FINANCIAL TIMES

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Into the future
What will the world look like in five years? — SPECIAL REPORT

Prosecuting Trump
The potential criminal investigations waiting in the wings — BIG READ, PAGE 15

Martin Wolf
If interest rates stay low, stock markets will only grow — PAGE 17

Oh no it isn't
Panto season closes early

Toby Melville/Reuters

Guests take a selfie outside the Palladium theatre in London's West End yesterday as the pantomime season comes to an abrupt and premature end following tighter Covid-19 restrictions in England's capital.

Boris Johnson's government is under increasing pressure to rewind a relaxation of rules over Christmas as infection rates continue to rise across the UK.

Two leading health journals published a rare joint article yesterday warning that allowing three separate households to travel across the country to stay with each other during the festive period was about to "blunder into another major error that will cost many lives".

Report page 2

Brussels threatens Big Tech with break up to curb monopoly power

● EU drafts new digital law ● Privacy fears and low taxes spur hostility ● Big fines weighed

JAVIER ESPINOZA — BRUSSELS

The EU has raised the stakes in its efforts to curb Big Tech by threatening to break up companies that repeatedly engage in anti-competitive behaviour in the first overhaul of the bloc's rules for internet businesses for two decades.

A draft of the new Digital Markets Act warned that technology companies that break competition rules will face fines of up to 10 per cent of their global revenues. Brussels also said the EU would move to break up any technology company fined three times within five years.

Margrethe Vestager, the commissioner in charge of competition and digital policy, said the EU would not hesitate to "impose structural remedies, divestitures, that sort of thing".

US tech companies such as Amazon, Google and Facebook face growing hostility in Europe for paying low taxes, invading privacy and crushing rivals.

However, the prospect of breaking up a US tech group would be daunting, said Thomas Vinje, a partner at law firm Clifford Chance. "I don't believe the EU would risk breaking down [the alliance with the US] by threatening to break up American icons," he said.

"The Biden administration is not going to let that happen easily."

The EU said it would hold technology groups to a higher standard of regulation, classing companies as "gatekeepers", with the power to dictate their markets if they have annual revenues in the European economic area of at least €6.5bn in the past three financial years.

The companies must also have at least 45m users and be active in at least three EU states, the draft regulation said.

"We need to act quickly," said Thierry Breton, one of the EU commissioners in charge of the regulations. Otherwise, he warned, "we may destroy competition and opportunities for some players that could have been successful innovators".

Separately, the EU also released the draft of its Digital Services Act, which is designed to force tech companies to take more responsibility for illegal behaviour on their platforms. It warned that companies that do not police themselves will face fines of up to 6 per cent of global revenues.

The commission's draft proposals will be voted on by the European Parliament and Council of Ministers. There is no timetable for when they will come into force. But the new rules are likely to face at least two years of political wrangling and debates before approval.

Commissioner Thierry Breton: 'We need to act quickly [or else] we may destroy opportunities for. . . successful innovators'

The regulations would be among the world's most stringent on tech companies. They are also an acknowledgment in the EU that competition law has failed to curb the growth and market power of the Silicon Valley giants.

Paul Tang, a Dutch socialist MEP, said: "The commission's plans are good but not good enough to curb the monopoly power of tech giants. Instead, the commission should take direct aim and at least dismantle the perverse business model of these tech giants: monetising personal data via advertising."

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Briefing

▸ Moderna jab 'highly effective', FDA finds
The US Food and Drug Administration's report on Moderna's Covid-19 vaccine found the jab to be safe and "highly effective", clearing the way for a second inoculation to win emergency approval.— PAGE 2

▸ China data herald economic recovery
Beijing has reported industrial production and retail sales jumped 7 per cent and 5 per cent year on year respectively, as economic recovery from the coronavirus pandemic powers ahead.— PAGE 3

▸ Hungary sets legal curbs on gay rights
Hungary's parliament has passed laws limiting gay rights, changing electoral rules and decreasing oversight of public funds, as prime minister Viktor Orban promotes "Christian family values".— PAGE 3

▸ McConnell acknowledges Biden win
Mitch McConnell has congratulated Joe Biden on winning the US presidential election, making the Senate's top Republican the highest-ranking party figure yet to break from Donald Trump.— PAGE 4

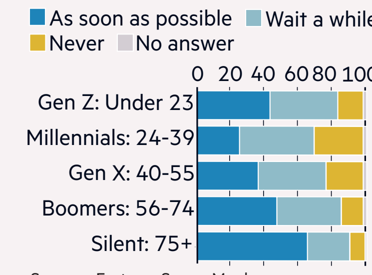
▸ Airlines warn on EU data rule breach
Carriers fear they will be in breach of strict European rules on passenger data for flights to Britain if they keep planes flying in the event of the UK leaving the EU without a deal.— PAGE 5

▸ Cleveland to ditch 'Indians' name
Cleveland's Major League Baseball team in the US has announced that it is to drop "Indians" from its name, after more than a century in use, once it has settled on an alternative.— PAGE 8

▸ Thai protests fail to sway stance on king
A wave of protests in Thailand by demonstrators seeking a new constitution and reform to the monarchy may have sparked debate but has failed to bend the state's existing position.— PAGE 3

Datawatch

No rush for millennials
When US adults say they want a Covid-19 vaccine (%)



Sources: Fortune, SurveyMonkey (Nov 30 - Dec 1 2020)

While more than 40 per cent of the youngest adults in the US say they would have a Covid-19 vaccine, the number nearly halves for the generation above them. Meanwhile, the majority of over 75s said they would get a jab as soon as possible.

Sanctions on Turkey set tricky entrance for Biden

Analysis ▸ PAGE 3

UK draws up plans to rival Singapore with post-Brexit shipping tax regime

PETER FOSTER — BRIGHTON
JIM PICKARD — LONDON

The UK is drawing up plans to turn London into a rival for Singapore as a hub for shipping companies to register their vessels following the end of the Brexit transition period, according to people briefed on the proposals.

Industry bodies and unions have been canvassed over the reform of the shipping industry's so-called tonnage tax after January 1 2021, when the UK is no longer subject to the EU's state aid regime on subsidies.

Plans include expanding the scope of the UK scheme by counting oil rigs as "ships" for tax purposes — which is not allowed under EU rules controlling the subsidy of maritime transport — in order to attract more business. A £30m government-funded scheme to train cadets directly on behalf of shipping companies has also been mooted.

The proposals, described as "blue-sky thinking" by one person familiar with their contents, are being worked on as EU-UK trade talks reach a crunch point in Brussels — with the issue of managing UK regulatory divergence the biggest bone of contention.

One proposal is that companies choosing to register their vessels in the UK could face a "lighter touch" test for how much of their shipping is managed in the UK — a key requirement under EU tonnage tax regimes. The proposal seen by the Financial Times repeatedly references Singapore as a benchmark for the UK's post-Brexit aspirations.

The Department for Transport said: "We do not comment on leaks."

Since the Brexit vote in 2016, the tonnage of ships registered under the UK flag has declined by a third, according to a report prepared for the government, because of uncertainty over the future. The proposals say this could partly be addressed with a "hearts and minds" campaign to persuade shipping companies to register their vessels in the UK.

According to calculations provided to the government, revamping the UK's shipping tax and regulation regime could be worth £3.7bn over three years and create 2,500 jobs directly, and 25,000 in related companies.

David Blumenthal, a tax partner with Clyde & Co, who handles tonnage tax issues, said the UK's departure from the EU was an opportunity.

"The idea is that if we're not constrained by EU state aid, we could have more ability to do things that would make the UK more attractive to shipping companies," he said.

Austria	€3.90	Malta	€3.70
Bahrain	Din1.8	Morocco	Dh45
Belgium	€3.90	Netherlands	€3.90
Bulgaria	Lev7.50	Norway	NKr40
Croatia	Kn29	Oman	OR1.60
Cyprus	€3.70	Pakistan	Rupee350
Czech Rep	Kc105	Poland	Zl 20
Denmark	DKr38	Portugal	€3.70
Egypt	E£45	Qatar	QR15
Finland	€4.70	Romania	Ron17
France	€3.90	Russia	€5.00
Germany	€3.90	Serbia	NewD420
Gibraltar	£2.90	Slovak Rep	€3.70
Greece	€3.70	Slovenia	€3.70
Hungary	Ft1200	Spain	€3.70
India	Rup220	Sweden	SKr39
Italy	€3.70	Switzerland	SFr6.20
Lithuania	€4.30	Tunisia	Din7.50
Luxembourg	€3.90	Turkey	TL19
North Macedonia	Den220	UAE	Dh20.00

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World Markets

STOCK MARKETS

	Dec 15	prev	%chg
S&P 500	3670.91	3647.49	0.64
Nasdaq Composite	12499.42	12440.04	0.48
Dow Jones Ind	30042.52	29861.55	0.61
FTSEurofirst 300	1517.26	1513.23	0.27
Euro Stoxx 50	3526.29	3503.96	0.64
FTSE 100	6513.32	6531.83	-0.28
FTSE All-Share	3673.28	3678.41	-0.14
CAC 40	5530.31	5527.84	0.04
Xetra Dax	13362.87	13223.16	1.06
Nikkei	26687.84	26732.44	-0.17
Hang Seng	26207.29	26389.52	-0.69
MSCI World $	2619.43	2621.89	-0.09
MSCI EM $	1250.45	1257.66	-0.57
MSCI ACWI $	628.84	629.83	-0.16

CURRENCIES

	Dec 15	prev		Dec 15	prev
$ per €	1.215	1.213	£ per $	0.746	0.751
$ per £	1.340	1.332	€ per £	1.103	1.098
£ per €	0.907	0.911	¥ per €	126.063	126.197
¥ per $	103.735	104.080	£ index	77.677	77.095
¥ per £	138.999	138.598	SFr per £	1.188	1.183
SFr per €	1.077	1.077			
€ per $	0.823	0.825			

COMMODITIES

	Dec 15	prev	%chg
Oil WTI $	47.61	46.99	1.32
Oil Brent $	50.80	50.29	1.01
Gold $	1831.15	1842.00	-0.59

INTEREST RATES

	price	yield	chg
US Gov 10 yr	105.91	0.90	0.00
UK Gov 10 yr		0.26	0.04
Ger Gov 10 yr		-0.61	0.01
Jpn Gov 10 yr	101.11	0.00	-0.01
US Gov 30 yr	118.23	1.64	0.00
Ger Gov 2 yr	105.66	-0.77	0.00

	price	prev	chg
Fed Funds Eff	0.09	0.09	0.00
US 3m Bills	0.09	0.08	0.01
Euro Libor 3m	-0.57	-0.57	0.00
UK 3m	0.04	0.03	0.01

Prices are latest for edition | Data provided by Morningstar

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INTERNATIONAL

Pandemic

US finds Moderna vaccine 'highly effective'

FDA declares treatment safe, raising prospect of wider access this week

HANNAH KUCHLER — NEW YORK
KIRAN STACEY — WASHINGTON

The US regulator has found Moderna's coronavirus vaccine to be safe and "highly effective", clearing the way for a second jab to receive emergency use authorisation this week.

The US Food and Drug Administration report on Moderna's vaccine trials, published yesterday, suggested immunity starts about 10 days after the first of two injections, much like the one made by Pfizer and BioNTech, which received emergency use authorisation last week.

A second approval could significantly expand access to Covid-19 vaccines in the US, where the pandemic has killed more than 300,000 people, according to Johns Hopkins University data. While the US government has been offering to help Pfizer expand manufacturing capacity, it secured another order for 100m Moderna vaccines last week, bringing its total to 200m.

The FDA report said: "The two-dose vaccination regimen was highly effective in preventing PCR-confirmed Covid-19 occurring at least 14 days after receipt of the second dose."

After both jabs, the vaccine was 94.1 per cent effective in a trial of about 30,000 participants. The vaccine was less effective in people over the age of 65, with an efficacy rate of 86.4 per cent. There were 30 severe cases of Covid-19 in the placebo group but none in the vaccinated group. There were no deaths from Covid-19 in either group.

Moderna's vaccine may also be the first to show some impact on asymptomatic infections, according to a document submitted by the company after its original application. According to the drugmaker, just 14 people who received the vaccine during a clinical trial tested positive for Covid-19 but did not show symptoms, compared with 38 participants who received only a placebo.

> If the vaccine can stop the infection, it could help control the spread from person to person

So far, all the vaccines have focused on stopping people developing Covid-19 disease. But if the vaccine can also stop the infection, it could help control the spread from person to person. People who become infected can spread the virus before they show symptoms — and 30-40 per cent never show symptoms.

The report will be examined by an outside panel of experts, who will give a recommendation tomorrow on whether to approve the vaccine on an emergency basis for people aged 18 and over. The FDA will give its final decision after that.

Moncef Slaoui, President Donald Trump's vaccine tsar, said on Monday he expected Moderna's vaccine to be authorised this week. It is based on the same messenger ribonucleic acid, or mRNA, technology as the Pfizer/BioNTech vaccine. A genetic code to the virus's spike protein is delivered into the body in a bubble of fat to teach the immune system to respond to the virus.

The FDA scientists said there were no safety concerns that should prevent an emergency authorisation, but there was not enough evidence for how the vaccine worked in under-18s and pregnant and breastfeeding women, who were not in the trials.

The most common side effects for the Moderna vaccine were pain at the injection site, fatigue and headache. There were no cases of allergic reaction, as has been seen in two participants in Pfizer's vaccination programme in the UK.

There were cases of potential side effects similar to those found in Pfizer's data. Three participants experienced Bell's palsy, a weakness of facial muscles, but one in the placebo group.

Anjana Ahuja see Opinion

Netherlands
Retailers reel from curbs

A street in Amsterdam is almost deserted yesterday as a tough second lockdown came into force in the Netherlands, leading to the closure of shops during the busiest and most lucrative part of the year.

"Obviously it is a big loss, this time of year is extremely important to us," said Robert Reuter, the owner of City Diamonds. "It is a very hard decision, it is bitter for us."

The lockdown comes as coronavirus infections rose to record levels in the past week. All schools and non-essential stores will be closed for at least five weeks, along with hairdressers, beauty salons, gyms, museums and zoos.

The national shopkeepers' association warned of the "disastrous" effects on retailers. "For many shops this is more than they can bear," it said. *Reuters, Amsterdam*

Piroschka van de Wouw/Reuters

Rule of law

Taxpayers alert to misuse of recovery funds, warns EU

MICHAEL PEEL AND SAM FLEMING
BRUSSELS

EU taxpayers' trust in the bloc's ability to safeguard their money will be damaged if Brussels fails to wield new powers to withhold funds from countries that misuse them, a senior European Commission official has warned.

The "river of money" created by the EU's €1.8tn pandemic economic recovery package highlighted the need for the extra safeguards, said Vera Jourova, a commission vice-president, who vowed to move quickly to assess capitals' compliance with the rules.

EU leaders last week finally approved rule of law checks on payouts from the bloc after Poland and Hungary dropped opposition that threatened to delay the entire budget. The two countries lifted their veto after receiving concessions on the application of the new mechanism, which was a response to concerns about growing authoritarianism and corruption in some member states.

Ms Jourova said the EU had "plenty of work" to do to convince citizens "we are doing proper things with their money" as it attempted to revive the region's coronavirus-ravaged economies.

"When you distribute more money, you should also bring in more guarantees so people can trust you will protect it," she said. "If you don't have that trust, the willingness of taxpayers to contribute to the European budget will go down."

Ms Jourova acknowledged the way the commission used the powers would put it under "incredibly severe scrutiny" from member states, the European Parliament and the public. "It will be a stress test also for us, but I am sure we can do it," she said.

She said Brussels would not use its powers in an "activist" way, but would be "precise and transparent". The commission plans to assess adherence as soon as the rules come into force in the new year, she said, while working from "day one" to create detailed guidelines on their operation. "There is a big demand for accountability from EU institutions," she said. "And one of those biggest demands . . . is: 'We are giving you the money but you need to make sure it will not pay for the wrong things, the wrong people, the wrong systems' — I mean political systems."

> 'It will be a stress test also for us, but I am sure we can do it'
> Vera Jourova

The rule of law plan won the go-ahead last week after EU leaders agreed to a non-binding declaration to assure Hungary and Poland that they would not be singled out under the new regime. Both countries are the subject of so-called Article 7 disciplinary proceedings that have stalled because each has vowed to veto action against the other.

The rule of law compromise also gives the European Court of Justice a role in judging the legality of the new mechanism, should it be challenged by a member state in court even before it is used.

The outcome has sparked criticism from observers including George Soros, the billionaire backer of liberal causes, who branded it a cave-in to "extortion" from Hungary and Poland. Some European parliamentarians have also questioned whether it breaks EU law because it constrains the commission's ability to act.

Ms Jourova said she hoped the ECJ would not take years to decide on the matter. She added that she hoped the existence of the mechanism would in itself act as a "very strong" deterrent to wrongdoing by member states.

"I do not leave anyone in any doubt that I am ready to use this tool when necessary," said Ms Jourova, adding that the rule of law played an essential "unifying role" in holding the European bloc together.

"If we have failures in some member states, then the degradation of the system is obvious," she added.

UK restrictions

Johnson urged to rethink festive rules or put 'many lives' at risk

SARAH NEVILLE AND
JASMINE CAMERON-CHILESHE — LONDON

The pressure on Boris Johnson to rethink a relaxation of Covid-19 restrictions over Christmas grew yesterday when two health journals published a rare joint article warning the UK prime minister was about to "blunder into another major error that will cost many lives".

The concerted message from the BMJ and the Health Service Journal — only the second in their century-old histories — came amid alarm over the consequences for the health service of a surge in cases at a time of year when it is under greatest strain from winter ailments.

Keir Starmer, leader of the opposition Labour party, has also called on the prime minister to review the planned festive easing. The government had "lost control of infections, putting our economy and our NHS at grave risk in the new year", Sir Keir said.

Writing before a ministerial meeting today to review the tiered restrictions for England, the medical journals said that when the government had devised the plans to soften curbs over Christmas it had assumed the Covid-19 demand on the NHS would be decreasing.

"But it is not, it is rising, and the emergence of a new strain of the virus has introduced further potential jeopardy."

Hospital admissions and deaths have risen in recent weeks and, the journals said, the government had been too slow to introduce curbs in the spring and again in the autumn. "It should now reverse its rash decision to allow household mixing and instead extend the tiers over the five-day Christmas period in order to bring numbers down in the advance of a likely third wave."

They urged ministers to review and strengthen the tier structure, which they said had failed to suppress rates of infection and hospital admissions.

Unless action was taken to change the trajectory, hospitals in England were likely to have just short of 19,000 Covid patients on New Year's Eve — almost exactly the same as the 18,974 peak of the first wave on April 12.

In a letter to Mr Johnson, Sir Keir said it had become clear over recent days that the tier system introduced two weeks ago had failed to control transmission of Covid-19.

"Sadly, it does now appear that the government has — once again — lost control of infections, putting our economy and our NHS at grave risk in the new year," he said.

"If you conclude with government scientists that we need to take tougher action to keep people safe over Christmas, then you will have my support."

The prime minister's spokesperson said the government still intended to relax Covid-19 measures from December 23 but stressed that the guidance was being kept "under constant review".

Steve Barclay, chief secretary to the Treasury, said that while the public would not be criminalised for visiting families over the five-day window, people ought keep mixing to the minimum.

"People shouldn't misinterpret what the guidelines say. It is not saying that people must go and see family . . . It is important that people do the minimum that is possible," he said.

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Sweden

Stockholm blamed for virus strategy that 'failed' elderly people

RICHARD MILNE
NORDIC AND BALTIC CORRESPONDENT

Sweden's strategy to protect elderly people from coronavirus was a failure and the government in Stockholm bears responsibility, according to preliminary findings of an official inquiry into the handling of the pandemic.

The country's independent coronavirus commission, one of the first in Europe to release publicly parts of its findings, said that well-known structural problems in elderly care contributed to a high number of deaths among pensioners.

"These shortcomings have led to residential care being unprepared and ill-equipped to handle a pandemic. Staff employed in the elderly care sector were largely left by themselves to tackle the crisis . . . Although Sweden, in comparison with other countries, does not stand out with a high share of deaths in residential care, it is nevertheless clear that, so far, this part of the strategy has failed," the commission said in the first part of its report, published yesterday.

"The ultimate responsibility for these shortcomings rests with the government in power — and with the previous governments that also possessed this information," it added.

The scathing report from a panel made up primarily of academics and chaired by a former government lawyer makes uncomfortable reading for the centre-left government in Stockholm.

Sweden has taken a different path from the rest of Europe on a number of issues, ranging from not implementing a formal lockdown or recommending the use of face masks, to keeping borders open and not imposing quarantine on visitors from abroad.

The commission underscored that Sweden had suffered a similar proportion of deaths among the elderly as other European countries but its death rate per capita is one of the highest in Europe, and significantly higher than those of its Nordic neighbours.

In response, Stefan Lofven, prime minister, admitted to newspaper Aftonbladet that Sweden had been harder hit by the second wave of Covid-19 than the country's health officials had expected.

The Swedish commission blamed several factors, including shared responsibility between national and local governments for elderly care; insufficient staffing levels and poor working conditions; and the difficulty of persuading doctors into care for the elderly.

A nursing home in Stockholm. Some 20 per cent of infected residents of Sweden's care homes were not seen by doctors at all, according to a coronavirus commission

Anna Ringstrom/Reuters

It said it took "far too long" to deal with the shortcomings and listed a number of tardy decisions, such as problems with protective equipment; the late introduction of testing; and a ban on visitors to homes for the elderly that was introduced only on April 1, weeks after the initial outbreak.

"It appears blameworthy that attention was not drawn to the conditions in residential care for consistently frail older people earlier, seeing as it was known that the consequences of infection were particularly severe in this group," it said.

The commission said 20 per cent of infected residents of care homes were not seen by doctors at all, while 40 per cent of those cases were not assessed by a nurse either — something it called "unacceptable". Jimmie Akesson, leader of the populist Sweden Democrats, said people had died unnecessarily. "The ultimate responsibility is of course borne by prime minister Stefan Lofven," he wrote on Twitter.

The commission is due to release its final report in October 2021.

Missile sanctions amount to US shot across Turkey's bow

Measure viewed as mild but points to deep strain between two Nato allies

LAURA PITEL — ANKARA
KATRINA MANSON — WASHINGTON

After years of fretting that Turkey would face crippling economic measures for its decision to buy a Russian-made air defence system, foreign investors reacted with relief to the US's relatively restrained sanctions this week.

"The sanctions are very mild," said Gilles Seurat, a fund manager at La Française, a Paris-based asset manager. Investors could "at last put this S-400 issue behind us with no economic cost for the country".

Nevertheless, the decision to impose measures on a Nato ally underlines the deep strain between Turkey and its western partners — and serves as a reminder of the thorny foreign policy challenge awaiting Joe Biden when he takes office in the US next month.

"The Biden administration will still have to deal with the S-400 crisis," said Asli Aydintasbas, a senior policy fellow at the European Council on Foreign Relations. "It's a fairly significant thing for a Nato country to be sanctioned by the US. Getting to a place where the S-400s are no longer an issue between Turkey and the US will be tough."

Even if the immediate financial impact of the sanctions was limited, with the embattled Turkish lira enjoying a calm day of trading yesterday, the measures risk striking a blow to the defence sector that Recep Tayyip Erdogan, Turkey's president, has taken great pride in expanding.

Turkey now produces armoured vehicles, tanks, helicopters and drones but they require foreign parts. Defence analysts warn that western companies may be hesitant to work with Turkish groups for fear of falling foul of US sanctions.

"While the Turkish defence industry isn't going to collapse, it will be inconvenienced," said Aaron Stein, a Turkey expert at the Foreign Policy Research Institute in Philadelphia. "It will cause some pain." That meant that Turkey — already suspended from the US-led F-35 fighter jet programme for the S-400 purchase — was likely to be eager to "get these sanctions lifted", he said.

There are signs that Turkey is open to talks. Mr Erdogan, who has often used harsh language with the US, has toned down his rhetoric following Mr Biden's presidential election victory and ahead of possible sanctions from Europe. Last week he stressed Turkey's "deep-rooted political and economic relations with the US and the EU", adding: "There is no issue that cannot be solved through dialogue and co-operation."

Yet it remains unclear whether he is willing to make the compromises that will be demanded of him in return for the lifting of sanctions and a normalisation of US-Turkey ties.

Daniel Fried, a former senior state department official who covered Turkey, said the Biden administration needed to craft a "reset" with Turkey. "[But] Erdogan's got to want to do this," he said, adding that the sanctions were "designed to push the Turks, but not trash things".

A clause in this year's National Defense Authorization Act, a defence spending measure passed by Congress last week with a veto-proof majority but which has yet to be signed into law — stipulates that S-400 sanctions can be lifted only if Turkey "no longer possesses" the system.

"That's never going to happen," said Mr Stein. "So the Biden administration is going to have to make the case for Turkey. Turkey is going to have to do something."

Turkey could commit never to use the Russian system, which US officials argue poses a security threat to Nato technology, but Mr Stein warned: "If the Turks are going to be intransigent and unwilling to compromise then even people who want to lift [these measures] are going to have problems."

There are other obstacles. The two nations remain at odds over Syria, where Washington supports Kurdish fighters that Turkey views as a national security threat.

Mr Biden, who told the New York Times in 2019 that Mr Erdogan was an "autocrat", has vowed to prioritise human rights, putting him on a collision course with a Turkish leader harsh with domestic political opponents.

Still, advocates of rebuilding the relationship argue there is much to be gained, not least pulling Turkey away from Russia's orbit.

Many analysts believe Mr Erdogan will enter the Biden era in search of better relations. However, Soner Cagaptay, a senior fellow at the Washington Institute for Near East Policy, warned that any optimism might not last. "If the past offers any lessons, I think it will start well but it won't end well."

Happier times: Donald Trump hosted Recep Tayyip Erdogan at the White House a year ago for trade talks. Below, a truck with S-400 missile system parts arrives in Turkey
Alex Edelman/Bloomberg; AP

> Sanctions are 'designed to push the Turks, but not trash things'

South-east Asia. Democracy movement

Thai students fail to sway state's stance on monarchy

> Protesters have broken taboos but struggled to get military government to change course

JOHN REED — BANGKOK

"Long live the Queen!" people cried, as Parit Chiwarak, a leader of Thailand's student-led protests, took the stage in a bouffant wig and pink gown similar to those of the country's Queen Suthida.

Mr Parit, known as Penguin, deployed the camp attire for a skit at a recent demonstration. But Thailand's youth protesters were making a serious demand: the scrapping of Article 112 of the criminal code, the *lèse majesté* law used to threaten or jail critics of King Maha Vajiralongkorn and his family.

Panusaya Sithijirawattanakul, known as Rung, another protest leader, read out the names of Thais charged under the law, which carries a maximum 15-year prison term.

Such scenes would have been unimaginable six months ago. But Thailand's young protesters have sparked an unprecedented political debate with dozens of demonstrations in Bangkok and elsewhere since July that have drawn tens of thousands of people.

Despite opening a space for protest, however, analysts said the students had failed to budge the military-backed royalist establishment on their three core demands: the resignation of Prayuth Chan-ocha, the prime minister; a new constitution; and reforms to the monarchy. The protesters have also struggled to attract broader support from rural and working-class Thais, but some older allies have been won over to their cause.

Thais used to quail at the thought of criticising the monarchy even obliquely. Now, everything — including the king's power, his multibillion-dollar fortune, the share of the state budget and residence in Germany — can be discussed openly.

Thai Rath, the country's top-selling tabloid newspaper, recently published a front-page story about the protesters' demands to abolish Article 112, highlighting the extent to which the formerly self-censoring media now feels free to broach once off-limits topics.

The democracy movement has also employed subversive humour, viral memes and visual puns, donning dinosaur costumes at one point in reference to Thailand's gerontocratic leadership — to advance their causes.

The movement has gained international attention; Berlin has said it will oppose Thailand's head of state making governing decisions while in Germany.

Nine senators in the US, Thailand's main military ally, introduced a resolution this month supporting the democracy movement and urging the government to "care for the rights and wellbeing of children and students".

Kanokrat Lertchoosakul, assistant professor of political science at Chulalongkorn University, said the protesters' "first point of success" had been to broaden the scope of debate. "The students have proved that Thai society was ready to discuss this issue; they just needed someone to open the door."

> '[Students] haven't been successful in compelling the government to the negotiating table'

Mark Cogan, associate professor of peace and conflict studies at Japan's Kansai Gaidai University, agreed that the students had made it possible to discuss once-forbidden topics, but added: "They haven't been successful at all in compelling the government to the negotiating table."

Protesters and opposition parties have rejected a "reconciliation committee" proposed by the military-dominated parliament to gather pro-monarchy and pro-protest representatives, dismissing it as a delaying tactic.

As protests massed outside parliament last month, MPs agreed to convene a committee to redraft the constitution. But they rejected a motion backed by the protesters and the opposition Move Forward party that would have put the entire charter, including an article guaranteeing the king's privileged legal status, up for discussion.

The king described the country as a "land of compromise" in impromptu comments to Britain's Channel 4 news last month. However, the Prayuth government has begun taking a harder line prosecuting protest leaders, setting the stage for further conflict in 2021.

After suspending *lèse majesté* prosecutions on the king's orders in 2017, authorities are now wielding the feared law more widely. Police have summoned at least 41, including Mr Parit and Ms Panusaya, for *lèse majesté* investigations, according to Human Rights Watch.

"The king said this is the land of compromise, but this is not a land of compromise," said Ms Kanokrat. "With an uncompromising, strong state, what can we expect in the near future?"

Economic recovery

China powers ahead with rosy figures for industry and retail

THOMAS HALE — HONG KONG

China's economic recovery from the coronavirus crisis powered ahead in November as key indicators of activity rose at their fastest rates this year.

Industrial production jumped 7 per cent year on year in November, edging up from 6.9 per cent a month earlier, while retail sales rose 5 per cent. Both metrics grew more than in any other in 2020.

China's economy returned to growth in the second quarter after a historic decline at the start of the year. The recovery has been stoked by the country's industrial sector and strong export growth while other big economies have foundered.

The comeback has allowed China to play a more dominant role in global trade, which also gathered pace last month. Exports rose 21.1 per cent in dollar terms in November, the biggest rise since February 2018, pushing the trade surplus to its highest level on record.

Retail sales growth was buoyed in November by "Singles' Day", the world's biggest shopping festival. Gains in spending came despite concerns that consumption was lagging behind a wider recovery in China. The figure remains down 4.8 per cent in the first 11 months of the year compared with the same period in 2019.

Fixed asset investment, meanwhile, is up 2.6 per cent over the year to date, while in November the unemployment rate edged down to 5.2 per cent — the same level it was in December last year.

Ting Lu, chief China economist at Nomura, warned that the strong readings in November and momentum in to December added some "upside risk" to the bank's forecast for 5.7 per cent real gross domestic product growth in the fourth quarter.

Oxford Economics upgraded its forecast for China's full-year growth to 2.1 per cent and expects growth of 8.1 per cent next year. Louis Kuijs, head of Asia economics at the consultancy, expected a tightening of policy to weigh on quarter-on-quarter growth next year. "We expect the macro policy stance to shift from expansionary to contractionary, with the overall government deficit declining and monetary policymakers aiming to contain macro leverage," he said.

Leverage has emerged as a concern for policymakers in China, with the government in August seeking to control borrowing in the property sector as house prices rose sharply.

Over recent weeks, China's credit market has also been rocked by defaults. New home prices in November rose 0.1 per cent compared with a month earlier, but were up 4 per cent year on year, official data showed.

Australia

Beijing coal ban would breach WTO rules, warns Canberra

JAMIE SMYTH — SYDNEY

Canberra has asked Beijing to clarify whether it has formally banned Australian coal, warning that such a move would breach World Trade Organization rules and harm both countries.

Scott Morrison, Australia's prime minister, said yesterday he was seeking explanations about Chinese state media reports that the country's economic advisory body decided at the weekend to allow power stations to import coal without clearance restrictions, with the exception of Australia.

The development follows Beijing's imposition of informal trade sanctions, which have left dozens of cargo ships carrying Australian coal stranded off the Chinese coast and unable to unload shipments, in some cases for months.

"It would be a bad outcome for the trading relationship between Australia and China, that both countries benefit from," Mr Morrison said of the reports in the Global Times, the Chinese nationalist tabloid. "If that were the case, that would obviously be in breach of WTO rules. It would obviously be in breach of our free trade agreement . . . It really is lose-lose here."

China is Australia's largest trade partner, with trade totalling A$252bn ($190bn) in 2019. But over the past two years, relations have soured as Canberra has resisted Beijing's more aggressive foreign policy. A memo leaked to Australian media last month by a Chinese diplomat cited Canberra's ban on Huawei from the country's 5G network and "disinformation" about China's handling of coronavirus as among the reasons for the deterioration in relations.

China has imposed sanctions on barley, beef and wine following Canberra's call for an inquiry into the origins of the pandemic in Wuhan.

Mr Morrison said there was no prospect that he would change policy to meet Chinese demands, which would impinge on Australian sovereignty.

Loading up: imported coal is transferred from a cargo vessel at Rizhao in eastern China

The threat to Australian coal targets a commodity that generated A$55bn in export earnings in 2019. Australian thermal coal exports fell 14 per cent year on year in the third quarter with shipments to China dropping more than 50 per cent, according to Fitch. Shipments to India rose 96 per cent over the same period, "suggesting some of the cargoes heading to China were redirected", the agency said.

Additional reporting by Thomas Hale in Hong Kong

Law changes

Hungary limits gay rights and restricts opposition parties

VALERIE HOPKINS — BUDAPEST

Hungary's parliament has approved laws limiting the rights of gay couples, changing electoral rules and decreasing oversight of public funds.

The package passed yesterday included an anti-LGBT constitutional amendment stipulating that "the mother [of a child] is a female, the father is a male".

It also states that only married couples can adopt children, in effect excluding homosexuals because gay marriage is not allowed.

The laws are the latest in a series promoting so-called Christian family values promulgated by Viktor Orban's socially conservative government.

Mr Orban's coalition enjoys a supermajority in parliament. It is the ninth time the constitution has been amended since it was rewritten in 2011 by the premier's allies. Earlier this year, parliament made it legally impossible for Hungarians to change their gender.

Yesterday's vote came just after Mr Orban withdrew his threat to veto the EU's €1.8tn budget and recovery package, over objections to tying funds to rule-of-law benchmarks. Critics say Mr Orban's government and far-right Fidesz party have run roughshod over the rule of law and European values.

Watchdogs warn that two other changes to the constitution could further restrict democracy in Hungary. One limits the definition of "public funds" in a way that undermines oversight, according to the Hungarian Helsinki Committee, a Budapest-based human rights organisation.

The package also includes a law that doubles the number of constituencies in which parties must field candidates to compete nationally, making it more difficult for them to challenge Fidesz. The government said the new law would prevent "fake parties" from competing.

Opposition parties had vowed unprecedented co-operation in the 2022 general election in the hope of stripping Fidesz of its supermajority. A recent poll put their combined popularity 4 percentage points ahead of the ruling party and its coalition partner.

The amendments came as the EU's biggest political group, the European People's party, debated the potential expulsion of Tamas Deutsch, the Fidesz party caucus leader who became caucus chairman after ex-MEP Jozsef Szajer was caught at a Brussels gay sex party. Mr Szajer wrote much of the country's anti-LGBT constitution.

Mr Deutsch is under fire for saying group leader Manfred Weber used tactics reminiscent of Nazi and communist-era secret police in recent debates over tying EU funds to rule of law benchmarks. Mr Deutsch has apologised.

INTERNATIONAL

Electoral College

McConnell congratulates Biden on victory

High-ranking Republican acknowledges result but Trump has yet to concede

LAUREN FEDOR — WASHINGTON

Mitch McConnell, the Senate's top Republican, has congratulated Joe Biden on winning the US presidential election, making him the highest-ranking Republican yet to break with Donald Trump, who has refused to concede.

Mr McConnell, the Republican majority leader in the Senate, said yesterday that the US "has officially a president-elect and a vice-president elect" after the Electoral College vote on Monday.

"Many of us hoped that the presidential election would yield a different result but our system of government has processes to determine who will be sworn in on January 20," added the senator from Kentucky.

Since Mr Trump's defeat on November 3, many Republican lawmakers have hesitated to contradict the president, who has claimed, without evidence, that the vote was rife with fraud.

But late on Monday, senior Republicans, including Lindsey Graham of South Carolina, John Cornyn of Texas and Chuck Grassley of Iowa, acknowledged that Mr Biden was the president-elect after he officially received 306 electoral votes, to Mr Trump's 232.

Under the US constitution, the president and vice-president are selected not by the popular vote but by the Electoral College. The system allocates a number of electors equal to a state's total congressional delegation, which is in turn determined by the census.

Mr Trump has not directly commented on the college vote. However, yesterday he retweeted messages calling into question the election result.

> '[The US] has officially a president-elect and a vice-president elect'
>
> Mitch McConnell

Mr McConnell yesterday described Mr Biden, a senator who was Barack Obama's vice-president, as "no stranger to the Senate". The Republican could yet be a thorn in the side of the Biden administration if Democrats are unable to win two Senate run-offs in Georgia next month, which would allow the party to reclaim control of the upper chamber of Congress.

Mr Biden has insisted he will work across the political aisle to strike compromises, and said he had spoken to a number of former Republican colleagues in the Senate.

The college vote also prompted congratulations for Mr Biden from world leaders who had waited for the result, including Vladimir Putin of Russia and Mexico's Andrés Manuel López Obrador. The Kremlin said yesterday a telegram had been sent wishing Mr Biden "the utmost success" and hoping that Moscow and Washington could "really help to solve many problems and challenges that the world is encountering now, despite their differences".

"For my part I am prepared for interaction and contact with you," the Kremlin quoted Mr Putin as writing.

Mr López Obrador praised Mr Biden's more liberal stance on immigration and said he hoped they could speak soon. "We are certain that with you as US president, it will be possible to continue applying the basic foreign policy principles enshrined in our constitution, especially non-intervention."

Mexico is considering two bills that critics say could complicate co-operation with the US on security and finance.

Additional reporting by Jude Webber in Mexico City and Max Seddon in Moscow

Prosecuting a president see FT Big Read
Edward Luce see Opinion

Fed meeting

Policymakers ponder extra monetary support

JAMES POLITI — WASHINGTON
COLBY SMITH — NEW YORK

The Federal Open Market Committee meets this week at an important juncture for the US economy. While the outlook for 2021 has improved because of the rollout of the coronavirus vaccine, the short-term picture has deteriorated since monetary policymakers last met due to the worsening pandemic.

This has created a dilemma for Jay Powell, the Fed chair, and other officials. They have consistently said they are prepared to provide the recovery with more monetary support, including by bolstering their asset purchases, if needed. But is now the moment?

As they meet for the last time in a tumultuous year, and for their final gathering before Joe Biden takes office as US president, here are four things to watch.

More punch on bond purchases

Since June, in the early months of the pandemic, the Fed has been buying $120bn of US government debt each month — $80bn across Treasuries of all maturities and $40bn of agency mortgage-backed securities — and has said it would maintain that policy "over the coming months". Today, it is expected to make one big change in that regard, extending the timeframe for those debt purchases by linking them to certain economic metrics in the recovery.

But there has been pressure from some investors and economists to do more. Against the backdrop of rising Treasury yields and a flood of new longer-dated debt issuance by the Treasury department, the Fed may shift the bulk of its bond-buying to longer maturities.

Should the Fed hold off on making this change, some fear that borrowing costs could begin to creep up for American companies at a time when the economic recovery has begun to falter. Others point to the fact that financial conditions remain extremely accommodative to argue that a shift is unnecessary.

A more extreme, but less likely, option would be for the Fed to increase the aggregate size of its asset purchases.

Vaccines and rate rises

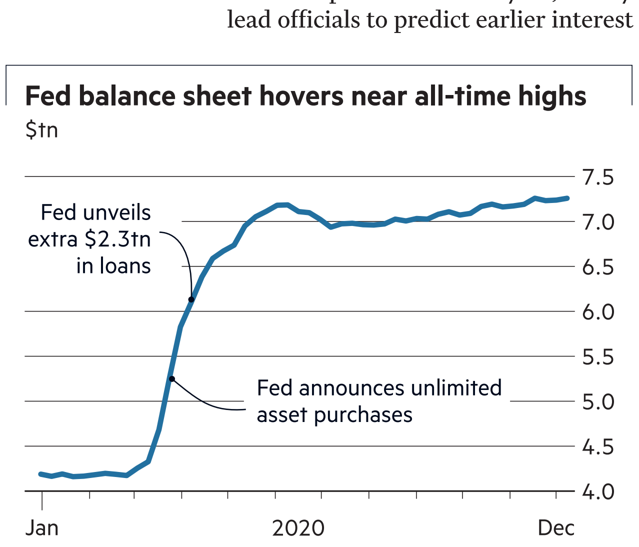
The last forecast from the Fed in September suggested the US economy would contract by 3.7 per cent in 2020, followed by a 4 per cent rebound next year and the unemployment rate dropping to 5.5 per cent by the end of 2021.

Dovish stance: Jay Powell, in Congress this month, does not want to create any perception that the Fed sees the end of the crisis and is preparing to raise rates
Jim Lo Scalzo/EPA-EFE

Officials publish new forecasts today and good news on vaccines may well lead to a rosier overall economic assessment — even though the first quarter of next year will probably be more dire than expected because of the worsening pandemic, since a number of labour market indicators have weakened sharply recently.

If the Fed does see solid macroeconomic improvement next year, it may lead officials to predict earlier interest rate rises than they did in September, when the median prediction was for no lift-off until at least the end of 2023.

This could be tricky for Mr Powell to manage from a communications standpoint, since he has often maintained a very dovish stance, stressing the downside risks to the outlook, and does not want to create any perception that the Fed sees the end of the crisis and is preparing to tighten.



Reviving the crisis credit facilities

This week's meeting is the first since a rift emerged between the central bank and the Treasury department over the fate of emergency lending facilities announced this year.

Steven Mnuchin, Treasury secretary, has asked the Fed to return unused funds from five such programmes that are set to expire at the end of the month, including two set up to purchase corporate debt, five facilities to support small and medium-sized businesses and one that lends to state and local governments.

Mr Powell has repeatedly signalled his preference to keep these facilities active, especially in light of the fact that coronavirus case counts are surging and governments are reimposing lockdown measures that are bound to chill economic activity.

Investors are holding out hope that these facilities will be reinstated early next year after Mr Mnuchin hands the reins as Treasury secretary to Janet Yellen, the former Fed chair, so any signals on this from Mr Powell will be closely watched.

Nudging Congress on stimulus

Mr Powell is probably tired of haranguing lawmakers on Capitol Hill for more fiscal stimulus, especially since his efforts have been in vain so far. But this week's meeting will be his best chance to make the case for why only government spending can plug the holes in the recovery that are growing by the day, including aid to small business, state and local governments and the unemployed.

Pressure from Mr Powell may help lawmakers close in on a package worth somewhere between $748bn and $908bn but an additional question for the central bank chief is whether he thinks the economy will need far more in the new year, as Mr Biden is calling for.

See Markets Insight

Bipartisan push

Support for reduced US stimulus package grows

JAMES POLITI — WASHINGTON

US congressional leaders are facing increasing pressure to agree compromise fiscal stimulus legislation, as support grows for a slimmed-down $748bn package championed by a bipartisan group of senators.

The proposal, which includes aid to small businesses and funding for unemployment benefits, represents a last chance before the holiday recess for an agreement on government support as the US struggles with surging coronavirus infections.

To make it more palatable to both parties on Capitol Hill, the moderate lawmakers stripped out contested provisions regarding liability protections for businesses and assistance for states and local governments, lowering the price tag of the package from $908bn.

The revised plan yesterday gained the backing of the Center for American Progress, a centre-left think-tank that is influential within the Democratic party, which called it "an important first step on the road to recovery".

"While CAP has repeatedly called for a larger, more comprehensive relief bill . . . we believe that the urgency of the situation calls for immediate action to avert what could become a humanitarian and economic disaster and imperil distribution of the vaccine," said Wendy Stachelberg, executive vice-president.

Neera Tanden, the group's president, has been tapped to be the next White House budget director by Joe Biden, president-elect, who has also been pushing Congress to reach a deal.

On Monday, Dick Durbin, the Illinois Democrat and Senate minority whip, backed the agreement, suggesting that the party's leadership, which had held out for relief measures of more than $2tn, was willing to accept a far smaller number. "This package does not include everything I think we need. But it is an honest compromise," he said.

"We must provide some emergency relief for the American people before we go home for the holidays," he added, calling on Mitch McConnell, the Republican Senate majority leader, to call a vote on the bill this week.

In a speech in the Senate on Monday, Mr McConnell seemed willing to embrace the plan.

"Either 100 senators will be here shaking our heads, slinging blame and offering excuses about why we still have not been able to make a law . . . [or] we will break for the holidays having sent another huge dose of relief out the door for the people who need it," he said. "So let's get this done."

But opposition to the compromise threatens to derail the bill. Some Republicans believe the cost is still too high, while Bernie Sanders, the Vermont senator who challenged Joe Biden for the Democratic presidential nomination, said any deal must include direct stimulus cheques to those struggling.

Josh Hawley, a Republican senator from Missouri, agreed. "I don't get why so-called 'emergency relief' packages for #COVID19 don't include direct assistance to working families. Working people waiting in food lines & unable to make rent is not an emergency?" he wrote on Twitter yesterday.

Low-carbon transition

US central bank joins alliance to back Paris climate goals

MARTIN ARNOLD — FRANKFURT

The US Federal Reserve has joined a consortium of central bankers supporting the Paris climate goals as it becomes more outspoken on the risk climate change poses to the global economy.

The Network for Greening the Financial System, which published yesterday a survey of its members' plans for confronting climate change, said the Fed was one of eight new members to join the group this month.

"As we develop our understanding of how best to assess the impact of climate change on the financial system, we look forward to continuing and deepening our discussions with our NGFS colleagues from around the world," Jay Powell, the Fed chair, said.

According to the survey, only a small minority of central banks have discussed implementing operational changes to tackle climate change, despite warning of the impact it will have on economies.

The question of whether central banks should use their vast bond-buying programmes to fight climate change by selling the bonds of the heaviest carbon emitters and buying more green bonds is one of the most contentious areas of monetary policy.

Only seven respondents to the NGFS survey said they were "not currently considering taking climate-related measures". Most of those considering action said it was aimed at "mitigation of financial risks stemming from exposures to climate-related risks on their balance sheets".

But when asked if they had considered implementing measures to protect themselves from climate risk or to proactively support the transition to a low-carbon economy, more than half said they had not. The main obstacle to potential action identified by most of the respondents was "the risk of creating financial distortions".

Clemens Fuest, head of the Ifo Institute in Munich, said it would be "very bad economic policy to use this as the basis for steering capital flows in an economy", adding that it would be tantamount to "a centrally planned economy".

Most of the central banks surveyed by the NGFS said there needed to be better disclosure of climate risks by commercial lenders and bond issuers as well as more international co-ordination before they could take action in this area.

"The vast majority of central banks participating in our survey see scope for adjusting their operational frameworks to reflect climate-related risks," said Sabine Mauderer, a Bundesbank executive who oversaw the NGFS survey. "Though central banks are clearly sensitive to climate risks, the implementation of specific measures is still at an early stage."

Christine Lagarde, the European Central Bank president, has promised to make tackling climate change a key part of its strategy review, which is due to be completed next year. Environmental campaigners have accused the ECB of reinforcing the market's bias in favour of heavy carbon-emitters, such as oil and gas companies, utilities and airlines, because these sectors issue more bonds than most others.

Ms Lagarde has said central bankers should "ask themselves" if they are taking "excessive risk" by trusting investors to price environmental issues. She said the ECB would consider ditching the "market neutrality" principle that means it always buys bonds in proportion to the overall market.

However, this was rejected by Jens Weidmann, head of Germany's central bank and a member of the ECB governing council, who wrote in the Financial Times last month that "it is not up to us to correct market distortions and political actions or omissions".

Mr Weidmann added that the ECB "should consider only purchasing securities or accepting them as collateral for monetary policy purposes if their issuers meet certain climate-related reporting obligations", as well as only using credit ratings that incorporate climate risks.

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Eurozone

ECB gives green light for banks to restart dividends

MARTIN ARNOLD — FRANKFURT

Banks in the eurozone will be able to pay modest dividends to shareholders again from the start of next year under strict limits outlined by Europe's financial regulator yesterday.

The European Central Bank's supervisory board recommended that banks distribute up to 15 per cent of their past two years of profits to shareholders and no higher than 0.2 per cent of their common equity tier one capital.

Banks should only restart dividend payments if they are profitable and have "robust capital trajectories" that can withstand the impact of the coronavirus pandemic, the central bank said.

The ECB, which oversees the 113 biggest lenders in the eurozone, also reiterated its guidance for bank bosses to exercise "extreme moderation" on bonus payments by scrapping, deferring or converting into shares as many of their payouts as possible.

The new guidelines will last until the end of September 2021, the ECB said, at which point, barring "materially adverse developments", it will return to its normal supervisory assessment of banks' capital and dividend plans.

The move leaves eurozone banks more constrained on dividend payments than their UK rivals after the Bank of England last week said it would allow the strongest banks to pay dividends of up to a quarter of the past two years' profits, or 0.2 per cent of risk-weighted assets.

The ECB ordered eurozone banks to stop all dividends and share buybacks to conserve €30bn of capital in March, shortly after the pandemic arrived in Europe. Since then, the sector has lobbied hard for stronger banks to be allowed to resume payouts early next year.

Some officials have argued that the sector should continue to conserve capital ahead of a potential surge in defaults that is likely when governments wind down their loan guarantees and other policies to shield the economy from the pandemic. The ECB has warned that in a severe scenario, eurozone banks could be hit by €1.4tn of bad loans.

Mohamed El-Erian Central banks' distortion of markets will be harder to defend in a recovering economy ➔ MARKETS INSIGHT

Companies & Markets

Buyout activity at risk after US court ruling on 'reckless' board

- Nine West creditors cleared to sue
- Chain failed after leveraged deal

SUJEET INDAP — NEW YORK

Deal lawyers in the US are warning that leveraged buyouts could become much more difficult to do after a court said creditors could go after a company's former directors if a private equity buyer saddled the business with an unsustainable amount of debt.

A recent ruling — in the case of the bankruptcy of retailer Nine West — by Judge Jed Rakoff of the Southern District of New York said creditors could pursue misconduct charges against the previous board of directors, which approved a $2bn leveraged buyout to Sycamore Partners in 2014. The business went bankrupt four years later.

> 'Requiring boards to be liable for the results years after a sale . . . could be a game-stopper'

The board had been "reckless" in failing to assess how the LBO debt could leave the new company insolvent, the judge wrote in the December 4 ruling.

"Requiring boards to be liable for the results years after a sale would put board members in a position of conflict between what is best for shareholders in the short run versus what is best for directors over the next few years following a transaction," said Brian Quinn, a corporate law professor at Boston College. "It could be a game-stopper for the private equity business."

The ruling is preliminary and the situation will now be resolved in a trial or a settlement, but the judge's statement of legal theory could have long-lasting consequences, said Ryan Preston Dahl, a partner at Ropes & Gray.

"Even a trial and 'vindication on the facts' will still leave this preliminary ruling out there stating that a board acts 'recklessly' by failing to adequately assess an LBO-buyer's post-transaction solvency," he said.

Ropes & Gray found the ruling so consequential that it put out a bulletin to clients last week. The ruling's "direction to corporate decision makers is seemingly at odds with their concurrent duty to maximise value for corporate stakeholders — typically satisfied by obtaining the highest possible price from a putative buyer", the law firm wrote.

The Nine West bankruptcy has been contentious, with its private equity owner facing accusations of asset-stripping. As part of the 2014 buyout, it sold two of the company's top brands, Stuart Weitzman and Kurt Geiger, to a Sycamore affiliate in a side deal at what creditors later argued was too low a price, leaving the remaining Nine West brands unable to shoulder the LBO debt.

Junior creditors argued the Nine West board had been told by investment bankers that the company could only withstand a debt to cash flow ratio of 5.1 times, but the Sycamore LBO they approved raised leverage to 7.8 times.

The board argued that it had not opined on the propriety of the side deal and LBO financing. The court, however, said all components of the transaction should have been considered.

Since the board had been "reckless" in not investigating Nine West's solvency, it "cannot take cover behind the business judgment rule", Judge Rakoff wrote, referring to the legal doctrine that keeps directors' past actions from being second-guessed later.

Lawyers for the Nine West directors did not respond to a request for comment.

Wing and a prayer Airlines fear big fines for breaking EU data rules without Brexit deal

Unhappy landing: carriers face a dilemma on handling passenger data if talks on a trade deal fail — Tolga Akmen/AFP/Getty

PHILIP GEORGIADIS

Airlines are warning they face large fines for breaking strict European rules on the exchange of passenger data for flights to the UK from next month should trade talks with the EU collapse.

Their concerns centre on the omission of how passenger data should be handled in EU contingency plans to keep planes flying in the event of a no-deal Brexit, according to two people familiar with the matter.

Airlines are in talks with the UK government on personal data transfers when the UK's EU transition period runs out at the end of this month, these people said.

Personal data, including names, means of payment and travel itineraries, is collected for each passenger travelling between the EU and UK. This is passed to British authorities to counter terrorism and serious crime. Airlines say the transfer of data to the UK will no longer conform to Europe's General Data Protection Regulations for personal data unless a legal arrangement can be reached.

This means airlines could be fined under the EU's GDPR data privacy provisions if they pass on the passenger information. European Commission fines can rise as high as €20m, or 4 per cent of a company's turnover.

Airlines could face fines of up to £10,000 per flight for refusing to hand over data to UK authorities.

The UK Home Office had reassured airlines it was looking at a workaround to help them find a way to comply with data rules, one of the people familiar with the matter said.

Ministers are planning to reach data transfer agreements with individual airlines. This would enable information sharing to continue if there was a no-deal Brexit, a person familiar with the government's thinking said. In a statement, the Home Office said it had a "well-rehearsed plan" in place.

"Provision of passenger lists of the names of passengers and the details of their travel documents is unaffected by the ending of the transition period. UK border control and law enforcement agencies will continue to know who's expected to be on planes intending to fly to or from the UK," the Home Office said.

Grant Shapps, the UK transport secretary, has said that Britain will reciprocate EU emergency plans to ensure road and rail connectivity can continue after December 31. Airlines would be able to fly their normal routes for six months.

Airlines have urged Mr Shapps to publish the UK's response to the proposals as soon as possible "to provide the industry with confidence for a potential no-deal scenario".

The commission did not respond to request for comment.

Credit Suisse tightens focus on wealth management

OWEN WALKER AND OLIVER RALPH
LONDON

Thomas Gottstein, Credit Suisse chief executive, has put managing the fortunes of the world's wealthiest at the heart of the bank's strategy as he tries to draw a line under a testing first 10 months in the job.

The Swiss bank said yesterday that it planned to increase profits from its wealth management business by at least a quarter by 2023 through initiatives that would cost up to SFr150m ($169m).

In a strategy update to investors, Mr Gottstein, who took the job in February following the messy exit of his predecessor, Tidjane Thiam, outlined his main areas of focus for the next three years.

Alongside wealth management, they include building up the trading and investment banking business and achieving a return on tangible equity of 10 to 12 per cent.

Next year "is the new era for Credit Suisse where we want to go into offense and we want to grow", Mr Gottstein told the Financial Times. "This has to be all done with discipline across risk, compliance and cost."

The 56-year-old has had a gruelling introduction, taking over just as the pandemic gathered pace. Several of the fires he has been forced to fight relate to the period before he became chief, notably the corporate spying debacle that led to the departure of Mr Thiam.

At the height of the pandemic in the spring, Credit Suisse was caught up in scandals at Luckin Coffee and Wirecard, having worked on deals for both. It also launched an internal review over its supply chain finance funds linked to SoftBank and Greensill Capital.

With Swiss regulators giving banks permission to resume dividends, Credit Suisse said yesterday it would increase its dividend by 5 per cent per year and restart a SFr1.5bn share buyback plan.

Its investment bank had performed well in the fourth quarter, it said, with revenues expected to be higher than in the same period a year earlier.

Mr Gottstein also insisted asset management was still a priority, adding that the bank had a "clear plan to go back to significant growth" in the business.

But the bank stressed fourth-quarter results would be marred by a $450m writedown on its holding in York Capital Management, the US investment group that said it was winding down its European hedge fund business last month.

New Panasonic chief must add a dash of boldness to revive group

INSIDE BUSINESS
ASIA

Kana Inagaki

Eight years ago when Kazuhiro Tsuga took over as chief executive of Panasonic, he claimed his first mission was to return one of Japan's greatest consumer brands to a profitable "normal company".

He stemmed a record loss by pulling out of plasma television and aimed to reposition the company as an automotive-and-housing conglomerate. At the core of that transition was a bold $5bn battery manufacturing tie-up with electric vehicle maker Tesla signed in 2014.

But as Mr Tsuga prepares to step down next June, his promise of a "normal company" is leaving a bitter aftertaste. For a group that prides itself on innovation, the blandness of the pledge underscored the crisis it had fallen into.

In the past few years, Japanese conglomerates from Sony and Hitachi to Toshiba have gone on huge divestment sprees as shareholder activism and demands for better governance standards pressured companies to have a sharper focus on what parts were critical to their business portfolio.

Panasonic followed a similar path, but even after years of streamlining, executives continue to grasp for words to define what kind of a company it is after Mr Tsuga failed to deliver on aspirations to focus on automotive and housing operations. Its newly appointed chief executive Yuki Kusumi said last month that the group could achieve growth if it could find businesses that excelled among its diverse portfolio, which stretches across 520 subsidiaries. But he stopped short of naming where those strengths were and neglected to feature the automotive division he is running.

Mr Tsuga's decision to partner with the mercurial Tesla chief executive Elon Musk required courage. Still, a century-old behemoth with a focus on steady profits was bound to clash with the brash ambitions of the US electric car maker. Those tensions manifested themselves as Panasonic decided against investing in Tesla's new gigafactory in China.

Six years after a landmark deal for Panasonic's $1.6bn investment in the Nevada gigafactory, Tesla's battery business is finally close to turning an annual profit, and it will benefit from the global push towards electric vehicles.

> Analysts hope that spinning off divisions will make it easier to sell underperforming businesses

But Panasonic's bumpy relationship with Tesla is a window into the broader challenge faced by the biggest players in the batteries manufacturing industry. Battery making is a low-margin business where pressure for cost cuts is immense and significant investments in research are required.

Despite being a champion for Panasonic's tie-up with Tesla, Mr Tsuga wavered when it came to declaring it as a core business because of the losses it was generating. For investors, it was equally frustrating that the management also failed to provide a convincing explanation of what other businesses would be central to its expansion.

As his final departing measure, Mr Tsuga hopes to break the deadlock by changing the company into a holding company structure, echoing a move Sony will also make in April. Panasonic says the shift, to be completed by 2022, will help to accelerate decision-making by running the units independently. Analysts hope that spinning off divisions will make it easier to sell underperforming businesses.

But there is a critical difference between the two historic rivals. Following its own decade of soul-searching and restructuring, Sony has a clear picture of what forms its core — to become a supplier of global content in games, films, animation and music. Since Kenichiro Yoshida took over as chief executive in February 2018, Sony's share price has increased 78 per cent while Panasonic's has plunged 30 per cent.

In announcing the shift to a holding company, Mr Tsuga resurrected car batteries as a "core" by rebranding it as an "energy business". The three other cores remain a muddled mix of appliances, industrial devices and a sprawling business based on connecting electronics.

When Mr Kusumi takes over, Panasonic will be in a much stronger financial position than when Mr Tsuga was appointed. Even as Tesla begins manufacturing battery cells in-house, Panasonic is bullish the carmaker will still need its technology knowhow and manufacturing capability.

But the 55-year-old Panasonic lifer will be inheriting a company that remains too big to inspire confidence that it can move quickly to keep its lead in the global battery race with Chinese and South Korean rivals. It will have to continue delivering profits, but a taste of Tesla-like boldness may be needed to revive the group.

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Banks

Barclays fined over customers' arrears

'Poor treatment' of struggling borrowers leads to £26m penalty

MATTHEW VINCENT

Barclays has been hit with a £26m fine for its treatment of borrowers who fell into arrears or experienced financial difficulties over a four-year period.

The UK regulator said that between April 2014 and December 2018, the lender had failed to follow the right procedures for contacting customers who fell behind on loan repayments, and had not had "appropriate conversations" with them. The conduct caused it to offer them "unaffordable, or unsustainable, forbearance solutions".

Mark Steward, executive director of enforcement and market oversight at the Financial Conduct Authority, said: "Consumers should feel reassured that their lender will work with them to help resolve any financial difficulties, whereas Barclays' poor treatment of its customers risked making these difficulties worse."

Under the FCA's rules, banks and credit card issuers are required to take steps to ensure they properly understand any customer's financial difficulties. They are expected to show forbearance and "due consideration" to customers who have fallen into arrears or are struggling to make repayments.

The rules are designed to prevent any customer under pressure from making payments under a consumer credit arrangement at the expense of a "priority debt" such as mortgage, council tax, child support payment or utility bill.

But some Barclays customers who fell behind on loan or card payments or went over their agreed borrowing limits were not always contacted or treated in the right way. In some cases, they were not offered suitable options in their circumstances, such as a reduction of interest or cancellation of charges.

According to the regulator, Barclays identified some of the problems with its procedures as early as 2014, but due to failings in its internal systems and controls, they were not fully rectified.

Subsequently, the lender contacted all customers to apologise for their treatment and confirm that it would refund them the relevant interest, fees and charges applied during the period. The FCA monitored this programme.

Barclays has since proactively paid out more than £273m in redress to at least 1.5m customer accounts.

Barclays said: "Since the issue was first identified, we have implemented a number of changes to our customer journeys, systems, processes and colleague training to correct it."

In a separate enforcement action yesterday, the FCA said it had fined the former chief investment officer of hedge fund Fenician Capital Management £100,000 for market abuse. Corrado Abbattista was handed the penalty and prohibited from carrying out regulated activities for "creating a false and misleading impression as to the supply and demand for equities" in 2017.

The regulator said that "on multiple occasions, Mr Abbattista placed large misleading orders for contracts for difference referenced to equities, which he did not intend to execute" — a practice known as "spoofing".

Mr Abbattista's legal representatives did not immediately respond to requests for comment.

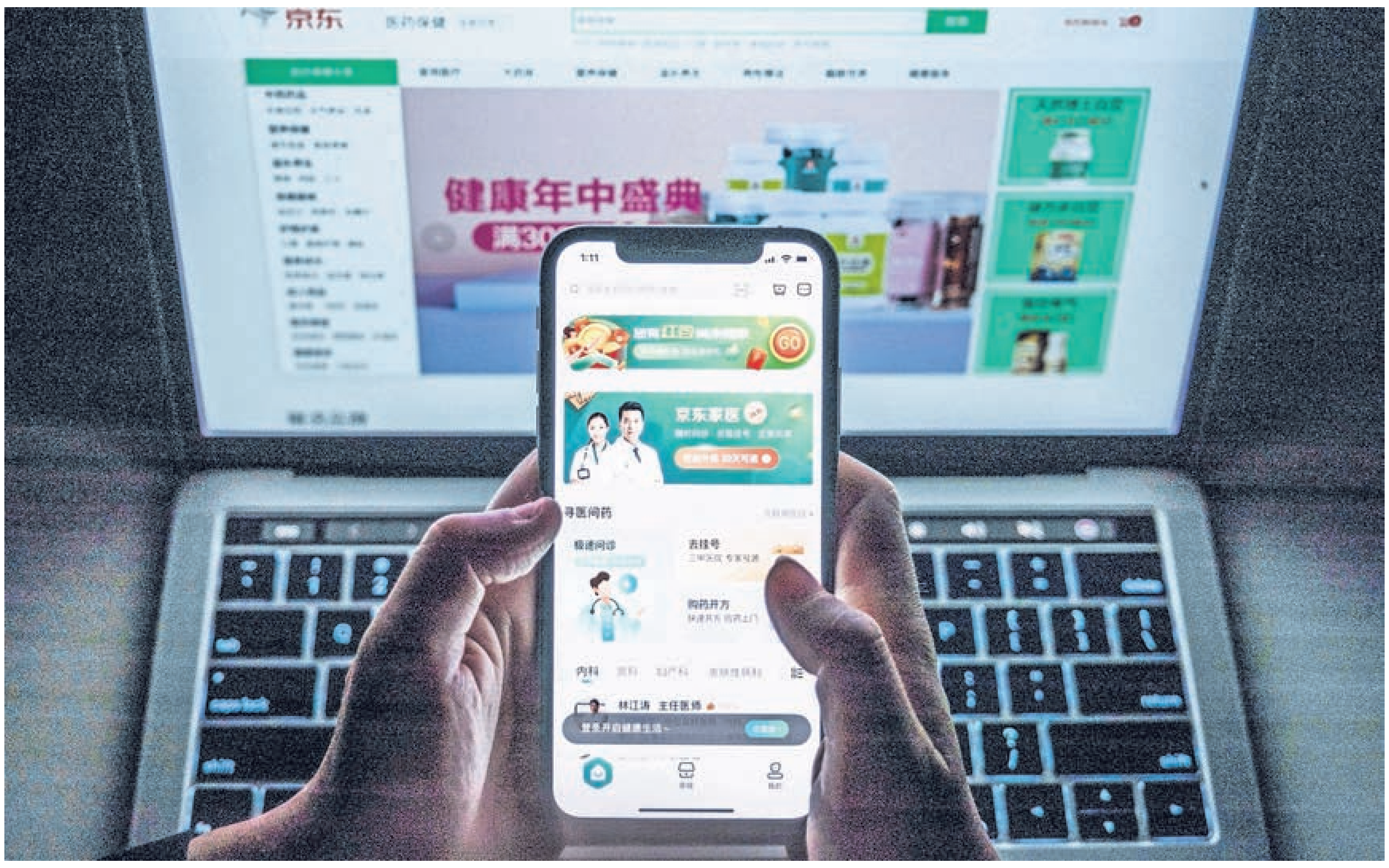
Nick Bayley, head of UK regulatory consulting at Duff & Phelps, suggested further similar enforcement actions could follow. "This is the FCA's very first market abuse outcome under the EU Market Abuse Regulation, which went live in July 2016. We can see from its annual report that the regulator had 29 market manipulation cases open as at 31 March this year, so hopefully other outcomes will follow quickly in its wake."

Technology. Digital diagnostics

China's online medical platforms take off

Lockdowns and gaps in health coverage drive remote drug sales and patient consultations

CHRISTIAN SHEPHERD — BEIJING



Chinese technology groups are vying to lead the country's fledgling online healthcare sector after the coronavirus pandemic boosted demand for platforms that provide virtual consultations and sell medicines.

Following a decade of tepid uptake for online pharmacies and consultations, Covid-19 has prompted a clamour for remote healthcare services by patients afraid to visit hospitals and investors keen to tap into the expanding sector. Digital alternatives could also potentially fill longstanding gaps in China's healthcare coverage, where the best doctors and equipment are concentrated in top-tier hospitals in big cities.

The growing interest in the industry was underscored last week when shares in JD Health rose as much as 75 per cent on their debut. The healthcare unit of ecommerce group JD.com earlier raised $3.5bn in Hong Kong's biggest initial public offering of 2020.

Shares in AliHealth, the Hong Kong-listed healthcare division of rival internet business Alibaba, are also up more than 170 per cent this year.

"What Covid-19 did in many ways was to create a mass trial for a service that people have not tried before," said Vikram Kapur, head of healthcare at consultancy Bain Asia Pacific.

Even as China has returned to relative normality after controlling coronavirus with some of the strictest lockdowns, use of online healthcare platforms has remained about 60 per cent to 70 per cent of that in the early stages of the outbreak, Mr Kapur added.

Ping An Good Doctor, a unit of China's largest insurer Ping An, had 67.3m monthly active users as of June and was hosting an average of 831,000 consultations every day. That made it China's most popular online healthcare provider in terms of users, outpacing JD Health and AliHealth.

Online drug sales, meanwhile, could reach Rmb516bn ($78.9bn), or 15 per cent of China's total by 2025, according to estimates by Citi. That figure is up from 6 per cent in 2018.

Xin Lijun, chief executive of JD Health, told the Financial Times that long-term growth for China's online healthcare sector would come from its ability to resolve longstanding problems in the distribution of high-quality healthcare across the country.

JD Health, led by chief executive Xin Lijun, below, offers access to highly trained doctors that are often unavailable at small clinics — Roy Liu/Bloomberg

JD Health works with local communities to offer access to highly trained doctors who are frequently unavailable at small clinics. The service also helps prevent large public hospitals from being overwhelmed by "ordinary people with minor or chronic illnesses", Mr Xin said.

But there are significant barriers to growth in the industry, including patients' ability to make claims for online medical services through employer-provided insurance schemes. China launched an online medical insurance system in August last year, but only a handful of cities and provinces, including Beijing and Shanghai, have formally implemented it.

Mr Xin said the national rollout of the public reimbursement system for online healthcare would probably take two to three years.

There are more than 300 local government departments across the country that are responsible for managing health insurance, and JD Health has to speak with each of them to work out how to manage claims for online consultations or prescriptions. "Some local governments' finances are ample and some are in short supply, so they will be more cautious," Mr Xin added.

> 'What Covid-19 did in many ways was to create a mass trial for a service that people have not tried before'

The boom in China's online healthcare industry has led to a proliferation of providers, but only those with scale and brand recognition are likely to survive, said Kitty Lee, head of Oliver Wyman's health and life science practice in Asia Pacific.

Analysts said JD Health and AliHealth also had an advantage in selling over-the-counter drugs and prescriptions thanks to their underlying ecommerce platforms, which will take up a large portion of revenue growth in coming years as rates of chronic diseases rise.

Companies may also have to contend with a shifting regulatory environment. Ms Lee said the policy framework China was building had yet fully to account for all the risks arising from the sector's growth, including challenges in standardising care and products across the country. "There remain a lot of unconnected dots," she said.

Additional reporting by Wang Xueqiao in Shanghai

Support services

Outsourcer Solutions 30 plunges after Muddy Waters joins attack

JAMIE POWELL — LONDON
DAVID KEOHANE — WICKLOW

Shares in Paris-listed outsourcing group Solutions 30 plunged almost 40 per cent yesterday after high-profile short-seller Muddy Waters joined in criticism of a company that has been assailed by an anonymous report.

The Luxembourg-based group was targeted last week by an anonymously published report, which was sent to equity analysts as well as market regulators, including France's AMF. Carson Block, founder of Muddy Waters, began publicly criticising the company's corporate governance last Friday.

Solutions 30 has been accused of questionable transactions with an Italian accountant, who was described by the anonymous report as "a known mafia associate". The report also raised doubts about the €1bn company's complex structure, related party dealings and what it labelled its "impossible to reconcile" accounts.

Solutions 30 suspended its shares before the market opened on Friday. After trading resumed yesterday, the stock tumbled 38 per cent in Paris.

The author of the report, who noted that they remained anonymous because of the nature of the allegations, said the situation "uncovered from analysing public records . . . warrants immediate investigation by authorities".

The main accusations centre on Solutions 30's relationship with Angelo Zito, a Bari-born accountant who, according to local reports, did time in prison for his links to the Sicilian mafia in 2000.

Solutions 30 has admitted in its responses to using Mr Zito's services when it redomiciled to Luxembourg in 2013, including the purchase of shell companies formed by Mr Zito's company which it described as "normal market practice" to avoid "bureaucratic delays". The company said it cut ties with Mr Zito in 2016 after finding out about his "controversial past".

Mr Zito defended himself in an interview this week with Zone Bourse, a French website, saying that the accusations against him were being used to put a "black mark on all of Solutions 30".

He said while he had been accused of money laundering by the report, "the Italian justice system sentenced me for links to the mafia, so nothing to do with money laundering." He also downplayed the links, saying they stemmed from a passing contact with a lawyer who worked for the mafia: "All it takes is a handshake, it just takes a phone call, it just takes a simple contact."

Mr Block sent the second of two open letters yesterday, asking for Solutions 30 to comment on how certain statements made by Mr Zito compared with declarations made by the company. Muddy Waters has been betting against Solutions 30's stock since May 2019, but in a break from its normal practice, had not disclosed why until last week.

Solutions 30 has rebutted the charges levelled by the report and Mr Block's first letter, saying in a statement on Monday that it had been targeted by a "destabilisation campaign" using "malicious and disloyal methods".

Solutions 30 has appointed law firm August Debouzy to file a complaint with the PNF, France's specialist financial crimes unit, against an unnamed individual "for dissemination of false and misleading information".

Retail

Inditex cuts inventory and costs as sales revive

DANIEL DOMBEY — MADRID

Inditex, the biggest clothing retailer, cut inventory and operating costs in the third quarter as sales rebounded to close to the levels of a year ago, despite the effects of the pandemic and the impact of working from home on the industry.

In results published yesterday, the Spanish group, known for its Zara chain, posted sales of €6.05bn in the three months to the end of October, a 14 per cent fall on the same period a year ago.

Net income dropped 26 per cent to €866m, though the decline was 13 per cent when currency fluctuations were excluded.

The company said it had cut its inventory 11 per cent and operating expenses 10 per cent in the quarter.

Sales, which in August were 87 per cent of their level in the same month last year in constant currency terms, had reached 94 per cent by October. In April, the corresponding figure was 28 per cent, contributing to a net loss of €409m for the February-April period.

Pablo Isla, executive chairman, said: "These results are the direct consequence of effective management in every area of the company and the ability to react and adapt in an unpredictable environment."

The group expected inventories to grow less than sales, largely because of

> Online sales increased 75% in the nine months to October compared with the same period last year

employment of technology and stock management, including using stores to help satisfy online demand.

The virus crisis has accelerated the group's digital shift, with online sales up 75 per cent in the nine months to October compared with the same period last year. By contrast, 5 per cent of its stores remained closed in the third quarter and 88 per cent were subject to curbs.

"It's not been an easy challenge for Inditex — people haven't been so focused on fashion in a year most of us have mostly spent at home," said Anne Critchlow, analyst at Société Générale.

"But they have managed to keep up sales, because their short lead time for products allows them to adjust their offering to more comfortable clothes, and the fact they use stores for stock helps them keep customers supplied."

The company said it would resume its normal dividend policy for the full year of 2020. But it acknowledged the latest restrictions and closures that began in mid-October. Several countries have toughened such curbs in recent days.

Ms Critchlow said: "One problem they have had that's a little hidden by the primary effects of the pandemic is currency. The weakness of currencies in emerging markets, where much of their growth strategy is focused, took 4 per cent off sales and 13 per cent off profits in the third quarter."

See Lex

Travel & leisure

Cleveland baseball team to drop 'Indians' name

SARA GERMANO — NEW YORK

The Major League Baseball franchise in Cleveland, Ohio intends to drop its team name of more than a century, making it the second American professional sports team this year to change insignia perceived as racially insensitive by indigenous groups.

In a statement, the team said it would continue using the Indians name until the organisation was able to finalise a new moniker, a timetable for which has not been established.

Paul Dolan, the Cleveland team's owner, said the franchise consulted with local indigenous groups regarding its decision.

"Hearing first-hand the stories and experiences of Native American people, we gained a deep understanding of how tribal communities feel about the team name and the detrimental effects it has on them," he said.

News of the expected name change was first reported by The New York Times.

The move follows a decision this summer by the American football franchise in the US capital to rebrand as the Washington Football Team. That organisation bowed to years of pressure to give up its moniker, the Redskins, widely considered a racial slur.

The shift away from ethnic mascots underscores the magnitude of social change within the US, where the police killings of George Floyd and Breonna Taylor this year prompted renewed and intensified attention to race relations.

Owner Paul Dolan says the franchise consulted with indigenous groups

Both sports teams had previously faced scrutiny for their use of native terminology for their mascots, but Washington owner Dan Snyder had once defiantly declared that he would "never" change course.

Cleveland's baseball franchise has been known as the Indians since 1915. About three years ago, it abandoned use of a polarising logo — which depicted a cartoonish indigenous chief — on uniforms and in-stadium signage, following pressure from Rob Manfred, MLB commissioner, who called it "no longer appropriate".

Formally rebranding a professional sports franchise can take years and cost millions of dollars after taking into account intellectual property, merchandise and outfitting expenses and the securing of approval from league officials.

The capital's football franchise began its 2020 season under the name the Washington Football Team as it evaluated its options.

Spanish blue-chips jostle for Brussels aid cash

Seat, Telefónica and Iberdrola lay out grand ambitions as they plot projects qualifying for share of €750bn pot

DANIEL DOMBEY — MADRID

Volkswagen unit Seat has called for EU co-financing of projects to roll out electric charging points and provide infrastructure for fully wired factories — Angel Garcia/Bloomberg

Spanish blue-chips including Telefónica, Iberdrola and Seat are positioning themselves for tens of billions of euros in EU coronavirus aid they hope will transform their industries and benefit their bottom lines.

Spain expects to receive some €140bn from the €750bn EU coronavirus recovery fund, which leaders approved last week, making Madrid one of the biggest beneficiaries of the programme, along with countries such as Croatia, Bulgaria, Greece, Portugal, and Romania.

Spanish companies have been drawing up proposals for projects co-financed by the aid, which will prioritise clean energy and digitalisation, in anticipation of a once-in-a generation transfer of resources.

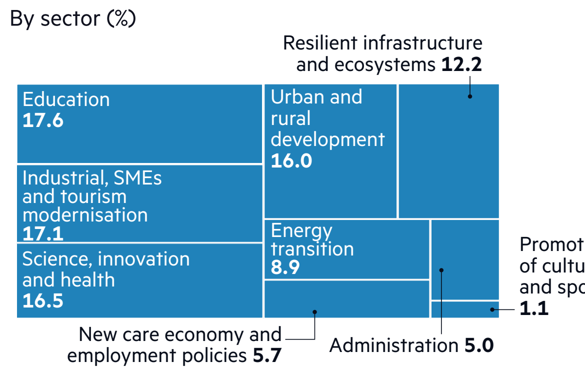
However, as companies across Europe explore the potential benefits of the huge injection of public funds, some officials warn against excessive optimism about the aid's effectiveness.

According to draft Spanish government legislation on the management of the funds, the industry ministry will compile a registry of interested companies, which will have preferential consideration for carrying out projects, receiving subsidies or forming part of consortiums.

> 'This is a unique chance. We have to make a bold effort to identify sectors with the best prospects'

Where Madrid intends to spend €72bn of EU grants in 2021-23*

By sector (%)

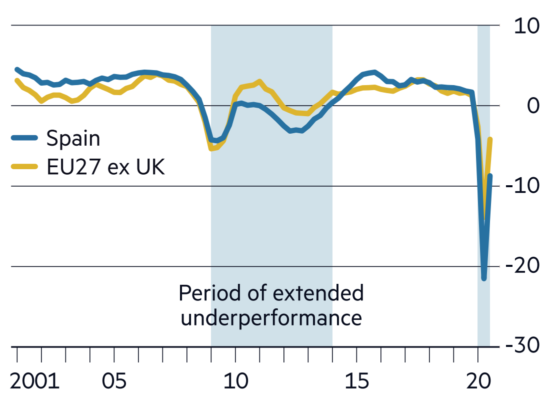


* Percentages include funds from both the Recovery and Resilience Facility and REACT-EU

Sources: Government of Spain; Refinitiv; FactSet

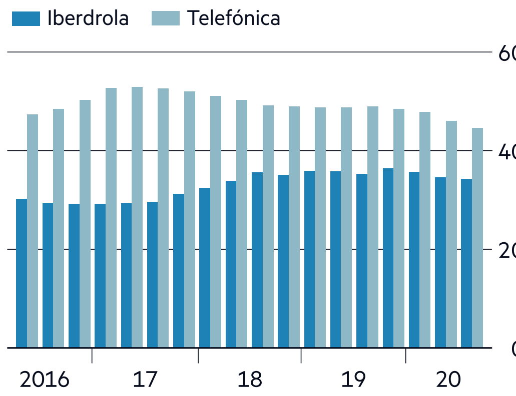
Spain's economy strains to keep up

GDP at constant prices, annual % change



Sales slide at Iberdrola and Telefónica

Sales, rolling 12 months (€bn)



As it makes its case to be on the list, Telefónica has proposed that EU funds be used to help make Spain the first country in the bloc with 100 per cent fibre optic coverage — by 2025, at the cost of about €4bn. Current coverage is 75 per cent.

The operator said the aid could also help roll out a standalone 5G network covering 85 per cent of the country.

"Spain could become the digital Heathrow of Europe, the destination for the cables that come to Europe from the US, Latin America, from Asia, wherever," José María Álvarez-Pallete, Telefónica chairman and chief executive, said.

"We can offer an ecosystem for Nokia, Huawei, Ericsson, Samsung and the tens of others that could come."

Iberdrola is similarly expansive in its ambitions and effusive about the fund.

The €71bn company suggests that aid be used to quicken the country's push to drive down carbon emissions by investing in electricity storage, "clean hydrogen", the replacement of domestic gas burning boilers and the installation of electric car charging points on the country's motorway network — the most extensive in the EU.

"This is a magnificent opportunity to transform our productive model into a more sustainable and competitive one," Ignacio Galán, chairman and chief executive, said.

While emphasising that his multinational group had already promised to invest €75bn over the next five years, Mr Galán argued that some green priorities still needed aid to become more economically viable, and that incentives would accelerate electrification of energy-intensive industries.

He said that public funds would allow Iberdrola to complete a €1.8bn project to use hydrogen to make fertiliser "much before" its current 2027 target date, as well as to accelerate another project to manufacture large-scale equipment to extract hydrogen from water.

"These are concrete projects that will need public support to be carried out."

Seat, the wholly-owned Volkswagen subsidiary, has also called for EU co-financing of projects to roll out electric charging points and provide infrastructure for fully wired factories.

"This is a unique chance for Spain," said Josep Maria Recasens, Seat's director of strategy. "We have to make a bold effort to identify the sectors with the best prospects . . . so they can be transformed through the intelligent use of these funds."

The government of Pedro Sánchez, prime minister, wants to begin EU-funded projects as soon as possible to overcome what it expects to be a contraction in GDP of more than 11 cent this year.

Cristina Herrero, president of the Independent Authority for Fiscal Responsibility, the country's fiscal watchdog, said private sector expertise could play a vital role given the "demanding" timelines involved.

But she warned that previous national and EU plans had "crowded out" private investment by providing incentives for projects that would have been carried out in any case.

She argued that in areas such as digitalisation and training, Spain lagged behind other European economies "by so much that we cannot hope that the EU plan alone will be enough".

Nevertheless, the government is hoping the public-private collaboration will have a big multiplier effect.

"According to analysts, each euro of public money invested could bring another four euros [from private investment]," María Jesús Montero, budget minister, said. "That's the ratio that is expected from this investment."

Ms Montero argued that universal access to high-speed internet would encourage companies to locate operations throughout the country. "If we are able to take broadband to 100 per cent of our national territory, the possibilities are almost endless."

She emphasised that modernising Spain's large cohort of small and medium-sized enterprises was a big priority for the recovery fund.

But this was also likely to involve bigger groups.

For example, Telefónica said its retail outlets could be used to help give training for SMEs to migrate procedures and services online, and suggested that its experience of running a large-scale "reskilling programme" could help identify the training deficit for the Spanish population.

> 'We have to be prudent and avoid an excess of optimism. We have to learn from the errors of the past'

But Ms Herrero said the government's plans to attract "co-investors" from the private sector were a departure from "traditional procedures in which the government designs projects and companies carry them out".

As a result, it was all the more important to provide sober evaluations of risk and probable demand, and to ensure that projects were assessed by an independent agency.

"Experience shows that we have to be prudent and avoid an excess of optimism," she said. "We have to learn from the errors of the past."

Retail

GBL takes control of Canyon Bicycles

OLAF STORBECK — FRANKFURT
KAYE WIGGINS — LONDON

Adidas's largest shareholder Groupe Bruxelles Lambert is banking that the global cycling boom will continue by taking a controlling stake in fast-growing premium brand Canyon Bicycles.

The Brussels-based holding company, which is backed by Belgium's Frère and Canada's Desmarais families, will take a 60 per cent stake in privately held Canyon, it said yesterday. The deal values the German-based company at about €800m including debt, according to people familiar with the transaction.

Former Apple executive Tony Fadell — who is one of the people credited with inventing the iPod — is also co-investing into the German brand alongside GBL. Mr Fadell, an avid cyclist, will join the company's advisory board.

The manufacturer, which sells road bikes for as much as €12,000, is one of Europe's biggest bicycle brands and sells to consumers through its own website. Over the past three years the company has doubled annual sales to €400m and is growing by 25 per cent a year.

Cycling's surging popularity during the pandemic, which has caused demand for two-wheelers to outstrip supply in cities such as London and Berlin as well as boosting cycling infrastructure, has been a further boon to the company, pushing its growth rate to 30 per cent this year. Canyon founder Roman Arnold recently told German magazine Focus that demand has been so strong that "50 per cent [growth] had been possible", but adding that growth rate would have overwhelmed the company.

GBL pre-empted potential offers from private equity groups including KKR and Carlyle Group, people familiar with the deal said.

"I'm completely surprised," said one person who advised private equity suitors. "I didn't have the GBL guys on my radar. I didn't know they did this kind of transaction." Two people briefed on the details said that private equity bidders were offering a higher price but that Mr Arnold, who has so far been Canyon's controlling shareholder, preferred GBL because of its long-term investment perspective of a decade or more.

Canyon has benefited from a surge in cycling brought on by the pandemic

Mr Arnold said that the new investor convinced "with [its] passion for our business, years of experience and long-term focus".

Canyon, which has traditionally concentrated on road and mountain bikes, recently extended its fleet to urban bikes designed for day-to-day use in cities as it aims to lift sales to €1bn in the coming years.

The company is also extending its fleet of electric bikes and in September unveiled a concept study of a four-wheeled vehicle that is a mixture of an electric car and bike, which it touted as a "revolutionary alternative to both the automobile and the bicycle".

As part of the deal Mr Arnold's stake will reduce from 60 to 40 per cent. Canyon said that the founder would reinvest "a significant part" of his proceeds into the company without disclosing details. GBL will also acquire a 40 per cent stake in Canyon previously held by private equity fund TSG Consumer Partners.

GBL holds stakes in 11 listed companies including Adidas, Pernod Ricard and LafargeHolcim.

Fixed income. US bonds

Historic rally threatened by spectre of renewed inflation

The Fed said in August it would tolerate higher levels of inflation — Getty

Fund managers warn that investors are 'complacent' over risk of price growth

TOMMY STUBBINGTON — LONDON
COLBY SMITH — NEW YORK

Bond investors are bracing themselves for the risk that 2021 could herald the return of a long-dormant foe: inflation.

The price of government bonds has rocketed this year, largely because of the giant bond-buying programmes undertaken by central banks to soften the financial impact of the pandemic. Investors are assuming this support will continue, even as economies pull out of their 2020 slump.

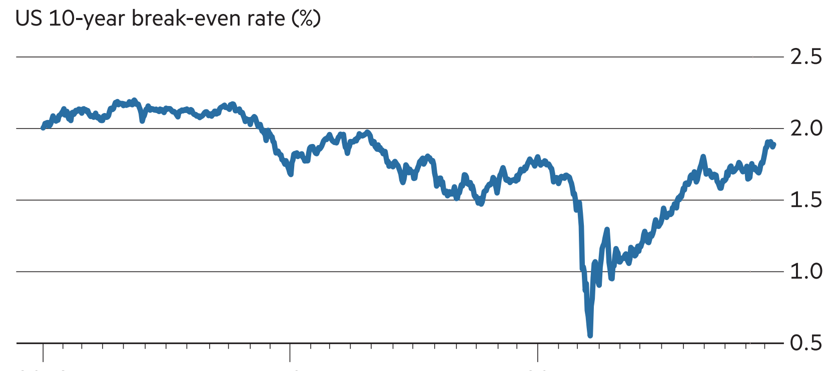
A rebound in inflation, which has been elusive since the 2008 financial crisis, could disrupt these widely held expectations by making the debt market look less attractive. Bonds typically provide investors with a fixed stream of interest payments, which become less valuable as the overall cost of goods and services accelerates.

If price pressure finally erupts, it would also ricochet through riskier assets. The 2020 rally in global equities has been powered by the rise in bond prices, which has pushed borrowing costs to historic lows and eased jitters over the widening gulf between stock prices and corporate profits.

"Inflation staying low and well-behaved is the foundation on which everything in markets is currently priced," said Karen Ward, chief market strategist for Europe at JPMorgan Asset Management. "Investors' assumption is that central banks will be able to stay accommodative well into the economic recovery. If inflation picks up in a way that's not expected, that would challenge the market's entire view."

US inflation predictions rise as investors eye economic recovery

US 10-year break-even rate (%)



Source: Bloomberg

Concerns about inflation are gathering pace particularly in the US, prompting some speculation that the Federal Reserve could be compelled to withdraw its support sooner than indicated.

The shift in pricing is subtle but significant. In the eurozone, inflation expectations remain far below the ECB's target of just below 2 per cent. But the 10-year US "break-even" rate — a proxy for investors' expectations over the next decade — is rising. It has climbed from below 1.6 per cent in September to about 1.9 per cent, putting it at the highest since May 2019 and just below the Fed's average inflation target of 2 per cent.

The chance of inflation skittering out of control is low, analysts said. Given the pandemic, it may be some time before workers are in a position to push for wage increases. And even once labour markets heal, the demographic and technological shifts that many economists have said depressed inflation over the past decade will remain in place.

BlackRock's Bob Miller, who heads its fundamental fixed income team for the Americas, is among those who worry that experience has left investors "complacent" about the prospect of consumer price increases next year. And now, with bond yields at depressed levels, the room for error is very limited.

"The market is a little bit hung up on the last decade's experience," he said, adding that investors should buy assets that protect against inflation on a two-to-four year time horizon.

His argument rests on the pivot from the Fed this year. The US central bank said in August it would tolerate higher levels of inflation to make up for the prolonged period in which consumer price increases have faltered below its target, a switch from its previous policy of pre-emptively raising interest rates to stymie inflation above 2 per cent.

Market participants reckon this means US interest rates, which exert a pull across all assets, will remain tethered to zero at least into 2023.

But once Covid-19 vaccines are widely distributed, businesses and consumers could unleash a jolt of pent-up activity. "The stars are aligning to put the economy on a pace for a robust recovery," said Sonal Desai, chief investment officer at Franklin Templeton's fixed income group. "That sets us up for definitely some inflation in the second half of next year."

> 'The stars are aligning to put the economy on a pace for a robust recovery'

Investors are taking cover. Demand for Treasury inflation-protected securities has surged in recent weeks, with roughly $4.5bn poured into relevant funds since the beginning of November, according to EPFR.

Investors are already seeking alternatives to ultra-safe assets such as Treasuries, sending prices lower and yields higher. Benchmark 10-year Treasury notes now yield about 0.9 per cent, having traded below 0.7 per cent less than three months ago.

Some investors question whether any pick-up in inflation would last, citing the scale of the coronavirus shock and the failure of US policymakers to agree on additional fiscal support. Steven Oh, global head of credit and fixed income at PineBridge Investments, thinks a likely rise in inflation in the spring should be fleeting and largely ignored by investors and central bankers alike.

Assuming central bankers will look the other way comes with considerable risks, however. Historically high prices of both bonds and stocks are premised on expectations of years of rock-bottom interest rates, and both could tumble if the Fed signals even a chance of higher borrowing costs, according to Shamik Dhar, chief economist at BNY Mellon Investment Management.

"That's a world where fixed income stops being a hedge for equities, and both sell-off together," he said. "That would be a big shock."

Fixed income

China rebukes rating agency over quality control issues

HUDSON LOCKETT AND THOMAS HALE
HONG KONG
SUN YU — BEIJING

China has suspended one of its top credit rating agencies after a former executive was accused of taking "massive" bribes, as a growing pile of defaults hit the $4tn corporate debt market.

The China Securities Regulatory Commission said yesterday it was temporarily freezing the licence of Golden Credit Rating and forbidden it from taking new business for three months.

The move came as Shandong Ruyi, China's largest textile manufacturer, looked set to default on a second bond.

China's debt markets, the world's second-biggest, have been hit by a series of defaults by state-run enterprises recently. Investors had assumed that authorities would bail out these groups.

The regulator yesterday said Golden Credit had failed to justify some of its credit ratings and upgrades. It ordered it to "immediately carry out a comprehensive rectification . . . strengthen internal controls and compliance management, strictly police business practices and improve the quality of ratings".

China's credit rating agencies have been criticised for standing by their triple A ratings for troubled state-owned companies in the face of the defaults. "Most private investors do not take credit ratings seriously as the system does a bad job in measuring risks," said a former China rating agency executive.

> 'The government wanted to set [it] as an example and make others behave'

He said agencies are motivated to inflate their ratings to attract clients and are pressured to support government-linked groups' financing efforts.

The executive called the suspension "a political decision". "The government wanted to set [it] as an example and make others behave," he added.

The problems in China's bond markets come as foreign investors have this year increased their holdings of Chinese treasuries and debt issued by big policy banks, the latter at a record. However, their exposure to the default-hit corporate credit market is low.

Shandong Ruyi, once known as the LVMH of China, defaulted on a Rmb1bn ($153m) bond on Monday and looked set to miss payment on a separate Rmb1bn bond due yesterday.

"In a way it's the bond market hitting puberty," said Edmund Goh, director of Asia fixed income at Aberdeen Standard Investments, of the recent defaults.

He added that the repayment woes would "definitely" give investors second thoughts about buying into corporate debt in China. Many foreign investors were already sceptical over China's officially low default rate, which implied the presence of "zombie companies".

The suspension came less than 24 hours after authorities said they would prosecute Jin Yongshou, the agency's former general manager, for allegedly taking bribes to boost issuers' ratings.

Commodities

Travel woes and vaccine delays weigh on next year's oil demand outlook, says IEA

ANJLI RAVAL

Oil demand will rebound more slowly than initially anticipated in 2021 as the aviation sector takes longer to recover from the coronavirus hit, the International Energy Agency said yesterday.

Global consumption is expected to come in at 96.9m barrels a day next year, it said. While this is up from the 91.2m b/d forecast for 2020, it is about 200,000 b/d below what the Paris-based body predicted in November.

In its monthly market report, the IEA said governments would probably keep in place border closures and travel restrictions until a vaccine was widely available, extending the disruption to the airline industry.

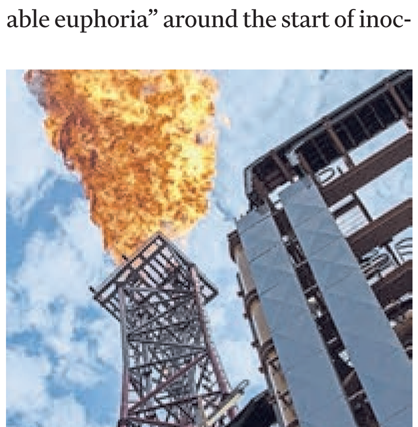
"Demand is clearly going to be lower for longer than expected," the IEA said.

The body, which advises big economies on energy matters, added that while consumers might be keen to resume holidays once travel bans were lifted, older people would remain cautious.

Others affected by the financial impact of the pandemic will have less to spend on tickets, it predicted, while business travel will probably remain muted as companies keep a tight rein on costs.

Oil prices crossed back above $50 a barrel earlier this month for the first time since March, fuelled by optimism that a rollout of Covid-19 vaccines could spur economic activity and a recovery in oil demand. Brent crude, the international marker, was broadly flat in early trading yesterday at $50.23 a barrel.

While the IEA noted "the understandable euphoria" around the start of inoculation programmes, it said "it will be several months before we reach a critical mass of vaccinated, economically active people and thus see an impact on oil demand".



Crude oil prices crossed back above $50 a barrel earlier this month

The group warned that the Christmas period could bring another surge in Covid-19 cases and the possibility of more confinement measures.

It is possible that, after the holidays, "a third wave of the virus will affect Europe and other parts of the world before vaccines have time to take effect. This would bring renewed downward pressure on oil demand," said the IEA.

Crude stockpiles that had built up as consumption dropped were unlikely to deplete until the end of 2021, it added.

On the supply side, global oil production rose 1.5m b/d in November to 92.7m b/d as the US sector recovered from hurricane shut-ins and Libya built its output back up. The IEA said the deal struck this month by Opec and allied producers such as Russia to increase supplies by 500,000 b/d next month — well below the 2m b/d initially planned — was "based on a recognition that the market remains fragile and is in need of careful adjustment".

Equities

Fear of dilution prompts investors in AirAsia long-haul unit to jettison stock

STEFANIA PALMA — SINGAPORE
PEGGY HOLLINGER — LONDON

Shares in AirAsia's long-haul unit fell as much as 9.5 per cent yesterday in response to a RM500m ($123m) rights and share issuance plan as the Malaysian carrier tries to win creditor backing for a proposed debt restructuring.

The tumble in AirAsia X's stock came after the airline on Monday night proposed a rights issue of up to RM300m and an issuance of new shares via a special purpose vehicle of up to RM200m.

The company said the plan was a "critical component" of the RM63.5bn debt restructuring that is a last-ditch attempt to save its business. But the arrangement is subject to the approval of the Malaysian bourse and AirAsia X shareholders at a forthcoming extraordinary general meeting.

AirAsia X's deputy chairman said in October that the carrier had run out of money and was liquidating its Indonesia business as well as writing down its 49 per cent stake in Thai AirAsia X.

That same month the airline, whose shares have fallen 39 per cent this year, warned of "an imminent default of contractual commitments [that] will precipitate a potential liquidation of the airline" barring restructuring.

AirAsia group's Japanese unit has filed for bankruptcy and it is reviewing its investment in India.

On Monday, AirAsia X also said it was seeking to further shrink its issued share capital by 99.9 per cent in response to "representations made by certain creditors". It had previously proposed a reduction by 90 per cent.

> 'A lot will depend on the ability to actually raise the amount they want [in the rights and share issuance]'

Paul Yong, equity analyst at DBS, said yesterday's share price drop was not surprising because of the dilution effect of a rights issue. But longer term, "a lot will depend on the ability to actually raise the amount they want to raise."

AirAsia X, which was founded by Malaysian tycoon Tony Fernandes and has been in operation for 13 years, has encountered resistance as it tries to secure creditors' support for the debt restructuring.

"Several lessors have intervened in the restructuring proceedings to register their objections to the scheme," AirAsia X said. The carrier added that it would continue engaging with creditors to ease concerns.

"The alternative to the scheme is a liquidation of the airline without any returns to creditors".

One AirAsia X creditor, who did not wish to be identified, said last month that it objected to the debt restructuring plan. "We suspect we may have to make some judgment call and take impairments on receivables in the current year. That will diminish our exposure."

The latest fundraising would finance working capital requirements including staff salaries and aircraft activation costs for 24 months, according to a stock exchange filing.

The airline industry has been pummelled by the pandemic, with border controls and travel restrictions all but wiping out passenger traffic.

In July, AirAsia's auditor warned of "significant doubt" about whether it could continue as a going concern.

The great disconnect has continued much longer than most expected

Mohamed El-Erian

Markets Insight

What, if anything, will happen to the great disconnect between Wall Street and Main Street? This is a key question for investors positioning their portfolios for 2021. It is also an important question for the global economy and policymakers.

Throughout this pandemic year, we have experienced a further sharp widening of an already remarkable gap between financial markets and the economy. A rapid recovery in asset prices from the March 23 lows took major US indices to record levels, even before the recent good news on Covid-19 vaccines. Combined with even more accommodative central bank policies, this enabled record debt issuance at historically low levels of compensation for creditors.

Meanwhile, the global economic situation remains uncertain. Another coronavirus wave is sending parts of Europe back into recession. That is sapping energy out of the US recovery, and limiting the extent to which better performing east Asia can be a powerful locomotive of global growth. The longer this continues, the greater the risk of "scarring" that erodes longer term growth.

An uncertain economic outlook with notable dispersion among systemically important countries is but one of the key Covid-19 legacies that markets have set aside due to sky-high faith in central banks' ability to shield asset prices from unfavourable influences. Markets being markets, investors have readily extended the protective nature of the umbrella to asset classes that, at best, are only indirectly supported by central bank funding (such as emerging markets). It is an extremely powerful dynamic, and one that inevitably overshoots.

Nothing is more reassuring to an investor than the knowledge that central banks, with much deeper pockets, will buy the securities they own — particularly when these buyers are willing to do so at any price and have unlimited patient capital. The rational investor response is not just to front-load their buying but also to look for related opportunities where return-seeking funds will be pushed to. The result is not just seemingly endless liquidity-driven rallies regardless of fundamentals. It also alters market conditioning and inverts traditional cause and effect.

Based on what we know today, the challenges facing investors in 2021 are probably less about the first few weeks and more about later in the year. That is unless one or more disrupter is suddenly accelerated — a monetary policy reversal (highly unlikely), a market accident due to excessive risk-taking (more likely but not overwhelmingly so), and mounting corporate bankruptcies (most probable but would play out over time). While investors will continue to surf a highly profitable liquidity wave for now, things are likely to get trickier as we get further into 2021.

> Central banks' deepening distortion of markets will be harder to defend in a recovering economy

Central banks' deepening distortion of markets will be harder to defend in a recovering economy amid rising inflationary expectations. As welcome as this recovery will be, it is unlikely to be sufficient to fully offset the impact of corporate bankruptcies or the detrimental effects of higher inequality. Investors might rue the day they ventured into asset classes far from their natural habitat that lack sufficient liquidity in a correction.

Navigating such a landscape will require analytical tools that would, ironically, have detracted from returns during the bulk of the liquidity-driven rally. I am thinking here of such things as highly granular credit and technical analyses, scenario planning, smart structuring, assessments of liquidity in market segments, and a better understanding of the extent of recoverability of investment mistakes. It also includes a willingness to re-examine some conventional wisdom. This involves rethinking the traditional portfolio construct of putting 60 per cent of funds into equities and 40 into fixed income now that yields on government bonds are so artificially depressed.

Already, the great disconnect has continued much longer than most expected. This illustrates, yet again, the unintended consequences of a policy approach that places an excessive burden on central banks. The hope for 2021 is that, with a vaccine-enabled economic recovery, better corporate fundamentals will start validating elevated asset prices and allow for an orderly rebalancing of the monetary-fiscal-structural policy mix. There are two risks, and not just for markets. First, what is desirable may not be politically feasible, and second, what has proven feasible is no longer sustainable.

The writer is president of Queens' College, Cambridge university, and adviser to Allianz and Gramercy

The day in the markets

What you need to know

- Wall Street on track to snap four-session losing streak
- Pound strengthens on reports of progress in Brexit talks
- US dollar closes in on a two-year low against peers

US dollar slides towards 2-year low against peers

DXY index

Source: Refinitiv

Global stocks were mixed yesterday as governments imposed stricter Covid-19 restrictions and political negotiations on both sides of the Atlantic remained unresolved.

Wall Street's S&P 500 index was up more than 1 per cent at lunchtime in New York, rebounding from four consecutive days of losses, while the tech-heavy Nasdaq Composite climbed 0.8 per cent.

The improved market sentiment continued "to weigh on the dollar", said Win Thin, global head of currency strategy at Brown Brothers Harriman, referring to weakness in the greenback.

The US Dollar index — a measure of the currency against six peers — slid 0.3 per cent to close in on a two-year low.

Europe's region-wide Stoxx 600 closed 0.3 per cent higher but the strong pound weighed on the global-facing companies of London's FTSE 100, which slid 0.3 per cent.

Sterling surged 0.9 per cent against the dollar to $1.3442 yesterday on reports that considerable progress was being made on a trade deal between the UK and the EU.

"Big buzz . . . among Tory MPs that the UK is heading towards a Brexit deal with the EU," wrote Nicholas Watt, a BBC political editor, on Twitter.

In the US, traders were monitoring news on a potential fiscal stimulus deal in Washington. Renowned investor Warren Buffett said yesterday the US was fighting an "economic war" and called on lawmakers to support small businesses being harmed by the pandemic.

The health crisis remained front and centre for investors, said Shoqat Bunglawala, a portfolio manager at Goldman Sachs Asset Management. Markets were "still being driven in large part by the spread of the virus" and were pricing in the rollout of a vaccine and a broad recovery, he said.

Heightened restrictions were announced on Monday for London and the South East as infections climbed, while New York mayor Bill de Blasio warned that the biggest US city faced a potential "full shutdown".

Data released yesterday showed the UK unemployment rate rose to 4.9 per cent in the three months to October. Still, some economists were optimistic about next year. "With the rollout of vaccines set to boost demand in 2021, we now think that the jobless rate will peak at 7 per cent rather than 9 per cent and be back at 4 per cent by 2023," noted Ruth Gregory, senior UK economist at Capital Economics. **Camilla Hodgson**

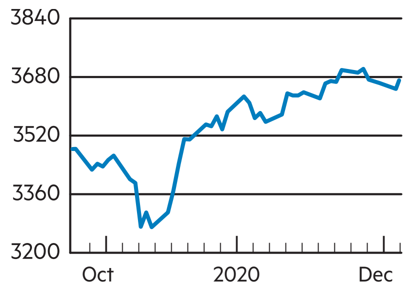
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3670.88	1517.26	26687.84	6513.32	3367.23	116303.41
% change on day	0.64	0.27	-0.17	-0.28	-0.06	1.48
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	90.669	1.215	103.735	1.340	6.545	5.102
% change on day	-0.046	0.165	-0.331	0.601	0.118	-0.252
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	0.903	-0.613	-0.002	0.258	3.288	6.750
Basis point change on day	0.090	0.800	-1.050	3.700	-1.400	-6.900
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	416.61	50.80	47.61	1831.15	23.86	3455.40
% change on day	0.50	0.97	1.28	-0.59	0.17	0.37

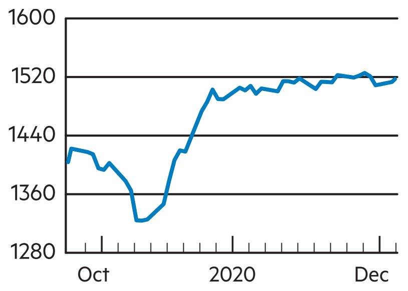
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

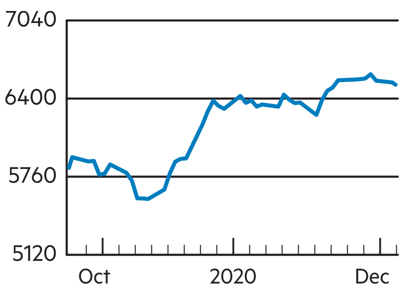
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Halliburton	4.98	Arcelormittal	7.27	Johnson Matthey	4.07
	Wynn Resorts	4.45	Thyssenkrupp	6.79	Melrose Industries	3.59
	Boston Scientific	4.25	Volkswagen	5.76	Standard Life Aberdeen	3.05
	Skyworks Solutions	3.96	Porsche	5.52	Jd Sports Fashion	3.04
	Western Digital	3.76	B. Sabadell	5.06	Persimmon	2.71
Downs	Apartment Investment And Management	-87.41	Danske Bank	-2.76	Rightmove	-3.40
	Norwegian Cruise Line Holdings Ltd	-2.70	Jeronimo Martins	-2.74	Rolls-royce Holdings	-2.91
	Newell Brands	-2.29	Inditex	-2.48	Hikma Pharmaceuticals	-2.78
	Royal Caribbean	-2.08	Kpn	-2.28	Glaxosmithkline	-2.50
	Alliance Data Systems	-2.01	Iliad	-2.27	Astrazeneca	-2.43

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone. All data provided by Morningstar unless otherwise noted.

Wall Street

Prevail Therapeutics, a gene therapy group, soared on news that it was being bought by Eli Lilly for $22.50 a share, an 80 per cent premium on Monday's closing price.

The deal was "in line with Lilly's mergers and acquisitions strategy of smaller complementary bolt-on deals and in our view fills a hole in Lilly's pipeline, with obvious synergies given Lilly's size and clinical trial expertise", said analysts at Bank of America.

Eli Lilly, which is rated "buy" by BofA with a target price of $180 a share, also climbed.

Norwegian Cruise Line fell after announcing that it was proposing to sell $500m of its senior notes due in 2026 in a private offering. Proceeds from the sale would be used "for general corporate purposes". Norwegian Cruise, which is down almost 60 per cent this year, said earlier this month that it would extend the suspension of all its voyages until late February.

Drug group **Anchiano Therapeutics** skyrocketed on confirmation of its merger with Chemomab. The deal would create a company focused on advancing Chemomab's lead product, CM-101 — a drug in phase 2 clinical trials aimed at treating inflammatory-fibrotic diseases affecting multiple organs such as the liver, skin and lungs. *Ray Douglas*

Eurozone

The announcement of "robust business" this year helped to lift **Metro**. The German wholesaler proposed a dividend of €0.70 per share while like-for-like sales for the financial year 2019/20 were down 3.9 per cent, at the more conservative end of guidance.

This year the Düsseldorf group was also "able to gain significant market shares in its core business, amongst others in Germany, France and Italy".

Umicore rallied after upgrading its 2020 guidance. The Belgian chemicals group expected adjusted earnings before interest and taxes to be in the region of €530m for the full year, up from €465m to €490m in a previous forecast. The improved outlook reflected "a stronger than anticipated performance in November and December in catalysis and recycling" units.

Spanish pharma group **Reig Jofre** soared after striking a deal with Johnson & Johnson to produce the US company's Covid-19 vaccine candidate.

Reig Jofre would be responsible for the formulation, filling and packaging of the drug, which would then be distributed by Janssen, a Belgian subsidiary of J&J.

The Barcelona group said in a third-quarter statement last month that it had the capacity "to produce up to 50m vials per year" of a Covid-19 vaccine.
Ray Douglas

London

JD Sports rose following news it had bought US company Shoe Palace for $681m. The UK retailer will pay $325m in cash and issue a 20 per cent equity stake in its US subsidiary, valued at $356m, to the four Mersho brothers who run Shoe Palace.

"In a stroke, it gets JD Sports, which previously acquired Finish Line along the East Coast and middle America, an opportunity to get even closer to the US consumer, particularly the Latino and Hispanic communities," said Greg Lawless, an analyst at Shore Capital.

A performance that was "ahead of the board's expectations" sent **Chemring** to an eight-year high. For the full year ending October 31, underlying profit before tax rose 31 per cent to £51.7m at the defence contractor.

Panmure analyst Sanjay Jha upgraded the Hampshire group from "hold" to "buy" with a target price of £3.02 a share.

"With growth in the US and UK defence budgets now approved, we believe the investment in Countermeasures [radio frequency and infrared division] should deliver appropriate returns," said Mr Jha.

"This, in combination with the structural growth in cyber and biological security spend, should enable Chemring to generate double-digit earnings per share growth over the financial year 21-22 period." *Ray Douglas*

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
0.64%	0.48%	0.61%	-0.28%	0.27%	-0.17%	-0.69%	0.50%	0.165%	0.601%	-0.331%	-0.439%	0.79%	-0.59%

CURRENCIES

Dec 15	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	82.5350	0.0813	100.3002	0.3248	110.5923	0.7931
Australia	Australian Dollar	1.3264	-0.0005	1.6118	0.0030	1.7772	0.0103
Bahrain	Bahrainin Dinar	0.3771	-0.0001	0.4582	0.0010	0.5052	0.0031
Bolivia	Bolivian Boliviano	6.9100	-	8.3973	0.0189	9.2590	0.0573
Brazil	Brazilian Real	5.1022	-0.0129	6.2004	-0.0017	6.8367	0.0252
Canada	Canadian Dollar	1.2735	-0.0039	1.5476	-0.0012	1.7064	0.0054
Chile	Chilean Peso	736.0450	2.8600	894.4743	5.4850	986.2589	9.9156
China	Chinese Yuan	6.5451	0.0077	7.9539	0.0273	8.7701	0.0646
Colombia	Colombian Peso	3418.8500	-12.6050	4154.7374	-5.9137	4581.0682	11.5823
Costa Rica	Costa Rican Colon	606.7350	0.3700	737.3311	2.1115	812.9908	5.5269
Czech Republic	Czech Koruna	21.6688	-0.0524	26.3329	-0.0042	29.0350	0.1099
Denmark	Danish Krone	6.1238	-0.0139	7.4419	0.0000	8.2055	0.0324
Egypt	Egyptian Pound	15.7106	0.0008	19.0922	0.0440	21.0513	0.1314
Hong Kong	Hong Kong Dollar	7.7516	-0.0008	9.4201	0.0203	10.3867	0.0633
Hungary	Hungarian Forint	292.5037	0.6809	355.4633	1.6273	391.9384	3.3337
India	Indian Rupee	73.6425	0.0800	89.4936	0.2988	98.6768	0.7176
Indonesia	Indonesian Rupiah	14120.0000	25.0000	17159.2516	69.0031	18920.0081	150.4291
Israel	Israeli Shekel	3.2550	-0.0058	3.9556	0.0019	4.3615	0.0193
Japan	Japanese Yen	103.7350	-0.3450	126.0633	-0.1340	138.9991	0.4013
..One Month		103.7349	-0.3452	126.0634	-0.1339	138.9990	0.4012
..Three Month		103.7349	-0.3453	126.0635	-0.1338	138.9990	0.4011
..One Year		103.7345	-0.3460	126.0638	-0.1331	138.9990	0.4009
Kenya	Kenyan Shilling	111.6000	-	135.6212	0.3059	149.5377	0.9260
Kuwait	Kuwaiti Dinar	0.3055	0.0001	0.3712	0.0009	0.4093	0.0026
Malaysia	Malaysian Ringgit	4.0545	-0.0015	4.9272	0.0093	5.4328	0.0316
Mexico	Mexican Peso	20.1130	-0.0487	24.4422	-0.0040	26.9503	0.1020
New Zealand	New Zealand Dollar	1.4134	0.0017	1.7177	0.0059	1.8939	0.0140
Nigeria	Nigerian Naira	388.5000	-	472.1223	1.0647	520.5681	3.2234
Norway	Norwegian Krone	8.7356	-0.0069	10.6159	0.0156	11.7052	0.0633
Pakistan	Pakistani Rupee	160.5500	0.4250	195.1074	0.9553	215.1280	1.8981
Peru	Peruvian Nuevo Sol	3.5944	0.0055	4.3681	0.0165	4.8163	0.0371
Philippines	Philippine Peso	48.0600	0.0125	58.4046	0.1469	64.3977	0.4154
Poland	Polish Zloty	3.6517	-0.0105	4.4376	-0.0027	4.8930	0.0163
Romania	Romanian Leu	4.0065	-0.0085	4.8688	0.0007	5.3684	0.0219
Russia	Russian Ruble	73.6000	0.1950	89.4420	0.4382	98.6199	0.8703
Saudi Arabia	Saudi Riyal	3.7513	-0.0001	4.5587	0.0102	5.0265	0.0310
Singapore	Singapore Dollar	1.3333	-0.0022	1.6202	0.0010	1.7865	0.0081
South Africa	South African Rand	14.8963	-0.1350	18.1026	-0.1229	19.9601	-0.0562
South Korea	South Korean Won	1093.3500	1.6000	1328.6872	4.9366	1465.0276	11.2024
Sweden	Swedish Krona	8.3839	-0.0319	10.1885	-0.0157	11.2340	0.0271
Switzerland	Swiss Franc	0.8863	-0.0023	1.0771	-0.0004	1.1877	0.0043
Taiwan	New Taiwan Dollar	28.1440	-0.0060	34.2018	0.0699	37.7114	0.2255
Thailand	Thai Baht	30.0475	-0.0225	36.5150	0.0551	40.2620	0.2193
Tunisia	Tunisian Dinar	2.7063	-0.0034	3.2888	0.0033	3.6262	0.0179
Turkey	Turkish Lira	7.8445	-0.0428	9.5330	-0.0303	10.5112	0.0082
United Arab Emirates	UAE Dirham	3.6732	-	4.4638	0.0101	4.9218	0.0305
United Kingdom	Pound Sterling	0.7463	-0.0047	0.9069	-0.0036	-	-
..One Month		0.7464	-0.0046	0.9069	-0.0036	-	-
..Three Month		0.7464	-0.0046	0.9068	-0.0036	-	-
..One Year		0.7466	-0.0047	0.9063	-0.0036	-	-
United States	United States Dollar	-	-	1.2152	0.0027	1.3399	0.0083
..One Month		-	-	1.2151	-0.1164	1.3400	0.0083
..Three Month		-	-	1.2150	-0.1164	1.3401	0.0083
..One Year		-	-	1.2142	-0.1164	1.3402	0.0083
Venezuela	Venezuelan Bolivar Fuerte	-	-	-	-	-	-
Vietnam	Vietnamese Dong	23126.5000	-0.5000	28104.4135	62.8110	30988.2462	191.2507
European Union	Euro	0.8229	-0.0019	-	-	1.1026	0.0044
..One Month		0.8227	-0.0019	-	-	1.1026	0.0044
..Three Month		0.8226	-0.0019	-	-	1.1025	0.0043
..One Year		0.8218	-0.0019	-	-	1.1020	0.0043

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

FTSE ACTUARIES SHARE INDICES

UK SERIES
www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Dec 15	Day's chge%	Euro Index	£ Strlg Dec 14	£ Strlg Dec 11	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (101)	6513.32	-0.28	5612.47	6531.83	6546.75	7353.44	3.67	1.52	17.97	199.48	6216.66
FTSE 250 (250)	19852.39	0.45	17106.61	19764.02	19622.15	21507.79	2.38	1.66	25.27	336.93	15750.36
FTSE 250 ex Inv Co (181)	20310.89	0.73	17501.70	20164.66	20006.01	22935.12	2.38	1.48	28.31	300.87	16435.99
FTSE 350 (351)	3701.78	-0.16	3189.78	3707.60	3710.00	4148.97	3.44	1.53	18.92	104.27	7042.29
FTSE 350 ex Investment Trusts (281)	3607.78	-0.16	3108.79	3613.40	3617.32	4096.83	3.52	1.41	20.07	103.22	3541.76
FTSE 350 Higher Yield (146)	2934.15	0.26	2528.33	2926.45	2926.29	3571.19	4.94	1.44	14.11	115.37	6131.86
FTSE 350 Lower Yield (205)	4242.94	-0.57	3656.10	4267.07	4272.74	4400.10	1.98	1.78	28.41	74.58	5020.02
FTSE SmallCap (258)	6002.48	0.37	5172.28	5980.12	5966.05	5725.28	3.06	-1.30	-25.09	129.35	9538.63
FTSE SmallCap ex Inv Co (142)	4716.13	0.87	4063.84	4675.25	4663.34	4689.47	3.02	-1.37	-24.27	75.53	7837.77
FTSE All-Share (609)	3673.28	-0.14	3165.23	3678.41	3680.43	4095.03	3.43	1.45	20.08	102.55	7059.38
FTSE All-Share ex Inv Co (423)	3544.42	-0.14	3054.19	3549.27	3552.89	4015.21	3.51	1.37	20.77	100.50	3534.05
FTSE All-Share ex Multinationals (539)	1167.26	0.58	1011.61	1160.58	1144.87	1267.70	2.81	1.42	25.04	23.34	2335.28
FTSE Fledgling (92)	10158.09	0.20	8753.13	10138.14	10093.10	9583.09	2.59	0.46	84.46	210.25	20887.31
FTSE Fledgling ex Inv Co (43)	12287.95	0.24	10588.41	12258.50	12147.06	11378.84	2.62	4.32	8.85	177.70	24688.21
FTSE All-Small (350)	4163.88	0.36	3587.97	4148.77	4138.53	3969.43	3.03	-1.22	-27.01	89.59	8488.84
FTSE All-Small ex Inv Co (185)	3527.74	0.85	3039.82	3498.03	3488.21	3496.80	3.00	-1.17	-28.46	56.25	7426.30
FTSE AIM All-Share (712)	1070.35	0.25	922.31	1067.66	1061.18	917.71	0.87	0.37	307.64	7.27	1228.89
FTSE Sector Indices											
Non Financials (303)	**4398.17**	**-0.39**	**3789.86**	**4415.33**	**4435.12**	**4853.28**	**3.52**	**1.37**	**20.74**	**135.32**	**7428.05**
Technology (19)	**971.42**	**-0.92**	**952.70**	**980.41**	**971.40**	**1025.75**	**1.13**	**0.37**	**238.13**	**9.72**	**1024.83**
Software and Computer Services (17)	966.73	-0.94	948.10	975.95	966.55	1022.82	1.14	0.34	256.03	9.88	1021.05
Technology Hardware and Equipment (2)	1083.94	0.40	1063.04	1079.59	1092.24	1045.05	0.97	1.86	55.16	0.00	1120.87
Telecommunications (8)	**660.79**	**-0.45**	**648.05**	**663.76**	**659.31**	**787.59**	**6.88**	**0.60**	**24.02**	**15.28**	**762.73**
Telecommunications Equipment (2)	2556.54	-0.97	2507.25	2581.64	2584.19	2057.86	1.42	3.38	20.77	36.43	2719.49
Telecommunications Service Providers (6)	643.96	-0.43	631.55	646.73	642.21	776.91	7.09	0.58	24.16	15.10	744.37
Health Care (15)	1200.24	-2.27	1177.10	1228.17	1270.84	1300.48	3.69	1.12	24.19	44.07	1333.13
Health Care Providers (4)	404.67	2.16	396.87	396.13	396.97	766.98	2.12	0.38	124.87	3.93	418.38
Medical Equipment and Services (2)	1114.71	-1.71	1093.22	1134.12	1125.90	1243.62	2.01	1.09	45.42	22.38	1184.65
Pharmaceuticals and Biotechnology (9)	1248.81	-2.41	1224.73	1279.65	1329.82	1329.78	3.87	1.13	22.84	48.45	1396.10
Financials (250)	**820.07**	**0.61**	**804.26**	**815.09**	**805.64**	**935.67**	**3.17**	**2.14**	**14.73**	**15.93**	**905.63**
Banks (11)	556.56	0.88	545.83	551.71	540.40	814.04	3.69	2.22	12.23	0.34	607.89
Finance and Credit Services (8)	1077.44	1.34	1056.67	1063.16	1058.85	1219.86	3.29	4.32	7.05	12.24	1151.33
Investment Banking and Brokerage Services (31)	1056.93	1.01	1036.55	1046.33	1037.22	1117.19	3.31	0.94	32.28	34.16	1173.35
Closed End Investments (186)	1235.05	-0.18	1211.24	1237.30	1229.87	1077.79	2.28	3.20	13.70	27.26	1334.39
Life Insurance (7)	795.78	1.35	780.44	785.21	776.18	891.57	3.72	1.93	13.92	28.54	909.44
Nonlife Insurance (7)	981.30	-0.10	962.39	982.25	982.41	989.97	3.00	1.86	17.88	28.74	1087.49
Real Estate (56)	845.36	0.47	829.06	841.44	835.88	1025.99	3.01	-1.88	-17.71	20.88	937.29
Real Estate Investment and Services (17)	860.79	0.02	844.19	860.60	856.32	994.58	1.80	2.17	25.66	10.79	914.09
Real Estate Investment Trusts (39)	842.19	0.53	825.95	837.72	831.98	1031.22	3.19	-2.22	-14.12	22.61	940.80
Consumer Discretionary (92)	887.47	0.45	870.36	883.53	873.81	1024.64	2.26	1.42	31.28	10.74	964.53
Automobiles and Parts (3)	404.31	3.18	396.52	391.84	381.78	566.54	0.48	14.04	14.92	0.00	425.90
Consumer Services (4)	921.58	-0.65	903.81	927.64	927.82	1169.57	2.68	0.21	181.05	16.76	978.89
Household Goods and Home Construction (12)	905.77	2.50	888.31	883.68	852.65	1096.26	3.03	2.06	16.00	16.26	1044.41
Leisure Goods (2)	1148.92	-0.89	1126.77	1159.20	1173.07	815.10	1.54	1.39	46.96	12.50	1270.24
Personal Goods (4)	900.27	2.56	882.92	877.81	874.74	991.89	2.07	2.08	23.25	0.00	943.26
Media (11)	876.79	-0.76	859.89	883.54	886.38	1002.15	1.81	3.04	18.15	15.65	955.53
Retailers (22)	1006.22	0.57	986.82	1000.51	965.17	1023.94	2.17	1.39	33.16	4.47	1083.98
Travel and Leisure (34)	792.58	0.64	777.30	787.54	783.68	967.63	2.21	0.34	131.38	5.90	850.20
Consumer Staples (27)	834.89	-1.41	818.80	846.81	851.59	878.38	4.01	1.41	17.61	31.13	934.64
Beverages (6)	1062.68	-1.61	1042.19	1080.06	1083.72	1113.21	2.39	1.65	25.34	24.25	1140.01
Food Producers (10)	838.86	0.16	822.69	837.54	830.83	954.77	2.59	1.80	21.47	11.64	893.44
Tobacco (2)	550.27	-1.40	539.66	558.07	563.93	595.62	7.91	1.29	9.80	35.53	673.02
Industrials (93)	**1049.90**	**0.07**	**1029.66**	**1049.17**	**1038.63**	**1034.78**	**1.71**	**0.73**	**79.57**	**14.75**	**1121.41**
Construction and Materials (16)	973.92	0.43	955.14	969.72	961.11	1019.93	1.98	0.15	327.78	18.50	1056.49
Aerospace and Defense (9)	765.86	-0.85	751.09	772.44	764.52	1031.90	2.98	-2.01	-16.71	19.60	825.70
Electronic and Electrical Equipment (11)	1197.81	0.87	1174.72	1187.50	1177.41	1143.17	1.47	1.85	36.87	13.13	1266.40
General Industrials (8)	1159.77	1.00	1137.42	1148.27	1123.00	987.67	1.85	0.72	74.88	17.10	1249.23
Industrial Engineering (4)	1402.64	0.23	1375.60	1399.36	1382.79	1104.51	0.60	4.28	38.97	8.86	1470.82
Industrial Support Services (34)	1078.08	-0.42	1057.30	1082.63	1076.79	1043.16	1.27	2.20	35.92	12.23	1143.27
Industrial Transportation (11)	1172.62	0.78	1150.01	1163.57	1148.20	967.85	2.15	2.02	23.08	11.34	1263.54
Basic Materials (26)	**1328.94**	**1.21**	**1303.32**	**1313.04**	**1323.01**	**1093.95**	**3.41**	**2.71**	**10.83**	**48.44**	**1538.41**
Industrial Materials (3)	924.98	1.66	907.14	909.87	886.80	883.62	2.28	3.09	14.19	21.14	1020.30
Industrial Metals and Mining (12)	1441.17	1.23	1413.39	1423.61	1437.13	1174.62	3.67	2.81	9.69	57.81	1704.71
Precious Metals and Mining (5)	1251.64	1.43	1227.51	1233.98	1277.98	861.87	3.35	1.07	27.95	42.21	1375.99
Chemicals (6)	987.96	0.61	968.91	981.98	973.44	925.07	1.59	2.11	29.84	15.07	1051.66
Energy (13)	502.02	0.43	492.34	499.84	510.87	822.82	6.26	1.19	13.38	30.36	591.25
Oil, Gas and Coal (13)	502.72	0.43	493.03	500.54	511.59	823.97	6.26	1.19	13.38	30.40	592.08
Utilities (10)	**955.38**	**-0.63**	**936.96**	**961.48**	**950.42**	**1022.57**	**5.10**	**1.14**	**17.17**	**47.06**	**1135.85**

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	6516.41	6554.61	6542.37	6535.16	6507.59	6489.26	6504.90	6495.28	6510.01	6557.82	6484.05
FTSE 250	19773.24	19779.09	19803.99	19812.03	19770.31	19741.00	19708.42	19684.83	19767.42	19869.91	19675.61
FTSE SmallCap	5988.40	5991.11	5999.34	6004.45	5995.51	5994.92	5991.38	5982.81	5996.19	6011.36	5982.47
FTSE All-Share	3671.92	3689.37	3684.79	3681.90	3668.00	3658.82	3664.78	3659.53	3669.01	3692.46	3656.48

Time of FTSE 100 Day's high:09:33:00 Day's Low13:02:30 FTSE 100 2010/11 High: 7674.56(17/01/2020) Low: 4993.89(23/03/2020)
Time of FTSE All-Share Day's high:09:33:00 Day's Low13:03:00 FTSE 100 2010/11 High: 4257.93(17/01/2020) Low: 2727.86(23/03/2020)

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FT 30 INDEX

	Dec 15	Dec 14	Dec 11	Dec 10	Dec 09	Yr Ago	High	Low
FT 30	2529.10	2521.40	2490.10	2532.10	2548.50	0.00	3314.70	1337.80

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.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Denmark (kr)							
DanskeBk	98.26	-2.79	123.60	68.04	-	10.34	13834.26
MollerMrsk	13705	220.00	13705	4976	1.07	39.69	21109.94
NovoB	424.15	-2.55	467.90	331.70	2.03	23.97	125542.8
Spain (€)							
BBVA	4.10	0.07	5.34	2.13	6.34	-45.54	33214.68
BcoSantdr	2.70	0.08	3.96	1.50	3.71	-5.52	54617.59
CaixaBnk	2.31	0.08	2.94	1.50	3.04	13.58	16754.85
Iberdrola	11.22	-0.07	11.57	7.76	3.57	20.29	86544.73
Inditex	26.77	-0.68	32.28	18.51	0.82	46.09	101391.17
Repsol	8.75	0.13	14.48	5.04	10.47	-1.72	16233.96
Telefonica	3.47	-0.06	6.86	2.71	11.33	69.36	22456.54

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Alexion	157.23	156.31	0.92	0.59	38.01	31.9	23.01
Softbank	7999.00	8088.00	-89.00	-1.10	876.00	12.3	19.86
OilNatGas	100.45	101.50	-1.05	-1.03	9.70	10.7	38.27
Disney	169.56	169.30	0.26	0.16	15.84	10.3	22.49
Toyota	7905.00	7952.00	-47.00	-0.59	701.00	9.7	7.83
KoreaElePwr	24000.00	23900.00	100.00	0.42	2100.00	9.6	12.41
Lilly (E)	163.50	157.91	5.59	3.54	14.20	9.5	14.76
Lowes	162.59	160.09	2.50	1.56	11.35	7.5	2.00
HyundMobis	259000.00	258000.00	1000.00	0.39	16500.00	6.8	7.92
MollerMrsk	13705.00	13485.00	220.00	1.63	845.00	6.6	20.64
Nissan Mt	566.80	559.30	7.50	1.34	34.20	6.4	27.45
L&T	1246.25	1249.65	-3.40	-0.27	74.85	6.4	17.66
Richemont	79.06	77.34	1.72	2.22	4.58	6.1	5.98
Bradesco	24.10	23.74	0.36	1.52	1.32	5.8	10.90
FEMSA UBD	158.28	156.25	2.03	1.30	8.53	5.7	13.61
ITC	213.55	215.90	-2.35	-1.09	11.10	5.5	13.23
BASF	64.76	63.90	0.86	1.35	3.14	5.1	5.10
Renault	36.80	35.74	1.06	2.97	1.62	4.6	26.79
NipponTT	2650.00	2667.00	-17.00	-0.64	116.50	4.6	6.97
JardnStr US$	26.44	25.83	0.61	2.36	1.16	4.6	10.63

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 %
Carnival	20.81	20.93	-0.12	-0.59	-2.76	-11.7	30.04
Pfizer	38.49	39.21	-0.72	-1.84	-4.07	-9.6	4.96
RollsRoyce	115.30	118.75	-3.45	-2.91	-10.95	-8.7	-98.78
Hunng Pwr	2.66	2.72	-0.06	-2.21	-0.24	-8.3	-14.19
Ch Coms Cons	3.63	3.68	-0.05	-1.36	-0.32	-8.1	-15.70
Ch Rail Cons	4.59	4.66	-0.07	-1.50	-0.39	-7.8	-17.56
Telefonica	3.47	3.53	-0.06	-1.64	-0.29	-7.8	2.97
AstraZen	7505.00	7692.00	-187.00	-2.43	-629.00	-7.7	-90.13
CSR	2.84	2.89	-0.05	-1.73	-0.23	-7.5	-12.88
Sanofi	76.23	77.85	-1.62	-2.08	-6.15	-7.5	-11.15
New Ch Life Ins	30.10	30.80	-0.70	-2.27	-2.35	-7.2	-2.42
EquityResTP	57.93	57.90	0.03	0.05	-4.46	-7.1	-3.86
Qualcomm	147.64	146.29	1.35	0.92	-11.16	-7.0	2.18
Cigna	204.39	203.15	1.24	0.61	-14.28	-6.5	-7.01
AmerAir	16.53	16.70	-0.17	-1.02	-1.10	-6.2	34.84
NXP	156.27	158.46	-2.19	-1.38	-10.10	-6.1	6.63
CVS	69.50	69.72	-0.22	-0.32	-4.36	-5.9	-2.24
MTN Grp	66.29	66.04	0.25	0.38	-4.10	-5.8	-5.52
StateSt	71.44	70.70	0.74	1.05	-4.40	-5.8	4.14
Swedbank	148.36	155.96	-7.60	-4.87	-8.96	-5.7	-4.46

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
Mexico	05/26	11.50	-	Baa1	BBB-	148.00	2.08	0.07	-0.05	1.79
Turkey	10/26	4.88	-	B2	BB-	98.00	5.28	0.00	-0.08	4.99
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Ba1	BBB	171.32	2.35	0.00	-0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	118.45	4.43	0.00	-0.03	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.00	0.19	-0.01	-0.03	0.08
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

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

INTEREST RATES: OFFICIAL

Dec 15	Rate	Current	Since	Last	Mnth Ago	Year Ago
US	Fed Funds	0.00-0.25	15-03-2020	1.00-1.25	1.50-1.75	1.25-1.50
US	Prime	4.75	30-10-2019	5.25	5.25	4.25
US	Discount	2.65	30-09-2019	2.75	2.75	1.75
Euro	Repo	0.00	16-03-2016	0.00	0.00	0.00
UK	Repo	0.10	19-03-2020	0.25	0.75	0.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00	0.00--0.10	0.00--0.10
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25	-1.25--0.25	-1.25--0.25

INTEREST RATES: MARKET

Dec 15 (Libor: Dec 14)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	0.08250	-0.001	-0.001	-0.006	0.15313	0.21925	0.24713	0.33488
Euro Libor	-0.58500	-0.001	-0.001	-0.002	-0.58386	-0.56543	-0.53543	-0.49814
£ Libor	0.04525	0.000	0.001	0.005	0.02588	0.04063	0.03588	0.09700
Swiss Fr Libor				-0.004	-0.83220	-0.79360	-0.74400	-0.62300
Yen Libor				0.001	-0.09500	-0.10133	-0.05650	0.05350
Euro Euribor				-0.019	-0.57300	-0.54300	-0.52200	-0.50500
Sterling CDs				-	-	-	-	
US$ CDs				-	-	-	-	
Euro CDs				-	-	-	-	

Dec 15	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	-0.74	-0.44	-0.71	-0.41	-0.81	-0.51	-0.69	-0.39	-0.67	-0.37	-0.67	-0.37
Sterling			0.45	0.55	0.70	0.80	0.78	0.88	0.82	0.97	0.89	1.04
Swiss Franc	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Dollar	-	-	-	-	-	-	-	-	-	-	-	-
US Dollar	0.07	0.37	-0.02	0.28	0.02	0.32	0.09	0.39	0.12	0.42	0.19	0.49
Japanese Yen	-0.15	0.05	-0.15	0.05	-0.60	-0.10	-0.30	0.00	-0.25	0.05	-0.20	0.10

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

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Overall(€)	254.68	-0.08	0.41	4.36	0.69	3.71
Treasuries ($)	262.59	0.10	-0.21	8.42	-0.21	8.42
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	633.52	1.26	-	-	0.98	21.28
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	248.53	-10.71	7.89	-50.03	377.90	234.36
Europe 5Y	48.58	-1.34	1.16	-3.71	66.97	45.31
Japan 5Y	53.30	-0.24	-0.20	-5.85	70.43	53.06
Senior Financials 5Y	58.06	-3.37	0.66	-8.34	86.20	54.75
Markit CDX						
Emerging Markets 5Y	163.56	-2.04	0.96	-5.67	245.71	158.33
Nth Amer High Yld 5Y	304.63	-0.24	11.99	-22.67	421.26	290.61
Nth Amer Inv Grade 5Y	54.20	0.31	3.35	2.04	65.62	49.63

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

VOLATILITY INDICES

	Dec 15	Day Chng	Prev	52 wk high	52 wk low
VIX	23.49	-1.23	24.72	85.42	11.71
VXD	22.16	-0.91	23.07	71.05	2.47
VXN	28.32	-1.12	29.44	84.67	13.58
VDAX	24.03	-0.55	24.59	93.30	-

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

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	11/22	2.25	104.16	0.09	0.00	-0.01	0.00	-0.70
	05/32	1.25	101.78	1.08	-0.03	-0.08	0.07	-
Austria		-	-	-	-	-	-	-
	02/47	1.50	139.71	-0.01	0.03	-0.04	-0.04	-0.52
Belgium	09/22	1.00	102.92	-0.69	0.01	-0.02	-0.05	-0.14
Canada	11/22	2.00	103.46	0.19	0.00	-0.03	-0.02	-1.51
	06/30	1.25	104.82	0.72	0.02	-0.04	0.03	-0.88

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change	Agricultural & Cattle Futures		Price*	Change
Crude Oil†	Dec	47.35	0.37	Corn♦	Mar	421.00	-3.50
Brent Crude Oil‡		50.80	0.49	Wheat♦	Mar	600.25	3.50
RBOB Gasoline†	Dec	1.33	0.01	Soybeans♦	Jan	1164.25	-5.50
Heating Oil†		-	-	Soybeans Meal♦	Jan	380.30	-0.70

BONDS: INDEX-LINKED

	Price Dec 14	Yield Dec 14	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 21	105.04	-0.956	-0.956	0.32	5.18	89635.96	8
Fr 0.10%' 21	105.45	-1.157	-1.157	0.58	11.35	250949.20	15
Swe 0.25%' 22	109.76	-0.661	-0.661	0.19	26.51	201362.51	7
UK 1.875%' 22	110.38	-3.273	-3.273	0.42	15.74	810694.69	28
UK 2.5%' 24	361.03	-3.144	-3.144	0.78	6.82	810694.69	28
UK 2%' 35	307.53	-2.820	-2.820	1.92	9.08	810694.69	28
US 0.625%' 21	-	-	-	-	-	-	-
US 3.625%' 28	136.79	-1.166	-1.166	0.56	16.78	1652620.78	43

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

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	1.08	-	0.25	Netherlands	-0.72	-	-
Austria	-	-	-	New Zealand	0.86	-	0.03
Canada	0.72	-	-0.11	Norway	0.88	-	0.05
Denmark	-1.43	-	-2.26	Portugal	-0.41	-	-
Finland	-0.42	-	-1.25	Spain	-0.96	-	-1.79
Germany	-	-	-	Sweden	-1.50	-	-2.33
Ireland	-0.36	-	-1.19	Switzerland	-0.58	-	-1.41
Italy	-0.22	-	-1.05	United Kingdom	-	-	-
Japan	-0.02	-	-0.85	United States	0.83	-	0.00

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

BONDS: GLOBAL INVESTMENT GRADE

GILTS: UK CASH MARKET

GILTS: UK FTSE ACTUARIES INDICES

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

MANAGED FUNDS SERVICE

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

Fund	Bid	Offer	D+/-	Yield
Bridge Fund	£ 2.1891	-	-0.0005	1.72
Global Equity Fund	£ 3.0941	-	-0.0009	1.06
Global Fixed Interest Fund	£ 0.9949	-	0.0008	4.15
Income Fund	£ 0.6363	-	-0.0014	2.46
Sterling Fixed Interest Fund	£ 0.9296	-	0.0025	2.87
UK Equity Fund	£ 1.9637	-	-0.0150	2.79

Aegon Asset Management UK ICVC (UK)
3 Lochside Crescent, Edinburgh, EH12 9SA
0800 358 3009 www.aegonam.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Global Equity GBP B Acc	£ 3.09	-	0.01	0.00

Aegon Asset Management Investment Company (Ireland) (IRL)
1 North Wall Quay Dublin 1, Ireland +35 3162 24493
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Absolute Return Bond B GBP Acc	1155.20	-	-3.09	1.61
High Yield Global Bond A GBP Inc	511.95	-	0.13	4.49
High Yield Global Bond B GBP Inc	1096.01	-	0.29	5.23
Global Equity Income B GBP Acc	2062.46	-	-5.69	0.00
Global Equity Income B GBP Inc	1455.44	-	-8.32	3.19
lobal Equity Market Neutral Fund - B Acc GBP	£ 12.24	-	0.00	0.00
Global Sustainable Equity B Acc GBP	£ 27.47	-	0.11	0.00
Global Sustainable Equity C Acc GBP	£ 27.86	-	0.11	-
Inv Grd Gbl Bond A Inc GBH	629.11	-	1.26	1.81
Short Dated High Yld Bd B Acc GBP	£ 11.03	-	0.00	0.00
Short Dated High Yld Bd C Acc GBP (Hdg)	£ 11.13	-	0.00	0.00
Strategic Global Bond A GBP Inc	1322.30	-	2.35	2.70
Strategic Global Bond B GBP Inc	750.61	-	1.33	3.45

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Algebris Financial Credit I EUR	€ 186.41	-	-0.41	0.00
Algebris Financial Credit R EUR	€ 162.23	-	-0.36	0.00
Algebris Financial Credit Rd EUR	€ 109.20	-	-0.24	4.74
Algebris Financial Income I EUR	€ 152.30	-	-1.14	0.00
Algebris Financial Income R EUR	€ 141.08	-	-1.06	0.00
Algebris Financial Income Rd EUR	€ 93.20	-	-0.70	3.61
Algebris Financial Equity B EUR	€ 109.31	-	-1.46	0.00
Algebris IG Financial Credit B EUR	€ 110.74	-	-0.08	0.00
Algebris IG Financial Credit R EUR	€ 109.92	-	-0.09	0.00
Algebris Global Credit Opportunities I EUR	€ 129.19	-	-0.13	0.00
Algebris Global Credit Opportunities R EUR	€ 127.11	-	-0.12	0.00
Algebris Global Credit Opportunities Rd EUR	€ 127.11	-	-0.12	0.00
Algebris Core Italy I EUR	€ 117.39	-	-0.30	0.00
Algebris Core Italy R EUR	€ 109.85	-	-0.28	0.00
Algebris Allocation I EUR	€ 103.34	-	-0.30	0.00

The Antares European Fund Limited
Other International

Fund	Bid	Offer	D+/-	Yield
AEF Ltd Usd	$ 554.84	-	-1.94	0.00
AEF Ltd Eur	€ 519.13	-	-1.86	0.00

Arisaig Partners
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Arisaig Asia Consumer Fund Class A (Ex-Alcohol) shares	$ 125.13	-	0.60	0.00
Arisaig Asia Consumer Fund Limited	$ 124.61	-	0.68	0.00
Arisaig Global Emerging Markets Consumer Fund	$ 16.70	-	0.04	0.00
Arisaig Global Emerging Markets Consumer UCITS	€ 12.85	-	-0.01	-
Arisaig Global Emerging Markets Consumer UCITS STG	£ 14.50	-	-0.10	-
Arisaig Latin America Consumer Fund	$ 25.95	-	0.01	0.00

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

Fund	Bid	Offer	D+/-	Yield
Artemis Corporate Bond I Acc	£ 1.14	-	-0.01	1.68
Artemis Target Return Bond I Acc	£ 1.06	-	0.00	-

Ashmore Investment Management Limited (LUX)
2 rue Albert Borschette L-1246 Luxembourg
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Ashmore SICAV Emerging Market Debt Fund	$ 93.09	-	0.26	4.86
Ashmore SICAV Emerging Market Frontier Equity Fund	$ 163.74	-	1.25	1.49
Ashmore SICAV Emerging Market Total Return Fund	$ 82.45	-	0.15	4.15
Ashmore SICAV Global Small Cap Equity Fund	$ 203.91	-	0.37	0.02
EM Active Equity Fund Acc USD	$ 156.28	-	-1.39	0.00
EM Equity Fund Acc USD	$ 142.18	-	-0.15	0.00
EM Mkts Corp.Debt USD F	$ 91.75	-	0.21	5.64
EM Mkts Loc.Ccy Bd USD F	$ 79.75	-	-0.07	4.55
EM Short Duration Fund Acc USD	$ 120.00	-	0.73	0.00

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
American Dynamic	$ 6533.40	6533.40	2.87	0.00
American One	$ 6278.56	6278.56	-67.69	0.00
Bond Global	€ 1499.13	1499.13	-1.79	0.00
Eurocroissance	€ 1205.54	1205.54	-3.72	0.00
Far East	$ 1206.42	-	7.42	0.00

Barclays Investment Funds (CI) Ltd (JER)
39/41 Broad Street, St Helier, Jersey, JE2 3RR Channel Islands 01534 812800
FCA Recognised
Bond Funds

Fund	Bid	Offer	D+/-	Yield
Sterling Bond F	£ 0.50	-	0.00	2.17

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

Fund	Bid	Offer	D+/-	Yield
Euro High Income	€ 1.5678	-	-0.0008	2.50
High Income	£ 0.8884	-	0.0006	3.77
Sterling Bond	£ 1.6485	-	0.0017	2.06

Brooks Macdonald International Multi Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Cautious Balanced Strategy	£ 1.3474	-	-0.0031	0.00
Growth Strategy	£ 1.9501	-	-0.0054	0.00
High Growth Strategy	£ 2.6784	-	-0.0103	0.00
US$ Growth Strategy	$ 1.8807	-	0.0003	0.00

Dealing Daily. Initial charge up to 2%

CCLA Investment Management Ltd (UK)
Senator House 85 Queen Victoria Street London EC4V 4ET
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Diversified Income 1 Units GBP Inc	£ 1.55	1.55	-0.01	0.03
Diversified Income 2 Units GBP Inc	£ 1.49	1.49	-0.01	0.03
Diversified Income 3 Units GBP Inc	£ 1.50	1.50	-0.01	0.03

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	D+/-	Yield
Absolute Return Cls M Inc	£ 131.65	131.65	-0.30	1.35
Capital Gearing Portfolio GBP P	£ 35935.26	35935.26	-105.07	-
Capital Gearing Portfolio GBP V	£ 174.77	174.77	-0.51	-
Dollar Fund Cls D Inc	£ 171.12	171.12	-1.21	1.43
Dollar Hedged GBP Inc	£ 106.72	106.72	0.08	1.31
Real Return Cls A Inc	£ 209.32	209.32	-1.43	1.61

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
CAM-GTF Limited	$ 317343.01	317343.01	4402.86	0.00
CAM GTi Limited	$ 788.22	-	-58.29	0.00
Raffles-Asia Investment Company	$ 1.53	1.53	0.08	1.96

Dodge & Cox Worldwide Funds (IRL)
6 Duke Street,St.James,London SW1Y 6BN
www.dodgeandcox.worldwide.com 020 3713 7664
FCA Recognised
Dodge & Cox Worldwide Funds plc - Global Bond Fund

Fund	Bid	Offer	D+/-	Yield
EUR Accumulating Class	€ 14.94	-	-0.04	0.00
EUR Accumulating Class (H)	€ 11.65	-	0.00	0.00
EUR Distributing Class	€ 11.73	-	-0.03	3.74
EUR Distributing Class (H)	€ 9.11	-	0.00	3.77
GBP Distributing Class	£ 13.05	-	-0.10	3.85
GBP Distributing Class (H)	£ 9.60	-	0.00	4.09
USD Accumulating Class	$ 13.10	-	0.01	0.00

Dodge & Cox Worldwide Funds plc-Global Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 24.61	-	-0.16	0.00
GBP Accumulating Share Class	£ 30.38	-	-0.43	0.00
GBP Distributing Share class	£ 20.97	-	-0.30	1.23
EUR Accumulating Share Class	€ 30.42	-	-0.28	0.00
GBP Distributing Class (H)	£ 11.98	-	-0.08	0.98

Dodge & Cox Worldwide Funds plc-U.S. Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 30.29	-	-0.42	0.00
GBP Accumulating Share Class	£ 35.34	-	-0.77	0.00
GBP Distributing Share Class	£ 21.58	-	-0.47	0.95
EUR Accumulating Share Class	€ 32.32	-	-0.54	0.00
GBP Distributing Class (H)	£ 12.55	-	-0.17	0.97

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

Fund	Bid	Offer	D+/-	Yield
Vietnam Equity (UCITS) Fund A USD	$ 24.81	-	-0.22	-

Ennismore Smaller Cos Plc (IRL)
5 Kensington Church St, London W8 4LD 020 7368 4220
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Ennismore European Smlr Cos NAV	£ 133.72	-	0.28	0.00
Ennismore European Smlr Cos NAV	€ 146.87	-	1.27	0.00

Ennismore European Smlr Cos Hedge Fd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
NAV	€ 527.24	-	8.77	0.00

Equinox Fund Mgmt (Guernsey) Limited (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Equinox Russian Opportunities Fund Limited	$ 184.85	-	11.87	0.00

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Smaller Cos Cls One Shares	€ 52.62	-	0.18	0.00
Smaller Cos Cls Two Shares	€ 34.52	-	0.11	0.00
Smaller Cos Cls Three Shares	€ 17.39	-	0.05	0.00
Smaller Cos Cls Four Shares	€ 22.36	-	0.07	0.00

FIL Investment Services (UK) Limited (1200)F (UK)
130, Tonbridge Rd, Tonbridge TN11 9DZ
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181
OEIC Funds

Fund	Bid	Offer	D+/-	Yield
Fidelity American Fund W-ACC-GBP	£ 53.35	-	-0.03	0.31
Fidelity Cash Fund Y-ACC-GBP	£ 1.02	-	0.00	0.66
FID Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£ 2.35	-	0.01	4.21
Fidelity Global Enhanced Income Fund W-ACC-GBP	£ 2.05	-	-0.01	3.68
Fidelity Global Focus Fund W-ACC-GBP	£ 33.57	-	-0.09	0.20
Fidelity Global High Yield Fund Y-ACC-GBP	£ 15.52	-	0.00	3.65
Fidelity Japan Fund W-ACC-GBP	£ 5.04	-	-0.02	0.58
Fidelity Japan Smaller Companies Fund W-ACC-GBP	£ 4.30	-	0.00	0.35
Fidelity Select 50 Balanced Fund PI-ACC-GBP	£ 1.15	-	0.00	0.83
Fidelity Special Situations Fund W-ACC-GBP	£ 33.37	-	-0.33	3.43
Short Dated Corporate Bond Fund Y ACC GBP	£ 11.10	-	0.03	3.86
Fidelity Sustainable Water & Waste W Acc	£ 1.10	-	0.00	-
Fidelity Sustainable Water & Waste W Inc	£ 1.10	-	0.00	-
Fidelity UK Growth Fund W-ACC-GBP	£ 3.34	-	-0.05	1.14
Fidelity UK Select Fund W-ACC-GBP	£ 3.16	-	-0.02	2.36

Institutional OEIC Funds

Fund	Bid	Offer	D+/-	Yield
Europe (ex-UK) Fund ACC-GBP	£ 7.06	-	0.03	0.55

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

Fund	Bid	Offer	D+/-	Yield
American EUR Unhedged Class	€ 127.92	-	-0.53	-
American Fund USD Class	$ 155.10	-	-0.41	0.00
American Fund GBP Hedged	£ 78.17	-	-0.20	0.00
American Fund GBP Unhedged	£ 116.46	-	-1.24	0.00

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

Fund	Bid	Offer	D+/-	Yield
Foord International Fund | R	$ 45.07	-	-0.25	-
Foord Global Equity Fund (Lux) | R	$ 16.86	-	-0.10	-

Regulated

Fund	Bid	Offer	D+/-	Yield
Foord Global Equity Fund (Sing) | B	$ 20.67	-	-0.11	-
Foord International Trust (Gsy)	$ 44.86	-	-0.25	0.00

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	D+/-	Yield
Franklin Emg Mkts Debt Opp CHF	SFr 14.24	-	-0.02	9.35
Franklin Emg Mkts Debt Opp GBP	£ 9.37	-	-0.02	6.20
Franklin Emg Mkts Debt Opp SGD	S$ 20.52	-	-0.01	4.49
Franklin Emg Mkts Debt Opp USD	$ 16.34	-	0.01	6.42

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

Fund	Bid	Offer	D+/-	Yield
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 100.58	-	-1.41	3.25
LAPIS GBL F.OWD 50 DIV.YLD-Na-D	£ 101.22	-	-0.56	0.70

Genesis Investment Management LLP
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Mkts NAV	£ 7.21	-	-0.16	0.00

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

Fund	Bid	Offer	D+/-	Yield
Holiday Property Bond Ser 1	£ 0.49	-	0.00	0.00
Holiday Property Bond Ser 2	£ 0.62	-	0.00	0.00

Intrinsic Value Investors (IVI) LLP (IRL)
1 Hat & Mitre Court, 88 St John Street, London EC1M 4EL +44 (0)20 7566 1210
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
IVI European Fund EUR	€ 23.59	-	0.15	0.00
IVI European Fund GBP	£ 28.59	-	-0.01	0.33

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

Fund	Bid	Offer	D+/-	Yield
Janus Henderson Instl UK Idx Opps A Acc	£ 0.95	-	-0.01	-

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

Fund	Bid	Offer	D+/-	Yield
M&G Charifund Charities Fixed Interest Fund (Charibond) Inc	£ 1.25	-	0.00	2.24
M&G Charifund Charities Fixed Interest Fund (Charibond) Acc	£ 42.90	-	0.02	2.20
M&G Charity Multi Asset Fund Inc	£ 0.83	-	0.00	4.28
M&G Charity Multi Asset Fund Acc	£ 91.62	-	-0.64	4.11

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

Fund	Bid	Offer	D+/-	Yield
UK Equity Fd Cl A Series 01	£ 2617.54	2659.42	495.99	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1580.95	-	-30.80	0.00
Diversified Absolute Return Stlg Cell AF2	£ 1471.35	-	-29.07	0.00
Global Equity Fund A Lead Series	£ 1620.07	1625.45	135.16	0.00

Marwyn Asset Management Limited (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Marwyn Value Investors	£ 340.40	-	-14.66	0.00

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

Fund	Bid	Offer	D+/-	Yield
British Innovation Fund	£ 121.92	-	2.89	0.00
MAI - Buy & Lease (Australia)	A$ 102.95	-	-0.80	0.00
MAI - Buy & Lease (New Zealand)	NZ$ 97.26	-	-0.02	0.00
Milltrust Global Emerging Markets Fund - Class A	$ 111.69	-	-0.27	0.00
The Climate Impact Asia Fund (Class A)	$ 112.68	-	5.26	-

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

Fund	Bid	Offer	D+/-	Yield
Milltrust Alaska Brazil SP A	$ 74.57	-	-1.52	-
Milltrust Laurium Africa SP A	$ 94.72	-	0.29	-
Milltrust Marcellus India Fund	$ 115.59	-	0.21	-
Milltrust Singular ASEAN SP Founders	$ 148.41	-	-0.31	-
Milltrust SPARX Korea Equity SP A	$ 159.19	-	0.40	-
Milltrust VTB Russia Fund SP	$ 121.84	-	-1.92	-
Milltrust Xingtai China SP A	$ 137.29	-	1.52	-

New Capital UCITS Fund PLC (IRL)
Leconfield House, Curzon Street, London, W1J 5JB
www.newcapitalfunds.com
FCA Recognised
New Capital UCITS Funds

Fund	Bid	Offer	D+/-	Yield
New Capital China Equity Fund	$ 269.31	-	0.64	-
New Capital Dynamic European Equity Fund	€ 129.80	-	0.35	0.00
New Capital Dynamic UK Equity Fund	£ 115.30	-	0.03	-
New Capital Global Alpha Fund	£ 116.74	-	-0.26	0.00
New Capital Global Equity Conviction Fund	$ 197.36	-	-0.35	-
New Capital Global Value Credit Fund	$ 161.11	-	0.15	0.00
New Capital Japan Equity Fund	¥ 1631.02	-	11.95	0.00
New Capital US Growth Fund	$ 429.57	-	1.01	0.00
New Capital US Small Cap Growth Fund	$ 220.80	-	2.59	0.00
New Capital Wealthy Nations Bond Fund	$ 156.29	-	0.09	0.00

Oasis Crescent Management Company Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Equity Fund	R 10.96	-	-0.07	0.21

Oasis Global Mgmt Co (Ireland) Ltd (IRL)
Regulated
OGM Oasis Crescent Global Investment Funds (UK) plc

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Global Short Term Income Fund I - Class A Dist	$ 0.99	-	0.00	2.00
Oasis Crescent Global Equity Fund	$ 34.97	-	0.00	0.25
Oasis Crescent Variable Balanced Fund	£ 9.47	-	0.00	0.00
OasisCresGl Income Class A	$ 11.09	-	0.00	-
OasisCresGl LowBal D ($) Dist	$ 12.60	-	0.00	0.81
OasisCresGl Med Eq Bal A ($) Dist	$ 13.73	-	0.00	0.32
Oasis Crescent Gbl Property Eqty	$ 7.93	-	0.00	-

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 621.90	-	60.56	0.00

Oryx International Growth Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
NAV (Fully Diluted)	£ 9.10	-	-0.52	0.00

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

Fund	Bid	Offer	D+/-	Yield
Orbis OEIC Global Cautious Standard	£ 10.38	-	-0.06	0.03
Orbis OEIC Global Balanced Standard	£ 15.46	-	-0.15	0.00
Orbis OEIC Global Equity Standard	£ 19.66	-	-0.19	0.00
Orbis OEIC UK Equity Standard	£ 8.04	-	0.03	0.00

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A	$ 132.45	-	-	-
Platinum Global Growth UCITS Fund	$ 13.19	-	-0.01	0.00
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 7.96	-	-0.06	0.00
Platinum Global Dividend UCITS Fund	$ 55.30	-	0.08	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Automation & Artificial Intelligence CL I USD Acc	$ 17.28	17.28	0.05	0.00
Asian Financials I USD	$ 445.26	445.26	-0.71	0.00
Biotechnology I USD	$ 39.15	39.15	1.41	0.00
Emerging Market Stars I USD Acc	$ 14.75	-	-0.13	0.00
European Ex UK Inc EUR Acc	€ 11.49	11.49	0.06	0.00
Financial Opps I USD	$ 13.29	-	0.00	2.05
GEM Income I USD	$ 12.87	-	0.03	0.00
Global Convertible I USD	$ 16.93	16.93	0.04	0.00
Global Insurance I GBP	£ 7.10	-	-0.09	0.00
Global Technology I USD	$ 85.02	-	0.18	0.00
Healthcare Blue Chip Fund I USD Acc	$ 15.61	15.61	-0.01	0.00
Healthcare Opps I USD	$ 63.29	-	0.19	0.00
Income Opportunities B2 I GBP Acc	£ 2.31	2.31	-0.01	0.00
Japan Value I JPY	¥ 111.39	111.39	-0.06	0.00
North American I USD	$ 30.30	30.30	-0.15	0.00
UK Val Opp I GBP Acc	£ 11.54	11.54	-0.06	0.00

Polar Capital LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
European Forager A EUR	€ 185.24	-	17.13	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 08/12/2020	£ 514.46	519.46	11.50	-

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

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 180.99	-	-0.81	-
Prusik Asia Emerging Opportunities Fund A Acc	$ 185.93	-	-1.33	-
Prusik Asia Fund U Dist.	£ 230.39	-	1.31	0.00

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ✠	285.77	-	-5.97	0.00
PCG C ✠	279.20	-	-5.84	0.00

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

Fund	Bid	Offer	D+/-	Yield
RAM Systematic Emerg Markets Eq	$ 208.21	208.21	0.00	-
RAM Systematic European Eq	€ 460.77	460.77	3.88	-
RAM Systematic Funds Global Sustainable Income Eq	$ 129.56	129.56	0.81	0.00
RAM Systematic Global Eq Sustainable Alpha	$ 100.72	100.72	-0.24	-
RAM Systematic Long/Short European Eq	€ 130.10	130.10	1.06	-
RAM Systematic US Sustainable Eq	$ 345.19	345.19	-1.10	-
RAM Tactical Global Bond Total Return	€ 156.25	156.25	0.08	-
RAM Tactical II Asia Bond Total Return	$ 156.45	156.45	0.03	-

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

Fund	Bid	Offer	D+/-	Yield
LF Ruffer European C Acc	787.54	-	7.63	0.05
LF Ruffer European C Inc	143.71	-	1.39	0.09
LF Ruffer European O Acc	768.06	-	7.40	0.00
LF Ruffer Equity & General C Acc	495.23	-	8.94	0.18
LF Ruffer Equity & General C Inc	452.91	-	8.17	0.18
LF Ruffer Equity & General O Acc	483.02	-	8.70	0.00
LF Ruffer Equity & General O Inc	447.19	-	8.04	0.00
LF Ruffer Gold C Acc	295.28	-	1.55	0.00
LF Ruffer Gold C Inc	178.71	-	0.94	0.00
LF Ruffer Gold O Acc	287.89	-	1.50	0.00
LF Ruffer Japanese C Inc	166.12	-	-2.30	0.08
LF Ruffer Japanese C Acc	356.98	-	-4.93	0.08
LF Ruffer Pacific & Emerging Markets C Acc	393.87	-	5.25	0.79
LF Ruffer Pacific & Emerging Markets C Inc	107.34	-	1.43	0.82
LF Ruffer Pacific & Emerging Markets O Acc	383.79	-	5.10	0.51
LF Ruffer Total Return C Acc	501.65	-	2.90	0.84
LF Ruffer Total Return C Inc	324.64	-	1.88	0.84
LF Ruffer Total Return O Acc	489.23	-	2.80	0.84
LF Ruffer Total Return O Inc	316.42	-	1.81	0.85

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

Fund	Bid	Offer	D+/-	Yield
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 142.73	-	-0.13	0.00
Rubrics Global Credit UCITS Fund	$ 17.75	-	0.00	0.00
Rubrics Global Fixed Income UCITS Fund	$ 182.47	-	-0.13	0.00

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

Fund	Bid	Offer	D+/-	Yield
Slater Growth	648.33	648.33	0.35	0.00
Slater Income A Inc	124.53	124.53	-1.08	5.22
Slater Recovery	302.78	302.78	1.36	0.00
Slater Artorius	266.77	266.77	0.84	0.00

STONEHAGE FLEMING
GLOBAL BEST IDEAS EQUITY FUND

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

Fund	Bid	Offer	D+/-	Yield
SF Global Best Ideas Eq B USD ACC	$ 238.10	-	0.38	-
SF Global Best Ideas Eq D GBP INC	£ 271.27	-	-1.73	-

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

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 3.70	-	0.03	4.35
Aptus Global Financials B Inc	£ 2.58	-	0.02	5.58

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 306.77	-	-23.55	-
Tosca Mid Cap GBP	£ 180.86	-	27.47	-
Tosca Opportunity B USD	$ 274.77	-	41.76	-
Pegasus Fund Ltd A-1 GBP	£ 43.14	-	6.53	0.00

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

Fund	Bid	Offer	D+/-	Yield
Trojan Ethical O Acc	118.07	-	0.05	0.10
Trojan Ethical O Inc	117.84	-	0.05	0.09

WA Fixed Income Fund Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
European Multi-Sector	€ 127.37	-	-0.16	3.16

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund - Class U2 GBP	£ 196.44	-	0.06	0.00

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Management Association, 65 Kingsway, London WC2B 6TD. 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.

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ARTS

A qualified thumbs-up for McCartney

POP ALBUM

McCartney III
Capitol Records
★★★☆☆

Ludovic Hunter-Tilney

Paul McCartney has a tendency to conjure up self-named albums at moments of pressure, like a release valve. The first *McCartney* came out in 1970 when The Beatles were in their death throes. His soon-to-be ex-bandmates were angry at its timing: they believed McCartney was using the break-up to promote his solo debut. They were also dismissive of the songs. "He's a good PR man, Paul," John Lennon jibed.

McCartney II came out a decade later in 1980, after he had been jolted by the anxious experience of 10 days in jail in Japan for cannabis possession. Disillusionment with his band Wings was another spur for making the album. Its quirky experiments with synthesisers and drum machines foretold Wings' end the following year. Its reception was unfavourable, although it has since acquired a cult following.

Now comes *McCartney III*. Like its predecessors, it is literally a solo record: McCartney plays all the instruments and does all the vocals. Unlike *McCartney* or *McCartney II*, it arrives without any obvious personal or professional drama in his life. This time the pressure lies outside. McCartney made it during the spring lockdown in his East Sussex farmhouse as coronavirus ripped through the world.

Of its two precursors, it more closely resembles the 1970 album. *McCartney* had a loose, relaxed feel — too relaxed, for many. It was a big hit, but there was dismay at the songs' sketchy nature. The casual tone seemed disrespectful next to the weightiness of The Beatles' splitting up. There have been attempts to salvage its reputation, like McCartney's optimistic attempt to position it as a proto-indie album, but it isn't one of his finest moments.

McCartney III shares the same sense of looseness, but with better, more purposeful results. Opening track "Long Tailed Winter Bird" comes out swinging with muscular acoustic-guitar strums, a needling psych-rock riff and funky bass and drums. "Slidin'" is a 1970s rock juggernaut with McCartney in the driver's cabin singing about feeling free. "Find My Way" is breezy-seeming power-pop with a cunningly threaded note of tension, expressed through clashing melodies and time-changes. "Now you're overwhelmed by your anxieties," McCartney cries as his brightly harmonic song undergoes a musical crisis of confidence.

The album's most ambitious moments recall *McCartney II*'s electronic experiments. That 1980 outing is a real curiosity, from awful teeth-on-edge surrealism ("Temporary Secretary") to beautiful balladry ("Waterfalls"). Neither extreme is reached on the two tracks on *McCartney III* that are formed in the earlier album's image. "Deep Deep Feeling" is a slow-burning electronic number with a mesmerising rhythmic pulse. "Deep Down" is less successful, a heavy-handed art-rock/disco hybrid.

Lyrically, McCartney sounds least comfortable when trying to be meaningful. "Hear me, women and wives/ Hear me, husbands and lovers/ What we do with our lives/ Seems to matter to others," he enunciates in a forced voice in "Women and Wives". The assembly of women, wives, husbands and lovers called together by the song disperses at its end, none the wiser.

In contrast, he sounds thoroughly at ease barking out the cheerfully juvenile rhymes of "Lavatory Lil", a *jeu d'esprit* of a type that might have been dashed out in his Quarrymen days.

Notions of old age (he is 78) are dismissed. "Seize the Day" confronts him with a situation in which "cold days come and the old ways fade away". But then he rallies amid the fluttering pennants of 1970s pomp-rock and a consoling thought: "I'm OK on a sunny day/ When the world deserves to be bright."

Energetic musicianship holds the years at bay, although McCartney's vocals betray their advance. His high tone has a fraying quality in "The Kiss of Venus", a sweet folk-rock number about the "most harmonic sound" of two lovers in a summer clinch. Like a warm breeze, an electric harpsichord materialises to bolster the song's acoustic harmony with a rich, irrepressible tone. It is a very McCartneyish touch, typical of the passing moments of inspiration that blow through *McCartney III*, a sequel that lives up to and often surpasses its inconsistent predecessors.

Released on December 18

Paul McCartney played all the instruments on his new album — Mary McCartney

DANCE

Breakin' Convention
Sadler's Wells, London
★★★★☆

Helen Barrett

Breakin' Convention hip-hop festivals are fun and boisterous, but practicalities came first at this show. Jonzi D, its artistic director, bounced in front of the safety curtain — "Are you happy to be back?" — before explaining he would be ad-libbing between performances while the stage was sprayed and mopped.

The world has changed since the full festival was cancelled in May (it is scheduled to return in 2021). Tonight was a mini-showcase of live and filmed performances, the first choreographic responses to the pandemic and the Black Lives Matter movement.

There were common themes: humans unsteady, suspended in dream states, flopping like marionettes. Limbs gave way, torsos juddered, dancers appeared to levitate. Sadler's Wells' audience was at 30 per cent capacity, which meant fewer bodies and winter coats to absorb sound. The dancers' shuffling feet and breath were audible — an intense experience.

A.I.M. Collective, the all-female body-popping crew, were both perky and manic, like some deranged girl band. This edge-of-madness physicality was a subtle and skilful display by five young multiracial dancers, both choreographed and freestyle.

Can't Kill Us All, a filmed solo narrative on mental deterioration and release, by London dancer and choreographer Botis Seva, filled a stage-cleaning gap. In the film, Seva plays a young father trapped in a tiny London flat with a small child. Father and son's vulnerability is sensitive and terrifying. Seva is a 2019 Olivier Award winner and an exceptional talent.

Choreographer Jamaal O'Driscoll and B-boy Marius Mates offered a mesmerising reflection on suppressed rage and intense physical despair, with a new duet, *One%*. Near-superhuman core strength saw them support their bodies with one hand over and over again, but they did not lose grace, and the biggest cheer of the night was theirs.

The crowd-pleasing crew Boy Blue rounded things off with a premiere of *Untethered 3.0*, choreographed by Kenrick "H2O" Sandy. It is a high-energy expression of loneliness and imprisonment, with shafts of stage lighting becoming phantom prison bars, at which the dancers aim hopeless punches.

There was more emotion as Jonzi D reminded us that tonight was about black achievement: "The way we were treated as nothing — but the amount that we had to offer the world."

Then we filed out, three metres apart, while he rapped: "Obey the usher, don't get caught in the crush-uh."

breakinconvention.com

The all-female body-popping crew A.I.M. Collective Belinda Lawley

How games are underpinned by architecture

GAMING
Tom Faber

What is the first step in designing a building? Start by thinking about how the space will be used. Do you need space for people to gather in the entryway? Should the balcony doors open inwards or outwards? Where is the perfect outdoor space to stage an alien arachnid ambush? There are, admittedly, a few differences between real-world architecture and game environment design. But each year, the two disciplines draw closer than ever.

Both architecture and game design are concerned with the built environment, with predicting how an end-user will navigate a space. While real-world buildings provide necessities such as privacy or shelter from weather, gaming architecture is generally an aesthetic proposition intended to immerse players or a series of functional forms to be traversed. It exists to ornament, to constrain, to conceal, to challenge our reflexes and wits.

Early game environments operated as metaphors, abbreviating digital space due to technical limitations. Approach a castle a few pixels wide in an old role-playing game, and it opens, Tardis-like, to reveal a sprawling interior. Game worlds were split into levels linked by a central hub, and the progression could be as simple as fire world, ice world, boss fight.

As game engines improved, environment design grew more sophisticated. Today players dive into sprawling, coherent worlds with thousands of buildings. In these enormous spaces, developers employ architectural techniques for "wayfinding", guiding gamers through the space. They play with scale, colour-code the environment, or tweak light sources to show the player where to go, mimicking the work of real architects, who use tunnels to encourage people to keep moving or open spaces to suggest we slow down and explore.

Of course, game designers are liberated from many architectural constraints. Gravity, physical labour and material costs are not a concern. The most evocative games capture players' hearts with architecture as pure blast of imagination. The submerged splendour of Zora's Domain in *The Legend of Zelda: Breath of the Wild* leaves a lasting impression with its cool hues and drowned light, while the manor district of Ald'ruhn in *The Elder Scrolls III: Morrowind* is memorably housed inside the shell of an ancient Emperor land-crab.

These environments have stories to tell: the parallel stairways of differing heights in *Dark Souls*' Anor Londo nod to a history where giants walked among humans, while learning to read the gravity-defying architecture left by the alien Nomai in *Outer Wilds* is the key to solving the game's mysteries.

> Gravity, physical labour and material costs are not a concern to game developers

Several game designers enter into dialogue with real-world architectural visionaries. Fumito Ueda constructed magnificent, melancholy castles in *Ico* and *Shadow of the Colossus*, inspired by the work of French illustrator Gérard Trignac. The art deco Atlantis of Rapture in *Bioshock* draws from Fritz Lang's *Metropolis*, while *Halo*'s alien architecture synthesises Brutalism, Futurism, and the impossible geometries of visionary architect Etienne-Louis Boullée.

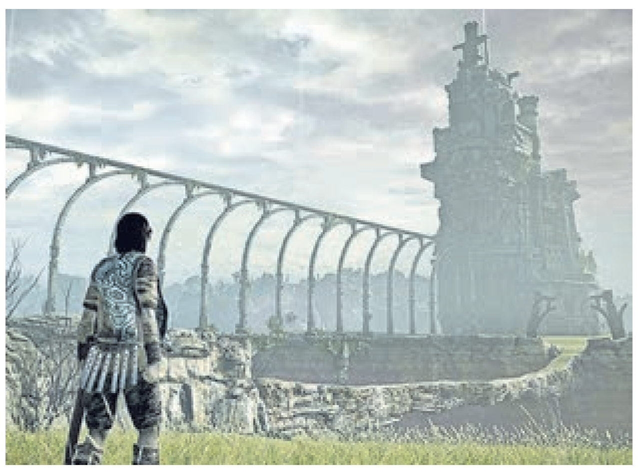
Puzzle games provide some of the most elegant examples of gaming architecture. Smartphone sensation *Monument Valley* asks players to navigate intricate, Escher-esque buildings adorned with delicate parapets and minarets, all bathed in Instagram-baiting pastel hues. Each level is its own building, as in the spare, delicate *Echochrome*, or *Manifold Garden*, an ingenious puzzle game inspired by the stark lines of architect Tadao Ando.

There are also games that empower players to become architects themselves. The sandbox-style construction of *The Sims* and *SimCity* has long attracted those who want their gameplay to scratch a creative itch. The work of developer Plethora Project engages with architectural ideas more explicitly, tasking players with rebuilding a community following an environmental crisis in *Common'hood*, or constructing a neighbourhood while balancing the costs of energy and resources in *Block'hood*.

Meanwhile, architects are beginning to embrace gaming innovations. Clients are shown around prospective buildings in virtual reality, while several architecture studios use game design software to simulate weather patterns, security risks, or human circulation around a space. The prestigious Bartlett School of Architecture in London includes video game urbanism in its postgraduate urban design course.

No marriage of gaming and architecture has scaled the heights of *Minecraft*, the block-building sandbox which has sold more copies than any other game in history. Today its influence reaches beyond the digital world: the UN's "Block by Block" initiative gives the game to people in developing countries and asks them to digitally design new public spaces for their neighbourhoods. Their creations have influenced the construction of real playgrounds in Johannesburg, public squares in Kosovo and safer streets for teenage girls in Hanoi. After years of game developers learning from architects, today they are finally giving back.

Fumito Ueda's melancholy castles in 'Shadow of the Colossus' were inspired by the work of French illustrator Gérard Trignac



FT BIG READ. US POLITICS

Donald Trump could face several investigations when he leaves office. Although many Democrats believe any misconduct must be addressed, Joe Biden has strong political incentives to do nothing.

By Kadhim Shubber

Prosecuting a president

When Joe Biden is sworn in as president on January 20, his in-tray will include a pandemic that continues to kill thousands of Americans each day and an economic crisis that has left millions out of work. Both those challenges rank among the most significant faced by any incoming US president. But Mr Biden will be forced to tackle a third issue that may define his presidency as much as the health and livelihoods of the American people: the fate of his predecessor.

Donald Trump will leave the White House with potential personal criminal liability unlike any commander-in-chief since Richard Nixon, who was saved by a controversial and sweeping pardon gifted by his successor Gerald Ford after he resigned in disgrace. Mr Trump, who will depart after attempting to subvert his loss in a free and fair election, is unlikely to receive any similar such clemency from Mr Biden.

Since first exploding on to the political scene in 2015, Mr Trump has tested and twisted the US political system to breaking point, serving as a one-man crash course on the constitution, legal and ethical norms, and the effectiveness or lack thereof of the guardrails on the president's power. Now his departure from office will force Washington to confront yet another question rarely asked in US history: should a former president be prosecuted?

While in office, Mr Trump has been protected by the Department of Justice. Under the leadership of William Barr, who Mr Trump installed as attorney-general in 2019, the DoJ helped the president stall a state criminal investigation into possible tax fraud by the Manhattan district attorney, Cyrus Vance.

When Robert Mueller completed his investigation into links between Russia and the 2016 Trump campaign, his report listed numerous instances of possible criminal obstruction of justice by Mr Trump but noted that a DoJ policy barred indicting a sitting president.

Those protections fall away at midday on January 20, leaving Mr Trump's fate in the hands of his opponents and, should they proceed, the courts. No former president in US history has ever endured prosecution. The question is whether Mr Trump will be the first.

"We are a nation of laws, and presidents cannot be excluded from that," says John Dean, the White House counsel who turned witness against Nixon and served time in prison for his role in the Watergate abuses. Pursuing Mr Trump would be difficult but the ideals of US democracy demand it, he argues.

"Will it be politically uncomfortable? You bet it will be. Will it be a media circus? You bet that, too. Maybe we've got to go through that to get to the other side where it's clear that this isn't going to happen again," he says.

Obstruction claims

Both Mr Trump's conduct before and while in office offer potential targets for possible federal investigation under the Biden administration. Michael Cohen, Mr Trump's former lawyer, has testified that Mr Trump had in the past inflated or deflated the stated value of his real estate depending on whether he was seeking a bank loan or filing his taxes, raising questions of possible fraud that Mr Vance's office is already probing.

Mr Trump's conduct during the 2016 campaign has also been the focus of a federal investigation. Prosecutors in New York obtained the conviction of Cohen on campaign finance charges for paying hush money to a porn star who claimed an affair with Mr Trump.

But the case that is the most publicly fleshed out already is the obstruction of justice portion of Mr Mueller's probe. Over some 182 pages of his report, Mr Mueller laid out in detail the conduct, witnesses and legal arguments that would underpin a possible prosecution of Mr Trump after he leaves office. It referenced instances where the president allegedly asked subordinates and associates to shut down Mr Mueller's probe, and where he used the potential for pardons as a way to influence witnesses to remain on his side.

Sally Yates, a leading contender to be Mr Biden's attorney-general, said last year the case was a strong one. "I've personally prosecuted obstruction cases on far, far less evidence than this," she said on NBC. "And yes, I believe, if he were not the president of the US, he would likely be indicted on obstruction."

Andrew Weissmann, who was a senior prosecutor on Mr Mueller's special counsel investigation, says not pursuing that case would fatally undermine any future efforts to investigate possible wrongdoing by a sitting president.

"What does it mean if you don't in any way have a deterrent to the presidency undermining a special counsel investigation into misconduct by the presidency?" he asks. "At that point, what you are saying in the future is the presidency is in effect de facto above the law. Because what's the point of having the investigation?"

Mr Biden has thus far distanced himself from these questions, stating repeatedly that he will maintain the independence of the DoJ from the incumbent president. While Mr Trump has wrecked the norms that kept the department at a political distance from the White House — including by calling for his own predecessor to be prosecuted — Mr Biden has pledged to restore the walls that previously existed, beginning with a steadfast refusal to say one way or the other whether he believes Mr Trump should be investigated.

"In terms of saying, 'I think the president violated the law, I think the president did this, therefore, go on and prosecute him', I will not do that," Mr Biden said in August.

Mr Biden has suggested that he is not keen for a possible investigation and prosecution of Mr Trump to be the centrepiece of his administration. He campaigned on the pandemic and economic crisis. And when asked by NBC in November if he supported investigations of Mr Trump, Mr Biden again said the DoJ was not his to direct, but added: "What I'm focused on is getting the American public back at a place where they have some certainty, some surety, some knowledge that they can make it."

The comments have echoes of the approach taken when Barack Obama took office in 2009, with Mr Biden as his vice-president in the midst of another great crisis. Among the issues that spurred calls for accountability was the CIA's use of torture during the George W Bush administration. Mr Obama said his "general orientation is to say 'let's get it right moving forward'".

The Obama administration rejected calls for a truth and reconciliation-style commission, while the DoJ said the attorneys who authorised torture had not committed misconduct, and commenced a narrow independent probe led by John Durham — now special counsel appointed by Mr Barr to investigate the origins of the Russia inquiry — that resulted in no prosecutions.

But Mr Biden may not follow suit. Mr Trump's time in office is seen by his opponents as nothing short of an existential threat to American democracy, and his departure after only a single term something of a near-miss akin to the close passing of an asteroid. "We escaped a brush with death," says Mary Anne Marsh, a Democratic strategist.

Top Democratic figures in the legal establishment have signalled that attempting to move on without reckoning with the conduct of the Trump administration is untenable. Eric Holder, the attorney-general Mr Obama appointed as he pledged to look forward rather than back at Bush-era misdeeds, told the Huffington Post in a recent interview that though exploring every potential misdeed that happened under Mr Trump was not possible, so too was inaction. "I don't think you can simply let it go," he said. "People need to be held accountable."

A politicised pursuit

The arguments against pursuing Mr Trump are formidable. Though other countries have prosecuted both current and former leaders — Israel, Brazil and France are recent examples — the US has not embarked on such a path before, never mind with a figure so unrestrained by any norms of political conduct. When Ford announced in 1974 that he had given a full pardon to Nixon, he warned that "ugly passions would again be aroused" if Nixon were pursued, and argued it was in the best interests of all Americans that the tumult of his presidency be left in the past.

Throughout his presidency, Mr Trump has not just asserted his innocence of the varied allegations against him, but has denounced scrutiny as either "fake news" or part of a "witch hunt" designed to bring him down. Since losing to Mr Biden by a significant margin, his rhetoric has only grown more extreme as Mr Trump has painted himself and his supporters as victims of a conspiracy to steal the election.

Any post-presidency investigation would be added to the palette of grievances with which Mr Trump could paint a potential comeback in 2024.

"As a political matter, this would just strengthen Trump's hand because it would reinforce his claim that the deep state is out to get him," says Eric Posner, a Chicago Law School professor. "When a prosecution like this is brought, it's not just the defendant who's on trial, the government is on trial as well."

Republicans have made clear that if they control the Senate, they would seek protection for Mr Trump before approving any attorney-general nominee put forward by Mr Biden. Lindsey Graham, the outgoing Republican chairman of the Senate judiciary committee, told Fox News in November there was "no way in hell anybody's gonna get confirmed that would agree" that Mr Trump should be prosecuted.

With no easy decisions, the Biden administration, and more specifically the attorney-general appointed by it, may look for ways to avoid the question of whether to pursue Mr Trump. One uncertain route could be the blunt use of pardons by the president as he exits office. The president's allies have urged him to issue pardons for close associates and even himself, whether through a dubious self-pardon or some last-minute resignation arrangement with Mike Pence, the vice-president.

A 1974 DoJ legal opinion even raised the idea that a president could temporarily give their powers to their vice-president for the purposes of a pardon.

"The president out the door needs to pardon his whole family and himself because they want this witch hunt to go on in perpetuity," said Sean Hannity, the Fox News host and confidant of Mr Trump, last month on his radio show. Though that same 1974 DoJ memo rejected the notion of a self-pardon, the question has never been tested in the courts and that uncertainty could be politically useful for Mr Biden.

"From a political perspective, Trump does Biden a favour by pardoning himself and his family," says Lara Brown, director of the Graduate School of Political Management at George Washington University. She says such a move could provide a "helpful political out".

The Manhattan DA's ongoing probe is a more concrete outlet. Though it is only examining a portion of Mr Trump's conduct — his business affairs — that area is the least complicated by constitutional questions about the president's authority, and DoJ policies have long recognised that federal prosecutors may defer to state investigators.

"I suspect that there will be a strong pull if Manhattan were to go forward to at the very least defer the decision on this issue," says Mr Weissmann, the former Mueller prosecutor.

Avoiding repeat problems

Beyond any personal liability for the president, the Biden administration faces pressure for a broader reckoning of the Trump era. Democratic state attorneys-general in New York and Washington DC are investigating Mr Trump's business affairs. Inspectors-general across the federal government will continue their ongoing probes. Regardless of the outcome of the Senate run-off elections in Georgia, Democrats will continue to control the House of Representatives and will no longer be dealing with an executive branch hostile to their document requests.

"By not confronting wrongdoing, we deprive Americans of an accurate, shared understanding of what happened, fail to establish norms of behaviour, and leave the door open to recurrence," says Ian Bassin, a former Obama administration lawyer who now runs non-partisan group Protect Democracy.

He argues that such a process should be "independent, transparent and designed not for retribution" but rather to avoid a repeat in future.

He adds: "It has to be about looking at all of the individual failures and systemic failures that gave rise to serious wrongdoing."

David Kris, who led the DoJ's national security division from 2009 to 2011 and is a founder of Culper Partners, a consultancy, compares the challenge to the idea of the slowly boiling frog, arguing there was a risk of becoming acclimatised to what has been "very, very hot water" without a considered effort to reckon with Mr Trump's presidency.

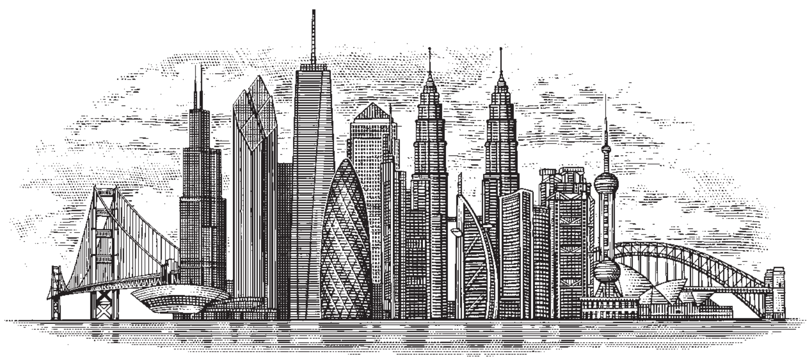
"What if we just leave that water at high but below boiling and we have another president in the future turning up the heat again?" he asks.

Below: Joe Biden has suggested he is not keen for a prosecution of Donald Trump, above, to dominate his presidency. William Barr, bottom, who resigned as attorney-general on Monday, helped protect Trump. Sally Yates, right, a contender to replace Barr, has said evidence of obstruction of justice during Robert Mueller's investigation was strong

Jim Watson/AFP/Getty

> 'Will it be a media circus? You bet. Maybe we've got to go through that to get to the other side where it's clear that this isn't going to happen again'
>
> **John Dean, Nixon's White House counsel**

> 'From a political perspective, Trump does Biden a favour by pardoning himself and his family'
>
> **Lara Brown, George Washington University**



FINANCIAL TIMES
'Without fear and without favour'

WEDNESDAY 16 DECEMBER 2020

EU needs new teeth as watchdog of Big Tech

Brussels is right to update its toolbox but is at risk of overreaching

As the only regulator of global significance willing to take on the power of big technology companies, the EU has relished its image as an aggressive watchdog snapping at the heals of trespassers. In fact, the EU has become a lumbering beast unable to keep up in a fast-moving world. So the European Commission is right to seek sweeping new powers on the tech giants that are playing an ever bigger role in business and citizens' lives.

With its Digital Services Act, Brussels wants to force the largest platforms to take greater responsibility for the way they moderate content, remove illegal posts, provide transparency on advertisers and vet third-party suppliers. The companies will have to share data with the authorities over their processes and compliance. Repeated failures could be punished by fines of up to 6 per cent of global sales.

The likes of Facebook and Google already have protocols for removing illegal content and employ thousands of people to scrutinise posts, so the new rules may not make a radical difference. The regulation has the advantage of setting pan-European standards and clearer definitions of liability, but companies will still have to contend with myriad national rules on what constitutes illegal content. The UK coincidentally on Tuesday also set out powers to fine tech companies up to 10 per cent of their global turnover if they failed to speedily remove illegal or harder-to-define harmful content.

The EU's second strand, the Digital Markets Act, is more far-reaching since it attacks some of the very business models employed by the tech platforms. It would introduce strict ex-ante regulation of those tech companies that are classed as gatekeepers. They will have to comply with onerous prohibitions and obligations and face the prospect of fines worth up to 10 per cent of global turnover, and ultimately break-up, if they fail to do so.

The commission makes a powerful case for tough regulation of large platforms that can leverage their dominance in one market to win in adjacent ones. Traditional enforcement tools require lengthy and complex investigations. But network effects and mass data accumulation mean market control can tip faster than regulators can react. The commission first began investigating how Google ranked searches in its shopping service in 2010. Ten years later, the company is still appealing against its fine for abuse of dominance. Under the DMA, so-called self-preferencing would be banned altogether.

There would also be a ban on platforms using data from their rivals to compete against them. Data will have to be marshalled into silos and made available to rivals under interoperability rules, as for banks or energy companies. On top of all the obligations, the commission will acquire a market investigation function to future-proof the rules and identify new gatekeepers. Those companies will be forced to disclose planned moves into new markets.

These proposals would give regulators vast power over the tech sector with a real risk of over-reach. They may well be watered down by member states in the two-year legislative process. Companies will no doubt then contest each step in the courts.

But competition authorities need to update their tool kits for an age when use — and misuse — of data is displacing price as a measure of consumer welfare.

The UK, Australia and Japan are taking similar paths. There is a risk of a backlash in the US but the approach of regulators is changing fast too, giving the commission a chance to build a transatlantic consensus.

To save the high street, first fix business rates

The UK's property-based tax is not fit for a post-pandemic world

Even before Covid-19, a stroll down the high streets of Britain's less prosperous towns, pockmarked with boarded-up shops, could be a dispiriting experience. The pandemic is making a bad situation much worse. The recent failures of Arcadia and Debenhams alone have put at risk 25,000 jobs and 600-plus stores, many of them "anchors" of town centres or malls. The causes of the retail meltdown, including the online shopping boom, are complex; remedies will need to be no less so. But one urgent reform priority is the property-based tax known as business rates.

Not all store chains are in crisis. Food retailers' revenues have surged as they have picked up sales from consumers shielding at home, and from hospitality businesses and "non-essential" retail rivals hit by virus restrictions — though grocers have faced heavy costs from scaling up operations to meet demand. After a backlash over £900m dividend payments this year, Tesco bowed to pressure to pay back what it saved from the government's one-year business rates "holiday"; rivals such as Wm Morrison, J Sainsbury and Asda followed suit.

The estimated £1.8bn the supermarkets are returning could help to fund a one-year extension of the broader rates holiday from next April — which the government should announce now to give struggling retailers and hospitality businesses a vital breathing space.

A thorough revamp should then aim to make business rates fit for purpose. Their principle remains sound; easy to collect and hard to evade, property taxes to fund local amenities date back centuries. The system introduced in 1990 — a tax linked to assessed rental values — ran smoothly for a while. But the tax rate has soared from 34 per cent of "rateable" values to more than 50 per cent, partly to maintain revenues after successive governments introduced reliefs for smaller businesses that left 600,000 paying no rates at all.

Rateable values, meanwhile, became disconnected from the rents they are meant to reflect. They were not revalued between 2010 and 2017, when retail rents slumped in deprived areas but soared in the richest, and retail sales were shifting rapidly online. Transitional arrangements phase in rate increases after revaluations to avoid sudden big jumps, but also slow reductions — which retailers say leaves depressed high streets in the Midlands and northern England in effect "subsidising" affluent parts of the south. The next revaluation is in 2023, so after the rates holiday retailers will be paying rates that reflect pre-pandemic values with little relation to today's reality.

To make the system workable, the provision that business rates are supposed to raise a similar inflation-adjusted total each year — currently about £26bn — should be dropped. Reliefs should be reviewed and many phased out, and the rate rebased to closer to its original level. Revaluations should be annual, rapidly reflecting changes in conditions. Such reforms could also help to ease the transition for office property, which faces potentially seismic changes if more people choose to work from home post-Covid.

What they will not do is level the playing field with online-only retailers, which pay much lower rates than groups with lots of high-street stores. A digital sales tax would capture some of the shift in sales, but would need careful structuring to avoid simply adding to the cost burden of store-based retailers that have expanded online. Such an idea may merit future discussion. The priority today is to ease the business rate pressure on retailers and slow the retail shake-out. Towns and cities need time and space to manage the transition to the high street of the future.

Letters

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It's time to change the rules for private equity

Amplifying Martin Wolf's rejection of the Milton Friedman maxim that "the social responsibility of business is to increase its profits" (Opinion, December 9), Professor Adrian Wood argues that the problem is not profit maximisation as such, but maximisation of short-term rather than long-term profits (Letters, December 12).

Prof Wood cites Debenhams' collapse as an instance of "how pursuing near-term gains for current owners by borrowing not to invest but to pay dividends creates long-term risks for workers, customers and government . . . that current owners are able to ignore." But today's owners may be forced to give priority to short-term profits by a heavy debt load imposed by earlier private equity owners.

PE companies buy out businesses, load them with debt, and sell them. The new owners may be obliged to slash costs in order to service the debt, putting the company and employees at risk — extracting value more than creating value. Beloved Debenhams was bought by three US PE firms in 2003, saddled with $1.2bn in debt, sold in 2006 and struggled thereafter to survive with that debt load. Now PE firms are holding between $2tn and $2.5tn in "dry powder", waiting until the pandemic's end to buy distressed companies cheaply.

The rules must be changed to make PE firms and their general partners hold more risk (at present they gain on the upside and face little risk of loss), monitor and publicise their normally opaque operations while making it harder to transfer company ownership, especially in Anglosphere countries.

Robert H Wade
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Friedman set a standard for judging management

In response to criticisms of Martin Wolf's article on Milton Friedman's view of the purpose of a corporation ("Friedman was wrong on the corporation," Opinion, December 9), Professors Paul Collier and John Kay say "the responsibility of those who direct companies is to build great businesses" (Letters, December 14). Messrs Collier and Kay talk of "a web of relationships" that "differentiate successful companies from failing ones" and then name Airbus and Boeing, Toyota and General Motors.

The problem with such a standard is applying it. It almost becomes a matter of what US Supreme Court Justice Potter Stewart said of judging what is and what is not hard-core pornography: "I know it when I see it."

Such a standard does not provide either a basis upon which management can be judged or a guide for those running businesses as to what they are to do. Friedman's standard of making "as much money as possible while conforming to [the] basic rules of the society, both those embodied in law and those embodied in ethical custom" does.

Patrick J Allen
River Forest, IL, US

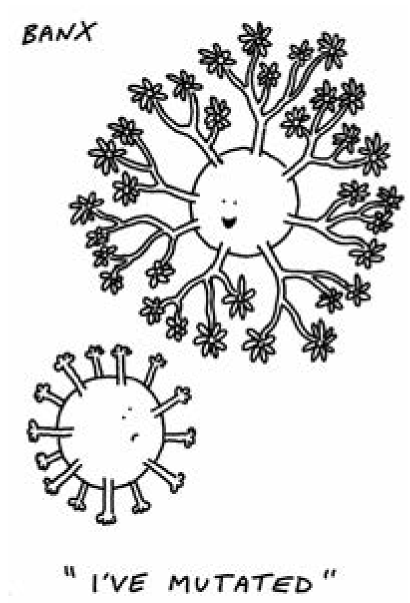
Offsets do little to advance goal of decarbonisation

We applaud Adair Turner ("The costs of tackling climate change keep on falling", Opinion, December 12) for updating the estimated costs of reducing greenhouse gas emissions in Britain (and elsewhere).

This is an important message as corporate executives increasingly focus their attention on the risks associated with climate change, and make pledges to decarbonise the world's economies. Decarbonisation needs to occur globally and not just in Britain, and it has to be carried out in accordance with principles of social equity.

We quibble with Lord Turner on one point, and that is the role that buying carbon offsets can play. The reality is that carbon offsets are mispriced. Their cost, especially with respect to voluntary carbon market credits, does not reflect the marginal cost of abatement of greenhouse gas emissions in the most carbon-intense sectors.

As voluntary carbon markets are awash in unsold carbon credits that trade very cheaply, and whose claims to quality are in some cases questionable, their purchase does little or nothing to advance the important goal of decarbonisation.



Serious climate action should instead focus on investments that will advance the decarbonisation efforts that Lord Turner describes, including research and development of the means to reduce or eliminate carbon emissions from hard-to-abate industries.

Jean Hetzel
Chair, Johanson International
Paris, France

John Shideler
President of Futurepast and Adjunct Professor, Rochester Institute of Technology, Arlington, VA, US

Balancing competition with collaboration

Andrew Hill ("Priority overload: how to avoid it and how to relieve it", Work & Careers, December 14) draws on the TV series *Industry* to highlight the tension between teamwork and individual ambition. But by failing to explain how high performance is conceptualised, the article inadvertently equates "performance" with "output".

Cultures characterised by an obsessive focus on output do indeed create dysfunction, as an erosion of trust and ethics crowds out collaboration. They also cultivate unhealthy competition, where for me to win you must lose.

In contrast, high-performing cultures are characterised by high trust, healthy competition where we are motivated to raise each others' game, and team members working collaboratively towards a common goal. Collaboration is the very essence of high-performing teams. The key, in part, is aligning individual, team and organisational purpose and rewards.

Paul Berry
London SW15, UK

How to make US electoral college a fairer system

Christopher Caldwell's defence of the electoral college (Opinion, December 14) highlights the small state advantage. If the electoral college continued but votes were instead counted on the one person, one vote basis, it is difficult to understand how that would destabilise democracy. The federal system would remain intact, along with separation of powers among the three branches of government and a bicameral legislature, with the Senate represented by two senators from each state.

The original reason for the electoral college structure stems from the premise that states represent distinct economic and social interests based on geography and that is how voters see their interests. Recent elections demonstrate a city vs rural split in voting patterns, but cities and towns are creatures of the individual states, so it is at the level of state government where these divisions are managed or mismanaged. Rural states maintain equality with urban states in the Senate. There is no reason why one person's vote for the president should count less than someone else's.

The history of the US is one of the increasing power of the president and the executive branch of government. Is it not more divisive to increase the opportunity that the president is selected by a minority of the votes? The constitution was meant to be amended, as it has been 27 times.

The perversity argument advanced by Mr Caldwell that we made it through another four years and the electoral college has not yet led to a constitutional crisis, so let's not fix it, because our representatives might do something stupid was also used against the "rotten boroughs" before Britain's Reform Act of 1832.

Tobey Winters
Simsbury, CT, US

Taking pride of place in a new generation of women

Your article on the "Women of 2020" (Spectrum, December 5) was exemplary. I wish I could afford to send a page-turnable copy to every woman I know.

And while I applaud Sarah Gilbert's stance — "Why are we even discussing women scientists? I'm not a woman scientist, I'm a scientist" — I felt hugely proud to be just that: one woman, circa 2020, a small part of the generation, and regeneration, described.

Anne Greer
Worcester, Worcestershire, UK

Remember small business in the bank payout debate

As banks prepare to restart the payment of dividends and bonuses they would do well to consider their responsibility and self-interest in supporting the wider economy (Report, December 12).

Small and medium-sized enterprises (SMEs) are the bedrock of both employment and economic growth in the UK. According to recent surveys by City UK and McKinsey over 500,000 SMEs may not survive the next 12 months. Many small business owners have turned to high cost credit cards and overdrafts to tide them over. Both survival and growth depend on access to affordable finance.

Over the past few months UK banks have closed their doors to new SME businesses, choking off this vital lifeline. As banks prepare to pay dividends and bonuses, they should step up their efforts to support our SME sector. This government should lead the way by using its own shareholdings for wider public benefit.

Peter Udale
Director, Responsible Finance
Winchcombe, Gloucestershire, UK

Why markets tell real story of Exxon's activists

The piece "Church fund joins effort to force change on Exxon", (Report, December 11) conflates opposing "activist" tendencies. The Church of England argues that ExxonMobil needs to go green or at least go greener, with a "pragmatic strategy for the transition to cleaner fuels". But what of the US hedge fund DE Shaw? Is its "sizeable stake" in ExxonMobil a bet on increased profits from a greener supermajor? I doubt it.

A good indication of the direction of betting in the markets comes from Anjli Raval's report "Brent crude breaches $50 for first time since March" (December 11), where the majors' share prices all rose by around 4 per cent on the news.

Neil McNaughton
Editor, Oil IT Journal, The Data Room
Sèvres, France

Grenfell tragedy shows need to enforce regulation

Camilla Cavendish ("On Brexit, the Tories have fallen prey to magical thinking", Opinion, FT Weekend, December 12) suggests the creation of an Office of Regulatory Assessment.

In the light of evidence emerging from the Grenfell Tower inquiry and elsewhere, I suggest that an Office of Regulatory Enforcement would be more appropriate.

Kathleen Mary Smith
Emeritus Professor of Drama
University of Chester, Cheshire, UK

Darwinists can wonder at miracle of existence too

In his letter "Darwin, Genesis and Ash'arite Islam" (December 14), David J Critchley perhaps overlooks another possibility — that those who accept natural selection as settled fact also recognise human existence as a kind of miracle. In that view, it may be a sufficient purpose in life to promote human flourishing, irrespective of Genesis or Ash'arite Islam, or any other -ism.

Hume Vance
Somerville, MA, US

A celebration of interfaith love at a hostile time

New Delhi Notebook

by Amy Kazmin

Sameera Khan, a meat-eating Muslim journalist, and Manish Patel, a Hindu vegetarian corporate type, met on a trek in the Himalayas in 1997. A year after their high-altitude encounter, the two Mumbai residents married. They now have two teenagers.

Yet Ms Khan is appalled at the obstacles facing other interfaith couples in India, where the ruling Bharatiya Janata party sees such unions, particularly between Muslim men and Hindu women, as a demographic offensive against the Hindu majority.

"We watch in horror as young people are criminalised for falling in love, as we did," Ms Khan wrote on Instagram recently. She and her husband are among many couples now sharing their unorthodox love stories through the India Love Project on Instagram and Facebook, celebrating love "outside the shackles of faith, caste, ethnicity and gender".

Curated by three journalists — husband and wife Samar Halarnkar and Priya Ramani and their friend Niloufer Venkatraman — the project is intended as an antidote to the public frenzy over "love jihad", a rightwing concept that sees a broad conspiracy by Muslim men to seduce Hindu women to convert them to Islam.

The India Love Project was launched in October after Tanishq, the Tata Group's jewellery arm, was accused of glorifying love jihad, with an advert depicting a Muslim woman and her pregnant Hindu daughter-in-law. The project began with Ms Venkatraman's story of her Parsi mother and Tamil Brahmin father, who met in 1954 while volunteering for a charity, and eventually eloped in 1958 after failing to persuade her large family to agree to their marriage.

Since its launch, the project has been inundated with submissions from couples across India, as well as from the children and grandchildren of interfaith couples. "It took on a life of its own immediately," Mr Halarnkar said. "All of them write to us saying 'It's time to tell our story to the world so others can be inspired.' The common theme we are finding is, 'We are here; we are happy and we are part of what it means to be Indian'."

In recent weeks, police have filed criminal cases against several Muslim men in romantic relationships with Hindu women, and stopped the wedding of a Muslim man and Hindu woman, although both families agreed to the nuptials. Several BJP-ruled states have pledged to introduce laws against love jihad.

Yet the stories and photos collected by the project show how love in India has always transcended conventional religious and communal identities. "I couldn't let him go just because he prayed to a different God and spoke a different language," Catholic Maria Manjil from Kerala wrote of her conservative Jain husband, Sandeep Jain. The couple met at work and married in 1998 after overcoming his parents' resistance.

Many accounts describe protracted struggles with families — and long delays. Novelist Kiran Manral wrote how her Catholic mother and Muslim father, who lived on the same Mumbai street, took 14 years to muster the courage to marry secretly in 1969, before returning to her father's family home "a *fait accompli* for both families to deal with". Her father died 12 years later. "They were together, as man and wife, for fewer years than they had waited to get married to each other," she wrote.

Mr Halarnkar says acceptance of interfaith love has deteriorated in recent years as the BJP stokes religious tensions and steps up policing of intimate relations. "Interfaith and inter-caste marriage has always been difficult in India," he said. "But it seems that in the previous decades, once they got through the initial opposition, there was far greater acceptance of the marriage than now."

In her love project post, Gayathiri Ramadoss, a Hindu who married her Muslim college sweetheart in 2015, expressed sorrow at the growing "hatred, intolerance and judgment against interfaith love" but vowed to raise her daughter "to love beyond religion, caste race and everything".

Alisha Purandare, daughter of a high-caste Hindu mother and Muslim father, expressed anxiety about India's direction, despite the happiness of her own interfaith marriage.

"We have disagreed about everything under the sun," she wrote, "except religion".

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Opinion

Biden should beware liberal identity politics

AMERICA
Edward Luce

There is a fine line between championing diversity and embracing identity politics. In practice, it should be a bright red one. But, as Joe Biden, the US president-elect, is discovering, it is hard to please all your constituents all of the time.

In the past three weeks, Mr Biden has made good on his promise to unveil "the most diverse cabinet in history" — with several big appointments to come. Yet the pressure on him to be even more inclusive has only grown louder.

The danger is that Mr Biden will be lured into an unwinnable game of tokenism. He is almost destined to fall out at some point with the progressive wing of the Democratic party. With the Senate likely to be controlled by the Republicans, Mr Biden's only chance of passing significant bills will be to strike deals with the few moderate Republicans and hope that more leftwing senators, such as Bernie Sanders and Elizabeth Warren, will see no option but to vote Yes.

Whatever emerges from such bipartisan sausage-making will look like thin gruel to the left. Mr Biden's other avenue to making his mark will be to do as much as he can by executive order. Here, too, the results are unlikely to satisfy his base. The US Supreme Court has moved right since Barack Obama's presidency and today's 6-3 conservative majority court is likely to look askance at executive moves to regulate carbon emissions and bolster labour unions.

Faced with a system that appears to block change at every juncture, progressives' frustration will only grow. The pressure on Mr Biden to drift into identity issues to placate the left will be hard to resist. That could include extending affirmative action, backing campus speech restrictions and reinstating Obama-era rules on gender identity in schools. But it will come with price tags. The most obvious is that it is not good politics. Mr Biden got 7m more votes than Donald Trump in last month's election. But most of those who switched to Mr Biden for president appear to have reverted to Republicans for the down-ballot races. Democrats lost 10 seats in the House of Representatives and failed to regain a single state legislature. They would be lucky to win both run-off Georgia elections next month to recapture the Senate.

> The challenge for the Democratic party is whether it can win back white working class voters

In other words, Mr Biden won on November 3, but Democrats lost, and the party is bitterly debating whether to blame the left or the centre. It is instructive that in California, where no ethnic group has a majority, voters went heavily for Mr Biden but emphatically rejected a measure to allow the state's public bodies to engage in affirmative action. Yet in Florida, which Mr Trump won, voters strongly endorsed a measure to raise the minimum wage to $15. Together these results should tell the Democrats to focus on the economic woes that Americans have in common, rather than moral grandstanding.

There should be no trade-off between promoting diversity and confronting economic fairness. Democrats should also pay heed to the remarkably high share of minority votes that Mr Trump received. He took almost a third of the Hispanic and Asian American vote — and just under a fifth of African Americans males. After four years of unapologetic racism, Mr Trump's share of the non-white vote went up. Something is not working for the Democrats. Clearly many non-white voters want more from the party than simply being anti-racist. As one African American Democrat told me: "People living on the South Side of Chicago are nearly as cynical about Democrats as the white working class."

That brings up identity liberalism's second big cost. About 74m Americans voted for Mr Trump in the highest turnout US election since 1900. To be sure, Mr Biden won with 81m but he failed to make large inroads into the white non-college educated vote. This is in spite of the fact that his blue collar credentials were far stronger than Hillary Clinton's. Mr Trump made overt racial appeals to that demographic and tried to make suburban voters believe that Mr Biden would socially engineer multi-racial neighbourhoods. The second effort clearly failed as suburban voters shifted to Mr Biden quite sharply.

But what about America's blue-collar voters? Perhaps Democrats find it easier to write them off as racist than to do anything about their poverty. But Mr Biden should not need to make the choice. The challenge for the Democratic party is whether it can win back white working class voters faster than Republicans win over non-white voters. At the moment that is an open question. The fate of Mr Biden's presidency — and his party — may rest on the answer.

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There is no stock market bubble

Martin Wolf Economics

The bigger question is whether rock-bottom interest rates will revert to 'normal' and, if so, when

Are stock markets, especially the US market, in a bubble that is sure to pop? The answer depends on prospects for corporate earnings and interest rates. Provided the former are strong and the latter ultra-low, stock prices looks reasonable.

The best-known measure of market value — the "cyclically adjusted price/earnings ratio" of Yale's Nobel laureate, Robert Shiller — is indeed flashing red. One can invert this metric, to show the yield: on the S&P Composite index, this is just 3 per cent today. The only years since 1880 it has been even lower were 1929 and 1999-2000. We all know what happened then.

Another price is also exceptionally low by past levels: interest rates. The short-term nominal interest rate is near zero in the US and other high-income economies. US short-term real interest rates are about minus 1 per cent. Real yields on US 10-year Treasury-inflation-protected securities are minus 1 per cent. In the UK, yields on similar securities are about minus 3 per cent. (See charts.)

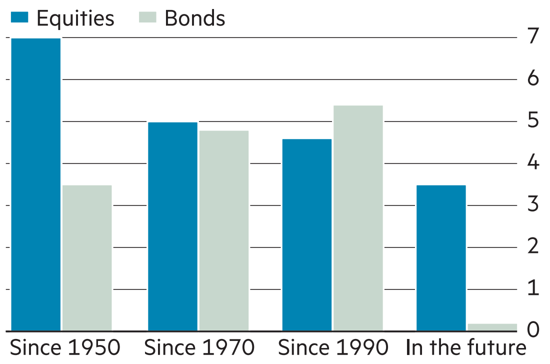
Desired returns on equities ought to be related to the returns on such supposedly safe assets. This relationship is known as "the equity risk premium", which is the excess return sought on equities over the expected returns on government debt. This premium cannot be measured directly, since it only exists in investors' minds. But it can be inferred from past experience, as explained in a 2015 paper by Fernando Duarte and Carlo Rosa for the New York Federal Reserve. More recently, in the *Credit Suisse Global Investment Returns Yearbook 2020*, Elroy Dimson, Paul Marsh and Mike Staunton of the London Business School estimated the excess return on world stocks over bonds at 3.2 percentage points between 1900 and 2020. For the UK, the excess is estimated at 3.6 percentage points; for the US, at 4.4 percentage points.

Are these excess returns in line with what people initially expected? We do not know. But they are a starting point. The premium demanded now might be lower than that sought for much of the past 120 years. Corporate accounting has improved greatly. So, too, has macroeconomic stability — at least by the wretched standards of the first half of the 20th century. Moreover, the ability to hold diversified portfolios is far greater now. Such changes suggest the risk premium, often believed to be excessive, should have fallen.

The Credit Suisse study estimates aggregate real returns on stocks and bonds in 23 markets weighted by market capitalisation at the start of each year. It shows, interestingly, that the excess return of equities since 1970 have been very low and since 1990 negative. But this is because of very high real interest rates collapsed. Looking ahead, it estimates the prospective excess return of equities at 3.3 percentage points. This is the same as the long-run historical average. Estimates of Shiller's metric do not exist for such lengthy periods for non-US stock markets. But estimates can be made since the early 2000s. The cyclically adjusted earnings yield is currently 7.6 per cent on the FTSE 100, 5.4 per cent on the DAX 30 and 4 per cent on the Nikkei 225. At current real interest rates on long-term bonds, the implied equity return premium is thus over 10 percentage points in the UK, over 7 percentage points in Germany and 4 percentage points in Japan and the US. The UK market looks extremely cheap today, perhaps because of the Brexit lunacy. Japan and the US look well valued, but not, by historical standards, overvalued.

Low prospective returns on bonds support equities

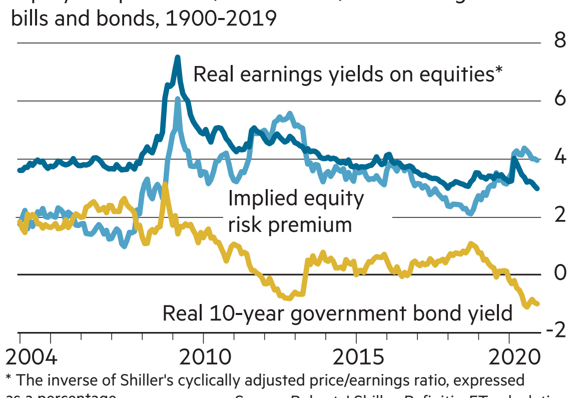
Global annualised real returns on equities and bonds (%)



Source: Dimson, Marsh & Staunton,'Triumph of the Optimists' (Princeton, 2002) and 'Global Investment Returns Yearbook' (Credit Suisse, 2020)

Falling real bond yield supports US stock prices

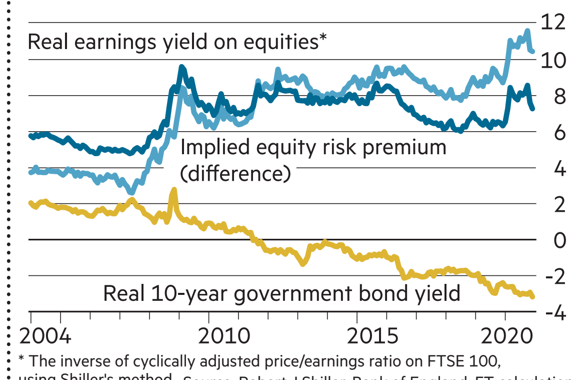
Equity risk premium (annualised %) relative to government bills and bonds, 1900-2019



* The inverse of Shiller's cyclically adjusted price/earnings ratio, expressed as a percentage Source: Robert J Shiller, Refinitiv, FT calculations

UK stock prices look cheap given high earnings and low bond yields

UK equity risk premium (%)



* The inverse of cyclically adjusted price/earnings ratio on FTSE 100, using Shiller's method Source: Robert J Shiller, Bank of England, FT calculations

> Equity investors might now be demanding a much lower risk premium than in the past 120 years

Further support for the rationality of the US market today is that 55 per cent of the increase in the S&P 500's market value over the past 12 months is due to gains in the information and technology sector. This makes sense, given US dominance in these areas and the technological shift of 2020. We should also note that real interest rates below zero make future profits more valuable than profits today, in terms of present value. Looking through the short-term impact of Covid-19 makes sense.

Given the interest rates, then, stock markets are not overvalued. The big questions are whether real interest rates will jump, and how soon.

Many believe that ultra-low real rates are the product of loose monetary policies over decades. Yet, if that were right, we would expect to see high inflation by now.

A better hypothesis is that there have been big structural shifts in global savings and investment. Indeed, Lukasz Rachel of the Bank of England and Lawrence Summers of Harvard argued in Brookings Papers 2019 that real economic forces have lowered the private sector's neutral real interest rate by 7 percentage points since the 1970s.

Will these structural, decades-long trends towards ultra-low real interest rates reverse? The answer has to be that real interest rates are more likely to rise than fall still further. If so, long-term bonds will be a terrible investment. But it also depends on why real interest rates rise. If they were to do so as a product of higher investment and faster growth, strong corporate earnings might offset the impact of the higher real interest rates on stock prices. If, however, savings rates were to fall, perhaps because of ageing, there would be no such offset, and stock prices might become significantly overvalued.

Some major stock markets, notably the UK's, do look cheap today. Even US stock prices look reasonable, valued against the returns on safer assets. So will the forces that have made real interest rates negative dissipate and, if so, how soon? These are the big questions. The answers will shape the future.

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Would it be better to divert early booster shots to the unprotected?

SCIENCE
Anjana Ahuja

In 2016, as a yellow fever outbreak crept closer to major cities in Angola and the Democratic Republic of Congo, the World Health Organization took a calculated gamble.

Faced with vaccine shortages, it recommended the splitting of doses. More than 7m children and adults in Kinshasa, among others, received only a fifth of the usual dose. That fractional amount, researchers later found, induced good levels of protective antibodies that were still detectable a year later. A year of protection is better than none in a raging epidemic. Could veering off-script in the rollout of Covid-19 vaccines also be in the public interest? The Pfizer/BioNTech vaccine, the first to be deployed in the US and UK, officially requires two doses given 21 days apart.

But, instead of issuing first doses and reserving supplies to give boosters later, some people advocate dispensing all doses now and giving boosters when further supplies allow. In the US, this option means 40m would get a first dose of the Pfizer/BioNTech vaccine, instead of 20m receiving two doses. The UK is currently rolling out 800,000 doses, with another 4m due by the end of December.

The idea was floated recently by Scott Gottlieb, the former head of the US Food and Drug Administration who now sits on the board of Pfizer.

"I feel very strongly that we should get as many shots in arms as possible, right away," Mr Gottlieb told USA Today last week. "The reality is that one dose is partially protective. I just fundamentally disagree with [saving half the supply for January]."

The vaccine is 52 per cent effective after the first dose, rising to 95 per cent after the booster.

> Leaving vulnerable people unvaccinated while second doses languish in fridges is also a risk

His view is that immediate deployment maximises the health benefits of a life-saving intervention. It is not a risk-free strategy: unforeseen delays to supplies next year could hamper the rollout of boosters. Still, leaving vulnerable people unvaccinated while second doses languish for weeks in fridges, is also a risk.

There is another point in Mr Gottlieb's favour: there is no firm evidence that boosters must be timed precisely to be efficacious. While second doses dramatically enhance protection, dosing intervals are not set by any immutable commandments of vaccinology. The WHO vaccine tracker, for example, shows a variety of dosing schedules, mostly modelled on past convention.

"It's like a random number generator," says Danny Altmann, professor of immunology at Imperial College London. "Some doses are 28 days apart, while others are 21 or 14. That doesn't reflect the fundamentals of the immune system but a tweaking of the trials that gave slightly better data. You could probably merge them all and come out with one common protocol that would work pretty well for all of them." A handful of trials have offered a second or third dose on day 56. Intriguingly, in the Oxford/AstraZeneca vaccine trial, some volunteers in the under-55 subgroup showing the highest efficacy had their second jabs as long as eight weeks after the first. Routine boosters for other diseases are also put off for multiple reasons — holidays, clinic closures, delayed deliveries, forgetfulness — without efficacy being a worry.

As Professor Altmann concludes: "If I were an NHS adviser or a vaccine producer running a huge logistical operation, I'd probably want to stick to protocol. But if you ask me: does the timing of the booster really, really matter all that much? Probably not. In vaccinology, when push comes to shove, if we're trying to save lives we sometimes break protocol, as happened with yellow fever."

The coronavirus pandemic also shows that, in extremis, vaccinology conventions can be challenged. The dosing error that dogged the Oxford/AstraZeneca trial was unexpectedly associated with better results. Scientists have not ruled out mixing and matching first and second doses from different vaccines, depending on availability.

Volunteers who drop out of clinical trials after a first dose of one Covid-19 vaccine in order to receive a different, approved jab, will be a fascinating cohort to watch.

There might be just enough scientific leeway, and encroaching danger, to reasonably discuss bending the rules to deploy all Covid-19 vaccine doses now. Christmas approaches. Infection rates are rising. Hospitals are filling up. More vaccines are coming next year.

Mr Gottlieb's approach of emptying the armoury now is a gamble — but so is holding back half of the ammunition when other cavalries are on their way.

The writer is a science commentator

Lex.

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Tech regulation: speech impediment

UK and EU tech regulators have barrelled into the fight between free speech and online protection with a crude plan to make Big Tech clean up content. The UK is taking aim at everything from social media networks to dating sites while the EU focuses on very large platforms. Both plans are so broad it is hard to see what they will achieve.

Reducing illegal and harmful content online is laudable. Tougher moderation is necessary and feasible. None of this, however, is new.

Prodded by advertisers and regulators, Facebook has been spending more on moderation since the 2016 US election. In third-quarter earnings it reported that its headcount had increased by nearly a third on the previous year. Expenses rose 28 per cent, outpacing the increase in sales. The company's operating margin has fallen from 44 per cent in late 2018 to 37 per cent. Expect it to lose another few percentage points in 2021.

The threat of onerous fines could speed up the process. If content is not policed properly, UK regulator Ofcom proposes fining companies £18m or 10 per cent of global turnover. The EU envisages penalties of up to 6 per cent.

The impact depends on whether fines target an individual business unit, such as Facebook's WhatsApp, or the entire group. WhatsApp would be liable to pay out very little. Under a worst-case scenario, Facebook could face combined fines of more than $13bn on $83.5bn of expected sales this year.

That is unlikely. Ofcom's biggest fine to date has been a £50m charge to Royal Mail, the UK's stolid postal service. The bark of watchdogs is worse than their bite.

The second threat — that non-compliant services could be blocked from the UK — would spur a backlash from users. The plan, meanwhile, feebly fails to define legal but harmful content.

Content, privacy and competition are three prongs of regulatory interest in tech. The rolling clampdown has already curbed M&A, increased costs and forced companies to reveal more data.

The intersection between free speech and malignant expression will be as grey as ever in the wake of these latest rules. But the rapid scaling-up of enforcement starkly demonstrates how badly public goodwill towards Big Tech has collapsed.

China stocks: Darwinian selection

As one door closes, another door shuts. Hundreds of Chinese companies trading in the US face delisting in the next few years. Congress legislated to force groups to comply with US accounting rules this month. But a secondary listing in mainland China may not be the back-up CEOs hoped.

The Shanghai and Shenzhen stock exchanges are tightening regulations. Proposed revisions will make delisting of companies much easier. Businesses whose market values fall below a fixed threshold of about $46m for 20 trading days will be in the line of fire.

Delistings have been relatively rare in China. Just over 120 companies have quit Chinese bourses in the past decade, despite a slew of initial public offerings. As a result, there are more than 4,100 listed companies, similar to the number in the US, where delistings average upwards of 200 a year.

Some Chinese stocks have long records of accounting and governance issues. Weeding those out will help investors in the long term. It is part of Beijing's wider market reforms, which have included a crackdown on corrupt credit rating agencies and lenders.

Yet the process will be fraught with difficulties. Investment in China has surged this year, pushing the equity market value to more than $10tn. Funds from foreign investors have increased two-thirds to record levels.

Foreign investment in the local equity market has historically held the risk of sudden market suspensions, leaving value trapped or wiped out. Trading of more than half of all 3,000 listed local stocks was suspended during a sell-off five years ago.

The risk of being blindsided will rise. The reforms include faster suspensions of suspect companies. They may not even be relisted before a final delisting decision is made, which would permit an exit at a rock-bottom price.

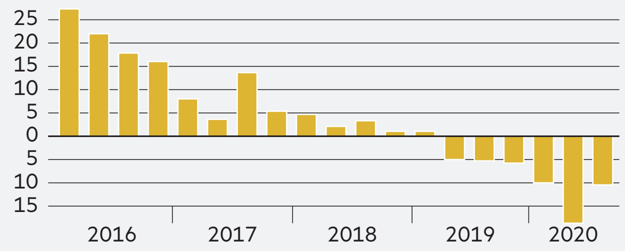
It is a fragile time for these well-intentioned reforms. A growing number of corporate defaults means more are likely to make the watch list for removal from the markets.

H&M/Inditex: still standing

Inditex, the world's biggest retailer, has managed to shrink inventories, helping it control costs. But like Swedish fashion retailer H&M, it retains a strong physical presence and has a proliferation of brands. Share prices of the two have failed to keep pace with online stars such as Asos.

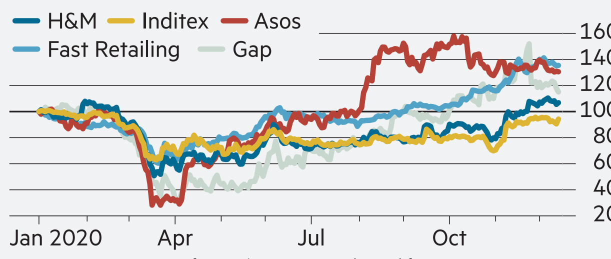
Shrinking stock piles

Inditex inventory growth* (year on year, %)



Falling behind pure ecommerce retailers

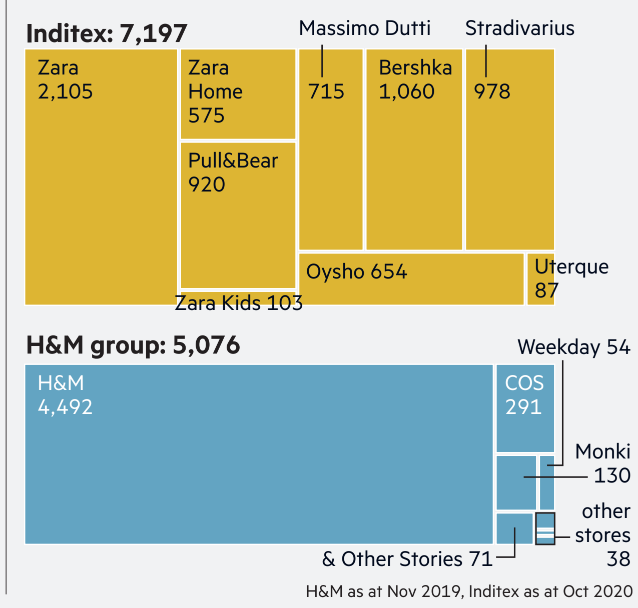
Share prices, in $ terms (rebased)



Sources: companies; Refinitiv *Q4 2019 is adjusted for provision

Proliferating brands

Total number of stores



H&M as at Nov 2019, Inditex as at Oct 2020

For retail in 2020, durability is accomplishment enough. Inditex and H&M, stalwarts of fast fashion, are among the survivors. They bear the scars: sales tumbled 10 per cent on a constant currency basis in the past quarter.

Shoppers across the globe were hobbled by a new set of lockdowns in the three months to end November. Sales at Sweden-based H&M fell to SKr52.54bn ($6.26bn); Inditex dropped to €6.05bn. The Spanish retailer, which provided a fuller set of numbers yesterday, cut costs but still suffered. Net income dropped an adjusted 13 per cent to €866m.

The two have a number of advantages over peers. Unlike Topshop, a brand of troubled UK retail chain Arcadia, for example, they are able to switch what hangs on the racks at the drop of a well-turned hat. They also have a better handle on sustainability trends. Customers in China can rent clothes from H&M's COS for a monthly subscription; those in Stockholm can pay to borrow a party frock.

Cost discipline and inventory control mean cash flows are mostly in better order too: Inditex's inventory has fallen year on year in each of the past six quarters.

Yet no retailer is infallible. The two still have massive physical footprints, including in some of the priciest — and now emptiest — UK high streets. Online sales remain relatively small. Inditex, targeting a quarter of all sales to be made online in 2022, managed just 14 per cent or €3.9bn last year; H&M does not even split it out. That means performance has lagged behind the likes of pure ecommerce hawker Asos during the pandemic.

Another one-time strength could yet turn to weakness. The two fashion empires have proliferated brands just as manufacturers of consumer goods are pruning ranges. Both have segued into home accessories. These have been joined by more upmarket brands — Inditex's Massimo Dutti for one, H&M's Arket for another — and a clutch of fellow diffusion stores. But catering to different segments matters less when board directors, bankers and students are all wearing hoodies.

Keywords Studios: game theory

Selling picks and shovels is always the best way to profit from a gold rush. The hit-or-miss video game business is a case in point. Providing technical services to hundreds of developers and publishers is a steady way to tap the sector's rapid growth. That is one reason shares in Dublin outsourcer Keywords Studios are up 20-fold since it joined London's Aim in 2013.

Most work in games production is still done in-house. But testing, artwork, audio, marketing, translation, cultural adaptation and even some development work is increasingly outsourced. For example, Chicago-based High Voltage, which Keywords just acquired for up to $50m, worked under instruction from Epic Games on developing aspects of *Fortnite*.

High Voltage is Keywords' second-largest deal and brings its tally of acquisitions close to 50. The £1.8bn market capitalisation company has taken advantage of its highly rated paper — trading on a lofty EV-to-ebitda multiple of 27 times — to expand geographically and into new services.

Such a "roll-up" strategy rings alarm bells for some investors. Multiple acquisitions make it harder to track underlying progress. Research suggests that on average, roll-ups destroy shareholder value. As much as 7 per cent of Keywords' shares were on loan to short-sellers in February. Now it is just over 2 per cent.

There are reasons beyond financial engineering for the flurry of deals. Keywords should be able to sell more services by expanding its capabilities and geographical reach. Bigger projects should be easier to handle.

The post-acquisition departure of founders is often a reason roll-up plays disappoint. But three-quarters of those who sold to Keywords have stayed.

Keywords' valuation is off-puttingly high. But it leads in a niche market growing faster than the games industry itself. To justify its valuation, it must go on buying small businesses cheaply. With just 5 per cent of a fragmented sector, that does not look in doubt yet.

Blade: up in the air

"The city seen from the Queensboro Bridge is always the city seen for the first time, in its first wild promise of all the mystery and the beauty in the world." So goes F. Scott Fitzgerald's description of arrival in Manhattan in *The Great Gatsby*.

Crushing traffic and slow trains have hampered such romantic musings. Perhaps a helicopter ride would recapture the magic. Yesterday, luxury chopper service Blade said that it would merge with a blank cheque vehicle at a $450m enterprise valuation. Its business, best known for ferrying the glitterati around the Big Apple, has been hammered by Covid-19. Even before the pandemic it was forecasting only $50m in revenue this year. But Blade says that it can reach a whopping $875m of sales in six years.

Like many reverse mergers, Blade is selling its valuation partly on a promised technology shift that would change the supply side part of the equation. The company's goal is to take advantage of a breakthrough it claims is on its way: electric vertical take-off and landing technology (eVTOL) vehicles. These would revolutionise short and medium distance air travel.

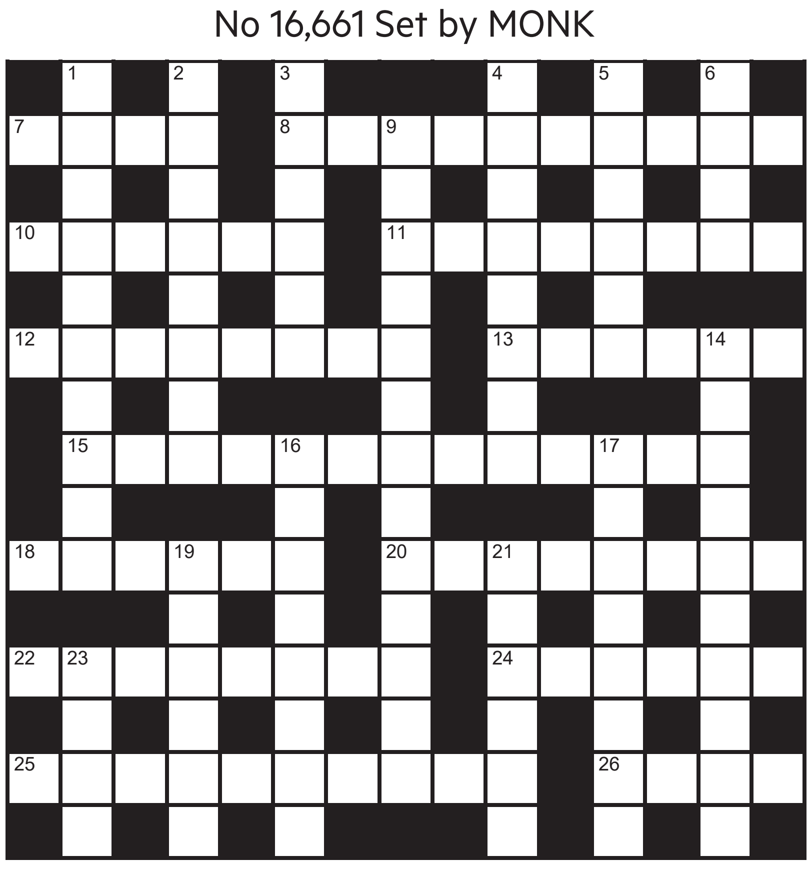
But Blade also projects that it can hit $400m of revenue in 2024 before eVTOL. The appeal is speed and convenience. A Blade ride from JFK airport to a heliport in Manhattan takes just a few minutes and costs less than $200. The company says that of 27m people flying in to NYC airports nearly a fifth would be interested in travelling to Manhattan by air.

Blade only has a few dozen employees. It has created the brand but outsources flying and associated capital investment to other specialists. Its focus is on dense, affluent markets in the north-east and California, though it also has a Mumbai to Pune route. The company's focus is on routes where transportation systems are broken. Even without eVTOL, America's dysfunctional transit policies ensure demand for any service that circumvents public transport.

FT Lex on the web
For notes on today's stories go to www.ft.com/lex

CROSSWORD

No 16,661 Set by MONK



ACROSS

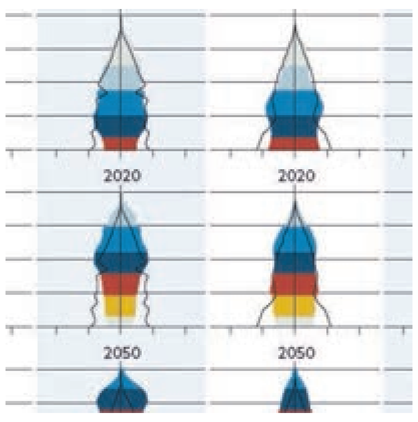
7 Perhaps Clapton's earpiece regularly dropped (4)
8 Sudden front invisible when circulating (10)
10 Setter getting over clamour to engage in affair (6)
11 Made dim sum for starters, cubed or otherwise (8)
12 Pat Helen's bum – she'll never forget! (8)
13 Marriage vow by first 20th century linguist? (6)
15 Circumventing grandma, bare bonkers (woman and man) breed (8,5)
18 God angry, evidently opening up lost soul
20 Weekly deliveries run after stock problem is tackled (8)
22 Uninvited relative, stabbed by gangster, died (8)
24 Pop over – call round to see old primate (6)
25 Bad if out, since likely to spread (10)
26 Unintroduced jerk causing irritation (4)

DOWN

1 Announce chatter about sullen old revolutionary (10)
2 Finally, famous music producer and techie giant make *"Meat Loaf in the US"* (8)
3 Nepali carpet taken up by Asian ruler, briefly (6)
4 Prostitute I caught with a Swede, maybe? (8)
5 Fake subscription rejected when stopping postal order (6)
6 Party a lot, audibly so (4)
9 Fresh food growth, farmer missing first half ab initio (4,3,4,2)
14 Suspect dodgy canteen food? (10)
16 Fail to keep up with external appointment, getting lonely (8)
17 Drainage transformed shrub (8)
19 I borrow without any other European capital being put down (6)
21 Scattered boxes end in waste (6)
23 Opening partly round and square (4)

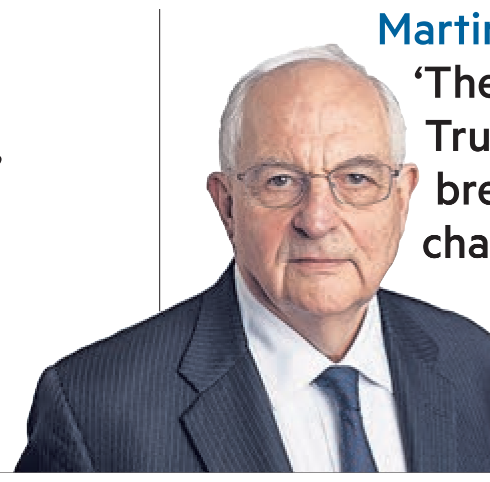
JOTTER PAD

Solution 16,660



Data destiny
Global migration, fertility, life expectancy and politics — our near future visualised in charts

Your predictions
A woman in the White House? Yes, but greenhouse gas emissions are unlikely to fall globally over the next five years



Martin Wolf
'The defeat of Donald Trump gives the world breathing space. But the challenges are still huge'

Wednesday December 16 2020

www.ft.com/WorldAhead

The world ahead

A special report on the forces that will shape our lives over the coming five years

Darrel Rees

LETTERS FROM THE EDITORS

An alliance for gold-standard journalism

Roula Khalaf
Editor, Financial Times

The world has experienced seismic change since the Nikkei-FT deal was reported in our pink pages. Back in 2015, Donald Trump had not been elected, the Brexit vote had not taken place, talk of a new cold war with China was wildly premature and a global pandemic was unimaginable.

As we celebrate the fifth anniversary of our alliance, we must also reckon with the impact of the health and economic crisis and consider the big trends of the future. What have we learned from the coronavirus crisis? What trends have been accelerated? What will the world look like in five years' time?

This report will help to answer these questions. It places the rise of China, climate change action and tech disruption high on the policy agenda over the next few years.

In many countries, the social contract has been challenged during the pandemic. Young people, women and the economically disadvantaged have borne a heavy burden. This pandemic year saw outrage over racial injustice reach a boiling point, with historic protests in the US and around the world. Corporations too have had to think harder about their purpose, and take in the environment and social impact of their businesses. The next five years will test political and business leaders' stated commitments to a new way forward and a cleaner planet.

During a time of disruption, the global media alliance between Nikkei and the FT has grown stronger. Together with Nikkei, the FT is in an unparalleled position to deliver quality journalism that will guide our readers, inform businesses and, always, question and hold those in power to account.

A truly global business media partnership

Tetsuya Iguchi
Editor-in-chief, Nikkei

Five years have passed since Nikkei and the Financial Times became partners. Together, we have strived to create a truly global media group focused on the world economy and everything that affects it.

Given the turmoil humanity is facing, there is more need than ever for high-quality global news and analysis. The coronavirus pandemic has put our commitment to that goal — and our ability to carry it out — to the test.

As infections spread rapidly, FT reporting provided must-read insights on the medical and economic response to the outbreak. It provided in-depth coverage of how companies reeled in the face of an unprecedentedly abrupt economic slowdown, and the mounting concerns about job insecurity. At the same time, Nikkei reported — via its English-language publication, Nikkei Asia — on the swift reaction by Asian nations. Nikkei chronicled how Asian countries deployed digital contact tracing systems and promoted mask-wearing, attracting strong attention from our readers in Europe and the US.

Of course, this is not the only crisis we face. The world stands at a crossroads. Some voices cry out that capitalism has reached its limits, while many worry that the foundations of democracy have been shaken. People are angry at overconcentration of wealth. These disparities will inevitably widen. But why has growth slowed? Underlying this is the transition from a manufacturing economy centred on the production of goods to a digital one that creates wealth based on data and knowledge.

We at Nikkei and the FT are committed to gathering and collecting the global information and wisdom necessary to provide solutions for escaping from this predicament. Our challenge continues.

An end to the old certainties: FT journalists on life in 2025

From banking and tech to human labour, consumer behaviour and the energy markets, our writers on why many trends we take for granted will disappear

Finance
Gillian Tett

Markets go up and down. So do the fortunes of financial companies. But here is one prediction: by 2025 artificial intelligence will be reshaping global finance, sparking a competitive battle between companies and regions who want to dominate this new sphere.

China will almost certainly be playing a leading role: entities such as Ant Financial have already taken an early lead in AI-enabled finance, helped by the scale of the country's databases.

But Japanese and American banks will be racing to catch up by 2025. Organisations such as Amazon are likely to be flirting with AI enabled finance too. The biggest competitive battle may be taking place between finance and tech groups, rather than just between banks.

Who wins will depend on another factor: what regulators do. By 2025 they will be scrutinising the AI black boxes with increased vigilance, and possibly alarm. In theory this new world should deliver benefits: greater efficiency, speed, customisation and cheaper costs of capital. In practice, it may also increase industry concentration, embed social biases and — most alarmingly — create feedback loops that regulators will struggle to police given opaque algorithms.

By 2025, regulators' growing concerns about the inscrutability of AI and its attendant risks could be the source of the next financial shock.

Technology
Richard Waters

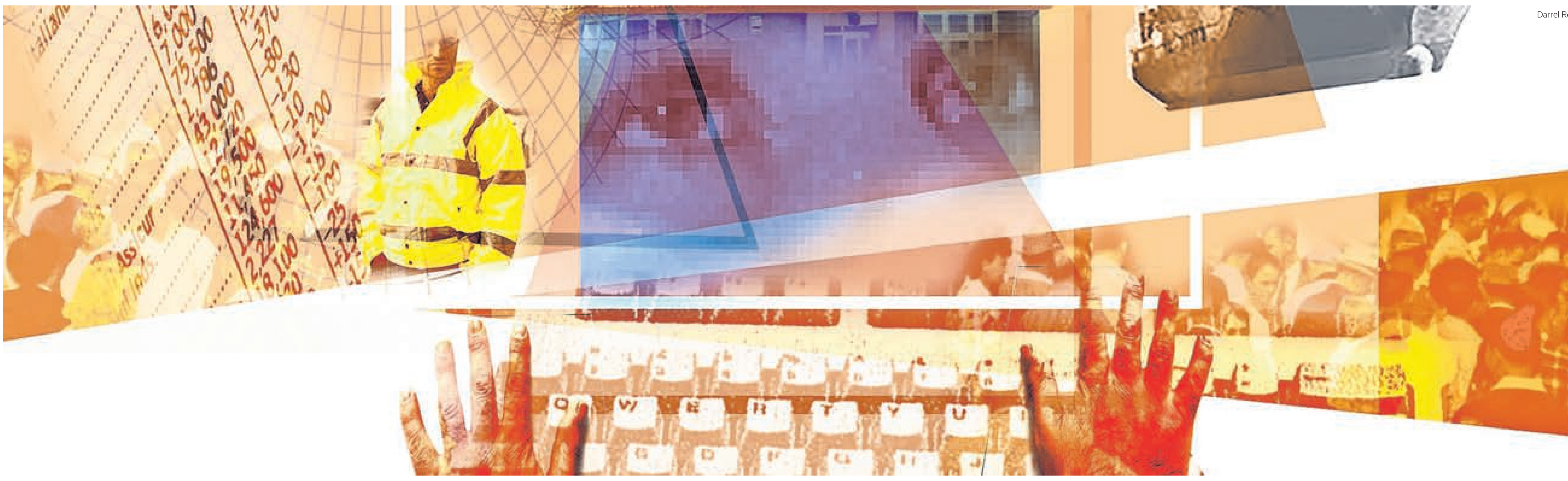
The pandemic gave digital services a big lift that proved to be lasting. But the surprise in 2025 was the wider range of emerging digital "champions", diluting some of the power of Big Tech.

Amazon and Google's moves to spin off their cloud computing businesses led to a new generation of enterprise tech companies. Zoom was one of a handful that capitalised on strong demand during the pandemic to become broader platforms for communication and collaboration.

In the consumer internet, once regulators blocked the handful of giants from buying or killing nascent competitors, the scope for newcomers turned out to be greater than before. A generation of users brought up on digital services was hungry for new experiences — whether that meant communities inside gaming worlds, or a wider suite of communications apps to reflect different aspects of their lives. Top engineering talent seeped from the giants, feeding this shift.

We can look forward to a more diverse digital world by 2025. But the "winner

Continued on page 5



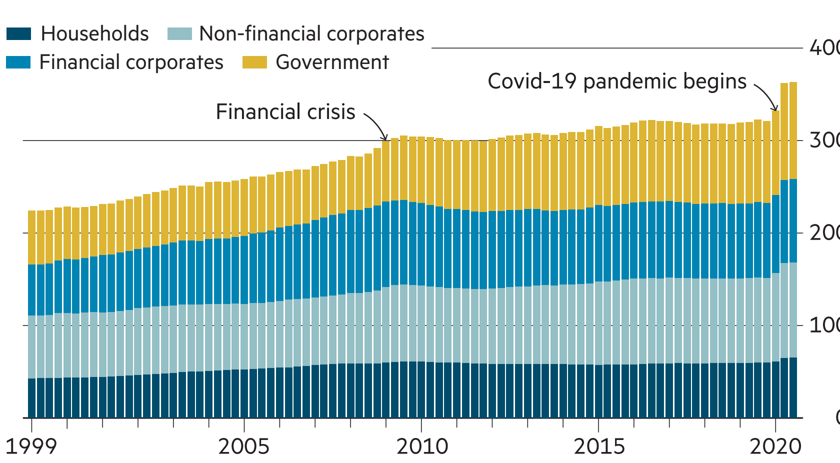
Darrel Rees

Five forces to define our post-Covid future

Outlook *Martin Wolf* sets out accelerating trends, from populism to deglobalisation

Debt has soared in the Covid-19 global economic crisis

Global debt, as a % of GDP, by sector



Source: Institute of International Finance

Covid-19 has accelerated the world into the future. Here are five powerful forces that were at work before Covid-19, that intensified during the pandemic and will still affect the world in 2025, and far beyond.

First, technology. The march of computing and communications technology continues to reshape lives and the economy. Now, broadband communications, together with Zoom and similar videoconferencing software, has made it possible for a huge number of people to work from home.

By 2025, it is likely that some, possibly most, of this shift from offices will have reversed. But it will not do so completely. People will be able (and allowed) to work away from the office. Inevitably, this will not only include workers in their home countries, but workers sourced from abroad, too, usually on lower salaries. The result is likely to be a destabilising increase in what might be called "virtual immigration".

Second, inequality. Many higher-paid office workers have been able to work from home, while most others could not. In western countries, many of those most adversely affected are also members of ethnic minorities. Meanwhile, many of the those already successful and powerful have prospered mightily.

The likelihood is that the inequalities exacerbated in the pandemic will not have reduced by 2025. The forces that have entrenched it are too powerful. Modest amelioration is the most one can expect. This, in turn, suggests that the populist politics of the recent past will continue to shape politics in 2025.

Third, indebtedness. Aggregate indebtedness has grown almost everywhere over the past four decades. Whenever crises have interrupted the private sector's ability to borrow, governments have taken up the slack. This happened after the global financial crisis and again during Covid-19.

The pandemic has dramatically increased borrowing by private and public sectors. According to the Institute for International Finance, the ratio of global gross debt to world output jumped from an already high 321 per cent at the end of 2019 to 362 per cent at the end of June 2020. Such a huge and sudden jump has not previously occurred in peacetime.

Fortunately, government debt is now extremely cheap, with nominal and real interest rates on the sovereign debt of high-income economies at low levels. But their debt overhangs may cripple parts of the private sector for years.

Fourth, deglobalisation. The plausible future is not that international exchange is going to die. But it is likely to become more regional and more virtual.

After the global financial crisis, trade ceased to grow faster than world output, as it had done in previous decades, but grew roughly in line with world output, instead. This slowdown was due to the exhaustion of opportunities, the absence of global trade liberalisation and rising protectionism. Covid-19 reinforced these trends. A marked result has been a desire to shift supply chains back home, or at least out of China.

The crisis is also reinforcing regionalism, notably in Asia. A noteworthy recent example has been agreement on the Regional Comprehensive Economic Partnership, which brings together the 10 members of Asean with Australia, China, Japan, New Zealand and South Korea.

Finally, political tensions. One dimension has been a decline in the credibility of liberal democracy, the rise of demagogic authoritarianism in many countries and the rising power of China's bureaucratic despotism. Another is the rise of populism in core western countries and especially the US. While the victory of Joseph Biden represents a defeat for populism, president Donald Trump's large share of the vote shows it has not disappeared.

Yet perhaps the most important of the geopolitical developments has been rising tension between the US and China. This is forcing countries to take sides. Again, Covid-19 has accelerated the drift apart. Mr Trump blamed China for the pandemic. Even if he is gone, many in the US share this point of view.

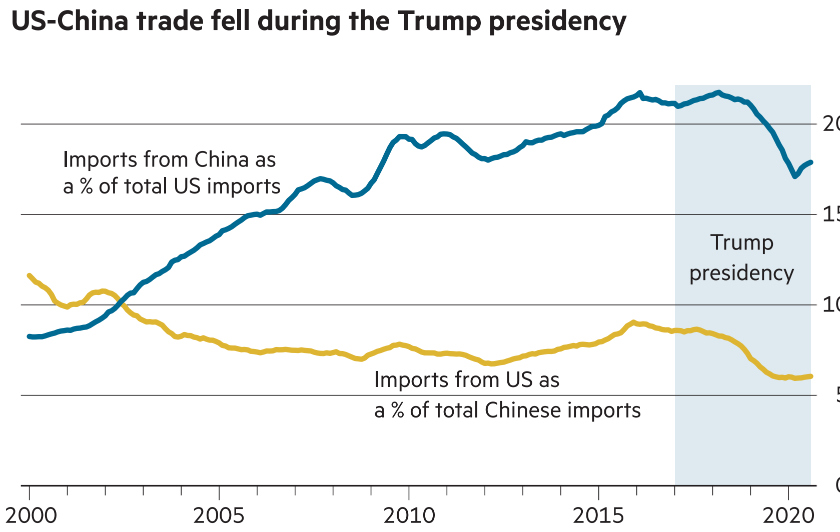
So where, given all this, might the world be in 2025? With luck, economies will have largely recovered from the pandemic. But most will be poorer than they would have been without it.

Yet perhaps the biggest challenge will demand a global co-operation that will not exist. Sustaining a dynamic world economy, preserving peace and managing the global commons were always going to be hard. But an era of populism and great power conflict will make this far more difficult.

We are in an era of turmoil. The pandemic has underlined this, but not created it. The defeat of Donald Trump gives the world breathing space. But the challenges are huge. In 2025, many of them will still be there and, in all probability, even more so.

'While the Biden victory represents a defeat for populism, Trump's large share of the vote shows it has not disappeared'

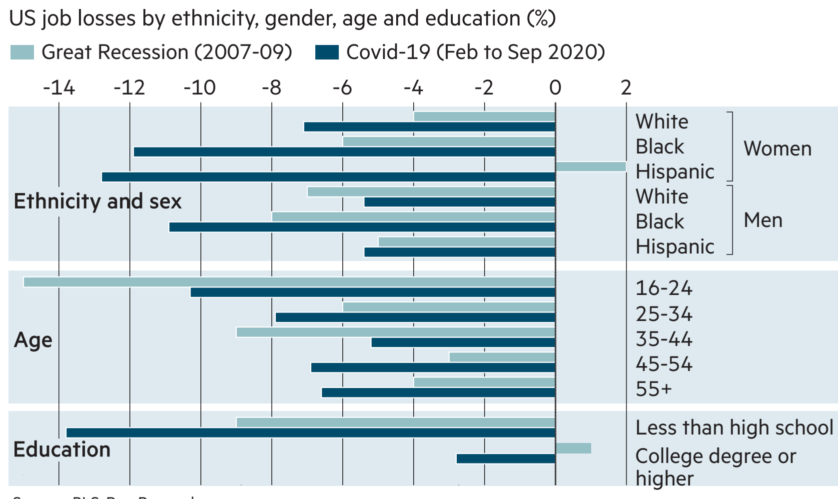
US-China trade fell during the Trump presidency



Source: IMF Direction of Trade Statistics

Minorities, women, young people and the less-educated have been more likely to lose their jobs

US job losses by ethnicity, gender, age and education (%)



Sources: BLS; Pew Research

China's power is rising in an unstable world

Trade Japan and Europe must step up to stabilise the global order. By *Ryosuke Harada*

China's ambitions will determine the state of the world — Getty Images

The scourge of the coronavirus has exposed glaring weaknesses in capitalism and democracy all over the world.

With wages for some stagnating and a growing digital divide, divisions in societies, and the gap between the haves and have nots, have never been starker.

While western countries flounder in the face of the pandemic and face challenges to their democracies, China has pulled ahead of the game by containing the disease through technology and authoritarian rule.

It is not hard to imagine that in five years' time China's ambitions and technological progress, particularly in mitigating climate change, will determine the state of the world.

One way to foretell that future is, improbably, to take a look at the distribution of this year's Beaujolais Nouveau. The sales of the red wine started around the world on November 19. In Japan, where the first arrival of the season is celebrated every year, the volume of imports has dropped to less than half their level 30 years ago, when Japanese consumption first took off in a bubble economy.

In years past, Japanese media outlets reported the arrival of aircraft loaded with Beaujolais Nouveau from France. But this year the "eco-Nouveau" wine was transported by train from France to Shanghai, a journey of some 10,000km, before being ferried to Japan by ship. Carbon dioxide emissions by rail transport are one-twentieth of those by air, while the cost of rail is one-third that of air transport. The bottles featured a sticker proclaiming the wine's environmentally friendly credentials.

China isn't just a stop in the wine's supply chain. Its place in what was previously mostly a France-Japan business arrangement has grown massively. Despite the pandemic, Japan remains the biggest importer of Beaujolais Nouveau. But China is already the world's third largest importer of wine overall.

On a bigger scale, the coronavirus crisis is forcing a review of societies and economies, a situation labeled the Great Reset by the World Economic Forum. When it comes to the environment, the acceleration of technological progress as businesses undergo digital transformation will also reduce emissions.

Excluding the US, Japan has lagged major developing countries in fulfilling the Paris climate pact. But Prime Minister Yoshihide Suga declared in October that Japan will be carbon-neutral by 2050. As Japan can no longer rely on nuclear power in the wake of the 2011 earthquake, innovation will be crucial to turning renewable energy into stable power sources to achieve the 2050 target.

Makers of automobiles, the biggest consumer durable of 20th century civilisation, also have no choice but to adapt. The transition from gasoline-fuelled vehicles to electric and hydrogen power, which will drastically reduce CO_2 emissions, is fast approaching. Current market leaders will not necessarily be winners in the future.

Employment will also see rapid change. Carl Benedikt Frey of Oxford university once predicted that half of the world's current jobs would disappear due to artificial intelligence.

In his recent book, *The Technology Trap: Capital, Labor, and Power in the Age of Automation*, he points out that innovation has two aspects — it either substitutes for labour or complements it, thus creating new jobs.

History bears this out. Spinning and weaving machinery in the early stage of the Industrial Revolution drew rural home manufacturing into urban factories, leading to the machine-smashing Luddite revolt.

On the other hand, the invention of the steam engine and the era of the Ford Model T brought mass production and mass employment, creating an affluent middle class typified by the Golden Fifties in the US.

A recent report by the Massachusetts Institute of Technology cites the importance of education and investment in human resources and warns that in the absence of a strategy, jobs will be lost and divisions in society will widen.

It clearly explains why so many poor white Americans support president Donald Trump. With the evaporation of manufacturing jobs in the rustbelt states, workers have been driven into low-paying jobs. At the other end of the spectrum, those who work for big tech companies — like Google, Apple, Facebook, Amazon and Microsoft — are highly paid. This gap continues to widen.

The same MIT report attributes Japan's long-term stagnation to the fact that it has clung to an employment and tax system intended for mass production in its high-growth period. Even now, 30 years later, the country has yet to fully climb aboard the digital train, although there are fewer concerns about employment compared to other major economies.

Against such an unstable global backdrop, China is growing as a superpower. Even after Democrat Joe Biden is sworn in as president in January, tensions between the US and China will continue as the two countries vie for global dominance. Donald Trump's tenure as president has eroded American leadership of the free world. Whether it can regain lost ground under Biden remains to be seen.

The military balance between the US and China in the Taiwan Strait is also significantly different from the 1990s, when it was overwhelmingly favourable for the US.

As the US struggles to rebuild its reputation and heal its own divides after the chaotic and disruptive Trump presidency, Japan and Europe must step in to shore up the global order and free trade arrangements.

Japan is a central member of both the Trans-Pacific Partnership trade agreement, of which the US and China are not members, and the Regional Comprehensive Economic Partnership trade pact in East Asia, to which the US does not belong either. The fortress of free trade cannot be protected without the active involvement of Japan and Europe.

The writer is senior executive editor at Nikkei

The World Ahead online

Visit ft.com/worldahead to read about what Nikkei's China bureau chief Tetsushi Takahashi describes as 'a future in which China no longer needs to rely on the world but the world cannot continue to spin without China'

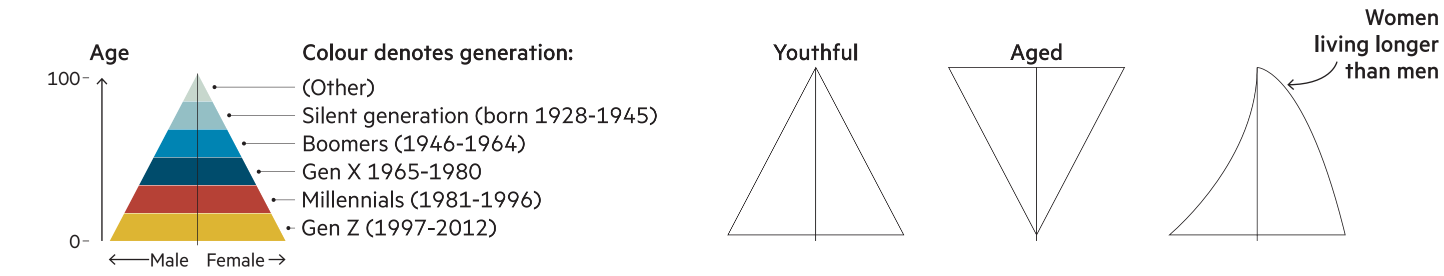
Lower-paid work has supplanted manufacturing jobs in many nations — Bloomberg

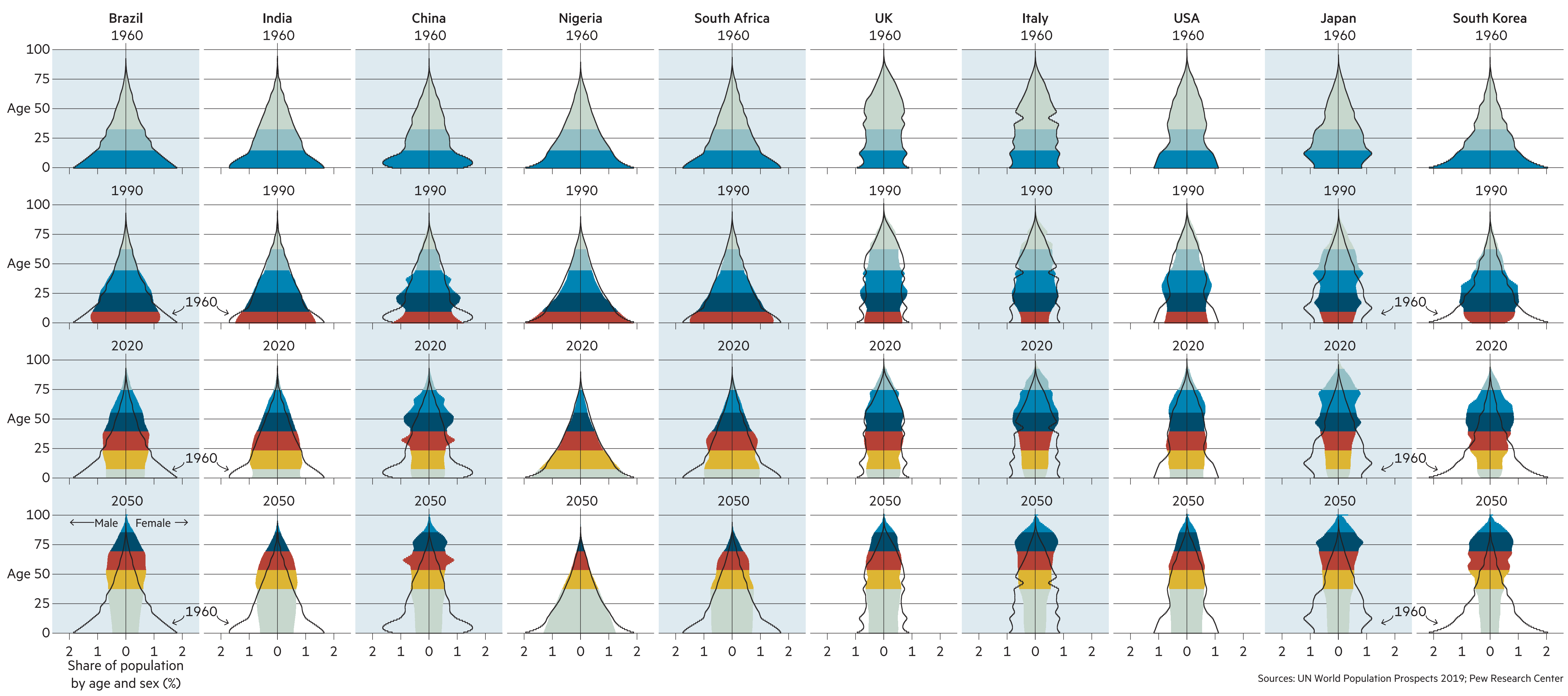
The shape of the age to come

The rise of Generation Z

Increasing life expectancy, lower fertility rates and changing migration patterns mean demographic change is inevitable. Most countries will have older populations in the decades ahead, but some will age much more rapidly than others

Managing the economics of demographic change — from early years care through to retirement — is a challenge that will increasingly vex 'Generation Z' and other cohorts that will be part of very different population structures in the middle of the century





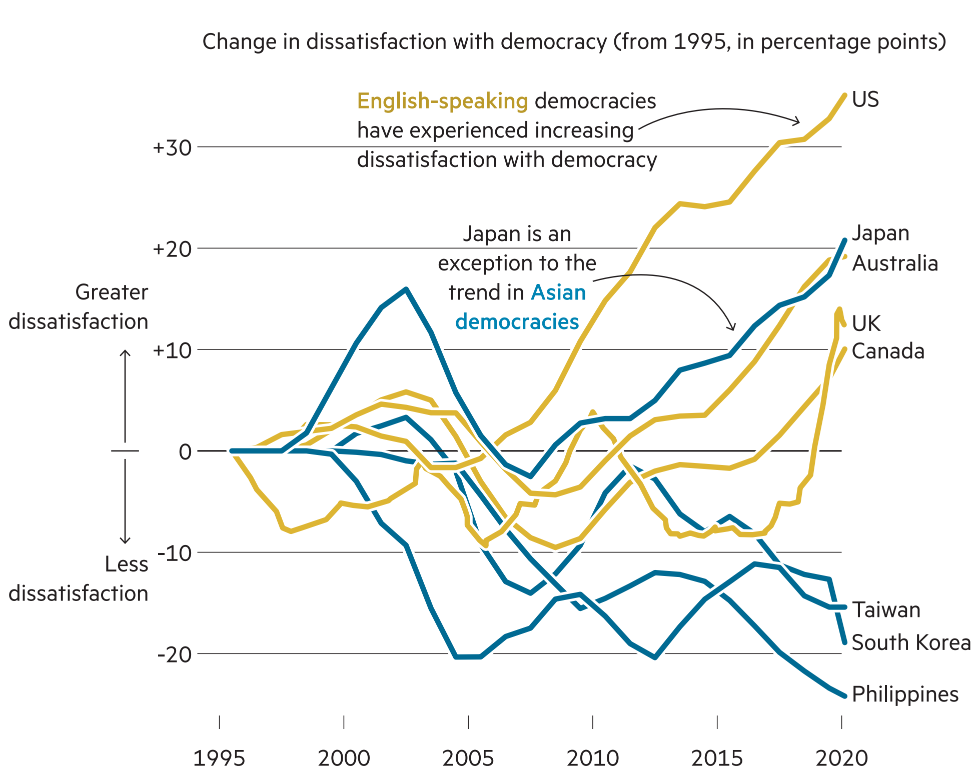
Sources: UN World Population Prospects 2019; Pew Research Center

Democratic divergence

The proportion of people who are dissatisfied with democracy has grown by around ten percentage points to 57.5%

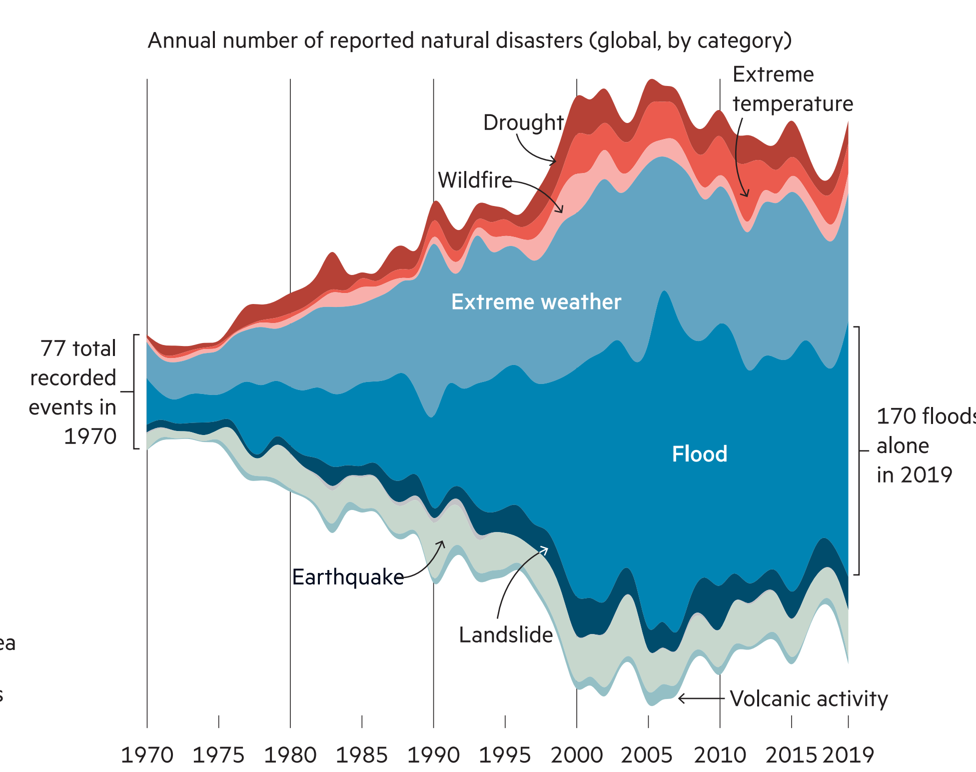
Democratic disillusionment has grown most notably in developed, English-speaking countries, where it has surged since the global financial crisis

By contrast, citizens of many Asian democracies have successfully avoided the malaise affecting other parts of the world



Source: Roberto Foa, Centre for the Future of Democracy, Cambridge university

Behind the 'surge' in natural disasters



Source: Our World In Data

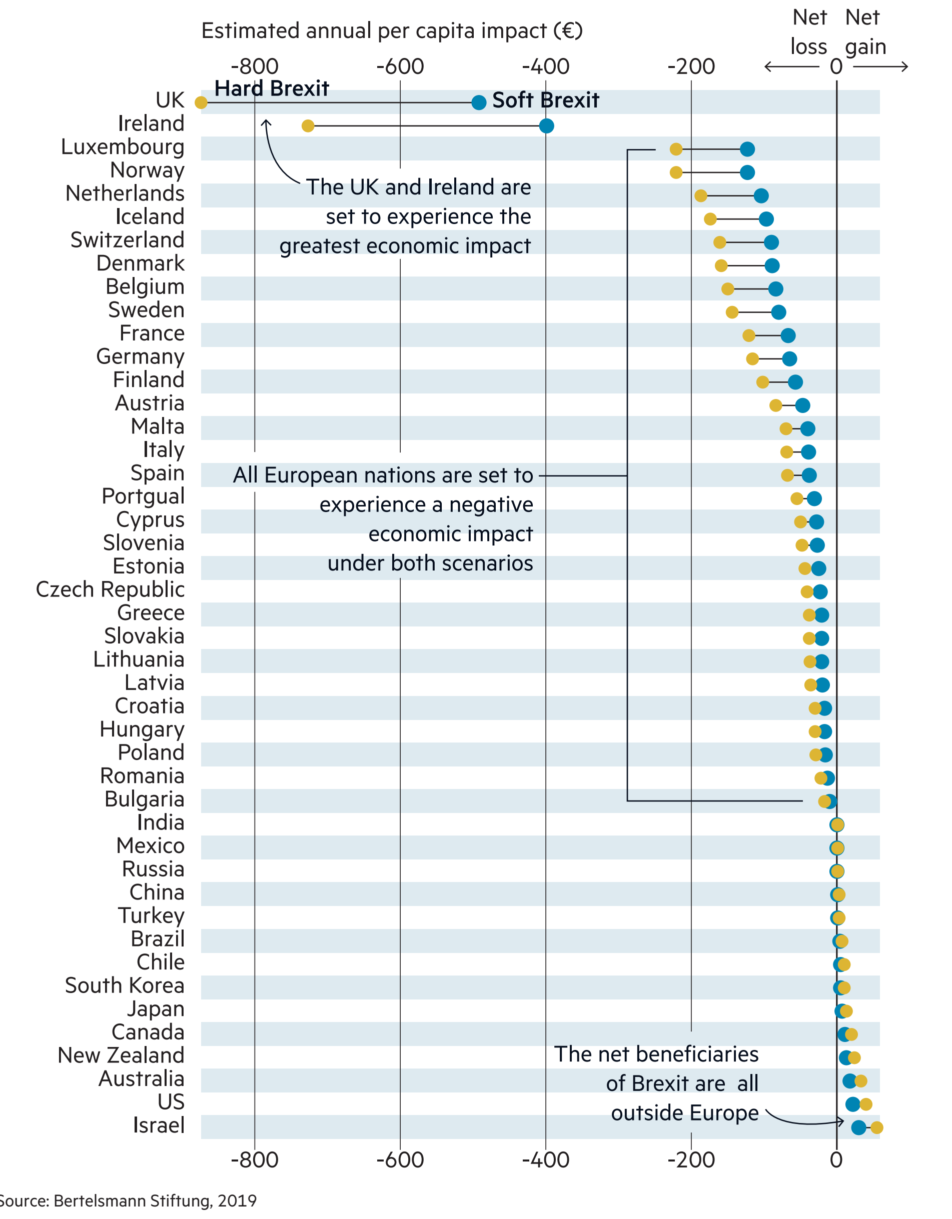
Natural disasters linked to climate change — flooding, drought, wildfires and extreme weather — are being recorded with greater frequency than ever before

However, the world is also being measured in ever-increasing detail, meaning these historical comparisons also highlight the under-reporting of past events as much as they reveal trends of today

As a result, the real value of this chart lies in the data that will be added to it in the years that lie ahead, providing crucial context on how well humans are looking after the environment that sustains them

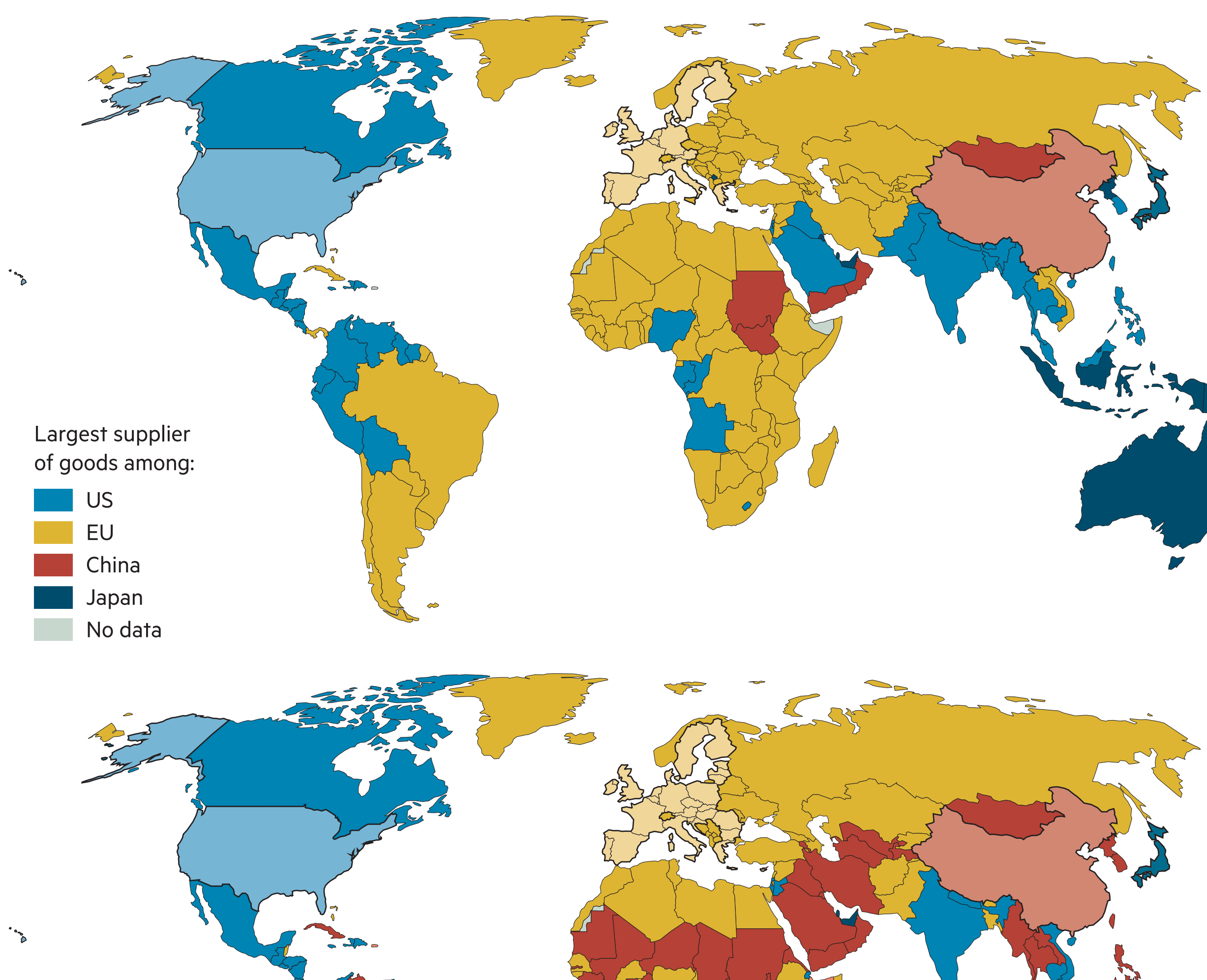
Brexit: the international winners and losers

The UK left the European Union on January 31 2020, but a negotiated transition period means it remains in the EU's customs union and single market until the end of the year. Despite lengthy and difficult negotiations on a trading relationship from January 1 2021, with both 'hard' (no deal) and 'soft' (negotiated deal) outcomes on the table, one thing seems certain: the net economic losers of Brexit are in Europe, while the net winners are set to be those far away from the bloc



Source: Bertelsmann Stiftung, 2019

Shifting patterns of global trade



2000

A year before China's entry into the World Trade Organisation, the European Union and the US were the world's primary exporters, with Japan enjoying regional dominance in south east Asia and Australasia

2019

China's surging exports have ended Japan's regional dominance. Large swaths of the Middle East, Africa and even South America have also fallen under Beijing's sphere of influence, disrupting global trade patterns of the second half of the 20th century

Source: IMF

Data journalism: Alan Smith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An end to certainty: life in 2025

Continued from page 1
takes most" dynamic in most markets still holds: each new category of online activity produced only one or two champions in the past, and an emerging oligopoly of digital powers is taking shape.

Labour
Sarah O'Connor

In 2025, the world of work will be more flexible and inclusive for some of us, and more brutal, atomised and insecure for others.

Skilled professionals who were already established in the labour market when the Covid-19 crisis hit will be enjoying the fruits of "hybrid" work by 2025. Many will work one or two days a week at home. With presenteeism no longer a prerequisite for career progression, professional women will find it easier to keep their careers on track when they have children.

Corporate gender imbalance will begin to improve. The normalisation of remote work will create opportunities for talented people in developing countries to work for companies in the rich world.

But without strong policy action, the world of work for many others in 2025 will be worse. High unemployment in the years after the pandemic will erode the already weak bargaining power of young and low-skilled workers. Companies will retain a core of well-treated staff, but new hires in both blue and white-collar positions will increasingly be on temporary or freelance contracts.

For the young, bouts of joblessness will be common. It will become harder to find employers willing to provide them with training, progression or pensions. By 2025, they will be very angry.

Consumers
John Gapper

Before Covid-19, retail was moving towards a world in which people bought less in stores and more online; divided their purchases between luxury and discount with less in between, and shopped more ethically. By 2025, those trends will not have changed but the pace will be quicker.

Consumers who have been forced to order online, or collect without entering stores, have learnt a lesson. Buying remotely will be even easier and more convenient by 2025, and the global share of ecommerce is likely to grow to about a quarter from this year's mid-teens.

The discount store packed with cheap goods, such as Don Quijote in Japan and Walmart in the US, will come under pressure: rather than packing into a small physical space, consumers will browse online. They will save their outings for fewer, more relaxing trips.

Generation Z, which abhors waste, wants to buy less and trades clothes online, will have come of age. As it does, fast fashion will have to slow down and provide greater value, not just financially but environmentally in what it does for the planet. The consumers of 2025 will be a careful crowd.

Energy
David Sheppard

For more than 100 years the oil sector has been characterised by boom and bust: low prices eventually lead to higher prices as under-investment and rising consumption catches up with the industry. With crude languishing near $40 a barrel in 2020, less than half the level of six years ago, it would seem natural to bet that oil prices will rise substantially by 2025 as the cycle turns.

But that is no longer certain. The global energy system is on the cusp of a once-in-a-century transformation. Ambitious government targets to cut emissions and growing adoption of electric cars is expected to lead to a peak in oil demand, potentially within 10 years. For an industry used to perpetual growth that is profoundly unsettling.

Could supplies fall short even as consumption goes into reverse, if energy companies stop investing? Or might the largest producers rush to pump every barrel they can, fearing they are sitting on a soon-to-be-stranded asset? The world was given a glimpse of that future when a brief price war erupted between Saudi Arabia and Russia.

No one knows for sure. But the approach of peak demand threatens to upend old certainties, even those as ingrained as the oil cycle.

Nikkei writers on the world of tomorrow

Darrel Rees

Technology
Kazuyuki Okudaira

SoftBank chief Masayoshi Son, who has gone from investing in personal computers to the internet and then mobile phones, now says it's "a company investing in the artificial intelligence revolution."

After suffering defeat over his investment in WeWork, Son has continued to put money in areas where he expects AI to play an increasingly important role, from transport to healthcare.

The word vertical is now often heard in reference to a specific industry. Google is one of the companies that have a strong awareness of it; chief executive Sundar Pichai says its cloud business has grown thanks to its focus on sectors including financial services and retail. Rivals such as Amazon and Microsoft have also been hiring individuals with knowledge of specific industries.

It has been nearly a decade since noted US investor Marc Andreessen said that "software is eating the world". His prediction is coming true. In Mr Son's words, it has "so far replaced the advertising industry, representing 1 per cent of GDP". With a radical change in the remaining 99 per cent just around the corner, never has the value of vertical business expansion been higher.

Energy
Hirofumi Matsuo

The energy revolution is upon us. And the shift to a decarbonised society is not only forcing change on the energy supply-demand structure, but on international politics and business as well.

In addition to the EU and Japan, US President-elect Joe Biden has pledged to ensure greenhouse gas emissions will reach net-zero no later than 2050. China, the biggest emitter of greenhouse gases, has set a target of reducing emissions to zero by 2060.

Realising these goals will require drastic technological innovation and an economic and social shift. According to the International Energy Agency, sales of electric vehicles will have to grow 20-fold by the end of 2030. The transition to a system centred on renewable energy is estimated to need investment of $1.6tn, four times current levels.

In the decarbonised society, countries and businesses that control technologies enabling this shift will have the competitive edge. If the 20th century was the age of oil, led by the US, in the 21st century China will challenge the US.

China is set to hold a dominant share of the global market for technologies and products that support climate change-mitigation — solar panels, wind turbines, electric vehicles and the batteries used in them. Major deposits of rare earth minerals, essential for making electric vehicle motors and wind turbines, are also located in China.

Energy is now the frontline in US-China friction as they compete for technological dominance. How will countries reliably secure technologies and materials for achieving a decarbonised society? Resource security driven by the energy shift will become an important challenge for efforts to maintain growth.

Finance
Makoto Kajiwara

If crisis is the mother of invention, can Covid-19 give rise to new tech giants that will decide their birthplace's future competitiveness?

Five years from now, some of the companies founded by people laid off in the pandemic may become unicorns — privately held businesses with valuations of at least $1bn. The US had the most unicorns last month with 242, followed by China with 119, according to CB Insights. The question for Japan, which had only four unicorns, is whether it can eliminate "zombie" companies. This is embarrassing for Japan, where the pressure for corporate reform remains weak: even companies with low growth potential have survived.

Japan will only be able to become a global financial hub if it has a greater number of "robust" companies. Then, Japanese households are likely to shift their financial assets of ¥1,800tn from savings to investment, prompting global financial institutions to flock to Japan. It is likely we will start seeing results well ahead of 2025.

Work
Yukio Ishizuka

Arriving at the office every morning at a set hour to spend time and share space with bosses and colleagues — a way of working once seen as immutable — has been upended by coronavirus.

Now, working from home is the global trend. And particularly in Japan, the pandemic has unexpectedly become a driving force behind the collapse of traditional Japanese-style employment. Japanese brewer Kirin Holdings in October announced that it would stop paying allowances for commuter passes for about 4,000 employees at its four group companies. Instead, it will pay a remote work allowance of ¥3,000 ($29) a month. It will shift to a teleworking-based system, except for employees for whom it is difficult to work remotely, for instance in plants and logistics facilities.

Kirin Holdings has struggled to inspire employee creativity over the past few years, but teleworking — which it was forced to introduce due to Covid-19 — has given the company some ideas. "Remote working has increased employee morale because they can work at their own discretion," said a human resources and administrative department spokesperson. The pandemic has also prompted the company to promote group-wide work reforms, including lifting a ban on side jobs.

Attention is now centred on task-focused employment, which is common in Europe and the US. Top Japanese companies, including Hitachi, Fujitsu, Shiseido and Sompo Japan, announced that they will introduce this new focus.

Companies are required to outline to employees responsibilities, goals and the abilities needed to achieve objectives. Task-focused employment translates naturally into remote working, as what should be done is clear regardless of where and when employees do their jobs.

Companies can also improve productivity by placing the right people in the right work according to capabilities.

Japanese companies have long adopted seniority-based wage and lifelong employment systems. In exchange, employees were expected to work long hours or on weekends and accept transfers or relocations. That is quite different from task-focused employment. Japanese-style employment took root during the country's rapid economic growth decades ago, when companies needed efficiently to allocate labour to growth sectors. But although the economic situation has changed since then, Japanese companies did not replace their traditional working style, even though they knew it was inefficient. The emergency of the pandemic, however, has finally prompted change.

Japan is at a crossroads as its population declines. This year, the number of working-age Japanese, those aged 15 to 64, is about 74m. But that is expected to continue declining, by 2.36m from 2020 to 2025 and by 8.98m in the 2030s. That means that a total number of workers equivalent to the population of London will disappear from Japan in 10 years' time.

Even today, Japan ranks lowest among developed countries in terms of productivity. For companies to remain competitive, they must become organisations that are productive and capable of innovation even with a small number of employees. Otherwise, Japan's economy will decline in the 2030s.

The next five years will be important to lay the groundwork for transformation to prevent that happening.

Industry and retail
Atsushi Nakayama

Big companies are starting to focus on intangible assets like patents, trademarks and software as new moneymakers. Take a look at Sony. For the last five years, the Japanese company has squeezed facilities, plants and similar assets so much that the ratio of hard-to-soft asset revenue stood at 1:1 in March.

But intangibles — games, music and movies — accounted for more than half of operating profits, a sign that Sony may further distance itself from hardware over the next five years.

The strategic shift away from tangibles is partly aimed at avoiding head-to-head competition with China and South Korea, which have similar industrial infrastructure. But even more significant is the digital wave sweeping many sectors and resulting in fresh management that is pursuing corporate value via increased returns to scale.

The four US tech giants — Facebook, Apple, Amazon and Google — represent this focus. They bank on intellectual property and software, not hardware.

But in Japan, investment in tangibles is still the name of the game, in part because of the auto industry. Panasonic, for example, relies heavily on tangibles as it pours money into EV batteries, with the tangible-intangible ratio at 3:1.

In the US and UK, investment in tangibles and intangibles is now almost equal; China and India are growing their share of investment in the latter.

Two factors are driving that shift. One is electric vehicles, which are highly compatible with internet technology and software. If they proliferate in line with tougher environmental regulations around the world, the digitalisation and investment in software of the auto industry will also accelerate.

Tesla's rapid advance is a case in point: The EV maker has drawn attention for technology that enhances vehicle performance through software instead of hardware. Toyota, meanwhile, has unveiled a "software-first" management goal.

The second factor is the proliferation of "digital twin" technology. The idea is to build a digital replica of humans, cars and infrastructure in virtual space, where many economic activities such as big data processing and product development can be realised. In an unexpected move, US tech giants Amazon and Google have been increasing their tangible assets, including the acquisition of logistics companies. But the move is most likely one that will allow them to incorporate the real world into virtual space via "twins".

The era of intangible assets is truly starting now.

A woman in the White House? Yes, but global emissions unlikely to fall

Predictions FT, Nikkei and Nikkei Asia readers diverge on Big Tech and negative interest rates, writes *Conor Sullivan*

The world is not about to reverse a trend towards authoritarian or nationalist government, or make significant progress on combating climate change, according to the first joint survey of Financial Times and Nikkei readers.

Asked to assess the likelihood of various events happening by 2025, readers of the FT and the Japanese and English publications of Nikkei thought Vladimir Putin would still be in power, Brexit would not be reversed, China would become the world's biggest economy and India its most populous. None thought the Syrian civil war would be over or that Africa as a whole would achieve the world's fastest growth.

Readers were more optimistic about gender equality. They expected the US would have its first female president in 2025. Kamala Harris, the US vice president-elect, is considered a frontrunner for the 2024 Democratic nomination while former US ambassador to the UN Nikki Haley is the most prominent Republican woman associated with the race. The results come from a survey of over 5,000 readers of the FT; of Nikkei, Japan's leading business daily newspaper; and of Nikkei Asia, the English-language review of Asian business news.

Readers were asked how far they agreed or disagreed with 15 propositions spanning politics, the economy, business and technology.

The responses of the three audiences diverged on a third of the questions, including whether the number of air passengers would have recovered five years after the coronavirus pandemic.

More FT readers felt this would not happen, while Nikkei Asia readers thought it would and Nikkei readers were split almost evenly.

The result suggests that, in the western world at least, fear of infection, restrictions on foreign travel and the substitution of video conferencing for in-person meetings will damp a recovery in international air travel, down 71 per cent in October from a year earlier.

Another area where opinions diverged significantly was negative interest rates, which reflect the economic stagnation that Japan has been familiar with for many years. Negative rates were introduced in the eurozone in 2014 and Japan in 2016; the UK's central bank said during the summer they were "under active review". FT readers thought negative rates would have disappeared from the world's major economies by 2025 while the largely Japanese Nikkei readers disagreed (Nikkei Asia readers were evenly split).

One way to overcome the economic stasis implied by negative interest rates would be to invest in "green" technologies, with the additional benefit of mitigating climate change.

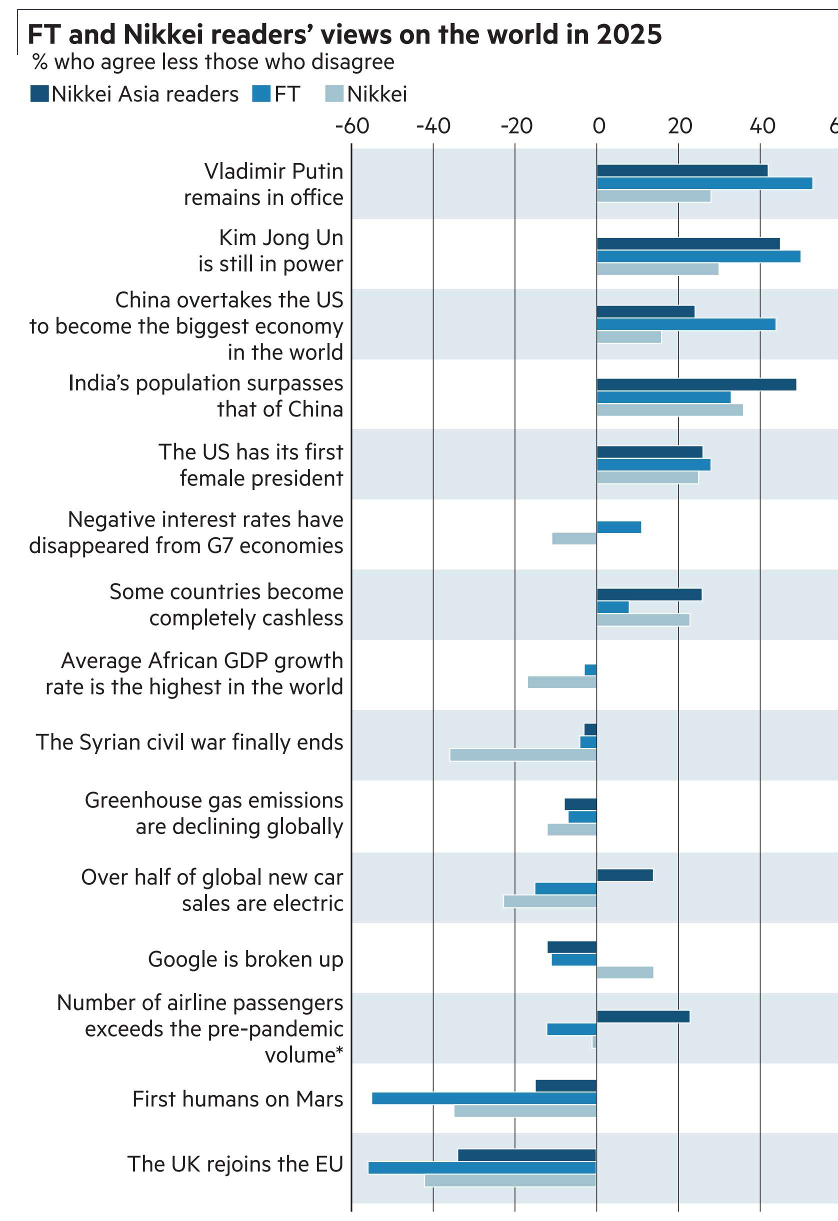
But readers appeared sceptical about the likelihood of swift action on climate change given that a majority of those surveyed by all three publications did not think greenhouse gas emissions would be falling by 2025. Moreover, neither Nikkei nor FT readers expected electric vehicles to account for more than half of new car sales in five years' time.

The surveys were divided on the proposition that Google would be broken up, a proxy for the push to curb tech giants' power, with Nikkei readers thinking it would, but FT and Nikkei Asia readers disagreeing. Momentum has been building to regulate Big Tech on both sides of the Atlantic, with a US congressional committee declaring in October that "scrappy, underdog startups" had become the "kinds of monopolies we last saw in the era of oil barons and railroad tycoons".

Readers seemed to anticipate that digitalisation of our lives would continue: they expected some countries to have eliminated physical cash by 2025. But none believed a human would land on Mars, suggesting some science and tech frontiers will remain unconquered.

FT and Nikkei readers' views on the world in 2025

% who agree less those who disagree



Source: Survey of 5,090 FT, Nikkei and Nikkei Asia readers *Reading is-1

NIKKEI FT FINANCIAL TIMES NIKKEI Asia