of its European allies on Nato, decade in and decade out, for all but three quarters of a century.

Ganesh dismisses all consideration of Nato's role with the seemingly rhetorical question "what explains the enmity between Greece and Turkey", to which the rather obvious answer is "history", starting early in the fifth century BC (see Byron's call for "a new Thermopylae").

How this ancient and modern antagonism illustrates Ganesh's extraordinary assertion about the EU's contribution to European peace since 1945 remains obscure. For that blessing we have one supreme benefactor to thank, the US.

Peter Jay
Woodstock, Oxfordshire, UK

A trade unionist's take on the US working class

Edward Luce ("The shipwrecked US working class", Opinion, December 8) is right that the Democrats are increasingly the party of college-educated voters, but he has a reductive view of what it means to be working-class.

Last week, myself and others in the Democratic Socialists of America worked with railroad workers to "welcome" scab-in-chief Joe Biden to Boston as he was meeting Prince William. Yesterday, Boston University graduate students — largely led by our members — voted by one of the largest margins in US history to unionise. They make far less than train conductors. Last month, our members led illegal teachers strikes in the Boston suburbs.

On the ground, blue collar and white-collar workers are uniting with

A Bulldog spirit is needed 'now it is obvious that Brexit is not working'

America's social divisions are about culture wars

I enjoyed Edward Luce's piece "The shipwrecked US working class" (Opinion, December 8). One critical point he did not make expressly is that neither the Democrats nor the Republicans represent the economic interests of the working class, nor for that matter the middle class. Instead, both political parties pick, highlight and exacerbate the culture wars that could be minimised or tolerated. What we wind up with is a polarised country, divided by the cultural appeals each party makes to its base.

Paul Justison
Oakland, CA, US

Recalling another twist in the Lloyds HBOS takeover

Patrick Jenkins' Inside Business article comparing the Bulb rescue by Octopus with the acquisition by Lloyds of HBOS is an interesting comparison (December 6).

As someone very much involved in the case against Lloyds for the acquisition, I agree that what is "far from welcome" is the fact the details of the government's financial support for Bulb are shrouded in mystery. What was far from welcome in the Lloyds-HBOS case was the failure to disclose £25bn of liquidity assistance from the Bank of England/Treasury, compounded by the fact that the then Deputy Governor of the bank, Andrew Bailey, allowed an own credit adjustment of £13bn to be treated as capital when the adjustment was to

On EU trade, politicians can't just hope for the best

George Parker, in his article on a possible Brexit rethink, made me almost despair ("Parties shun Brexit rethink in race to win next election", Report, December 5).

He says that the politicians have basically run out of steam and lost the will to contemplate rejoining the EU. Others say that the Remainers lost and we should get over it. That does not sound a very "British Bulldog" attitude. Where is our tenacity and resilience now that it is becoming obvious that Brexit is not working?

If our politicians cannot provide fundamental, sound and stable foundations, how can we expect our businesses to invest for the future? With the other two major trading blocs, China and the US, also apparently out of the running for friendly trade deals, we have been reduced to having to try to negotiate a lot of smaller deals from a position of obvious weakness.

Surely, rather than trying to start again from scratch and replicate 40 years of laws and attendant case law, it would be far easier, quicker, more efficient and cheaper (except for the cost to some egos) to renegotiate a Brino (Brexit in name only) deal with the EU? It seems obvious that both we and the Europeans would, overall, benefit from a close alliance.

It is no good our politicians just wringing their hands and hoping for the best: they need to get together, cross-party and with business, hammer out a medium-term plan and stick to it.

Are there any grown-ups who could put aside bias and emotion and handle this? If not, we seem to be doomed to a slow decline over many years.

Robert Mandeville
Cookham Dean, Berkshire, UK

Private schools should be taxed on donations too

On reading Stephen Bush's article on private schools, I would make two further points ("Private schools are an easy target for Labour, but not a risk-free one", Opinion, December 3).

First, I do not think that it is too difficult to differentiate between secondary and tertiary education. Second, Bush focuses on the receipt of fees. He has ignored the other huge benefit to the private school sector — charitable donations.

In the latest list of benefactors to my old school Clifton College, for example, (copy attached) there are 11 donors who have given at least £250,000 each.

Why ban on assisted dying is unjust for many families

Stephen Bush (Opinion, December 5) is right to say that poverty should never be the driver of a person's decision-making at the end of their life. But that is the reality under the current blanket ban on assisted dying in the UK.

It has created a two-tier system where death on one's own terms is an option only availed of by around 50 Britons every year who are fortunate enough to have the £10,000 required for Dignitas, the health and digital literacy needed to navigate its rigorous application process, and family members prepared to risk investigation and even a prison sentence.

And that only applies if a person is still physically well enough to make the journey to Switzerland. This leaves hundreds of terminally-ill people each year with no option but to take matters into their own hands and thousands more who suffer against their wishes.

Your columnist rightly calls for more data. This is what the health select committee should be helping to address in its inquiry into assisted dying, announced last week.

If its aim is to bring scrutiny and evidence to this debate, it must look at the impact of the current law — the experts on which are the terminally-ill people and their families who experience its injustice every day.

Karin Smyth
MP for Bristol South
Co-chair of the All-Party Parliamentary Group on Choice at the End of Life

An Indian ex-pat recalls the appeal of Wodehouse

I am of Indian descent. My father was a writer, a language lover, and a freedom fighter for independence from the British. He also started life as a high school teacher ("Wodehouse lightens the woes", Life & Arts, December 3).

Like Nilanjana Roy, your columnist, my father also read PG Wodehouse.

For me, after VS Naipaul, it was Wodehouse I read at the age of 9 as I started probing for my bearings.

I thought Wodehouse decadent. I had not yet understood parody.

Sandip Tiwari
Southport, ME, US

More on Lady Susan's unfortunate question

Following the letters of Peter Edwards (December 9) and Peter Rose of New York ("Fowler and Lady Susan's

Opinion

The UK government's policy on public sector pay is foolish

BRITAIN

Martin Wolf

The UK government is confronting a "winter of discontent" in public services. In response, it insists that it cannot afford higher pay and seeks to limit the right of public servants to strike. This may work politically. But it does not make sense economically. Public sector pay should be set at levels needed to attract and motivate the required staff. An upsurge in inflation does not change that logic.

Since the Conservatives won power in May 2010, overall real average pay (including bonuses) had risen by 5.5 per cent in the private sector by September 2022, but fallen by 5.9 per cent in the public sector. Startlingly, between January 2021 and September 2022, average real pay in the private sector fell by 1.5 per cent, but in the public sector pay fell by 7.7 per cent. In fact, all the decline in real public sector pay since 2010 has occurred in the past two years.

Such a large cut in real public sector pay could not have occurred without high inflation. But would one have wanted to reduce real pay in the absence of a rise in the price level? The answer is: yes. The UK has suffered a big deterioration in its "terms of trade". Thus, the prices of its imports have risen sharply against those of its exports. The UK is poorer than it would have been if the rises in energy prices, above all, had not happened. Some of this adjustment in real incomes should fall on wages. Thus, some fall in real earnings is neither surprising nor inappropriate. Inflation has merely made it possible to implement.

Yet even if some fall in real earnings in the economy makes sense, why should the public sector's fall be far greater than that in the private sector?

One might argue that control over public sector wages is an effective way to prevent a wage-price spiral, that government cannot afford to pay public sector workers any more, or that inflation is an opportunity to reduce excessive levels of public sector pay, especially when one takes perks, notably generous pensions, into account.

None of these arguments has merit.

On the first, Ben Zaranko of the Institute for Fiscal Studies, notes that "it is difficult to see how an increase in public sector wages could directly contribute to a wage-price spiral", given the lack of prices in the public sector. Nor, he notes, can one argue that public sector pay is leading inflation, since it is falling far behind. Above all, policy on pay will not lower inflation. This demands macroeconomic measures.

On the second, the decision by government not to raise pay in line with wages in the private sector is not because it cannot afford to do so. Taxes could be raised if the will were there. It is in effect a political decision to make public sector employees pay for the government's unfunded promises.

On the last argument, as the IFS noted in its October 2022 Green Budget, average pay in the public sector is higher than in the private sector, but this advantage disappears when one takes worker characteristics — age, experience, qualifications and so forth — into account. Public sector workers are then paid slightly less than private sector ones. In fact, the ratio is now more unfavourable to public sector workers than at any point in the past 30 years. True, if one considers employer pension contributions as well, public sector employees were paid 6 per cent more than private sector ones on average in 2021. But this advantage is sure to erode in 2022.

Above all, the test of whether pay is appropriate is whether it maintains services at the levels government has promised. It is clear that there are substantial shortfalls in key staff, as well as concerns about their quality. Thus, data from NHS England "show a vacancy rate of 11.9 per cent as at September 30 2022 within the Registered Nursing staff group (47,496 vacancies). This is an increase from the same period in the previous year, when the vacancy rate was 10.5 per cent (39,931 vacancies)." Again, data show dramatic shortfalls in recruitment of teachers in such subjects as physics or design & technology.

> It is clear that there are substantial shortfalls in key staff, as well as concerns about their quality

As Chris Cook argues, the government should ask whether public sector pay is at a level that will sustain delivery of services. The country's social fabric is fraying. In particular, ill health is damaging labour supply. If the government is not prepared to raise the required taxes, it should be honest about that. Letting inflation reduce real pay, while expecting services to be maintained, let alone improve, is plainly dishonest.

The government should keep pay in line with the private sector's, especially where it has significant recruitment and retention problems. If this means it has to reopen spending plans that no longer make sense in today's debased pounds, so be it. What is happening now may be penny-wise, but it is pound-foolish.

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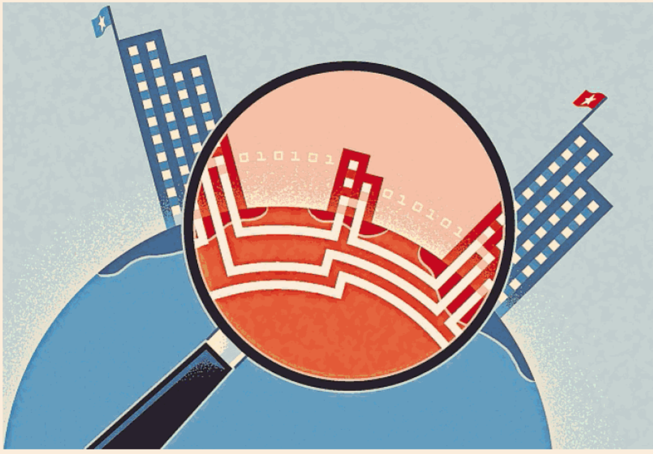
Decoupling spells corporate opacity's end



Matt Kenyon

BUSINESS

Rana Foroohar

Decoupling is everywhere. In the past week or so, we've seen multiple announcements on this front, including Apple's move to diversify production away from China's "iPhone city", a Foxconn factory town within Zhengzhou that once made 85 per cent of the company's Pro line of phones. Then there was TSMC's tripling of its investment in US domestic chipmaking, Brussels' announcement that it would offer its own subsidies to speed up local production of clean technology and the spike in Indian stocks as multinational investors looked for cheap new production sites — anywhere but China.

The reasons for these shifts ranged from anti-government protests and factory disruptions in China, to national security and domestic labour concerns, to the cost of fuel or the emissions from a long transport route. But the bottom line is that the diversification, regionalisation and localisation of global supply chains has only just begun, and will probably broaden and deepen in the coming years. This is not only because lawmakers are increasingly incentivising or insisting on it, but also because there is a burgeoning group of companies providing the services and data to make it possible.

From risk consultancies to big rating agencies, law firms to investment houses, and any number of start-ups designed to help companies map or even recreate alternative supply chains, everyone wants a piece of the decoupling pie.

Miles Arnone is chief executive of Re:Build, a Massachusetts-based company that invests in localised manufacturing start-ups and helps companies rethink their supply chains. He says he is working with "a large number of companies that are developing new hardware in areas like clean tech, automotive industries, life sciences and building trades, and want to make it locally". This is not only because of the geopolitical climate, but because they want to avoid IP theft or capture the benefits of faster innovation or quicker time to market by producing "local for local".

Then, there are the large multinationals that come to Arnone because they are in decoupling industries, such as technology, but have "forgotten how to make their own secret sauce". Essentially this means that they've done so much complex outsourcing, they literally have no idea how to make their own products by themselves anymore.

Indeed, they may not even know who is making those products now (or investing in them), because of the sheer magnitude of corporate globalisation over the past half century, particularly between the US and China. Business leaders need detailed risk maps to begin to understand their own supply chains beyond the most surface level.

This is where data entrepreneurs are stepping in. One of the most interesting is WireScreen, part of The Wire Digital Inc, a US-based news and data platform focused on China and global supply chains. It tracks 10mn companies registered to do business in China, and what it reveals speaks volumes about how far decoupling has to go. The company, which has raised $14mn from investors including Sequoia, was co-founded by David Barboza, who was awarded the Pulitzer Prize in 2013 for exposing corruption within the highest levels of the Chinese government.

The Wire uses open source data from China's own state registry of corporations to create a 360-degree map of every major public and private company operating in the country. This includes not only Chinese state firms, but midsized suppliers, and global multinationals from Boeing to Google. It then translates, cleans and cross references the data with other sources, to reveal the shareholders who ultimately benefit, as well as the business networks and associations of these companies.

> It is quite common to find blacklisted companies controlling multiple non-blacklisted affiliates

The results are shocking. It is quite common, for example, to find evidence of companies under sanctions partnering with US firms, or blacklisted companies controlling multiple non-blacklisted affiliates, meaning that they could legally import goods and services for their sanctioned investor or parent. While the Wire can't "see" violations because it doesn't have trading records, it does regularly demo the platform to government officials. There's plenty for them to be concerned about, even beyond decoupling. For example, the data is starting to paint a picture of wealth offshoring to places such as the British Virgin Islands.

Barboza says that the platform currently holds less than 10 per cent of the data collected by his team. Even so, it's clear that supply chains are "the string that you can pull on to expose the opacity of global corporations", as he puts it. No wonder the bulk of the nearly $3mn in data subscriptions to the Wire so far come from federal contractors and regulatory agencies, law firms, think-tanks and consultancies.

Every corporate leader or investor should take note. The people who make the rules that are shaping the post-neoliberal world, and those who help companies abide by them, are compiling increasingly detailed pictures of how companies operate across borders. It's one thing for politicians to push decoupling, or even pass laws that require it. It's another for everyone to have access to data that proves whether or not companies are abiding by the letter of the law. I suspect that this new transparency will expose opportunities and challenges that business leaders and politicians are only beginning to imagine.

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Tech companies must start sharing intelligence to avert global conflicts

TECHNOLOGY

Marietje Schaake

Whether they like it or not, technology companies can't avoid making consequential decisions about geopolitics, conflict and war. Not only do they operate close to the frontline — at times they effectively mark it. Yet, astonishingly, there is no official mechanism for sharing information on threats and attacks involving corporate infrastructure between the governments of EU mem-

replace destroyed internet infrastructure. On the same day, Musk tweeted back that the service was active, and more terminals were on the way. Such exchanges between tech and government leaders are rare, especially in public. Sure, we have seen Microsoft share threat assessments and reports of cyber attacks. And Facebook and Twitter have taken action to thwart disinformation campaigns ranging from taking down news outlet impersonators to the identification of botnets.

But how keen are these companies to share information less favourable to them about how their products are being used for geopolitical gain? Which attacks have they failed to mitigate? When did they request government help to avert disaster?

There are few recent policy efforts to

services and law enforcement, while others will only share information when asked directly, or when sanctions are looming in case of non-compliance. There is no level playing field.

Restricting the publishing of critical information can be legitimate, but EU countries and Nato members should demand a dialogue. It is high time we had a mechanism for exchanging information with technology companies,

> If a software group were to see an increase in attempts to hack infrastructure, it should come forward

whose products and services sit at vital

keep up to date with how hybrid conflict is evolving and allowing companies to access greater state support during crises such as conflict, war, or cyber attacks. Shared information should be considered confidential so companies should not fear that the information they share will be passed on to regulators. Such a dialogue would ensure all companies are brought around the table to share critical insights. This does not have to be a group exercise, and sessions might be requested by a tech company or by a government.

If a software company were to see an increase in attempts to hack civilian infrastructure, it should come forward. Similarly, when social media platforms have crucial insights into co-ordinated information manipulation attempts by state actors, they should make it known.

technology platforms to engage on the topics of disinformation, hate speech and terrorist content.

In the UK, the communications regulator has been given greater authority under the Online Safety Bill to deal with child sexual abuse material. However, no comparable agreements exist between democratic governments and technology companies around conflict.

Governments should be able to defend their sovereignty, and act in line with the UN Charter. The reality is that for that to succeed, they now rely on technology companies. Subversion, manipulation and disruption by state hackers or government-backed groups beneath the formal threshold of conflict all involve relatively new technologies.

When you consider the question: "when did the Russian war of aggression

Lead mining pollution in Zambia is an ESG test case

Peter Hain

Early next year a landmark case will be heard in the South African High Court that will determine if a class action by a community in Zambia should be allowed to proceed after Anglo American, one of the world's largest mining companies, left Kabwe to become "the world's most toxic town".

The case, filed by Johannesburg and London law firms, Mbuyisa Moleele and Leigh Day, alleges that Anglo American was negligent in allowing uncontrolled lead contamination, and not ensuring that lead in the environment was cleaned up even after research showing widespread serious lead poisoning and the deaths of local children.

The responsibilities of businesses, as well as states, to respect human rights is recognised under international law. Failing to meet expectations to protect people and the environment means that companies increasingly face huge reputational and financial risks.

It seems to me and other Action for Southern Africa campaigners that the management of the Kabwe lead mine, in which the Anglo American Group held a minority shareholding for 50 years until the facility was nationalised by the Zambian government in 1974, has resulted in a public health and environmental catastrophe, still affecting generations of children and women after almost a century of metal mining and smelting.

Lead levels in Kabwe's soil are many times higher in some areas than the US Environmental Protection Agency's limit. The incidence of childhood lead poisoning there is among the highest in the world, especially in those under the age of three. The World Health Organization and the US Centers for Disease Control advise that there is no safe level of lead and even very low levels of blood lead cause IQ deficits and behavioural problems. They recommend public health interventions and blood lead screening of individuals with levels that are less than a tenth of those observed in young children in parts of Kabwe.

> Alarm bells will surely ring for investors who fear the harm the case is doing to the company's reputation

This coming January, the South African High Court will decide whether a class action, brought on behalf of approximately 140,000 Kabwe residents against Anglo American South Africa, may proceed. The case is set to be one of the largest human rights class actions in history, with compensation that could exceed previous awards.

However, Anglo American denies liability, placing the blame on other companies and the Zambian government. Anglo disputes that the Kabwe community should be allowed to pursue a class action. It unsuccessfully opposed the intervention of a group of UN Special Rapporteurs and UN Working Groups who point out that Anglo's stance is at complete variance with the UN's guiding principles on business and human rights, which Anglo publicly endorses via its own group human rights policy.

Alarm bells will surely ring for investors worried about the damage the Kabwe case is doing to the company's reputation, given the increasing importance of environmental, social and governance business policies.

ESG is now considered the biggest risk for disruption by mining executives, according to KPMG's Global Mining Outlook 2022. This is the first time in the report's 12-year history that a drop in commodity prices is not the leading concern. Many of them, including fund managers like Fidelity, BlackRock and Vanguard, are also signatories to the Principles for Responsible Investment endorsed by the UN, which works to use responsible investment to enhance returns and better manage risks.

The Kabwe case is a particularly egregious example of alleged corporate human rights abuse. If successful, the law will set a precedent for companies to be held liable to compensate for historical harms. The case is also a test of inter-

Rutherford Hall
'Losing your life savings on crypto is a Brexit opportunity'
WORK & CAREERS

If you thought business jargon was bad . . .

Pilita Clark
Business Life

Kenneth Andersson

Like every other journalist I know, I spent part of last week mucking around with ChatGPT, a new artificial intelligence chatbot that can write jokes, poems, student essays and, yes, newspaper columns.

When I asked it to "write a hilarious column", it came back with:

"As I sit here, typing away on my laptop, I can't help but feel like the world's biggest idiot. And no, it's not just because I spent half an hour trying to figure out how to get my cat off the keyboard (spoiler alert: I failed miserably)." There followed 344 more words that could easily have been written by a human. Not a very scintillating human, but still.

There was the occasional cliché, and I feel the chatbot's definition of "hilarious" was stretched. Impressively though, it repeatedly managed to avoid one defect that continues to plague the human: jargon.

In fact, it took a dim view of some of the worst kind — business jargon — declaring that babble about synergies and KPIs can be "confusing or exclusionary". "In general," it said primly, "it's best to use clear and straightforward language that can be easily understood by anyone who is listening or reading." Quite.

I was still thinking about this a day later when I came across a new study from University of Minnesota researchers on a type of jargon I have not thought about much before but should have: the medical variety.

It's fun to laugh about people who talk of blue-sky thinking in the low-hanging fruit space going forward. It's clearly worse to tell a patient something about their health that they fail to fully grasp.

Doctors have known this for years but, like their jargon-spouting corporate counterparts, they keep at it regardless.

Alas, this means that some still use phrases that ordinary people think mean the opposite of what is intended, especially when it comes to "positive" and "negative" test results.

Although 96 per cent of people understood that a negative cancer test result was good news, only 67 per cent knew the phrase "your nodes are positive" meant the cancer had spread, the Minnesotan researchers found.

> "When doctors say 'occult infection' they mean a hidden infection, but more people thought it was to do with a curse"

Acronyms also confuse. Some doctors still use phrases such as NPO, from the Latin *nil per os*, or nothing by mouth, when they want to say a patient should not eat or drink anything for a stretch of time.

The study shows how risky this can be. When participants were shown the term: "You will need to be NPO at 8am", only 11 per cent understood what was meant. But 75 per cent knew exactly what to do if told: "You are to have nothing by mouth after 4pm."

Words with a different meaning in medicine also spell trouble. When doctors talk of an "occult infection" they mean a hidden infection. In the Minnesota study, more people thought it had something to do with a curse.

The researchers think their study is the largest of its kind and the first to compare how well people grasp jargon versus non-jargon phrases.

But it is by no means the first to expose the problem. Other papers from the US and Europe have shown that medical jargon has been confusing cancer patients, diabetes sufferers and the parents of ill children or premature babies for years.

The good news is that patient understanding may be starting to improve.

Back in 2001, a UK study showed that only 52 per cent of people understood the phrase "the tumour was progressing" was bad news, which is unsurprising, given that progress generally means something good is happening. But 79 per cent of participants in the Minnesota study knew this phrase meant the opposite.

It is not entirely clear why understanding might be rising but the pandemic may have helped. Years of waiting to see if a Covid test is positive or negative might explain why there is now almost universal understanding that a negative cancer test is good news.

Either way, it is better to stick with something anyone can instantly understand, like "the test shows no cancer". That way, as the AI chatbot says, there's a better chance that doctors will be understood by their patients, their patients' families — and each other.

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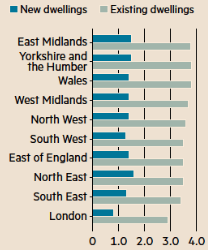
Lex.

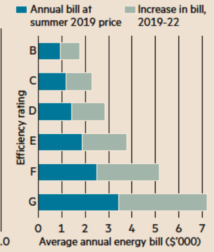
Carbon counter: lagging indicators

Existing dwellings have far higher CO_2 emissions
Median estimated tonnes of CO_2 emissions up to Mar 2022



Source: ONS

Costs will rise more in buildings with a lower energy performance
UK household bills at summer 2019 and Oct 2022 prices



Source: IEA FT graphic

Northern Europe's domestic energy vigilantes can justifiably say: "this is our moment". Energy prices are steep and temperatures are chilly. Reducing power demand saves money and weakens Russia's leverage on the west. Turning off a radiator in an empty room is just the start. Home insulation takes the battle to a higher level — the loft.

The UK is a good test case. Many of its 28mn dwellings are old and draughty. They account for 25 per cent of total energy use and 15 per cent of emissions. The burden needs to come down sharply by 2030 to be aligned with the pathway to net zero.

Big national numbers are a bore. Break them down to household level and they start to mean something. A good starting point is the average UK home, consuming 12.2MWh of natural gas a year and 2.9MWh of power, for a total pre-crisis energy bill of £1,200. In 2023, that is set to triple to £3,600, roughly evenly split between gas and electricity.

A £700 investment in loft insulation might lop 25 per cent off gas demand, or around 3MWh — a £430 saving at 2023 costs.

What of the longer term? Suppose energy prices return to pre-crisis levels by 2026, and savings settle at £110 per year. Lex calculates that the "present value" of those savings — applying a 7 per cent discount rate — would be about £1,700. That makes it well worth investing £700.

The internal rate of return would be more than 30 per cent — compared with the 14 per cent this investment would have returned at 2021 prices. No infrastructure investor would turn their nose up at that. Neither should the inhabitants of 33 Omdurman Gardens.

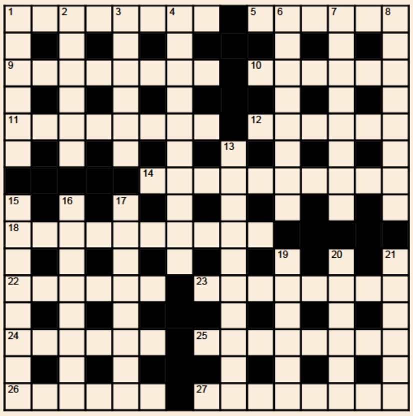
Reducing gas demand by 3MWh would cut a household's emissions by 0.7 tonnes of CO2 a year — or some 20 metric tonnes at a national level. That is something like 6 per cent of emissions that have a negative abatement cost, meaning you make money by reducing them.

FT readers often have nice houses or, at any rate, old ones. These tend to leak heat faster than new-builds. Readers also have a higher-than-average appreciation of the significance of IRRs. The heat is on — quite literally — to deal with that neglected side loft or coach house that is splurging energy into the winter sky.

Carbon counter is a series of occasional Lex articles that quantifies cost and carbon savings from different lifestyle choices

CROSSWORD

No 17,275 Set by PETO



ACROSS

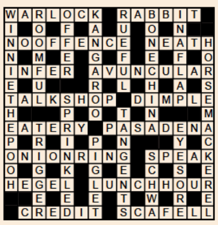
1 Madden left-leaning party before the last pamphlet (8)
5 Seat of the Oracle displayed in Philadelphia (6)
9 Incessant pious platitudes about working on street (8)
10 Managed to get out of continuity when produced quickly (3,3)
11 That's stopping wobbly ladder becoming more likely to cause death (8)
12 More appealing to skirt the west end of Thasos by boat (6)
14 Dabbler in art of French island race taken in by Italian poet (10)
18 Offered for discussion in letter received by surprised noble (2,3,5)
22 Speak hesitantly of bird mostly seen on river (6)
23 Girl coming from working people around the Newcastle area (8)
24 Hospital embracing amateur medicine man (6)
25 Old shopkeeper and city worker joining the French Resistance (8)
26 A dog for me (6)
27 Retain perverse cook (8)

DOWN

1 Poem dismissing old rebel of the 60s perhaps (6)
2 Unhappy implicating cool British sailor of fiction (6)
3 Foolish talk powerless to disconcert (6)
4 Study by Galen vigorously maintaining it's present at birth (10)
6 Withdraw clergyman right away after first showings of extremist violent attacks (8)
7 Secretly planning, last of all, to share pocket money with a hint of gratitude (8)
8 Henry oddly neglected to go with popular type of grass (8)
13 Be 50/50 over Welsh number becoming a standard setter (10)
15 Embarrasses female after trick ends (8)
16 Loyal supporter of Soviet leader not concerned with western guile (8)
17 Representative of English stage involved in romantic engagement (8)
19 Crucial index oddly dismissed by Scotland's top economist (6)
20 More acceptable in prison (6)
21 Drew regularly on Native American law (6)

JOTTER PAD

Solution 17,273



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