FINANCIAL TIMES

MONDAY 19 SEPTEMBER 2022 — INTERNATIONAL NEWSPAPER OF THE YEAR — ASIA

Britain prepares for funeral of Queen Elizabeth II

- World leaders gather in London to pay respects — REPORT, PAGE 2
- No one person can emulate her levels of soft power — FT VIEW, PAGE 16
- In this queue, it's the journey that matters — JOE MORAN, PAGE 17

Charlie Bibby/FT

Tech IPOs suffer longest drought for 20 years

- Recession fears knock valuations
- Nasdaq down 28% this year against 19% fall in S&P 500
- Sector reels from sell-off

NICHOLAS MEGAW — NEW YORK

The stock market downturn since the start of the year has caused the longest drought in US technology listings this century, with experts cautious about the pace of a revival even after tentative signs of life in other sectors.

Wednesday will mark 238 days without a tech IPO worth more than $50mn, surpassing the previous records set in the aftermath of the 2008 financial crisis and the early 2000s dotcom crash, according to research by Morgan Stanley's technology equity capital markets team.

The US stock market has been rocked this year by the Federal Reserve's battle to bring down inflation through aggressive interest rate rises. Higher rates hit stock valuations by reducing the value of future earnings, and have sparked fears that the economy will be pushed into recession.

High-growth tech stocks dominated last year's record-breaking IPO market and enjoyed some of the largest gains during the stock market boom, but they have also been disproportionately hit by this year's sell-off.

The tech-dominated Nasdaq Composite has fallen nearly 28 per cent this year compared with a drop of just over 19 per cent in the S&P 500, while the Renaissance IPO index, which tracks US companies that listed in the past two years, is down more than 45 per cent.

"There's a tremendous amount of uncertainty in the market right now, and uncertainty is the enemy of the IPO market," said Matt Walsh, head of tech equity capital markets at SVB Securities. "I think we'll need to see some stabilisation in the outlook and investors stepping back in to buy existing public securities before they're willing to move further out on the risk curve and buy tech IPOs."

Life insurer Corebridge last week completed the first $1bn US IPO since January, and the cautious early reception highlighted investor wariness even for more well-established and profitable businesses. Even after the Corebridge deal, overall US IPO volumes are down 94 per cent year on year, with just $7bn raised so far in 2022 compared with $110bn in the same period last year, according to Dealogic data.

Corebridge was being closely watched as a sign of appetite for more deals. But Nicole Brookshire, a partner at law firm Davis Polk who specialises in tech listings, said other factors such as weak earnings reports could have "more of an outsized impact" on the prospects for new tech issuers. "Guidance has worsened with some companies and sectors [and] many companies are feeling the effects of macro headwinds," she said.

IT groups in the S&P 500 just about met earnings estimates in the second quarter, according to FactSet, but forecasts for the third quarter have been repeatedly revised lower, with earnings expected to fall 4 per cent year on year.

A more positive factor extending the drought, SVB's Walsh added, is that tech companies raised so much private capital before the dip "there isn't the same sense of urgency". He said he expected "a small group" of companies would still try to list this year, but said most had already pushed plans back to 2023.

Anger over LME decision to remain open during funeral

Outrage sparked ▸ PAGE 5

UBS hires team of 'content reviewers' to vet its research reports on China

TABBY KINDER — HONG KONG

UBS is hiring a team of "content reviewers" to ensure that Chinese research publications by its analysts are free from "sensitivities", in a move that one rival said amounted to self-censorship.

The recruitment drive comes three years after the Swiss bank's top economist was suspended in a dispute over comments about pigs in China.

A job advert posted by the UBS global wealth management division in July said that the "reviewers" would ensure that the "language, tone and content" of all its reports published in Chinese is "appropriate and adheres to regulatory and internal guidelines".

"You will ensure that all our Chinese language publications are . . . free of any sensitivities," the advert read.

A person close to the hiring process said that UBS had since hired one reviewer in Hong Kong and was recruiting more people in Singapore. They sit alongside its research editing team.

An executive at a rival global bank said that the UBS hiring plans amounted to "self-censorship", adding that their bank allowed only "exact translations" when it published research in Chinese and English. However, a person close to UBS denied it was censoring its research and said that it was "not a new concept" and other banks hired the same kind of editors "under a different name".

UBS declined to comment.

In 2019, UBS was at the centre of an outcry in China after its global chief economist of wealth management, Paul Donovan, made comments about pigs in China during a swine fever outbreak that were perceived as a racist slur.

Hong Kong-based Chinese brokerage Haitong International Securities cancelled all work with UBS, and the Securities Association of China, a self-regulatory body, told members not to quote Donovan's research or invite him to events.

He was suspended by UBS and reinstated four months later, after issuing an apology in which he said that he had "unwittingly used hugely culturally insensitive language".

The incident highlighted the high stakes for global financial institutions looking to expand their presence in China as the world's second-largest economy began to open up its financial sector to foreign competition.

International banks have had to negotiate a sensitive geopolitical landscape as they try to expand their influence in China, and risk alienating politicians and clients on both sides.

World Markets

STOCK MARKETS

	Sep 16	Prev	%chg
S&P 500	3858.19	3901.35	-1.11
Nasdaq Composite	11393.55	11552.36	-1.37
Dow Jones Ind	30694.34	30961.82	-0.86
FTSEurofirst 300	1612.80	1638.89	-1.59
Euro Stoxx 50	3493.01	3541.79	-1.38
FTSE 100	7236.68	7282.07	-0.62
FTSE All-Share	3976.66	4000.33	-0.59
CAC 40	6077.30	6157.84	-1.31
Xetra Dax	12741.26	12956.66	-1.66

CURRENCIES

	Sep 16	Sep 9		Sep 16	Sep 9
$/€	1.003	1.004	£/$	0.875	0.863
$/£	1.143	1.158	€/£	1.140	1.153
£/€	0.877	0.867	¥/€	143.376	143.055
¥/$	142.940	142.450	£ index	77.012	77.055
¥/£	163.424	164.985	SFr/£	1.100	1.114
SFr/€	0.965	0.966			
€/$	0.997	0.996			

GOVERNMENT BONDS

	Sep 16	Sep 9	Chg
US 2 yr	3.87	3.88	-0.01
US 10 yr	3.46	3.46	-0.01
US 30 yr	3.53	3.49	0.04
UK 2 yr	3.19	3.16	0.03
UK 10 yr	3.13	3.16	-0.03
UK 30 yr	3.45	3.48	-0.03
JPN 2 yr	-0.08	-0.08	0.00
JPN 10 yr	0.25	0.25	0.00

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

Subscribe In print and online

www.ft.com/AsiaSubs
Tel: (852) 5803 3388
Fax: (852) 2905 5590
email: subseasia@ft.com

No: 41,123 ★

Printed in London, Liverpool, Glasgow, Dublin, Frankfurt, Milan, Madrid, New York, Chicago, San Francisco, Tokyo, Hong Kong, Singapore, Seoul,

Dubai

Nikkei	27567.65	27875.91	-1.11
Hang Seng	18761.69	18930.38	-0.89
MSCI World $	2592.00	2617.84	-0.99
MSCI EM $	958.58	962.55	-0.41
MSCI ACWI $	603.30	608.93	-0.92
FT Wilshire 2500	5093.54	5149.97	-1.10
FT Wilshire 5000	39792.63	40231.29	-1.09

COMMODITIES	Sep 16	Sep 9	%Week
Oil WTI $	86.03	85.98	0.06
Oil Brent $	92.15	91.63	0.57
Gold $	1689.10	1709.35	-1.18

JPN 30 yr	1.28	1.25	0.03
GER 2 yr	1.52	1.52	-0.01
GER 10 yr	1.75	1.77	-0.01
GER 30 yr	1.76	1.76	0.00

Prices are latest for edition Data provided by Morningstar

A Nikkei Company

INTERNATIONAL

Britain

World leaders gather for Queen's funeral

Biden and Macron join royal figures for service in Westminster Abbey

JIM PICKARD AND SEBASTIAN PAYNE
LONDON

The UK government will host the largest gathering of foreign leaders and dignitaries in London for decades today as they descend on the UK capital for the state funeral of Queen Elizabeth II.

Those attending include US president Joe Biden and first lady Jill Biden, French president Emmanuel Macron and Indian president Droupadi Murmu.

Jacinda Ardern, prime minister of New Zealand, Australian premier Anthony Albanese, Brazil president Jair Bolsonaro, Italy president Sergio Mattarella and Frank-Walter Steinmeier, president of Germany, will also be there.

The service, which will conclude a week of national mourning, will take place at Westminster Abbey and be attended by about 2,000 people.

The presence of heads of state, representatives of overseas government, foreign royal families and governors-general will pose huge organisational and security questions. One senior cabinet minister said: "Whitehall has been planning the funeral for decades but it's the most complicated logistical occasion you could imagine."

As well as VIP dignitaries, attendees will include recipients of British military awards such as the Victoria Cross and George Cross, senior MPs and peers, bishops and representatives of charities supported by the late monarch.

Although there will be no formal bilateral meetings because of the national mourning period, UK prime minister Liz Truss is expected to hold several information meetings. She was expected to meet Biden yesterday, but they will have their first formal bilateral meeting at the UN General Assembly in New York City later this week.

Only a handful of world leaders, including those from Russia, Belarus and Myanmar, were not invited

Royal figures in attendance will include Emperor Naruhito and Empress Masako of Japan, King Felipe VI and Queen Letizia of Spain, King Philippe and Queen Mathilde of Belgium and King Harald V and Queen Sonja of Norway.

Sheikh Mohammed bin Zayed al-Nahyan, president of the United Arab Emirates, will attend via phone call.

Only a handful of world leaders, including those from Russia, Belarus and Myanmar, were not invited, reflecting the war in Ukraine and a lack of full diplomatic relations with the UK.

Conservative MPs and peers expressed concerns that an invitation was extended to Xi Jinping, president of China, although it is likely that vice-president Wang Qishan will represent the country.

Beijing last year imposed sanctions on nine individuals, including five Tory MPs and four organisations in Britain, in retaliation for the UK's decision to impose sanctions on some Chinese officials.

Former Tory party leader Sir Iain Duncan Smith, one of the five sanctioned MPs, said it was "astonishing" that China had been invited given its "huge record of human rights abuses".

Other prominent attendees include Turkey president Recep Tayyip Erdoğan and Ursula von der Leyen, head of the European Commission.

Owing to Russia's war, Ukraine president Volodymyr Zelenskyy is not expected to be present but Ukraine first lady Olena Zelenska is due to attend.

See The FT View and Opinion

Budget spending

EU plans to pull €7.5bn from Hungary over rule of law violations

ALICE HANCOCK — BRUSSELS
MARTON DUNAI — BUDAPEST

Brussels has said it plans to withhold €7.5bn in funding from Hungary over rule of law violations involving corruption in the awarding of public contracts.

The European Commission yesterday recommended member states vote to suspend around a third of Hungary's cohesion funding, which is sent to less economically developed parts of the EU.

Budapest is due to receive €22bn in cohesion funds during the current round of EU budget spending, which lasts until 2027. It is also separately seeking an extra €7bn of grants and billions in loans under the EU's Covid-19 recovery fund, which the commission said could also be affected if Hungary did not address rule of law issues.

The decision to withhold the funds must be approved by a majority of EU member states, excluding Hungary, within a month. But the deadline could be extended, the commission said.

Johannes Hahn, EU budget commissioner, said yesterday that the measures were designed to address what Brussels saw as risks to the bloc's budgetary procedures resulting from Budapest's lack of transparency in awarding public contracts, shortcomings in Hungary's efforts to tackle corruption and weaknesses in prosecuting those who misused European funds.

"Our ultimate objective under this mechanism is that the budget is no longer at risk and we hope to achieve this as soon as possible through the adequate reforms in Hungary," Hahn said.

About 50 per cent of public procurement contracts awarded in Hungary have only one bidder, the commission said. Hahn noted that in August Hungary proposed 17 ways to fix the problems, including the establishment of an independent "integrity authority", which he welcomed "even if they were at a late stage".

But he said: "To consider these remedial measures to be adequate the commission needs to be able to conclude they will put an end to risks to the union budget and the EU's financial interests."

Tibor Navracsics, Hungary's European affairs minister and a key ally of prime minister Viktor Orbán, said yesterday that the 17 changes would be presented to parliament next week.

"The last thing the government wants is not to honour its commitments," he said. "We will honour our commitments so there will be no lost funds."

Budapest plans to create an anti-corruption task force, will broaden the scope and control of wealth declarations and expand ways to prosecute crimes involving public funds.

The suspension of funds proposed yesterday follows months of talks with Orbán's government over rule of law breaches first triggered by Brussels in April this year. The €7.5bn amounts to 65 per cent of money allocated under three cohesion funding streams.

Daniel Freund, negotiator for the European Parliament's Green group on budgetary matters, said that "what the EU commission is selling as a success is less impressive at closer inspection" given that Hungary would still receive the majority of its EU funds.

Oil. Import ban

Germany's energy ties with Russia lie in ruins

Seizure of Rosneft's assets marks end of a relationship dating back to the 1970s

GUY CHAZAN — BERLIN
DAVID SHEPPARD — LONDON

In May 2017, Rosneft chief executive Igor Sechin went to Berlin to outline a five-year plan to double the Russian oil company's investments in German refining to €600mn.

Cut to 2022 and Rosneft's assets have been taken over by the German government. Sechin's dream of downstream expansion into Europe's largest oil products market is in ruins, a victim of the escalating energy war between Russia and the west.

On Friday, the German government said it was seizing control of Rosneft's stakes in three German refineries — PCK in Schwedt, north-east of Berlin, MiRo in Karlsruhe and Bayernoil in the Bavarian town of Vohburg.

Olaf Scholz, chancellor, said the decision was "unavoidable", adding: "We have known for a long time that Russia isn't a reliable energy provider any more. That's why it's important to do everything we can now to safeguard Germany's energy supply."

Amrita Sen, an analyst at Energy Aspects, said: "Ultimately this is all about Germany rediscovering the need for energy security. Germany recognises its reliance on Russia has gone too far, and now, with the embargo coming in, there is little option left."

The trigger for the takeover was the looming EU ban on imports of Russian oil, which comes into force on January 1 and could put massive pressure on Germany's refining industry.

Berlin has had some success in finding alternatives to Russian crude, but the Schwedt plant presented a particular problem: not only does it sit right on top of a Russian pipeline, the 4,000km-long "Druzhba" or friendship line, but it is also 54 per cent owned by Rosneft, a company with little interest in refining non-Russian oil at the site.

The government, which is placing the Rosneft stakes under the trusteeship of the federal energy regulator, the Bundesnetzagentur, said Russian ownership of the three refineries jeopardised their business operations. "Key, critical service providers such as suppliers, insurance companies, banks, IT companies, but also customers, were no longer prepared to work with Rosneft," the economy ministry said.

Conflict: the PCK refinery in Schwedt is one of three where Rosneft's stakes were seized and put under the trusteeship of Germany's energy regulator
Krisztian Bocsi/Bloomberg

It is all a far cry from Sechin's press conference in 2017, which marked the opening of Rosneft Deutschland's new Berlin office. It was a time when German-Russian relations were on an even keel and the Kremlin was still seen by many in Germany as a reliable partner.

The optimists were personified by Michael Harms, head of the Ost-Ausschuss, the principal lobby for German investors in Russia. Appearing next to Sechin, one of President Vladimir Putin's closest confidants, he said Rosneft's new Berlin representation was "proof of Russia's unwavering commitment to the European market".

German-Russian trade had, he added, "risen dramatically" in the first two months of 2017, and the expectation was that "it will grow by 10 per cent this year, if not more".

Sechin echoed his assessment. The volume of trade between Russia and Germany had risen fourfold between 2000 and 2013 to €56bn, with German imports from Russia tripling to €27bn and German exports to Russia rising sevenfold to €29bn. "And it's not just oil deliveries and oil refining, but also technological co-operation," he said.

Yet the warm words ran counter to the prevailing mood in many western capitals. Russia had annexed Crimea three years previously, a violation of international law that plunged east-west relations to their lowest since the cold war. Europe and the US responded with sanctions, some aimed at Rosneft.

Instead of being hurt by the west's punitive measures, the energy partnership between Russia and Germany intensified. Russia built a new pipeline under the Baltic Sea, Nord Stream 2, that would allow it to double the volume of gas exports to Europe, bypassing Ukraine. Germany backed the project despite warnings from the US and its allies that it would increase the continent's dependence on Russia.

The close energy relationship has its roots in a historic agreement between then West Germany and the Soviet Union in 1970, under which the Germans paid for Soviet natural gas with exports of steel pipes.

'We have known for a long time that Russia isn't a reliable energy provider any more'
Olaf Scholz

The deal was underpinned by *Ostpolitik*, the policy of engagement with the Soviet bloc by Chancellor Willy Brandt in the late 1960s and 70s. But according to Thomas O'Donnell, a Germany-based energy analyst, it was also driven by a German desire for "strategic balancing — it was a way for Germany to break free from its dependence on the US".

Many in the German establishment, he said, resented US dominance in energy matters.

For decades the system worked well, with "long-term fixed assets like refineries and pipelines acting as the cement for the relationship", said Henning Gloystein, an analyst at Eurasia Group.

"But when your biggest supplier turns hostile, things break badly and they break quickly," said Gloystein. "The energy system Germany relied on for 40 years effectively lies in ruins, and they can no longer afford to leave these strategic assets in Russian hands."

FINANCIAL TIMES
6th Floor, Nan Fung Tower
Central, Hong Kong

Japan: Nikkei Tokyo Newspaper Printing Center, Inc., 1-10-5, Shinonome, Koto-Ku, Tokyo 135-0062
Representative; Hiroko Hoshino; ISSN 0915-9460

Retail

Spanish supermarkets pushed to provide affordable staples

BARNEY JOPSON — MADRID

Supermarkets in Spain are in the line of fire over inflation as the country's deputy leader wages a campaign to press shops into cutting prices in an effort to help struggling families.

Yolanda Díaz, deputy prime minister, has intensified a political battle over living costs by pushing big supermarkets to offer an affordable "basket" of 20 to

demic lockdowns. "They have profit margins that permit them to reduce their profits a little and contribute to their country," she said.

Consumer price inflation stood at 10.5 per cent in Spain in August but prices of food and drink rose 13.8 per cent year-on-year, the biggest increase since the data series began in 1994, according to official figures. Milk inflation is running at 26 per cent

Díaz, who is also labour minister, is a junior partner in the government led by Socialist prime minister Pedro Sánchez, but has already signalled a potential challenge to him in elections next year.

Sánchez said there was a need for shared responsibility in business. "We have to have a balanced analysis between what the production chain represents and, logically, retail," he said.

Ignacio García Magarzo, head of Ase-

ysis of profit margins in the food supply chain was not scientific. He called on the government to cut sales tax temporarily to tame inflation, and noted that Germany reduced its sales tax in 2020.

The only supermarket to go some way towards complying with Díaz has been the Spanish branch of Carrefour, which said it would offer a basket of 30 "essential" products for €30 until January — replicating something it has been

Subscriptions and Customer Service
Tel: (852) 5803 3388, subseasia@ft.com

Advertising
Tel: (852) 2868 2863 asiaads@ft.com, www.ftasia.net

Letters to the editor
letters.editor@ft.com

Published by
The Financial Times (HK) Limited,
6th Floor, Nan Fung Tower, 88 Connaught Road Central, Hong Kong
Asia Editor: Robin Harding

Printed by
Australia: Spotpress Pty Ltd, 24-26 Lillian Fowler Place, Marrickville, NSW 2204
Hong Kong: Kin Ming Printing Co Ltd, 15/F BLK A, 18 Ka Yip Street, Ming Pao Industrial Centre, Chai Wan; Representative; Angela Mackay;
ISSN 1025-918X
South Korea: Maeil Business Newspaper, 30-1, 1-Ga, Pil-Dong, Jung-Ku, Seoul, 100-728
Singapore: SPH Media Limited, 2 Jurong Port Road, 619088
Representative, Anjali Mahindroo

to offer an affordable "basket" of 20 to 30 staples.

Food and energy inflation sparked by the war in Ukraine is stretching family budgets across Europe. Spain is hit hard because its relatively low average salaries mean people spend a higher proportion of their income on basics.

Díaz said: "Families are telling me they're only giving their kids pastas and rice. They can't access fish or meat. The fruit is very expensive. For a family that has two or three kids, it's extremely complicated. That's the urgent issue this country has."

She said retailers had a duty to cut prices to help consumers, not least because the government had used public funds to support them and other businesses during coronavirus pandemic ... tion is running at 28 per cent.

Díaz, a member of the Communist party, stressed that she was not proposing legislation or state-mandated price controls, but was instead pushing for an "agreement" between business and government to ensure the prices of good-quality basics are accessible.

However, the supermarket sector says her efforts are unhelpful even as Díaz invites its representatives to meetings this week.

The competition regulator, meanwhile, warned that fixing maximum prices between companies is prohibited by national and EU law.

In addition to being criticised by the opposition People's party, Díaz has been upbraided by members of her own coalition government.

Ignacio García Magarzo, head of Asedas, a group representing supermarkets and distributors, acknowledged the "grave" cost challenge but said Díaz's proposal was "not useful" and her anal-

Purchasing power: Spain has been hit because of relatively low salaries

replicating something it has been doing in France since June.

The products include Carrefour-branded canned food, pasta, cooking oil and coffee along with a selection of drugstore items and cleaning materials.

But Díaz said: "The basket has to contain products that are fresh — meat, fish, fruit, vegetables and dairy products."

Farmers across the continent are under immense pressure because of the surging cost of energy and fertiliser.

Alberto Núñez Feijóo, leader of the People's party, said: "We have seen once again the frivolity with which people's important issues are treated . . . Not taking into account that producers can no longer manage seems to me to be the opposite of any reasonable proposal from the government."

INTERNATIONAL

Markets expect more drastic tightening in final quarter

Mood swing comes before crucial policy meetings at central banks

VALENTINA ROMEI — LONDON

Investors are pricing in a sharper surge in interest rates over the coming months after the world's big central banks strengthened their resolve to tackle soaring prices, signalling they would prioritise inflation over growth.

A Financial Times analysis of interest rate derivatives, tracking expectations for borrowing costs in the US, UK and eurozone, showed markets expect a more drastic pace of tightening during the final quarter of 2022 than they did earlier this year.

The shift in mood comes ahead of crucial policy meetings by the US Federal Reserve, the Bank of England, the central banks of Norway and Sweden, and the Swiss National Bank this week. It follows a poor August inflation reading in the US and warnings from monetary policymakers on both sides of the Atlantic that they were becoming increasingly concerned that, without substantial rate rises, high inflation would prove hard to shift.

'That sucking sound is the sound of policymakers pulling rate hikes expected in 2023 into 2022'

"Central banks are coming to terms with how hard it will be to bring inflation back to target and they are trying to convey that message to the markets," said Ethan Harris, an economist at Bank of America.

Growing expectations that central banks will raise rates even if their economies fall into recession have prompted concern from the World Bank. The organisation warned this week that policymakers risked sending the global economy into recession next year.

"Central banks will sacrifice their economies to recession to ensure inflation quickly returns to their targets," said Mark Zandi, chief economist of Moody's Analytics. "They understand that if they don't, and inflation becomes more entrenched, this will ultimately result in a more severe downturn."

Since June, the world's 20 main central banks have together raised interest rates by 860 basis points, according to FT research.

As of Friday, markets were pricing in a 25 per cent chance that the Fed would raise rates by 100bp on Wednesday and expected the federal funds target to be above 4 per cent by the turn of the year — about one full percentage point higher than in early August.

Markets expect the European Central Bank's deposit rate to hit 2 per cent by the end of the year, up from 0.75 per cent now. The latest bet is more than 1 percentage point higher than what investors forecast in early August. Year-end interest rate expectations are also higher for the BoE, with economists largely split between a 50bp and 75bp rise at Thursday's vote.

Switzerland's central bank is expected to raise its policy rate by 75bp or 100bp next Thursday, ending a seven-year experiment with negative interest rates.

Paul Hollingsworth, chief European economist at BNP Paribas, said central banks were "front-loading their tightening cycles" despite signs growth was weakening.

A big shift in market expectations came after policymakers, such as Jay Powell, Fed chair, and Isabel Schnabel, ECB executive board member, delivered hawkish messages at the Kansas City Fed's annual Jackson Hole conference in August.

"That sucking sound you hear is the sound of policymakers pulling rate hikes previously expected to take place in 2023 into 2022," said Krishna Guha, vice-chair at the investment banking advisory firm Evercore ISI, following the meeting. "We are ending up globally with something that — looking across 2022 as a whole — will resemble more of a scrambled level shift than a conventional tightening cycle."

Since Jackson Hole, US inflation has proved to be stickier than expected, coming in at an annual rate of 8.3 per cent in August. In the eurozone, price pressures are expected to hit double digits in the coming months. The UK government's £150bn energy support package will lower inflation in the short term but boost price pressures in the medium term by bolstering demand.

Central bankers such as Schnabel have signalled that with inflation set to remain close to record highs for the foreseeable future, they are no longer prepared to put their faith in economic models that show price pressures declining over the next couple of years.

While most of the inflation in Europe remains the result of the surge in energy prices triggered by the war in Ukraine, there have been increasing signs in both the single currency area and the UK that price pressures have become more widespread and more entrenched.

"Ordinarily, central banks would look through gains in these volatile prices as temporary," said Jennifer McKeown, head of global economics at Capital Economics. "But in an environment where core inflation is already high and inflation expectations and wage negotiations seem to be following energy prices higher, monetary policymakers just can't take that risk."

Additional reporting by Martin Arnold in Frankfurt

'Central banks are coming to terms with how hard it will be to bring inflation back to target'

Going up: price pressures in the eurozone are likely to reach double digits
Richard B Levine/SIPA/Reuters

FT survey

Economists predict Fed will raise and hold rate above 4%

COLBY SMITH — WASHINGTON
CAITLIN GILBERT — NEW YORK

rates," said Eric Swanson, a professor at the University of California, Irvine, who

The US central bank will lift its benchmark policy rate above 4 per cent and hold it there beyond 2023 in its bid to stamp out high inflation, according to the majority of leading academic economists polled by the Financial Times.

The latest survey, conducted in partnership with the Initiative on Global Markets at the University of Chicago's Booth School of Business, suggests the Federal Reserve is a long way from ending its campaign to tighten monetary policy.

The Federal Open Market Committee has already raised interest rates this year at the fastest pace since 1981 and is expected to implement a third consecutive 0.75 percentage point rate rise on Wednesday. That move would hoist the target range, which was hovering near zero as recently as March, to between 3 per cent and 3.25 per cent.

Nearly 70 per cent of the 44 economists surveyed between September 13 and 15 believe the fed funds rate will peak in this cycle at between 4 per cent and 5 per cent, with 20 per cent of the view that it will need to pass that level.

"The FOMC has still not come to terms with how high they need to raise

the University of California, Irvine, who foresees the fed funds rate eventually topping out between 5 and 6 per cent. "If the Fed wants to slow the economy now, they need to raise the funds rate above [core] inflation."

While the Fed typically targets a 2 per cent rate for the "core" personal consumption expenditures (PCE) price index, which strips out volatile items such as food and energy, it closely monitors the consumer price index as well. Inflation unexpectedly accelerated in August, with the core measure up 0.6 per cent for the month, or 6.3 per cent from the previous year.

Most of the respondents project core PCE will drop from its most recent July level of 4.6 per cent to 3.5 per cent by the end of 2023. But nearly a third expect it still to exceed 3 per cent 12 months later.

"I fear that we have gotten to a point where the Fed faces the risk of its credibility seriously eroding, and so it needs to start being very cognisant of that," said Jón Steinsson at the University of California, Berkeley.

More than a third of those surveyed caution the Fed will fail to adequately control inflation if it does not raise interest rates above 4 per cent this year.

INTERNATIONAL

Summit

West hails censure of Putin by Xi and Modi

Criticism of Ukraine war seen as blow for Russia's hopes of stronger ties

HENRY FOY — BRUSSELS
MAX SEDDON — MOSCOW
JOHN REED — NEW DELHI

Public admonishments of Russian president Vladimir Putin by China and India over his invasion of Ukraine signal a shift in global perceptions of the war, western officials have said, amid efforts by Europe and the US to erode the Kremlin's international support.

The chiding of Putin by Indian premier Narendra Modi and the Russian leader's acknowledgment of concerns raised by Chinese president Xi Jinping last week were signs of discomfort with Moscow, three western officials said.

The remarks, at a summit in Uzbekistan, came days after a Ukrainian attack forced Russia's army to surrender more than 3,000 sq km of territory. The comments were "a genuine and clear signal" of annoyance, one European official said, adding that India and China could adjust their actions towards Russia and the west.

A senior European minister said the comments were interpreted as "actual criticism", adding: "From Modi especially. I don't think that he likes this. It was way better to be in a position of ambiguity where you can be friendly with both sides. And benefit from being friends with both."

Modi told Putin that "today's era is not an era of war". The Russian leader responded: "We will do our best to stop this as soon as possible", citing "concerns that you constantly express".

That came after Putin also acknowledged Xi's "concerns" over the war in public remarks at the event. The exchanges at the Shanghai Cooperation Organisation gathering in Samarkand mark the most public recognition of disquiet over the war in Ukraine by the two largest economies not to impose sanctions on Moscow.

The comments underscored how Putin "is only further isolating himself from the international community", John Kirby, US National Security Council spokesman, said on Friday. "Even countries who were not vociferous and strident in opposing him are beginning to question what he's doing in Ukraine."

China and India's apparent disquiet is a potential obstacle to Putin's goal of deepening ties with non-western countries. A week before the meeting in Samarkand, Putin made a speech in Vladivostok in which he said countries such as China were able to make up for Russia's lost trade with Europe.

Though China has taken advantage of a discount to increase its purchases of Russian commodities, the risk of secondary US sanctions means its companies have been wary to fill the hole the sanctions have left in Russia's defence and technology sectors. "They expected more from China," another western diplomat in Moscow said. "Chinese companies have either been told not to be active or they need high-level permission to do it."

The Kremlin said Russia's relationship with China remained strong.

Analysts pointed out that while the rhetoric might have been clear, neither Xi nor Modi referenced Ukraine directly or voiced support for Kyiv. Both have increased purchases of Russian energy and continued trading with Moscow.

Additional reporting by Leila Abboud in Paris and Felicia Schwartz in Washington

Electric vehicles

Loss of car subsidies heightens S Korea-US trade tension

CHRISTIAN DAVIES AND SONG JUNG-A
SEOUL

The Biden administration's abrupt withdrawal of subsidies for South Korean electric vehicles is threatening to undermine trust in the US, Seoul's trade minister has warned, as trade tensions grow between the allies.

Seoul is furious that EVs manufactured by Hyundai in South Korea will be excluded from generous consumer tax credits contained in the Inflation Reduction Act, a US climate, tax and spending law.

The furore illustrates the impact on US allies of Washington's efforts to boost domestic manufacturing in high-technology sectors including EVs and semiconductors as competition intensifies with China.

In an interview with the Financial Times, Ahn Duk-geun recalled Joe Biden's visit to South Korea in May, when the US president and Hyundai chair Chung Eui-sun announced a $5.5bn investment to build the company's first dedicated EV plant and battery manufacturing facility in the US.

"President Biden himself said 'thank you very much, chairman Chung, I will not let you down' — that was the exact statement, and it was widely broadcast in Korea," said Ahn, a professor of international trade law who assumed office shortly before Biden's visit.

"Then when this new law was enacted and signed by President Biden, and [it became clear that] that company was being discriminated against, this situation provoked emotional and political repercussions."

The Inflation Reduction Act, signed into law by Biden last month, lays out tax credits of up to $7,500 for EVs assembled in the US, Canada, and Mexico. But Hyundai's Georgia plant is not scheduled to begin production until 2025, making it ineligible for the subsidies until then.

"That caused big trouble for Hyundai Motor Company, which decided to make a huge investment based on the current arrangement," said Ahn, who suggested that "not many [US] con-

Midterms. Stuttering campaign

Republicans pull migrant stunt to fire up base

Party leaders battle to regain momentum lost after Trump probe and abortion ruling

KIRAN STACEY — WASHINGTON

When Florida's Republican governor Ron DeSantis sent 50 migrants to Martha's Vineyard, the affluent Massachusetts island favoured by progressives as a holiday destination, it was an attempt to draw attention to an issue in which the Democratic party polls badly.

DeSantis's move last week came days after Greg Abbott, the Republican governor of Texas, sent two buses of migrants to vice-president Kamala Harris's home in Washington, DC.

Pollsters said the headline-generating stunts would fire up the Republican base but added that they suggested a sense of desperation in a party hunting for ways to reignite a stuttering campaign ahead of the midterm elections.

With soaring inflation eating into incomes and President Joe Biden's approval ratings in negative territory, the elections in November should be the Republican party's to lose.

At the start of the summer, Republicans looked set to take control of both houses. But momentum shifted after the Supreme Court overturned national abortion protections and former president Donald Trump was revealed to be under investigation for allegedly mishandling classified information.

Now the Democrats are favoured to win the Senate, while what was expected to be a "red wave" victory in the House is set to be a more closely fought contest, even if Republicans end up with a majority.

"Both sides are playing a game of base politics, which makes sense in a midterm election when not as many independents turn out to vote," said Larry Sabato, director of the University of Virginia Center for Politics. "Immigration energises the Republicans like no other issue. But they need it — all the polls are telling us that the energy right now is with the Democrats."

Last week offered a chance for the Republicans to win the news cycle after an unexpected increase in inflation caught the White House by surprise. On Tuesday, the US Bureau of Labor Statistics published figures showing that consumer prices had risen in August, sparking a stock market sell-off and fresh

Political pawns: immigrants gather with their belongings outside a church in Martha's Vineyard after being sent there by Florida's Republican governor, Ron DeSantis
Ray Ewing/Vineyard Gazette

headlines about soaring inflation. Biden and his advisers had hoped that the figure would show a small decline in consumer prices. They even scheduled a White House "celebration" of his Inflation Reduction Act, a package of health and climate measures with a somewhat disingenuous title given that it will do little to tackle current price pressures.

Senior party officials were worried that the event would show the administration to be out of touch. "The timing of the party was less than ideal — I'm not sure why the White House chose that as a day to do it," said one who attended.

But by Tuesday evening, inflation had been knocked off the top of the news agenda by Republican senator Lindsey Graham, who refocused voters' attention on abortion after publishing proposals to ban the procedure across the country after 15 weeks of pregnancy.

The announcement distracted from the inflation figures and also undermined the Republicans' argument on abortion, which is that it is a matter for individual states. Mitch McConnell, the Republican leader in the Senate, refused to back Graham, saying he would "leave it up to our candidates . . . to determine for them what their response is".

Juleanna Glover, a former Republican official turned lobbyist, said: "Graham's announcement struck me as a desperate bid for relevancy. I don't think there was any greater good for the party from this, or for women."

The tensions triggered by Graham's proposals highlighted a broader split in the party, with the likes of McConnell wanting to focus on the economy while other Republicans — many playing to the Make America Great Again wing of the party — zero in on social issues.

"The problem for Republicans is that their party is genuinely divided, and they are not going to be able to change that before the election," said Simon Rosenberg, a Democratic strategist.

DeSantis's move to push migration to the front of the agenda helped reunite the party, at least temporarily. And it might still draw voters' attention. A poll by Siena College and The New York Times showed that 51 per cent of registered voters agreed with the Republicans on illegal immigration against 37 per cent who agreed with the Democrats.

'All the polls are telling us that the energy right now is with the Democrats'

But pollsters warn that the Republicans will need to do more to regain the momentum. The Siena poll showed the parties tied in terms of which one voters lean towards, with a 9-point improvement in Biden's rating.

The economic and political conditions should still favour the Republicans, say many experts. But the party needs to work out how to take advantage of them.

"This is a unique time in American politics," said Don Levy, director of the Siena College Research Institute. "You have the majority of voters . . . saying the country is on the wrong track. But on the other hand you have a Republican party whose de facto leader is thought by the majority of people to have committed a serious crime."

gressmen and senators were fully aware of all the details of the IRA".

Ahn stressed that US officials had acknowledged Hyundai's predicament and were working with Korean counterparts to try to "minimise the damage".

"We don't want to aggravate the problem by adopting similar retaliatory measures," said Ahn, who reiterated South Korea's openness to taking action at the World Trade Organization.

"But you never know, if the situation gets really serious, we are flexible too."

Education

Learning crisis looms for children in poorer countries hit hard by pandemic

ANDREW JACK — LONDON

Tamanna Khan has been struggling to catch up with her classes since her school in India reopened this spring, nearly two years after shutting during the coronavirus pandemic.

The 11-year-old's family was hit hard by the economic fallout from the disease. It wiped out her father's income as a tailor in Mumbai, and he and his wife were forced to leave their slum dwelling to return to their home village several hours away by car. They left their daughter with her aunt, where she struggled to continue her online studies with only a mobile phone to use.

"Studying online was difficult and boring, with poor connections. I had a lot of problems learning," said Tamanna, who has since returned to school. "It was hard to be without my parents."

The pandemic has left millions of children worldwide, who like Tamanna live in poverty, facing educational setbacks and emotional distress.

Now they have been confronted by fresh pressures as rising inflation and food insecurity threaten their families' livelihoods, funding for their schools and their own future.

Parents, teachers and policymakers are concerned about how to help youngsters facing multiple challenges. These issues will be discussed by governments at the UN's Transforming Education Summit in New York today, where calls for substantial fresh funding to tackle the crisis are expected.

"There is a huge learning gap because of the pandemic," said Divya Dhangar, who works on a Teach for India programme in 34 Mumbai schools including Tamanna's. "Kids got so used to staying at home, they didn't see the importance of studying."

Dhangar estimated that a third of her children fell behind normal attainment levels and some had since dropped out of education entirely.

An estimate by the World Bank suggests "learning poverty" — which it defines as children being unable to understand a simple written text by the age of 10 — has increased by a third in low- and middle-income countries since the start of the pandemic. It said 70 per cent of 10-year-olds in those nations were unable to comprehend simple text compared with 57 per cent in 2019.

Without a change by governments to find fresh and better targeted funding to tackle the growing inequalities that resulted from Covid-19, it projects the global loss in earnings throughout the lives of children educated during the pandemic would total $21tn.

Stefania Giannini, assistant director-general for education at Unesco, warned of a looming "education crisis" at a preparatory summit in June: "Unless we radically transform our priorities, there will be no way back," she said.

There is shared concern over the squeeze on government finance for schools in poorer countries, driven by the economic slowdown during the pandemic, rising debt and interest payments and the prospect of continued inflation. A World Bank survey of finance ministries suggests two-fifths of low- and lower-middle income countries have cut expenditure on education since 2020, by an average 13.5 per cent.

Studies struggle: pupils attend a primary school class in Hyderabad

That has placed fresh attention on the need to ensure more effective spending. Alongside support for emotional wellbeing, World Bank, Unesco, Unicef and donors engaged in the summit argue for a greater focus on "foundational learning", improving student outcomes notably by delivering solid literacy and numeracy skills in primary school as essential building blocks for progress.

But with scant sign of fresh funding or a consensus on policies, some are sceptical about the UN gathering. "Expectations are low," wrote the Centre for Global Development, a think-tank, last week. "Nobody's proposing any kind of binding international agreement on educational standards, and foreign aid donors show little sign of ponying up with big new financial commitments."

The think-tank argues that the summit's agenda is too wide-ranging, including factors such as education focused on climate change awareness. Yet its analysts themselves call for greater attention to still more policies, including preventing violence in schools and tackling the continuing dangers of lead poisoning to child development in lower income countries.

Since Russia's war against Ukraine prompted fresh concerns about food poverty, school-feeding programmes have become a particular focus. The aim is to tackle hunger at home, encourage families to keep their children in school and help them to develop healthily through improved nutrition.

"School feeding is a good investment. It needs to be universal," said Wawira Njiru, the head of Food4education, a Kenyan charity running programmes in 77 schools which has seen a surge in demand. "It's really shocking to see how rising food costs mean parents can't afford to feed their kids, and how it's affecting them."

Laura Savage, head of the International Education Funders Group, a group of philanthropists seeking to coordinate their support, said today's education summit must go beyond merely highlighting concerns about the crisis by crystallising practical measures to help the world's poorest children.

"I remain convinced that progress in education is not about understanding what works, but about how support is provided," she said.

New order It may be a difficult time to be a forex analyst, but it looks a brilliant moment to be a Japanese robot see LEO LEWIS

Companies & Markets

LME decision to stay open on Queen's funeral sparks outrage

- Hong Kong owner cites 'stability'
- Lloyd's of London and BoE to close

HARRY DEMPSEY

The London Metal Exchange has infuriated some members with its decision to remain open during Queen Elizabeth II's funeral, further inflaming tension between the market and its users.

Metal brokers and clients have reacted angrily to the 145-year-old exchange's ruling to open its electronic market but close its famous pit today. It means that many traders will work as usual instead of being able to pay their respects. Trading on the London Stock Exchange, in comparison, will be closed for the bank holiday.

The decision further stokes the tension between the exchange, owned by Hong Kong Exchanges and Clearing, and the two camps of its main users.

'[The decision is] appalling and would never have happened pre-HKEX'

Malcolm Freeman, Kingdom

On one side are longstanding members who trade on behalf of users wanting to buy the physical commodity, and, on the other, electronic traders who seek to profit from bets on the value and direction of the asset.

In March, the LME angered hedge funds and market makers when it cancelled a day of trades and halted trading in nickel for a week when the metal's price doubled.

A group of five investment firms launched new legal action against the LME on Friday, months after hedge funds Elliott Management and Jane Street sued the exchange.

Metal industry executives privately question whether the exchange would have taken the same course of action if the company at the centre of the short squeeze — Tsingshan — had not been Chinese.

Last year, the LME was forced to ditch a plan to close its Ring open-outcry pit and go all-electronic after complaints from users.

In a letter to members and warehouse companies, LME chief executive Matthew Chamberlain said that the international nature of its market and operational risks from the short notice meant the bank holiday had to be considered as a business day.

"The LME has carefully considered how best to balance the interests of the market, our operational stability and our desire to pay our respects during the UK public holiday," the LME said.

But Malcolm Freeman, chief executive of Kingdom Futures, a brokerage, wrote on LinkedIn that it was "appalling and would never have happened pre-HKEX".

Another participant was sympathetic to the LME's reasoning over the operational risks but said that it ultimately should have the electronic infrastructure in place to make the change.

"Everybody is angry and disappointed," they said.

Many UK businesses, from Selfridges and Primark to John Lewis, are closing on the day of the funeral to allow employees to pay their respects, as will Lloyd's of London and the Bank of England.

But some UK-based markets will remain open to cater to international investors, including the futures markets for Brent crude oil, TTF gas and UK electricity, all run by ICE Futures Europe.

For the LME the unexpected bank holiday is unfortunate as today is traditionally the busiest day for settling its most liquid contracts, which expire on the third Wednesday of September.

That makes the day crucial to establishing monthly valuations.

Zero growth Warning for baby formula market as China infant numbers decline

Future Publishing/Getty Images

LEO LEWIS — TOKYO
EDWARD WHITE — SEOUL

Goldman Sachs has warned investors to expect five years of zero growth in the global market for infant milk formula, as China approaches a critical demographic inflection point and the world's most important market runs short of new babies.

Chinese infants, whose consumption of higher-end formula has surged in recent years thanks to rising middle-class incomes, had become the key source of growth for a sector dominated by companies such as Danone, Reckitt and Abbott Laboratories.

However, in a report to clients, the US investment bank said it had turned negative on the industry in light of its new forecast that China's infant population would decline at an average 7 per cent per annum over the next five years.

The same forecast raised the possibility that by the end of this year, deaths could outnumber births, putting China into population decline, a point passed by Japan in 2016, and which can trigger big revisions to economic modelling.

Earlier this year, wrote Goldman analyst John Ennis, the bank had anticipated a fairly moderate drop in the Chinese baby population. Now, it expects new births in 2022 will have fallen 12 per cent from the previous year, and will decline a further 5 per cent in 2023.

This means that the infant population in 2023 could be about 45 per cent lower than in 2016, Ennis said. The Chinese infant formula market could experience an 8 per cent decline this year, before compounding 4 per cent declines over the coming five years, he added.

Beijing has unwound restrictions, including allowing all couples to have two children

The predicted contraction of China's baby population may contrast with markets such as the US, where the population is stabilising, but Goldman argued that the total picture, including western Europe, was poor. International groups such as Nestlé, Danone, A2 Milk and Abbott would generally underperform, the report predicted, while the situation was likely to create opportunities for local Chinese companies Feihe and Yili to gain market share.

"We do not expect the market to offer much growth, which stands in stark comparison to the prior growth credentials . . . over the previous decade, when average sales growth was around 5 per cent per annum," wrote Ennis.

The report represents a blow to the Chinese government under President Xi Jinping, which has implemented sweeping policy overhauls in an effort to reverse the country's deteriorating demographic picture. After years of ruthless application of the one-child policy, Beijing has notably unwound prohibitive birth restrictions, including in 2015 officially allowing all couples to have two children.

Chinese officials, as with their counterparts in Seoul and Tokyo, are experimenting with incentives targeted at easing the financial burden faced by women who have children. But birth rates have remained among the world's lowest.

Additional reporting by Maiqi Ding in Beijing

Inflation dents hopes for plant-based meat rebound

EMIKO TERAZONO AND JUDITH EVANS

The increasing pressure on consumers has extinguished hopes of a rebound in sales of plant-based meat this year, dealing a blow to a sector that was an investors' favourite when shoppers were prepared to pay higher prices.

New figures show that after climbing over the past two years in the UK, the growth in sales of plant-based meats was just 2.5 per cent in the 36 weeks to September, according to market research firm Kantar. Sales had climbed 40 per cent in 2020 and 14 per cent last year.

In the US, meanwhile, the tougher economic backdrop has depressed a market that had already started to struggle last year.

Sales were down 0.4 per cent in the 32 weeks to early August, according to data provider Spins, after they fell 0.5 per cent last year. Sales had surged 46 per cent in 2020.

Jeff Crumpton, senior manager at Spins, said "flexitarians" — people who eat only moderate amounts of meat — were thinking twice about plant-based meats as pressure on incomes grew as a result of rising food prices. "They're having to make a difficult decision with what their budget is," he said.

Plant-based meats were particularly vulnerable to the squeeze on consumers, industry analysts said, because they typically retail at a premium to real meat. In the US, a pound of plant-based meat made by Beyond Meat, which went public to great fanfare in New York in 2019, cost $8.35 in June, while real ground beef was $4.90.

Even before this year's pick-up in inflation and recession fears, the plant-based meats market had lost some of its momentum as the initial consumer euphoria over the products moderated.

Canadian meat group Maple Leaf Foods is among those warning that hopes for a rebound in sales are fading. The company had expanded into plant-based alternatives but said that it had now cut the size of its plant-based business by 25 per cent.

Michael McCain, chief executive, said that while the company had built a business model assuming a radical shift in consumer behaviour, "this transformational outcome did not materialise".

Beyond Meat, whose shares are less than a tenth of their 2019 high, has scaled back its revenue projections. Last month, the group said it was cutting 4 per cent of its workforce.

Automobiles. Marketing

Car show returns but is stuck in the slow lane

Manufacturers unveil fewer models, cut back the glitz and skip some exhibitions

CLAIRE BUSHEY — DETROIT

Detroit opened its first auto show since the beginning of the pandemic last week and the subdued spectacle illustrated how manufacturers are changing the way they market cars and trucks.

More carmakers are skipping shows and unveiling fewer products at them, with less glitz. While Jeep did unveil a plug-in hybrid version of its Grand Cherokee by scaling a two-story-high indoor track, 30 years ago the company drove one up the convention centre's steps and through a plate of sheet glass.

The tab for exhibiting runs into the millions and carmakers are choosing to tout their wares instead at the Consumer Electronics Show in Las Vegas, or the Texas state fair or via a virtual launch. Frankfurt held its last show in 2019, and the Geneva International Motor Show will not return until next year, and then in Qatar, not Switzerland.

Yet US consumer attendance at auto shows is recovering as the pandemic ebbs and proponents say they still represent a unique opportunity for manufacturers: a place where potential buyers pay to be marketed to.

"That is gold," said Dan Bedore, an industry consultant who worked in communications for Ford and Nissan. "People would kill for that in other businesses . . . The death of the auto show is exaggerated." But he added, "the decline is certainly real".

Auto shows grew out of 19th-century industrial expositions and bicycle shows. The first US show featuring all cars was staged in 1900 at New York's Madison Square Garden.

The shows spread across the US, and today a "season" of more than 60 shows runs from October to May, punctuated with important expos in Los Angeles, New York and Detroit.

Detroit's show vaulted into the international ranks in 1991 following a rebranding as the North American International Auto Show. Held in January, a month when many carmakers released new models, the number of launches peaked in 2004 at 70, with public attendance hitting a high of 811,000 a year earlier. Manufacturers competed to outdo each other with lavish exhibits, which can cost more than $10mn to design and build.

But executives began to question why they were spending so much to compete with other companies for media coverage, said Chris Stommel, president of the Michigan firm Foresight Research.

Jaguar Land Rover, Volvo and Mazda skipped the 2018 show, followed a year later by Mercedes-Benz and BMW. The companies argued that Michiganders' loyalty to US automakers made it too hard to crack the market, Stommel said. Their absence prompted others to reconsider their participation, and "then it just started to snowball".

Covid-19 devastated consumers' attendance and introduced nerve-racking uncertainty into the multi-million-dollar process of launching a new vehicle at one. Executives worried that supply chain disruptions might derail an unveiling or that an auto show might be cancelled, as happened with the 2021 New York show. At the same time, they realised online launches could still generate media coverage.

Matt O'Mara, an executive vice-president at Texas-based Czarnowski, a company that designs and builds automotive exhibits, said he was handling the same amount of business, but carmakers, particularly luxury brands, were redirecting their spending. They wanted to either produce an event where they were the sole headliner, or appear at venues geared to the wealthy, such as the Pebble Beach Concours d'Elegance, where a ticket costs $525.

"Every luxury automaker has the same problem: they have champagne taste and a beer budget," he said. Since fewer people buy luxury cars, the brands command smaller marketing budgets, pushing carmakers to spend dollars "in target-rich environments".

Even though luxury car buyers were more likely to visit auto shows, Stommel said, it was the high-volume brands that most frequently attended shows held during the truncated 2021-22 season. About half of 35 auto brands appeared at 17 shows or more.

Floor space at this year's show was dominated by General Motors' family of brands, at 75,000 sq ft altogether; Stellantis at 85,000; and Ford and its luxury brand, Lincoln, at 64,000.


Ford's Mustang EV at the Detroit show

Stommel's research shows that, before the pandemic, each season the US's 56 largest auto shows drew a combined 11mn people. Thirty-five of those shows took place last season — 63 per cent of the whole — and they drew about 5.5mn people, or half of pre-pandemic attendance.

The changing nature of auto shows can be seen in GM's unveiling of its Chevrolet Equinox. Marketed as an electric sport utility vehicle for the masses, the company launched it a week before the Detroit show. But when consumers arrive at Huntington Place, an Equinox will be parked on the carpeted floor with a product specialist nearby to explain the tech to visitors without drifting into a hard sell.

Those specialists are the corporate descendants of the 1980s "spin and grin girls", who displayed the cars on turntables but were barred from talking about them. Many are employed by talent agency Productions Plus, helmed by president Hedy Popson. Just as the staffers' job has changed in the past decade to emphasise product expertise over glamour — "This isn't where pageant queens come to die" — auto shows are changing too.

Business at the agency roared back this year, Popson said, but now automakers were focused less on generating news coverage and more on educating and entertaining the public.

"Saying the auto show is dead is like saying the state fair is dead," Popson said. "It might attract a different audience, and for different reasons, but I don't think it will ever go away."

COMPANIES & MARKETS

Windhorst scrambles to repay H2O debt

Controversial German financier has pledged to give more than half a billion euros to the asset manager within weeks

ROBERT SMITH AND CYNTHIA O'MURCHU — LONDON

Lars Windhorst, the fast-living German financier, failed to appear in a London courtroom in June to respond to one of several lawsuits filed against him by aggrieved creditors.

"This is not good enough by Mr Windhorst!" complained the judge, Jervis Kay. When Windhorst's barrister explained that the 45-year-old, who spends much of his time on a private jet, was "not in the UK at the moment", the judge warned that her client risked being held in contempt of court.

"You and Mr Windhorst are both living on borrowed time," he added.

It was a stern rebuke from a judge. But for Windhorst the €65mn claim from Norwegian shipping magnate Kristian Siem was barely a rounding error in the sum of his unpaid debts.

Months earlier, his investment firm Tennor had missed a deadline to repay more than €1bn to H2O Asset Management, which ran into trouble after pouring ordinary savers' money into Windhorst's ventures, ranging from a film distribution company to a lingerie maker.

Having once overseen €30bn of assets, H2O slid into crisis in 2019 after the Financial Times exposed the scale of its outsized bet on Windhorst. Investors' money is still trapped in the so-called "side pockets" H2O set up to isolate €1.6bn of these hard-to-sell assets.

After years of waiting for repayment, last month Windhorst pledged he would hand over more than half a billion euros to H2O "in the coming weeks".

Object of ire: many investors have lost patience with Lars Windhorst after repeated failures to repay funds — FT montage/Charlie Bibby

Windhorst does have a habit of escaping precarious situations. In his 30s, he avoided prison after receiving a suspended sentence in a high-profile criminal case and also survived a plane crash that claimed the life of one of the pilots.

Still, the current challenge is formidable. Tennor's finances have been in disarray for years. Windhorst's investment firm was briefly declared insolvent by a Dutch court last year and it has not filed audited accounts since 2018. Even that year's financial statements are now in doubt: Tennor told its auditor in February that a material error meant they could "no longer be relied upon".

Tennor told the FT it "stands behind all of its financial accounting" and the correction in the 2018 accounts was related to the timing of a writedown.

Even if his €550mn payment to H2O arrives as promised, it would still only cover a third of investors' savings trapped in the asset manager's funds. Windhorst also stands to gain from the arrangement, because H2O is allowing him to settle much of his debt at a deep discount.

And, after the financier's previous repeated failures to repay H2O to schedule, many investors have lost patience.

Collectif Porteurs H2O, a group of disgruntled investors that includes insurance companies and wealthy individuals, is pursuing legal action.

The group's legal representative Dominique Stucki described H2O's relationship with Windhorst as "extraordinarily peculiar and unprofessional".

"There is still no indication of how [H2O's founders] Bruno Crastes and Vincent Chailley have ever tried to compel Lars Windhorst to pay what he owes to the funds," the lawyer told the FT.

H2O declined to comment.

Crastes, the Frenchman who heads H2O Asset Management, once had a close bond with Windhorst.

The pair would discuss deals while dining together at private members' clubs or aboard the financier's 240ft-long superyacht. And, after the FT first highlighted their close relationship in 2019, Crastes leapt to Windhorst's defence, publicly praising him as "extremely talented".

Even as rattled investors yanked €8bn from H2O's funds in the wake of the FT's report, Crastes and Chailley dove deeper into Windhorst's world.

In 2019, H2O carried out big bond

pockets from €1.6bn to €1bn at the end of last year. A few weeks later, Windhorst missed a deadline to repay €1.1bn to H2O. Instead, in lieu of any cash, he gave H2O just $106mn worth of convertible bonds linked to Israeli technology company Gett in January.

The taxi app start-up was then poised to go public at a $1bn valuation. But the planned listing fell apart shortly afterwards — because of Gett's extensive exposure to Russia — and the company is now undergoing a debt-for-equity swap, crushing the value of the securities Windhorst handed to H2O.

The asset manager told the FT that its holding of the Gett-linked bonds is "currently valued at zero".

Windhorst has remained tight-lipped on the specifics of how he has since supposedly cobbled together enough money to repay half a billion euros to H2O, beyond telling the FT that Tennor's "diverse set of businesses across sectors and geographies have performed strongly in the first half 2022". But he has spent much of the year travelling to Africa, striking new deals and reviving old interests on the continent.

In April, Windhorst's long-struggling Sequa Petroleum acquired an interest in some Angolan offshore oilfields through a new joint venture with Namibia's national oil company (Namcor) and Nigerian entrepreneur Vincent Ebuh's Petrolog Group.

Windhorst also recently took back control of African farming company Amatheon Agri, filings show, having previously disposed of his majority stake in the group that has operations in Zambia, Uganda and Zimbabwe.

Despite struggling to recover money from Windhorst, H2O has proved reluctant to launch litigation against him, in contrast with a growing number of other creditors. Shipping magnate Siem, Manfredi Lefebvre d'Ovidio and Andreas Heeschen — three European entrepreneurs who have previously done deals with Windhorst — have all sued him personally in London's High Court. In July, Abu Dhabi brokerage ADS Securities also filed a fresh claim in London against Tennor.

H2O has also had its own financial entanglements with several of these parties now suing Windhorst.

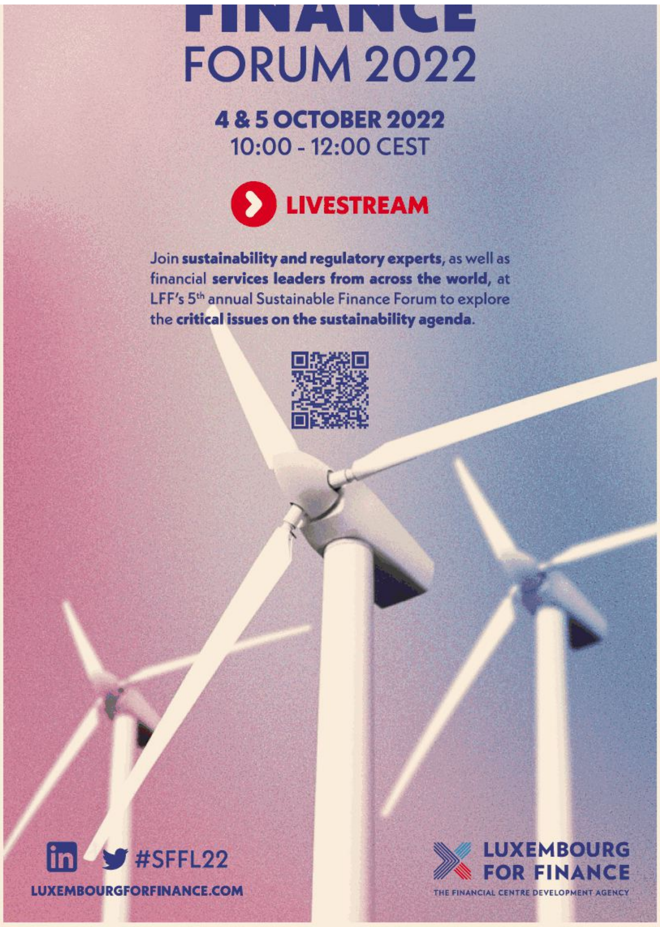
The asset manager's side pockets include $64mn of bonds from ADS Securities, which alleges Windhorst failed to honour an agreement to hand over €27mn and shares in a US tech company last year.

H2O also invested in bonds from Ignition Investments, an entity linked to Heeschen, who was formerly the majority shareholder of German gunmaker Heckler & Koch. In his lawsuit, the 61-year-old businessman alleges that proceeds from Ignition funded a €33.6mn personal loan he made to Windhorst that has not been repaid.

In the case of shipping magnate Siem, H2O not only previously held bonds in one of his eponymous companies but also allegedly agreed to engage in trades with him on Windhorst-related bonds.

In Siem's €65mn claim against Windhorst, he alleged H2O agreed to buy €10mn of Tennor bonds from him in July 2019, offering to pay above face value for the securities. This is despite the fact H2O had just written down the same bonds held in its own funds to just 23 cents on the euro days earlier, blaming a "market commotion" sparked by "deeply unfair" press reports.

The Norwegian businessman alleges H2O then "failed to purchase the Ten



In 2019, H2O carried out big bond trades with a Windhorst-linked broker, in which the German financier himself was the ultimate counterparty. Tennor also quietly poured more than €100mn into a mysterious new fund that the asset manager christened "H2O Deep Value", corporate filings show.

But, after French regulators stepped in two years ago, H2O changed tack. The asset manager cut Windhorst's direct line to its 57-year-old chief executive, say people familiar with the discussions. The financier now deals with Crastes's subordinates and the firm's external advisers during restructuring talks.

H2O told the FT it had "reallocated resources" to allow "portfolio managers, including Bruno Crastes and Vincent Chailley, to focus on managing the funds [and] strategies and a separate dedicated team to work with our financial and legal advisers on the [side pocket] liquidation".

Bringing in professional advisers has done little to salvage H2O's Windhorst-related investments, however.

With the financier mired in fresh claims from creditors, the asset manager wrote down the value of the side

A glimpse inside H2O's side pockets

Holdings in side pocket for H2O's Allegro fund (December 2021)

Company	Market value	% difference
Chain Finance (bonds)	€0mn	-100
Degros Holdings (bonds)	€0mn	-100
Tennor Finance (bonds)	€0mn	-100
Tennor Holding (bonds)	€159.6mn	-26.3
ADS Securities Funding (bonds)	€12.9mn	n.a.
Civitas Properties (bonds)	€3.0mn	-93.7
La Perla (bonds)	€2.8mn	-93.2
SWB Finance (bonds)	€3.7mn	-71.2
Trent Petroleum (bonds)	€0mn	-100
Avaterra Medical (shares)	€69.1mn	n.a.
La Perla (shares)	€6.4mn	n.a.

Source: company

H2O then "failed to purchase the Tennor bonds", defaulting on the agreement, which Windhorst had agreed to backstop. H2O declined to comment on the allegations.

Tennor said it expects to settle with ADS "very soon" but that Heeschen's lawsuit is "without merit" and will be defended "vigorously".

While the rush of lawsuits have further complicated efforts to repay H2O, there are signs the financier is close to reaching a detente with at least some of these other aggrieved creditors.

Heritage Travel and Tourism, a Bahamian investment vehicle linked to d'Ovidio, a Monegasque cruise magnate, won a €172mn judgment against Windhorst in London's High Court last year.

A representative for Heritage told the FT it is "presently involved in what it considers to be very positive discussions with Mr Windhorst and Tennor Group, aimed at finding a way forward for the companies on which we share interest".

And on Wednesday, Windhorst's rescheduled questioning hearing in the Siem case was vacated at the last minute, sparing the financier from another court appearance.

Professional services

Law firm drops UAE partner over gay tweets

SIMEON KERR — DUBAI

Baker McKenzie said it was working to ensure a "co-operative and swift separation" from its partner in the United Arab Emirates after controversy over social media posts in which he described homosexuality as "ugly".

The US law firm said on Friday that Habib Al Mulla would set up an independent firm once the separation had been completed by early next year.

Abu Dhabi-based Borys Dackiw, head of investigations, compliance and ethics in the Middle East, will lead Baker McKenzie UAE until then, focused on transactional and advisory practices.

The case highlights the sharpening divide between the values of western corporations that have flocked to the expatriate-majority UAE to take advantage of its regional hub status and the more conservative ethics of many Emirati nationals.

Mulla, who is one of the country's most distinguished lawyers but also comments on social issues from his popular Twitter account, sparked controversy in recent weeks over social media posts regarding Emirati identity and homosexuality. His tweets attracted widespread support among many of his compatriots.

Baker McKenzie, which has a 40-year history in the region, announced a corporate divorce from its UAE partner last week, saying it wanted to "ensure an inclusive work environment for all" and that Mulla's social media comments did not represent those of the firm.

The UAE has introduced multiple social and economic reforms to entice more foreigners as the government seeks to boost growth and diversify the economy away from oil. Restrictions on alcohol and cohabitation of unmarried couples have been eased, while foreigners can now set up businesses without the need for a local UAE partner. The government also shifted its weekend to align with global markets.

However, homosexuality remains illegal in the UAE and other Gulf states, which this month all demanded that Netflix remove "un-Islamic" content.

The emirate of Dubai has swung out of the pandemic strongly, enjoying an influx of new, wealthy residents, including Russians and Ukrainians fleeing the war. The Dubai International Financial Centre, a city-centre district popular among banks and law firms, is luring new businesses ranging from hedge funds to financial technology firms. In the first half of 2022, the DIFC recorded its fastest job creation growth since its inception in 2004.

Baker McKenzie, which merged with Mulla's firm in 2013, also said it was considering moving its Dubai office into the DIFC to service its global financial clients.

COMPANIES & MARKETS

Financials

Autonomy offers to pay back some losses

Macro hedge fund's move follows 30% fall this year after market sell-offs

LAURENCE FLETCHER — LONDON

Autonomy Capital, the macro hedge fund hit by a sharp sell-off in emerging markets, has offered investors the opportunity to withdraw their money and be paid back some losses after falling nearly 30 per cent so far this year.

Founded in 2003 by former Lehman currency and interest rate trader Robert Gibbins, Autonomy is a prominent global macro hedge fund that bets on a wide range of developed and emerging markets. The company is known for its bets on Argentine government debt — which later soured — and long-term bullishness on the country's prospects.

The fund has made large gains in previous years, but this year is down close to 30 per cent, according to people familiar with its performance, as emerging markets have sold off.

In a letter to investors in July, Gibbins said that after profiting for years from themes such as the convergence of global interest rates, the source of trading opportunities had changed. He said the firm would now focus on opportunities in changing energy and production systems, particularly in the areas of transport and molecular technology.

As a result, Autonomy has given investors who do not want to stay in the fund the chance to withdraw their cash at a net asset value in line with the end of May — higher than it is currently, with the company making up the difference.

Offering to make investors good on some losses is a highly unusual move in the hedge fund industry, although some funds do occasionally return cash if trading opportunities change.

The firm managed about $6bn a couple of years ago, but assets have fallen sharply more recently following performance losses.

Autonomy declined to comment.

While the company's performance has not been good, it is "looking very much to new growth frameworks that investors should understand" and has no plans to shut down, said a person familiar with its thinking.

The move, which has not previously been reported, comes as many hedge funds struggle this year during sharp sell-offs in bond and equity markets, driven by rapid tightening of monetary policy by large central banks in response to soaring inflation.

However, some macro hedge funds have been able to profit from the turmoil, notably by betting on bond prices falling. Macro funds on average are up 9.3 per cent in the first eight months of the year, according to data group HFR, with Caxton Associates, Brevan Howard and Odey Asset Management among those to make big gains.

Autonomy has previously profited from moves in markets such as Brazil in 2018, according to investor documentation, but was wrongfooted the following year by the surprise ousting of Argentina's market-friendly former president Mauricio Macri.

Prior to recent losses, the fund had made an annualised return of 16 per cent from launch until 2018, said a person familiar with the performance."

Market questions. Week ahead

Investors keep close eye on scale of Fed's rate action

Will the Fed deliver a third 0.75 percentage point increase?

The Federal Reserve is widely expected to announce a third consecutive 0.75 percentage point interest rate increase at the conclusion of its September policy meeting, which wraps up on Wednesday this week.

The Fed has in recent months raised interest rates at a brisk pace in an effort to rein in price growth that continues to run near 40-year highs. Economists had expected consumer prices to fall in August from July due to the drop in petrol prices, but data released last Tuesday showed a small increase, suggesting the Fed has more work to do.

Following the inflation data, investors began betting on the possibility of a full percentage point increase, though the odds of that remain low, given the consistent messaging from the Fed in recent weeks about a 0.75 percentage point move.

The Fed on Wednesday will also release its so-called "dot plot", or summary of economic projections, which shows where the median Fed official believes interest rates, inflation, unem-

Financial services

Italy urged to boost appeal of Milan bourse after delistings

SILVIA SCIORILLI BORRELLI — MILAN

Italy must do more to attract companies to the Milan stock exchange after the bourse lost some of its biggest names this year, including the holding group for the billionaire Agnelli family and luxury-shoe maker Tod's, industry experts have warned.

Exor, the investment vehicle for the Agnelli's, and luxury-shoe maker Tod's are among almost two dozen groups that have delisted from Borsa Italiana this year or have announced plans to do so, cutting the overall market capitalisation of companies on the exchange.

While Exor, Tod's and Atlantia, Italy's biggest infrastructure group — another high-profile departure — each had specific reasons for leaving, analysts say that a combination of complex listing rules and falling share prices have put Borsa Italiana at a disadvantage compared with larger exchanges.

"The broader issue is that many companies find the Milan stock exchange increasingly less attractive compared to other countries," said Giancarlo Giudici, a corporate finance professor at the Politecnico di Milano School of Management. "It's a matter of having to deal with domestic regulators; the requirements are complex, as are the procedures."

The FTSE MIB index, Italy's flagship stock market index, has fallen roughly 20 per cent this year, underperforming other main European indices.

This year the Italian finance ministry sought to revise the rules governing initial public offerings in an attempt to boost listings. In August, for example, a stipulation requiring that all IPO prospectuses be translated into Italian was ditched, streamlining the process.

'It's a matter of having to deal with domestic regulators; the requirements are complex'

ployment and gross domestic product will be over the course of the next few years. Meaningful changes in expectations are expected.

The last dot plot was released in June, and suggested that inflation, measured as core personal consumption expenditures, would be 4.3 per cent by the end of 2022 and 2.7 per cent by the end of 2023. Core PCE for July was 4.6 per cent.

The June dots suggested interest rates would be at 3.4 per cent by the end of 2022 and 3.8 per cent by end-2023. At present, the futures market expects rates to be at 4.2 per cent by year-end, to peak in March 2023 at 4.5 per cent, and be cut to 4 per cent by the end of 2023. *Kate Duguid*

Will the BoJ do more to arrest the fall of the yen?

The Bank of Japan is expected to maintain its ultra-loose monetary policy as market participants focus on whether authorities will intervene to stem the yen's descent to a new 24-year low.

The policy meeting follows a tense week where BoJ officials phoned currency traders to inquire about market conditions in a so-called "rate check", illustrating the government's sense of alarm about the yen's sharp fall against the US dollar. In the past, such checks have preceded an intervention by the Ministry of Finance to control the exchange rate.

Inflation fight: the Federal Reserve building in Washington, DC. The central bank has been raising interest rates at a brisk pace in an effort to rein in price growth — Graeme Sloan/Bloomberg

But pressure on the yen is unlikely to affect BoJ's monetary policy, with its governor Haruhiko Kuroda repeatedly arguing that it needs to maintain its stance until wages and inflation rise "in a stable and consistent manner."

Most economists expect Kuroda to stay the course until his term expires in April. The only change expected is for the BoJ to confirm the end of a scheme it set up to offer cheap loans to banks financing small and medium-sized companies through the Covid-19 downturn.

"We expect the BoJ to keep monetary policy unchanged . . . having maintained its stance that monetary policy is not targeted at forex in the midst of sharp yen depreciation against the dollar," said Citigroup's Kiichi Murashima.

The US Federal Reserve, the Bank of England and the Swiss National Bank are all expected to raise rates this week, widening a divergence in global yields that has pushed down the Japanese currency. *Kana Inagaki*

Will the BoE raise rates for the seventh time in a row?

The Bank of England is expected to continue its policy tightening at its next meeting on Thursday as it deals with inflation rates about five times above its 2 per cent target.

The BoE has increased rates at the last six meetings and has accelerated its pace in August with a 0.5 percentage point raise.

The median forecast of economists in a Reuters poll is for another half a percentage point rate rise, although some expect a 0.75 percentage point boost in the bank rate.

The annual UK pace of inflation dipped in August to 9.9 per cent from 10.1 per cent in the previous month, but core inflation, which strips out food and energy, rose 0.1 percentage points to 6.3 per cent.

"The acceleration in core alongside the continued level of services inflation remains a notable cause for concern — one that we believe is likely to reaffirm the need for further 'forceful' action from the [Monetary Policy Committee]", said Benjamin Nabarro, economist at Citi.

'Such fiscal intervention will ease the near-term pain . . . [but] tilt the risks to our medium-term inflation calls to the upside'

Some economists also argue the energy support energy package launched this month and tax cuts expected with the Budget will help limit the blow of surging gas prices to businesses and consumers, but could also mean higher interest rates for longer.

Prime minister Liz Truss's energy market intervention — especially if combined with big tax cuts — may keep spending growth too high, said Kallum Pickering, economist at investment bank Berenberg.

"While such fiscal interventions will ease the near-term pain for consumers as well as lower the peak rate of inflation, they tilt the risks to our medium-term inflation calls to the upside," he said. *Valentina Romei*

Nor has Borsa Italiana, which the London Stock Exchange sold to Euronext for €4.3bn in 2020, been without its successes this year. It has attracted 20 companies, with Technoprobe, a maker of testing equipment for semiconductors, with a market value of €4.4bn the biggest newcomer.

While it lacks any significant tech companies, the exchange is home to several luxury groups, reflecting their standing in the domestic economy.

Moncler, Brunello Cucinelli and Salvatore Ferragamo are all listed on Borsa Italiana, while Prada is exploring a secondary listing in Milan. Renzo Rosso's Only The Brave group is also looking at going public in Milan by 2024.

Guglielmo Manetti, the chief executive of Milan-based investment bank Intermonte, said that, although Borsa Italiana has appeal for medium-sized companies, more radical changes are required to draw larger ones.

Italy does not, for example, allow shares with more voting rights, as several other markets do. "This is a feature that has attracted large Italian companies, such as Exor, to delist from Milan stock exchange and move to the Dutch stock exchange," said Manetti.

Fabrizio Testa, Borsa Italiana chief executive, acknowledged that "we must continue to change processes, rules and laws to respond to the needs of entrepreneurs".

Media. Growth sector

Blockchain game makers seek to shed 'dodgy' image at Tokyo show

Companies that offer financial rewards via cryptocurrencies keen to end misconceptions

ERI SUGIURA — CHIBA

In a sign of the fast-changing times since the Tokyo Game Show was last physically staged in 2019, one of the biggest stands at this week's convention is occupied by a loan provider — for players of blockchain games.

Philippines-based company Yield Guild Games is Asia's biggest provider of start-up loans for people hoping to earn a living from the new genre. It chose the show to launch a global marketing drive to convince the industry, governments and the public that crypto-linked games are not "dodgy".

The Tokyo Game Show in Chiba, one of the main gatherings for the global video games industry, has twice been cancelled by the pandemic.

During its hiatus, blockchain gaming has become a new growth sector. Video games have long incorporated their own in-game currencies, but the new cryptocurrency-based titles allow players to convert the assets they win into real cash through officially sanctioned channels.

The high entry fees to the games have prompted the emergence of companies such as YGG, which supplies starting capital to people who plan to devote themselves to earning money from gaming.

Part of the mission of YGG Japan and its local partner, ForN, is to convince a sceptical industry and public that blockchain gaming is, in addition to being lucrative, just as much about having fun.

"People think it's very dodgy that they make money playing games and some even suspect these might be financial scams, but we want to change this image," said ForN marketing head Sho Miyashita.

"So, instead of a global slogan of 'play to earn', we are promoting a concept of 'play and earn': we want people to first enjoy games, and have an earning experience after," he added.

In other countries, such as the Philippines, during the pandemic, players have quit their real jobs believing they can earn enough money from battling digital monsters in games such as *Axie Infinity*, developed by Vietnamese studio Sky Mavis.

To get started, *Axie* required a $1,000 entry fee and YGG became an early sponsor of *Axie* players in the Philippines and an investor in the game's tokens.

It offers "scholarships" to finance users, taking a share of their earnings in exchange.

Blockchain games have been slower to catch on in Japan, said Miyashita, partly because of strict regulations whereby foreign blockchain game publishers need to register their tokens on Japanese exchanges to sell games in the country.

Tokyo Game Show: the event is important for the global industry — Eri Sugiura

An even bigger factor was their image problem, he acknowledged.

"Many players of these games today are speculators . . . The blockchain game industry will fade out in the next couple of years unless Japan, which is said to have a 40mn gaming population, mass-adopts these games and finds them simply interesting as games," said Miyashita.

Digital Entertainment Asset, a blockchain game publisher on another booth at the show, said its products could provide financial support in other ways.

In one example, Belgian football club KMSK Deinze has bought non-fungible tokens for DEA game items using funds from its sponsors.

It has lent them out to fans, who can earn money playing the games and use it to buy items from the club shop, as well as match tickets and even a seat on a bus to an away fixture.

"This shows that blockchain games provide a new option to a professional sports club to earn money, other than broadcasting rights," said Kozo Yamada, founder of DEA.

"Games are no more about those who develop and play games. A surrounding economic zone can be much enlarged."

Konami, one of Japan's biggest traditional games publishers, is also looking to get in on the act. Ken Kanetomo, who oversees its blockchain business, said he believed the technology would "expand exponentially" the value that games could deliver.

The publisher behind conventional hits such as *Castlevania* and *Silent Hill* has yet to give a date for its own blockchain game launch and is also struggling with the balance of making enjoyable games while allowing players to cash in on the trend.

"If the world's understanding of blockchain does not catch up, it will be perceived as a game to make money, which is not our intention," Kanetomo said.

MARKET DATA

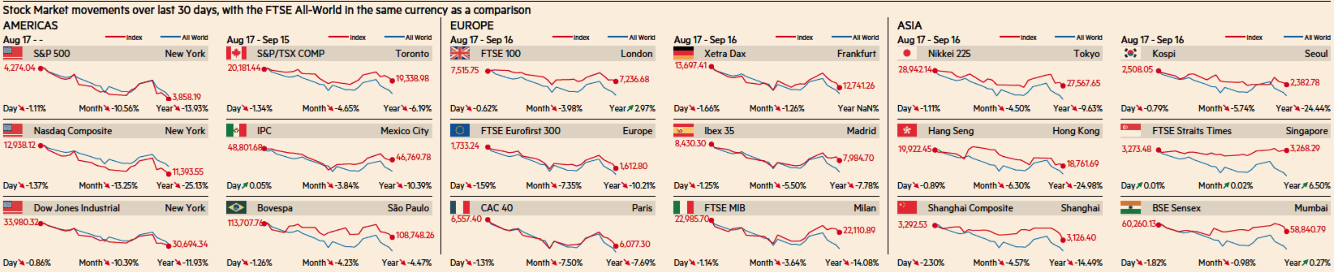
WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-1.11%	-1.37%	-0.86%	-0.62%	-1.59%	-1.11%	-0.89%	-1.20%	0.300%	-0.522%	-0.369%	0.805%	0.66%	-0.87%

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



Country	Index	Latest	Previous
Argentina	Merval	145518.25	144765.55
Australia	All Ordinaries	6975.20	7082.50
	S&P/ASX 200	6739.10	6842.90
	S&P/ASX 200 Res	5256.30	5416.10
Austria	ATX	2914.36	2958.56
Belgium	BEL 20	3592.32	3604.44
	BEL Mid	9414.51	9448.94
Brazil	IBovespa	108569.03	109953.65
Canada	S&P/TSX 60	1167.51	1182.10
	S&P/TSX Comp	19297.26	19560.16
	S&P/TSX Div Met & Min	1298.59	1343.47
Chile	S&P/CLX IGPA Gen	29813.99	30483.03
China	FTSE A200	10516.36	10769.09
	FTSE B35	9000.71	8988.96
	Shanghai A	3276.13	3353.31
	Shanghai B	309.66	312.76
	Shanghai Comp	3126.40	3199.92
	Shenzhen A	2098.02	2146.37
	Shenzhen B	1185.47	1200.85
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1220.29	1246.49
Denmark	OMXC Copenhagen 20	1587.95	1629.76
Egypt	EGX 30	10079.02	10193.79
Estonia	OMX Tallinn	1786.00	1793.44
Finland	OMX Helsinki General	10364.55	10494.53
France	CAC 40	6077.30	6157.84
	SBF 120	4690.62	4753.90
Germany	M-DAX	23944.01	24455.09
	TecDAX	2817.52	2898.04
	XETRA Dax	12741.26	12956.66
Greece	Athens Gen	836.00	839.23
	FTSE/ASE 20	2012.73	2017.42
Hong Kong	Hang Seng	18761.69	18930.38
	HS China Enterprise	6420.66	6508.99
	HSCC Red Chip	3639.91	3687.18
Hungary	Bux	40057.18	40690.91
India	BSE Sensex	58840.79	59934.01
	Nifty 500	15243.95	15580.35
Indonesia	Jakarta Comp	7168.87	7305.60
Ireland	ISEQ Overall	6781.31	6933.96
Israel	Tel Aviv 125	2015.55	2045.87

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	24016.10	24307.20
	FTSE Italia Mid Cap	36679.62	37275.64
	FTSE MIB	22110.89	22365.82
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27567.65	27875.91
	S&P Topix 150	1663.56	1674.30
	Topix	1930.17	1935.49
Jordan	Amman SE	2503.96	2495.34
Kenya	NSE 20	1790.01	1787.30
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1116.56	1120.23
Lithuania	OMX Vilnius	911.63	911.07
Luxembourg	LuxX	1369.69	1371.90
Malaysia	FTSE Bursa KLCI	1467.31	1468.44
Mexico	IPC	46769.78	46745.15
Morocco	MASI	12146.06	12147.77
Netherlands	AEX	664.83	674.74
	AEX All Share	909.75	922.88
New Zealand	NZX 50	11580.46	11658.94
Nigeria	SE All Share	49575.93	49627.72
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	41679.49	41772.09

Country	Index	Latest	Previous
Philippines	Manila Comp	6548.77	6582.86
Poland	Wig	49528.18	50571.87
Portugal	PSI 20	5845.51	5914.16
	PSI General	4648.49	4664.17
Romania	BET Index	11753.71	11805.50
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11829.54	11893.27
Singapore	FTSE Straits Times	3268.29	3267.98
Slovakia	SAX	346.83	344.60
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	66584.34	67568.26
	FTSE/JSE Res 20	61433.06	61760.27
	FTSE/JSE Top 40	60013.72	60991.46
South Korea	Kospi	2382.78	2401.83
	Kospi 200	308.69	310.63
Spain	IBEX 35	7984.70	8085.50
Sri Lanka	CSE All Share	10061.09	10072.38
Sweden	OMX Stockholm 30	1881.51	1911.79
	OMX Stockholm AS	741.56	752.43
Switzerland	SMI Index	10610.65	10746.70

Country	Index	Latest	Previous
Taiwan	Weighted Pr	14561.76	14670.04
Thailand	Bangkok SET	1630.40	1642.33
Turkey	BIST 100	3372.81	3363.12
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2384.10	2402.20
	FTSE 100	7236.68	7282.07
	FTSE 4Good UK	6532.79	6567.31
	FTSE All Share	3976.66	4000.33
	FTSE techMARK 100	6066.80	6100.75
USA	DJ Composite	10440.75	10638.68
	DJ Industrial	30694.34	30961.82
	DJ Transport	12823.29	13510.73
	DJ Utilities	1016.20	1015.98
	Nasdaq 100	11788.38	11927.49
	Nasdaq Cmp	11393.55	11552.36
	NYSE Comp	14539.72	14722.03
	S&P 500	3858.19	3901.35
	Wilshire 5000	38622.06	39122.86
Venezuela	IBC	8600.63	8543.44
Vietnam	VNI	1234.03	1245.66

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	418.94	423.46
	Euro Stoxx 50 (Eur)	3493.01	3541.79
	Euronext 100 ID	1174.87	1191.23
	FTSE 4Good Global ($)	9189.19	9277.31
	FTSE All World ($)	392.99	397.75
	FTSE E300	1612.80	1638.89
	FTSE Eurotop 100	3153.34	3204.10
	FTSE Global 100 ($)	2435.41	2462.28
	FTSE Gold Min ($)	1428.90	1469.15
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2580.04	2612.07
	FTSE World ($)	710.34	718.62
	FTSEurofirst 100 (Eur)	4227.89	4286.51
	FTSEurofirst 80 (Eur)	4814.34	4880.96
	MSCI ACWI Fr ($)	603.30	608.93
	MSCI All World ($)	2592.00	2617.84
	MSCI Europe (Eur)	1663.84	1671.72
	MSCI Pacific ($)	2497.33	2505.69
	S&P Euro (Eur)	1606.45	1628.82
	S&P Europe 350 (Eur)	1653.95	1679.64
	S&P Global 1200 ($)	2821.94	2853.46
	Stoxx 50 (Eur)	3450.22	3505.30

(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	94.5	299.34	-4.41
Apple	91.6	149.87	-2.50
Amazon.com	65.3	122.91	-3.37
Microsoft	43.4	244.16	-1.22
Nvidia	38.4	129.53	0.24
Fedex	34.4	158.20	-46.68
Advanced Micro Devices	27.4	75.48	-1.18
Adobe	22.7	299.50	-13.54
Alphabet	22.0	102.17	-0.75
Alphabet	16.8	103.09	-0.81

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Newmont	43.55	1.15	2.71
Firstenergy	41.19	0.77	1.90
Lennar	75.15	1.33	1.80
Dollar General	244.27	3.42	1.42

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Astrazeneca	796.5	10122.00	-8.00
Shell	658.3	2296.50	-18.00
Reckitt Benckiser	657.3	6260.00	-112.00
Bp	486.0	452.05	-4.50
Glencore	389.8	489.30	-12.70
Rio Tinto	351.0	4785.50	15.50
Hsbc Holdings	349.3	529.60	-0.10
Vodafone	345.4	108.36	-0.88
National Grid	274.0	1036.00	1.50
Unilever	218.8	3944.00	-25.50

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Jupiter Fund Management	144.20	7.95	5.83
Imi	108.30	5.80	5.66
Firstgroup	125.00	6.50	5.49
Provident Fin	190.20	9.20	5.08

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Nestle N	1570.4	110.68	-1.99
Nordea Bank Abp	1286.2	9.14	-0.49
Roche Gs	1163.1	338.09	-1.55
Novartis N	901.0	80.33	-0.25
Unicredit	376.7	10.71	-0.25
Ubs N	337.8	16.34	-0.45
Novo Nordisk B A/s	336.3	100.78	-2.56
Intesa Sanpaolo	331.4	1.92	-0.01
Richemont N	311.9	103.66	-3.73
Asml Holding	311.6	463.70	-3.75

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Philips Kon	17.90	0.08	0.47
Enel	4.92	0.02	0.46
Orsted A/s Dk 10	12.82	0.05	0.40
Iberdrola	10.57	0.04	0.38

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tokyo Electron	816.1	40910.00	-1850.00
Softbank	724.4	5458.00	20.00
Nintendo Co.,	679.6	61090.00	-1310.00
Toyota Motor	570.9	2030.50	-9.50
Sekisui House	556.1	2502.00	16.00
Mitsubishi Ufj Fin.,	533.8	731.30	7.70
Nippon Yusen Kabushiki Kaisha	526.6	9790.00	-250.00
Keyence	457.0	50110.00	-1350.00
Mitsui O.s.k.lines,	375.0	3315.00	-95.00
Sumitomo Mitsui Fin.,	359.3	4350.00	41.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Fukuoka Fin.,	2650.00	108.00	4.25
Resona Holdings,	551.40	19.00	3.57
Shizuoka Bank Ltd	852.00	29.00	3.52
Tbh Chiba Bank	786.00	22.00	2.88

UK MARKET WINNERS AND LOSERS

FTSE 100	Sep 16 price(p)	%Chg week	%Chg ytd
Winners			
Natwest	272.90	4.6	11.9
Lloyds Banking	47.81	4.0	-1.3
Aveva	3052.00	3.7	-
Admiral	2272.00	3.2	-
Kingfisher	247.30	2.1	-
Barratt Developments	429.00	1.6	-
Berkeley Holdings (the)	3595.00	1.5	-
Barclays	171.14	1.4	-9.1
Whitbread	2631.00	1.1	-12.8
Hsbc Holdings	529.60	0.9	18.0
Flutter Entertainment	10320.00	0.8	-
Burberry	1724.00	0.7	-5.1
Losers			
Melrose Industries	110.95	-12.9	-29.0
Ocado	671.00	-11.3	-
Dechra Pharmaceuticals	2950.00	-10.3	-
Spirax-sarco Eng	10070.00	-7.3	-

FTSE 250	Sep 16 price(p)	%Chg week	%Chg ytd
Winners			
Wood (john)	143.10	8.0	-
Helios Towers	126.70	7.1	-
Dunelm	782.50	6.2	-
Ncc	233.00	6.2	-0.9
Lancashire Holdings	546.00	6.0	3.6
Marshalls	343.20	5.2	-
Rathbones	1878.00	4.9	-5.4
Crest Nicholson Holdings	290.00	4.4	-
Dr. Martens	260.00	4.4	-
Jupiter Fund Management	108.30	4.3	-
Carnival	641.20	3.9	-
Redrow	506.50	3.8	-
Losers			
Aston Martin Lagonda Global Holdings	178.15	-63.1	-
Hilton Food	664.00	-30.9	-
Synthomer	165.50	-13.4	-
Chrysalis Investments	63.10	-13.0	-

FTSE SmallCap	Sep 16 price(p)	%Chg week	%Chg ytd
Winners			
Luceco	111.00	18.1	-
Petra Diamonds	115.00	15.6	60.8
Funding Circle Holdings	42.25	14.3	-
On The Beach	140.40	13.0	-
Trustpilot	68.60	12.4	-
Capita	28.74	10.5	-
Fundsmith Emerging Equities Trust	1330.00	10.4	-1.8
Seraphim Space Investment Trust	63.60	10.2	-
Capital	95.00	9.7	8.7
Civitas Social Housing	80.00	9.3	-
Mj Gleeson	477.00	8.4	-38.4
Xaar	220.00	7.3	22.2
Losers			
Made.com	6.05	-29.0	-
Hostelworld	70.90	-13.3	2.5
Bakkavor	88.20	-10.7	-
Avon Protection	836.50	-10.0	-

Industry Sectors	Sep 16 price(p)	%Chg week	%Chg ytd
Winners			
Nonlife Insurance	3216.27	2.4	-1.8
Banks	3366.58	1.3	10.4
Oil & Gas Producers	7983.33	0.2	39.7
Personal Goods	28491.57	0.1	-
Mobile Telecommunications	2667.65	-0.2	-7.3
Life Insurance	6596.87	-0.3	-
Travel & Leisure	6025.70	-0.8	-
Household Goods	10683.79	-1.0	-40.0
Health Care Equip & Services	10872.53	-1.2	31.6
Tobacco	36514.16	-1.4	24.6
Beverages	28443.06	-1.4	8.5
General Retailers	2139.61	-1.5	13.4
Losers			
Food Producers	5172.96	-6.3	-
Industrial Engineering	12875.32	-5.6	-
Electronic & Electrical Equip.	7973.93	-5.4	-
Chemicals	11348.33	-4.7	-

CURRENCIES

Sep 16	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
		142.9334	-0.5432	143.3726	-0.0362	163.4232	-1.4444
	Kenyan Shilling	120.4000	-	120.7671	0.4213	137.6535	-0.6976
	Kuwaiti Dinar	0.3090	-0.0002	0.3099	0.0009	0.3532	-0.0020
	Malaysian Ringgit	4.5350	-	4.5488	0.0159	5.1849	-0.0263
	Mexican Peso	20.0345	-0.0425	20.0956	0.0276	22.9055	-0.1649
	New Zealand Dollar	1.6724	0.0011	1.6775	0.0070	1.9120	-0.0084
	Nigerian Naira	435.7500	7.0000	437.0787	8.5216	498.1936	5.5191
	Norwegian Krone	10.2022	0.0521	10.2333	0.0878	11.6641	0.0008
	Pakistani Rupee	236.1000	0.4750	236.8199	1.3009	269.9335	-0.8221
	Peruvian Nuevo Sol	3.8772	-0.0079	3.8890	0.0057	4.4328	-0.0315
	Philippine Peso	57.4350	0.2750	57.6101	0.4758	65.6655	-0.0168
South Africa	South African Rand	17.6388	0.1100	17.6925	0.1717	20.1664	0.0242
South Korea	South Korean Won	1388.0500	-5.6000	1392.2826	-0.7407	1586.9595	-14.4769
Sweden	Swedish Krona	10.7395	0.0263	10.7722	0.0639	12.2784	-0.0319
Switzerland	Swiss Franc	0.9622	0.0014	0.9651	0.0048	1.1001	-0.0039
Taiwan	New Taiwan Dollar	31.3225	0.1875	31.4180	0.2970	35.8111	0.0340
Thailand	Thai Baht	37.0700	0.2900	37.1830	0.4196	42.3822	0.1185
Tunisia	Tunisian Dinar	3.1957	-0.0309	3.2054	-0.0197	3.6536	-0.0540
Turkey	Turkish Lira	18.2650	0.0020	18.3207	0.0659	20.8824	-0.1035
United Arab Emirates	UAE Dirham	3.6730	-	3.6842	0.0129	4.1993	-0.0213
United Kingdom	Pound Sterling	0.8747	0.0044	0.8773	0.0075	-	-
..One Month		0.8747	0.0044	0.8772	0.0075	-	-
..One Year		-	-	1.0006	-0.1460	1.1438	-0.0058
Vietnam	Vietnamese Dong	23660.0000	30.0000	23732.1682	112.7805	27050.5683	-102.6109
European Union	Euro	0.9970	-0.0035	-	-	1.1398	-0.0098
..One Month		0.9967	-0.0035	-	-	1.1397	-0.0098
..Three Month		0.9963	-0.0035	-	-	1.1394	-0.0098
..One Year		0.9945	-0.0035	-	-	1.1381	-0.0098

... 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FT 30 INDEX

	Sep 16	Sep 15	Sep 14	Sep 13	Sep 12	Yr Ago	High	Low
FT 30	2384.10	2402.20	2389.40	2437.80	2489.40	0.00	2880.10	2300.60
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
2402.2	2383.8	2389.3	2579	2579.7	2581.8	2588.4	2386.6	2391.8	2402.2	2376.4

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

FT WILSHIRE 5000 INDEX SERIES

	Sep 15		Sep 15
FT Wilshire 5000	39792.63	FT Wilshire Mid Cap	5354.40
FT Wilshire 2500	5093.54	FT Wilshire Small Cap	4885.25
FT Wilshire Mega Cap	5073.28	FT Wilshire Micro Cap	4838.54
FT Wilshire Large Cap	5120.16		

Source: Wilshire. Wilshire Advisors LLC (Wilshire) is an investment advisor registered with the SEC. Further information is available at https://www.wilshire.com/solutions/indexes . Wilshire® is a registered service mark. Copyright ©2022 Wilshire. All rights reserved.

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	39.83	NON FINANCIALS Index	-5.13	Consumer Services	-19.08
Oil & Gas	39.25	FTSE All{HY-}Share Index	-5.50	FTSE 250 Index	-19.95
Tobacco	24.67	Health Care Eq & Srv	-5.94	Household Goods & Ho	-20.94
Banks	10.38	Telecommunications	-7.31	Industrials	-21.24
Aerospace & Defense	8.34	Nonlife Insurance	-8.01	Construct & Material	-22.13
Electricity	7.25	Beverages	-8.54	Food Producers	-22.75
Mining	5.09	Financials	-9.48	Support Services	-24.11
Pharmace & Biotech	0.87	Oil Equipment & Serv	-11.15	Leisure Goods	-24.79
Health Care	0.41	Travel & Leisure	-12.08	Real Est Invest & Tr	-25.52
Beverages	31.66	Media	-12.32	Real Est Invest & Se	-26.52
Utilities	-0.83	Software & Comp Serv	-13.61	Food & Drug Retailer	-31.42
Basic Materials	-1.55	Life Insurance	-13.63	Industrial Eng	-31.56
FTSE 100 Index	-2.00	Technology	-13.79	Chemicals	-31.96
Personal Goods	-2.45	Tech Hardware & Eq	-15.30	General Retailers	-33.84
Gas Water & Multi	-3.54	Fixed Line Telecomms	-15.37	Electronic & Elec Eq	-34.51
Consumer Goods	-3.66	FTSE SmallCap Index	-15.58	Industrial Transport	-43.02
Mobile Telecomms	-4.16	Financial Services	-16.04	Automobiles & Parts	-54.34
		Equity Invest Instr	-16.95	Industrial Metals &	-80.54

FTSE GLOBAL EQUITY INDEX SERIES

Sep 16 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9365	677.75	-0.9	-8.4	-20.0	1082.06	-18.6	2.3
FTSE Global All Cap	9365	677.75	-0.9	-8.4	-20.0	1082.06	-18.6	2.3
FTSE Global Large Cap	1868	605.49	-0.9	-8.6	-20.3	996.45	-18.9	2.3
FTSE Global Mid Cap	2243	873.78	-0.9	-7.9	-18.5	1312.19	-17.2	2.4
FTSE Global Small Cap	5254	912.83	-0.7	-7.9	-20.2	1311.09	-19.1	2.1
FTSE All-World	4111	397.75	-0.9	-8.4	-20.0	672.49	-18.6	2.3
FTSE World	2664	718.62	-0.9	-8.8	-20.0	1630.27	-18.6	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9075	716.96	-0.9	-8.4	-20.0	1122.73	-18.7	2.3

Sep 16 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	23	268.10	-1.5	0.1	14.6	492.91	18.2	4.3
Basic Materials	373	553.25	-1.3	-7.1	-17.7	1014.87	-14.6	5.2
Chemicals	182	760.49	-1.6	-9.3	-21.5	1339.43	-19.7	3.2
Forestry & Paper	20	253.36	-0.5	-6.8	-17.0	509.53	-14.6	3.9
Industrial Metals & Mining	94	435.09	-0.9	-6.9	-21.4	827.83	-17.7	8.8
Mining	77	850.77	-1.2	-3.4	-8.6	1655.90	-3.1	6.7
Industrials	780	465.16	-0.9	-9.5	-22.6	739.37	-21.3	2.1
Construction & Materials	146	544.84	-0.3	-7.6	-26.3	914.82	-24.9	2.3

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

FTSE ACTUARIES SHARE INDICES

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7251.33	7262.52	7269.60	7288.93	7295.61	7280.43	7249.91	7248.16	7258.58	7296.89	7236.68
FTSE 250	18772.47	18774.35	18759.13	18842.33	18821.02	18823.46	18803.21	18788.25	18813.56	18873.50	18738.12
FTSE SmallCap	6302.22	6301.65	6298.57	6303.52	6304.26	6301.99	6301.71	6301.26	6307.92	6311.01	6297.12
FTSE All-Share	3982.64	3987.78	3990.48	4001.90	4004.30	3997.43	3982.94	3981.67	3987.30	4004.88	3976.66

Time of FTSE 100 Day's high:10:42:15 Day's Low15:35:30 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6959.48(07/03/2022)
Time of FTSE All-Share Day's high:10:45:00 Day's Low15:46:07 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3862.39(07/03/2022)

Further information is available on http://www.ftse.com © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence. † Sector P/E ratios greater than 80 are not shown. For changes to FTSE Fledgling Index constituents please refer to www.ftse.com/indexchanges. ‡ Values are negative.

FTSE 100 SUMMARY

FTSE 100	Closing Price	Week's Change	FTSE 100	Closing Price	Week's Change
3I Group PLC	1134	-32.50	International Consolidated Airlines Group S.A.	105.98	-5.08
Abrdn PLC	144.15	-7.20	Intertek Group PLC	3897	-103.00
Admiral Group PLC	2272	71.00	Jd Sports Fashion PLC	125.30	-0.80
Airtel Africa PLC	135.80	-3.80	Kingfisher PLC	247.30	5.20
Anglo American PLC	2818.5	-108.00	Land Securities Group PLC	612.60	-22.40
Antofagasta PLC	1133.5	-62.00	Legal & General Group PLC	262.00	-0.30
Ashtead Group PLC	4262	-30.00	Lloyds Banking Group PLC	47.81	1.83
Associated British Foods PLC	1324.5	-30.50	London Stock Exchange Group PLC	7786	-218.00
Astrazeneca PLC	10122	-378.00	M&G PLC	201.20	-2.90
Auto Trader Group PLC	614.20	-44.20	Melrose Industries PLC	110.95	-16.40
Aveva Group PLC	3052	108.00	Mondi PLC	1450.5	-17.00
Aviva PLC	440.10	-3.00	National Grid PLC	1036	-35.00
B&M European Value Retail S.A.	337.60	-13.00	Natwest Group PLC	272.90	12.10
Bae Systems PLC	764.80	-19.60	Next PLC	5808	-74.00
Barclays PLC	171.14	2.30	Ocado Group PLC	671.00	-85.80
Barratt Developments PLC	429.00	6.80	Pearson PLC	898.40	-17.40
Berkeley Group Holdings (The) PLC	3595	53.00	Pershing Square Holdings LTD	2840	-35.00
BP PLC	452.05	1.25	Persimmon PLC	1430	-72.00
British American Tobacco PLC	3450.5	-38.50	Phoenix Group Holdings PLC	609.60	-5.20
British Land Company PLC	410.10	-4.00	Prudential PLC	957.60	-3.80
Bt Group PLC	139.05	-1.05	Reckitt Benckiser Group PLC	6260	-308.00
Bunzl PLC	2737	-162.00	Relx PLC	2232	-59.00
Burberry Group PLC	1724	12.50	Rentokil Initial PLC	519.00	-33.60
Centrica PLC	80.78	-6.12	Rightmove PLC	593.40	-36.60
Coca-Cola Hbc AG	1920	-48.00	Rio Tinto PLC	4785.5	-74.50
Compass Group PLC	1875	-25.00	Rolls-Royce Holdings PLC	75.77	-2.67
Crh PLC	3082.5	-78.50	Rs Group PLC	1040	-59.00
Croda International PLC	6430	-436.00	Sage Group PLC	718.40	-29.00
Dcc PLC	4717	-221.00	Sainsbury (J) PLC	202.80	0.20
Dechra Pharmaceuticals PLC	2950	-338.00	Schroders PLC	2518	-142.00
Diageo PLC	3745	-52.00	Scottish Mortgage Investment Trust PLC	828.00	-9.60
Endeavour Mining PLC	1661	-99.00	Segro PLC	883.40	-47.20
Entain PLC	1213	-5.50	Severn Trent PLC	2647	-116.00
Experian PLC	2661	-69.00	Shell PLC	2296.5	-3.50
Flutter Entertainment PLC	10320	85.00	Smith & Nephew PLC	1055	-49.50
Frasers Group PLC	786.00	-26.00	Smith (Ds) PLC	265.50	-13.70
Fresnillo PLC	730.00	1.40	Smiths Group PLC	1504	-33.00
Glaxosmithkline PLC	1321.4	-27.20	Smurfit Kappa Group PLC	2836	-61.00
Glencore PLC	489.30	0.90	Spirax-Sarco Engineering PLC	10070	-795.00
Haleon PLC	259.40	-1.60	Sse PLC	1745	-45.00
Halma PLC	2000	-157.00	St. James's Place PLC	1093	-50.00
Hargreaves Lansdown PLC	854.40	-2.40	Standard Chartered PLC	602.20	-12.00
Hikma Pharmaceuticals PLC	1253.5	-32.00	Taylor Wimpey PLC	107.55	-0.80
Homeserve PLC	1188	-2.00	Tesco PLC	231.50	-8.40
Howden Joinery Group PLC	568.80	-16.00	Unilever PLC	3944	-9.00
HSBC Holdings PLC	529.60	4.60	Unite Group PLC	1001	-50.00
Imperial Brands PLC	1910.5	-42.00	United Utilities Group PLC	1031.5	-24.50
Informa PLC	551.40	-9.40	Vodafone Group PLC	108.36	-0.12
Intercontinental Hotels Group PLC	4670	-123.00	Whitbread PLC	2631	29.00
Intermediate Capital Group PLC	1212.5	-71.00	Wpp PLC	767.00	-4.20

UK STOCK MARKET TRADING DATA

	Sep 16	Sep 15	Sep 14	Sep 13	Sep 12	Yr Ago
Order Book Turnover (m)	303.16	639.28	690.85	735.75	184.99	184.99
Order Book Bargains	848709.00	783525.00	791045.00	649167.00	691621.00	691621.00
Order Book Shares Traded (m)	3576.00	1937.00	1741.00	1777.00	1536.00	1536.00
Total Equity Turnover (£m)	7118.61	6917.28	6053.05	6733.24	5905.93	5905.93
Total Mkt Bargains	1044665.00	970039.00	999905.00	820577.00	867176.00	867176.00
Total Shares Traded (m)	8091.00	7904.00	6333.00	6462.00	5107.00	5107.00

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

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

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

MORNINGSTAR®

UK RIGHTS OFFERS

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

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

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Coro Energy	Int	2.639	0.263	3.014L	3.211L	0.000	0.000	0.00000	0.00000	-	0.000	0.000
Drumz	Int			0.184L	0.261L	0.040L	0.080L	0.00000	0.00000	-	0.000	0.000
Dunedin Enterprise Investment Trust	Int			3.043	15.308	23.560	84.570	0.00000	16.00000	-	1.900	18.000
Ecofin US Renewables Infrastructure Trust	Int		-	1.495	-	0.012	-	1.40200	-	Aug 29	1.400	-
Empyrean Energy	Pre	0.000	0.000	8.109L	0.953L	0.014L	0.002L	0.00000	0.00000	-	0.000	0.000
Katoro Gold	Int	0.000	0.000	0.483L	0.772L	0.080L	0.210L	0.00000	0.00000	-	0.000	0.000
North Atlantic Smaller Companies Inv Trust	Int			109.195L	137.956	799.000L	974.000	0.00000	0.00000	-	0.000	0.000
Pacific Horizon Investment Trust	Pre			112.120L	207.598	118.800L	253.190	0.00000	0.00000	-	0.000	0.000
Schroder Asian Total Return Investment Co	Int			90.300L	28.319	82.360L	26.980	0.00000	0.00000	-	8.500	7.100

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

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
09/02	11.00		ZAMZ	Zamaz PLC	10.00	0.00	12.00	10.86	7080.6

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

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Bausch Hlth	9.71	10.11	-0.40	-3.96	0.96	11.0	19.24
ING	9.83	9.94	-0.11	-1.10	0.79	8.7	3.20
Renault	31.87	31.45	0.42	1.32	2.49	8.5	3.79
EastJpRwy	7683.00	7681.00	2.00	0.03	588.00	8.3	8.64
SandsCh	18.00	17.34	0.66	3.81	1.32	7.9	0.90
KBC Grp	55.22	55.20	0.02	0.04	3.82	7.4	3.89
CaixaBnk	3.53	3.62	-0.09	-2.57	0.20	6.1	16.30
SvnskaHn	92.80	93.48	-0.68	-0.73	4.98	5.7	1.64
Swedbank	151.90	153.45	-1.55	-1.01	8.05	5.6	8.11
ChinaMBank	40.05	41.15	-1.10	-2.67	2.05	5.4	-1.72
CNOOC	10.08	10.32	-0.24	-2.33	0.51	5.3	2.13
Deut Bank	9.10	9.23	-0.14	-1.46	0.45	5.2	5.16
Vale	67.80	68.35	-0.55	-0.80	3.29	5.1	-3.01
Natwest Group	272.90	274.20	-1.30	-0.47	12.10	4.6	-3.09
Inditex	22.45	22.42	0.03	0.13	0.98	4.6	-12.72
BcoSantdr	2.65	2.68	-0.03	-0.97	0.12	4.6	-0.27
IntSPaolo	1.92	1.92	-0.01	-0.26	0.08	4.5	3.30
Volkswgn	195.75	197.30	-1.55	-0.79	7.70	4.1	4.12
CntJpRwy	16970.00	17035.00	-65.00	-0.38	655.00	4.0	6.14
Hngzh HikVDT	29.80	28.99	0.81	2.79	1.15	4.0	-6.29

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Adobe	295.59	309.13	-13.54	-4.38	-99.19	-25.1	-34.44
Fedex	158.20	204.87	-46.68	-22.78	-50.88	-24.3	-33.84
Hunng Pwr	3.98	4.17	-0.19	-4.56	-0.72	-15.3	7.01
Advanced Micro	75.48	76.66	-1.18	-1.54	-9.97	-11.7	-25.07
GenElectric	65.43	68.91	-3.49	-5.06	-8.62	-11.6	-19.18
Workday	150.94	154.33	-3.39	-2.20	-19.02	-11.2	-15.35
UPS	176.78	185.00	-8.22	-4.44	-21.91	-11.0	-14.43
BlackRock	622.22	632.34	-10.12	-1.60	-73.24	-10.5	-18.04
Digital Realty	111.62	111.89	-0.27	-0.24	-12.83	-10.3	-17.47
CSX	29.32	30.17	-0.85	-2.82	-3.31	-10.1	-15.08
MollerMrsk	14635.00	15455.00	-820.00	-5.31	-1595.00	-9.8	-26.44
Nokia	4.59	4.91	-0.32	-6.53	-0.48	-9.5	-7.73
UnionPac	210.14	218.36	-8.22	-3.76	-21.74	-9.4	-12.94
HomeDep	272.33	271.54	0.79	0.29	-27.44	-9.2	-17.20
IDEXX Laborato.	339.97	349.84	-9.87	-2.82	-34.16	-9.1	-11.36
PPG Inds	116.48	120.44	-3.97	-3.29	-11.64	-9.1	-15.65
Oracle	69.02	70.24	-1.22	-1.74	-6.89	-9.1	-13.24
ValeroEngy	103.08	105.16	-2.08	-1.98	-10.24	-9.0	-8.95
Lyondell	76.55	78.69	-2.14	-2.72	-7.58	-9.0	-16.41
Phillips66	80.14	81.87	-1.73	-2.11	-7.89	-9.0	-10.14

Based on the FT Global 500 companies in local currency

INTEREST RATES: OFFICIAL

Sep 16	Rate	Current	Since	Last
US	Fed Funds	1.5-1.75	15-06-2022	0.83
US	Prime	4.75	15-06-2022	4.00
US	Discount	1.00	05-05-2022	0.50
Euro	Repo	-0.64	19-05-2022	0.00
UK	Repo	1.75	04-08-2022	1.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Sep 16 (Libor: Sep 15)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	2.32100	-0.001	0.009	0.054	2.99343	3.52714	4.06300	4.62143
Euro Libor	-0.64957	-0.064	0.000	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	0.000	0.025	2.24210	2.74280	3.50520	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.04632	-0.01507	0.05069	0.04867
Euro Euribor				0.011	0.68000	1.03000	1.60800	2.22300
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.080	3.11000	3.56000	4.07000	
Euro CDs				-0.020	0.63000	1.02000	1.65000	

Sep 16	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	0.52	0.82	0.51	0.81	0.48	0.78	0.87	1.17	1.50	1.80	2.05	2.35
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	2.15	2.35	2.73	2.93	3.01	3.21	3.46	3.66	3.97	4.17	4.32	4.52
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.

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change	Agricultural & Cattle Futures		Price*	Change
Crude Oil†	Oct	85.66	0.56	Corn♦	Dec	674.00	-3.50
Brent Crude Oil‡		92.15	1.48	Wheat♦	Dec	837.25	-7.75
RBOB Gasoline†	Oct	2.43	0.01	Soybeans♦	Nov	1446.25	-5.25
Natural Gas†	Oct	8.13	-0.20	Soybeans Meal♦	Oct	430.80	-3.70
Base Metals (♠ LME 3 Months)				Cocoa (ICE Liffe)⊕	Dec	1879.00	11.00
Aluminium		2276.00	-39.00	Cocoa (ICE US)♥	Dec	2340.00	-37.00
Aluminium Alloy		1675.00	-905.00	Coffee(Robusta)⊕	Sep	2176.00	-34.00
Copper		7759.00	47.50	Coffee (Arabica)♥	Dec	213.65	-2.75
Lead		1893.50	-20.50	White Sugar⊕		531.30	-11.70
Nickel		24175.00	925.00	Sugar 11♥		18.04	-0.14
Tin		21250.00	255.00	Cotton♥	Oct	102.45	-2.79
Zinc		3132.00	-40.00	Orange Juice♥	Nov	170.10	0.55
Precious Metals (PM London Fix)				Live Cattle♣	Oct	145.58	1.23
Gold		1689.10	-14.80	Feeder Cattle♣	May	134.88	-
Silver (US cents)		1937.00	-13.50	Lean Hogs♣	Oct	96.05	1.35
Platinum		917.00	11.00				
Palladium		2177.00	53.00		Sep 15	% Chg Month	% Chg Year
Bulk Commodities							
Iron Ore		100.39	-0.04	S&P GSCI Spt	635.07	-2.81	16.83
Baltic Dry Index		1553.00	-59.00	DJ UBS Spot	117.40	-3.56	18.90
Richards Bay ICE Futures		306.35	2.35	TR/CC CRB TR	301.36	-2.71	25.76
				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.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	195.26	-0.29	-1.92	-11.16	-4.13	-11.93
Corporates(£)	325.22	0.04	-1.57	-17.83	-7.44	-19.40
Corporates(€)	210.81	-0.19	-0.65	-12.72	-4.81	-13.72
Eurozone Sov(€)	218.28	-0.13	-1.00	-14.21	-5.68	-15.47
Gilts(£)	279.92	-0.32	-3.24	-22.13	-10.22	-23.17
Overall(£)	287.13	-0.22	-2.78	-20.58	-9.34	-21.84
Overall(€)	212.76	-0.13	-0.87	-13.75	-5.33	-14.94

BONDS: INDEX-LINKED

BONDS: TEN YEAR GOVT SPREADS

BONDS: HIGH YIELD & EMERGING MARKET

VOLATILITY INDICES

BONDS: BENCHMARK GOVERNMENT

BONDS: GLOBAL INVESTMENT GRADE

GILTS: UK CASH MARKET

GILTS: UK FTSE ACTUARIES INDICES

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

POWERED BY MORNINGSTAR

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
Fidelity® Series Intrinsic Opportunities Fund	-4.47	11.67	8.09	0.80	19.73
Hotchkis & Wiley Mid-Cap Value Fund	6.40	11.58	5.38	0.62	34.29
Invesco Value Opportunities Fund	1.66	11.44	7.79	0.65	28.61
Fidelity Advisor® Value Fund	-3.55	11.24	7.89	0.66	27.28
Fidelity® Value Fund	-3.42	11.19	7.88	0.66	27.36

Losers - US Fund Mid-Cap Value

Fund Name	1yr Return GBP	3yr Return GBP	5yr Return GBP	3yr Sharpe Ratio	3yr Std Dev
CGM Realty Fund	-19.15	-3.04	-2.86	0.04	28.23
Janus Henderson Small-Mid Cap Value Fund	-4.80	1.56	4.15	0.23	21.55
Nuance Concentrated Value Fund	-9.54	2.22	4.59	0.32	14.02
Allspring C&B Mid Cap Value Fund	-11.68	2.96	4.84	0.32	24.15
Carillon Chartwell Mid Cap Value Fund	-2.12	3.36	4.69	0.32	21.03

Morningstar Star Ratings

Fund Name	Base Currency	Morningstar Rating 3 Yr	Morningstar Rating 5 Yr	Morningstar Rating 10 Yr
Global Special Sits W-ACC-GBP	Pound Sterling	★★★	★★★	★★★★★
Janus Henderson Emerging Markets Opportunities Fund A Acc	Pound Sterling	★★★	★★	★★★
Sterling Bond F	Pound Sterling	★★★	★★★	★★★
Janus Henderson Multi-Manager Diversified Fund A Acc	Pound Sterling	★★	★★	★★★
Janus Henderson US Growth Fund A Acc	Pound Sterling	★★	★★★	★★

Global Broad Category Group - Alternative

Morningstar Category	Base Currency	Total Ret 1Yr GBP	Total Ret 3Yr GBP	Total Ret 5Yr GBP
Non-Euro Absolute Return	Pound Sterling	3.81	9.40	6.19
Systematic Trend USD	US Dollar	18.99	7.72	4.76
Equity Market Neutral USD	US Dollar	1.92	3.28	2.37
Systematic Trend EUR	Euro	5.44	2.69	1.09
Equity Market Neutral EUR	Euro	0.91	2.32	0.27

Advertising Feature

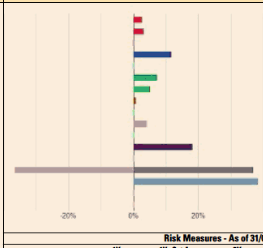
TROY
ASSET MANAGEMENT

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

Firm Name
Troy Asset Management Limited
Fund Name
Trojan Fund O Inc
Morningstar Category
GBP Flexible Allocation
Max Annual Charge
-
3Yr Rating
★★★★

Performance

Weightings - As of 31/07/2022



Sector	Weighting	Cat Avg.
Basic Materials	2.91%	3.27%
Communication Services	3.44%	3.20%
Consumer Cyclical	-	5.36%
Consumer Defensive	12.70%	4.15%
Energy	-	3.20%
Financial Services	8.01%	8.17%
Healthcare	5.59%	5.75%
Industrials	0.72%	5.66%
Real Estate	-	2.42%
Technology	4.51%	6.19%
Utilities	-	1.94%
Cash & Equivalents	19.84%	16.30%
Corporate	-	10.94%
Derivative	0.24%	5.82%
Government	42.03%	16.68%
Municipal	-	0.01%
Securitized	-	0.94%

Top 10 Holdings - As of 31/07/2022

Holding	Sector	Weighting
Visa Inc Class A	Financial Services	4.32%
Microsoft Corp	Technology	4.11%
Unilever PLC	Consumer Defensive	3.45%
Alphabet Inc Class A	Communication Services	3.14%
Nestle SA	Consumer Defensive	2.96%
Diageo PLC	Consumer Defensive	2.74%
Franco-Nevada Corp	Basic Materials	2.65%
American Express Co	Financial Services	2.48%
Agilent Technologies Inc	Healthcare	1.80%
Becton, Dickinson and Co	Healthcare	1.66%

Risk Measures - As of 31/08/2022

	1Yr	1Yr Cat Ave	3Yr	3Yr Cat Ave	5Yr	5Yr Cat Ave
Alpha	3.62	-1.69	4.11	-0.92	2.84	-1.46

Morningstar Sustainability Rating			
-			
Bid Price	-	KIID Ongoing Charge	1.01
Offer Price	-	Day-End One Year Return	0.44
+/-	-0.84	Total Ret 3Yr	5.57

Fund / Category

Day -0.27% Month -2.14% Year 0.05%

Beta	0.55	0.87	0.56	0.99	0.57	0.98
Information Ratio	1.23	-0.19	0.63	-0.22	0.36	-0.34
R Squared	50.39%	56.73%	55.25%	64.15%	56.43%	64.31%
Sharpe Ratio	0.01	-0.44	0.87	0.35	0.86	0.33
Std Dev	5.73	8.63	6.08	9.55	5.34	8.63

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	£2.2255	-	-0.0132	1.87	-6.68	5.29
Global Equity Fund	£3.3196	-	-0.0283	1.18	-6.46	8.13
Global Fixed Interest Fund	£0.7542	-	-0.0024	5.70	-19.01	-4.20
Income Fund	£0.6447	-	-0.002	3.15	-4.86	5.06
Sterling Fixed Interest Fund	£0.6907	-	-0.0004	3.52	-20.97	-5.28
UK Equity Fund	£1.8924	-	-0.0038	3.98	-10.36	-0.92

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Algebris Financial Credit I EUR	€169.85	-	-0.16	0.00	-13.04	1.26
Algebris Financial Credit R EUR	€146.35	-	-0.16	0.00	-13.60	0.67
Algebris Financial Credit Rd EUR	€91.04	-	-0.09	5.27	-13.57	0.72
Algebris Financial Income I EUR	€173.07	-	0.94	0.00	-3.18	7.00
Algebris Financial Income R EUR	€157.80	-	0.85	0.00	-4.05	6.04
Algebris Financial Income Rd EUR	€97.90	-	0.53	3.99	-4.05	6.04
Algebris Financial Equity B EUR	€154.40	-	1.94	0.00	10.79	11.76
Algebris IG Financial Credit I EUR	€94.73	-	-0.18	0.00	-15.83	-
Algebris IG Financial Credit R EUR	€93.37	-	-0.18	0.00	-16.26	-
Algebris Global Credit Opportunities I EUR	€122.00	-	0.01	0.00	-6.25	2.86
Algebris Global Credit Opportunities R EUR	€119.24	-	0.01	0.00	-6.80	2.50
Algebris Global Credit Opportunities Rd EUR	€105.41	-	0.01	0.43	-6.78	2.62
Algebris Core Italy I EUR	€132.85	-	-0.35	0.00	-18.52	8.60
Algebris Core Italy R EUR	€126.32	-	-0.34	0.00	-18.68	9.04
Algebris Financial Equity R EUR	€130.13	-	1.62	0.00	9.68	10.68

The Antares European Fund Limited
Other International

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
AEF Ltd Usd	$545.38	-	14.67	0.00	-4.28	-4.67
AEF Ltd Eur	€506.08	-	13.68	0.00	-5.16	-5.35

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	2277.38	-	-4.11	3.91	6.51	10.37
Artemis Corporate Bond I Acc	96.08	-	-0.22	2.82	-17.07	-
Artemis SmartGARP Eur Eq I Acc	386.35	-	-2.18	-	-8.13	2.47
Artemis European Opps I Acc	114.14	-	-2.01	-	-17.05	0.21
Artemis SmartGARP Glo Emr Eq I Acc	162.94	-	-0.08	-	-5.37	4.11
Artemis SmartGARP Glo Eq I Acc	383.88	-	-0.18	2.50	2.44	8.46
Artemis Global Income I Inc	111.13	-	-0.71	4.23	6.03	8.34
Artemis Global Select I Acc	163.12	-	0.01	0.55	-7.29	8.08
Artemis High Income I Q Inc	68.47	-	-0.24	5.57	-11.17	-0.52
Artemis Income I Inc	242.25	-	-0.17	4.19	0.46	3.30
Artemis Monthly Dist I Inc	71.14	-	-0.37	4.32	-1.48	3.31
Artemis Positive Future Fund	71.54	-	0.74	0.00	-31.77	-
Artemis Strategic Assets I Acc	88.45	-	-0.18	0.00	3.29	2.38
Artemis Strategic Bond I Q Acc	100.59	-	-0.29	3.09	-11.30	-1.23
Artemis Target Return Bond I Acc	104.31	-	0.06	2.56	-5.08	-
Artemis UK Select Fund Class I Acc	696.94	-	-3.63	2.07	-13.27	7.30
Artemis UK Smaller Cos I Acc	1976.36	-	-6.24	-	-12.75	4.05
Artemis UK Special Sits I Acc	699.65	-	-1.90	1.95	-13.80	3.53
Artemis US Abs Return I Hdg Acc	110.95	-	-0.14	0.00	-1.53	-1.21
Artemis US Extended Alpha I Acc	331.85	-	-3.13	0.00	3.14	11.66
Artemis US Select I Acc	303.12	-	-2.97	0.00	-3.22	9.22
Artemis US Smlr Cos I Acc	322.85	-	-1.95	0.00	-11.05	8.76

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	$113.77	-	-0.72	-	-30.83	3.45
Emerging Markets Equity ESG Fund	$128.44	-	-0.31	0.00	-33.06	-
Emerging Markets Active Equity Fund	$116.63	-	-1.14	0.00	-26.90	-3.28
Emerging Markets Frontier Equity Fund	$189.71	-	0.29	0.37	-6.52	4.86
Emerging Markets Blended Debt Fund	$51.98	-	-0.14	6.36	-30.46	-11.07
Emerging Markets Blended Debt ESG Fund	$81.99	-	-0.23	0.00	-24.70	-7.82
Emerging Markets Debt Fund	$57.30	-	-0.05	7.76	-32.65	-11.74
Emerging Markets Corporate Debt Fund	$61.13	-	-0.08	9.10	-26.97	-6.87
Emerging Markets Local Currency Bond Fund	$58.32	-	-0.18	4.31	-18.54	-5.98

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
American Dynamic	$6624.80	6624.80	298.86	0.00	-15.80	9.81
American One	$6882.46	6882.46	335.94	0.00	-11.62	11.89
Bond Global	€1576.81	1576.81	-14.98	-	2.90	0.58
Eurocroissance	€1321.49	-	51.33	0.00	-15.07	6.77
Far East	$977.39	-	17.09	0.00	-29.88	3.44

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	$8.25	-	-0.19	0.00	-36.99	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Brooks Macdonald International Investment Funds Limited						
Euro High Income	€1.2500	-	-0.0049	2.50	-15.32	-5.28
High Income	£0.6632	-	-0.0010	3.77	-18.44	-4.90
Sterling Bond	£1.2621	-	-0.0020	2.06	-19.06	-5.10
Brooks Macdonald International Multi Strategy Fund Limited						
Cautious Balanced Strategy	£1.2479	-	-0.0048	0.00	-11.31	-1.22
Cautious Balanced Strategy A	£0.8914	-	-0.0034	1.11	-10.88	-
Balanced Strategy	£0.9081	-	-0.0019	0.09	-9.11	-
Balanced Strategy A	£0.9079	-	-0.0019	0.58	-8.39	-
Growth Strategy	£1.9156	-	-0.0052	0.00	-10.54	0.17
Growth Strategy A	£0.9144	-	-0.0025	0.50	-10.10	-
High Growth Strategy	£2.6762	-	-0.0072	0.00	-11.47	1.23
High Growth Strategy A	£0.9116	-	-0.0024	0.12	-11.03	-
US$ Growth Strategy	$1.5908	-	-0.0048	0.00	-27.09	-1.55

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
US Small Cap Blend Fund USD B	$20.73	-	-0.11	0.00	-13.08	4.74
US Flexible Equity Fund USD B	$22.16	-	-0.18	0.00	-18.41	9.15
Global Leaders Fund USD C	$19.00	-	-0.29	0.00	-19.15	5.54
US Sustainable Growth Fund USD C	$22.88	-	-0.45	0.00	-24.31	12.80
Global Leaders Sustainable Fund USD C	$11.65	-	-0.18	0.00	-19.32	-
US Equity Growth Fund USD B	$45.24	-	-0.84	0.00	-31.51	5.17
US Smaller Companies Fund USD B	$33.92	-	-0.29	0.00	-20.34	6.39
US Mid-Cap Growth Fund USD C	$16.44	-	-0.15	0.00	-29.98	3.17
Global Sustainable Total Return Bond GBP B	£9.55	-	-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	£141.23	141.23	0.23	1.30	1.25	5.49
Capital Gearing Portfolio GBP P	£39192.1	39192.1	87.55	-	0.39	5.79
Capital Gearing Portfolio GBP V	£190.26	190.26	0.43	-	0.39	5.79
Dollar Fund Cls D Inc	£182.35	182.35	0.62	1.32	7.40	4.50
Dollar Hedged GBP Inc	£97.69	97.69	-0.46	1.59	-11.24	1.04
Real Return Cls A Inc	£216.62	216.62	0.90	1.37	5.16	3.27

Candriam Investors Group (LUX)
FCA Recognised

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Eqts L Australia Cap	A$1793.58	-	-24.78	0.00	-3.93	7.92

Candriam Investors Group
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Candriam Eqts L Emerging Mkts Cap	€915.13	-	-18.72	0.00	-20.45	3.19
Candriam Bonds Credit Opportunities	€191.38	-	-0.06	0.00	-6.06	-1.56
Candriam Bds Euro High Yield Cap	€1137.12	-	0.27	0.00	-11.45	-1.62
Candriam Bds Euro Sh.Term Cap	€1991.49	-	-2.62	0.00	-4.00	-1.64

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
CAM-GTF VCC	$394876.5	394876.5	-3321.27	-	-6.36	3.78
CAM GTi VCC	$780.49	-	-32.39	-	12.31	4.69
RAIC VCC	$1.64	1.64	0.03	2.06	5.74	-1.66

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Consistent UT Inc	60.15xd	60.15	-0.35	0.62	-25.09	8.96
Consistent UT Acc	182.20xd	182.20	-1.00	0.62	-25.12	8.96
Practical Investment Inc	226.50	226.50	-5.60	3.90	-9.13	5.06
Practical Investment Acc	1418.00	1418.00	-2.00	3.90	-9.16	3.58

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	$306.62	-	2.38	-	13.45	15.81

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	$406.04	-	1.29	-	8.31	13.76
CP Global Alpha Fund	$337.93	-	1.62	-	9.87	14.36

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
DWS Invest Top Dividend	£154.44	154.44	0.19	-	13.26	5.22
DWS Invest Top Euroland	£143.02	143.02	0.73	-	-18.45	2.37
DWS Invest Multi Opportunities	£111.46	111.46	-0.57	0.00	-3.63	1.77
DWS Invest Global Bonds	£91.90	91.90	0.00	0.00	-11.95	-3.84

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	€16.34	-	-0.07	-	4.34	4.25
EUR Accumulating Class (H)	€10.24	-	-0.03	0.00	-13.15	-0.90
EUR Distributing Class	€12.12	-	-0.05	-	2.58	3.66
EUR Distributing Class (H)	€7.54	-	-0.02	1.91	-14.72	-1.51
GBP Distributing Class	£12.93	-	0.05	-	4.67	3.06
GBP Distributing Class (H)	£8.05	-	-0.02	1.94	-13.97	-0.81
USD Accumulating Class	$11.78	-	-0.03	-	-11.76	0.75
Dodge & Cox Worldwide Funds plc-Global Stock Fund						
USD Accumulating Share Class	$27.28	-	-0.17	-	-7.84	7.50
GBP Accumulating Share Class	£39.12	-	-0.01	-	11.23	10.59
GBP Distributing Share class	£26.45	-	-0.01	-	10.62	10.40
EUR Accumulating Share Class	€40.99	-	-0.33	-	8.99	11.25
GBP Distributing Class (H)	£12.80	-	-0.09	0.79	-9.57	5.38
Dodge & Cox Worldwide Funds plc-U.S. Stock Fund						
USD Accumulating Share Class	$36.40	-	-0.14	0.00	-6.88	10.19
GBP Accumulating Share Class	£49.36	-	0.10	0.00	12.39	13.35
GBP Distributing Share Class	£29.68	-	0.06	0.28	11.95	13.21
EUR Accumulating Share Class	€47.22	-	-0.26	0.00	10.07	14.01
GBP Distributing Class (H)	£14.62	-	-0.06	0.33	-8.39	8.33

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Vietnam Equity (UCITS) Fund A USD	$31.93	-	-0.55	0.00	-12.42	11.36

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	99.28	-	0.14	5.48	-7.56	1.36
Amity Global Equity Inc for Charities A Inc	154.10	-	0.40	-	-3.01	6.74
EdenTree European Equity Cls A Inc	286.80	-	-0.50	-	-6.56	4.47
EdenTree European Equity Cls B Inc	290.00	-	-0.60	-	-6.06	5.14
EdenTree Global Equity Cls A Inc	321.30	-	-1.30	0.08	-13.66	4.52
EdenTree Global Equity Cls B Inc	323.90	-	-1.30	0.66	-13.19	5.16
EdenTree Responsible and Sust S Dtd Bd B	93.25	-	-0.08	0.76	-6.25	-1.30
EdenTree Sterling Bond Cls A Inc	87.18	-	-0.09	3.73	-14.78	-2.71
EdenTree Sterling Bond Cls B Inc	98.26	-	-0.10	3.73	-14.25	-2.09
EdenTree UK Equity Cls A Inc	211.00	-	0.30	0.99	-21.57	-2.77
EdenTree UK Equity Cls B Inc	210.40	-	0.40	1.67	-21.09	-2.14
EdenTree UK Equity Opps Cls A Inc	261.90	-	1.20	0.91	-27.80	-1.98
EdenTree UK Equity Opps Cls B Inc	267.20	-	1.20	1.62	-27.43	-1.35
Edentree Global Impact Bond B	86.53	-	-0.21	-	-	-
Edentree Green Future B Net Inc	99.41	-	-0.57	-	-	-
EdenTree Managed Income Cls A Inc	122.40	-	0.00	4.83	-3.45	2.20
EdenTree Managed Income Cls B Inc	130.50	-	0.10	4.83	-2.91	2.74

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Smaller Cos Cls One Shares	€53.05	-	0.43	0.00	-19.23	5.43
Smaller Cos Cls Two Shares	€33.90	-	0.27	0.00	-19.32	3.77
Smaller Cos Cls Three Shares	€16.92	-	0.14	0.00	-19.89	3.46
Smaller Cos Cls Four Shares	€22.30	-	0.18	0.00	-18.01	4.36

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Emerging Mkts NAV	£7.21	-	-0.16	1.90	-23.70	-5.11

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Allocator World Fund W-ACC-GBP	£2.67	-	-0.02	0.97	0.15	8.25
American Fund W-ACC-GBP	£54.23	-	-0.57	0.00	-13.65	4.91
American Special Sits W-ACC-GBP	£23.27	-	-0.14	0.48	22.80	11.72
Asia Fund W-ACC-GBP	£15.64	-	-0.08	0.26	-10.37	2.79
Asia Pacific Ops W-Acc	£2.78	-	-0.04	0.48	-6.42	8.49
Asian Dividend Fund W-ACC-GBP	£2.35	-	0.00	2.82	3.67	3.98
Cash Fund W-ACC-GBP	£1.02	-	0.00	0.00	0.50	0.28
China Consumer Fund W-ACC-GBP	£2.76	-	-0.01	0.00	-14.00	-3.89
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£1.61	-	-0.01	-	-46.40	-12.03
Emerging Asia Fund W-ACC-GBP	£1.91	-	0.01	0.28	-6.75	5.72
Enhanced Income Fund W-INC-GBP	£0.85	-	0.00	-	8.44	4.50
European Fund W-ACC-GBP	£21.87	-	-0.13	-	-4.04	7.06
Extra Income Fund W-ACC-GBP	£1.26	-	0.00	3.82	-15.23	-2.47
Global Dividend Fund W-ACC-GBP	£2.91	-	0.01	2.62	3.56	6.14
Global Enhanced Income W-ACC-GBP	£2.26	-	0.00	4.22	4.09	5.16
Global High Yield Fund W-ACC-GBP	£13.57	-	-0.04	5.59	-16.65	-3.18
Global Property Fund W-ACC-GBP	£2.10	-	-0.03	1.42	-3.22	0.85
Global Special Sits W-ACC-GBP	£54.31	-	-0.45	0.29	-3.41	8.99
Index Emerging Markets P-ACC-GBP	£1.71	-	-0.01	-	-7.88	2.39
Index Europe ex UK P-ACC-GBP	£1.73	-	-0.02	-	-9.42	3.95
Index Japan P-ACC-GBP	£1.84	-	0.01	1.90	-12.48	2.17
Index Pacific ex Japan P-Acc-GBP	£1.90	-	-0.01	3.56	3.51	3.04
Index Sterling Corporate Bond Fund P-ACC-GBP	£0.82	-	0.00	1.95	-19.91	-
Index UK Gilt Fund P-ACC-GBP	£0.76	-	0.00	0.57	-21.64	-
Index UK P-ACC-GBP	£1.51	-	0.00	3.21	2.14	3.03
Index US P-ACC-GBP	£3.52	-	-0.04	1.06	6.11	13.70
Index World P-ACC-GBP	£2.70	-	-0.02	1.39	1.46	10.38
Japan Fund W-ACC-GBP	£5.52	-	0.03	-	-4.45	10.81
Japan Smaller Companies Fund W-ACC-GBP	£3.44	-	-0.02	0.60	-23.14	0.62
MoneyBuilder Balanced Fund W-ACC-GBP	£0.60	-	0.00	2.91	-3.07	1.02
MoneyBuilder Dividend Fund W-INC-GBP	£1.27	-	0.00	-	9.00	5.20
Multi Asset Allocator Adventurous Fund W-ACC-GBP	£2.13	-	-0.02	0.87	-2.74	6.02
Multi Asset Allocator Defensive Fund W-ACC-GBP	£1.31	-	0.00	0.92	-11.08	-0.95
Multi Asset Allocator Growth Fund W-ACC-GBP	£1.85	-	-0.01	0.85	-5.57	3.66
Multi Asset Allocator Strategic Fund W-ACC-GBP	£1.59	-	0.00	0.80	-8.43	1.32
Multi Asset Balanced Income Fund W-INC-GBP	£0.99	-	0.00	4.02	-9.27	-0.68
Multi Asset Income & Growth Fund W-INC-GBP	£1.04	-	0.00	4.19	-7.30	0.61
Multi Asset Income Fund W-INC-GBP	£0.91	-	0.00	4.84	-12.24	-1.75
Multi Asset Open Advent W-ACC-GBP	£1.73	-	0.00	-	-2.54	4.86
Multi Asset Open Defen W-ACC-GBP	£1.32	-	-0.01	1.12	-7.80	0.66
Multi Asset Open Growth Fund W-ACC-GBP	£1.63	-	0.00	-	-3.44	4.37
Multi Asset Open Strategic Fund W-ACC-GBP	£1.49	-	0.00	1.21	-5.77	2.23
Open World Fund W-ACC-GBP	£2.28	-	0.00	0.56	0.53	7.86
Select 50 Balanced Fund PI-ACC-GBP	£1.14	-	0.00	1.00	-7.49	1.45
Short Dated Corporate Bond Fund W-ACC-GBP	£10.40	-	-0.01	4.05	-7.42	-0.88
Special Situations Fund W-ACC-GBP	£41.24	-	0.03	2.05	-1.88	3.39
Strategic Bond Fund W-ACC-GBP	£1.17	-	0.00	2.14	-16.95	-2.77
Sustainable European Equity Fund W-ACC-GBP	£4.99	-	-0.06	-	-13.74	1.32
Sustainable Global Equity Fund W-ACC-GBP	£33.71	-	-0.35	0.00	-6.98	9.22
Sustainable MoneyBuilder Income Fund W-ACC-GBP	£12.19	-	-0.01	-	-18.35	-4.00
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£0.94	-	0.00	0.14	-8.55	-
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£0.91	-	0.00	0.15	-11.43	-
Sustainable Multi Asset Growth Fund W-ACC-GBP	£0.97	-	0.00	0.08	-6.45	-
Sustainable Water & Waste W-ACC-GBP	£1.13	-	-0.01	0.14	-13.13	-
UK Opportunities Fund W-ACC-GBP	249.30	-	-1.70	1.26	-20.30	3.54
UK Select Fund W-ACC-GBP	£3.58	-	0.00	2.07	-2.90	3.40
UK Smaller Companies W-ACC-GBP	£3.33	-	-0.03	-	-13.25	9.23

FSSA Investment Managers (UK)
Finsbury Circus House, 15 Finsbury Circus, London, EC2M 7EB
infouk@fssaim.com
Client Services: 0800 587 4141 Dealing Line: 0800 587 3388
Authorised Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Asia-All Cap Acc GBP	£1.87	-	0.00	1.47	-4.41	5.99
Asia Focus Acc GBP	£2.35	-	-0.01	1.10	-3.49	6.58
Greater China Growth A Shares	1060.63	-	-2.73	0.36	-8.84	5.46
Japan Focus Acc GBP	£2.14	-	-0.01	0.00	-33.80	2.11

First Sentier Investors (UK) (UK)
Finsbury Circus House, 15 Finsbury Circus, London, EC2M 7EB
infoUK@firstsentier.com
Client Services: 0800 587 4141 Dealing Line: 0800 587 3388
Authorised Funds

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Diversified Growth B Acc	£1.27	-	0.00	0.93	7.30	6.25
Emerging Markets Bond A Accumulation	£1.44	-	0.00	4.44	2.33	4.19
Emerging Markets Bond A Income	£0.94	-	0.00	4.59	2.33	4.22
Global Listed Infrastructure Acc	359.71	-	-4.70	2.39	21.63	5.82
Global Listed Infrastructure Inc	228.59	-	-2.98	2.43	21.61	5.81
Global Property Securities A Accumulation	262.51	-	-1.53	1.79	-2.41	3.15
Global Property Securities A Income	175.73	-	-1.03	1.78	-2.34	3.18

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	€158.86	-	-3.28	0.00	-1.16	-
American Fund USD Class	$158.79	-	-3.31	0.00	-16.41	6.97
American Fund GBP Hedged	£78.77	-	-1.69	0.00	-17.48	5.54
American Fund GBP Unhedged	£138.16	-	-1.81	0.00	0.59	9.89

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
FCA Recognised - Luxembourg UCITS						
Foord International Fund | R	$47.41	-	-0.16	-	-2.80	4.75
Foord Global Equity Fund (Lux) | R	$15.45	-	-0.08	0.00	-16.74	-
Regulated						
Foord Global Equity Fund (Sing) | B	$18.39	-	-0.10	0.00	-16.90	4.35
Foord International Trust (Gsy)	$46.21	-	-0.16	-	-2.76	4.72

Franklin Templeton International Services Sarl (IRL)
JPMorgan House - International Financial Services Centre,Dublin 1, Ireland
Other International Funds
Franklin Emerging Market Debt Opportunities Fund Plc

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Franklin Emg Mkts Debt Opp CHFSfr	12.20	-	0.25	6.38	-14.66	-3.34
Franklin Emg Mkts Debt Opp GBP	£8.19	-	0.22	6.30	-11.59	-2.42
Franklin Emg Mkts Debt Opp USD	$13.89	-	0.21	6.26	-15.02	-1.61

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	579.43	-	-5.58	0.05	-9.87	7.83
Fundsmith Equity T Inc	528.74	-	-5.10	0.05	-9.87	7.83

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
LAPIS GBL TOP 50 DIV.YLD-Na-D	£125.22	-	-0.25	2.56	16.67	6.87
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£100.37	-	0.30	0.99	-9.15	-

Guinness Global Investors

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Guinness Global Equity Income Y GBP Dist	£18.45	-	-0.04	2.32	10.02	11.03
Guinness Global Innovators Y GBP Acc	£25.60	-	-0.29	0.00	-12.59	11.75
Guinness Sustainable Global Equity Y GBP Acc	£11.05	-	-0.04	0.00	-7.60	-

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

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

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Property	£7.87	8.48	0.04	-	18.73	5.43

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	1188.00	-	-11.00	0.00	-9.24	0.45
Janus Henderson Asian Dividend Income Unit Trust Inc	83.68	-	-0.69	6.00	1.04	-1.09
Janus Henderson Cautious Managed Fund A Acc	273.00	-	0.10	3.03	-8.11	0.31
Janus Henderson Cautious Managed Fund A Inc	136.60	-	0.10	3.09	-8.08	0.57
Janus Henderson China Opportunities Fund A Acc	1254.00	-	-6.00	0.00	-16.12	-5.20
Janus Henderson Emerging Markets Opportunities Fund A Acc	206.80	-	-1.60	-	-14.47	1.02
Janus Henderson European Growth Fund A Acc	268.40	-	-2.00	-	-8.43	3.93
Janus Henderson European Selected Opportunities Fund A Acc	2005.00	-	-15.00	1.32	-10.25	4.36
Janus Henderson Fixed Interest Monthly Income Fund Inc	17.82	-	-0.09	4.81	-19.23	-3.24
Janus Henderson Global Equity Fund Acc	4340.00	-	-33.00	0.00	-9.45	7.85
Janus Henderson Global Equity Income Fund A Inc	64.27	-	-0.11	3.42	5.22	4.61
Janus Henderson Global Sustainable Equity Fund A Inc	473.90	-	-2.80	0.00	-9.23	11.70
Janus Henderson Global Technology Fund A Acc	2832.00	-	-38.00	-	-16.73	10.55
Janus Henderson Instl UK Idx Opps A Acc	£1.08	-	0.00	2.65	0.48	-
Janus Henderson Multi-Asset Absolute Return Fund A Acc	163.00	-	0.10	-	4.49	4.48
Janus Henderson Multi-Manager Active Fund A Acc	253.50	-	-1.20	0.00	-6.94	2.66
Janus Henderson Multi-Manager Distribution Fund A Inc	126.00	-	-0.40	2.45	-7.52	0.09
Janus Henderson Multi-Manager Diversified Fund A Acc	85.68	-	-0.18	2.51	-10.60	-1.46
Janus Henderson Multi-Manager Global Select Fund Acc	311.10	-	-1.30	0.00	-3.42	6.60
Janus Henderson Multi-Manager Income & Growth Fund A Acc	185.60	-	-0.60	2.30	-7.85	0.27
Janus Henderson Multi-Manager Income & Growth Fund A Inc	146.40	-	-0.50	2.33	-7.86	0.29
Janus Henderson Multi-Manager Managed Fund A Acc	308.10	-	-1.60	0.00	-6.97	1.91
Janus Henderson Multi-Manager Managed Fund A Inc	298.20	-	-1.50	0.00	-6.99	1.91
Janus Henderson Sterling Bond Unit Trust Acc	204.30	-	0.00	-	-18.86	-4.79
Janus Henderson Sterling Bond Unit Trust Inc	56.31	-	-0.01	-	-18.87	-4.79
Janus Henderson Strategic Bond Fund A Inc	105.70	-	-0.50	3.39	-17.65	-2.97
Janus Henderson Absolute Return Fund A Acc	163.20	-	-0.20	0.00	-3.32	1.58
Janus Henderson UK Alpha Fund A Acc	135.30	-	-0.80	0.35	-24.46	-2.51
Janus Henderson UK Equity Income & Growth Fund A Inc	502.60	-	-0.40	4.69	-1.36	1.05
Janus Henderson UK Property PAIF A Acc	£2.65	2.78	0.00	-	13.53	4.26
Janus Henderson UK Property PAIF A Inc	£1.06	1.11	0.00	-	13.53	4.32
Janus Henderson US Growth Fund A Acc	1703.00	-	-5.00	0.00	-15.23	8.05

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	236.91	-	-1.19	1.36	-7.24	2.52
HC Kleinwort Hambros Growth A Inc	214.95	-	-1.07	1.38	-7.23	2.52
HC Kleinwort Hambros Equity Income A Inc	96.33	-	-2.29	3.06	-2.71	0.97
HC Kleinwort Hambros Equity Income A Acc	188.77	-	-4.50	4.50	-2.71	0.97
HC Kleinwort Hambros Multi Asset Balanced A Acc	169.34	-	-0.61	0.81	-8.71	0.21
HC Kleinwort Hambros Multi Asset Balanced A Inc	160.06	-	-0.58	0.81	-8.71	0.21
HC Kleinwort Hambros Fixed Income A Acc	121.90	-	-0.10	3.44	-12.29	-2.88
HC Kleinwort Hambros Fixed Income A Inc	92.93	-	0.13	3.44	-12.29	-2.88

MANAGED FUNDS SERVICE

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	121.17	-	-0.54	0.00	-11.06	-0.84
Developing Markets Inc	119.32	-	-0.54	0.00	-11.07	-0.84
Emerging Markets Acc	349.22	-	-1.93	-	-4.36	0.63
Emg Mkts Inc	275.77	-	-1.52	-	-4.35	0.63

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	$77.93	-	-1.62	0.00	2.53	-
Milltrust Laurium Africa SP A	$95.03	-	-0.75	0.00	-8.49	-
Milltrust Marcellus India Fund	$136.41	-	-0.88	0.00	-9.33	-
Milltrust Singular ASEAN SP Founders	$129.43	-	-0.57	0.00	-18.17	-
Milltrust SPARX Korea Equity SP A	$96.79	-	-0.43	0.00	-42.35	-
Milltrust Xingtai China SP A	$95.57	-	0.17	0.00	-36.00	-
The Climate Impact Asia Fund SP (Class A)	$79.67	-	-1.00	0.00	-24.72	-
The Climate Impact Asia Fund (Class B)	$79.13	-	-0.98	0.00	-25.10	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
The Equity Idx Tracker Fd Inc	1892.00	-	8.00	2.25	-0.80	4.56

Distribution Units

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Monument Growth 06/09/2022	£559.98	565.50	12.96	1.03	-0.11	4.36

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Prusik Asian Equity Income B Dist	$174.16	-	-1.49	4.55	-0.13	0.92
Prusik Asia Emerging Opportunities Fund A Acc	$194.90	-	-3.11	0.00	-14.24	8.54
Prusik Asia Fund U Dist.	£232.71	-	-0.79	0.00	-7.67	7.05
Prusik Asia Sustainable Growth Fund A Acc	$87.61	-	-1.07	-	-	-

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

Fund	Bid	Offer	+/-	Yield	1Yr	3Yr
Rubrics Emerging Markets Fixed Income UCITS Fund	$131.38	-	-0.40	-	-6.95	-1.55
Rubrics Global Credit UCITS Fund	$16.67	-	-0.02	0.00	-8.73	-0.46
Rubrics Global Fixed Income UCITS Fund	$169.59	-	-0.36	-	-6.10	-0.52

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	$1248.11	-	3.96	0.00	-17.45	4.23
Superfund Green Silver	$1000.31	-	51.39	0.00	-29.60	1.67
Regulated						
Superfund Green US$	$1016.70	-	-3.82	0.00	-12.63	2.28

European Alpha Acc	954.55	-	-5.03	-	-10.34	2.58
European Alpha Inc	826.58	-	-4.36	-	-10.34	2.58
European Smaller Cos Acc	625.28	-	-5.83	0.00	-28.81	1.75
Global Equity Income Acc	225.42	-	-0.31	3.51	-0.30	6.91
Global Equity Income Inc	114.85	-	-0.16	3.60	-0.31	6.90
Managed Bal Inc	181.48	-	-0.17	1.89	-9.34	2.37
UK Income Acc	1535.57	-	-0.53	-	-0.95	1.85
UK Income Inc	565.56	-	-0.20	-	-0.95	1.84
UK Omega Acc	263.14	-	0.18	-	-2.99	1.65
UK Omega Inc	220.42	-	0.16	-	-2.99	1.65
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

Lothbury Property Trust GBP	£2124.29	2288.53	-37.20	2.53	10.62	2.93

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

Charifund Inc	1473.35	-	2.45	5.34	0.23	3.16
Charifund Acc	28470.92	-	47.36	4.49	0.22	3.17
M&G Charities Fixed Interest Fund (Charibond) Inc	£ 1.09	-	0.00	1.99	-9.57	-
M&G Charities Fixed Interest Fund (Charibond) Acc	£ 38.59	-	-0.05	-	-9.57	-
M&G Charity Multi Asset Fund Inc	£ 0.88	-	0.00	3.73	1.33	-
M&G Charity Multi Asset Fund Acc	£104.04	-	-0.06	3.59	1.33	-

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

UK Equity Fd Cl A Series 01	£2573.15	3006.08	-142.29	0.00	-6.69	4.31
Diversified Absolute Rtn Fd USD Cl AF2	$1822.81	-	51.73	0.00	-6.48	0.64
Diversified Absolute Return Stlg Cell AF2	£1519.37	-	47.28	0.00	-7.06	-0.48
Global Equity Fund A Lead Series	£1757.52	1763.53	-0.92	0.00	-5.16	3.25

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

Balanced	222.16	222.16	-0.63	0.18	-8.06	2.24
Bond Income	41.37	41.37	-0.05	3.81	-18.27	-4.92
Cautious Inc	84.44	84.44	-0.08	1.58	-7.27	-0.54
Emerging Markets	331.00	331.00	1.45	1.00	-8.04	2.87
Conservative P Acc	92.90	-	-0.02	0.00	-8.53	-
European Multi-Cap	665.53	665.53	-4.37	1.02	-15.89	13.78
Extra Income	85.82	85.82	-0.08	4.31	-4.77	3.35
Far East Growth A Inc	234.00	234.00	-1.97	1.19	-14.15	0.91
Global	292.46	292.46	-1.66	0.00	-9.83	4.30
Global Bond Inc	138.63	138.63	0.33	2.82	-8.62	-2.80
High Yield Fixed Interest	61.87	61.87	-0.46	4.56	-12.39	-1.27
Marlborough Technology Fund A	793.44	793.44	1.11	0.00	-30.51	11.78
Multi Cap Income A Inc	121.47	121.47	0.15	5.27	-17.43	-1.93
Nano-Cap Growth A Acc	203.51	203.51	-0.31	0.00	-30.80	6.49
Special Situations A Acc	1717.52	1717.52	-8.67	0.00	-32.32	2.60
UK Multi-Cap Growth A Inc	338.82	338.82	-2.89	0.00	-28.57	0.01
UK Micro Cap Growth A Inc	774.93	774.93	-2.14	0.00	-36.99	3.34
US Multi-Cap Income	761.68	761.68	-2.15	1.14	9.34	10.85
MFM - Third Party Funds						
Junior Gold C Acc	29.90	29.90	0.40	0.00	-40.57	1.14
MFM Bowland	323.32	323.32	10.81	0.94	-16.04	0.73
MFM Hathaway Inc	146.52	146.52	-1.36	0.93	-16.16	0.71
MFM UK Primary Opportunities A Inc	426.60	426.60	-0.10	1.01	-13.87	1.62

Marwyn Asset Management Limited (CYM)
Regulated

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

Balanced Fund Personal Class Units	5963.80	-	-23.30	1.38	-2.68	5.84
Income Fund Personal Class Units	2951.40	-	3.30	2.34	2.98	4.98
Emerging Markets Fund Personal Class Units	2393.80	-	-6.30	1.41	2.45	2.45
Smaller Companies Fund Personal Class Units	5958.90	-	-37.00	1.23	-23.34	2.22

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

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	$ 92.13	-	-0.66	0.00	-26.18	2.03

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

Mir. - Glb Strat. Bd I USD	$113.84	-	-0.17	0.00	-9.11	-0.02
Mir. - DiscEur D Cap GBP	£159.88	-	0.43	0.00	-25.42	3.59
Mirabaud - UK Equity High Alpha	£131.82	-	0.81	0.00	-22.68	1.93

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

Oasis Crescent Global Equity Fund USD A (Dist)	$ 32.75	-	-0.20	-	-15.74	2.62
Oasis Crescent Global Income Fund USD A (Dist)	$ 10.12	-	-0.01	2.60	-6.96	0.22
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.01	-	-0.06	0.57	-11.03	0.60
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.20	-	-0.06	0.15	-11.60	1.47
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 8.00	-	-0.14	0.62	-18.63	-2.60
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.94	-	0.00	1.77	-3.13	0.25
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.68	-	-0.01	0.17	-5.42	0.32

Omnia Fund Ltd
Other International Funds

Estimated NAV	$782.44	-	97.20	0.00	17.79	2.76

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

Orbis OEIC Global Cautious Standard	£ 11.73	-	-0.02	-	9.19	4.28
Orbis OEIC Global Balanced Standard	£ 18.78	-	-0.02	2.05	13.47	9.43
Orbis OEIC Global Equity Standard	£ 21.95	-	-0.01	1.95	3.99	9.37
Orbis OEIC UK Equity Standard	£ 11.04	-	0.05	3.39	6.45	10.40

Platinum Capital Management Ltd
Other International Funds

Platinum All Star Fund - A	$145.53	-	-	-	-6.34	3.17
Platinum Global Growth UCITS Fund	$ 8.71	-	0.06	0.00	-39.30	-5.86
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 11.54	-	0.36	0.00	36.73	8.28
Platinum Global Dividend UCITS Fund	$ 47.81	-	0.23	0.00	-18.80	-5.97

Polar Capital Funds Plc (IRL)
Regulated

Automation & Artificial Intelligence Cl I USD Acc	$ 13.62	13.62	-0.17	0.00	-34.01	6.17
Asian Stars I USD Acc	$ 13.76	-	-0.11	0.00	-27.96	6.50
Biotechnology I USD	$ 36.90	36.90	-0.02	-	-13.40	17.56
China Stars I USD Acc $	$ 10.96	10.96	0.00	-	-24.05	1.09
Emerging Market Stars I USD Acc	$ 11.07	-	-0.09	0.00	-29.27	3.97
European Ex UK Inc EUR Acc	€ 13.44	13.44	-0.06	0.00	3.54	3.22
Financial Opps I USD	$ 13.35	-	0.04	2.71	-14.83	2.24
Global Convertible I USD	$ 13.41	13.41	-0.04	0.00	-19.12	0.58
Global Insurance I GBP	£ 9.68	-	0.07	0.00	24.94	7.80
Global Technology I USD	$ 65.44	-	-1.18	-	-32.58	9.56
Healthcare Blue Chip Fund I USD Acc	$ 17.54	17.54	0.07	0.00	-7.24	10.11
Healthcare Dis I Acc USD $	$ 13.27	-	-0.06	0.00	-17.88	-
Healthcare Opps I USD	$ 62.69	-	-0.13	0.00	-12.42	9.41
Income Opportunities B2 I GBP Acc	£ 2.88	2.88	0.03	0.00	5.10	7.11
Japan Value I JPY	¥137.92	137.92	-0.16	0.00	2.04	6.47
North American I USD	$ 31.77	31.77	-0.28	0.00	-14.18	7.51
Smart Energy I USD Acc $	$ 8.78	8.78	-0.16	-	-	-
Smart Mobility I USD Acc $	$ 8.43	8.43	-0.12	-	-	-
UK Val Opp I GBP Acc	£ 11.86	11.86	0.03	0.00	-18.71	1.00

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

Global Total Fd PCG A	371.58	-	-2.92	0.00	-9.22	10.45
Global Total Fd PCG B	366.45	-	-2.88	0.00	-9.45	10.18
Global Total Fd PCG INT	359.89	-	-2.83	0.00	-9.67	9.90

Purisima Investment Fds (CI) Ltd (JER)
Regulated

PCG B ✠	272.66	-	-10.39	0.00	-21.72	6.40
PCG C ✠	265.39	-	-10.12	0.00	-21.89	6.18

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

RAM Systematic Emerg Markets Eq	$204.05	204.05	-1.32	-	-17.40	5.69
RAM Systematic European Eq	€500.35	500.35	-3.66	-	-14.27	4.01
RAM Systematic Funds Global Sustainable Income Eq	$142.04	142.04	-0.67	0.00	-10.07	4.06
RAM Systematic Global Eq Sustainable Alpha	$113.55	113.55	0.13	-	2.28	-0.27
RAM Systematic Long/Short European Eq	€155.48	155.48	-0.72	-	3.39	3.34
RAM Systematic US Sustainable Eq	$336.45	336.45	-2.15	-	-21.12	3.50
RAM Tactical Global Bond Total Return	€139.13	139.13	-0.15	-	-10.58	-1.89
RAM Tactical II Asia Bond Total Return	$144.48	144.48	0.03	-	-8.59	-1.08

Royal London (UK)
55 Gracechurch Street, London, EC3V 0RL rlam.co.uk
Authorised Inv Funds

Royal London Sustainable Diversified A Inc	£ 2.28	-	-0.02	-	-14.29	2.74
Royal London Sustainable World A Inc	336.70	-	-3.80	-	-14.37	6.29
Royal London Corporate Bond Mth Income	75.69	-	-0.05	4.04	-16.36	-3.47
Royal London European Growth Trust	187.00	-	-1.90	-	-10.76	4.07
Royal London Sustainable Leaders A Inc	736.40	-	-3.60	1.05	-9.91	4.73
Royal London UK Growth Trust	590.00	-	-2.00	2.10	-11.62	1.82
Royal London UK Income With Growth Trust	204.90	-	0.30	5.16	-0.70	2.34
Royal London US Growth Trust	370.90	-	-0.80	0.00	3.09	13.32

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

LF Ruffer Diversified Rtrn C Acc	101.64	-	0.61	0.00	1.66	-
LF Ruffer Diversified Rtrn C Inc	100.79	-	-0.22	0.00	0.97	-
LF Ruffer European C Acc	748.60	-	13.25	1.03	-21.99	6.75
LF Ruffer European C Inc	135.48	-	2.40	1.04	-21.99	6.76
LF Ruffer European O Acc	726.22	-	12.81	0.87	-22.23	6.43
LF Ruffer Equity & General C Acc	547.37	-	2.07	0.44	-4.75	6.60
LF Ruffer Equity & General C Inc	498.48	-	1.89	0.44	-4.75	6.60
LF Ruffer Equity & General O Acc	531.06	-	1.98	0.15	-5.04	6.28
LF Ruffer Equity & General O Inc	491.00	-	1.83	0.14	-5.04	6.28
LF Ruffer Gold C Acc	213.94	-	-0.26	0.00	-13.86	1.74
LF Ruffer Gold C Inc	129.48	-	-0.16	0.00	-13.86	1.74
LF Ruffer Gold O Acc	207.49	-	-0.26	0.00	-14.11	1.44
LF Ruffer Japanese C Inc	155.61	-	2.50	0.00	-18.94	7.85
LF Ruffer Japanese C Acc	334.41	-	5.38	0.00	-18.93	7.86
LF Ruffer Japanese O Acc ✠	323.98	-	5.19	0.00	-19.19	7.53
LF Ruffer Total Return C Acc	542.44	-	-5.15	1.86	0.15	6.38
LF Ruffer Total Return C Inc	343.65	-	-3.26	1.88	0.16	6.38

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

Managed Growth ♦	334.60	-	-0.60	0.00	-5.40	7.28
UK Growth ♦	392.50	-	-1.30	0.00	-11.14	8.56

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

Khaleej Equity Fund	$613.87	-	-12.47	0.00	17.28	19.37
SICO Kingdom Equity Fund	$ 37.25	-	-0.53	0.00	15.21	20.31
SICO Gulf Equity Fund	$170.59	-	-3.37	0.00	23.60	16.85

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

Slater Growth A Acc	659.54	659.54	-2.28	0.00	-23.65	6.39
Slater Income A Inc	144.79	144.79	-0.10	5.22	-0.45	5.00
Slater Recovery A Acc	340.38	340.38	-1.29	0.00	-16.35	10.09
Slater Artorius	303.13	303.13	6.99	0.30	-23.17	11.03

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

SI Asia Pacific A Acc	1655.44	-	-21.86	0.00	-0.88	8.19
SI Asia Pacific A Inc	£ 2.93	-	-0.04	0.00	-1.03	7.77
SI Asia Pacific Leaders A Acc	910.55	-	-11.58	0.00	-4.85	8.58
SI Asia Pacific Leaders A Inc	£ 3.09	-	-0.04	0.00	-4.87	8.52
SI Asia Sustainability A Acc	759.05	-	-10.19	0.00	-0.14	9.86
SI Global Emerging Mkts A Acc	798.57	-	-8.61	-	1.24	-0.74
SI Global Emerging Mkts Leaders A Acc	560.14	-	-6.04	1.24	-1.44	-0.09
SI Global Emerging Mkts Sus A Acc	378.06	-	-4.08	0.00	-8.96	2.93
SI Indian Sub-Cont A Acc	837.09	-	-13.48	0.00	12.71	19.48
SI Latin America A Acc	£ 2.18	-	-0.01	-	-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	578.23	-	-6.42	0.00	-8.48	7.12
SI Worldwide Sus A Acc	£ 2.55	-	-0.02	-	-17.75	4.73
SI Worldwide Sus A Inc	£ 2.47	-	-0.02	0.00	-17.67	4.86

STONEHAGE FLEMING
GLOBAL BEST IDEAS EQUITY FUND

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

SF Global Best Ideas Eq B USD ACC	$215.75	-	-4.35	0.00	-25.26	5.11
SF Global Best Ideas Eq D GBP INC	£284.85	-	-3.52	0.00	-10.06	7.98

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

TM New Court Fund A 2011 Inc	£ 18.11	-	-0.05	0.00	-10.79	4.44
TM New Court Fund - A 2014 Acc	£ 18.26	-	-0.06	0.00	-10.80	4.46
TM New Court Equity Growth Fund - Inc	£ 19.64	-	-0.08	0.00	-12.94	5.25

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

Aptus Global Financials B Acc	£ 4.78	-	0.11	4.36	0.40	8.92
Aptus Global Financials B Inc	£ 3.09	-	0.07	4.50	0.44	11.00

Toscafund Asset Management LLP
www.toscafund.com

Tosca A USD	$399.04	-	-22.49	0.00	-0.08	8.50
Tosca Mid Cap GBP	£192.17	-	5.49	0.00	-28.13	-15.44
Tosca Opportunity B USD	$273.98	-	-18.82	0.00	-30.98	-16.10
Pegasus Fund Ltd A-1 GBP	£ 42.81	-	-2.95	0.00	-30.51	-17.01

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

Trojan Ethical O Acc	126.77	-	-0.47	0.00	-1.12	5.72
Trojan Ethical Global Inc O Acc	102.81	-	-0.23	-	-	-
Trojan Ethical Global Inc O Inc	100.93	-	-0.23	-	-	-
Trojan Ethical O Inc	126.51	-	-0.48	0.00	-1.13	5.71
Trojan Ethical Income O Acc	133.15	-	-0.52	2.57	-7.54	-1.00
Trojan Ethical Income O Inc	111.58	-	-0.44	2.62	-7.55	-1.00
Trojan Fund O Acc	385.37	-	-1.04	0.00	0.05	5.75
Trojan Fund O Inc	311.93	-	-0.84	0.00	0.05	5.75
Trojan Global Equity O Acc	477.68	-	-4.47	0.00	-7.66	7.59
Trojan Global Equity O Inc	394.12	-	-3.69	0.00	-7.67	7.59
Trojan Global Income O Acc	158.56	-	0.09	2.75	10.90	7.32
Trojan Global Income O Inc	133.54	-	0.08	2.81	10.90	7.32
Trojan Income O Acc	333.43	-	-0.98	2.79	-7.20	-1.72
Trojan Income O Inc	165.07	-	-0.48	2.85	-7.20	-1.72

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

UK Growth A Inc	589.73	-	-5.19	0.09	-29.36	0.73
Mastertrust A Inc ✠ F	574.98	-	-3.18	0.46	-14.26	3.82
UK Growth B Inc	597.63	-	-5.25	-	-28.78	1.47
Mastertrust B Inc ✠ F	519.05	-	-2.87	-	-13.58	4.59
Outstanding British Cos A Acc ✠ F	272.50	-	-1.33	0.48	-17.94	-3.80
Outstanding British Cos B Acc ✠ F	299.23	-	-1.47	1.29	-17.29	-3.07
UK Smaller Cos A Inc ✠ F	573.19	-	-2.54	-	-25.96	2.53
UK Smaller Cos B Inc ✠ F	563.18	-	-2.48	1.55	-25.37	3.28
UK Income A Acc ✠ F	294.27	-	-0.16	4.98	-16.19	-1.73
UK Income A Inc ✠ F	200.42	-	-0.10	-	-16.16	-1.89
UK Income B Acc ✠ F	328.88	-	-0.17	-	-15.55	-0.99
UK Income B Inc ✠ F	224.09	-	-0.12	-	-15.54	-1.05

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Memnon European Fund - Class U2 GBP	£216.69	-	-0.46	-	-1.28	5.61

Guide to Data

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

The sale of interests in the funds listed on these pages may, in certain jurisdictions, be restricted by law and the funds will not necessarily be available to persons in all jurisdictions in which the publication circulates. Persons in any doubt should take appropriate professional advice. Data collated by **Morningstar**. For other queries contact **reader.enquiries@ft.com +44 (0)207 873 4211.**

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

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

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

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

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

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

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

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

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

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

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

The symbols are as follows: ✠ 0001 to 1100 hours; ♦ 1101 to 1400 hours; ▲ 1401 to 1700 hours; # 1701 to midnight. Daily dealing prices are set on the basis of the valuation point, a short period of time may elapse before prices become available. Historic pricing: The letter H denotes that the managers/operators will normally deal on the price set at the most recent valuation. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis. The managers/operators must deal at a forward price on request, and may move to forward pricing at any time. Forward pricing: The letter F denotes that that managers/operators deal at the price to be set at the next valuation.

Investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers/operators. Scheme particulars, prospectus, key features and reports: The most recent particulars and documents may be obtained free of charge from fund managers/operators. * Indicates funds which do not price on Fridays.

Charges for this advertising service are based on the number of lines published and the classification of the fund. Please contact **data@ft.com or call +44 (0)20 7873 3132** for further information.

Data Provided by
MORNINGSTAR
www.morningstar.co.uk
Data as shown is for information purposes only. No offer is made by Morningstar or this publication.

WORK & CAREERS

Fracktastic news! I felt the earth move

Messages from the archive of Rutherford Hall, critical communications strategist

From: Rutherford@monkwellstrategy.com
To: DavidL@Fracarys.com

Thanks David. Liz Truss's announcement that she'll lift the moratorium on shale gas exploration, as long as there is local support, is indeed fracktastic — I felt the earth move when I heard the news — and our strategy: the national story, drilling regs, local consent and incentives.

Drilling rules. Obviously one of the big issues is the strict regulations that require work to cease for hours if the seismic activity exceeds 0.5 on the Richter scale. That's a total block on drilling and we need to get that limit raised. In the US the figure is 4.0, which admittedly would be quite shaky in the more densely packed UK but it's nothing you wouldn't pay good money

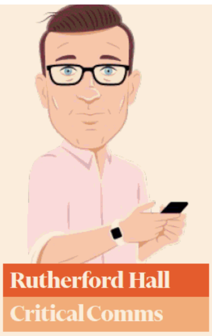
can see past minor inconveniences (lorries, protesters, earthquakes etc) and raise their eyes to the bigger picture. In other words, cash incentives.

We see a menu of options here. First is broad civic benefit. Local jobs, promises to train residents and to use local supply chains. We should invest in the community; a new sports centre, some road upgrades, which would suit us anyway. Sponsorship of local sports

Fracarys will keep Britain warm and working. This will

or is it just the only club that hasn't said no yet? Not sure we should rename the team the Blackpool Quake. Fans get sniffy about new names. Also our data team tested your idea of "the Tremors" as a nickname but amazingly it did not play as well as you'd have thought.

Ultimately, we may need a cash offer. It's a bit of an ask to live in an eco-protest hotspot. No one wants Extinction Rebellion blocking their trunk roads or Swampy tunnelling



we're excited to join you in helping to ensure the UK's energy security. As you requested, we are focusing initially on a plan for Blackpool and adjacent sites. Thank you for the "Welcome to Frackpool" idea. It is inspired and something we should build on, though perhaps it works better as the hidden philosophical underpinning of our strategy. Let's keep it in reserve, though. We'll be in touch.
Rutherford
Find me on Strava, KoM Sydenham Hill, PR London to Brighton: 4h 17m

----

From: Rutherford@monkwellstrategy.com
To: DavidL@Fracarys.com
We love the thought your team is giving to slogans. "Shale gas: it's fracking brilliant" — genius. But again, let's keep our powder dry for later in the campaign. As I said, I see four prongs to

for at Alton Towers. We are hopeful here since no change effectively means no shale gas. The good news is Jacob Rees-Mogg is in charge of this and our sources say he's OK with anything that can't be felt in Somerset.

On the national campaign we see an appeal to a higher cause. There's an energy crisis: we need to get to our own gas. Fracarys will keep Britain warm and working. This will play well everywhere you aren't drilling, which, happily, is most places. The local approval part is definitely a pest. Winning support will be tricky, especially if we get the seismic limits lifted. There are two parts to this. The first is defining local approval so that it means a handful of councillors we can work on rather than, say, a borough-wide referendum. The second is shaping the local narrative so residents

teams or community activities.

We thought of asking Jim Ratcliffe at Ineos if he wants to buy Blackpool FC. I know he'd prefer Man United, but he can get Blackpool a lot cheaper. With his cash they could be in the Prem in two seasons. And what's a few aftershocks when you are pushing for a Champions League spot? I'm sure we could change the team's nickname to the "Frackers" or the "Shalers". I know the fans call them the "Pool" or "the Seasiders", but neither is dynamic. We want a team that sounds intimidating, steaming into the opponents' territory and hydraulically fracturing it up a bit.
Rutherford
Find me on Strava . . .

From: Rutherford@monkwellstrategy.com
To: DavidL@Fracarys.com
That's great. Do you think Jim's serious

play well where you aren't drilling, which, happily, is most places

under the aquatic centre. How do you feel about offering to pay some of the locals' gas bills while successfully extracting? It's more expensive than a one-off community investment but it puts a real incentive in people's pockets at a time when they are thinking about it. No need to rush on this till we see how things stand. No point in spending if you don't need to.

PS: Hadn't clocked your London/Brighton time. That's seriously fast. Might give it another crack this weekend.
Rutherford
Find me on Strava . . .

WhatsApp to David: Phew. 18 mins off my London to Brighton time. Not in your league but under 4hrs. Fracking brilliant, as we like to say.
Messages recovered by Robert Shrimsley

Management

Middle managers — on the new front line of office life

Demands on team leaders are intensifying as they juggle the expectations of staff and senior leaders, writes *Emma Jacobs*


Dominic McKenzie

In her middle manager role, Catherine says she has experienced "more pressure" since the start of the pandemic than ever before. Based in Zurich and working for a financial services company, she is trying to navigate a stiffening in senior leadership's tone, pushback against demands for higher wages and hybrid work plans.

"In the past two years, the company gave a lot of support. The sense is, that's done," she says. "We're entering a different chapter, a different economic context and a push to get people back into the office." She has received little training on how to manage, yet is grateful for some coaching on building boundaries between work and family life. "It's very lonely — my boss is at a different level. I found myself having no place to turn to speak openly [to get] a sanity check."

At the same time, Catherine is putting in long hours trying to motivate her team. She says the new generation have different expectations of what they want to do. Some of her team members expect nine-to-five jobs. "Your job is to motivate, but they don't have the same drive as I did. I have to step in and do a lot of this work. My hours are endless between hand-holding and managing their work." She is wary of "applying pressure" and triggering sick leave.

The intensity of demands on managers' time and skillset is recognised by Elizabeth Gaito, head of talent experience at cloud software group Salesforce. Working in the sector for 20 years, she has seen more change in the past two years than in the first 18. "Managers are not only responsible for driving business results. They're on the front lines with their teams, supporting their emotional and psychological wellbeing, keeping company culture alive and navigating the challenges of 'work from anywhere'." This has prompted 24,000 managers at Salesforce to ask for management training — a 200 per cent increase since last year.

Middle managers, who oversee front-line team leaders while answering to senior leadership, have had to deal with upheavals wrought by the pandemic and the staff turnover through the so-called Great Resignation.

Stefanie Tignor, head of data science and insights at Humu, a California-based HR software company, says the pandemic has widened the gap between good and bad management. "The best managers care about employees, try new things and, as a result, were resilient to the problems."

Now, she says, many are charged with overseeing hybrid work plans and managing teams' pay expectations in a period of high inflation. Tomas Chamorro-Premuzic, chief talent scientist at Manpower group, a recruitment company, says high-performing managers have more sophisticated soft skills than their bosses. "You can have senior leaders with little empathy — they might be narcissistic. If you are a manager who can't connect with people, the team will be disengaged. If you don't know how to deal with hybrid, people will quit."

Elise Finn, co-founder of Nkuzi Change, below, says managers 'need support and recognition rather than blame' — Richard Cannon

It is a tricky position, particularly in a downturn, when traditionally the temptation for senior leaders has been to dispense with supposed management bloat. The image of the middle manager, says Zahira Jaser, associate professor at the University of Sussex Business School, is still mired in "anachronistic ideas that they are uninspiring".

Elise Finn, co-founder of Nkuzi Change, which provides coaching to middle managers at big employers, agrees. They can be "characterised as the 'frozen layer' who block change". In reality, they are given the responsibility for change with very "little input [in] the strategy . . . They need support and recognition rather than blame."

Organisational turbulence intensifies middle managers' evergreen problems, says Kate Franklin, also a co-founder at Nkuzi Change. These include trying to deliver strategic priorities which they have not shaped, while at the same time balancing the demands of management with their expertise. So "with pressure from all sides, just getting your job done can be frustrating and exhausting", she says. "As a result, many middle leaders default to their comfort zone of technical expertise, and this leads to a lack of leadership."

If managers do not have the time to prioritise management, it can have an impact on team performance, conflict and absence, says Ben Willmott, head of public policy at HR body the Chartered Institute of Personnel and Development. "If they aren't picked up early they can escalate and become more time-consuming."

For this reason, it is crucial, says Louise — who works in corporate banking for a European bank — that middle managers connect to senior leadership and speak up for their teams, rather than managing up. "It's important to build that bridge." Her team values that she challenges leaders. "They feel you are representing [them]."

The best managers, says Brian Kropp, chief of HR research at Gartner, the consultancy, are "connectors" — not necessarily solving employees' problems but connecting them to parts of the organisation that can. Nonetheless, research by Microsoft found that 74 per cent of managers say they don't have the influence or resources to make change for employees, and 54 per cent say leadership is out of touch with employees.

On hybrid plans, middle managers can feel caught between senior leadership's desire for staff to return part-time and resistance from some of their teams. Catherine questions the demand for three days in her workplace. "I wonder why there's a push to bring people back? People have closed M&A deals from home. The saving of not travelling and [the impact on the] climate, you have to wonder why it's a big deal."

'The promotion culture of an investment bank is geared to old-school performance metrics'

Meanwhile, Jane, a customer services operations manager, says the challenge is negotiating senior management's mixed messaging. "We're hearing people say: 'We'd like to encourage teams to come back.' You need to be clear about why they're doing it. Otherwise it is just putting pressure on middle managers."

For Andrew, however, a product manager in an investment bank, the office has enabled him to mentor one new starter. "I couldn't get them up [to speed] until they came to the office."

Jane also feels squeezed when it comes to employees' desire for wages to match inflation. "It doesn't help financially but they realise I'm doing everything I can. It doesn't change the fact that they're looking for other jobs. It's harder to manage their motivation."

Jack, who works in sales, says his company is planning another pay rise before Christmas due to the cost of living. However, he knows it will not match the pay of competitors. "The external market is strong." Another manager sought to mitigate the pay squeeze by encouraging more flexibility in commutes and compressed hours to help reduce costs.

Middle managers are wary of sharing their challenges with fellow managers. Catherine says it can be a bit like the "blind leading the blind: they're your peers, but it's also an element of competition. We share the same boss. If I have concerns about my boss, I won't talk to them about it. I don't want to be perceived as bad-mouthing or gossiping."

And in the current climate, says Jane, "there's cost cutting going on all over the place. Middle managers are the first to go. It's not always about being the highest performer, it's about how you fit."

Andrew says: "The promotion culture of an investment bank is geared towards the old-school performance metrics. There's no success metric on mentoring, helping [his team] grow."

Willmott says too few middle managers receive training. "The old story rings true — people are recruited because of their technical skills and receive either no training or 'sheep-dip' training. There's nothing wrong with people being recruited on their technical skills if they are given support. Some people aren't suited to being managers. You need to give people other roles that aren't management." This would bolster the middle management role. As coach Finn observes: "When they're good, they can be catalysts for change."

The names of some of the interviewees have been changed

Dear Jonathan

YOUR QUESTIONS FOR OUR EXPERT — AND READERS' ADVICE

I'm a high-level administrator, can I now aim for a senior management role?

This week's problem

I have spent my working life in administrative positions. From my first job as a clerk in a law firm, I have worked my way up to the level of office manager. I am now considering a career change and would like to move into senior management. I have a masters degree in urban planning but not sure how to proceed. **Female, 40s**

Jonathan's answer

Professional service work can be the oil that keeps an organisation running smoothly and the glue that holds it together. While office managers may be under-appreciated, their absence would usually be acutely felt.

After about 20 years working your way up in these roles, you now seek to be in senior management. Before plotting routes to achieve this aim, it will be worth working out why you want it.

What does senior management mean to you and which specific aspects do you seek? For example, do you want more power and authority? If so, define what you would want to achieve with more power.

Many ambitious people may want power but are not always clear on why or what they will do with it.

Perhaps you feel you have more to offer and would like more responsibility, a larger budget, or a bigger team of people to manage.

Maybe you are primarily seeking senior management levels of pay. Clarifying your motivation for being in senior management can start to illuminate the steps to take towards that objective.

If you seek influence and recognition, then treat the title of senior management as a byproduct of positional authority. Focus instead on finding roles to stretch you, where you can have influence on the organisation from within.

As Gen Z enters the workforce, they expect their voices and influence to be heard within organisations, and there is no reason older colleagues can't also find a way to achieve this.

If you seek a pay rise or more responsibility, then consider what extra experience, qualifications or training you might need for more senior roles.

Work out how to build on your office management skills and consider a sideways move into a related function where you already have some experience — perhaps accounting, law, HR or operations.

The transferable skills from your masters degree, such as research and writing a persuasive dissertation, could be valuable in these functions.

Talk to people in your current organisation to find out if you could be seconded to work on projects in areas in which you are interested.

Since you mention your urban planning masters degree, perhaps this subject is still of interest; you could explore using your administration skills for roles at town planning organisations.

Even if not in a senior management position immediately, you could grow into a role where you have influence.

Readers' advice

You will probably have to work in non-senior management first. You need to have demonstrable experience of making decisions affecting the business area in which you're working.
LondonReader

Network with alumni from your masters programme in the roles you are interested in. Look for openings you find attractive and ask alumni in those jobs for a 15-minute call to ask about working at the organisation and how to get your résumé noticed. **Joffrey**

You could possibly aim for a chief administrative officer role but you'd need to understand the underlying business really well.
Queen Peep

The next problem

In a hybrid or remote-working world, is it worth it for a graduate to relocate to London, during a time of high-inflation and spiralling energy bills, to increase their odds of climbing the corporate ladder?
Male, 20s

Jonathan Black is director of the Careers Service at the University of Oxford. Every fortnight he answers your questions on personal and career development and working life. Do you have a question for him? Email: dear.jonathan@ft.com

How to Lead. Enver Solomon, chief executive, Refugee Council

'Leadership is something you're constantly trying to improve'

Charity head talks about his route to the top and running the body during an 'extraordinary' time. By *Michael Skapinker*

Enver Solomon says he played down his mixed-race heritage when he was a journalist but feels it is important to identify himself as the Refugee Council's first ethnic minority CEO — Anna Gordon/FT

Since Enver Solomon became chief executive of the Refugee Council in December 2020, Kabul has fallen to the Taliban and Russia has invaded Ukraine, both provoking a flood of refugees. Twenty-seven people, including three children, drowned when their boat capsized crossing from France to England in November last year. The UK parliament passed the Nationality and Borders Act, which penalises asylum-seekers who do not come to Britain directly from their home countries. And the UK government launched its plan to deport migrants to Rwanda — although this is currently being challenged in the High Court.

"It's been an extraordinary period," Solomon says. He had been warned that UK refugee work would be intense. "But this has been like no other period in recent times."

We are speaking in his north London family kitchen. The primary school class photo and times tables charts tacked to the walls speak of a domestic normality far removed from the terror of those risking their lives to reach UK shores.

The Channel crossings — more than 28,000 people have made the crossing in small boats so far this year — provided much of the impetus for the UK government's recent actions. But while Solomon describes the Nationality and Borders Act as "one of the most significant pieces of legislation relating to asylum, refugees and immigration for many, many years" and the Rwanda plan as "a watershed moment", in effect outsourcing an important government role to another country, he says it would be wrong to dismiss people's worries about the increase in Channel crossings.

"It's no good going on the radio and saying the numbers of people trying to come to the UK is not a problem. Because then people will immediately

> 'It's something that you never master . . . It gives you incredible insights into yourself as a person'

not engage with you if they think it is a problem. So you have to think very carefully about how you communicate."

The Refugee Council — an independent charity set up in 1951 — provided support, help into employment and English language and vocational training to 15,000 refugees last year. It also campaigns for a more humane approach to those who have fled their countries. Solomon believes 25-30 per cent of the UK's population are sympathetic to refugees. A similar number are implacably opposed. His aim is to address the 40-50 per cent in the middle, the people he calls "persuadable", who are anxious about numbers, but are often supportive of refugees in their own communities.

What does he say to those who are genuinely puzzled that people make life-threatening journeys to the UK from France, a safe and democratic country? Many risking the crossing have family or friends in the UK, he says. France has nearly twice as many asylum seekers as the UK; Germany three times. We also need to remember that most refugees do not get as far as France or the UK. The largest numbers end up in countries next to their own: Ukrainians in Poland, Afghans in Pakistan, Syrians in Lebanon.

How would he deal with the Channel crossings? It needs detailed, patient work, he says: easing restrictions on family reunions, providing humanitarian visas and working with the French authorities against people-smuggling gangs. "But there aren't any magic single silver bullets. And that's the problem: the government is flailing around and it's overpromising and, ultimately, underdelivering."

Solomon's route to leadership began when, after a decade as a BBC journalist, he decided to become more involved in the causes he made programmes about. He did a series of jobs in prison reform and children's charities, some in team leadership positions. In 2018, he became the chief executive of Just for Kids Law, which provides legal support and advocacy to young people.

He had prepared for this first chief executive role for a while, working with an executive coach. "I'm a huge fan [of coaching] because I think leadership is something that you're constantly trying to improve," he says. "It's something that you never master. You're always trying to learn, absorb, think about it differently. It gives you incredible insights into yourself as a person."

To be a really good leader, he believes the biggest challenge is that "you have to think about who you are as a person. And that can take you to places that you might not have explored before."

He says, for example, that leadership is "relational". "It's about how you respond to other people. So how you might respond to conflict, or how you might respond to difficult situations, is a reflection of who you are as a person. That comes from experiences back in childhood, how you've been parented, your own relationships," he says. If you respond to someone who challenges your leadership in a defensive way, that might be because of how things happened in your own family.

He says that when he first started leading teams, he was less open to understanding who he was as a person and less open to understanding how to react to people. "It really made me think about how I deal with challenge, and that you can't just push forward your view," he adds. "You have to try and listen to people, you have to understand where they're from."

Where Solomon is from is a reason he applied to lead the Refugee Council. His father's family were Jewish refugees who arrived on Merseyside from eastern Europe at the turn of the 20th century. His maternal grandmother, an Indian Muslim from Gujarat, was sent to South Africa for an arranged marriage. The family there were anti-apartheid activists. Solomon's Johannesburg-born mother worked as a social worker with Winnie Mandela in Soweto before emigrating to the UK, where she met his father, also a social worker and, later, a lecturer.

Growing up mixed-race in Manchester, Solomon says he was taunted at school. Today, his surname attracts antisemitic comments on Twitter. As a journalist, he played down his mixed-race heritage. "When I was at the BBC, I was determined not to be the community affairs reporter that reported on race and race relations." But when he arrived at the Refugee Council, he felt it was important to identify himself as its first ethnic minority chief executive.

"I haven't gone through the asylum system, but I've got refugee blood, if you like, or the history of it in my family. It matters that you're not white in this sector, because race is an issue. The racialised nature of our approach to asylum and refugees and immigration in this country is very prominent. So suddenly I found myself in a role where it matters and I should be proud of it and talk about it."

As to how he talks to that middle group of "persuadables", he adds that they care about fairness and efficiency. "People think it's absolutely right that people are treated fairly and given a fair hearing. People are also very committed to the notion that there needs to be order," he says. That there are more than 100,000 people awaiting a decision, that tens of thousands are waiting over six months and thousands waiting two, three years, even up to five years, is, he says, chaotic. "And people want a system that is efficient and orderly and works well — like they do with any public service."

Three questions

Who is your leadership hero?

Pep Guardiola. I used to go and watch Manchester City as a kid and we always lost. I've thought about what one can learn from Guardiola's leadership style. When Man City lose or do badly, the first thing he says is how brilliant his players are. He will never, ever openly criticise them. And he's always trying to think about how they can be better. He's one of the best of his generation, but he's entirely modest about it.

What was the first leadership lesson you learnt?

When I worked with Martin Nary when he was chief executive of Barnardo's, I learnt that leadership is about being brilliant with people. Martin was always interested in building relationships, giving people time, and being personable. And he was always interested in thinking about how he communicated as a leader, internally and externally. In the voluntary sector I don't think we think enough about the importance of being an external as well as an internal communicator. If we're going to advance our cause, we really need to think about how we talk about it publicly.

If you weren't CEO, what would you be?

I'd probably still be a journalist. A lot of people in the voluntary sector see the journalists as the opposition. When I was working in prison reform and criminal justice, there were people in the sector who hated the media, who thought they all believed in locking everyone up. We know we should be engaging with politicians and decision makers and funders. We should see journalists and national newspaper editors as just as important.

Sam Mendes brings Oscar bait to Toronto

An invigorating array of films at the festival also included comedy duo Key and Peele in a rambunctious animation, and a beguiling drama from Korea. Nicolas Rapold reports

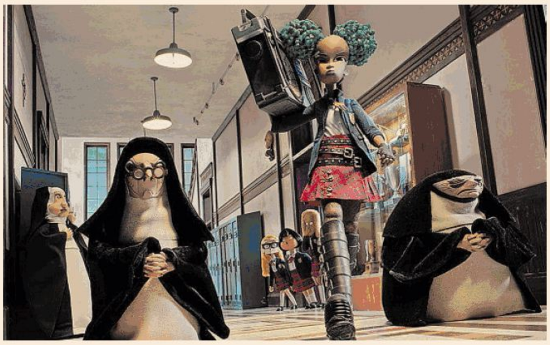
The flood of screenings continued in the second week of the Toronto International Film Festival, led by Sam Mendes's *Empire of Light*, a highly anticipated potential juggernaut of the awards season. The director's first world war epic, *1917*, was overshadowed at the 2020 Academy Awards by *Parasite*'s historic wins, and it's tempting to take Mendes's new film as a concerted attempt to win over audiences and voters. Tempting, because it seems absolutely to be the case.

Empire of Light is set in a movie palace by the English seaside, shot in warm tones like a homey secular church by master cinematographer Roger Deakins. The year is 1981 (judging from a prominent screening of *Chariots of Fire*) and Olivia Colman plays Hilary, a depressive manager at the cinema. Her boss (Colin Firth) calls her into his office for sexual favours, which she seems to welcome as a change of pace from her lithium-numbed existence. Though she has an affable circle of colleagues, it's a handsome young arrival, Stephen (Micheal Ward), who draws her out of her shell in a disused wing of the cinema, where he tends to an injured pigeon.

Stephen becomes a vessel for Hilary's rejuvenation, partly through the occasional snog. Mendes's methodical screenplay never quite explains why she holds such an attraction for him, and his anodyne selflessness begins to seem convenient. It's doubly unfortunate because Stephen happens to be black and, as the racism of early 1980s Britain rears its head, the story feels manipulative in setting up violent scenarios that are mainly viewed in terms of their impact on Hilary, not Stephen.

Yet *Empire of Light* cruises along obliviously, cushioned by its artfully muffled piano score. Preconceptions of the film as a love letter to cinema seem misplaced, more a way of softening the actual content of the film, which includes Hilary's fierce schizophrenic episodes and the activities of a racist mob. The movie has a genial sense of humour, and there are cute moments among Hilary's circle of colleagues (with Toby Jones as a pernickety projectionist). But it's hard to buy into its cathartic vision of a unifying cinema in a film with a dubiously lopsided approach to its leads.

Perhaps it was the self-seriousness of Toronto's various movies with messages, but a welcome respite came with *Wendell & Wild*. The rambunctious animated feature teams Henry Selick, director of *The Nightmare Before Christmas* and *Coraline*, and a reunited Keegan-Michael Key and Jordan Peele. It follows an orphaned teen, Kat (Lyric Ross), as she sulks her way through a boarding school, while two demons journey into our world from hell to test a resurrection technique involving hair cream.



Clockwise from above: Micheal Ward and Olivia Colman in 'Empire of Light'; 'Walk Up'; Wendell & Wild'

The afterlife as a setting is not uncommon in the realm of children's animation, but not every movie stars Key and Peele as underworld underlings whose job is to stoke the hair follicles of a greater demon. Eccentric touches like that — or the fact that a character who later helps Kat inexplicably resembles a turtlenecked Marlon Brando circa the 1970s — give the movie a certain spark. But what makes it soar is Selick's vibrant visual design, even when the plot settles into a conventional groove (foiling a gentrification scheme by villainous developers). The colours, patterning and character designs all reward scrutiny from one sequence to the next.

The international selection can be dauntingly vast at Toronto, but it's worth singling out a world premiere by Korea's pre-eminent independent auteur, Hong Sang-soo. He continues to make two films almost every year, each one ordinary in setting and yet experimental in some way. *Walk Up*, like so many of his other films, begins with a beguilingly simple set-up, as if we've stumbled into a conversation midstream without knowing its purpose. This time, a fading film-maker, Byung-soo (Kwon Hae-hyo), brings his daughter to an old friend's house for a design apprenticeship. There seems to be a flicker of an old flame between Byung-soo and his friend, who has unorthodox views on being a landlord.

The set-up drifts into unforeseen directions as Hong dials the clock forward, at first a little, then a lot. The locale, however, stays constant, and so we effectively follow Byung-soo as his life grows entwined with the building. He tacks between being controlling and apathetic — a twinning of moods that seems fitting for an underemployed director — and, as with a stop-motion film of a growing plant, we see him and his relationships evolve. All of which is quietly radical but carried off by Hong in an assuredly casual way.

Another film that uses cinema to span time in compelling ways is *My Imaginary Country*, the latest documentary from Chilean cine-historian Patricio Guzmán. The essayist film-maker adds a new chapter to his life-long chronicle of Chile's evolution from Allende through Pinochet and beyond: the historic mass demonstrations that led to the creation of a new constitution (albeit one that was rejected in a recent referendum). Guzmán, whose *Battle of Chile* dissected the overthrow of socialist Chile in the early 1970s, interviews the diverse protesters who organised and pushed for change from a sclerotic government. Reflective but not overbearing, Guzmán gets out of the way of his subjects, ceding the spotlight to new generations and marvelling at their good works.

> The cinema in Sam Mendes's 'Empire of Light' is shot in warm tones, like a homey secular church

Finally, it would be a shame not to recognise a couple of curios at the festival. *Carmen*, directed by choreographer Benjamin Millepied, may not exactly be an adaptation of, well, *Carmen*, but it is a grandiose spectacle that feels grounded in movement even when no one's dancing. And *Self-Portrait As a Coffee Pot* shows the illustrator-artist William Kentridge at play in his studio, finding a hundred different ways to think aloud (including talking to his own double). It is a fitting reminder that Toronto is back on track in supplying the world with an invigorating array of movies.

tiff.net

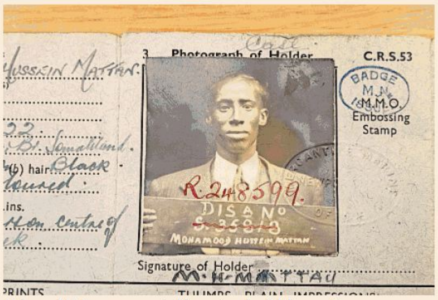
Tragic tale of a miscarriage of justice

PODCASTS

Fiona Sturges

On March 9 2003, the body of a man washed up on a beach in Caithness in northern Scotland. He was dressed entirely in black and next to him lay half a bottle of whisky. Investigators later identified the body to be that of Omar Mattan, from south Wales. He was the son of Mahmood Mattan, a sailor in the British Merchant Navy who had settled in Wales in the 1940s from Hargeisa, in what was then known as British Somaliland. In 1952, Mahmood was the last man to be hanged in Cardiff. It turned out Omar's death was another tragic chapter in a story that began with a devastating miscarriage of justice.

In *Mattan: Injustice of a Hanged Man* from the BBC, the actor, writer and presenter Danielle Fahiya tells the story of Mahmood Mattan, who was accused of the murder of Lily Volpert from Cardiff Bay (formerly called Tiger Bay). Volpert ran a haberdashery which also sold cigarettes and which she sometimes opened in the evenings for



Mahmood Mattan was executed for a crime he didn't commit

and buried in an unmarked grave.

On the surface, Fahiya's series may look like a regular true-crime podcast, one featuring a murder, a wrongful execution (Mahmood's conviction was quashed in 1998) and a death from drowning. While these elements would be more than enough to sustain a piece of dramatic storytelling, there is more going on in *Mattan*.

It is a visceral reflection on racism and corruption, and the ways trauma can be carried through the generations. Aided by sound design which gently drops in up in Cardiff Bay and her grandfather, who was also from Hargeisa, was friends with Mahmood. Early episodes draw on interviews conducted by Fahiya with the descendants of those close to the murder case including Lily Volpert's niece, Ruth, who recalls working in her aunt's shop as a young girl.

There are powerful archive interviews too, most notably from Mattan's widow, Laura, who was white and endured the judgment of her neighbours, who disapproved of her marrying a black man. In a moment of customers she knew. One evening in 1952, a man knocked on the door asking to buy cigarettes; a few minutes later, Volpert was dead.

Six months later, following a three-day trial in which his own defence barrister called him a "semi-civilised savage", Mattan was executed in prison

the sounds of dockyards, of busy streets and the tinkle of a shop doorbell, it is also an illuminating portrait of a community shaped and sustained by the sailors who arrived from overseas looking to start new lives.

Crucial to the podcast is the host's connections to her subject: Fahiya grew

unbearable poignance, Laura — who died in 2008 — describes her late husband's naivety about how he was viewed in the community. "He loved everybody," she says, "and he thought everybody loved him."

bbc.co.uk

FT BIG READ. TECHNOLOGY

The space station race

Nasa is encouraging American companies to start working on commercial replacements for the trailblazing International Space Station, due to be decommissioned by the end of the decade.

By Peggy Hollinger, Clive Cookson and Ian Bott in London

At the end of August a parcel arrived from outer space for a small Connecticut-based biotech company called LambdaVision. Inside were samples of a protein-based film that the company hopes will one day be the basis of an artificial retina to restore sight to people blinded by age or genetic disease.

The film was created some 420km above Earth, on the International Space Station, where the microgravity environment allows LambdaVision to produce more consistent and even layers of proteins. The retinas are still under development, but Nicole Wagner, LambdaVision's chief executive, believes that in a few years the company could produce them at scale on commercial space stations.

"There's a lot of promise in continuing to do this work in a microgravity environment," she says. "But the ISS is a research lab. Commercial space stations will have more capabilities. They will be designed with the future in mind."

The race to outline that future is already under way. US companies including Jeff Bezos's Blue Origin, Sierra Space, Northrop Grumman, Axiom Space, Lockheed Martin and Nanoracks were spurred by a Nasa-funded competition to design privately owned replacements for the ISS, due to be decommissioned by the end of the decade.

Four initial contracts have already been awarded and the winner, or winners, to be selected by Nasa in around 2025, could expect an estimated $1bn in annual revenues from the American agency to deliver space station services. But the contenders are hoping for a bigger prize: to become the go-to platform for a rapidly emerging space economy spanning research, manufacturing, tourism, entertainment and more.

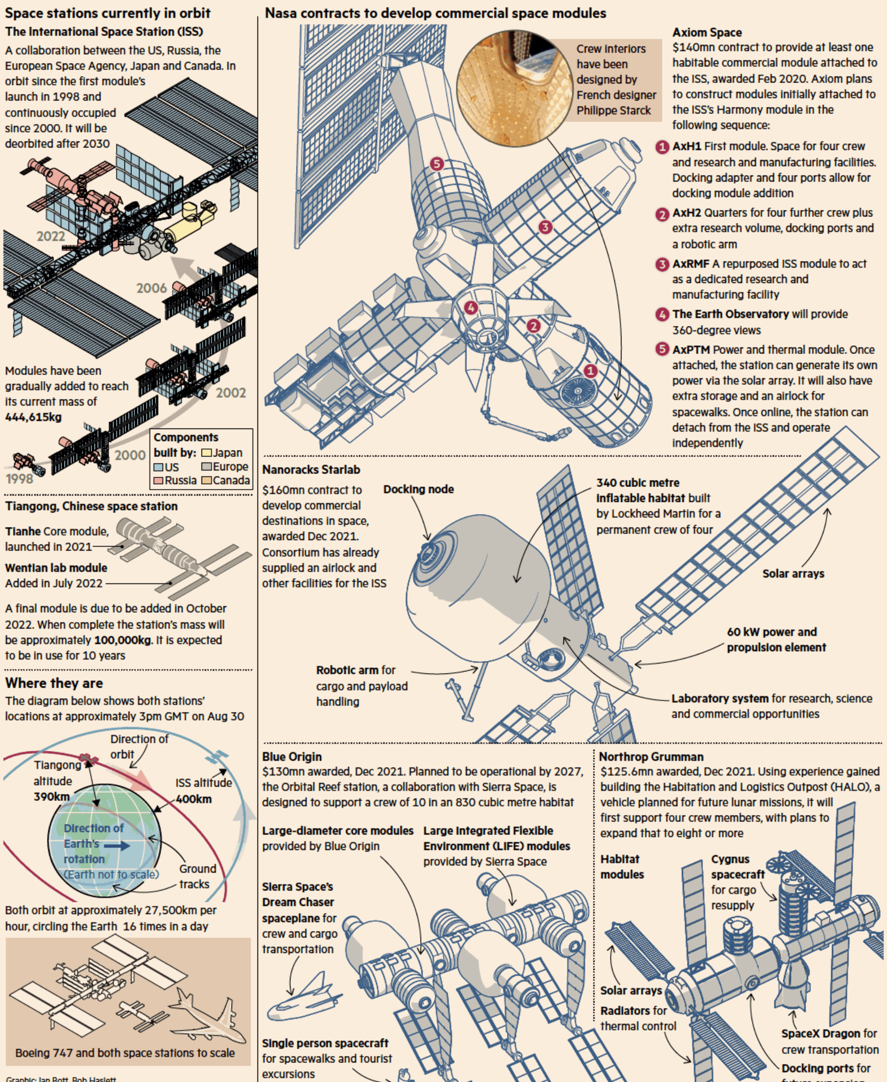
The ISS has been the trailblazer, the greatest global collaboration in the history of technology. During 22 years of continuous habitation it has hosted 258 astronauts and cosmonauts from 20 countries and thousands of ground-breaking experiments. "Research conducted aboard [the] ISS . . . has spanned every major scientific discipline," said a transition report prepared for Congress earlier this year by Nasa.

Work on the space station has helped the development of drugs for cancer, Alzheimer's and Duchenne muscular dystrophy. Even household goods such as fabric softener have been enhanced thanks to space-based research, leading to three patents registered by consumer goods company Procter & Gamble.

While the space station is nearing the end of its life, back on Earth cost considerations and geopolitical tensions are making it harder to sustain the remarkable collaboration between five space agencies (those of the US, Russia, Europe, Canada and Japan) that has kept it aloft for far longer than intended.

The ISS has cost more than $159bn over its lifetime and some $3bn a year to operate, roughly one-third of Nasa's annual budget for human space flight. The shift to commercial platforms could free up some $1.8bn a year by 2033, according to Nasa — funds that could be used for a new age of space exploration.

"As larger government agencies focus on the bigger goal of going back to the Moon and creating a sustained presence there — and then on to Mars — they hope to save time and money by having commercial providers help maintain a presence in low Earth orbit," says Dhara Patel of the UK National Space Centre.



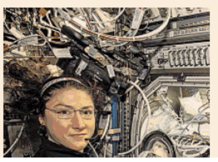
Graphic: Ian Bott, Bob Haslett
Sources: Nasa; National Space Centre; ESA; companies; FT research

Fraying partnerships

The ISS has been the most visible example of a working partnership between Moscow and the west in the space domain. But Russia's invasion of Ukraine this year has pushed that relationship to breaking point. In July, Yuri Borisov, the new head of Russia's space agency Roscosmos, repeated the country's threat to quit the station "after 2024". Not everyone believes Russia will leave. The country has voiced ambitions to build its own space station, which would "take five, six or seven years minimum", says David Parker, director of human and robotic exploration at the European Space Agency. "The Russians don't want their cosmonauts kicking their heels . . . so it's

space through China's space station," says one executive who has discussed the issue with both Nasa and the US Department of Defense.

Three years ago Nasa began preparations for the transition by loosening restrictions on commercial activity in the ISS. ESA, too, is making a notable shift towards the commercial use of space. Greater access and the falling costs of launching into space are fuelling demand for the ISS. "We have a very busy programme of scientific activities,"



says Parker. Rather than bearing the cost of a single, huge successor station, the strategy has been to promote a small number of privately owned and operated platforms. Nasa expects them to be operating by 2028, giving users two years to transition before the ISS is decommissioned in 2030.

The agency has already allocated $550mn for the development of four different models. In 2020, Houston-based Axiom Space won a competition to attach a module to the ISS, which will be gradually expanded until it detaches into independent orbit when the station is decommissioned. It aims to host a variety of activities from research to tourism and astronaut training.

In December 2021, Nasa awarded three more design contracts for free-flying space stations in the second stage of the competition. A consortium led by Nanoracks, the in-space services company owned by Voyager Space, is pro-

our forecast of what we want to buy in the way of services," says Gatens. "We want to be one of many customers."

Paths to transition

Nasa still worries about whether the market will be big enough to sustain private stations. "Nasa is promoting several space stations because they don't want all their eggs in one basket," says the UK National Space Centre's Patel. "There isn't necessarily commercial demand now because the industries they hope to cater to, like space manufacturing and tourism, are not mature."

Investment bank Citi estimates a market for the space economy as big as $1tn a year by 2040. But the forecast for annual sales for commercial stations is estimated at just $8bn, comprised of services such as astronaut training, research and new industrial activities including space logistics and mining.

Others are more pessimistic. A granu-

demand for goods and services from space has not really materialised". Moreover, says Carissa Christensen, chief executive of consultancy BryceTech, "Nasa helps companies access the ISS, and sometimes even provides free fights and astronaut time, particularly for what it considers to be pre-commercial uses." It is not clear what level of help private sector customers would receive on commercial stations.

Such caution has not deterred Nasa's hopefuls. The construction of permanent infrastructure in space, open to all, is "the beginning of the most profound industrial revolution humanity has ever seen", says Tom Vice, chief executive of Sierra Space. "By the end of the 2020s, I envisage several stations operating in orbit," says Dylan Taylor, chief executive of Voyager Space, part of the Nanoracks consortium.

The candidates are reluctant to detail their business plans while they negoti-

develop a space suit and private research projects. Like its rivals, Axiom is targeting nations with space ambitions that have not played significant roles in the ISS.

"Any emerging space nation will gain access to services in low Earth orbit that we could not afford before, because programmes such as the ISS required a lot of continuous upfront investment," says Sarah Al Amiri, chair of the United Arab Emirates Space Agency. "Now countries such as the UAE will be able to tap into the services that we need."

Manufacturing in microgravity

The weightless "microgravity" environment of a space station has been a draw to many companies. Microgravity affects the behaviour of solids, liquids, gases — and living tissues. This allows scientists to exert greater control over physical, chemical and biological processes, from the growth of crystals and cells to fluid mixing and heat transfer.

Microgravity can eliminate defects in silicon carbide used for the production of semiconductors. There is growing enthusiasm, too, for producing ultra-pure fibre-optic cables — although these will be limited to niche uses.

So far biomedical and pharmaceutical researchers have made the most use of microgravity on the ISS. Astronauts have been guinea pigs for studies on the effects of microgravity on the human body, which may become an important limiting factor when sending people to establish lunar bases and, later, to visit Mars. People who stay in space for extended periods, for example, show "manifestations of accelerated ageing", says Danilo Tagle, director of special initiatives at the US National Center for Advancing Translational Sciences.

To study these effects, the US National Institutes of Health is sending "tissue chips" to the ISS. These small three-dimensional models of human tissues — including lung, bone marrow, intestine, heart, kidney and muscle — grow better in microgravity than on Earth.

Among pharma companies, Merck of the US has led the way under the leadership of its research scientist Paul Reichert. Experiments on the ISS produced superior crystalline suspensions in Keytruda, Merck's bestselling cancer treatment, he says.

Reichert is enthusiastic about using commercial stations but cautious about producing drugs for the market in space. "The problem is not only logistics but also scale," he says. "Monoclonal antibody therapeutics are made in tonnes. It is difficult to imagine how you could scale it up that far. I like the model [where] we use space as a laboratory and [apply the results to] improve processes on Earth."

Josh Western, founder of the space manufacturing start-up Space Forge, believes it is possible to produce high volumes in space and return them to Earth economically — but only if the products are relatively small and very high value. His company, which aims to manufacture semiconductors, alloys and composites in space, has quantified its market at more than $100bn in the next 15-20 years.

Yet he is not planning to book a place on any of the stations being proposed to Nasa, which have to support human crew. "We don't want to be anywhere near humans," he says. "On the ISS you have astronauts moving around. Every time they grab a handle you have a vibration . . . that might interfere with your crystal."

Most of the proposed stations will also fly in suboptimal orbits for the purest manufacturing, he says. "Because Leo is not that far away you still have some constraints of Earth. Parts of the atmosphere will interfere with the vacuum conditions." Instead, Space Forge is developing its own autonomous space factories and transport that, at most, would dock with a private station to resupply or discharge cargo.

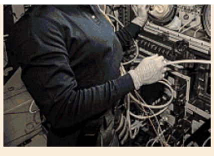
Autonomous stations — the equivalent of dark factories on Earth — will be on offer from commercial space station operators, says Mike Gold, executive vice-president of Redwire, part of the Orbital Reef consortium.

As the ISS winds down its activities,

important for them to maintain operational capacity on the ISS."

But the repeated threat of Russia's early exit has intensified pressure on ISS partners to find a way to maintain continuous human presence in orbit. Access to space is also seen as a question of national competitiveness and security. "We don't want to have a gap in Leo [low Earth orbit]," says Robyn Gatens, ISS director at Nasa. "We want to transition all our users, whether government, commercial or university, seamlessly."

Western governments are keenly aware that China is about to complete its own space station, Tiangong, and is opening it up to allies. "It is imperative for the US government that none of its allies or friends are only able to access



'The ISS is a research lab. Commercial space stations will have more capabilities . . . designed with the future in mind'

posing Starlab, an inflatable science park designed by Lockheed Martin. Blue Origin and Sierra Space are offering the Orbital Reef, a 30,000 sq ft "ecosystem" of different habitats and services for industry, research and tourism.

Finally, Northrop Grumman aims to build a platform for training or science projects but it is not aiming to be an operator. "We are manufacturers," says Andrei Mitran, Northrop's strategy director. "We are not committed to put something in orbit that we will own."

Not all the projects will make the final cut, expected around 2025 when Nasa will agree firm service agreements with chosen candidates. Whether the business models are commercially viable will be a key criterion. "We are refining

lar study of five potential markets for commercial stations — ranging from manufacturing to satellite assembly and maintenance, astronaut training for new spacefaring nations and entertainment and tourism — estimated the market would be between $455mn and $1.2bn in annualised revenues by 2025.

That study, published in 2017 by the Washington DC-based Science and Technology Policy Institute, put the costs of operating a station at between $463mn and $2.25bn a year. It concluded that only under the most optimistic scenarios could the stations be commercially viable without sustained space agency support.

Since the report was written, says lead author Keith Crane, "private sector

ate with potential customers. But most agree that building a station will cost between $2bn and $3bn, meaning that whichever project is picked by Nasa will have to raise substantial funds to reach completion. Sierra Space's Vice says he expects operating costs to be one-fifth of those of the ISS.

All the competitors agree that the model will only work with Nasa as an anchor customer at the beginning. "It will take time to build a robust industry," says Voyager's Taylor.

But, in a sign of the untapped demand for private-sector services, Axiom Space's founder Mike Suffredini says his company has already clinched some $2bn in revenues through private space missions to the ISS, a Nasa contract to

Nasa is starting to think about how its legacy should be preserved, says Gatens. "We can't bring the whole thing down and turn it into a museum — I wish we could." There is another option. "If some commercial space stations wanted to propose taking a piece to use it, we would entertain that," she says.

So far there have been no offers. Unless someone steps in, the ISS will be nudged into the Earth's atmosphere in January 2031, where it will burn on re-entry and plunge into the South Pacific. Voyager's Taylor will be one of millions to mourn its passing. "The ISS should win a Nobel Prize," he says. "It is one of the best things humans have ever done."

Additional research and illustration by Bob Haslett

The FT View

FINANCIAL TIMES

'Without fear and without favour'

ft.com/opinion

The world bids farewell to Queen Elizabeth

Her reign was the product of a unique combination of qualities and circumstances

After all the miles travelled by her coffin, the days of mourning and remembrance, the hours spent queueing by the hundreds of thousands who wanted to pay their respects at her lying-in-state, Britain and the world bid a final farewell today to Queen Elizabeth II.

It is a moment of thanksgiving for what her son, King Charles III, has called a life well lived With solemn pageantry, the funeral will lay to rest something more than just the person of the Queen. For all its grief of past days, Britain may yet come to miss its departed monarch even more than it realises.

Many people in Britain and in the 14 other realms of which Elizabeth remained head of state have been surprised at the depth of their sorrow at her passing; even some republicans have saluted her. They have been surprised, too, by the extent of the reaction around the world. Countries as far afield as Brazil and Cuba — with no direct connection to the British monarchy — have held days of mourning. France's president Emmanuel Macron summed up the global response by noting that: "To you, she was your Queen. To us, she was The Queen."

A glance at the guest list for the funeral provides an idea of the soft power Queen Elizabeth helped her country to project. The 2,000 invitees include a roll-call of monarchs from Belgium to Bhutan, of elected leaders and of ceremonial heads of state. According to some estimates, more than 4bn viewers may watch the funeral globally, which, if achieved, would make it the most watched live broadcast in history.

King Charles will inherit enormous goodwill and a worldwide network of relationships from the decades he has spent preparing to succeed his mother. He will bring to the role his own qualities and commitment to service. But the valediction for a seven decades-long monarch who personified "global Britain" is a time for the government to reflect that no one person can emulate her levels of soft power, and that a post-imperial and post-Brexit UK needs to seek and nurture other sources.

For the world as a whole, the Queen's passing represents the turning of a historical page in a wider sense. Her extraordinary reign was in many ways the product of a unique confluence of circumstances. She came to the throne of what was still an empire, even as it was being dismantled and transforming itself into a commonwealth. She acceded at an unexpectedly young age, and proved to be remarkably long-lived. The beginning of her reign coincided with the dawning of the era of global mass media, her coronation becoming the first great televised event.

The Queen inspired immediate interest and affection as a source of glamour in a country still living through the

> The valediction is a time for the government to reflect that no one person can emulate her levels of soft power

drabness of postwar austerity, and as a young female leader in a world still dominated by older men. Over time she utilised the platform she had been given not just to be a symbol and transcending representative of her country but to project personal values of duty, service and compassion that proved to have international appeal.

The waning of monarchies worldwide and the passing of the imperial era will make it difficult for such conditions to come together again. The fragmentation of mass media, and rise of social media, have altered the iconography of fame. Modern societies are less deferential to authority, royal or not.

There will be many more globally televised moments — including the coronation of King Charles — and farewells to world leaders. But the laying to rest of the Queen may be one of the last great royal funerals, marking the end of perhaps one of the last royal reigns anywhere to have such truly global resonance.

Opinion Asia

Era of weak yen should be a boom time for robots

Maria Hergueta

Leo Lewis

After months of defying forecasts, the yen ended last week with a near vertical plunge under its belt and the glint of more craziness to come. The Japanese authorities have opened their playbook to the page on fake intervention. A glut of central bank announcements next week looks sure to revive the turmoil.

It may be a difficult time to be a forex analyst, but it looks like a brilliant moment to be a Japanese robot.

The yen's sharp plunge against the dollar this year has highlighted some pressing questions around Asia's largest developed economy. Japan is a resource-poor country that imports most of its energy, food and raw materials; it has let wages stagnate for two decades and must now protect a shrinking and ageing population that has largely forgotten the pain of inflation; its corporations have moved almost 40 per cent of their manufacturing capacity overseas since 1995, blurring the picture of whether a weak yen is fundamentally good or bad for industry.

> If Japanese companies start onshoring, this implies a bonanza for factory automation

But these uncertainties increasingly look like factors pushing Japan much

The hurdle that any such plans encounter is the minuscule spare capacity in Japan's labour market. The only way to make such a project work is if it is built to operate with an absolute minimum of human staff.

In theory at least, this implies a bonanza for the factory automation specialists and producers of industrial robots. The problem, though, is that for now there are overwhelming signs that most Japanese manufacturers are nowhere near being in reshoring-with-robots mode.

In fact, Japanese manufacturers appear more eager to push even more capacity overseas, because they now view proximity to customers as more critical than yen competitiveness. Within days of the US passing its Inflation Reduction Act into law last month, Toyota, Panasonic, Honda and other giants collectively announced $20bn of new US-based factories. The tax incentives established by the act make others more likely to follow.

But a second, more powerful, set of currency-related forces, in combination with demographic decline, still point firmly to Japan's robot-embracing future. As the yen has fallen, and as the country has begun to reopen after the pandemic, many have noted how cheap Japan (in particular, its fabulous restaurants) looks to the outside world.

But while the weak yen, a $12 plate of high-end sushi and the delight of a tourist casts a timely spotlight on Japanese pricing, the underlying cheapness has been decades in the making — those long decades of unraised wages and deflation that have weighed on the wallets of the providers and consumers of that first-class lunch.

The problem for Japan that companies now clearly foresee is that perma-

Letters

Email: letters.editor@ft.com
Include daytime telephone number and full address
Corrections: corrections@ft.com
If you are not satisfied with the FT's response to your complaint, you can appeal to the FT Editorial Complaints Commissioner: complaints.commissioner@ft.com

America has to end its toxic tax debate

In his Market Insights column "A painful era of 'spend but don't tax' faces investors" (Opinion, September 13) Philip Coggan notes correctly that "central banks bore the brunt of supporting the economy in the 2010s, just as they had in much of the period since 1980" while rightwing politicians cut taxes and complained about deficits. Coggan also noted that lower taxes never correlated with faster growth in gross domestic product or with increased tax revenues.

He might have added that the same conservative politicians succeeded in making taxation a toxic word for many American voters.

Starting in 1965, these politicians have succeeded in reducing the total US tax burden to one of the lowest among OECD countries: 25.5 per cent of gross domestic product, compared with the OECD average of 33.5 per cent, according to 2020 figures.

As tax revenues declined and spending increased, deficits rose, of course, allowing those same politicians to insist on cutting spending on the social safety net — on infrastructure, education and healthcare.

Meanwhile, they pushed such policies knowing the Federal Reserve, the US central bank, would rescue them at times of stress, such as the financial crisis and the pandemic, by reducing interest rates to near zero and ensuring, through the tool of quantitative easing, that Treasury securities issued to finance the deficit would be fully taken up (on the secondary market) without tightening financial conditions.

If US politicians had dared increase taxation in line with the growth in GDP and (total factor) productivity, deficits would be far less worrisome than they are today.

And the Fed could better focus on controlling inflation.

J Paul Horne
Alexandria, VA, US

EU energy package must avoid litigation hazards

To contain the impact of the energy crisis, the European Commission has announced it will propose a cap on the revenues of low-carbon electricity producers ("EU wrestles with details of gas price cap and windfall levies", Report, September 12).

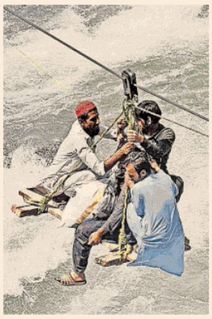
The measure sounds attractive. The exceptionally high prices wind and solar energy producers currently receive for the electricity they produce by far exceed their operating costs, resulting in "enormous revenues" that could be redistributed to vulnerable households. However, the proposal could backfire if investors take the issue to international investment arbitration.

Spain's experience in 2010-14 provides important lessons for the EU. Attempts to limit the subsidies and alleged overcompensation of renewable energy investors resulted in arbitration decisions ordering the country to pay hundreds of millions of euros in damages.

Similarly, the arbitral decisions concerning the Argentine crisis in the early 2000s show that the pressure for governments to address economic and social emergencies does not necessarily exempt states from liability. In the design of its energy crisis package, the EU needs to limit the risk of investment arbitration by taking into account the legal architecture it created to attract low-carbon investments.

Anatole Boute
Professor, Faculty of Law, Chinese University of Hong Kong, Hong Kong

Pakistan is no poster child



Precarious position: Pakistan floods have killed more than 1,000 people

actions of other creditors, such as the Chinese banks that have lent a great deal for basic infrastructure projects through the Belt and Road Initiative with little concern for climate change. Third, these loans need to be part of comprehensive programmes that are adequately monitored.

To ignore the governance and implementation realities on the ground would be a big mistake and simply provides more arguments for inaction.

Danny Leipziger
Professor of International Business
George Washington University
Washington, DC, US
Former Vice-President, World Bank

Can meme mania survive higher rates environment?

Why economic forecasting remains a mug's game

I was heartened to read Howard Marks' piece "Macro models only provide an illusion of knowledge" (Markets Insight, September 9). As a critique of economic forecasting, the points he makes are unassailable. Some, in fact, are obvious. The broad economy is indeed too complicated to forecast accurately; consumers may actually behave differently at different times and models are incapable of dealing with things that have not been seen in modern times.

The far more interesting question is why forecasters continue doing what they do knowing all of the above and more. Marks does not believe that forecasters are crooks or charlatans and believes that they mostly think they are doing something useful. I am inclined to agree. But I wish he had elaborated on the "self-interest" that presumably biases their self-assessments of the work they do.

I would venture that there is a professional motive for perpetuating — through the use of elegant and abstract models — the fantasy that economics is a science. The prestige, stature and influence that such a myth permits is undeniable. Yet, far more perniciously, the ostensible neutrality of "economic science" provides seemingly unshakeable ideological cover against critics who (more realistically) accentuate power, inequality and politics.

Mariano Torras
Professor of Economics
Adelphi University, Garden City, NY, US

Young professionals do

People power is the way to clean up water companies

As Camilla Cavendish points out ("Privatising water was never going to work", Opinion, FT Weekend, August 20) a complex web of ownership lies behind England's privatised water companies.

The ultimate owners of these companies include people who, it is fair to assume, do not approve of raw sewage being discharged on to beaches or into rivers.

What do the academics whose Universities Superannuation Scheme pension plan is a major investor in Thames Water think of the company being fined £32.4mn for water pollution incidents since 2017, according to the government?

And how do local government workers in Greater Manchester, Merseyside and West Yorkshire — some of the ultimate owners of Anglian Water thanks to their pension schemes — feel about that company being responsible for 14 pollution incidents in 2021 that the Environment Agency defines as serious?

Perhaps if they read this they would pressure their schemes to call for improvements.

If regulators are unable to get this serious situation under control, maybe it's time for some people power.

Rob Lake
Cambridge, UK

One thing of consequence from the Johnson years

Come come, Mr Shrimsley, you disappoint me ("In a disposable world, prime ministers are like iPhones", Magazine, September 10).

You enjoy, metaphorically, debagging our recent prime ministers as much as I do. What would we have to complain about if any of them were actually any good?

Political consumerism, maybe; the trend may be more straightforwardly explainable, however. The revolving door of the past six years is down to Boris Johnson in every case.

History will decide whether he was indeed a prime minister of great consequence — for "getting Brexit done" (which he didn't) or for vanquishing Covid (too many wrong calls).

In fact, his principal, single-handed consequence has been the turbulence in our leadership politics which you describe. And it doesn't look to be over.

Richard Moon
Beirut, Lebanon

more decisively to the brink of its next robot revolution — an even more wholehearted embrace of automation that could serve as a model (or, if fumbled, a warning) for South Korea, China and other economies where labour markets seem destined to tighten indefinitely.

The simplest line of argument lies in the exchange rate itself: not the headline lows that the yen has plumbed in recent weeks, but the 50-year low at which the yen's real effective exchange rate (a trade-weighted rate adjusted for inflation) now stands.

Economics suggest that this dirt cheapness should be a trigger for Japanese companies to bring production back onshore. There is already evidence of such moves: several clothing manufacturers have said recently they will bring production of high-end products home because of the weak yen. Japanese companies are jointly investing with the Taiwanese chipmaker TSMC in a $7bn plant in southern Japan that has become a poster child for reshoring in the weak yen era.

What few clearly foresee is that permanently suppressed wages, in combination with the now structurally weak yen, will make it difficult to offset long-term population decline by enticing large-scale immigration.

The yen does not have very much further to fall, argues Monex adviser and economist Jesper Koll, before a high-end nurse in Manila will earn more than an entry-level nurse in Tokyo. For industries such as healthcare and construction, which robots are clearly not ready to take over, the prospects are troubling. Elsewhere, though, the situation portends a golden era of automation.

Last month Family Mart, Japan's second-largest convenience store chain, began introducing shelf-packing automatons that have finally mastered the vital job of ensuring that the labels of drink bottles all face exactly to the front. Armed with that skill, the minimum number of human staff in each Family Mart branch can now be halved. The robots are coming.

leo.lewis@ft.com

Pakistan is no poster child for climate change loans

The FT's call for rich countries to accept their responsibilities to finance investments allowing developing countries to adapt to a changing climate ("Pakistan's perfect storm is an urgent call to action", FT View, September 8) is compelling. However, using the Pakistan case may weaken the argument.

A country with severe governance issues, now in its 22nd programme with the IMF, may not be the best poster child for these investments. Of course, the human tragedy cannot be overlooked, and humanitarian aid should flow, even if the claim that this is the rich countries' fault may fall flat.

The call for multilateral development banks to step up their "adaptation" financing is valid, but with certain caveats. First, there needs to be confidence that public investment will not be mismanaged. Second, if subsidies are to be provided using International Development Association terms for World Bank lending, it must be accompanied by the

Duncan Wales spent years working under Lord Spencer, one of the Square Mile's most successful entrepreneurs. It's heartening to see the former spearheading a new effort to distribute independent and untied research ("Some data points on meme stock mania", Letters, September 2).

Mifid II was essentially the death knell for the private investor, and even for the institutional investor. The misguided theory that paying for research would lower bid-offer costs has had disastrous consequences.

Investors instead have found themselves flying blind as stockbrokers have either discontinued research coverage or just do not make it available.

The publication of research, or "democratisation" as Wales describes it in his letter, is essential if the current capital-raising process is to survive. Whether this mania persists in a rising rate environment and returns in other asset classes become relatively more attractive is an important point.

Stephen Butcher
Hambleton, Rutland, UK

not fit 'slacker' stereotype

Sarah O'Connor's repudiation of "quiet quitting" ("The term 'quiet quitting' is worse than nonsense", Opinion, September 13) mirrors our own research into young professionals' attitudes towards work.

Contrary to "slacker generation" stereotypes surrounding Gen Z, we found young professionals are motivated by "core work", deriving meaning and purpose from the substance of work rather than any workplace culture or identity.

The inexorable decline of the office as a social hub will be resisted and regretted by many, but in order to build a thriving company culture, businesses will need to adapt to a generation for whom work increasingly means just that — work.

These insights were gained through months-long ethnographic research following young professionals in New York, Paris, Shanghai, Stockholm and Copenhagen.

Mads Holme
Managing Partner, ReD Associates
Copenhagen, Denmark

Use price controls to fight inflation, not handouts

So we have a small drop in inflation due to a decline in petrol prices ("Cheaper petrol pulls inflation rate below 10%", Report, September 15).

It is a demonstration that price controls would be a more effective curb to rising costs than paying people to alleviate a crisis, with money we do not have.

Colin Heath
Cardiff, UK

Retrenchment is a better option if growth is elusive

You may want growth and your consultants advise it ("Chancellor's growth target raises eyebrows", Report, September 14) but 30 years in the textile trade have taught me that sometimes it just does not happen.

Best to retrench, conserve your money and you will be in a stronger position to fight another day.

Charles Mason
Cluny Lace, Ilkeston, Derbyshire, UK

Opinion

Energy package puts UK economic credibility at risk

BRITAIN

Martin Wolf

Liz Truss and Kwasi Kwarteng, the UK's new prime minister and chancellor of the exchequer, are gamblers on a huge scale. According to the Institute for Fiscal Studies, the two-year energy package set out by Kwarteng on September 8 is likely to cost £100bn (4 per cent of gross domestic product) in the first year alone. Its total cost might be £150bn. To this should be added permanent tax cuts amounting to more than 1 per cent of GDP, expected to be announced later this week. Perhaps worst of all, as Paul Johnson, director of the IFS, notes: "The failure to provide any official sense of a costing was extraordinary, and deeply disappointing." I would call it "frightening".

Some such energy package was necessary, for reasons I laid out two weeks ago. The soaring prices of energy are the result of a Russian war on Ukraine. It was necessary to protect the British people and the economy from the immediate consequences. Moreover, I argued, the rise was too huge to be dealt with only by targeted assistance. In the short run there should be price controls, coupled with additional financial help for those households most adversely affected by what would still be very large price rises.

So, what is wrong with what Kwarteng has done, apart from not even trying to tell the world what it might cost?

First, it is too generous. Under the plan, energy prices for the typical household are capped at £2,500 for two years from October of this year (up from £1,100 before the crisis). If targeting of the more vulnerable were more generous, the price cap could have been set at, say, £3,500, still below the predicted cost of £4,586 from January 1 and almost certainly still higher later on. This would have been more affordable and also a sharper spur to energy efficiency.

Second, too much of the cost falls on public borrowing. The government is bearing all the cost of lowering the prices, instead of imposing price controls on domestic energy producers, as I suggested. Moreover, it is not raising additional taxes on windfall profits or on those able to pay more. I argued instead for a temporary "solidarity levy" on better-off taxpayers, which would have been fully justifiable in such circumstances. Higher taxes on the

> The ill-targeted measures fail to raise taxes on the better off or increase support for the poorest

prosperous have historically helped pay for war.

Third, given the failure to raise taxes on the better off or increase support for the least well off, the package is ill-targeted. True, according to the IFS, the gain from the package of support is 14 per cent of household budgets for those in the bottom decile and only 5 per cent for those in the top decile, because the former spend far more of their income on energy. But, in cash terms, the top decile will receive some £2,000 each, against £1,600 for the poorest. According to the Resolution Foundation, if one adds the likely reversal of Rishi Sunak's changes to national insurance, the richest households gain over twice as much in cash terms as the poorest. Moreover, the latter will still be harder hit by the rise in energy prices relative to their incomes than the former.

Fourth, this package is unsustainable. Suppose energy prices continue to be so high for more than two years. What would the government do then? Indeed, that point is likely to come even sooner, since the planned support package for business expires in six months. If the crisis lasts as long as that, the government would have to let prices rise, target assistance better and raise taxes. It should set out its follow-up plan soon.

Finally, the combination of a massive fiscal loosening with low unemployment, high inflation and a weak exchange rate creates significant macroeconomic risks. For the Bank of England, the package has the advantage of lowering peak measured inflation by some four percentage points, according to the Resolution Foundation. That was presumably part of its aim. But it seems likely that the Bank of England will consider that the boost to demand will offset the gain from lower headline inflation and adopt higher interest rates than would otherwise have been the case.

Whether the impact of such a combination of looser fiscal policy with tighter monetary policy would also raise the exchange rate depends on the most important impact of all, which would be on confidence in the UK. Alas, the new growth target, this fiscal loosening and the expected decision to introduce permanent tax cuts look like one of those "dashes for growth" that have blown up this economy (and those of many others) in the past. This is a risk the country cannot afford to take, especially given the risk-aversion in today's world economy and the aftermath of Brexit.

The UK is not the US. The foreigners who finance it have to believe it is managed by sober and responsible people. With soaring inflation and fiscal loosening, the UK is now on trial. Kwarteng's duty is to avoid its being found guilty.

martin.wolf@ft.com

In this queue, the journey matters as much as the destination

Joe Moran

Queueing in Britain has never just a matter of standing in line; we always think it tells us something about ourselves. A five-mile queue to see the Queen's coffin is being celebrated as quintessentially British — but, like most self-flattering traditions, the UK's view of itself as a nation of expert queuers is more recent than people think.

Only during the second world war, and just after it, did social commentators first notice our penchant for queueing. In his 1944 essay "The English People", George Orwell praised "the orderly behaviour of English crowds, the lack of pushing and quarrelling, the willingness to form queues". Three years later, the historian Ernest Barker commended English queuers for their knack "of 'fitting in' neatly on a little space".

Both Orwell and Barker conflate Britishness with Englishness. They assume a link between British democratic institutions and English traditions of fair play and civility. Queueing, for them, is essentially apolitical. The queue is organic, a series of semi-improvised, tacit understandings between strangers. Its self-regulating quality allows it to be co-opted by a certain strain of liberalism that prizes tolerance and tact as guarantors of social stability.

But queueing is always political, because its aim is to ration a scarce resource. During and after the war, queueing was a stressful activity, as people competed for essential items. Far from being hailed as egalitarian, queues were often seen as inequitable. Working women, elderly people and mothers

> Only the poorest tend to stand in line in banks or post offices; the premier customers are all online

with babies thought them unfair because they were less able to queue for long periods. A Ministry of Information report worried queueing might sap morale, and warned that "peace talks are being fostered in queues".

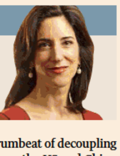
After the war, the Conservative leader Winston Churchill exploited these popular frustrations by identifying queues with the new Labour government. When bread was rationed in 1946, he declared that socialism meant queueing. And, in a 1950 election broadcast, he suggested that queues would become a permanent feature of British life, caricaturing the new Socialist dream as "no longer Utopia, but Queuetopia".

For the next two decades, queueing became a symbol of national decline. Readers of The Times complained endlessly in its letters page about the long queues in banks and post offices. Since a queue forms when supply fails to match demand, its stubborn visibility in daily life was framed as a symptom of the

America needs a plan on China decoupling

Matt Kenyon

BUSINESS



Rana Foroohar

The drumbeat of decoupling between the US and China rose to a crescendo last week as President Joe Biden issued an executive order telling the Committee on Foreign Investment in the US to boost scrutiny of cross-border deals in sensitive areas such as artificial intelligence, quantum computing and biotechnology.

The order didn't specifically mention China but was clearly part of a growing effort by the White House to separate its supply chains and financial markets from Chinese influence.

Whether or not you agree with the move, or decoupling in general, it's high time America had a much more complete strategy for how to deal with the reality. US-China tensions have risen to worrisome levels, particularly around the issue of Taiwan.

Last week, the Senate foreign relations committee approved a bill that would provide $6.5bn in direct military assistance to the country, as part of an effort to help the island nation — which produces 92 per cent of the world's

unclear. But the move, along with talk of new sanctions against China to deter a potential attack on Taiwan, are pushing geopolitical hot buttons at a time when the US has yet to develop a detailed action plan for the economic fallout from such a conflict, or even the continued decoupling of the US and Chinese economies.

In Washington, fears that Beijing is planning a military invasion are growing, and America is in danger of becoming embroiled in sparring between Beijing and Taipei in the Taiwan Strait. But what would happen if supply chains and financial flows between the US and China were cut off tomorrow? What's the day-one plan?

Nobody I've spoken with in either the public or private sector has a clear and complete answer to that question. The government approach has so far fallen into two categories: a tit-for-tat response to China's own moves, involving tariffs and sanctions, or a big-picture but still somewhat vague top-down approach about how to rebuild the industrial base at home.

Donald Trump's administration was mostly about the former.

The Biden administration has made clear it wants to sharpen government focus on protecting national security and building more resilience and redundancy at home, and regionally with partners ("friend-shoring"), in strategic areas such as semiconductors.

need to really drill down to what that means in practice.

What would it mean, for example, if China suddenly stopped shipping key drug ingredients to the US? Is there a full list of what the most important inputs are, which companies use them, where alternative supplies could be located quickly, what percentage of consumption needs they could meet, and how quickly (and at what cost) industry in either the US or allied nations could manufacture new supply?

Likewise, how would the US (and the world) meet chip demand should China invade Taiwan? Would there be a military counterstrike? Is it conceivable that foundries on the island would be destroyed? Are there any plans for which parts of the public and private sector would be prioritised in the event

> I doubt that policymakers

of a major and immediate semiconductor supply shortage?

These are terribly uncomfortable questions, and it's no surprise that few want to raise them. But they are exactly the ones we need to be asking, particularly given that Chinese leader Xi Jinping — who is likely to be reappointed for a third term at the Communist party congress in mid-October — has made clear that national security, even more than Chinese economic growth, is his top priority.

China would have much to lose if trade and capital flows decoupled quickly. But the US has just as much to lose, if not more, and is less prepared for the possibility.

Beijing is already actively implementing a "Fortress China" strategy to become self-sufficient in the most essential goods and technologies.

The US has said it wants the same. Yet one of the realities of America's decentralised, privatised economy is that it is

understand the totality of the supply chain in even the most important non-defence areas, such as electric vehicles or electronic components.

This is not to say the US should copy Beijing's top-down approach to economic development — as I've argued in past columns, decentralisation is a strength for the US in terms of innovation. But in a decoupling world, it's not a good idea to raise the security stakes without having a solid plan for what happens if there's a war, real or economic.

The US should appoint a White House-level resilience tsar (a non-partisan figure with a logistics or business continuity background) — as I've also argued previously — to pose the right questions and ensure public and private sector preparedness.

We need a far better understanding of the economic implications of decoupling, whether it happens slowly or suddenly. We must not sound the drums of high-end semiconductors — defend its sovereignty.

The path to actually passing the bill and pushing through aid money is

green batteries, key minerals and pharmaceuticals.

That's important, and needed. But now both policymakers and businesses

understand the totality of the supply chain in even the most important areas

difficult to map risk. The Department of Defense may have a grasp on where all the parts of an F-35 fighter jet come from. But I doubt that policymakers

war without understanding what they may bring.

rana.foroohar@ft.com

"British disease" of poorly motivated workers and mediocre management.

Now, in a post-Thatcherite landscape transformed by technology and consumerism, queueing is both more efficient and something the more affluent can opt out of by paying for special treatment, such as priority boarding. Only the poorest tend to stand in line for their money in banks or post offices; the premier customers are all online. We are right to celebrate queueing, because it is the most visibly fair way of managing demand for something that lots of people want. Nowadays, though, the rationing of scarce resources is rarely as equitable as it was in wartime.

Those who see the queue as a uniting national ritual find their theory confirmed in that long line of mostly calm, stoical, good-humoured people leading to Westminster Hall. This queue is not what retail experts call a "pain point", to be suffered on the way to being served; it is a cultural phenomenon, an end in itself, a site of pilgrimage where the journey matters as much as the arrival.

The mundane queues we experience every day rarely give us the same sense of purpose and belonging. They will remain tedious and unglamorous to stand in — which is why the line of Britons waiting to pay respects to their late Queen should be remembered as something different, and unique.

The writer is professor of English and Cultural History at Liverpool John Moores University and author of 'Queueing for Beginners'

The King's passion for environmentalism was clear to those who worked with him

Tony Juniper

During his time as the Prince of Wales, King Charles III became well known for his environmental work. As someone who worked with him on two books, as an adviser for many years and on many subjects, from forests to climate change and from farming to wildlife, I saw first-hand the enormous effort he put in, the intellect behind the work and his sheer determination to make a difference.

His ecological awareness originated from a deep personal disquiet he felt as a young man about the direction the world was embarking on. During the late 1960s and early 70s, the young prince began to raise through speeches and articles the profile of pollution, disappearing wildlife and depletion of natural resources. He also delved into the future of food and, as time went on, embraced global questions such as climate change. In 1985, he took direct action, converting the farm at his Highgrove home in Gloucestershire to organic status.

While today all this might seem perfectly reasonable, back then, and until relatively recently, concern for the environment was regarded by many as a "fringe" pursuit. He was attacked and ridiculed. Notwithstanding the criticism, however, he persisted and his convictions continued to deepen, even if at times he was portrayed as "rather dotty" (as he himself has put it).

He set in motion a range of initiatives which grew over the years into a constellation of charitable organisations, not only concerned with the environment but also the related subjects of disadvantaged young people, responsible businesses and sustainable urbanisation. And he did this not only through his own charities, but by supporting hundreds of others — such as Wildlife Trusts, the Rare Breeds Survival Trust and WWF — as their patron.

One of the things that repeatedly struck me during our work together has been the empathy for people that was integral to the prince's brand of environmentalism. It has never been about a healthy environment in spite of people, but always about a healthy environment for the benefit of people.

Through his speeches and writing, the

His ecological awareness originated in a personal disquiet he felt about the path the world was taking

prince set out to build connections between particular sectors and the causes he championed. One vehicle for elevating discussion to the systemic level has been the University of Cambridge Institute for Sustainability Leadership, which seeks to improve business leaders' awareness of environmental challenges. This initiative, and the royal support for it, has been instrumental in helping propel environmental challenges from the barricades to the boardroom.

The Prince's Rainforests Project, and his International Sustainability Unit that succeeded it, involved a decade of intense activity with world leaders to forge consensus on deforestation, food and water security, climate change, the circular economy, and the health of the marine environment. Meanwhile, the most recent large-scale intervention was the Sustainable Markets Initiative. Launched at the Davos summit in 2020, its mission is to help businesses move more quickly to a sustainable future. It has brought together world leaders and chief executives to discuss energy, nature and the circular economy.

The programme of action he has led has been relentless and lasted decades. It is, as far as I know, without precedent. His messages have long focused on the screaming need for action before it is too late to avoid ecological and climatic disaster, something that has now found widespread agreement. He has always been passionate about the power of partnership and the need for different groups across society to come together to forge solutions. He has also emphasised the ways in which the sustainability of the human world is fundamentally connected to the health of the natural one, and how if we look after the Earth, it will look after us.

No one knows how, if at all, the King will take forward this agenda in his new role, but it is clear that in the past half century of work he has made history. His son William, the new Prince of Wales, shows every intention of filling the space left by the royal transition. For anyone concerned about the future of our world, it is reassuring to know that an institution that has always taken the long view now holds ecological concerns at its very heart.

The writer was an adviser to King Charles when Prince of Wales. He is chair of Natural England, but is writing in a personal capacity

Juggling act
Middle managers battle to keep the post-pandemic office happy
WORK & CAREERS

The strange death of the company phone number

Pilita Clark
Business Life

Kenneth Andersson

"We have removed our telephone number," said a note on the website of a photography business I needed to contact in a hurry last week. "It's because we've noticed customers prefer to chat online, via email or by filling in the form below," it added.

Yeah, right, I thought, as I grumpily filled in the online form and hit "submit", sending my query off to some digital netherworld where I doubted it would be seen by anything as costly as a human.

As it happened someone did respond, quite quickly, by email. But by then I had already spoken to a rival business that had a phone number on its site, and a person who quickly picked up — a fact I relayed to the first company with a degree of triumph I am not proud of.

The thing is, the numberless business was at least being open about its intentions. A growing number of organisations have quietly dispensed with website phone numbers, or made them so hard to find that they may as well not exist. This was happening long before the pandemic spurred a wave of digital commerce. Reaching a person at places like Facebook has been so famously difficult that even police officers have complained.

But it has reached the point that today the sight of a prominent company phone number is becoming notable and having a call answered quickly by a person feels like winning some sort of jackpot.

We all know why this happens. People are expensive. For Covid-battered businesses, cost efficiency is crucial. A lot of queries can be easily answered online. Nuisance calls are rife.

Still, a backlash is taking shape. Spain this year moved to require companies to answer customer calls within three minutes, with a flesh-and-blood employee, and similar efforts are afoot in the UK. The question is, why don't more companies seize on the deepening fury about clueless customer service and make a competitive virtue of offering better support?

"It has reached a point that having a call answered quickly by a person feels like winning some sort of jackpot"

I wondered about this earlier this year on a visit to Australia, where the Telstra telecommunications group was boldly advertising its decision to bring all its call centres back home. The move follows years of complaints from fed-up customers, which can become especially acute during big floods and other weather disasters that have battered the country in recent years.

The UK telecoms group BT finished a similar call centre onshoring effort before the pandemic hit, and says it has seen big benefits. Customer gripes have plunged so much that BT, which once had some of the worst levels of complaints in the sector, now outperforms industry averages. Call centre efficiency is also higher. "We are about 30 per cent more efficient and effective," a spokesperson told me last week, adding it was a mistake to think that only older people wanted to talk to a person on the phone.

While a lot of queries can be dealt with online, calling remains the first preference for customers for any complex or sensitive problem and "this does not really differ by demographic".

The advantages of offering decent customer service have always been obvious to business leaders such as Tony Hsieh, the late US founder of the Zappos online shoe empire. He believed repeat customers and word of mouth were crucial to driving sales revenues up from less than $2mn to more than $1bn in just 10 years.

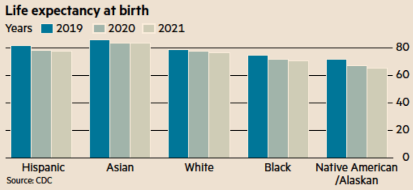
"On many websites the contact information is buried at least five links deep, because the company doesn't really want to hear from you. And when you find it, it's a form or an email address," he once wrote in Harvard Business Review. Zappos took the "exact opposite approach", putting its phone number at the top of every page on its website and training staff to go out of their way to help people. "As unsexy and low-tech as it may sound, the telephone is one of the best branding devices out there," he said.

Hsieh sold Zappos for $1.2bn in 2009 to Amazon, a company that also lacks phone numbers but ranks highly for customer satisfaction thanks to its online service. Few companies match the might of Amazon but thousands could follow the ethos of Tony Hsieh before governments force them into it.

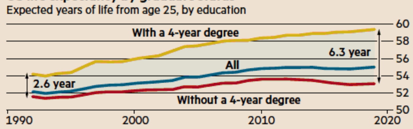
pilita.clark@ft.com

Lex.

{ Life expectancy: US exceptionalism }



Source: CDC



Source: Anne Case and Angus Deaton

Life expectancy in the US had stalled even before the pandemic. Despite spending much more on healthcare per capita than other developed countries, Americans live shorter lives than people in France, the UK and even Chile.

The coronavirus pandemic has only sharpened the divide. US life expectancy fell from 78.8 years in 2019 to 76.1 in 2021, according to the National Center for Health Statistics. That is the largest two-year decline in almost a century. In France, the fall was half a year. In Japan, the figure rose.

Longevity matters as an indicator of the collective quality of life in a nation. It has big implications for business. Insurers and savings companies build their strategies around the life expectancies of customers.

America's longstanding problems with obesity and opioids left a portion of its population vulnerable to coronavirus. Almost two-thirds of Americans hospitalised with Covid-19 had at least one pre-existing condition.

The outlook was bleakest for Native Americans and Alaska Natives. Their life expectancy plunged almost seven years from 71.8 in 2019 to 65.2 in 2021, around where the national average stood in 1944. Those statistics reflected the first full year of the pandemic since March 2020, but also poverty and discrimination alongside the high rates of suicide, accidents and addiction which blight marginalised communities.

These days, education is a good gauge of longevity. Research from Anne Case and Angus Deaton of Princeton University found Americans with a university degree could expect to live a decade longer than those who dropped out of high school. This cuts across the race lines. Well-educated black Americans have narrowed the gap with white peers in life expectancy. But the educational divide between and within both race groups has widened.

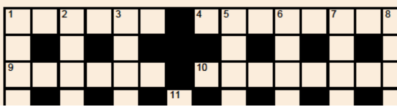
Between 1990 and 2018, racial disparities in life expectancy shrank by 70 per cent. Educational disparities in longevity more than doubled. During the pandemic, those without a degree suffered from higher mortality rates.

People with tertiary educations were more likely to work remotely from home. They often had comprehensive employer-provided insurance.

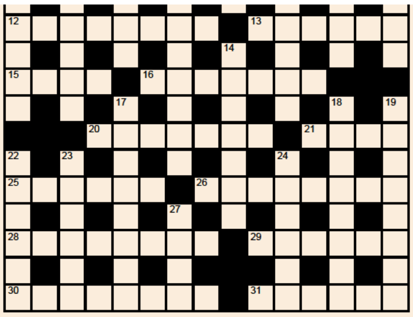
Education, poverty and diet go hand in hand. Distributing Covid vaccines is relatively easy. To reverse a crisis of early deaths, policymakers would need to cut poverty, obesity, drug abuse and gun violence. The cultural and political barriers to that are daunting.

CROSSWORD

No 17,203 Set by PETO



ACROSS
1 Passive American in retreat before long (6)
4 Tory to attract scorn (8)
9 Enter for example without resistance (6)
10 A Luddite tactic to make teabag so explosive (8)
12 Launch cut short after crack by



McCartney perhaps (4,4)
13 Monkey avoiding extremely savage rodent (6)
15 Aim at getting unctuous fool finally dismissed (4)
16 Jazz fan running around naked in a place of entertainment (7)
20 Young girl assuming Rene's coming around as usual (7)
21 Went from the centre of Warwick by river heading west (4)
25 God's close to the front taking in quiet place of retreat (6)
26 Disparage translation of great ode (8)
28 Criminals involved with breaking into houses (8)
29 Relaxed with a book about Haiti's capital (2,4)
30 Great German city's unlimited distribution of gifts (8)
31 Information discovered in tent not initially top-priority (6)

DOWN
1 Put down for buffet supper on board (8)
2 Clergyman's come to during Republican uprising (8)
3 Most precise directions to protect diamonds over time (6)
5 Stone wall essentially needing work (4)
6 Hypocritical of cadet when originally at fault (3-5)
7 An oppressive atmosphere caused by Farrow's mother (6)
8 Act upon your original agreement (6)
11 Declare to be true after chum makes a fuss (7)
14 Stiff ask at the outset to support scoundrel over upcoming clergyman (7)
17 Individual copies to be returned before class (8)
18 Refrain from interfering with unaccompanied bags recently turning up (3,5)
19 Then read out, Devotee . . . . (8)
22 . . . . to wonder as one of poet's lines is deleted' (6)
23 Arrest in recital causing anger (6)
24 Engaged in lining Dutch colonist's hat (6)
27 An unexpected advantage after commencement of task (4)

JOTTER PAD

Solution 17,201